TOSHIBA

SERVICE MANUAL

MULTIFUNCTIONAL DIGITAL COLOR SYSTEMS
e-STUDIO2050C/2550C
e-STUDIO2051C/2551C
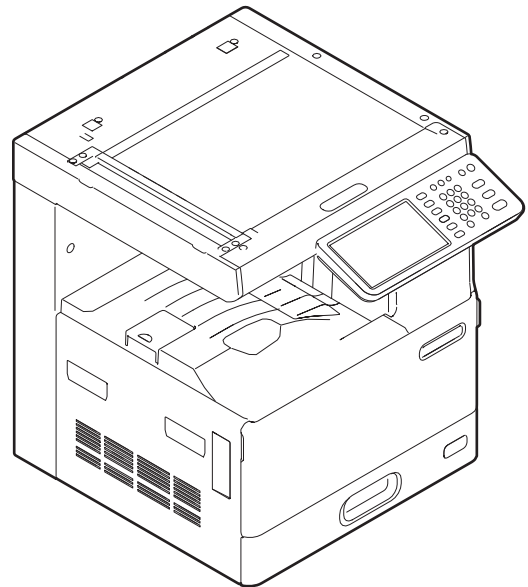
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GENERAL PRECAUTIONS REGARDING THE SERVICE FOR THIS EQUIPMENT

The installation and service shall be done by a qualified service technician.

1. Transportation/Installation
   - When transporting/installing the equipment, employ two persons and be sure to hold the positions as shown in the figure.
     The equipment is quite heavy and weighs approximately 60 kg (132.27 lb.), therefore pay full attention when handling it.
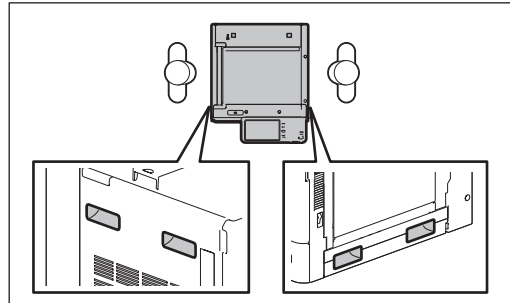
   - Be sure not to hold the movable parts or units (e.g. the control panel, ADU or RADF) when transporting the equipment.
   - Be sure to use a dedicated outlet with AC 110V/15A, 120V/12A, 220-240V/8A for its power source.
   - The equipment must be grounded for safety.
   - Select a suitable place for installation. Avoid excessive heat, high humidity, dust, vibration and direct sunlight.
   - Provide proper ventilation since the equipment emits a slight amount of ozone.
   - To insure adequate working space for the copying operation, keep a minimum clearance of 30 cm (11.8") on the left, 80 cm (32") on the right and 20 cm (7.9") on the rear.
   - The equipment shall be installed near the socket outlet and shall be accessible.
   - Be sure to fix and plug in the power cable securely after the installation so that no one trips over it.
   - If the unpacking place and where the equipment is to be installed differ, perform image quality adjustment (automatic gamma adjustment) according to the temperature and humidity of the place of installation and the paper to be used.

2. General Precautions at Service
    -   Be sure to turn the power OFF and unplug the power cable during service (except for the service should be done with the power turned ON).
    -   Unplug the power cable and clean the area around the prongs of the plug and socket outlet once a year or more. A fire may occur when dust lies on this area.
    -   When the parts are disassembled, reassembly is the reverse of disassembly unless otherwise noted in this manual or other related documents. Be careful not to install small parts such as screws, washers, pins, E-rings, star washers, harnesses in the wrong places.
    -   Basically, the equipment should not be operated with any parts removed or disassembled.
    -   The PC board must be stored in an anti-electrostatic bag and handled carefully using a antistatic wrist strap since the ICs on it may be damaged due to static electricity.

        Caution: Before using the antistatic wrist strap, unplug the power cable of the equipment and make sure that there are no charged objects which are not insulated in the vicinity.

    -   Be sure not to touch high-temperature sections such as the fuser unit, damp heater and areas around them.
    -   Be sure not to touch high-voltage sections such as the chargers, transfer belt, 2nd transfer roller, developer, high-voltage transformer, and power supply unit. Especially, the board of these components should not be touched since the electric charge may remain in the capacitors, etc. on them even after the power is turned OFF.
    -   Make sure that the equipment will not operate before touching potentially dangerous places (e.g. rotating/operating sections such as gears, belts pulleys, and fans).
    -   Be careful when removing the covers since there might be the parts with very sharp edges underneath.
    -   When servicing the equipment with the power turned ON, be sure not to touch live sections and rotating/operating sections.
    -   Use designated jigs and tools.
    -   Use recommended measuring instruments or equivalents.
    -   Return the equipment to the original state and check the operation when the service is finished.
    -   Be very careful to treat the touch panel gently and never hit it. Breaking the surface could cause malfunctions.

3. General operations
    -   Check the procedures and perform them as described in the Service Manual.
    -   Make sure you do not lose your balance.
    -   Avoid exposure to your skin and wear protective gloves as needed.

4. Important Service Parts for Safety
    -   The breaker, door switch, fuse, thermostat, thermofuse, thermistor, batteries, IC-RAMs including lithium batteries, etc. are particularly important for safety. Be sure to handle/install them properly. If these parts are short-circuited and their functions become ineffective, they may result in fatal accidents such as explosion or burnout. Avoid short-circuiting and do not use parts not recommended by Toshiba TEC Corporation.

5. Cautionary Labels
   - During servicing, be sure to check the rating plate and cautionary labels to see if there is any dirt on their surface and if they are properly stuck to the equipment.
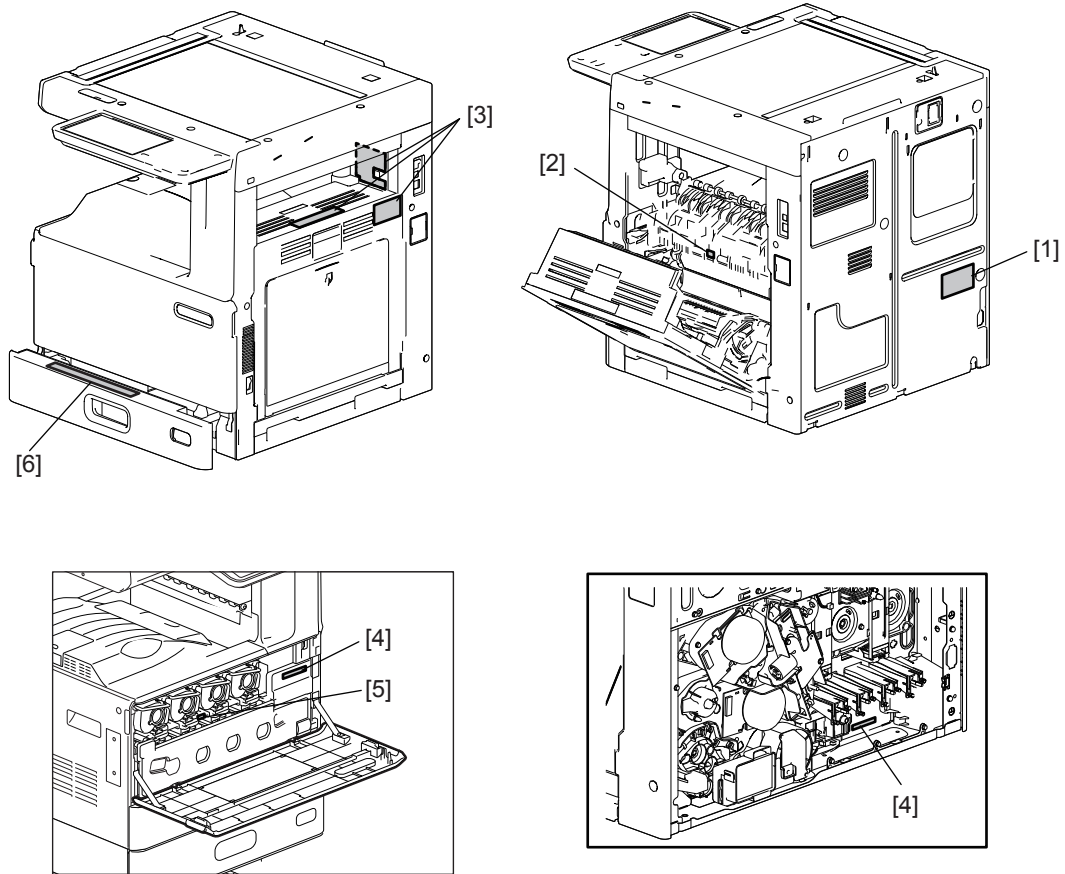
[1] Identification label
[2] Warning for high temperature area (fuser unit)
[3] Warning for high temperature area
[4] Machine serial number label
[5] Warning for high temperature area
[6] Warning for high temperature area

6. Disposal of the Equipment, Supplies, Packing Materials, Used Batteries and IC-RAMs
   - Regarding the recovery and disposal of the equipment, supplies, packing materials, used batteries and IC-RAMs including lithium batteries, follow the relevant local regulations or rules.

Caution:
   Dispose of used batteries and IC-RAMs including lithium batteries according to this manual.
Attention:
   Se débarrasser de batteries et IC-RAMs usés y compris les batteries en lithium selon ce manuel.
Vorsicht:
   Entsorgung der gebrauchten Batterien und IC-RAMs (inclusive der Lithium-Batterie) nach diesem Handbuch.

ALLEGEMEINE SICHERHEITSMASSNAHMEN IN BEZUG AUF DIE WARTUNG FÜR e-STUDIO2050C/2051C/2550C/2551C

Die Installation und die Wartung sind von einem qualifizierten Service-Techniker durchzuführen.

1. Transport/Installation

Zum Transportieren/Installieren des Gerätes werden 2 Personen benötigt. Nur an den in der Abbildung gezeigten Stellen tragen.

Das Gerät ist sehr schwer und wiegt etwa 60 kg; deshalb muss bei der Handhabung des Geräts besonders aufgepasst werden.
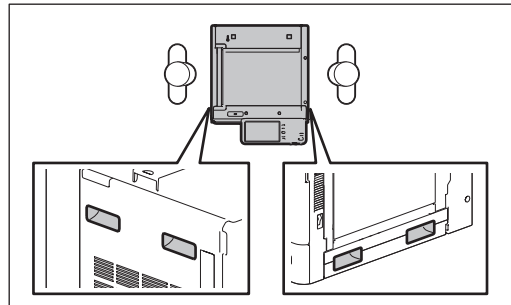
Beim Transportieren des Geräts nicht an den beweglichen Teilen oder Einheiten (z.B. das Bedienungsfeld, die Duplexeinheit oder die automatische Dokumentenzuführung) halten.

Eine spezielle Steckdose mit Stromversorgung von AC 110V/15A, 120V/12A, 220-240V/8A als Stromquelle verwenden.

Das Gerät ist aus Sicherheitsgründen zu erden.

Einen geeigneten Standort für die Installation wählen. Standorte mit zuviel Hitze, hoher Luftfeuchtigkeit, Staub, Vibrieren und direkter Sonneneinstrahlung sind zu vermeiden.

Für ausreichende Belüftung sorgen, da das Gerät etwas Ozon abgibt.

Um einen optimalen Kopierbetrieb zu gewährleisten, muss ein Abstand von mindestens 80 cm links, 80 cm rechts und 20 cm dahinter eingehalten werden.

Das Gerät ist in der Nähe der Steckdose zu installieren; diese muss leicht zu erreichen sein.

Nach der Installation muss das Netzkabel richtig hineingesteckt und befestigt werden, damit niemand darüber stolpern kann.

Falls der Auspackungsstandort und der Installationsstandort des Geräts verschieden sind, die Bildqualitätsjustierung (automatische Gammajustierung) je nach der Temperatur und Luftfeuchtigkeit des Installationsstandorts und der Papiersorte, die verwendet wird, durchführen.

2. Allgemeine Sicherheitsmassnahmen in bezug auf die Wartung

Während der Wartung das Gerät ausschalten und das Netzkabel herausziehen (ausser Wartung, die bei einem eingeschalteten Gerät, durchgeführt werden muss).

Das Netzkabel herausziehen und den Bereich um die Steckerpole und die Steckdose die Umgebung in der Nähe von den Steckerzacken und der Steckdose wenigstens einmal im Jahr reinigen. Wenn Staub sich in dieser Gegend ansammelt, kann dies ein Feuer verursachen.

Wenn die Teile auseinandergenommen werden, wenn nicht anders in diesem Handbuch usw erklärt, ist das Zusammenbauen in umgekehrter Reihenfolge durchzuführen. Aufpassen, dass kleine Teile wie Schrauben, Dichtungsringe, Bolzen, E-Ringe, Stern-Dichtungsringe, Kabelbäume nicht an den verkehrten Stellen eingebaut werden.

Grundsätzlich darf das Gerät mit enfernten oder auseinandergenommenen Teilen nicht in Betrieb genommen werden.

Das PC-Board muss in einer Anti-elektrostatischen Hülle gelagert werden. Nur Mit einer Manschette bei Betätigung eines Armbandes anfassen, sonst könnte es sein, dass die integrierten Schaltkreise durch statische Elektrizität beschädigt werden.

> Vorsicht: Vor Benutzung der Manschette der Betätigung des Armbandes, das Netzkabel des Gerätes herausziehen und prüfen, dass es in der Nähe keine geladenen Gegenstände, die nicht isoliert sind, gibt.

Auf keinen Fall Hochtemperaturbereiche, wie die Fixiereinheit, die Heizquelle und die umliegenden Bereiche, berühren.

Auf keinen Fall Hochspannungsbereiche, wie die Ladeeinheiten, das Transferband, die zweite Transferwalze, die Entwicklereinheit, den Hochspannungstransformator und das Netzgerät, berühren. Insbesondere sollten die Platinen dieser Komponenten nicht berührt werden, da die Kondensatoren usw. auch nach dem Ausschalten des Geräts noch elektrisch geladen sein können.

Vor dem Berühren potenziell gefährlicher Bereiche (z. B. drehbare oder betriebsrelevante Bereiche, wie Zahnräder, Riemen, Riemenscheiben und Lüfter) sicherstellen, dass das Gerät sich nicht bedienen lässt.

Beim Entfernen von Abdeckungen vorsichtig vorgehen, da sich darunter scharfkantige Komponenten befinden können.

Bei Wartungsarbeiten am eingeschalteten Gerät dürfen keine unter Strom stehenden, drehbaren oder betriebsrelevanten Bereiche berührt werden.

Ausschließlich vorgesehene Werkzeuge und Hilfsmittel verwenden.

Empfohlene oder gleichwertige Messgeräte verwenden.

Nach Abschluss der Wartungsarbeiten das Gerät in den ursprünglichen Zustand zurück versetzen und den einwandfreien Betrieb überprüfen.

Das berührungsempfindliche Bedienungsfeld stets vorsichtig handhaben und keinen Stößen aussetzen. Wenn die Oberfläche beschädigt wird, kann dies zu Funktionsstörungen führen.

3. Allgemeine Sicherheïtsmassnahmen
- Die Verfahren sind zu überprüfen und wie im Wartungshandbuch beschrieben durchzüfuhren.
- Vorsichtig, dass Sie nicht umfallen.
- Um Aussetzung zur Haut zur vermeiden, tragen Sie wenn nötig Schutzhandschuhe.

4. Sicherheitsrelevante Wartungsteile
Der Leistungsschutzschalter, der Türschalter, die Sicherung, der Thermostat, die Thermosicherung, der Thermistor, der Akkus, die IC-RAMs einschließlich der Lithiumakkus usw. sind besonders sicherheitsrelevant. Sie müssen unbedingt korrekt gehandhabt und installiert werden. Wenn diese Teile kurzgeschlossen und funktionsunfähig werden, kann dies zu schwerwiegenden Schäden, wie einer Explosion oder einem Abbrand, führen. Kurzschlüsse sind zu vermeiden, und es sind ausschließlich Teile zu verwenden, die von der Toshiba TEC Corporation empfohlen sind.

5. Warnetiketten

Im Rahmen der Wartung unbedingt das Leistungsschild und die Etiketten mit Warnhinweisen überprüfen [z. B. „Unplug the power cable during service" („Netzkabel vor Beginn der Wartungsarbeiten abziehen"), „CAUTION. HOT" („VORSICHT, HEISS"), „CAUTION. HIGH VOLTAGE" („VORSICHT, HOCHSPANNUNG"), „CAUTION. LASER BEAM" („VORSICHT, LASER") usw.], um sicherzustellen, dass sie nicht verschmutzt sind und korrekt am Gerät angebracht sind.

6. Entsorgung des Geräts, der Verbrauchs- und Verpackungsmaterialien, alter Akkus und IC-RAMs

In Bezug auf die Entsorgung und Wiederverwertung des Geräts, der Verbrauchs- und Verpackungsmaterialien, alter Akkus und IC-RAMs, einschließlich Lithiumakkus, sind die einschlägigen nationalen oder regionalen Vorschriften zu befolgen.

Caution:
   Dispose of used batteries and IC-RAMs including lithium batteries according to this manual.
Attention:
   Se débarrasser de batteries et IC-RAMs usés y compris les batteries en lithium selon ce manuel.
Vorsicht:
   Entsorgung der gebrauchten Batterien und IC-RAMs (inclusive der Lithium-Batterie) nach diesem Handbuch.

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1. FEATURE

1.1 Main Feature of this equipment

- **Downsizing of equipment (equivalent to black equipment)**
  Its external dimensions are almost same as those of black equipment, even though it is full-color equipment.

- **Pursuing usability**
  Maintenance work such as the replacement of supplies can be done more easily and efficiently.
  A new automatic paper size detection mechanism for drawers is adopted.

- **Improving serviceability**
  Developer material is pre-filled in each developer unit.
  Efficiency of serviceability such as the replacement of supplies is improved.

- **Adopting of LED for a new exposure lamp to scan originals**
  An LED provides a stable amount of light immediately after emission, and has a longer life comparing to a cold-cathode tube.
  No inverter board is required, resulting the reduction of parts.

- **Adopting of new exposure LED printer head**
  It does not require rotating parts such as motors while the existing lasers do, realizing reduction in size and weight, and also vibration.

- **An IC chip is mounted to the toner cartridge**

2. SPECIFICATIONS/ACCESSORIES/OPTIONS/SUPPLIES

Notes: In this document, a model name is replaced with an alias as follows:

Model name	Alias
e-STUDIO2050C	20ppm
e-STUDIO2550C	25ppm
e-STUDIO2051C	LL20ppm
e-STUDIO2551C	LL25ppm
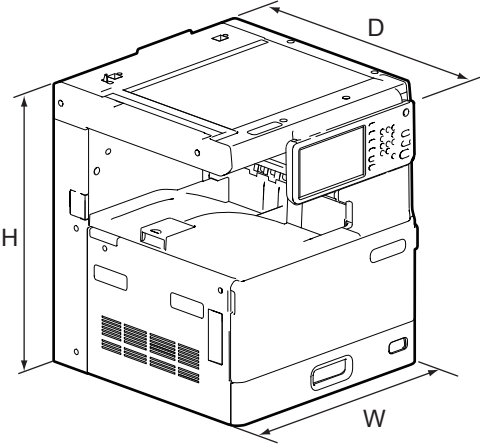
2.1 Specifications

2.1.1 General

Type		Desktop type (Console type: when optional Paper Feed Pedestal (PFP) or optional Large Capacity Feeder (LCF) is installed.)
Original glass		Fixed
Color		Full color, Twin color, Mono color
Copy process		Indirect electrophotographic method (dry)
Developing system		2-component magnetic brush developing
Fixing method		Roller fusing system
Photosensor type		OPC
Original scanning sensor		Linear CCD sensor
Scanning light source		LED
Resolution	Scanning	600 dpi x 600 dpi
	Writing	600 dpi x 600 dpi (color print / Photo / gray scale)
Gradation		256
Paper feeding		1 drawer + Bypass feeding 1 drawer + Bypass feeding + PFU (optional) 1 drawer + Bypass feeding + PFU+ PFP 1 drawer (optional) 1 drawer + Bypass feeding + PFU+ PFP 2 drawers (optional) 1 drawer + Bypass feeding + PFU+ LCF (optional)
Paper supply	Drawer	Stack height 28 mm, Approx. 250 sheets (80 g/m^2, 21.3 lb. Bond), Approx. 200 sheets (105 g/m^2, 28 lb. Bond)
	Bypass feeding	Stack height 11 mm, Approx. 100 sheets (80 g/m^2, 21.3 lb. Bond), Approx. 80 sheets (105 g/m^2, 28 lb. Bond)
	PFU (optional)	Stack height 60.5 mm, Approx. 550 sheets (80 g/m^2, 21.3 lb. Bond), Approx. 500 sheets (105 g/m^2, 28 lb. Bond)
	PFP (optional)	Stack height 60.5 mm, Approx. 550 sheets (80 g/m^2, 21.3 lb. Bond), Approx. 500 sheets (105 g/m^2, 28 lb. Bond)
	LCF (optional)	Stack height 110 mm, Approx. 2000 sheets (80 g/m^2, 21.3 lb. Bond), Approx. 1660 sheets (105 g/m^2, 28 lb. Bond)

Paper size	Drawer	A3, A4, A4-R, A5-R, B4, B5, B5-R, FOLIO, 8K, 16K, 16K-R, LD, LG, LT, LT-R, ST-R, COMPUTER, 13"LG, 8.5" x 8.5",
	Bypass feeding	A3, A4, A4-R, A5-R, A6, B4, B5, B5-R, FOLIO, 8K, 16K, 16K-R, LD, LG, LT, LT-R, ST-R, COMPUTER, 13"LG, 8.5" x 8.5" Non-standard: Paper size within 100 - 297 mm (3.9 - 11.7") (Length), 148 - 432 mm (5.8 - 17") (Width)
	PFU (optional)	A3, A4, A4-R, A5-R, B4, B5, B5-R, FOLIO, 8K, 16K, 16K-R, LD, LG, LT, LT-R, ST-R, COMPUTER, 13"LG, 8.5" x 8.5",
	Drawers / PFP (optional)	A3, A4, A4-R, A5-R, B4, B5, B5-R, FOLIO, 8K, 16K, 16K-R, LD, LG, LT, LT-R, ST-R, COMPUTER, 13"LG, 8.5" x 8.5",
	LCF (optional)	A4, LT
Paper type	Drawer	Plain paper, Recycled paper, Thick 1
	Bypass feeding	Plain paper, Recycled paper, Thick 1, Thick 2, Sticker labels, OHP film, Tab paper, Water proof paper
	PFU (optional)	Plain paper, Recycled paper, Thick 1
	PFP (optional)	Plain paper, Recycled paper, Thick 1
	LCF (optional)	Plain paper, Recycled paper
Paper weight	Drawer / PFU (optional)/ PFP (optional)	60g/m^2 to 163 g/m^2 (16 lb. Bond to 90 lb. Index)
	Bypass feeding	60 g/m^2 to 209 g/m^2 (16 lb. Bond to 110 lb. Index)
	LCF (optional)	64 g/m^2 to 105 g/m^2 (17 lb. Bond to 28 lb. Bond)
Automatic duplexing unit	Type	Stackless, Switchback type
	Acceptable paper size	A3, A4, A4-R, A5-R, B4, B5, B5-R, FOLIO, 8K, 16K, 16K-R, LD, LG, LT, LT-R, ST-R, COMPUTER, 13"LG, 8.5" x 8.5"
	Acceptable paper weight	60 g/m^2 to 163 g/m^2 (17 lb. Bond to 90 lb. Index)
Toner supply		Automatic toner density detection/supply
Density control		Automatic density mode and manual density mode selectable in 11 steps
Total counter		Electronic counter
Memory (RAM)	Main memory	2 GB (including page memory)
	Page Memory	
SSD		8 GB
HDD		Not installed (320 GB when the option GE-1220 is installed. 20ppm/25ppm only)
Account Codes		100 codes
Department Codes		50 codes

Machine version	NAD: North America, Brazil (e-STUDIO2051C/2551C) NAH: North America, Brazil (e-STUDIO2050C/2550C, FIPS HDD) MJD: Europe AUD: Australia (e-STUDIO2051C/2551C) AUH: Australia (e-STUDIO2050C/2550C) ASD: Asia, Hong Kong, Latin America TWD: Taiwan SAD: Saudi Arabia ASU: Saudi Arabia, Asia CND: China KRD: Korea ARD: Argentina JPD: Japan
Warm-up time	Approx. 35 sec. (100 V/200 V series) <Stand-alone, temperature: 20^oC> Start-up with hibernation: Approx. 35 sec. (100 V / 200 V series) <Stand-alone, temperature: 20^oC> *Varies depending on the settings, use conditions, and quality maintenance behavior such as toner refill.
Recovery from sleep	Approx. 15 sec. <Stand-alone, temperature: 20^oC> Approx. 35 sec. if equipment is left unattended for 2 hours or more <Stand-alone, temperature: 20^oC> *Varies depending on the settings, use conditions, and quality maintenance behavior such as toner refill.
Power requirements	AC 110 V / 13.2 A, 115 V or 127 V / 12 A 220-240 V / 8 A (50/60 Hz) * The acceptable value of each voltage is ± 10%.
Power consumption	1.5 kW or less (100 V, 115 V) 2.0 kW or less (200 V series) * The electric power is supplied to the RADF, Finisher, PFU, PFP and LCF through the equipment.
Weight	Approx. 60 kg (132.27 lb.)
Dimensions of the equipment	W 575 x D 590 x H 662 (mm) * When the tilt angle of the control panel is 90 degrees.

2.1.2 Copy

[1] Copy specifications

Storage capacity		Memory is full
Original glass	Original scanning system	Flat surface scanning system (the left rear corner used as guide to place originals)
	Original type	Sheets, books
	Original size	Max. A3/LD
Reversing Automatic Document Feeder (optional)	Original scanning system	Fixed scanning system by feeding the original (the center used as guide to place originals)
	Original type	Sheets (carbon, bounded or stapled originals cannot be accepted)
	Original size	A3, A4, A4-R, A5-R, B4, B5, B5-R, FOLIO, LD, LG, LT, LT-R, ST-R, COMPUTER
	Original paper weight	Single-sided copy: 35-157g/m^2 (9.3 lb. Bond - 58 lb. Cover)
		Double-sided copy: 50-157g/m^2 (13.3 lb. Bond - 58 lb. Cover)
	Original capacity	Max. 100 sheets (80 g/m^2) (Stack height 16 mm)
Eliminated portion	Black copy	Leading edges: 4.2 +2.8/-1.2 mm, Trailing edges: 3.0 ± 2.0 mm, Side edges: 2.0 ± 2.0 mm
	Color copy	Leading edges: 5.0 ± 2.0 mm, Trailing edges: 3.0 ± 2.0 mm, Side edges: 2.0 ± 2.0 mm
Multiple copying		Up to 999 copies: Key in set numbers

[2] First copy time

20ppm 25ppm	Black	Approx. 8.2 sec.
	Color	Approx. 10.3 sec.
LL20ppm LL25ppm	Black	Approx. 8.2 sec.
	Color	Approx. 10.3 sec.

[3] Copy speed (Copies/min.)

[3-1] Plain paper
• Plain paper: 60 g/m2 to 105 g/m2 (16 lb. Bond to 28 lb. Bond)
20ppm/LL20ppm

Paper supply\nPaper size	Drawer	Bypass feed		PFP	LCF (A4/LT only)
		Size specified	Size not specified		
A4, LT	20 (20)	20 (20)	9 (9)	20 (20)	20 (20)
B5, A5-R, ST-R					-
A4-R, B5-R, LT-R	15 (15)	15 (15)	9(9)	15 (15)	-
B4, LG, FOLIO, COMPUTER	12 (12)	12 (12)	9 (9)	12 (12)	-
A3, LD	10 (10)	10 (10)	9 (9)	10 (10)	-

25ppm/LL25ppm

Paper supply / Paper size	Drawer	Bypass feed		PFP	LCF (A4/LT only)
		Size specified	Size not specified		
A4, LT	25 (25)	25 (25)	11 (11)	25 (25)	25 (25)
B5, A5-R, ST-R					-
A4-R, B5-R, LT-R	18(18)	18(18)	11 (11)	20 (20)	-
B4, LG, FOLIO, COMPUTER	15 (15)	15 (15)	11 (11)	17 (17)	-
A3, LD	12 (12)	12 (12)	11 (11)	15 (15)	-

* "-" means "Not acceptable".
* When originals are manually placed for single-sided, continuous copying.
* Plain paper is selected for the paper type.
* When the Reversing Automatic Document Feeder is used, the copying speeds of the equipment is only possible under the following conditions:
  • Original: A4 or LT (single-sided)
  • Mode: APS and Automatic density not selected, Plain paper mode
  • Reproduction ratio: 100%
* The values in ( ) can be realized in the color mode.

[3-2] Thick 1/Thick 2

• Thick 1: 106 g/m^2 to 163 g/m^2 (90 lb. Index)
• Thick 2: 164 g/m^2 to 209 g/m^2 (110 lb. Index)

20ppm/25ppm/LL20ppm/LL25ppm

Paper supply / Paper size	Drawer	Bypass feed		PFP	LCF (A4/LT only)
		Size specified	Size not specified		
A4, LT	17.5 (17.5)	16.5 (16.5)	7 (7)	16.5 (16.5)	-
B5, A5-R, ST-R					-
A4-R, B5-R, LT-R	13 (13)	12.5 (12.5)	7 (7)	12.5 (12.5)	-
B4, LG, FOLIO, COMPUTER	10.5 (10.5)	10 (10)	7 (7)	10 (10)	-
A3, LD	8.5 (8.5)	8 (8)	7 (7)	8 (8)	-

* "-" means "Not acceptable".
* When originals are manually placed for single-sided, continuous copying.
* The values in ( ) can be realized in the color mode.

[3-3] OHP film
20ppm/25ppm/LL20ppm/LL25ppm

Paper size / Paper supply	Drawer	Bypass feed		PFP	LCF (A4/LT only)
		Size specified	Size not specified		
A4, LT	-	14.5 (14.5)	-	-	-
A3, LD	-	7.5 (7.5)	-	-	-

* "-" means "Not acceptable".
* When originals are manually placed for single-sided, continuous copying.
* The values in ( ) can be realized in the color mode.

[4] System copy speed

Copy mode		Sec.	
		20ppm/LL20ppm	25ppmLL25ppm
Single-sided originals ↓ Single-sided copies	1 set	37.7 (39.6)	32.5 (34.5)
	3 sets	107.4 (109.3)	83.2 (85.1)
	5 sets	177 (178.9)	131.6 (133.5)
Single-sided originals ↓ Double-sided copies	1 set	43.6 (46.6)	42.2 (45.2)
	3 sets	90.8 (93.7)	89.8 (92.8)
	5 sets	137.9 (140.9)	140.4 (143.4)
Double-sided originals ↓ Double-sided copies	1 set	84.5 (88.6)	83.9 (87.9)
	3 sets	190.7 (194.7)	179.9 (183.9)
	5 sets	296.8 (300.8)	277.3 (281.3)
Double-sided originals ↓ Single-sided copies	1 set	74.5 (77.1)	73.8 (76.4)
	3 sets	193.8 (196.4)	171 (173.6)
	5 sets	313 (315.6)	265.1 (267.7)

* The values in ( ) are the speeds of when in the color mode.
* Shows the period of time from when the [START] button is pressed until the message "Ready" is displayed. (10 sheets of A4/LT size original are set on the RADF and one of the copy modes above is selected.)
* Setting: when in the Text/Photo mode with Automatic density and APS/AMS set to OFF, or when in the sort mode with paper fed from the 1st drawer.
* The Saddle Stitch Finisher and hole punch unit not installed.

2.1.3　Print

Supported Page Description Language (Printer Driver)		20ppm/25ppm: PCL6, PostScript 3 emulation, XPS LL20ppm/LL25ppm: PCL6
Supported Page Description Language (RIP)		20ppm/25ppm: PCL6, PostScript 3 emulation, XPS, PCL5e, PCL5c, PDF (emulation) LL20ppm/LL25ppm: PCL6
Supported Client OS		Windows XP / Windows Vista / Windows 7 / Windows 8 / Windows Server 2003 / Windows Server 2008 / Windows Server 2012 Mac OS X 10.4 or later Solaris v2.6/2.7/7.8/8/9/10 HP-UX ver.10.20/11.x , HP-UX64 ver.11.31 AIX 4.3.3 Red Hat 7.x/8.x/9.x, Red Hat Enterprise WS2, SuSE Linux 7.x/8.x/9.x, Mandrake Linux 7.x/8.x/9.x and Turbolinux 8/10 SCO UnixWare 7, SCO Open UNIX 8, CUPS
Resolution	Black	600 x 600 dpi, 5bit 600 x 1200dpi, 1bit (20ppm/25ppm PS only)
	Color	600 x 600 dpi, 5bit 600 x 1200dpi, 1bit (20ppm/25ppm PS only)
Eliminated portion	Black / Color	Leading edges: 4.2 +2.8/-1.2 mm, Trailing edges: 4.2 +1.2/-2.8 mm, Side edges: 4.2 ±2.0 mm
Interface	Standard	Ethernet (1000BASE-T/100BASE-TX/10BASE-T), USB 2.0 (High speed)
	Optional	Wireless LAN (IEEE 802.11b/g/n)

2.1.4　Scan

Scanning speed	Color / Black / Gray scale	25 sheets/min. (600 x 600 dpi) 50 sheets/min. (300 x 300 dpi)
Resolution		100, 150, 200, 300, 400 and 600 dpi
Scan mode		Black, Gray scale, Color and ACS (Auto color Selection)
File formats		JPEG, Multi/Single page TIFF, Multi/Single page PDF, Slim PDF, Multi/Single page XPS

*　When scanning single-sided A4/LT landscape originals using RADF

2.1.5   Internet Fax

[1]   Internet FAX transmission

Resolution	TX Resolution < dots/mm >	Standard (8 x 3.85), Fine (8 x 7.7),
Scanning	Original Document Size	A3, B4, A4, A4-R, A5, B5, B5-R, A5-R, LT, LT-R, LG, LD, ST, ST-R, Computer, Folio
	Speed	0.7 sec. (per page/A4) Max. 50 spm (ITU-T No.1, A4, 8 x 3.85,Text mode)
	Gray scale	256 levels (Error Diffusion)
Address book	Address Book	400 stations
	Group	Max. 40 stations
Transmission Features	Broadcast transmission	Max. 80 destinations/job. (Fax number and E-mail address are available to registered in same job.)
	Message size limitation	Max. 100MB
	Message division	Page by page

[2]   Internet FAX receiving

Format of receive attachment	TIFF-FX (Profile S, F, J)

2.1.6 SSD/HDD Memory Map

Category		Item	Unit	SSD	HDD *1
HDD		SSD or HDD	GB	8	320
	Copy	Memory copy	GB	1.9	30
	Box	e-Filing	GB	-	240 (Shared with Shared file/Storage print)
		Public box	Box	-	1
		User box	Box	-	200
		Folders per box	Folder	-	100
		Documents per box	Document	-	400
		Pages per document	Page	-	200
		Number of maximum jobs	Job	-	899
	Scan	Scan to File	GB	-	240 (Shared with Shared file/Storage print)
		Pages per job	Page	Storage full	1000
		Number of maximum jobs	Job	399 (Except Print/FAX/ interrupt)	899 (Except Print/FAX/ interrupt)
	FAX	FAX Transmission	GB	0.1 (Shared with Rx and Tx)	1 (Shared with Rx and Tx)
		FAX Reception	GB	0.1 (Shared with Rx and Tx)	1 (Shared with Rx and Tx)
	Print	Printer Data Spool	GB	0.9	30
		Pages per job	Job	Storage full	Storage full
		Number of maximum jobs	Job	500	1000
		Private job, Scheduled job, Proof job, Invalid job	GB	-	240 (Shared with Shared file/Storage print)
		Pages per job	Job	Storage full	Storage full
		Number of maximum jobs	Job	500	1000
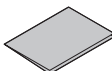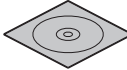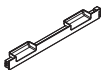
*1: When the GE-1220 has been installed.

2.1.7   Network Fax (Option)

Compatibility		Super G3, G3 (ITU-T.30) Internet Fax (Simple mode) (ITU-T.37)
TX Resolution	PSTN	Standard: 200 x 100 dpi, Fine: 200 x 200 dpi, Super Fine: 200 x 400 dpi, Ultra Fine: 400 x 400 dpi
	Internet Fax	200 dpi x 200 dpi
Original Document Size		A3, A4, A5, B4, B5, FOLIO, LD, LG, LT, ST, COMPUTER
Mail Box	User defined	Max. 300 boxes
Routed document format	Send to e-Filing	MMR
	Send to File (SMB)	Single TIFF, Multi-TIFF, Single PDF, Multi PDF
	Send to FTP	Single TIFF, Multi-TIFF, Single PDF, Multi PDF
	Send to E-mail	Single TIFF, Multi-TIFF, Single PDF, Multi PDF
	Send to I-Fax	TIFF-S
	Send to PSTN-FAX	MMR

2.2　Accessories

Unpacking/Setup instruction		1 set
Operator's manual		1 set - Safety Information: 1 manual - Quick Start Guide: 1 manual
DVD-ROM		1 pc. - User Documentation - Client Utilities
Power cable		1 pc.
Warranty sheet		1 pc. (for NAD/NAH)
Setup report		1 set (for NAD,NAH, MJD and CND)
Rubber plug (small)		2 pcs.
Rubber plug (large)		2 pcs.
Developer material (Y, M, C, K)		Developer material is pre-filled in each developer unit.
Approval sheet		1 set (for CND)
Right lower cover		1 pc.

* 　Machine version
NAD:　　　 North America, Brazil (e-STUDIO2051C/2551C)
NAH:　　　 North America, Brazil (e-STUDIO2050C/2550C, FIPS HDD)
MJD:　　　 Europe
AUD:　　　 Australia (e-STUDIO2051C/2551C)
AUH:　　　 Australia (e-STUDIO2050C/2550C)
ASD:　　　 Asia, Hong Kong, Latin America
TWD:　　　 Taiwan
SAD:　　　 Saudi Arabia
ASU:　　　 Saudi Arabia, Asia
CND:　　　 China
KRD:　　　 Korea
ARD:　　　 Argentina
JPD:　　　 Japan

Notes:
　　Check that the above accessories are correctly co-packed at the time of unpacking.

2.3 System List

2.3.1 20ppm/25ppm
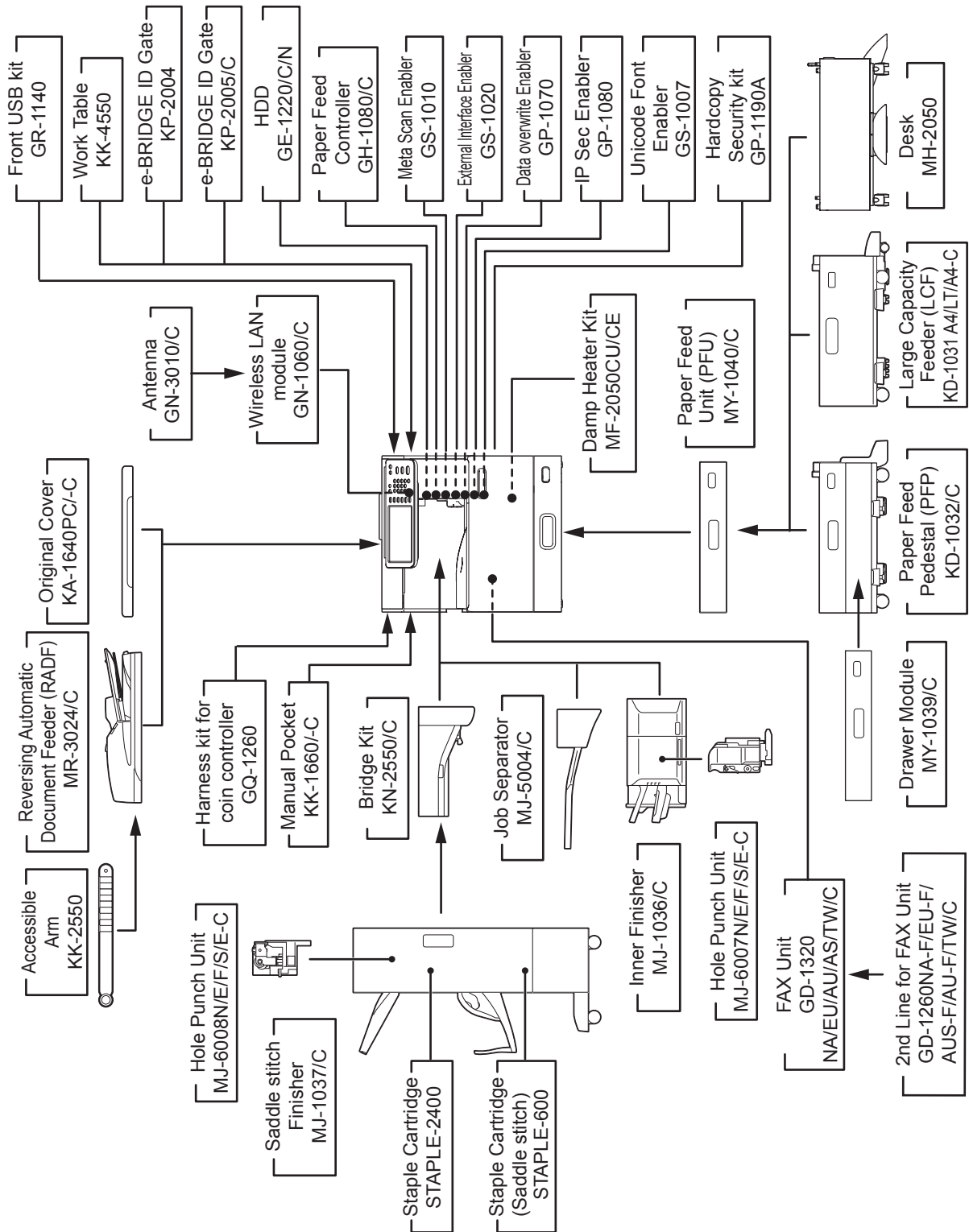
Fig. 2-1

Notes:
- The paper feed controller (GH-1080/C) is necessary for installation of the paper feed unit (MY-1040/C), paper feed pedestal (KD-1032/C) and large capacity feeder (KD-1031 A4/LT/A4-C).
- The bridge kit (KN-2550) and paper feed controller (GH-1080/C) are necessary for installation of the finisher (MJ-1037/C).
- The finisher (MJ-1037/C) is necessary for installation of the hole punch unit (MJ-6008N/E/F/S/E-C).
- The finisher (MJ-1036/C) is necessary for installation of the hole punch unit (MJ-6007N/E/F/S/E-C).
- The antenna (GN-3010) is necessary to enable the wireless LAN module (GN-1060/C).
- The HDD (GE-1220/C/N) is necessary for installation of the Unicode font enabler (GS-1007), data overwrite enabler (GP-1070), and hardcopy security kit (GP-1190A).
- GE-1220 is ADI-HDD (security HDD) and GE-1220C/GE-1220N is SATA-HDD (normal HDD).
- GE-1220N is applied to ASD only.

2

e-STUDIO2050C/2051C/2550C/2551C
SPECIFICATIONS/ACCESSORIES/OPTIONS/SUPPLIES

2.3.2 LL20ppm/LL25ppm

Fig. 2-2

2.4   Supplies

Drum	OD-FC30 OD-FC30C (for China)
Developer material (K)	D-FC30-K
Developer material (Y)	D-FC30-Y
Developer material (M)	D-FC30-M
Developer material (C)	D-FC30-C
Toner cartridge (K)	PS-ZTFC30UK (for North America, Central and South America) PS-ZTFC30EK (for Europe) PS-ZTFC30DK (for Australia and Asia) PS-ZTFC30CK (for China) PS-ZTFC30DKM/DKS (for Singapore) PS-ZTFC30CKM/CKS (for China) PS-ZTFC30AK (for Argentina)
Toner cartridge (Y)	PS-ZTFC30UY (for North America, Central and South America) PS-ZTFC30EY (for Europe) PS-ZTFC30DY (for Australia and Asia) PS-ZTFC30CY (for China) PS-ZTFC30DYM/DYS (for Singapore) PS-ZTFC30CYM/CYS (for China) PS-ZTFC30AY (for Argentina)
Toner cartridge (M)	PS-ZTFC30UM (for North America, Central and South America) PS-ZTFC30EM (for Europe) PS-ZTFC30DM (for Australia and Asia) PS-ZTFC30CM (for China) PS-ZTFC30DMM/DMS(for Singapore) PS-ZTFC30CMM/CMS (for China) PS-ZTFC30AM (for Argentina)
Toner cartridge (C)	PS-ZTFC30UC (for North America, Central and South America) PS-ZTFC30EC (for Europe) PS-ZTFC30DC (for Australia and Asia) PS-ZTFC30CC (for China) PS-ZTFC30DCM/DCS (for Singapore) PS-ZTFC30CCM/CCS (for China) PS-ZTFC30AC (for Argentina)
Waste toner box	PS-TBFC30 (expect for Europe and China) PS-TBFC30E (for Europe) PS-TBFC30C (for China)

3. OUTLINE OF THE MACHINE

3.1 Sectional View

3.1.1 Front side
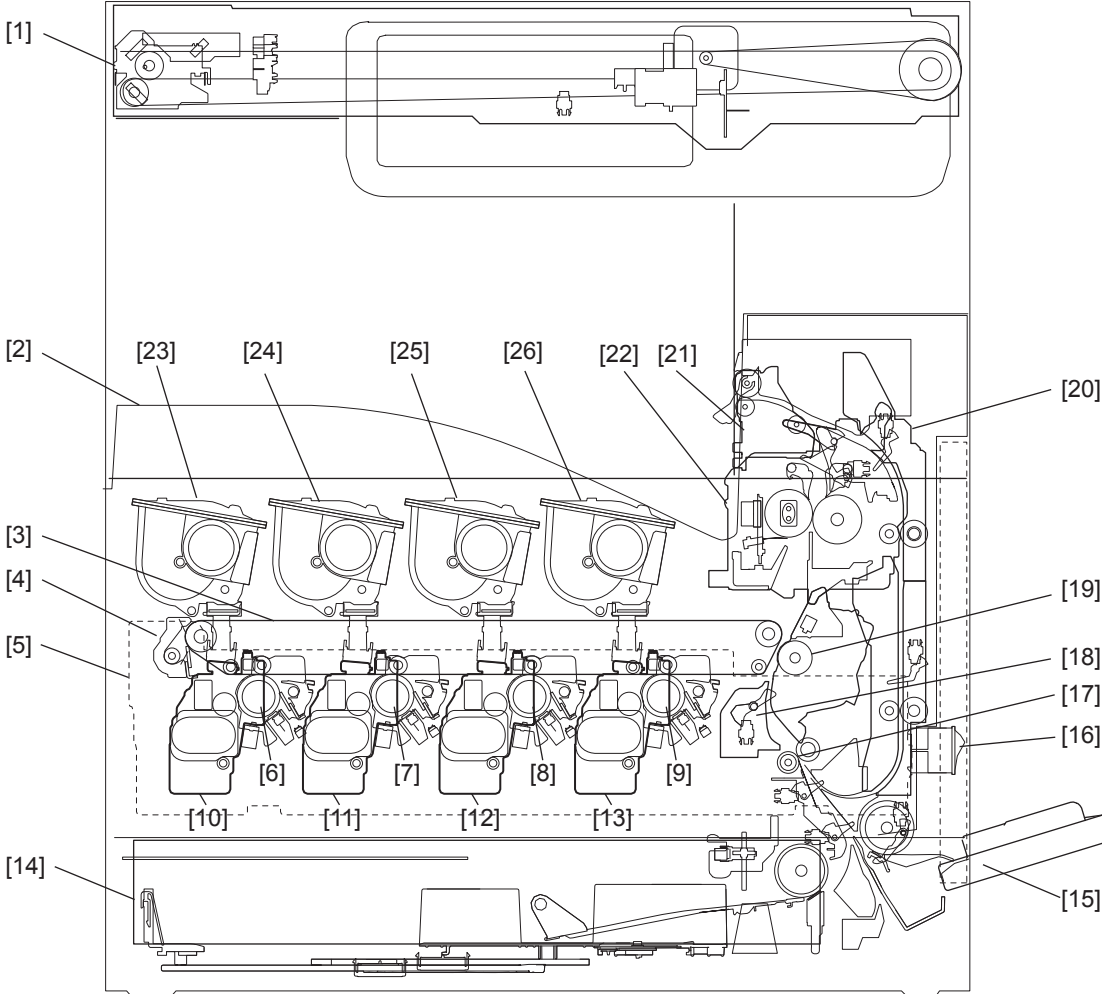
Fig. 3-1

1	Scanner unit	14	1st drawer
2	Inner tray	15	Bypass tray
3	Transfer belt	16	Main power switch
4	Transfer belt cleaning unit	17	Registration roller
5	Waste toner box	18	Image quality control unit
6	Drum (Y)	19	2nd transfer roller
7	Drum (M)	20	Automatic duplexing unit (ADU) *1
8	Drum (C)	21	Exit unit
9	Drum (K)	22	Fuser unit
10	Developer unit (Y)	23	Toner (Y)
11	Developer unit (M)	24	Toner (M)
12	Developer unit (C)	25	Toner (C)
13	Developer unit (K)	26	Toner (K)

*1: LL20ppm, L25ppm: Option

3.1.2 Rear side

Fig. 3-2

e-STUDIO2050C/2051C/2550C/2551C
OUTLINE OF THE MACHINE
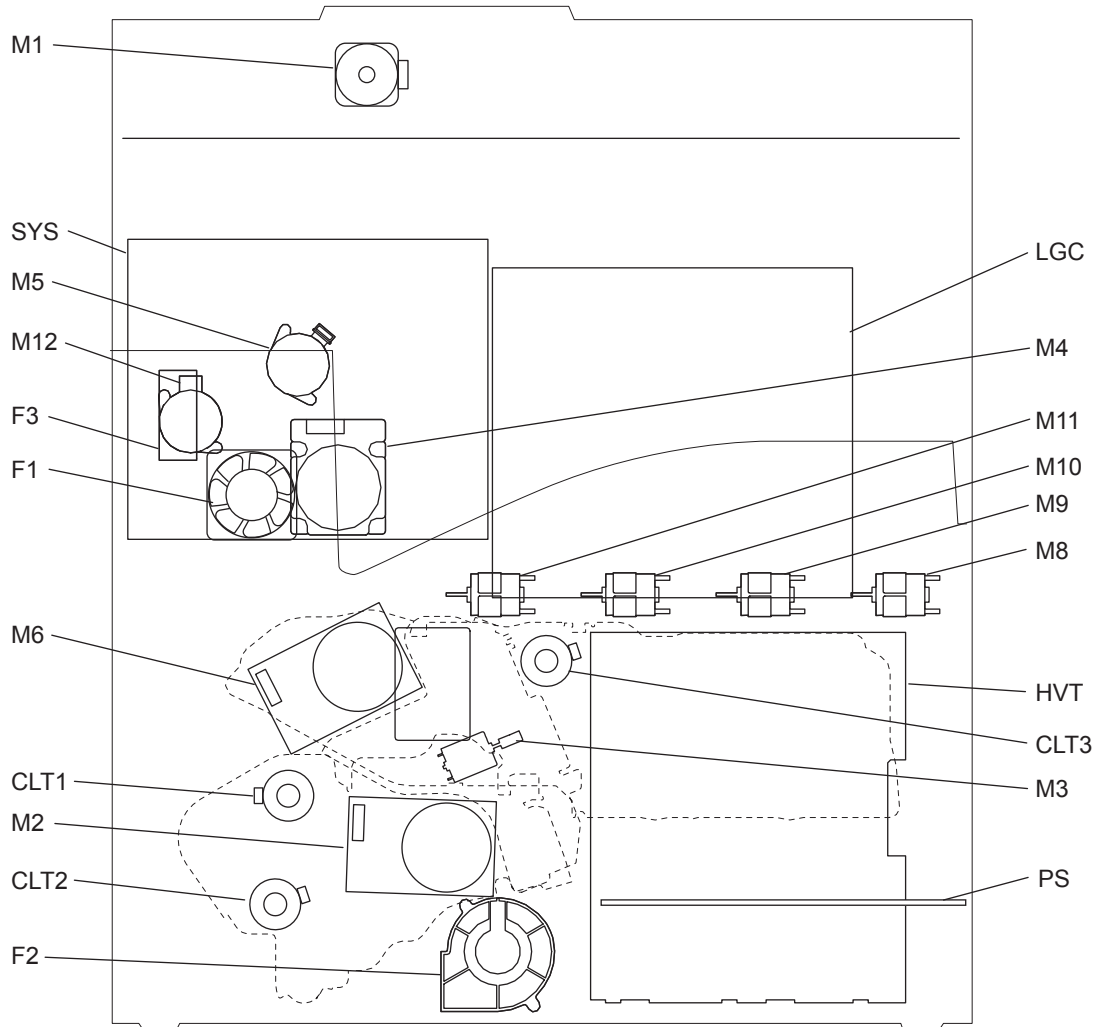
M1	Scan motor	CLT1	Registration clutch
M2	Feed/Developer motor	CLT2	Feed clutch
M3	Mono/color switching motor	CLT3	1st transfer clutch
M4	Fuser motor	F1	SYS board cooling fan
M5	Exit/Rev motor	F2	Ozone exhaust fan
M6	Drum/TBU motor	F3	Ozone suctioning fan
M8	Toner motor-Y	SYS	System control PC board (SYS board)
M9	Toner motor-M	LGC	Logic PC board (LGC board)
M10	Toner motor-C	HVT	High-voltage transformer
M11	Toner motor-K	PS	Switching regulator
M12	ADU motor		

3.2 Electric Parts Layout

[A] Scanner unit, control panel

Fig. 3-3

[B] Toner cartridge, waste toner box

CTIF

CTRG

M11

CTRG

M10

CTRG

M9

CTRG

M8

S9

M7

Fig. 3-4

[C]   Developer unit

M6
CLT3
M3
S12
SW10
S11
SW9
SW14
SW13
S3
S4

SW12
SW11
SW16
SW15
S1
S2
THM4

Fig. 3-5

[D]   Data writing

LED4

LED3

LED2

LED1

S10

ERS-K

ERS-C

ERS-M

ERS-Y
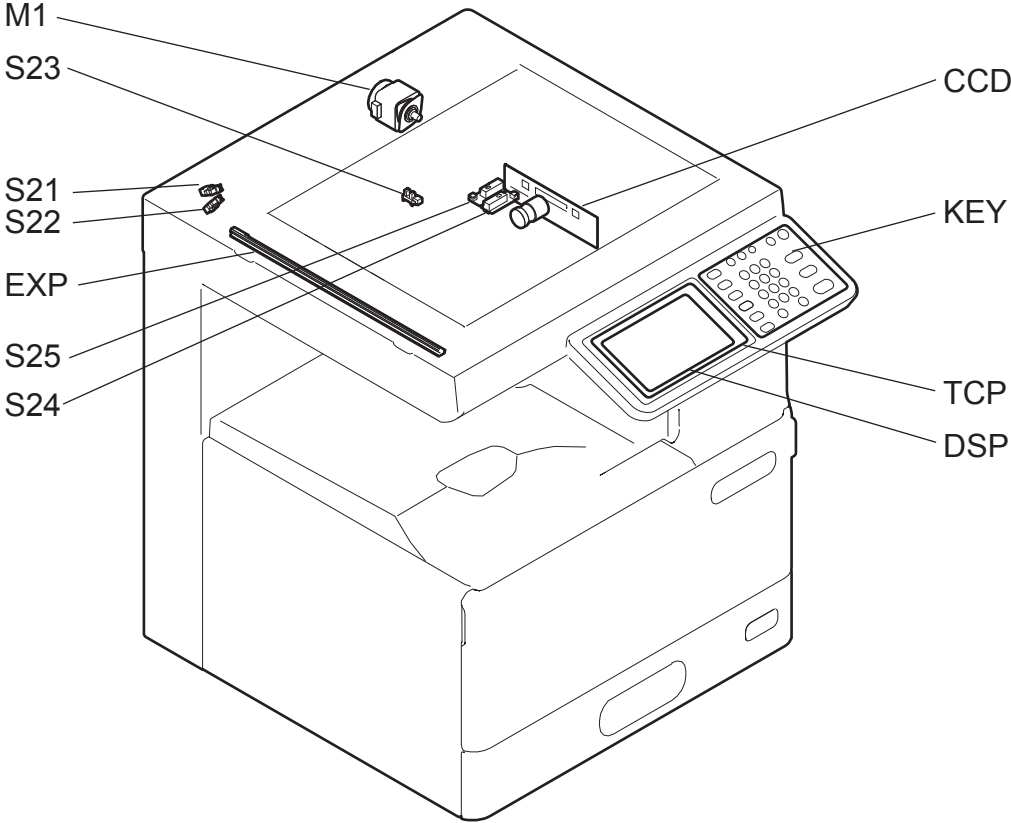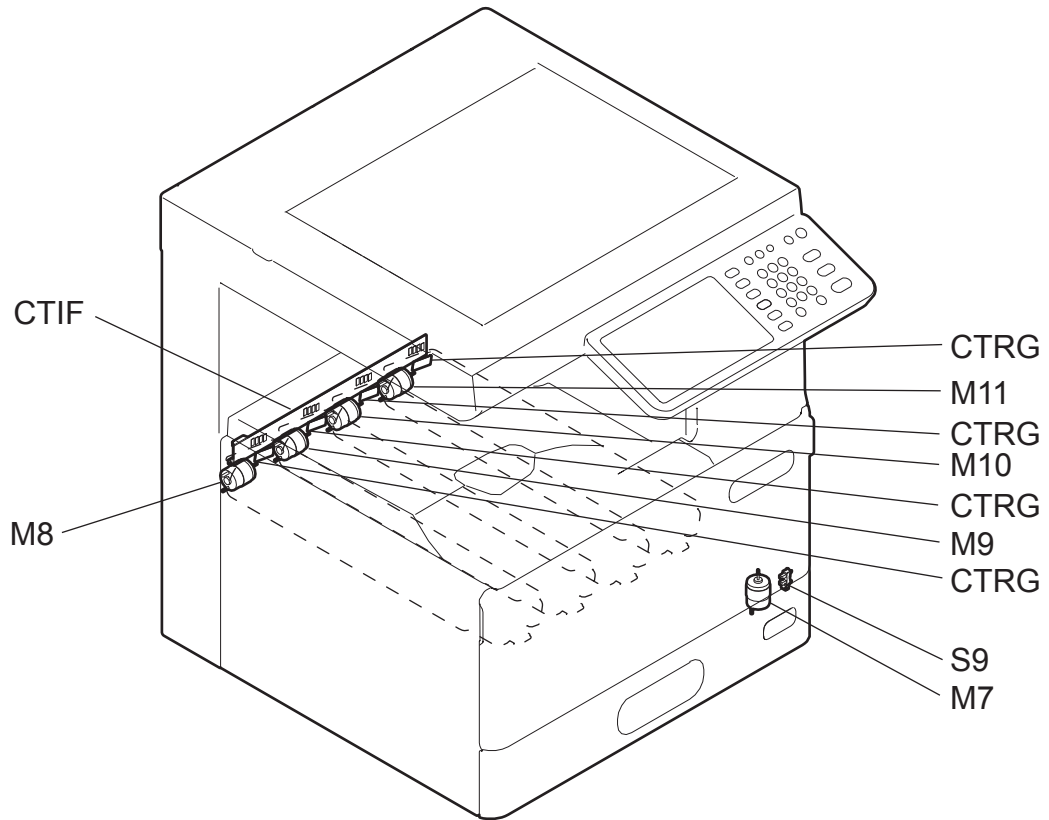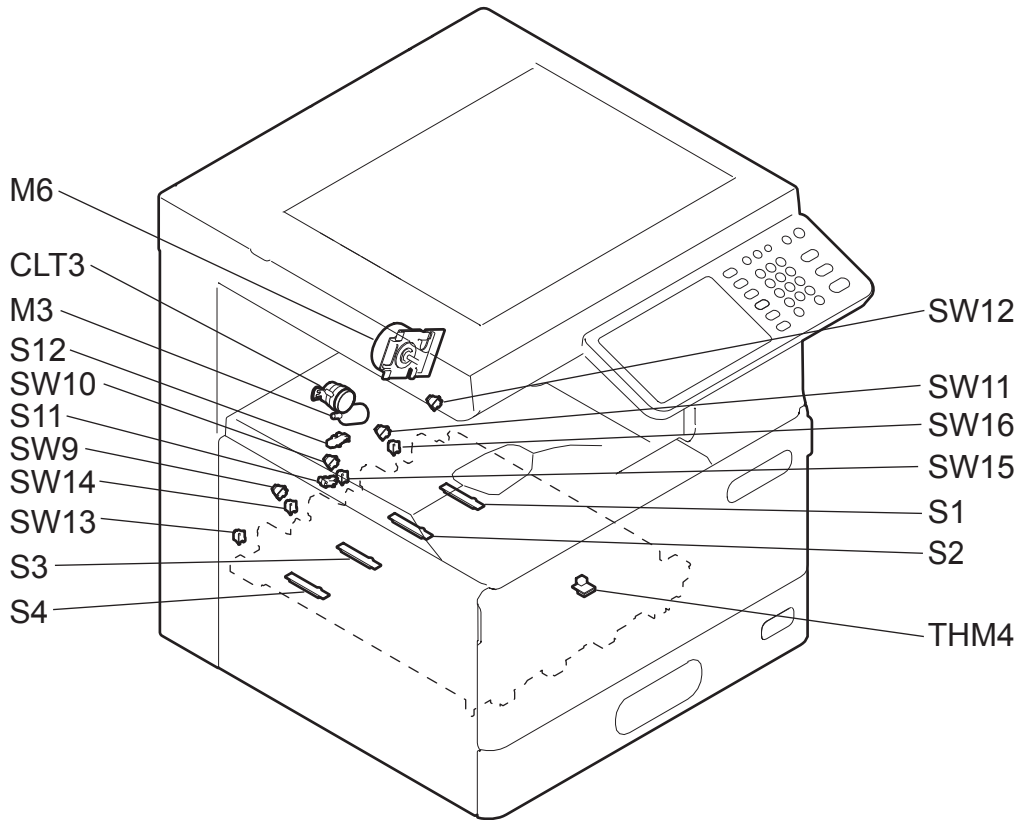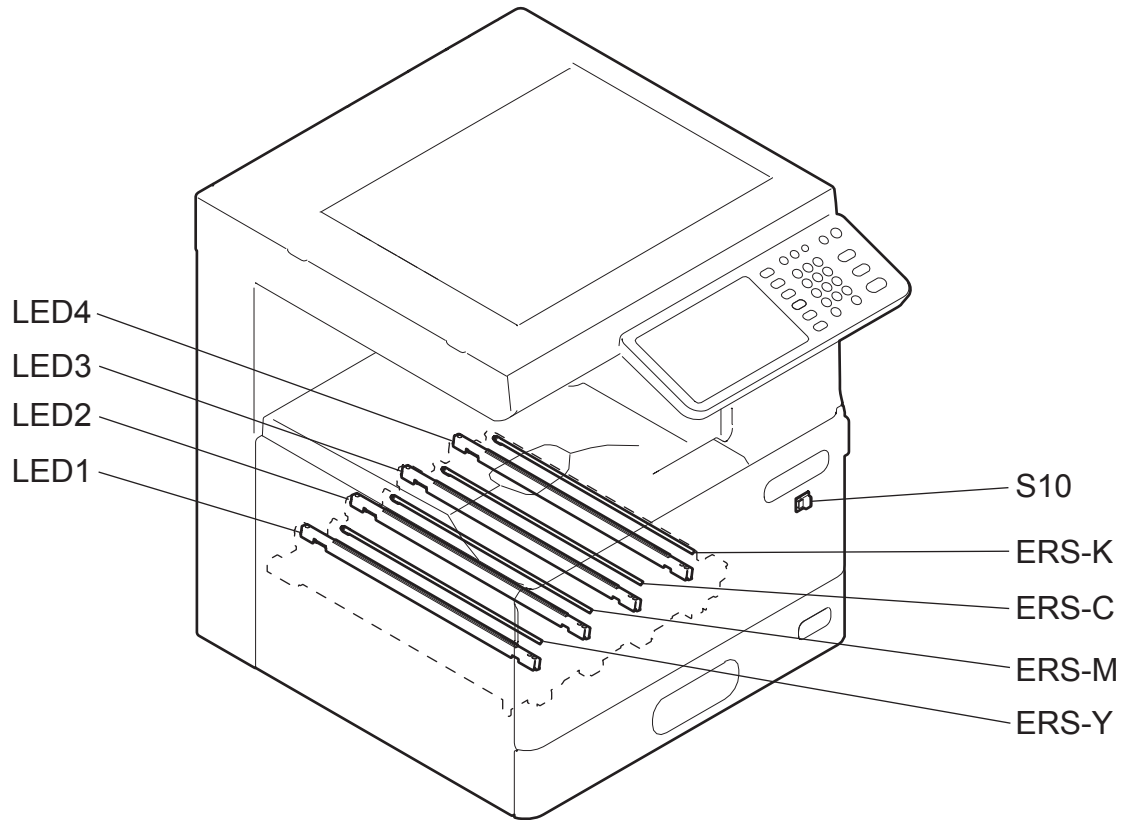
Fig. 3-6

[E] Fuser unit

Fig. 3-7

[F] Image quality control

S8
SOL1
S6
S7

Fig. 3-8

[G] Paper feeding unit

Fig. 3-9

[H] Automatic duplexing unit, bypass feed unit

ADU

M12

S14

CLT4

S15

S17

S16

Fig. 3-10

[I]   PC board, power supply
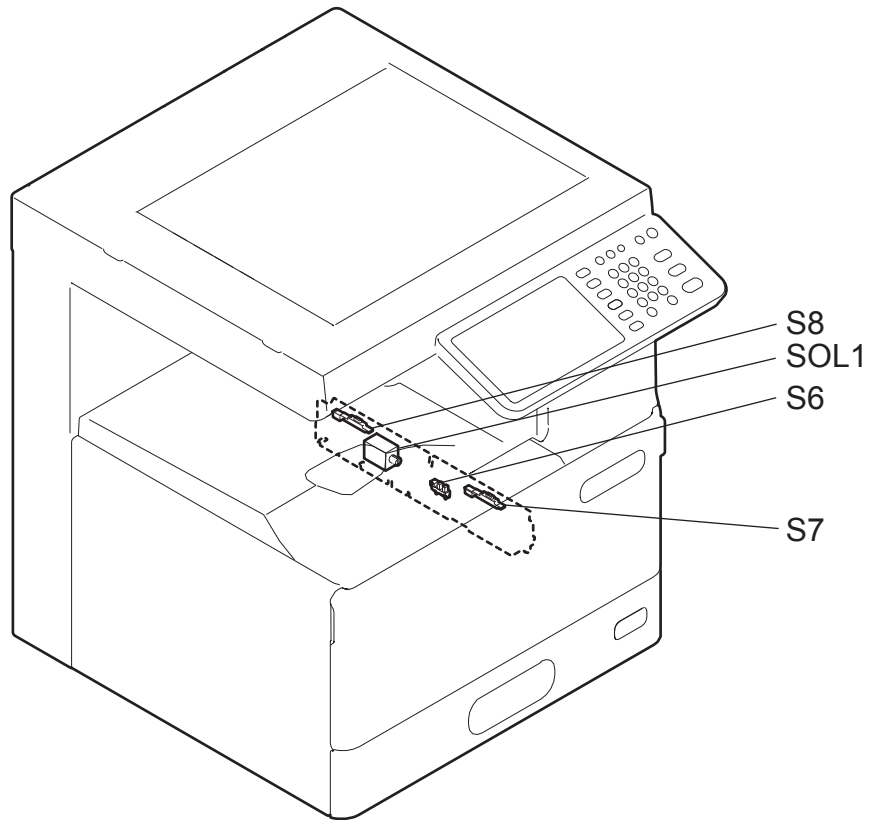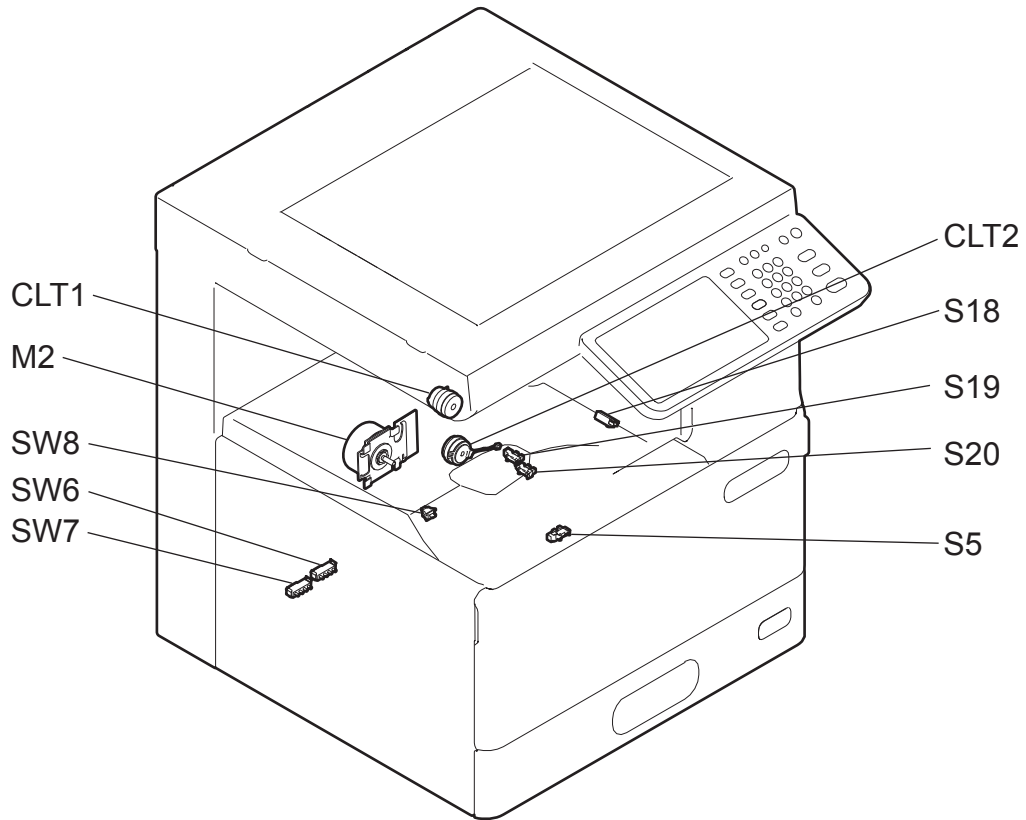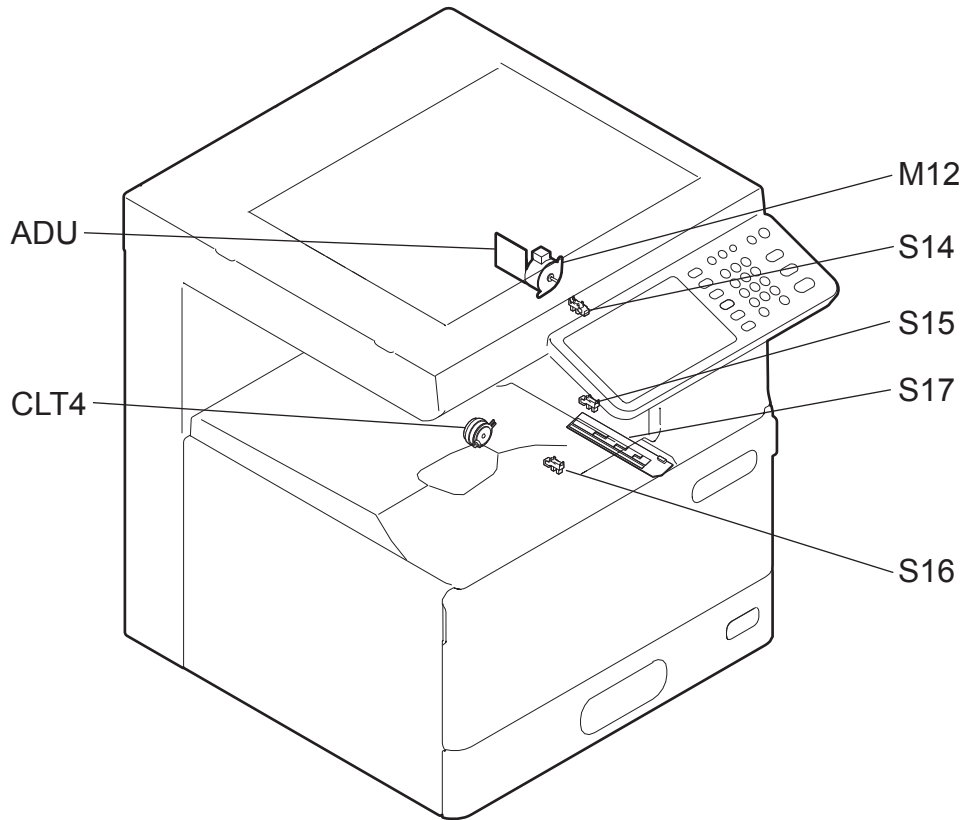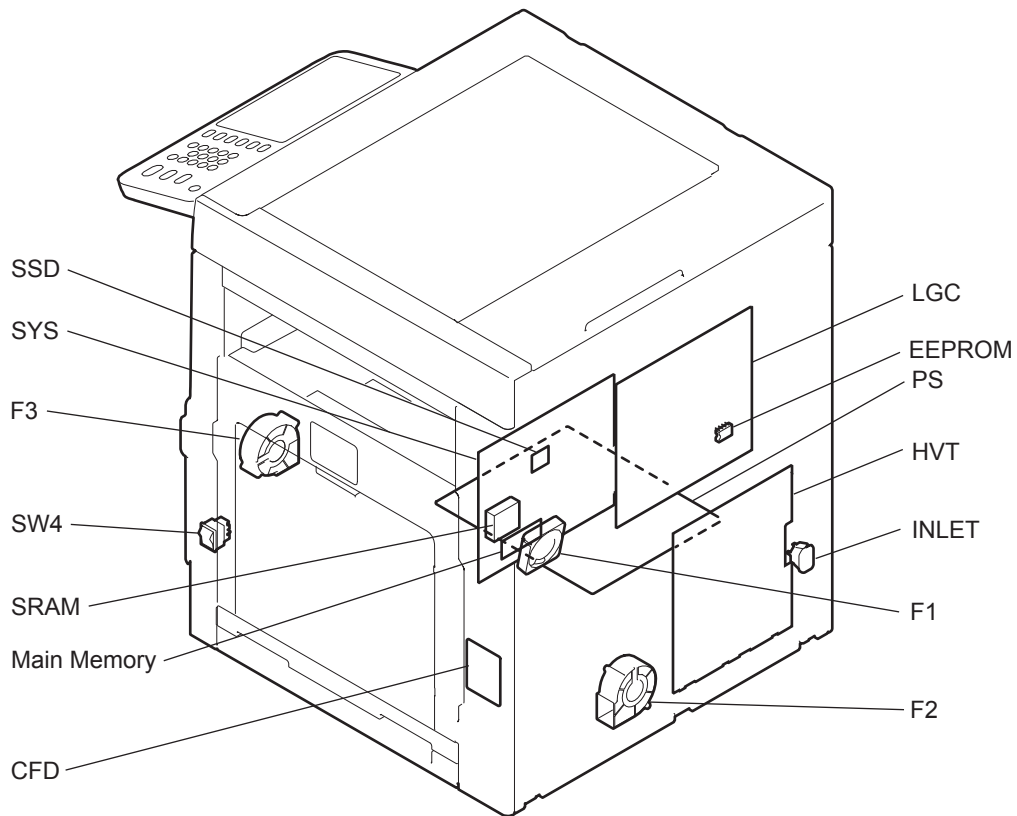
Fig. 3-11

[J]   Cover switch, Damp heater

DH1 · SW5 · SW3 · SW2 · SW1 · THMO4 · DH3 · DH2 · THMO3
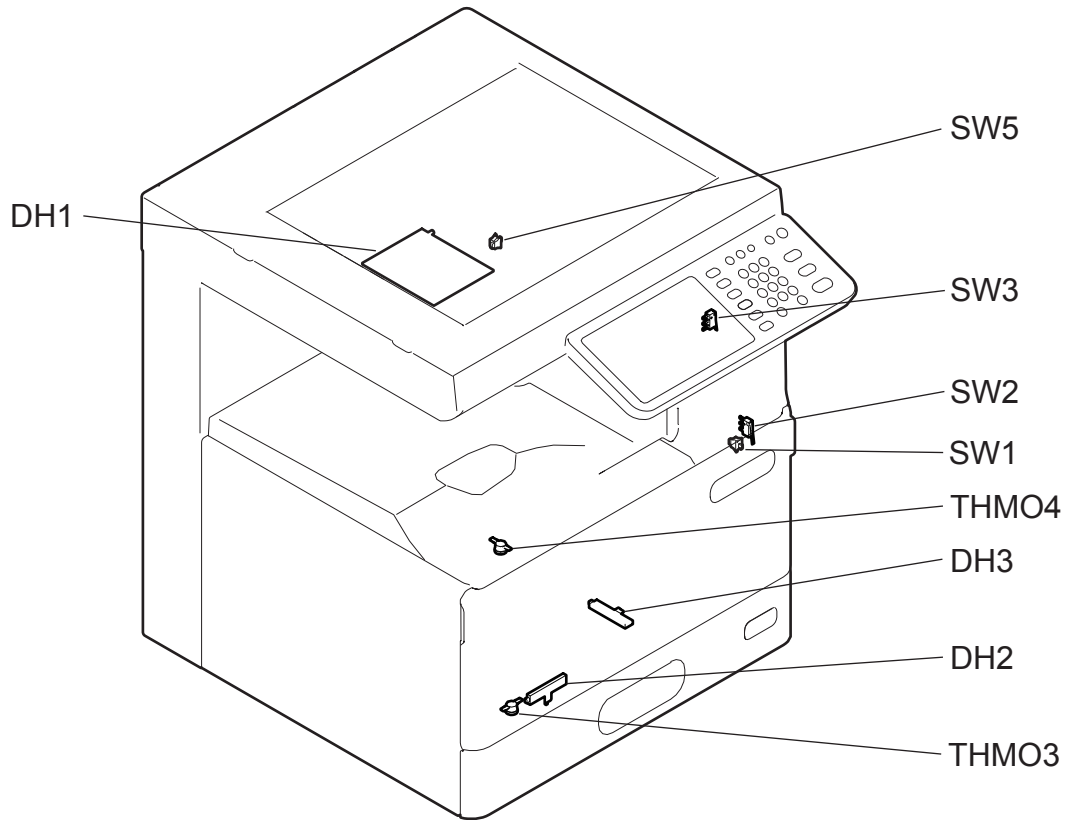
Fig. 3-12

3.3 Symbols and Functions of Various Components

The column "P-I" shows the page and item number in the parts list.

3.3.1 Motors, fans

Symbol	Name	Function	Remarks	P-I
M1	SCAN-MOT Scan motor	Driving the carriages	Fig. 3-3	19-8
M2	FEED/DEV-MOT Paper feeding/developer unit drive motor	Driving the registration rollers, feed roller and developer unit	Fig. 3-3	17-35
M3	DRM-SW-MOT Mono/color switching motor	Transmitting/releasing the drive to the Y/M/C drums	Fig. 3-5	17-39
M4	FUS-MOT Fuser motor	Driving the fuser	Fig. 3-7	18-7
M5	EXIT-MOT Exit motor	Driving the exit roller	Fig. 3-7	18-14
M6	DRM/TBU-MOT Drum / TBU motor	Driving the drum Driving the transfer belt	Fig. 3-5	15-43
M7	USD-TNR-MOT Waste toner paddle motor	Driving the paddle in the waste toner box (agitating the accumulated waste toner)	Fig. 3-4	24-9
M8	TNR-MOT-Y Toner motor-Y	Transporting toner from the Y toner cartridge to the developer unit	Fig. 3-4	36-7
M9	TNR-MOT-M Toner motor-M	Transporting toner from the M toner cartridge to the developer unit	Fig. 3-4	36-7
M10	TNR-MOT-C Toner motor-C	Transporting toner from the C toner cartridge to the developer unit	Fig. 3-4	36-7
M11	TNR-MOT-K Toner motor-K	Transporting toner from the K toner cartridge to the developer unit	Fig. 3-4	36-7
M12	ADU-MOT ADU motor	Driving the automatic duplexing unit	Fig. 3-10	41-16
F1	SYS-FAN-MOT SYS cooling fan	Cooling down the SYS board	Fig. 3-11	9-11
F2	OZN-FAN-MOT Ozone exhaust fan	Suctioning ozone generated at charging	Fig. 3-11	7-6
F3	PS-FAN-MOT PS cooling/Ozone suctioning fan	Cooling down the switching regulator	Fig. 3-11	5-6

3.3.2 Sensors and switches

Symbol	Name	Function	Remarks	P-I
S1	ATTNR-SNR-K Auto-toner sensor-K	Detecting the toner density in the K developer unit	Fig. 3-5	33-4
S2	ATTNR-SNR-C Auto-toner sensor-C	Detecting the toner density in the C developer unit	Fig. 3-5	33-4

Symbol	Name	Function	Remarks	P-I
S3	ATTNR-SNR-M Auto-toner sensor-M	Detecting the toner density in the M developer unit	Fig. 3-5	33-4
S4	ATTNR-SNR-Y Auto-toner sensor-Y	Detecting the toner density in the Y developer unit	Fig. 3-5	33-4
S5	CST1-EMP-SNR 1st drawer empty sensor	Detecting the presence of paper in the 1st drawer	Fig. 3-9	4-6
S6	RGST-PASS-SNR Registration pass sensor	Detecting paper transport at the registration roller section	Fig. 3-8	14-5
S7	IMG-POS-SNR-F Image position aligning sensor (Front)	Detecting the density of a toner image (test pattern) developed on the transfer belt surface (front)	Fig. 3-8	14-6
S8	IMG-POS-SNR-R Image position aligning sensor (Rear)/Image quality sensor	Detecting the density of a toner image (test pattern) developed on the transfer belt surface (rear) Detecting the rear side position a toner image (test pattern) developed on the transfer belt	Fig. 3-8	14-6
S9	USD-TNR-PDL-SNR Waste toner paddle rotation detection sensor	Detecting the rotation status of the waste toner paddle (Detecting the waste toner full)	Fig. 3-4	24-4
S10	TEMP/HUMI-SNR Temperature/humidity sensor	Detecting the ambient temperature/humidity of the equipment	Fig. 3-6	5-34
S11	DRM-SW-SNR Drum switching detection sensor	Detecting contact/release status of the drive to the Y/M/C drums	Fig. 3-5	17-36
S12	1ST-TRNS-SW-SNR 1st transfer roller status detection sensor	Detecting contact/release status of the 1st transfer roller for each color	Fig. 3-5	16-5
S13	EXIT-SNR Exit sensor	Detecting paper exit	Fig. 3-7	39-25
S14	ADU-U-SNR ADU entrance sensor	Detecting transported paper at the automatic duplexing unit entrance section	Fig. 3-10	41-19
S15	ADU-L-SNR ADU exit sensor	Detecting transported paper inside the automatic duplexing unit	Fig. 3-10	41-19
S16	SFB-FEED-SNR Bypass feed sensor	Detecting transported paper fed from the bypass feed unit	Fig. 3-10	42-9
S17	PWA-F-SFB Paper width detection PC board (SFB board)	Detecting the width of paper on the bypass tray	Fig. 3-10	20-6
S18	CLNG-SNR Paper clinging detection sensor	Detecting whether the paper is clinging to the transfer belt or not	Fig. 3-9	14-19
S19	RGST-SNR Registration sensor	Detecting paper transport at the registration roller section	Fig. 3-9	13-5
S20	TRANS-SNR Feed sensor	Detecting paper transport at the from the bypass feed unit, drawer, and ADU.	Fig. 3-9	13-5
S21	PLTN-SNR1 Platen sensor-1	Detecting the opening/closing status of the platen cover or RADF	Fig. 3-3	19-13
S22	PLTN-SNR2 Platen sensor-2	Detecting the opening/closing status of the platen cover or RADF	Fig. 3-3	19-13

Symbol	Name	Function	Remarks	P-I
S23	HOME-SNR Carriage home position sensor	Detecting the carriage home position	Fig. 3-3	10-5
S24	APS1 Automatic original detection sensor-1	Detecting original size	Fig. 3-3	10-12
S25	APS2 Automatic original detection sensor-2	Detecting original size (for LT size)	Fig. 3-3	10-12
SW1	FRT-COV-SW Front cover switch	Detecting the opening/closing status of the front cover	Fig. 3-12	5-12
SW2	F-COV-INTLCK-SW Front cover interlock switch	Supplying or shutting off AC power to the switching regulator (voltage-generating circuit interlocked with these covers) according to the opening/closing status of the front cover or automatic duplexing unit (Cover open: Shut off)	Fig. 3-12	5-10
SW3	S-COV-INTLCK-SW Side cover interlock switch	Supplying or shutting off AC power to the switching regulator (voltage-generating circuit interlocked with these covers) according to the opening/closing status of the front cover or automatic duplexing unit (Cover open: Shut off)	Fig. 3-12	5-10
SW4	MAIN-SW Main power switch	Turning the power of the equipment ON/OFF	Fig. 3-11	6-3
SW5	SIDE-COV-SW Side cover switch	Detecting the opening/closing status of the side cover	Fig. 3-12	7-23
SW6	CST-SIZE1-SW 1st drawer size detection switch-1	Detecting the size of paper	Fig. 3-9	7-2
SW7	CST-SIZE2-SW 1st drawer size detection switch-2	Detecting the size of paper	Fig. 3-9	7-2
SW8	CST1-SW 1st drawer detection switch	Detecting the presence of the 1st drawer	Fig. 3-9	6-39
SW9	Y-DRUM-SW Y drum old/new detection switch	Detecting whether the Y drum is the old or the new one	Fig. 3-5	31-2
SW10	M-DRUM-SW M drum old/new detection switch	Detecting whether the M drum is the old or the new one	Fig. 3-5	31-2
SW11	C-DRUM-SW C drum old/new detection switch	Detecting whether the C drum is the old or the new one	Fig. 3-5	31-2
SW12	K-DRUM-SW K drum old/new detection switch	Detecting whether the K drum is the old or the new one	Fig. 3-5	31-2
SW13	Y-DEV-SW Y developer unit old/new detection switch	Detecting whether the Y developer unit is the old or the new one	Fig. 3-5	31-2
SW14	M-DEV-SW M developer unit old/new detection switch	Detecting whether the M developer unit is the old or the new one	Fig. 3-5	31-2
SW15	C-DEV-SW C developer unit old/new detection switch	Detecting whether the C developer unit is the old or the new one	Fig. 3-5	31-2

Symbol	Name	Function	Remarks	P-I
SW16	K-DEV-SW K developer unit old/new detection switch	Detecting whether the K developer unit is the old or the new one	Fig. 3-5	31-2

3.3.3 Electromagnetic spring clutches

Symbol	Name	Function	Remarks	P-I
CLT1	RGST-CLT Registration clutch	Driving the registration roller	Fig. 3-9	17-45
CLT2	FEED-CLT Feed clutch	Driving the feed roller of the 1st drawer	Fig. 3-9	17-15
CLT3	1ST-TRNS-CLT 1st transfer contact/release clutch	Driving the contacting/releasing of the transfer belt and the drum	Fig. 3-5	15-40
CLT4	SFB-FEED-CLT Bypass feed clutch	Driving the feed roller of the bypass feed unit	Fig. 3-10	21-13

3.3.4 Solenoids

Symbol	Name	Function	Remarks	P-I
SOL1	SNR-SHUT-SOL Sensor shutter solenoid	Driving the sensor shutter of the image position aligning sensor (front / rear) and image quality sensor	Fig. 3-5	14-32

3.3.5 PC boards

Symbol	Name	Function	Remarks	P-I
CCD	PWA-F-CCD CCD driving PC board (CCD board)	Scanning originals with CCD	Fig. 3-3	10-9
DSP	PWA-F-DSP Display PC board (DSP board)	Controlling the whole control panel	Fig. 3-3	3-21
KEY	PWA-F-KEY Key PC board (KEY board)	Controlling the key switches and LEDs	Fig. 3-3	3-22
CTIF	PWA-F-CTIF Toner cartridge interface PC board (CTIF board)	Interface for detecting the toner cartridge (Detecting the CTRG board)	Fig. 3-4	36-2
CTRG	PWA-F-CTRG Toner cartridge PC board (CTRG board))	Storing the status of the toner cartridge	Fig. 3-4	-
ADU	PWA-F-ADU ADU control PC board (ADU board)	Controlling the automatic duplexing unit	Fig. 3-10	41-16
CFD	PWA-F-CFD Feed control PC board (CFD board)	Controlling the feed section	Fig. 3-11	6-1
SYS	PWA-F-SYS System control PC board (SYS board)	Controlling the whole system and image processing Controlling the scanning section	Fig. 3-11	9-19
LGC	PWA-F-LGC Logic PC board (LGC board)	Controlling the print engine section	Fig. 3-11	9-9

Symbol	Name	Function	Remarks	P-I
SRAM	PWA-F-SRAM SRAM board	Storing the setting or adjustment value, etc. used for the control by the system control PC board	Fig. 3-11	9-13

3.3.6 Lamps and heaters

Symbol	Name	Function	Remarks	P-I
EXP	LP-EXPO Exposure lamp	Exposing originals	Fig. 3-3	11-3
LED1	LP-LED-Y LED printer head-Y	Exposing the Y drum	Fig. 3-6	31-21
LED2	LP--LED-M LED printer head-M	Exposing the M drum	Fig. 3-6	31-21
LED3	LP--LED-C LED printer head-C	Exposing the C drum	Fig. 3-6	31-21
LED4	LP--LED-K LED printer head-K	Exposing the K drum	Fig. 3-6	31-21
ERS-Y	LP-ERS-Y Discharge LED-Y	Eliminating residual charge on the Y drum surface	Fig. 3-6	31-15
ERS-M	LP-ERS-M Discharge LED-M	Eliminating residual charge on the M drum surface	Fig. 3-6	31-15
ERS-C	LP-ERS-C Discharge LED-C	Eliminating residual charge on the C drum surface	Fig. 3-6	31-15
ERS-K	LP-ERS-K Discharge LED-K	Eliminating residual charge on the K drum surface	Fig. 3-6	31-15
LAMP1	LP-HTR-C Center heater lamp	Heating the center section of the fuser roller	Fig. 3-7	37-8
LAMP2	LP-HTR-S Side heater lamp	Heating the section of the both sides of the fuser roller	Fig. 3-7	37-8
DH1	SCN-DH-L Scanner damp heater	Preventing condensation of the mirrors of the scanner	Fig. 3-12	10-17
DH2	DRM-DH-L Drum damp heater (Left)	Preventing condensation of the drum	Fig. 3-12	4-20
DH3	DRM-DH-R Drum damp heater (Right)	Preventing condensation of the drum	Fig. 3-12	4-19

3.3.7 Thermistors, thermostats

Symbol	Name	Function	Remarks	P-I
THM1	THMS-FR-C Fuser roller center thermistor	Detecting the surface temperature of the center of the fuser roller	Fig. 3-6	38-4
THM2	THMS-FR-S Fuser roller side thermistor	Detecting the surface temperature of the side of the fuser roller	Fig. 3-6	38-4
THM3	THMS-FR-E Fuser roller edge thermistor	Detecting the surface temperature of the front end of the fuser roller	Fig. 3-7	38-4
THM4	THMS-DRM Drum thermistor	Detecting the surface temperature of the drum	Fig. 3-7	31-11
THMO1	THERMO-FR-C Fuser roller center thermostat	Preventing overheating of the center portion of the fuser roller	Fig. 3-7	37-6

Symbol	Name	Function	Remarks	P-I
THMO2	THERMO-FR-S Fuser roller rear thermostat	Preventing overheating of the rear portion of the fuser roller	Fig. 3-7	37-6
THMO3	THERMO-DRM-DH-L Drum damp heater thermostat (Left)	Controlling the temperature of the drum damp heater	Fig. 3-12	4-22
THMO4	THERMO-DRM-DH-R Drum damp heater thermostat (Right)	Controlling the temperature of the drum damp heater	Fig. 3-12	4-21

3.3.8 Others

Symbol	Name	Function	Remarks	P-I
TCP	TCP Touch panel	Displaying and entering various kinds of information	Fig. 3-3	3-29
EEPROM	EEPROM Electrically Erasable Programmable Read Only Memory	Storing the setting or adjustment value, etc. used for the control by the logic PC board	Fig. 3-11	9-14
SSD	SSD Solid State Drive	Saving program data and image data	Fig. 3-11	9-18
Main memory	Main memory	Saving data and programs temporarily (Also used as page memory in this equipment.)	Fig. 3-11	9-20
PS	PS-ACC Switching regulator	Generating DC voltage and supplying it to each section of the equipment	Fig. 3-11	4-17
HVT	PS-HVT High-voltage transformer	Generating high-voltage and supplying it to the following sections • Main charger needle electrode • Main charger grid • Developer bias • Transfer bias	Fig. 3-11	8-17

3.4 Copy Process

Fig. 3-13

(1) Charging: Places a negative charge on the surface of the photoconductive drum.

↓

(2) Original exposure: Converts images on the original into optical signals.

↓

(3) Data reading: The optical image signals are read into CCD and converted into electrical signals.

↓

(4) Data writing: The electrical image signals are changed to light signals (by LED emission) which expose the surface of the photoconductive drum.

↓

(5) Development: Negatively-charged toner is made to adhere to the photoconductive drum, producing a visible image.

↓

(6) 1st transfer: Transfers the visible image (toner) on photoconductive drum to the transfer belt.

↓

(7) 2nd transfer: Transfers the visible image (toner) on the transfer belt to paper.

↓

(8) Fusing: Fuses the toner image to the paper by applying heat and pressure.

↓

(9) Blade cleaning: While scraping off the residual toner from the drum by the blade.

↓

(10) (−) Discharging: Eliminates the residual (−) charge from the surface of the photoconductive drum.

3.5 Comparison with e-STUDIO2040C/2540C/3040C/3540C/4540

Process		e-STUDIO2040C/2540C/3040C/3540C/4540C	20ppm/25ppm/LL20ppm/LL25ppm
1. Photoconductive drum	Drum	OD-FC25 (OPC drum)	OD-FC30 (OPC drum)
	Sensitivity	Highly sensitized drum (ø30)	←
2. Charging		Scorotron type -300 to -1200 V (grid voltage) (adjusting by image quality control)	Scorotron type -300 to -1100 V (grid voltage) (adjusting by image quality control)
3. Data writing	Light source	Semiconductor laser	LED printer head
	Light amount	3.5 nJ/mm^2	-
4. Image control		Image quality control by detecting toner adhesion amount	←
5. Development	Magnetic roller	One magnetic roller	←
	Auto-toner detection	Magnetic bridge-circuit method	←
	Toner supply	Toner cartridge replacing method	←
	Toner-empty detection	Density detection method	←

	Toner	NAD T-FC25-K, T-FC28-Y
		       T-FC25-M, T-FC28-C
		MJD T-FC25E-K, T-FC28E-Y
		       T-FC25E-M, T-FC28E-C
		CND T-FCC-K, T-FC25C-Y
		       T-FC25FC25C-M, T-FC25C-C
		OthersT-FC25D-K, T-FC25D-Y
		       T-FC25D-M, T-FC25D-C
		(K: Black, Y: Yellow, M: Magenta, C: Cyan)
			NAD/NAH T-FC30-K, T-FC30-Y
			       T-FC30-M, T-FC30-C
			MJD T-FC30E-K, T-FC30E-Y
			       T-FC30E-M, T-FC30E-C
			CND T-FC30C-K, T-FC30C-Y
			       T-FC30C-M, T-FC30C-C
			OthersT-FC30D-K, T-FC30D-Y
			       T-FC30D-M, T-FC30D-C
			(K: Black, Y: Yellow, M: Magenta, C: Cyan)

	Developer material	D-FC28-K (black) D-FC28-Y (yellow) D-FC28-M (magenta) D-FC28-C (cyan)	D-FC30-K (black) D-FC30-Y (yellow) D-FC30-M (magenta) D-FC30-C (cyan)
	Developer bias	DC -200 to -900V (adjusting by image quality control) AC 1100 V / 7.5 to 10 kHz	DC -200 to -900V (adjusting by image quality control)
6. Transfer	1st transfer	Transfer belt method	←
	2nd transfer:	Transfer roller method	←
7. Separation		Self-separation by transfer belt and 2nd transfer roller	←
8. Photoconductive drum cleaning	Method	Blade cleaning	←
	Recovered toner	Non-reusable	←

Process		e-STUDIO2040C/2540C/3040C/3540C/4540C	20ppm/25ppm/LL20ppm/LL25ppm
9. Transfer belt cleaning		Blade cleaning	←
10.Discharge		LED array (red)	←
11.Fusing	Method	Belt fusing system	Roller fusing system
		Heat roller: Aluminium roller (ø30) (Heater lamp: 600 W x 2) (Heater lamp: 280 W x 1 (e-STUDIO4540C)	-
		Fuser belt: PFA tube belt (ø60)	-
		Fuser roller: Sponge roller (ø38)	Fuser roller: Aluminum rubber coated roller, (Surface-PFA tube)(ø30) (Heater lamp: 570 W x 2))
		Pressure roller: Silicon rubber roller, (Surface-PFA tube)(ø40) (Heater lamp: 280 W x 1)	Pressure roller: Silicon rubber roller, (Surface-PFA tube)(ø30) (Heater lamp: -)
	Cleaning	None	←
	Heater temperature	ON/OFF control and power control by thermistor	←
	Heater	Heater lamp	←

3

3.6 General Operation

3.6.1 Overview of Operation

Operation of equipment ── Operation during initializing, pre-running and ready

　　　　　　　　　　　┌─ Drawer feed copying by the [START] button
Copying operation ──├─ Bypass feed copying
　　　　　　　　　　　└─ Interrupt copying
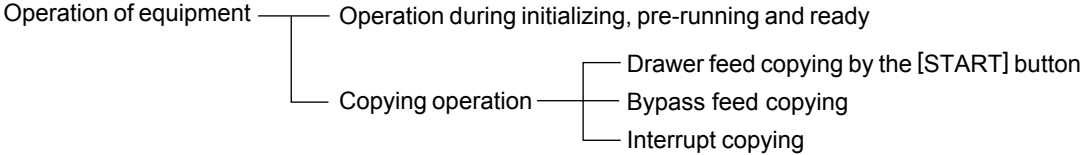
3.6.2   Description of Operation

[1]   Warming-up

1. Initialization
   - → Power ON
   - → Heater lamps (LAMP1, LAMP2) ON
   - → Set number "1", reproduction ratio "100%" and "Wait Warming Up" are displayed.
   - → Fan motors ON
   - → Initialization of feeding system
   - Each drawer tray goes up.
   - → Pre-running operation is stopped after five seconds.
   - Drum/TBU motor (M6) is turned ON.
   - Mono/color switching motor (M3) is turned ON and OFF.
   - → Cleaning of transfer belt
   - (Performs color registration control.)*[1]
   - (Performs image quality control.)*[1]
   - Drum/TBU motor (M6) is turned OFF.
   - → Initialization of scanning system
   - The carriage moves to the home position.
   - The carriage moves to the peak detection position.
   - The exposure lamp (EXP) is turned ON.
   - Peak detection (white color is detected by the shading correction plate)
   - The exposure lamp (EXP) is turned OFF.
   - Pre-scanning <forward/backward> moves by 420 mm <A3 (landscape)>.
   - → "READY (WARMING UP)" is displayed.

2. Pre-running operation
    Pre-running operation is started when the temperature of the fuser roller surface reaches a certain level.
   - → Fuser motor (M4) is turned ON.
   - Fuser roller rotation.
   - → Fuser motor (M4) is turned OFF.
   - Fuser roller rotation stop.

3. When the temperature of the fuser roller surface becomes sufficient for fusing,
   - → "READY" is displayed.

*1: Image quality control and color registration control should be performed only at change of environment or periodical performing timing.

[2]   Ready (ready for copying)

- → Buttons on the control panel enabled
- → When no button is pressed for a certain period of time,
   - Set number "1" and reproduction ratio "100%" are displayed. Equipment returns to the normal ready state.

[3] Drawer feed copying (1st drawer paper feeding)

1. Press the [START] button ON
   → "READY" changes to "COPYING"
   → Exposure lamp (EXP) turned ON
   → Scan motor (M1) turned ON→ Carriages-1 and -2 move forward
   → Drum/TBU motor (M6), Paper feeding/developer unit drive motor (M2), and fuser motor (M4) turned ON
   - Drum, transfer belt, fuser unit, and developer unit are driven

2. Drawer paper feeding
   → Fans rotated at high speed and feed clutch (CLT2) turned ON
   - Feed roller start to rotate
   → Paper reaches the feed sensor (S20)
   - Feed sensor (S20) is turned ON
   → Paper reaches the registration roller
   - Registration sensor (S19) is turned ON and aligning is performed
   → Feed clutch (CLT2) is turned OFF after a certain period of time

3. A certain period of time passed after the carriage operation
   → Registration clutch (CLT1) is turned ON → Paper is transported to the
      transfer area
   → Copy counter operates

4. Completion of scanning
   → Exposure lamp (EXP) turned OFF
   → Scan motor (M1) turned OFF
   → Registration clutch (CLT1) is turned OFF (after the trailing edge of the paper passed the registration roller)
   → "READY (PRINTING)" is displayed

5. Printing operation
   1) Color printing operation
   → Mono/color switching motor (M3) turned ON
   - The drum switching detection sensor (S19) checks whether the equipment is in the color or black printing status, and if it is in the black printing status, the motor (M3) is turned ON to switch the status to color printing.
   → Drum/TBU motor (M6), discharge LED-Y, -M, -C, -K (ERS) turned ON
   → Main charger bias turned ON
   → 1st transfer contact/release clutch (CLT3) turned ON
   - Contact the 1st transfer rollers (Y, M and C) to the transfer belt
   → YMCK developer bias (DC) and Paper feeding/developer unit drive motor (M2) turned ON
   → 2nd transfer bias turned ON
   → LED emission (yellow image)
   → 1st transfer bias (Y) turned ON
   - 1st transfer of yellow image (Yellow image is transferred to the transfer belt)
   → 1st transfer bias (Y) turned OFF
   → LED emission (magenta image)
   → 1st transfer bias (M) turned ON
   - 1st transfer of magenta image (Magenta image is transferred to the transfer belt)
   → 1st transfer bias (M) turned OFF
   → LED emission (cyan image)
   → 1st transfer bias (C) turned ON
   - 1st transfer of cyan image (Cyan image is transferred to the transfer belt)
   → 1st transfer bias (C) turned OFF
   → LED emission (black image)
   → 1st transfer bias (K) turned ON
   - 1st transfer of black image (Black image is transferred to the transfer belt)
   → 1st transfer bias (K) turned OFF

→ 1st transfer contact/release clutch (CLT3) turned ON
- Release the 1st transfer rollers (Y, M and C) from the transfer belt
→ 2nd transfer of YMCK image (YMCK image on the transfer belt is transferred to the paper)
→ Main charger turned OFF
→ Paper feeding/developer unit drive motor (M2) and developer bias (YMC and K) turned OFF
→ 2nd transfer bias turned OFF
→ Drum/TBU motor (M6), discharge LED-Y, -M, -C, -K (ERS) turned OFF

2) Black printing operation
→ Mono/color switching motor (M3) turned ON
- The drum switching detection sensor (S19) checks whether the equipment is in the color or black printing status, and if it is in the color printing status, the motor (M3) is turned ON to switch the status to black printing.
→ Drum/TBU motor (M6), discharge LED-K (ERS) turned ON
→ Main charger bias turned ON
→ K developer bias (DC) and Paper feeding/developer unit drive motor (M2) turned ON
→ 2nd transfer bias turned ON
→ LED emission (black image)
→ 1st transfer bias (K) turned ON
- 1st transfer of black image (Black image is transferred to the transfer belt)
→ 1st transfer bias (K) turned OFF
→ 2nd transfer of K image (K image on the transfer belt is transferred to the paper)
→ Main charger turned OFF
→ Paper feeding/developer unit drive motor (M2) turned OFF
→ 2nd transfer bias turned OFF
→ Drum/TBU motor (M6), discharge LED-K (ERS) turned OFF

6. Paper exiting
→ The exit sensor (S13) detects the leading edge of the paper
→ Exit motor (M5) turned ON
→ The exit sensor (S13) detects the trailing edge of the paper
→ Discharge LED (ERS) turned OFF
→ Drum/TBU motor (M6), Paper feeding/developer unit drive motor (M2),
  fuser motor (M4) and exit motor (M5) turned OFF
→ The polygonal motor (M4) rotates at low speed.
→ Drum, fuser unit and developer unit are stopped
- Fans return to rotate at the normal rotation speed
→ "READY" is displayed and the equipment enters into ready mode

[4] Bypass feed copying

1. Insert a paper into the bypass tray.
   - → Bypass paper sensor (S16) is turned ON.
   - "Ready for bypass feeding" is displayed.
   - → Carriages move to the home position.

2. Press the [START] button ON
   - → "Ready for bypass feeding" changes to "COPYING".
   - → Exposure lamp (EXP) ON
   - → Scan motor (M1) ON→Carriages-1 and -2 move forward.
   - → Drum/TBU motor (M6), Paper feeding/developer unit drive motor (M2), and fuser motor (M4) turned ON
   - The drum, transfer belt, fuser unit and developer unit are driven.

3. Bypass feeding
   - → Fans rotate at high speed.
   - → Bypass feed clutch (CLT4) turned ON.
   - The bypass feed roller is lowered.
   - → Aligning operation
   - → Paper reaches the registration roller.
   - → After a certain period of time, the bypass feed clutch (CLT4) turned OFF.

4. Hereafter, operations (3) through (6) of "5.2.3Drawer feed copying (1st drawer paper feeding)" are repeated.

[5] Interruption copying

1. Press the [INTERRUPT] button
   - → LED "INTERRUPT" is turned ON.
   - → Copying operation in progress is temporarily stopped, and the carriages-1 and -2 return to appropriate positions.
   - → "Job interrupted job 1 saved" is displayed.
   - → Automatic density and reproduction ratio 100% are set. Set number remains the same.

2. Select the desired copy condition

3. After interruption copying is finished:
   - → "Press interrupt to resume job 1" is displayed.
   - → LED "INTERRUPT" is turned OFF by pressing the [INTERRUPT] button, and the equipment returns to the status before the interruption.
   - → "Ready to resume job 1" is displayed.

4. Press the [START] button
   The copying operation before the interruption is resumed.

3.6.3 Detection of Abnormality

When something abnormal has occurred in the equipment, symbols corresponding to the type of abnormality are displayed.

[1] Types of abnormality

1. Abnormality cleared without turning OFF the door switch
   (A) Add paper
   (B) Paper misfeed in bypass

2. Abnormality not cleared without turning OFF the door switch
   (C) Misfeed in equipment
   (D) No toner in the cartridge
   (E) EPU not installed properly
   (F) Waste toner box replacement

3. Abnormality not cleared without turning OFF the main power switch
   (G) Call for service

3

[2] Description of abnormality

[A] Add paper

[In case of the equipment drawer or PFP drawer] (When drawer is not installed)

Drawer not detected

↓

Drawer is not installed:
Drawer is installed but there is no paper in it:

↓

No paper

↓

A signal sent to the control circuit

↓

Drawer area of the control panel blinks
(When the drawer is selected)

↓

[START] button is disabled.

[In case of the PFU, PFP or LCF drawers] (When drawer is installed)
Based on the combination of the tray-up motor (M21) movement and the status of tray-up sensor and empty sensor, CPU detects the presence of paper.

- When the power is turned ON or LCF drawer is inserted (When the power is turned ON or equipment/PFP drawers are inserted).
  LCF performs initialization.

  ↓

  Detects the presence of paper
  Tray-up motor ON - The tray goes up

  ↓

  At this time, the tray-up sensor and LCF empty sensor are OFF.

  → When the tray-up sensor is not turned ON in a fixed period of time it means that the tray is in abnormal condition
  "Add paper" is displayed regardless of presence/absence of paper.

  → Cleared by turning the power ON/OFF

→ Tray-up sensor is turned ON in a fixed period of time
- The tray-up motor stops.

At this time, if the empty sensor is   ON: It is judged that there is paper.

OFF: It is judged that there is no paper.

↓

Drawer area of the control panel
blinks.
(When the drawer is selected)

- When the paper in the drawer gets short during copying,

    → The tray-up sensor turned OFF

    → The tray-up motor turned ON - Tray goes up

    → Tray-up sensor turned ON

    → Tray-up motor stopped

- Empty sensor turned OFF during the copying in spite of the tray-up sensor is ON

↓

It is judged that there is no paper.

↓

Drawer area of the control panel blinks.
(When the drawer is selected)

↓

The copying operation is stopped.

[B] Paper misfeed in bypass

During bypass feeding
   Bypass feed clutch (CLT4) is turned ON

↓

Registration sensor (S19) is turned ON
* Registration sensor (S19) is not turned ON in a fixed period of time (E120)

↓

Bypass misfeeding

   ↓

Bypass misfeed symbol is displayed

   ↓

The copying operation is disabled.

   ↓

Solution: The bypass sensor (S16) is turned OFF by removing the paper from the bypass tray.

[C] Misfeed in equipment

• Exit sensor (S13) detects jamming of the leading edge of paper

    ↓

Registration clutch (CLT1) turned ON

    ↓   Fixed time

Exit sensor (S13) turned ON
If the exit sensor (S13) is not turned ON after
a fixed time,

    ↓

Paper jam (E010) The copying operation is
stopped.
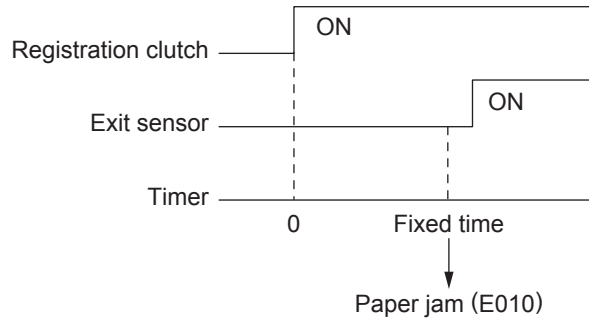
Fig. 3-14

• Exit sensor (S13) detects jamming of the trailing edge of paper

Registration clutch (CLT1) turned OFF

    ↓   Fixed time.

Exit sensor (S13) turned OFF
If the exit sensor (S13) is not turned OFF a
fixed time

    ↓

Paper jam (E020) The copying operation is
stopped.
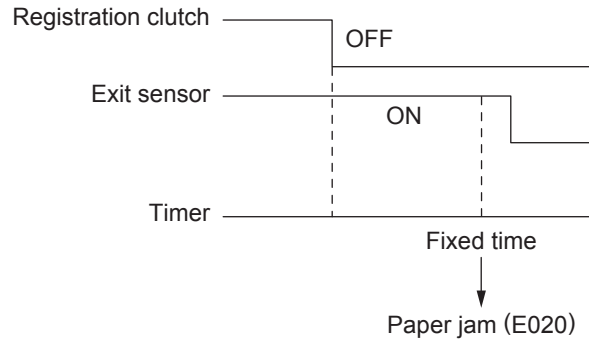
Fig. 3-15

• Immediately after the power ON

    ↓

Any of all sensors on paper transport path detects paper (ON)

    ↓

Paper jam (E030)

• Front cover is opened during copying

    ↓

Paper jam (E410)

- Registration sensor (S19) detects jamming of the leading edge of paper:
  The registration sensor (S19) is not turned ON in a fixed period of time after the leading edge of paper passed the transport roller.

  ↓

  Paper jam (E120, E200, E210, E300, E330 and E3C0)

- During paper feeding from ADU:
  The registration sensor (S19) is not turned ON in a fixed period of time after the ADU clutch (CLT7) is turned ON.

  ↓

  Paper jam (E110)

- During paper transporting from ADU:
  ADU entrance/exit sensors (S14/S15) do not detect the paper at the fixed timing

  ↓

  Paper jam (E510 and E520)

- During paper feeding from the equipment or PFP:
  The registration sensor (S19) is not turned ON in a fixed period of time after the feed clutch is turned ON.

  ↓

  Paper jam (E220, E310, E320, E340 to E360, E3D0 and E3E0: Error code defers depending on the paper source.)

[D] No toner in the cartridge

Toner density becomes low

↓

Auto-toner sensor (S1/S2/S3/S4) detects the absence of the toner

↓

Control circuit → "Install new ** toner cartridge" is displayed: the copying operation disabled

Solution : Open the front cover and replace the toner cartridge with new one.
Toner is supplied ◊ copying operation enabled

[E] EPU not installed properly

Disconnection of the connectors of the EPU

↓

"Latch the developer unit" is displayed.

Solution: Install the EPU and close the front cover.

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                                                                                   OUTLINE OF THE MACHINE

[F]   Waste toner box replacement

- Waste toner box is full of used toner

$$\downarrow$$

Rotation of the paddle has not been detected for a specified period

$$\downarrow$$

"Dispose of used toner" is displayed

- Waste toner box full is detected during printing

$$\downarrow$$

Printing is stopped after the paper being printed is exited
Solution: Replace the waste toner box with new one and close the front cover.

[G]   Call for service
Check the error code displayed on the control panel when "Call for service" appears, and handle the
abnormality in reference to the error code table.
📖 P. 8-4 "8.2 Error Code List"

3.6.4 Hibernation function

A hibernation function is embedded in this equipment. This function allows the equipment to store the last status of the system in the HDD immediately before the power is turned OFF, and to restart from this stored status at the next boot-up. The equipment starts up in the specified time described in the warmup time after the execution of the 2nd hibernation when the power is turned OFF and then back ON correctly. *
For warming-up time, refer to 📖 P. 2-1 "2.1.1 General"

It is recommended to shut down the equipment while pressing the [ACCESS] button and the [POWER] button simultaneously before maintenance. However, warming-up takes longer when the equipment boots up next time since no hibernation is executed. The equipment therefore boots up in the initialization status. "Checking" is displayed on the LCD screen when the equipment boots up normally (without hibernation), and "Checking" is not displayed when hibernation is executed.

If hibernation is not performed when the power is turned OFF or the equipment boots up immediately after the settings, warming-up takes longer. It differs depending on the usage conditions; warming-up will take approx. 30 to 150 sec, though it takes approx. 20 sec. if hibernation is performed (normal situation).

The following are the conditions which necessitate a longer warming-up time.
*   Rebooting from TopAccess
*   First booting after power interruption
*   First booting after a self-diagnosis code is changed in the Service UI
*   First booting after the power is turned OFF with the main power switch during the super sleep mode
*   Installing options or finishers
*   First booting after an option or a finisher is removed
*   During toner supply
*   Operating while "READY (WARMING UP)" is still on the control panel
*   First booting after the [ACCESS] and [POWER] buttons are pressed and held until the power is shut down
*   Shutting down during network initialization
*   First booting after the power is turned OFF in a procedure other than the correct one described in the Quick Start Guide

* How to turn the power OFF correctly
Press the [POWER] button on the control panel to shut down the equipment. Be sure to check that the ON/OFF lamp (green) has stopped blinking and the touch panel screen and the lamp (green) have gone off. Then turn the power OFF with the main power switch.

3.7　Control Panel

3.7.1　General Description

The control panel consists of button switches and touch-panel switches to operate the equipment and select various modes, and LEDs and an LCD to display the state of the equipment or the messages. When the operator's attention is required, graphic symbols light or blink with messages explaining the condition of the equipment in the LCD panel. When paper jams and "Call for service" occur, error codes are also displayed to notify users of the problem.

A color LCD is used in this equipment so that visibility and operability are improved.

The [ON/OFF] button is placed on the control panel of this equipment. Use this button instead of the main power switch to turn ON/OFF the power.

Press the [ON/OFF] button for 1 second or more to turn ON/OFF the power of the equipment.

Also, the [ON/OFF] button can be used in the following manner for example: press the [ON/OFF] button while holding down the [0] and [5] buttons simultaneously to activate the Adjustment Mode (05). However, if the equipment is in the super sleep mode, use the main power switch.

20ppm/25ppm
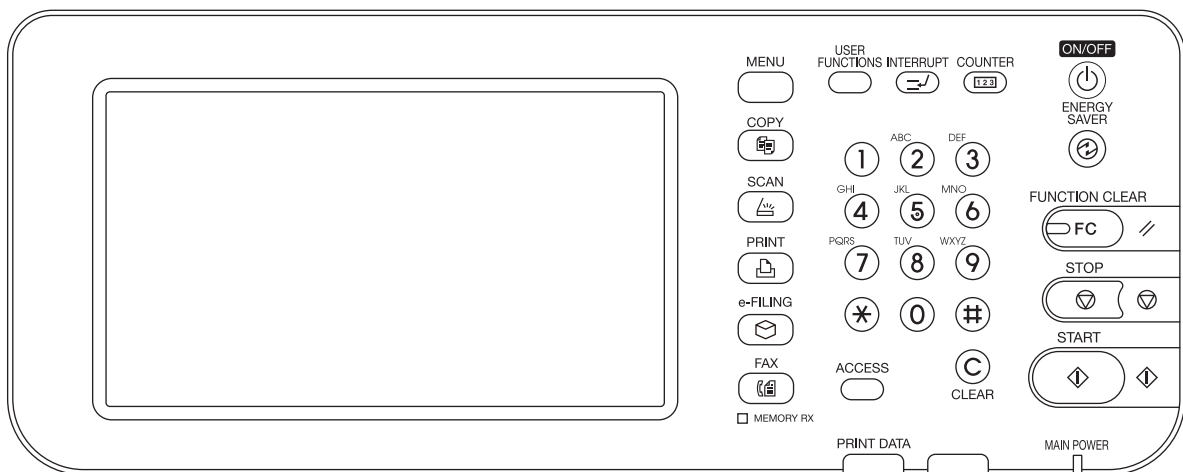
Fig. 3-16

LL20ppm/LL25ppm
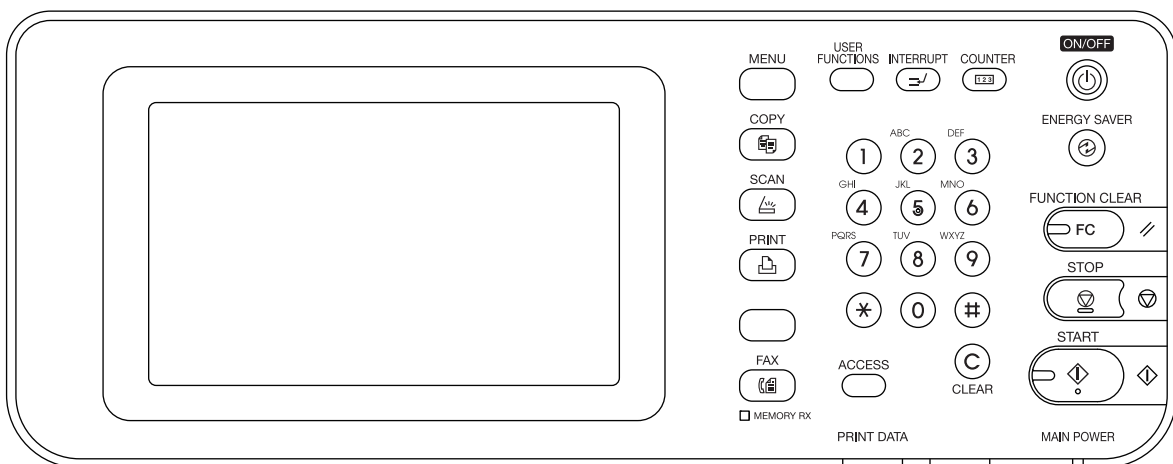
Fig. 3-17

3.7.2 Description of Operation

[1]   Dot matrix LCD circuit

[1-1]   Structure

800 x R,G,B x 480 dots
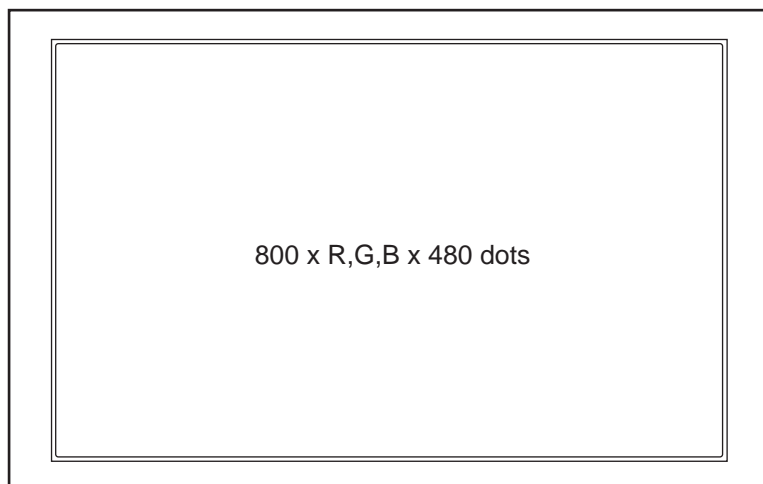
Fig. 3-18

3.8   Scanner

3.8.1   General Description

In the scanning section of this equipment, the surface of an original is irradiated with a direct light and the reflected light is led through mirrors, a lens and a slit to CCD where optical-to-electrical conversion is performed, converting the optical image data into an electrical (analog) signal. This analog signal is changed to a digital signal, which then undertakes various corrective processes necessary for image formation. After that, arithmetic operation is performed on the digital signal, which is then transmitted to the data writing section.

In this equipment, a reduction-type CCD for color processing is used. What this CCD differs from black-and-white CCDs is that its devices are arranged in 3 lines and covered with color filters (Red, Green, and Blue). These lines are composed with 3-line color devices and black-and-white device with no filter.
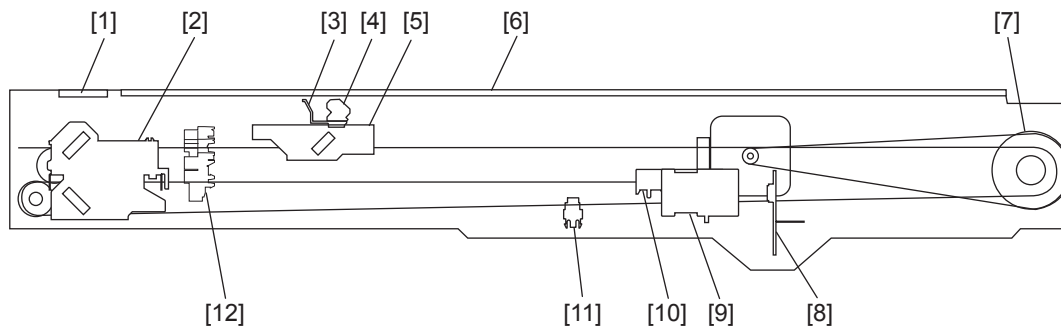
Fig. 3-19

[1] ADF original glass
[2] Carriage-2
[3] Reflector
[4] Exposure lamp
[5] Carriage-1
[6] Original glass
[7] Drive pulley
[8] CCD board
[9] Lens
[10] Automatic original detection sensor
[11] Carriage home position sensor
[12] Platen sensor

3.8.2 Construction

Scanner		
Original glass	Original glass	
	ADF original glass	
Carriage-1	Exposure lamp (EXP)	
	Reflector	
	Mirror-1	
Carriage-2	Mirror-2	
	Mirror-3	
Lens unit	Lens	
	CCD driving PC board (CCD)	
Automatic original detection sensor (S24, S25)		20ppm/25ppm only
Driving section	Scan motor (M1)	• 2-phase stepping motor • Driving the carriage-1 and carriage-2
Other	Carriage home position sensor (S23)	
	Platen sensor (S21)	
	Platen sensor (S22)	

3

3.8.3   Functions

The following shows the construction and purpose of the scanning system:

1. Original glass

    This is a glass for placing original. The light from the exposure lamp (EXP) is irradiated to the original through this glass.

    The ADF original glass is used when original is read with the Automatic Document Feeder. Original is transported on the ADF original glass by the Automatic Document Feeder, and the transported original is read under the ADF original glass by the carriage. Do not use such solvents as alcohol when cleaning the surface of the ADF original glass, because it is coated so as not to be scratched by originals.

2. Carriage-1

    Carriage-1 consists of the exposure lamp (EXP), reflector, mirror-1, etc. It is driven by the scan motor (M1) and scans an original on the glass.
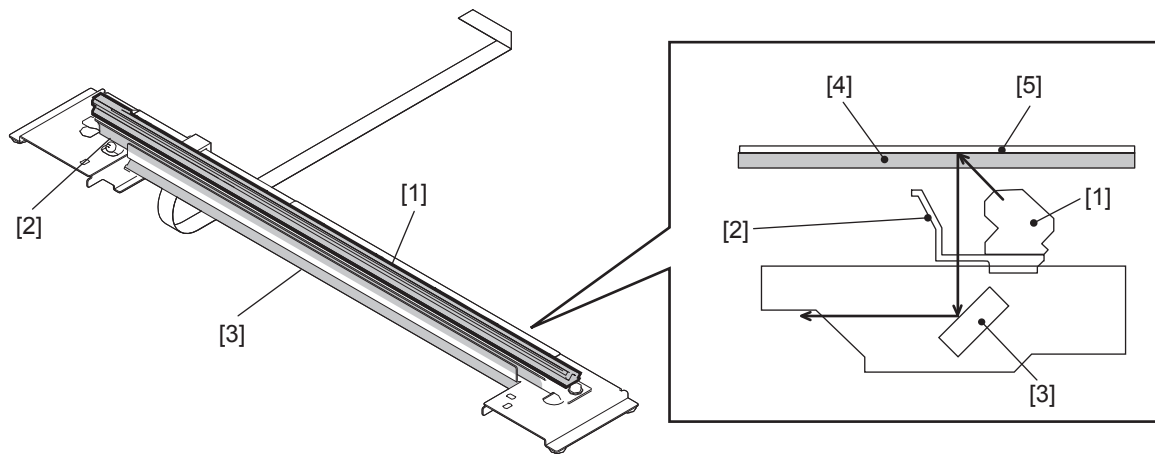
Fig. 3-20

[1] Exposure lamp
[2] Reflector
[3] Mirror-1
[4] Original glass
[5] Original

- Exposure lamp (EXP)
    This lamp is the light source to irradiate the original on the glass. (LED lamp)

- Reflector
    This is a plate to efficiently direct the light from the exposure lamp (EXP) to the surface of the original on the glass.

- Mirror-1
    This mirror directs the light reflected from the original to the mirror-2 described later.

3. Carriage-2
Carriage-2 mainly consists of the mirror-2, mirror-3, etc. and directs the reflected light from the mirror-1 through the mirrors-2 and -3 to the lens.
This carriage is driven by the same scan motor (M1) as that for the carriage-1 at half the scanning speed of the carriage-1 (The scanning distance is also half that of the carriage-1).
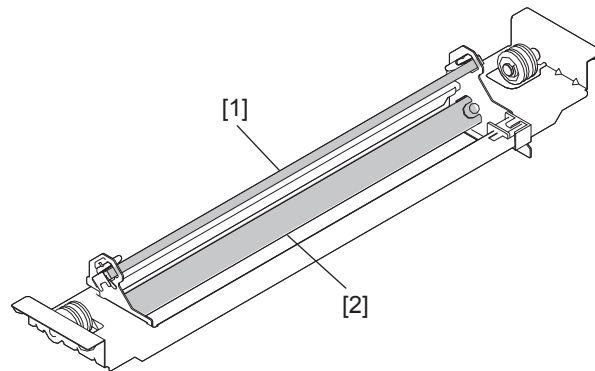
Fig. 3-21

[1] Mirror-2
[2] Mirror-3

4. Lens unit
The light reflected from the mirror-3 is led to the CCD placed at the focal point of the lens which is fixed in a position.

5. CCD driving PC board (CCD)
Processes such as signal amplification, signal integration and A/D conversion are applied on the electrical signal which was converted by CCD.
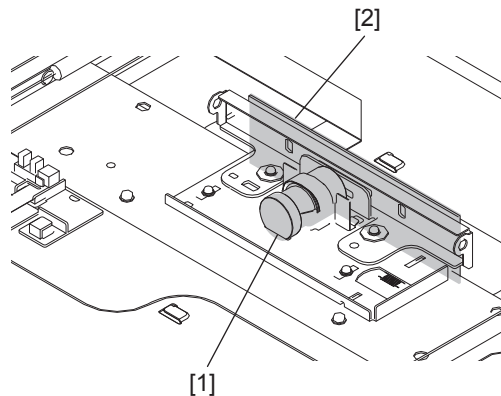
Fig. 3-22

[1] Lens
[2] CCD board

6. Automatic original detection sensor (S1, S2)
The size of an original placed on the glass is instantly detected using the automatic original detection sensors (S1, S2) fixed on the base frame without moving the carriage-1.

3.8.4　Description of Operation

[1]　Scanning operation
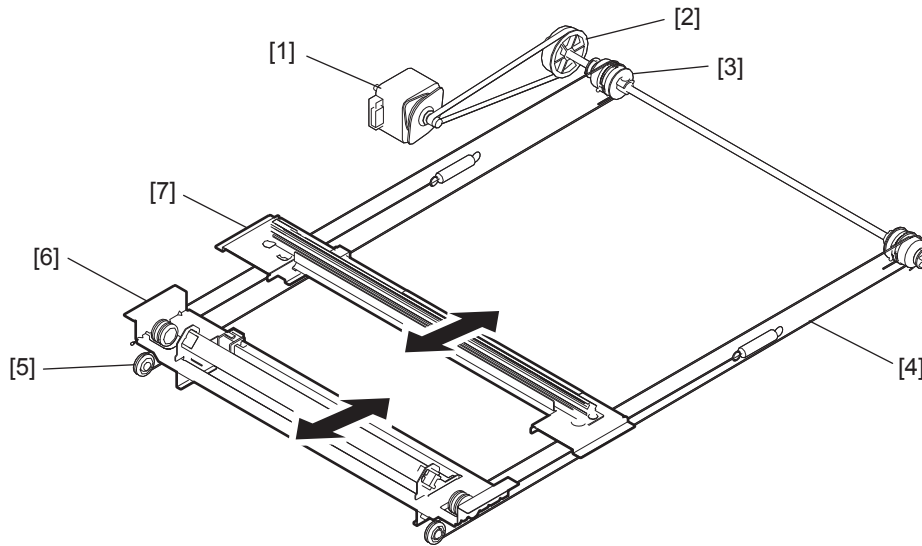
Fig. 3-23

[1] Scan motor
[2] Motor speed-reduction pulley
[3] Wire pulley
[4] Wire
[5] Idler pulley
[6] Carriage-2
[7] Carriage-1

- Scanning of an original placed on the original glass
  This motor drives the carriages-1 and -2 through the timing belt and carriage wire. First, the scan motor drives the carriages-1 and -2 to their respective home positions. The home positions are detected when the carriage-1 passes the home position sensor (S23). When the [START] button is pressed, the both carriages start to move and scan the original on the glass.

- Scanning of an original placed on the RADF
  The carriage-1 stays at the shading position during shading correction, and at the scanning position during scanning operation.

- Carriage speed
  The Carriage speed of the original placed on the original glass in the color mode is the same as that in the black mode.

3.8.5 Process of detection of original size

In this equipment, detection of original sizes is performed with the combination of a CCD and the automatic original detection sensors-1 and -2 (S24 and S25).
A size in the primary scanning direction is detected by the CCD while that in the secondary scanning direction is detected by the sensors.

[1] Original size detection procedure
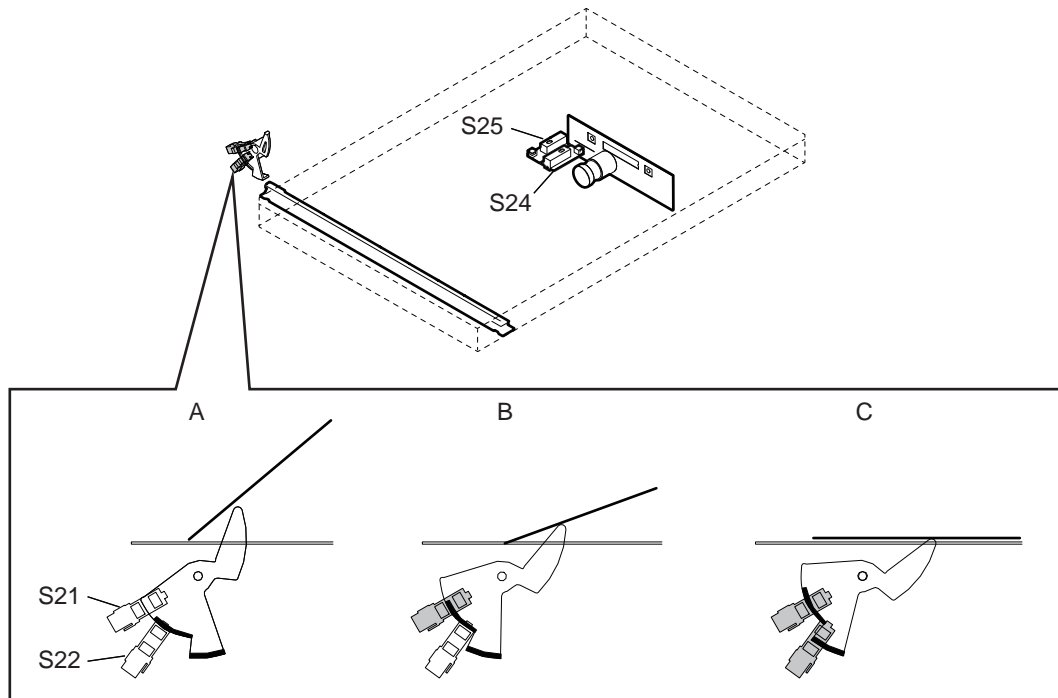
Fig. 3-24

A: Platen cover (or RADF) fully opened
B: Platen cover (or RADF) opened by 20 degrees - Detected by the platen sensor-1 (S21)
C: Platen cover (or RADF) closed - Detected by the platen sensors-1 & -2 (S21 & S22)

The position of the platen cover (or the RADF) is detected by the platen sensors-1 and -2 (S21 and S22).
When the platen cover is fully opened, an original size is not detected. (Figure A)
When the platen cover is gradually closed and its tilt angle reaches approx. 20 degrees, the platen sensor-1 (S21) detects that the platen cover is closed. (Figure B)
When this status is detected, the exposure lamp of the scanner emits light.
Then the emitted light is reflected by the original and read to the CCD as original size data.
The light reflected from an area with no original placed is very little, a size in the primary scanning direction can be detected with the intensity of the reflected light. (Fig. 3-25/3-26: Size1 to Size 8)

When the platen cover is fully closed, the platen sensor-2 (S22) also detects that the platen cover is closed. (Figure C)
When this status is detected, the automatic original detection sensors-1 and -2 (S24 and S25) detect a size in the secondary scanning direction (and the presence of an original with the positions of the sensors).
According to the sizes in the primary and secondary scanning directions detected in the procedures above, the original size is specified.
As for the LT series, two automatic original detection sensors detect a size in the secondary scanning direction due to their original size.

[2] Detection points
Sensor detection points [A4, K Series]
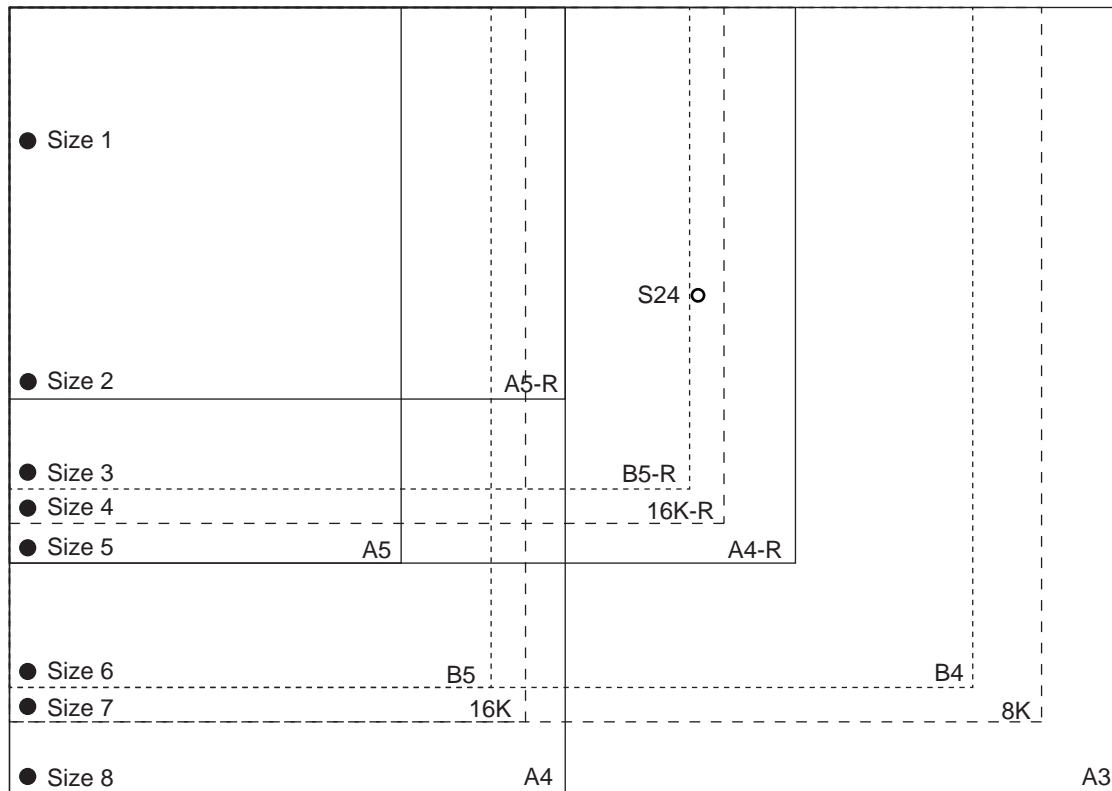
Fig. 3-25

Sensor detection points [LT Series]
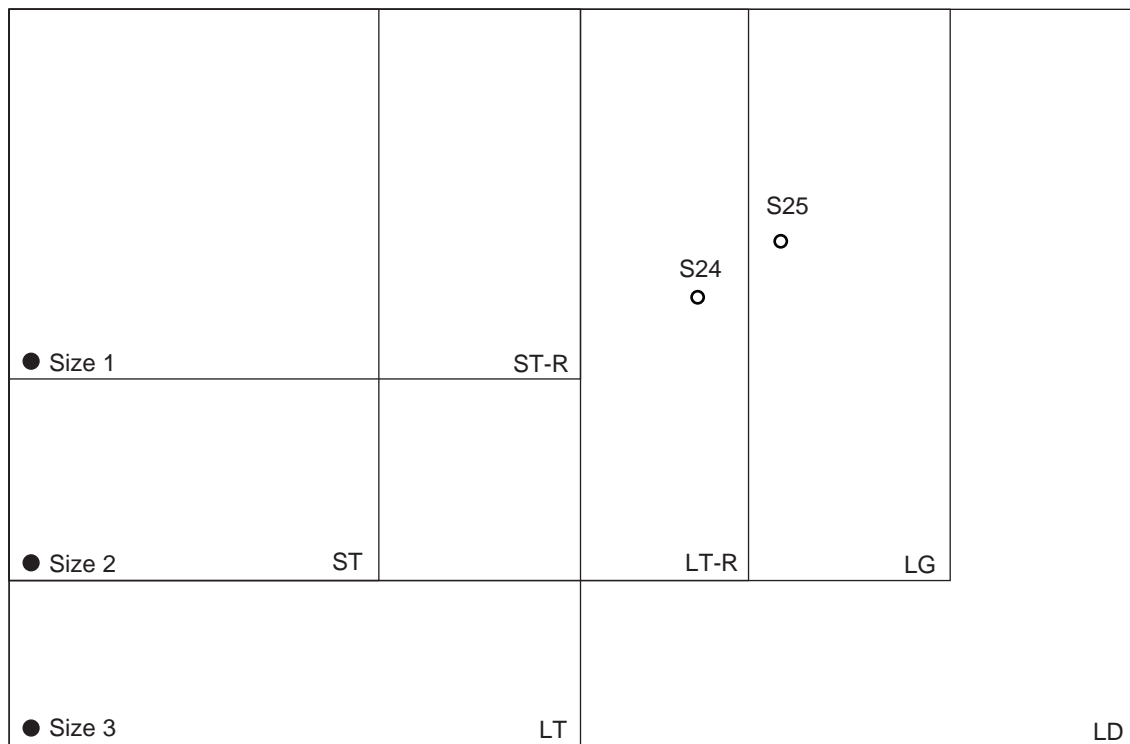
Fig. 3-26

3.9 Writing Section

3.9.1 General Description

The writing section of this equipment uses LED printer heads.
An LED printer head is mounted on each of Y, M, C and K drums. The emission of the LED printer head generates (exposes) latent images on the corresponding drum.
The LED gap spacer keeps a specified distance between the LED printer head and the drum.
The writing section radiates the LED light onto the photoconductive drum responding to the digital image signals transmitted from the scanner, USB, network, etc. to create the latent image.
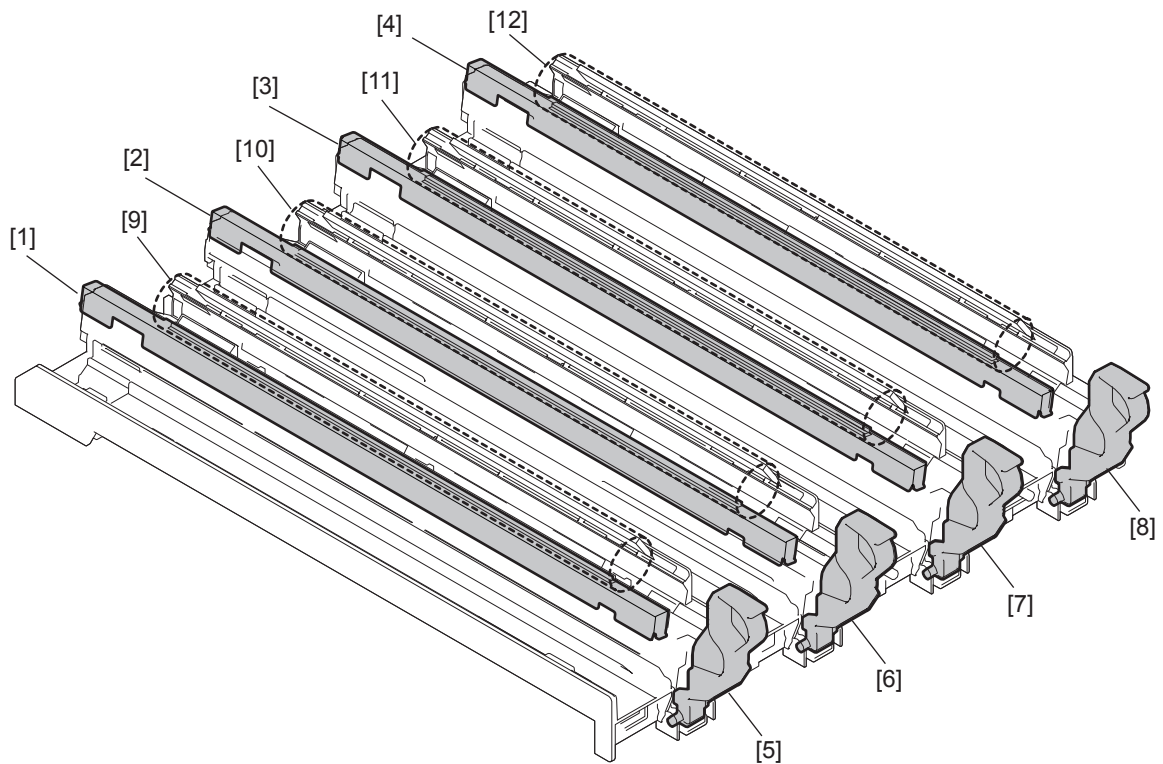
Fig. 3-27

[1] LED printer head-Y
[2] LED printer head-M
[3] LED printer head-C
[4] LED printer head-K
[5] LED printer head contact/release lever (Y)
[6] LED printer head contact/release lever (M)
[7] LED printer head contact/release lever (C)
[8] LED printer head contact/release lever (K)
[9] Y drum
[10] M drum
[11] C drum
[12] K drum

3.9.2　General description of LED printer head

An LED printer head, which uses an LED (light-emitting diode) as a light source, is equipped for each color, Y, M, C and K.
The LED light from the LED printer head is emitted to the drum through a lens.
A gap between the LED printer head and the drum in each color is kept constant with an LED gap spacer.
If this gap is not at the specified value, a focus error may occur, resulting blurring on images.
Therefore an LED gap spacer is a PM part due to possible difference in the gap caused by friction.
Also a dirty lens may cause image troubles such as blurring.
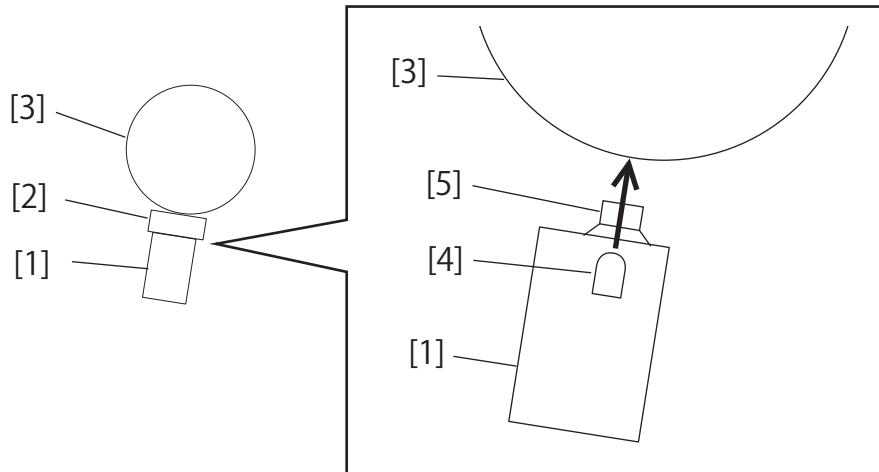
Fig. 3-28

[1] LED printer head
[2] LED gap spacer (front/rear)
[3] Drum
[4] LED
[5] Lens
*An LED and a lens cannot be disassembled as they are the components of an LED printer head.

Two harnesses are connected to each LED printer head from the LGC board.
One is for power supply and the other is for control signals.
If any of them is disconnected (or has a loose connection), an image trouble may occur.
When a control signal is sent from the LGC board, the LED of the LED printer head is lit and emits light to the drum for exposure.
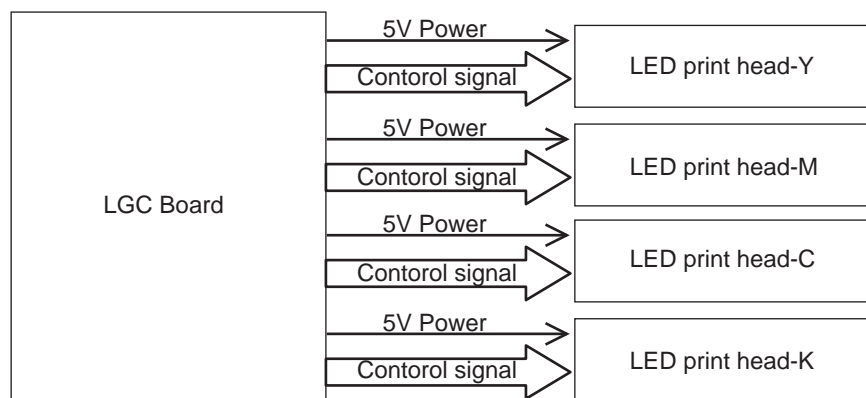
Fig. 3-29

3.9.3 LED printer head lifting mechanism

The LED printer head is contacted or released by the LED printer head contact/release lever.
When this lever is held down to the front side of this equipment, the link arm is slid to the front side together with the lever.
Since the LED printer head is positioned by the guide of the link arm, it is lowered (released) as the guide is lowered.
A gap between the LED printer head and the drum in a contacting status is kept at a specified value by the LED gap spacer.
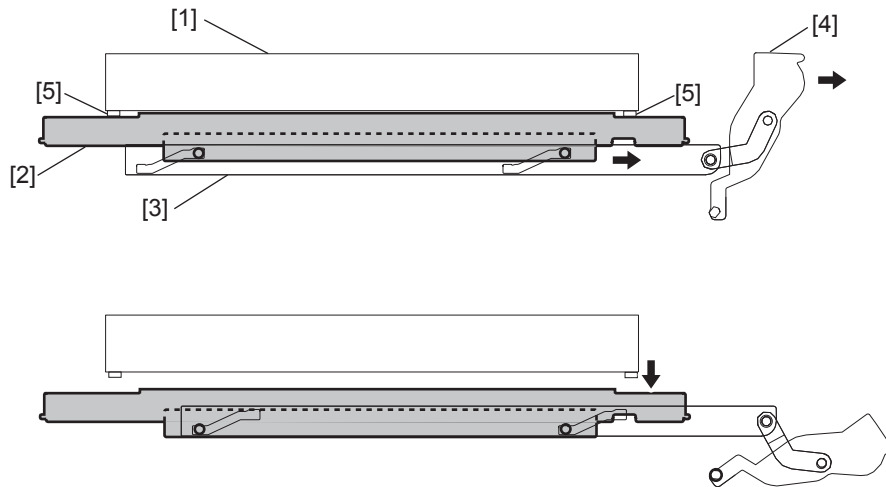
Fig. 3-30

[1] Drum
[2] LED printer head
[3] Link arm
[4] LED printer head contact/release lever
[5] LED gap spacer

3.9.4 Driving Section

The driving section of this equipment consists of 3 units.
- Drum TBU drive unit
- Monochrome/color switching unit
- Feeding/developing drive unit
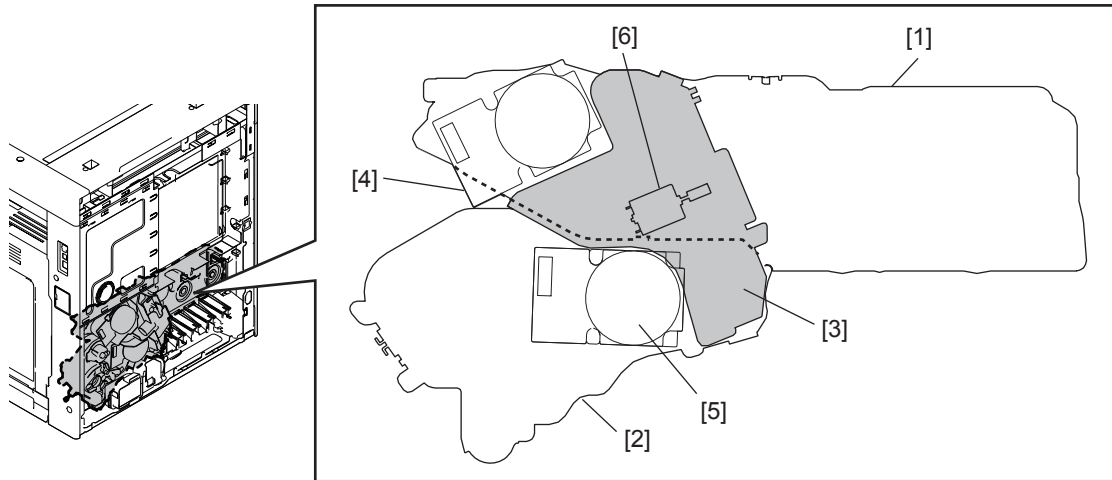
Fig. 3-31

[1] Drum TBU drive unit
[2] Paper feed development drive unit
[3] Monochrome/color switching unit
[4] Drum/TBU motor
[5] Paper feeding/developer unit drive motor
[6] Mono/color switching motor

[1] Drum TBU drive unit

The drum TBU drive unit is driven by the drum TBU motor to drive Y, M, C and K drums and the transfer belt unit (TBU).
It also drives the contacting and releasing of the transfer belt.
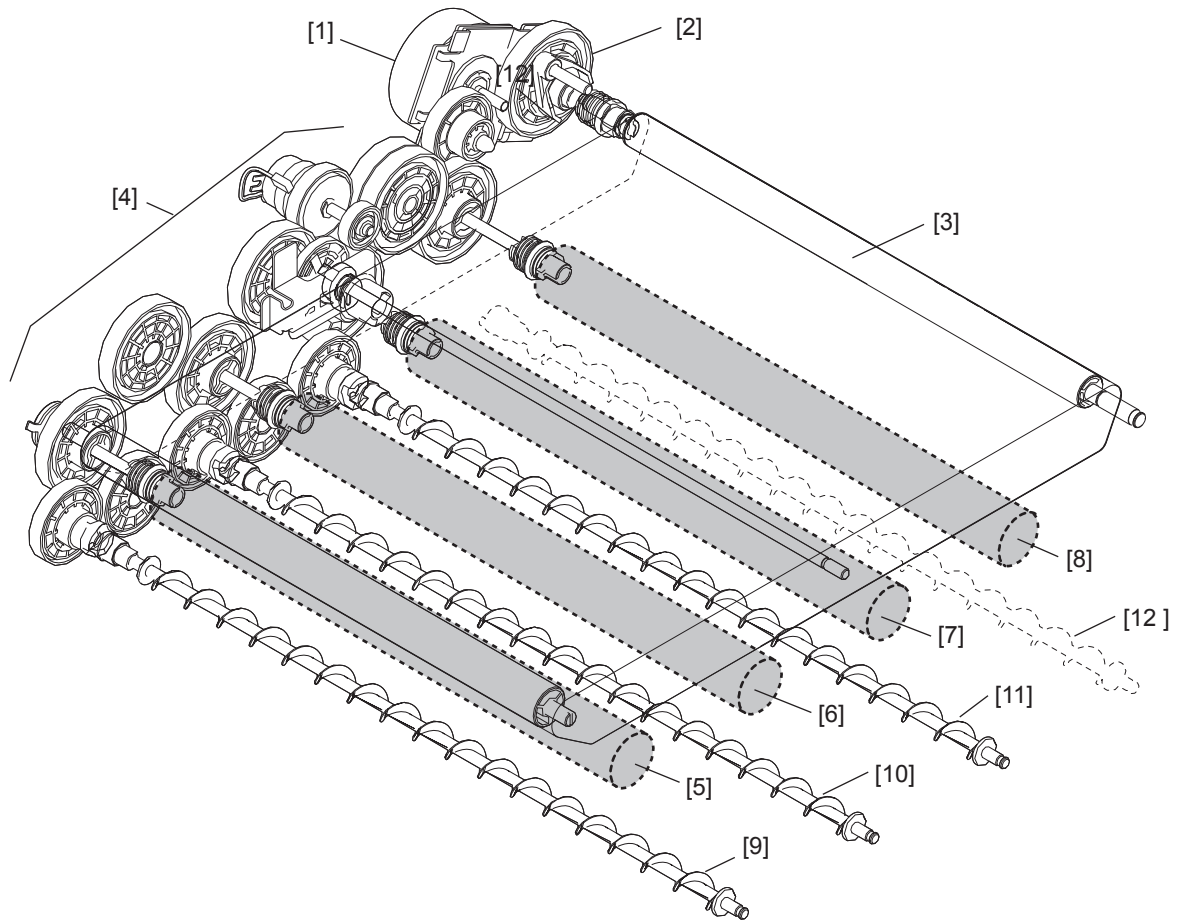
Fig. 3-32

[1] Drum TBU motor
[2] Drum TBU motor gear
[3] TBU drive roller
[4] Gear (row of gears)
[5] Y drum
[6] M drum
[7] C drum
[8] K drum
[9] Y developer unit
[10] M developer unit
[11] C developer unit
[12] K developer unit

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[2] Feeding/developing drive unit

The feeding/developing drive unit is driven by the paper feeding/developer unit drive motor to drive the developer unit and the paper feeding section.
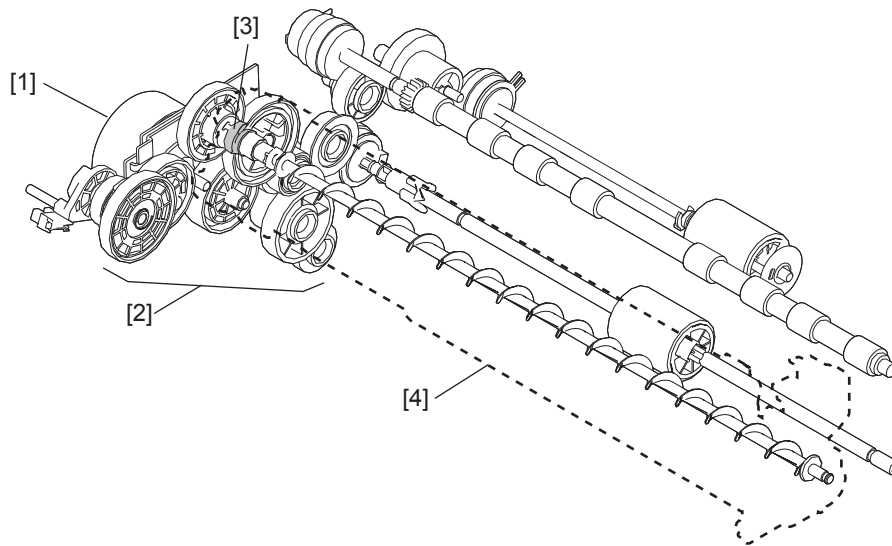
Fig. 3-33

[1] Paper feeding/developer unit drive motor
[2] Gear (row of gears)
[3] Coupling
[4] K developer unit

[3] Monochrome/color switching mechanism

The feeding/developing drive unit is driven by the paper feeding/developer unit drive motor to drive the developer unit and the paper feeding section.

Switching of the monochrome and color modes is performed by the monochrome/color switching unit. In the monochrome mode, the switching plate is positioned at "A" in the figure below and the monochrome/color switching sensor (S11) is OFF.
At this time, the drive gears of the drum and the developer unit are not engaged. (Monochrome mode operation)

When the mono/color switching motor (M3) starts rotating, the switching plate is moved and the monochrome/color switching sensor (S11) is turned ON.
The coupling cam is rotated with a movement of the switching plate and then the idling gear and the color drive gear are engaged.
Thus the rotation of the motor is transmitted to each gear in the color drive gear rows.
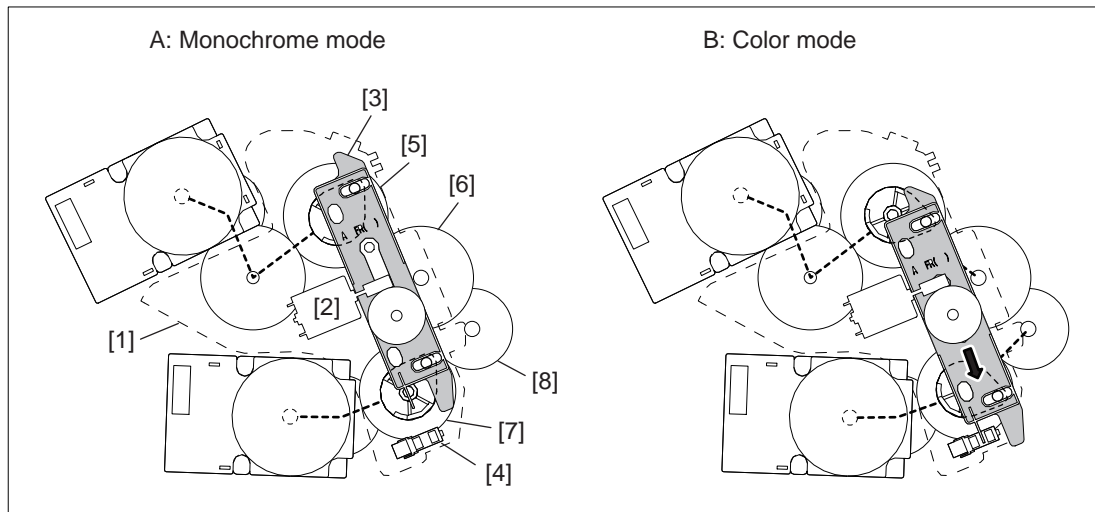
Fig. 3-34

[1] Monochrome/color switching unit
[2] Mono/color switching motor (M3)
[3] Switching plate
[4] Monochrome/color switching sensor (S11)
[5] Color coupling gear (driving the drum)
[6] Color drive gear (driving the drum)
[7] Color coupling gear (driving the developer unit)
[8] Color drive gear (driving the developer unit)

3.10 Paper Feeding System

3.10.1 General Descriptions

This chapter explains how the system works to pick up paper from the drawer or bypass tray and transport it to the 2nd transfer position.

The paper feeding system mainly consists of the feed roller, registration roller, bypass paper sensor (S16), drawer empty sensor (S5), bypass feed sensor (S16), registration sensor (S19) and drive system for these components. The feed/DEV motor (M2) drives the above rollers.
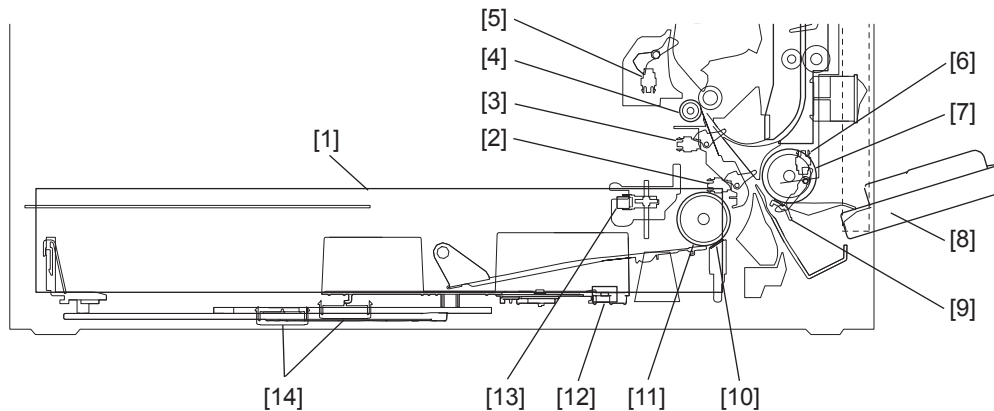
Fig. 3-35

[1] Drawer
[2] Feed sensor
[3] Registration sensor
[4] Registration roller
[5] Registration pass sensor
[6] Bypass feed roller
[7] Bypass feed sensor
[8] Bypass tray
[9] Separation pad
[10] Bypass separation pad
[11] Paper feed roller
[12] 1st drawer detection switch
[13] 1st drawer empty sensor
[14] 1st drawer size detection switch

3.10.2 Composition

Feeding system		
Feed clutch		CLT2
1st drawer empty sensor		S5
1st drawer detection switch		SW8
Bypass unit	Bypass feed roller	PM parts
	Bypass separation pad	PM parts
	Bypass paper sensor	S16
	Bypass tray slide guide width detection PC board	SFB
	Bypass feed clutch	CLT4
Feed/DEV motor		M2
Registration clutch		CLT1
Registration roller		
Registration sensor		S19

3

3.10.3 Functions

1. Feed roller (Drawers and bypass feed)
   This roller is placed against the separation roller. It transports the paper from the pickup roller to the transport roller.

2. Separation pad (Drawer and bypass feed)
   When two or more sheets of paper are transported from the feed roller, since the resistance force of the separation pad is larger than the frictional force between the sheets, the lower sheets are not transported any further.

3. Registration roller
   Paper transported from the transport roller is pushed against the registration roller which aligns the leading edge of the paper.
   Then, the registration rollers rotate to transport the paper to the transfer unit.

4. Bypass paper sensor (S16)
   This sensor detects if paper is set in the bypass tray. If it is, bypass feeding always comes before drawer feeding.

5. Empty sensor (S5)
   This is a transmissive-type sensor and detects the availability of paper in the drawer by using an actuator. When there is no paper in the drawer, the actuator blocks the light path of the sensor, and the sensor determines that there is no paper.

6. Registration sensor (S19)
   This sensor detects that the leading edge of the paper has reached the registration roller and the trailing edge of the paper has passed the registration roller.

7. Drawer detection switch (SW8)
   This switch detects if the drawer is fully inserted.

8. Drawer feed clutch (CLT2)
   This is a clutch used to transmit the drive from the feed/dev motor to the feed roller.
   When the clutch is turned ON, the feed roller rotates at high speed to transport paper.

9. Feed/dev motor (M2)
   This motor drives the registration roller and transport rollers of the drawers and bypass tray.

10. Registration clutch (CLT1)
    This is an electromagnetic clutch which drives the registration roller.
    When the registration clutch (CLT1) is turned ON, the drive is transmitted from the paper feeding/developer unit drive motor to rotate the registration roller.

11. Paper width detection board (SFB)
    This sensor works directly with the sidewalls of the bypass tray to detect the paper width on the tray.

3.10.4 Description of Operation

[1] Drive of rollers

The drive of each motor in the paper feeding area activates the paper transfer roller as follows.

Paper feeding/developer unit drive motor (M2) →
- 1st drawer feed clutch (CLT2) → Paper feed roller
- Bypass feed clutch (CLT4) → Bypass feed roller
- Registration roller clutch (CLT1) → Registration roller

3
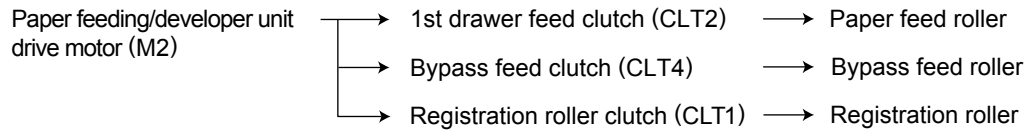
[2]   Operation of drawer pickup roller

When the drawer is inserted into the equipment, the lock located in the center of the drawer is released, and the tray in the drawer is lifted up by the spring.

This makes the paper set in the tray contact the pickup roller when it is rotated.

The driving force of the Feed/DEV motor is transmitted through the pickup clutch to the pickup roller.

This feeding system has no mechanism specific for detecting the transported paper.

Therefore, whether the paper has been transported to the registration sensor within a specified period of time or not is substituted for the paper jam detection.
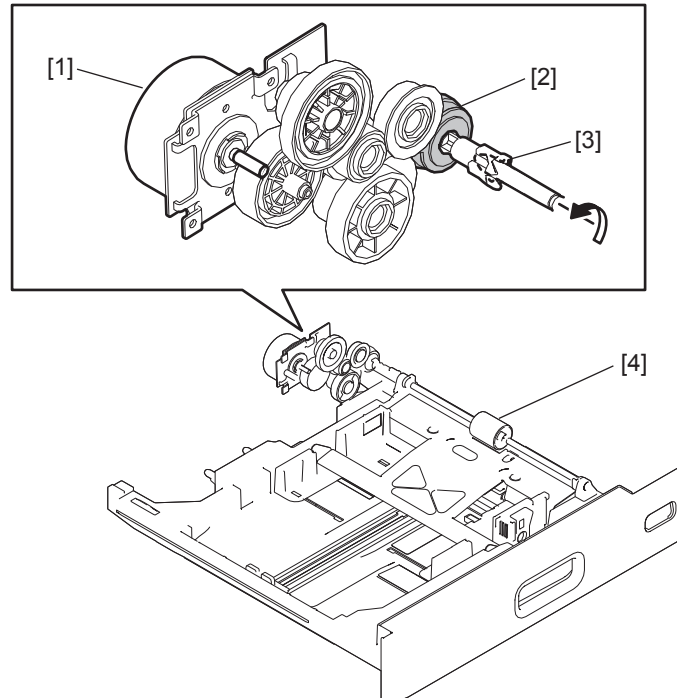
Fig. 3-36

[1] Paper feeding/developer unit drive motor (M2)
[2] Feed clutch (CLT2)
[3] Coupling
[4] Feed roller

[3] Separation of paper

This model is equipped with a separation pad which works to prevent multiple paper feeding. The separation pad is pushed to the main paper feed roller by the spring force.

When two or more sheets of paper are fed, since the friction between two sheets of paper is smaller than that between a sheet and the separation pad, the lower sheets are not transported any further while the uppermost one is transported by the main paper feed roller.
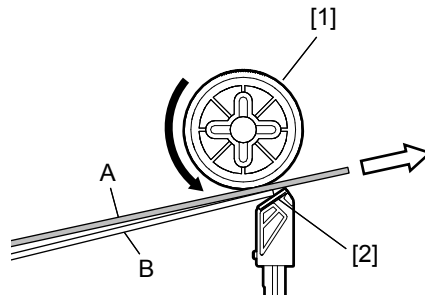
Fig. 3-37

[1] Feed roller
[2] Separation pad
[3] Spring

[4] Operation of bypass pickup roller

The driving force transmitted through the bypass feed clutch (CLT4) is transmitted to the bypass feed roller through the shaft. The roller is rotated by this driving force.
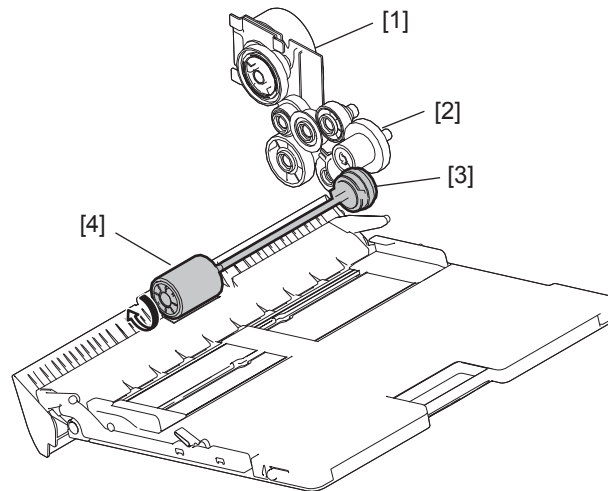
Fig. 3-38

[1] Paper feeding/developer unit drive motor
[2] Gear
[3] Bypass feed clutch
[4] Bypass feed roller

[5]　Separation of paper

This model is equipped with a separation pad which works to prevent multiple paper feeding. The separation pad is pushed to the main paper feed roller by the spring force.

When two or more sheets of paper are fed, since the friction between two sheets of paper is smaller than that between a sheet and the separation pad, the lower sheets are not transported any further while the uppermost one is transported by the main paper feed roller.
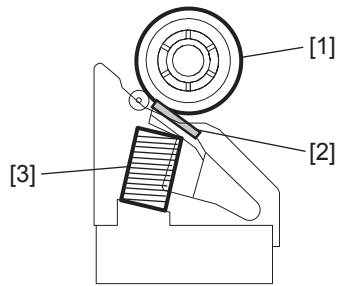
Fig. 3-39

[1] Bypass feed roller
[2] Bypass separation pad
[3] Spring

[6] General operation

[A] From power-ON to ready status

1. If either of the sensors on the transport path is ON (means there is paper on the transport path) when the equipment is turned ON, it is determined that a paper jam has occurred and no operation is enabled until the paper is removed.

[B] Ready status

1. When a drawer is inserted or removed at ready status, to check the availability of paper.

[C] Bypass feeding

- The bypass paper sensor (S16) detects availability of paper.
- The bypass feed clutch (CLT4) is turned ON and then the bypass pickup roller, bypass feed roller and bypass transport roller are rotated and start feeding.
- The leading edge of paper turns ON the registration sensor (S19) and the paper is aligned by the registration roller.
- The bypass feed clutch (CLT4) is turned OFF, and then the bypass pickup roller, bypass feed roller and bypass transport roller are stopped.
- The registration clutch (CLT1) is turned ON and the paper is transported to the 2nd transfer position.

[D] Drawer feeding

[D-1] 1st drawer

- The feed clutch (CLT3) is turned ON, and the feed roller is rotated to start feeding paper.
- Passing of the leading edge of the paper turns ON the registration sensor (S19) and the paper is aligned by the registration roller.
- The registration clutch (CLT1) is turned ON and the paper is transported to the 2nd transfer position.

3.11 Process Unit Related Section

3.11.1 General description

There are 4 cleaner units and 4 developer units, corresponding to the image forming process of the Y, M, C and K colors. The main charger unit is installed with the cleaner units, while the discharge LEDs are installed on the equipment side (EPU tray).

This chapter explains about the process unit and parts around this unit which are provided for image formation. Except the developer unit, which is one of units composing the process unit, is described in chapter 3.12 in detail.
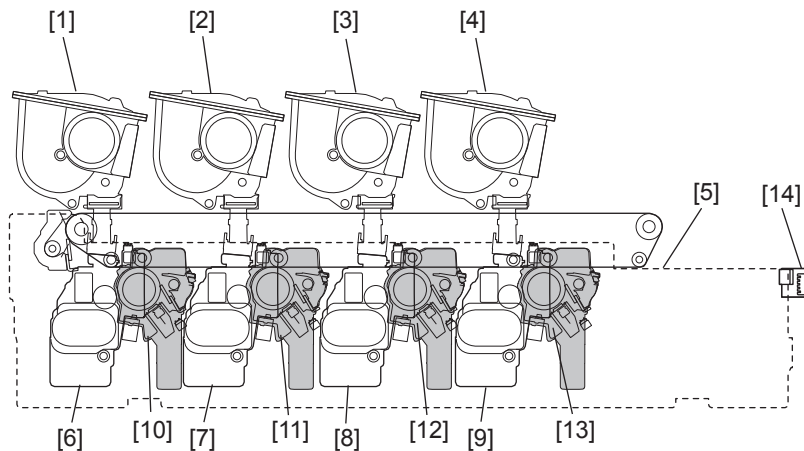
Fig. 3-40

[1] Toner (Y)
[2] Toner (M)
[3] Toner (C)
[4] Toner (K)
[5] Waste toner box
[6] Developer unit (Y)
[7] Developer unit (M)
[8] Developer unit (C)
[9] Developer unit (K)
[10] Process unit (Y)
[11] Process unit (M)
[12]Process unit (C)
[13] Process unit (K)
[14] Temperature/Humidity sensor
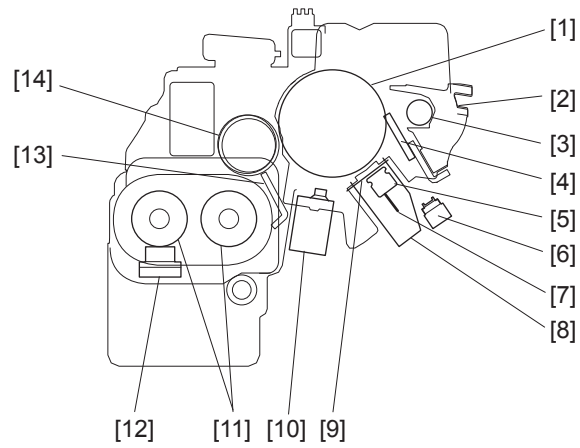
Fig. 3-41

[1] Drum
[2] Drum cleaner unit
[3] Toner recovery auger
[4] Cleaning blade
[5] Needle electrode cleaner
[6] Discharge LED
[7] Needle electrode
[8] Main charger unit
[9] Main charger grid
[10] LED printer head
[11] Mixer
[12] Auto-toner sensor
[13] Doctor blade
[14] Developer sleeve (Magnetic roller)

3.11.2 Composition

Process unit (Y, M, C, K)	Drum cleaner unit	Drum	PM parts
		Cleaning blade	PM parts
		Recovery blade	
		Toner recovery auger	
	Main charger unit	Main charger grid	PM parts
		Needle electrode	PM parts
		Needle electrode cleaner	PM parts
	Developer unit		Ch. 3.12
		Drum thermistor	THM4
Discharge LED			ERS-Y, -M, -C, -K
Temperature/Humidity sensor			S10
Ozone filter			
Ozone exhaust fan			F2
High-voltage transformer			
Drum/TBU motor			M6
Mono/color switching motor			M3

3

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3.11.3   Functions

1. Drum
   Drum is made of a cylindrical aluminum base coated with thin film of organic photoconductive substance. Photoconductive object becomes insulative (high electrical resistance) when it is not exposed to lights and becomes conductive (low electrical resistance) when it is exposed to lights. This object is called photoconductor.

2. Drum cleaner unit
   - Cleaning blade
     This blade is pressed against the drum surface with a constant force and scrapes off the residual toner on the drum surface.
   - Recovery blade
     This blade prevents the toner which was scraped off by the cleaning blade from being scattered to the outside.
   - Toner recovery auger
     This auger carries the residual toner scraped off to the waste toner box.

3. Main charger
   The main charger in this equipment consists of a metal rod with U-shaped section, insulated terminals at both ends of the rod and a needle electrode attached between them. When a high voltage is applied to the needle electrode, the air around it is charged (ionized). The ionized air then flows into the drum causing it to be charged. This phenomenon is called "corona discharge". At the same time, a control bias is applied to the main charger grid to control the charging amount. In a dark place, negative charge is evenly applied onto the drum surface by the corona discharge and this grid. In addition, a cleaner is installed to clean up the dust attached on the needle electrode.
   - Needle electrode
     The needle electrode has aligned needles and their points perform the corona discharge. These points (electrodes) discharge toward the drum in one direction to realize the more efficient discharging comparing to the charger wire which discharges in a radial direction. Therefore, the needle electrode enables to reduce the ozone amount.

4. Drum thermistor (THM4)
   Since the photoconductive characteristic of the drum surface changes depending on the temperature of the drum surface, the drum thermistor detects the temperature of the drum surface and controls to gain the charging potential according to the environment.

5. Discharge LED (ERS-Y, ERS-M, ERS-C, ERS-K)
   Discharge is a process to decrease or eliminate the charge on the drum surface.
   The residual charge on the drum surface is neutralized and eliminated (cleaned). Electrical potential of the drum surface is fixed to a certain amount before the drum is charged.

6. Temperature/humidity sensor (S10)
   This sensor measures the environment inside the equipment. The values of the temperature and humidity detected inside the equipment are output to the LGC board.

7. Ozone filter
   Ozone produced by corona discharge of the main charger is exhausted through this filter.
   The catalyzer of the ozone filter degrades the ozone.

8. Ozone exhaust fan (F2)
   This fan exhausts air through the ozone filter-1.

9. High-voltage transformer (HVT)
   A circuit generates the output control voltage Vc of the main charger bias, main charger grid bias, 1st transfer roller bias, 2nd transfer roller bias and developer bias.

10. Drum/TBU motor (M6)
    This motor drives each drum and toner recovery auger. The drive of the motor is transmitted to each drum by gears in the following 2 lines: Drum/TBU motor → K drum → C drum → Y drum
    The gears and drum couplings are assembled with high precision in order to improve accuracy of color overlay.

11. Mono/color switching motor (M3)
    This motor switches ON/OFF the transmission of drive to the Y, M, C drums. When the motor rotates normally or reversely, the gear of the motor moves the rack to shift the guides. And this movement of the guides controls the transmission of the drive by engaging and disengaging gears which transmit the drive to the Y, M, C drums. Additionally, the drum switching sensor detects the phase of the guide to control the mono/color switching motor, and checks whether the drive is transmitted to the Y, M, C drums or not.

3

3.11.4 Drum driving sleep mode

When the conditions of the accumulated number of outputs are met, the equipment is shifted to the drum driving sleep mode, in which the photoconductive drum is rotated without exposure several times. This mode prevents the photoconductive drum from being contaminated with ozone exhausted inside of the equipment.

[1] Function

In the standby mode, the photoconductive drum is rotated without exposure according to the specified number of times. The more rotations without exposure increase, the more drive count increases. Consequently, this may reduce the life of the drum.
To prevent a reduction in the life, the drum is rotated without exposure normally once. It is rotated without exposure several times only under certain conditions.

[2] Drum driving sleep mode related codes

08-2380	Control for drum rotation without exposure at standby	Sets ON or OFF for the control of the photoconductive drum rotation without exposure in the standby mode after printing is finished.
08-2381	Starting time of drum rotation without exposure at standby	Sets the time to start the 1st rotation of the photoconductive drum without exposure in the standby mode after printing is finished.
08-2382	Control of drum rotation without exposure at standby: Rotation interval	Sets the rotation interval of the photoconductive drum without exposure between the 1st and 2nd rotations and subsequent intervals.
08-2383	Control of drum rotation without exposure at standby: Maximum number of rotations	Sets the maximum number of rotations allowed without exposure.
08-2385	Accumulated number of outputs to shift to drum driving sleep mode	Sets the number of outputs to shift to the drum driving sleep mode.

[3] The drum driving sleep mode setting

[3-1] Case in which the equipment needs to be shifted to the drum driving sleep mode frequently

When uneven density image problem in 94 mm pitch (the circumference of the drum) must be corrected
• Set a value smaller than "7" (default) for 08-2385.

> **Notes:**
> If MCV (monthly copy volume) is relatively small, the drive count tends to increase quickly when you set the equipment to shift the drum driving sleep mode often, resulting in a shorter life

[3-2] Case in which the equipment needs to be shifted to the drum driving sleep mode frequently

A: When uneven density image problem in 94 mm pitch (the circumference of the drum) must be corrected
• The ozone exhaust fan keeps rotating for 1 minute after printing is finished. The rotation noise is not so annoying during this period. Therefore set "0" or "1" for 08-2383 so that the rotation of all drums without exposure will be finished within 1 minute.
B: When MCV is relatively small (e.g.; 1k)
• Set "20" for 08-2385 to reduce the number of times to shift the drum driving sleep mode, or set "0" or "1" for 08-2383 to reduce the number of drum rotations without exposure.

3.12 Developer Unit

3.12.1 General Description

This chapter describes the development (developer unit) which is a process of making toner adhere to the drum.

The developer material which is comprised of a mixture of toner and carrier, and is filled in the developer unit of each color. The toner is charged to a negative polarity and the carrier to a positive polarity, due to the friction with each other caused by mixing in the developer unit. The charged toner is supplied to the photoconductive drum surface by means of a magnetic roller, allowing it to adhere to the areas on the drum surface where the potential is lower than the developer bias which is applied to the magnetic roller. Through this process, the latent images are formed on the photoconductive drum surface.
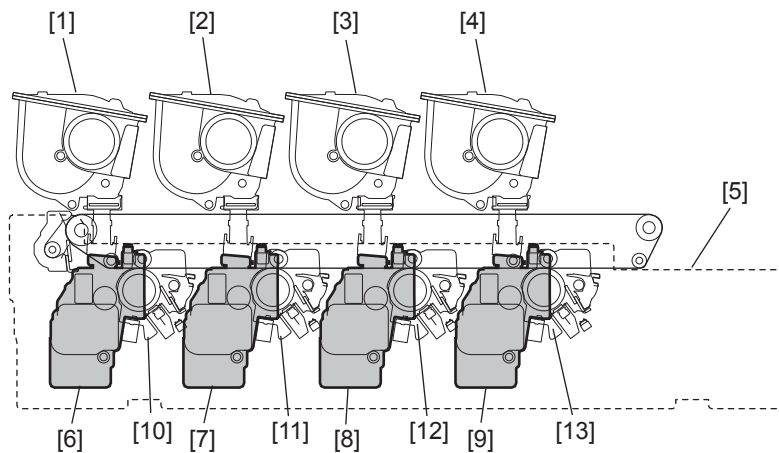
Fig. 3-42

[1] Toner (Y)
[2] Toner (M)
[3] Toner (C)
[4] Toner (K)
[5] Waste toner box
[6] Developer unit (Y)
[7] Developer unit (M)
[8] Developer unit (C)
[9] Developer unit (K)
[10] Process unit (Y)
[11] Process unit (M)
[12] Process unit (C)
[13] Process unit (K)

3.12.2 Composition

Process unit (Y, M, C, K)	Drum cleaner unit		Ch. 3.11
	Main charger unit		Ch. 3.11
	Developer unit	Developer material	PM parts
		Mixer	
		Developer sleeve (Magnetic roller)	
		Doctor blade	
		Auto-toner sensor	S1, S2, S3, S4
Paper feeding/ developer unit drive motor			M2
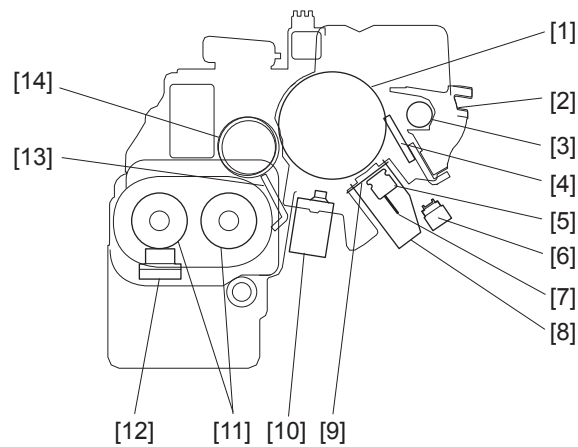
Fig. 3-43

3.12.3 Functions

1. Developer material
   The developer material consists of the carrier and toner. Since the developer material deteriorates after a long time use, periodic replacements are needed.

2. Mixer
   The carrier and toner are frictionized each other when the developer material is stirred. Then the carrier is positively charged (+) and the toner is negatively charged (–), and the toner is adhered by the electrostatic force.

3. Developer sleeve (Magnetic roller)
   These aluminum rollers have magnets inside. The developer material is pulled by these magnets to form a magnetic brush. The magnets are fixed at their position so only the sleeve rotates. By this rotation, the developer material is transported to the developer sleeve.
   Then the magnetic brush formed at the developer sleeve sweeps over the drum surface and thus development is performed.

4. Doctor blade
   The doctor blade controls the amount of the developer material from the developer sleeve so that the magnetic brush of the developer material can contact with the drum surface properly.

5. Auto-toner sensor (S1, S2, S3, S4)
   To print out a precise image, the proportion (toner density ratio) of the carrier and the toner in the developer material needs to be always constant. The magnetic bridge circuit in the black auto-toner sensor detects the toner ratio in the developer material. This sensor supplies the toner from the toner cartridge.

6. Paper feeding/developer unit drive motor (M2)
   This motor rotates the Y, M, C, K developer units. The drive of the motor is transmitted to each developer unit by gears in the following 2 lines: Developer motor → K developer unit, developer motor → C developer unit → M developer unit → Y developer unit

7. Toner motor (M8, M9, M10, M11)
   These motors drive the paddles and auger in the toner cartridge and transport the toner filled in the cartridge to the developer unit. Each toner cartridge of Y, M, C and K mounts one toner motor correspondingly.

8. Waste toner paddle motor (M7)
   This motor rotates the paddles mounted in the Waste toner box to level the Waste toner accumulated in the waste toner box.

9. Waste toner box
   This collects the residual toner scraped off on the drum surface by the cleaning blade and residual toner scraped off on the transfer belt by the transfer belt cleaning blade.

3.12.4 Functions of the toner cartridge PC board (CTRG)

An IC chip is embedded in this board. Data such as identification information for the recommended TOSHIBA toner cartridge, thresholds to determine if the cartridge is nearly empty, and controlling data for the image quality to be optimal according to the toner characteristics are written in this chip.
To measure the amount of toner remaining in the cartridge, when the value of the counter for the period of the toner cartridge rotation time is updated, this equipment writes the updated value into the toner cartridge PC board (CTRG).

These data written in the toner cartridge PC board (CTRG) enable the functions below, and accordingly this equipment operates as shown below.
Data reading is performed every time when the power is turned ON, the front cover is closed, a job is finished and the equipment has recovered from the sleep mode.

[1] Data read by the toner cartridge PC board (CTRG)
- Data to identify recommended TOSHIBA toner cartridges
- Thresholds to determine if the toner cartridge is nearly empty
- Value of the counter for the period of the toner cartridge rotation time
- Data for optimizing image quality
- Threshold of toner remaining displays

[2] Functions
- Cartridge detecting function
  This function checks whether the toner cartridge is inserted correctly or not, and whether the recommended toner cartridge is used or not.
- Toner remaining check function
  This function notifies the user of the near-empty status of toner. Normally, the message (Toner is low) is displayed when the toner is running out, and (Toner empty) when the toner cartridge is empty.
- Toner remaining check notification function
  Upon detecting the near-empty status of toner, this function automatically notifies your service representative.
- Image optimization function
  This function controls the quality of images to be optimal according to the characteristics of the toner used.
- Toner remaining display function
  This function displays the remaining toner amount from 0% to 100%.

[3] Operations
A sign indicating that the toner cartridge is nearly empty appears in the following cases:
- The counter value for the toner cartridge rotation time has exceeded the threshold previously written in the toner cartridge PC board (CTRG). (Related code: 08-5155)
- The remaining amount of toner is equal to or less than the set amount (percentage or number of sheets). (Related code: 08-5155, 5810, 5811)

When a used cartridge refilled with new toner is used, a sign indicating that the toner cartridge is empty appears because information for determining the empty status is already written in the toner cartridge PC board (CTRG).
When a non-recommended toner cartridge is used, "Toner not recognized" appears on the control panel, and then the equipment may stop normal operations. The toner remaining display function, the toner remaining check function, the automatic remote supply order to TOSHIBA sales representatives and the image optimization function may also be disabled.

The self-diagnosis codes to adjust the timing for displaying the toner near-empty status are as follows.

- Toner near-empty status threshold setting (08-5155)

<Setting value>

0: The period from the appearance of the toner near-empty sign to the actual complete consumption of the toner is set to long.

1: Normal (Default)

2: The period from the appearance of the toner near-empty sign to the actual complete consumption of the toner is set to short.

4: Toner near-empty status threshold value: (%)

5: Toner near-empty status threshold value: (Number of sheets)

- Toner near-empty status threshold value setting (%) (08-5810)

Use this code to specify the threshold value (unit: %) for displaying the toner near-empty status. This code is used when the value of 08-5155 is set to "4".

Sub-code 0: K, sub-code 1: Y, sub-code 2: M, sub-code 3: C

- Toner near-empty status threshold value setting (number of sheets) (08-5811)

Use this code to specify the threshold value (unit: number of sheets) for displaying the toner near-empty status. This code is used when the value of 08-5155 is set to "5".

Sub-code 0: K, sub-code 1: Y, sub-code 2: M, sub-code 3: C

3.12.5 Waste toner box

The waste toner box is installed inside of the front cover, and collects waste toner discharged from a cleaner for each color and the transfer belt cleaner.

The front cover is designed not to be closed without installing the waste toner box in this equipment.

The paddle embedded in the waste toner box is rotated by the waste toner paddle motor (M7).

The rotation status of the paddle is detected by the waste toner paddle rotation detection sensor (S9).

In this equipment, a sensor detecting the full status of waste toner is not equipped.

Instead, the waste toner box full is judged when the waste toner has been accumulated in the box and the rotation of the paddle has not been detected for a specified period.
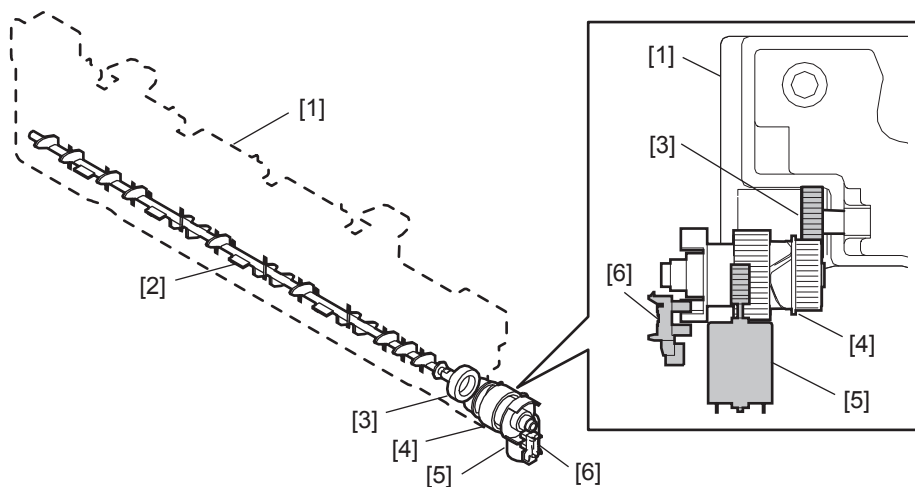
Fig. 3-44

[1] Waste toner box
[2] Paddle
[3] Gear (Paddle)
[4] Gear
[5] Waste toner paddle motor (M7)
[6] Waste toner paddle rotation detection sensor (S9)

3.13 Transfer Unit

3.13.1 General Descriptions

Transfer is a process of decaling a toner image from the photoconductive drum onto paper.
A toner image formed on the photoconductive drum is temporarily transferred onto the transfer belt, and the toner image is then transferred from the transfer belt onto paper. The first transfer from the drum to the transfer belt is called the 1st transfer, and the second transfer from the transfer belt to paper is called the 2nd transfer. To form a color image, the images of yellow (Y), magenta (M), cyan (C) and black (K) are transferred and overlaid on the transfer belt in order, and then the overlaid images are transferred onto paper.
After the completion of the 2nd transfer, the residual toner on the transfer belt is scraped off by the transfer belt cleaning blade and then transported to the waste toner box.
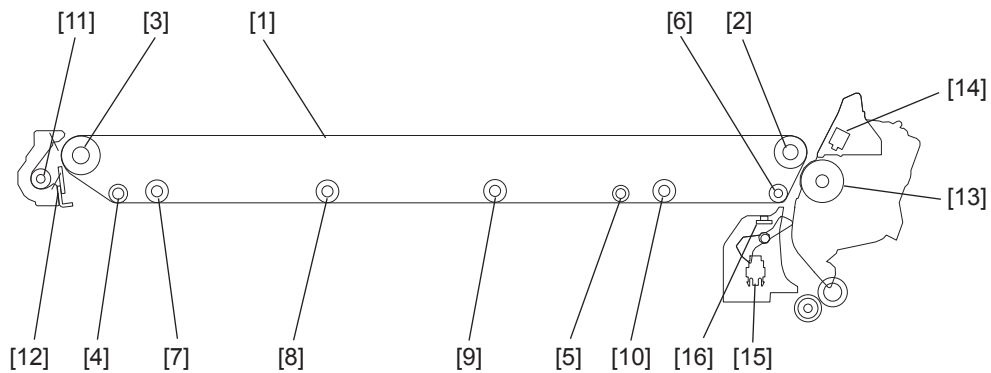
Fig. 3-45

[1] Transfer belt
[2] TBU drive roller
[3] Cleaner unit facing roller
[4] Lift roller
[5] Winding roller (K)
[6] Belt clinging roller before 2nd transfer
[7] 1st transfer roller (Y)
[8] 1st transfer roller (M)
[9] 1st transfer roller (C)
[10]1st transfer roller (K)
[11] Waste toner auger
[12] Transfer belt cleaning blade
[13] 2nd transfer roller
[14] Paper clinging detection sensor
[15] Registration reach sensor

3.13.2 Composition

Transfer belt unit	Transfer belt	
	1st transfer roller	Y, M, C, K
	Drive roller	
	Tension roller	
	2nd transfer facing roller	
	Lift roller	
	Idling roller	
	1st transfer roller cam motor	M8
	1st transfer roller status detection sensor	S15
Transfer belt cleaning	Transfer belt cleaning blade	
	Waste toner auger	
2nd transfer unit	2nd transfer roller	PM parts
	Paper clinging detection sensor	S18
Image position aligning sensor (Front) Image position aligning sensor (Rear)/Image quality sensor		S7 / S8

3.14 Image Quality Control

3.14.1 General Description

Two image position aligning sensors are mounted inside of the 2nd transfer front guide beneath the transfer belt.

The image position aligning sensor on the rear side combines its own functions with those of the image quality sensors.

At this control, image forming conditions are automatically adjusted so as to minimize the change in the image density or tone reproduction caused by the fluctuation of working environment or life of supply items.

At first, the image quality sensor (S8) operates to output reflected light amount voltage when no toner image is formed on the transfer belt. The output voltage is then converted analog-to-digital to be output as the reflected light amount signal. The light source amount voltage of the sensor is adjusted to correspond with the value set in advance and the output value of reflected light amount signal at this adjustment is stored. This output value is considered as the reading of the belt surface. Next, the sensor outputs the reflected light amount signal when a test pattern is developed on the transfer belt. This output value is considered as the reading of the toner image.

The difference between the reading of the transfer belt and that of the toner image is defined as toner adhesion amount. Image forming conditions are determined in approximating this toner adhesion amount to the value set in advance.
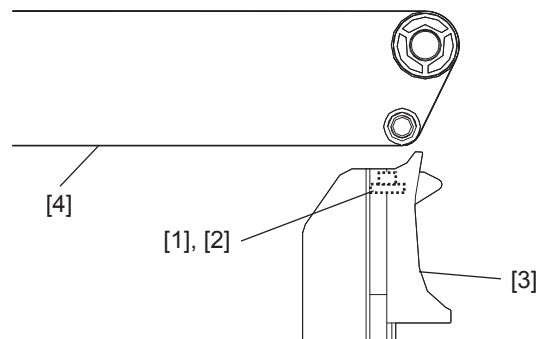
Fig. 3-46

[1] Image position aligning sensor (Front)
[2] Image position aligning sensor (Rear)/Image quality sensor
[3] 2nd transfer front guide
[4] Transfer belt

3.15 Fuser unit / Paper exit section

3.15.1 General Description

Toner is fused by applying heat and pressure on the transferred image on the paper which is transported to the fuser unit. The paper is then transported to the inner tray, paper exiting options or ADU. The fuser unit consists of the heater lamps, heat roller, fuser roller, pressure roller, separation fingers, thermistors, thermostats, etc.
The heat roller, fuser roller and pressure roller in the fuser unit are driven by the fuser motor, and the exit roller is driven by the exit motor.
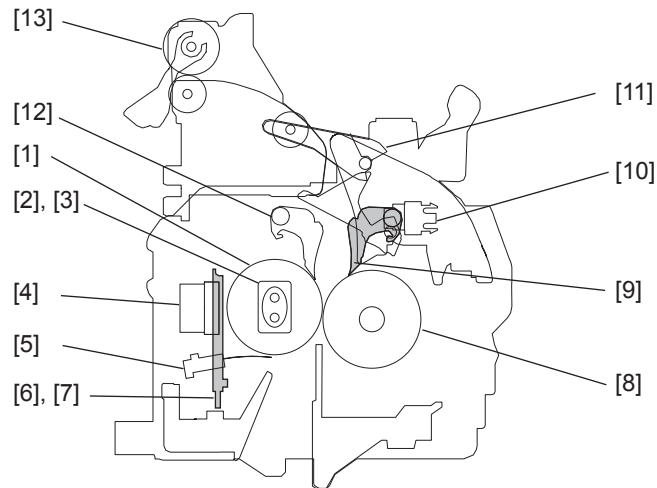
Fig. 3-47

[1] Fuser roller
[2] Side heater lamp
[3] Center heater lamp
[4] Fuser roller center thermostat, Fuser roller side thermostat
[5] Fuser roller edge thermistor
[6] Fuser roller center thermistor
[7] Fuser roller side thermistor
[8] Pressure roller
[9] Pressure roller separation finger
[10] Exit sensor
[11] Exit/reverse gate
[12] Fuser roller separation finger
[13] Exit roller

3.15.2 Composition

Center heater lamp		LAMP1 (570 W)
Side heater lamp		LAMP2 (570 W)
Fuser roller center thermistor		THM1
Fuser roller side thermistor		THM2
Fuser roller edge thermistor		THM3
Fuser roller center thermostat		THMO1
Fuser roller rear thermostat		THMO2
Fuser roller		
Pressure roller		
Separation finger		
Fuser motor		M4
Exit sensor		S13
Exit roller		
Exit motor		M5

3.15.3 Electric Circuit Description

[1] Fuser unit control circuit

[1-1] Configuration

In this equipment, 2 heater lamps (center, side) which have different heat-generating positions are installed in the heat roller to heat up the fuser roller. The fusing temperature is controlled by turning ON/OFF these heater lamps with the command from the ASIC on the LGC board.

The surface temperature of the fuser roller is detected by a thermistor. And then the information of these temperatures is input to the ASIC through an A/D converter.

Based on the detected temperature, the ASIC transmits the control signal of the heater lamp to the drive circuit (TRC: Triac) of each heater lamp on the switching regulator via the heater lamp control circuit. The power supply to each heater lamp is thus controlled by driving TRC.

The forcible power-OFF circuit detects the overheating of the fuser roller by each thermistor. In case that the surface temperature of the fuser roller has exceeded the specified temperature, the forcible power-OFF circuit transmits an overheat detection signal to the ASIC and the heater lamp control circuit and transmits a reset signal to the relay in the power supply unit to turn the relay OFF forcibly.

In addition, if these control circuits do not function due to thermistor abnormality or for other reasons and the fuser roller is abnormally overheated as the result, 2 thermostats shut off the power supply to the heater lamps to protect the equipment.
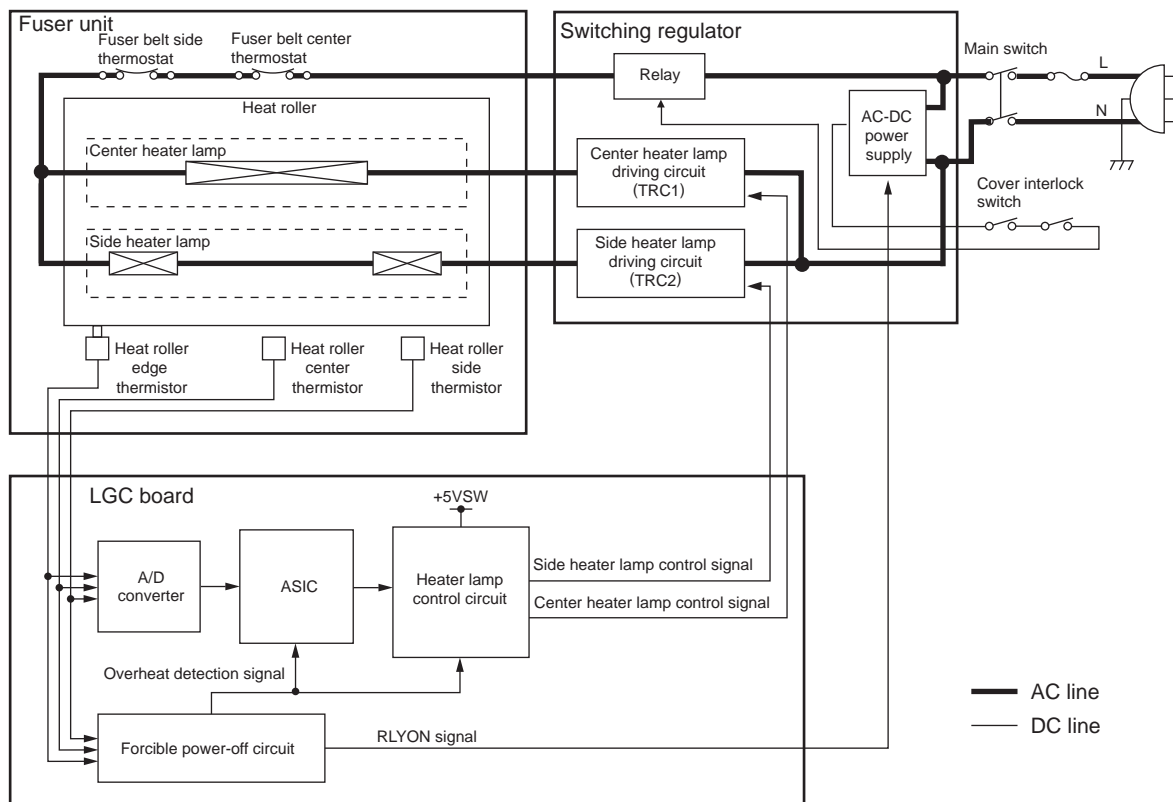
Fig. 3-48

[1-2]   Temperature detection section

Fuser unit error status counter control

- To enhance the safety of the fusing section unit, engine CPU provides the following protection: When the third [C411], [C445], [C450] error have occurred after two consecutive [C411] errors, the heater lamp is not turned ON and error [C412] is displayed immediately even if an operator turns OFF the power and back ON. However, if the equipment goes into a ready state normally with the fuser unit error status counter "1" or below, the counter is cleared to "0".

- If the error codes [C411] to [C452] are displayed and still not cleared even though the thermistor, thermostat and heater lamp have been repaired (and the power ON/OFF does not clear the error), check the Setting Mode (08-2002) to set the fuser unit error status counter to "0".

  Remarks:
      The fuser unit error status counter (Setting Mode (08-2002)) never has values other than 0 to 62.

- If the heater lamps do not turn ON and the service call [C411] or [C412] is displayed immediately after the power is ON, ensure the fuser unit error status counter is "62" or over. If it is "62" or over, be sure to check the thermistor, thermostat and heater lamp. Reset the counter to "0" after repairing them, then turn ON the power.

- If the fuser unit error status counter is "62" or more, EEPROM or its data may have been ruined due to leakage from the chargers.
  Check the bias, high-voltage transformers and needle electrodes for defects, and also look through all the data in EEPROM.

- When the thermistors detect overheating, the engine CPU decides the error code and counter value of the fuser unit error status. After turning OFF each output (the heater lamp, exposure lamp, control panel display, motors and so on), the engine CPU turns OFF the power to protect the fuser unit.

  Error code: C449 ([C] and [8])
  Counter value of the fuser unit error status: 8, 9, 18 to 23, 25 to 29 (08-2002)

  Thermistors continue detecting the abnormal temperature even after the error codes and counter values are decided. Even if the power is turned ON immediately, it is automatically turned OFF again when the surface temperature of the fuser belt is still higher than the abnormal temperature detected.
  Wait until the surface temperature of the fuser belt is lowered enough, and turn ON the power to check the counter value while it is turned OFF again. After confirming that it is the fuser unit abnormality, correct the abnormality and reset the counter value (08-2002) to "0" to start up the equipment normally.

Temperature detection circuit

The thermistor is a device whose resistance varies according to the detected temperature. The ASIC detects voltages output from this devices, and judges whether the operation of the fuser unit is normal or abnormal from the changes in voltages.

If one of the thermistors is broken, the control circuit judges that the temperature of the fuser belt or pressure roller is extremely low and keeps turning the heater lamps ON. As a result, the temperature of the fuser belt or pressure roller rises, and possibly activates the thermostat which is a safety protection device. To prevent this in advance, the ASIC works to detect whether each thermistor is broken or not. Also, the control circuit constantly checks the temperature of the heat roller and the pressure roller to prevent them from excessive heating by circuit abnormality or thermistor abnormality, and automatically shuts OFF the power when one of these temperatures exceeds the specified temperature.

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Abnormality detection by the thermistors

The following table shows the conditions for judging the temperature abnormality of the fuser roller, and the detecting timing.

Check timing	Con ditio n	Temperature judged			Error code	Counter (08-2002)	Error judging timing
		Fuser roller thermistor					
		Center	Side	Edge			
Power ON		200°C or above	200°C or above	230°C or above	C449	9	Power ON
		40°C or below	150°C or above	---	C412	4	
		150°C or above	40°C or below	---			
		150°C or above	---	40°C or below			
		---	150°C or above	40°C or below			
Detecting 40°C		200°C or above	200°C or above	230°C or above	C449	19	On usual
		40°C or below	40°C or below	40°C or below	C411	(1)	
					C412	2	
		The temperature of the fuser unit edge section is 50°C higher or more than that of the fuser unit center section for more than 2 seconds.			C450	(38)	
					C451	41	
		The temperature of the fuser unit side section is 50°C higher or more than that of the fuser unit center section for more than 2 seconds.		---	C450	(48)	
					C452	50	
Ready temperature is detected (Center or Side)		200°C or above	200°C or above	230°C or above	C449	22	On usual
		Ready temperature or below	Ready temperature or below	Ready temperature or below	C445	(5)	
					C446	6	
		The temperature of the fuser unit edge section is 50°C higher or more than that of the fuser unit center section for more than 2 seconds.			C450	(38)	
					C451	41	
		The temperature of the fuser unit side section is 50°C higher or more than that of the fuser unit center section for more than 2 seconds.		---	C450	(48)	
					C452	50	
During ready		200°C or above	200°C or above	230°C or above	C449	23	On usual
		40°C or below	40°C or below	40°C or below	C447	7	
During printing		200°C or above	200°C or above	230°C or above	C449	25	On usual
		40°C or below	40°C or below	40°C or below	C447	24	
At energy saving mode		200°C or above	200°C or above	230°C or above	C449	27	On usual

Check timing	Condition	Temperature judged			Error code	Counter (08-2002)	Error judging timing
		Fuser roller thermistor					
		Center	Side	Edge			
At paper jam		200°C or above	200°C or above	230°C or above	C449	29	On usual

* The figures in the "Condition" field denote the priority of error checking.
* The figures in the "Error code" and "Counter" fields with parentheses denote that an error status has not yet been determined (= error status is detected only once).

e-STUDIO2050C/2051C/2550C/2551C
OUTLINE OF THE MACHINE

3

3.16 Automatic Duplexing Unit (ADU)

3.16.1 General Description

The Automatic Duplexing Unit (ADU) is a unit to automatically print on both sides of paper. A switchback method using the exit roller is adopted for the ADU of this equipment.
A sheet of paper is switchbacked by the exit roller right after the printing operation (fusing operation) on one side is completed, and the reversed sheet is transported to the registration section for the other side of the sheet to be printed.
The ADU mainly consists of the transport rollers and their drive system, paper guide and ADU entrance / exit sensor.
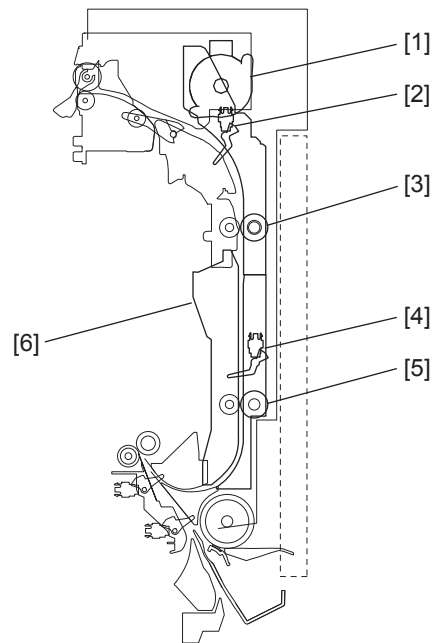
Fig. 3-49

[1] ADU motor
[2] ADU entrance sensor
[3] Upper transport roller
[4] ADU exit sensor
[5] Lower transport roller
[6] Paper guide

3.16.2 Composition

Automatic Duplexing Unit (ADU)	
ADU motor	M12: Stepping motor
ADU entrance sensor	S14
ADU exit sensor	S15
Side cover opening/closing switch	SW5
ADU driving PC board	ADU
Upper transport roller	
Lower transport roller	

3.16.3 Drive of ADU

When the ADU motor (M12) rotates, the upper transport roller and lower transport roller are rotated driven by the gears and belt.
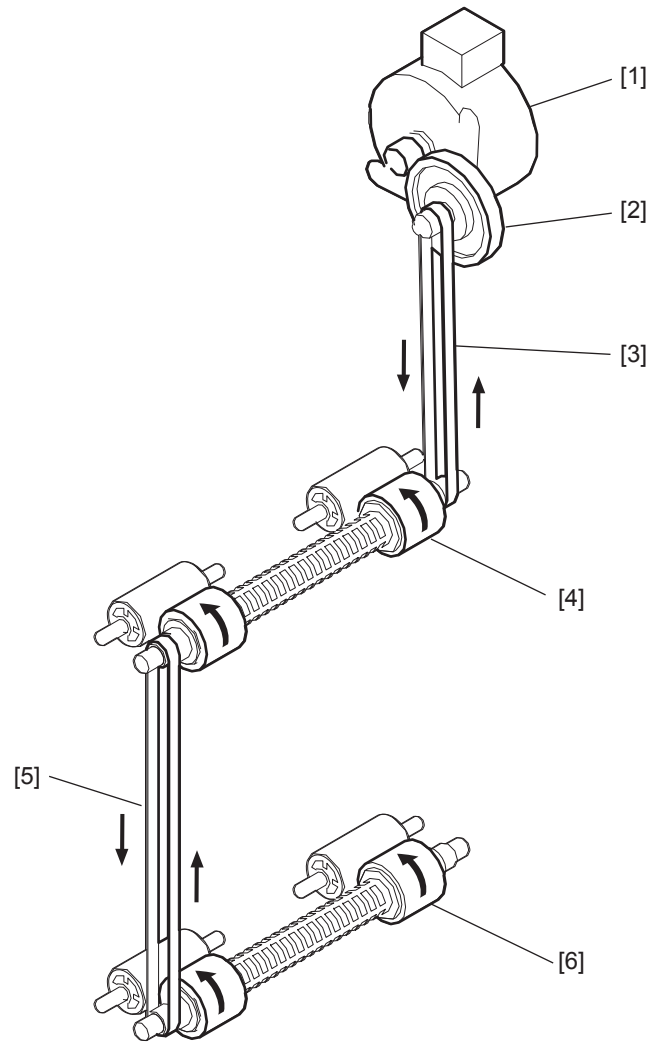
Fig. 3-50

[1] ADU motor
[2] Gear
[3] Timing belt
[4] Upper transport roller
[5] Timing belt

3.16.4 Description of Operations

The back side printing (recording data of the back side of paper) is performed first by selecting duplex printing mode and pressing the [START] button. When the trailing edge of the paper passes the exit gate, the paper is switchbacked by the exit roller and transported into the ADU (the exit gate is closed with its own weight), and then the switchbacked paper is transported with acceleration. The transportation decelerates when the ADU exit sensor (S15) detects the paper. The front side printing (recording data of the front side of paper) is performed at the registration section. The paper passes through the exit gate again and is transported to the inner tray to complete duplex printing.

There are three methods of judging a paper jam: (1) whether the ADU entrance sensor (S14) is turned ON or not in a specified period of time after the switchback to the ADU started (E510). (2) whether the ADU exit sensor (S15) is turned ON or not in a specified period of time after the ADU entrance sensor (S14) is turned ON (E520). (3) whether the registration sensor (S19) is turned ON or not in a specified period of time after the paper feeding from the ADU to the equipment (E110).

If the ADU is opened during duplex printing, the ADU motor (M12) is stopped, namely, ADU open jam occurs (E430).

The equipment is never to be stopped during printing by interruption in any case except paper jam or service call, if paper remains in the ADU.

The operation of the duplex printing differs depending on the size of the paper; single-paper circulation and alternateness circulation. The figures in the following pages show the circulating operations during duplex copying. The numbers in the figures indicate the page numbers.

3

1. Single-paper circulation
   With the paper larger than A4/LT size, duplex printing (back-side printing→front-side printing) is performed for one sheet at a time as shown below.

[I]   [II]   [III]

[IV]   [V]   [VI]

[VII]   [VIII]   [IX]
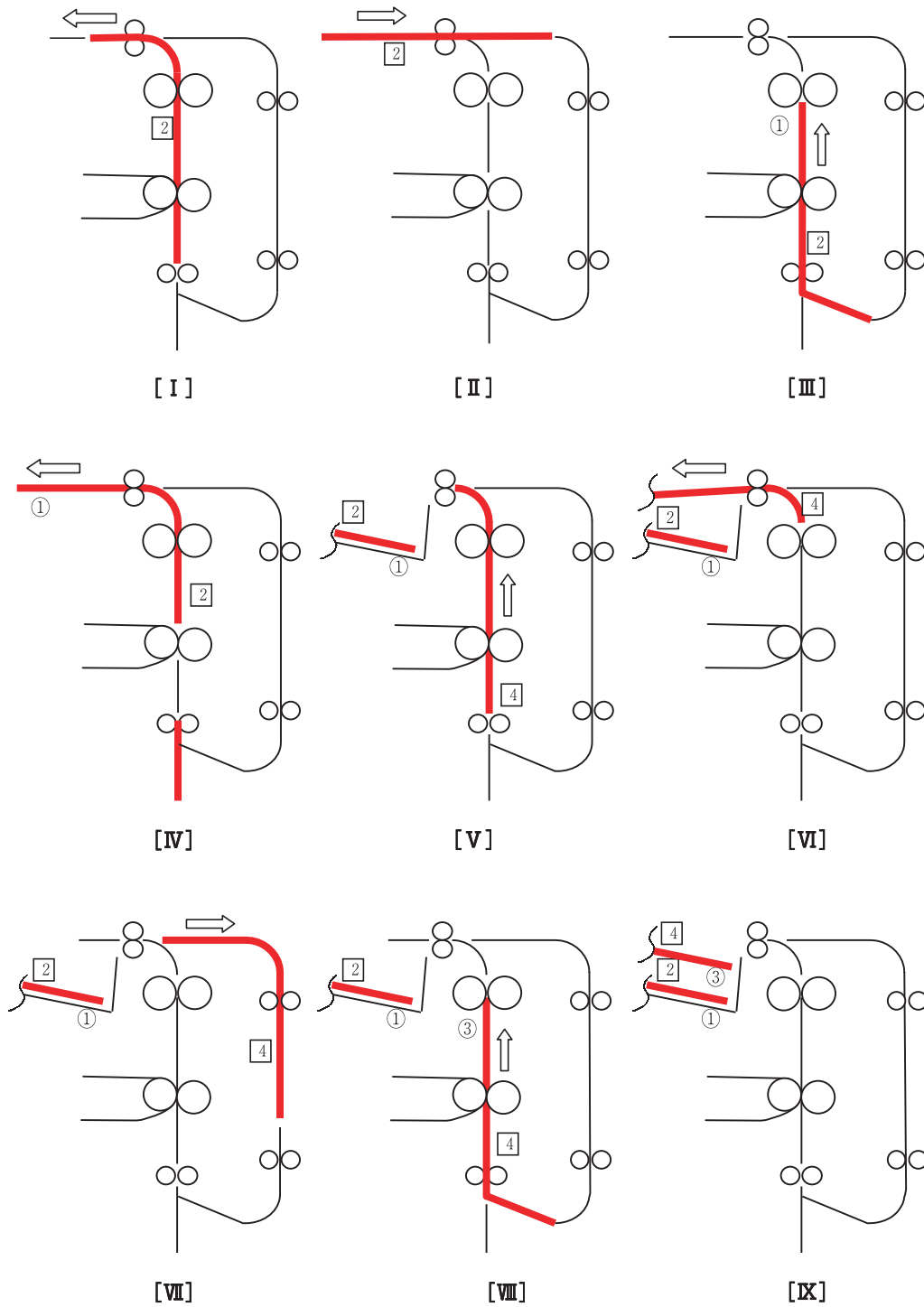
Fig. 3-51

3.17 Power Supply Unit

3.17.1 General description

The power supply unit consists of AC filters, insulation-type DC output circuits and heater lamp control circuits in order to supply stable DC and AC voltage to each electric part of this equipment.

3.17.2 Functions

The power supply unit consists of the AC filter, insulation type DC output circuits and heater lamp control circuit.

1. AC filter
   Eliminates noise from the outside and prevents the noise generated by the equipment from leaking to the outside.

2. DC output circuits
   Converts AC voltage input from outside to DC voltage and supplies it to each electric part. The DC voltage is divided into the following two lines.

   a. Main power switch line:
   Power supply used in the entire equipment during image forming process. Two kinds of voltage (+5VS and +12 VA) are output when the main power switch of the equipment is turned ON.

   b. Cover switch line:
   Power supply used in the entire equipment during image forming process, being supplied via the cover switch. The voltage (+24 VD) is output only when the main power switch of the equipment is turned ON and two covers (front cover and automatic duplexing unit) are closed.

3. Heater lamp control circuit
   TRC (Triac) is driven by the heater control signal (SLAMP-ON, CLAMP-ON) from the LGC board and then AC power is supplied to each heater lamp (center heater lamp, side heater lamp) in the fuser unit.

3.17.3 Operation of DC Output Circuits

1. Starting operation of the equipment
    When the main switch of the equipment is turned ON, power starts supplying to all the lines only when two doors (front cover and ADU) are closed

2. Stopping line output
    When the main switch of the equipment is turned OFF, PWR-DN signal is output after the instantaneous outage insurance time elapses and then the supply of each voltage stops. If the supply of voltage of the main line (+5VS, +12VA) stops earlier than the 24V line does, it may cause the damage of the electron device on each control circuit. To prevent this, the supply of these voltages stops after the PWR-DN signal is output and the minimum retaining time elapses.

3. Output protection
    Each output system includes an overcurrent and overvoltage protection circuits (a fuse and internal protection circuit). This is to prevent the defectives (damage or abnormal operation of the secondary circuit) which may be caused by an overcurrent due to a short circuit or an overvoltage due to a short circuit between different voltages. If the protection circuit is activated (except the case the fuse is blown out), remove the causes such as short-circuit. Turn ON the power again to clear the overcurrent protection.

4. Recovering from super sleep mode (normal starting))
    When the [ON/OFF] button on the control panel is pressed during the super sleep mode, a super sleep mode shifting/recovering signal (SYS-EN) is output from the SYS board and then voltage starts being supplied to all the lines, if no error was detected.

5. Recovering from super sleep mode (when receiving a packet)
    When a packet from a network is received during the super sleep mode, the mode is shifted to the sleep mode.

    When packets are received frequently, a control is performed to keep the sleep mode for a specified period.

    -   If packets are received 42 times or more within 6 hours, the time setting for shifting to the super sleep mode will be automatically changed to approx. 10 minutes when the 42 times are counted.
    -   Receiving of the packets to perform printing or fax jobs is not counted.
    -   If the time setting for shifting to the super sleep mode is set to 10 minutes or more, it will be reflected.
    -   If the time setting for shifting to the super sleep mode has been changed to 10 minutes due to the above auto-change, it will be cleared when the power is turned OFF and then back ON.

6. Shifting to super sleep mode (normal stopping)
    When the [ON/OFF] button on the control panel is pressed for 1 second or more while the main switch of the equipment is toggled ON, a super sleep mode shifting/recovering signal (SYS-EN) is output from the SYS board after the initialization is finished and then all lines for output voltage except +5VS are closed.

    The Super sleep mode is disabled under the following conditions.

    -   When the Super sleep mode is set to be disabled on the control panel, TopAccess and with the code 08-8543
    -   When the Wireless LAN Module, Bluetooth Module, e-BRIDGE ID Gate or Data Overwrite Enabler is installed, or when the IPsec Enabler is installed and its function is set to be enabled
    -   When operation is being performed in the self-diagnosis mode (Disabled until the main switch is turned OFF)

7. State of the power supply
    -   Power OFF

The main switch of the equipment is turned OFF. Since DC voltage is not supplied to each board, the equipment is not operable.

- Normal state (including Energy saving mode)
  The main switch of the equipment is turned ON and DC voltage is supplied to each board. When the cover of the equipment is closed, 24V DC voltage is supplied and the equipment enters into the ready/printing state.

- Sleep mode
  Since +24VD DC voltages are not supplied but +12VA and +5VS DC voltages only, the equipment does not enter into the ready state.

- Super Sleep mode
  Only +5VS DC voltages are output from the power supply unit. The [ON/OFF] button is monitored and the LED of the main switch is lit.

3

3.17.4 Output Channel

The following are output channels for the main power switch line.

main power switch line

Connector	Pin No.	Voltage	Destination
CN511	5	+5VS	SYS board RADF (via SYS board)
	6		
	9	+12VA	
	10		
	11		
CN512	5	+12VA	LGC board
	6		
	7		
CN514	2	+12VA	PFC board

The following are output channels for the cover switch line.

Cover switch line

Connector	Pin No.	Voltage	Destination
CN512	17	+24VD1	LGC board HVT (via LGC board) CFD board (via LGC board) ADU board (via LGC board)
	18		
	19	+24VD2	
	20	+24VD3	
CN513	1	+24VD4	SYS board
CN514	5	+24VD5	PFC board
	6		Finisher

3.17.5 Fuse

When the power supply secondary fuse is blown out, confirm that there is no abnormality with each part using the following table.

Voltage	Board/Unit	Part		Fuse type
+24VD1	LGC board	Auto-toner sensor-K	S1	F201: 4 A (Semi time-lag)
		Auto-toner sensor-C	S2	
		Auto-toner sensor-M	S3	
		Auto-toner sensor-Y	S4	
		SYS board cooling fan	F1	
		Ozone exhaust fan	F2	
		Ozone suctioning fan	F3	
		Registration clutch	CLT1	
		Feed clutch	CLT2	
		Mono/color switching motor	M3	
		Toner motor-Y	M8	
		Toner motor-M	M9	
		Toner motor-C	M10	
		Toner motor-K	M11	
		Sensor shutter solenoid	SOL1	
		High-voltage transformer	HVT	
+24VD2	LGC board	Paper feeding/developer unit drive motor	M2	F202: 4 A (Semi time-lag)
		Fuser motor	M4	
		Exit motor	M5	
		Discharge LED-K	ERS-K	
		Discharge LED-C	ERS-C	
		Discharge LED-M	ERS-M	
		Discharge LED-Y	ERS-Y	
		Bridge unit, JSP	-	
		Key copy counter, copy key card, coin controller	-	
+24VD3	LGC board	Drum/TBU motor	M6	F203: 4 A (Semi time-lag)
		ADU motor	M12	
		1st drawer feed clutch	CLT3	
		Bypass feed clutch	CLT4	
		CFD board	CFD	
+24VD4	SYS board	Scan motor	M1	F204: 4 A (Semi time-lag)
+24VD5	PFC board	Finisher, PFU, PFP, LCF	-	F205: 4 A (Semi time-lag)

4. DISASSEMBLY AND REPLACEMENT

4.1 Covers

4.1.1 Front cover

(1) Open the front cover.
(2) Remove 2 screws and pull out the front cover [1] at an angle toward the lower-front side.
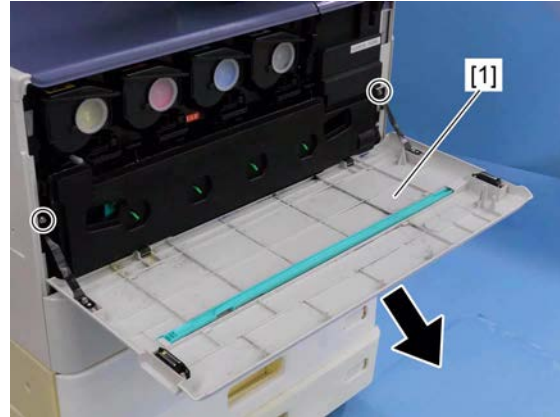
Fig. 4-1

4.1.2 Left cover

(1) Open the front cover and pull out the drawer.
(2) Remove 5 screws and take off the small left cover [1]. Remove the left cover [2] while pushing down on its handle.
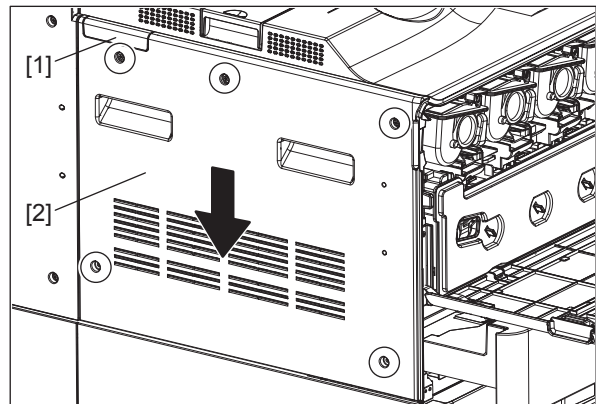
Fig. 4-2

4.1.3 Receiving tray

(1) Remove the left cover.
    📖 P. 4-1 "4.1.2 Left cover"
(2) Remove the receiving tray [1].

Fig. 4-3

4.1.4 Tray rear cover

(1) Remove the receiving tray.
    📖 P. 4-2 "4.1.3 Receiving tray"
(2) Remove the left-rear cover.
    📖 P. 4-3 "4.1.6 Left rear cover"
(3) Remove 1 screw and take off the tray rear cover [1] by sliding it to the left.
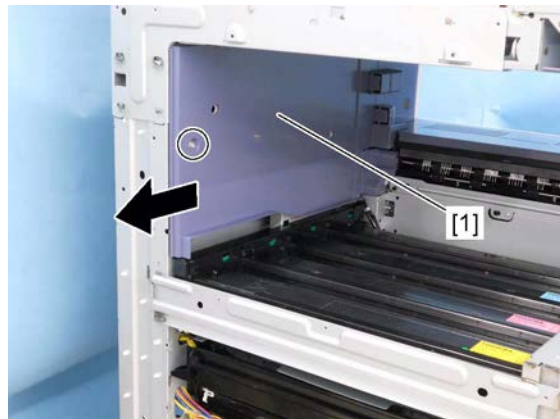
Fig. 4-4

4.1.5 Left top cover

(1) Remove 2 screws and take off the left top cover [1] by sliding it toward the front side to release the latches.
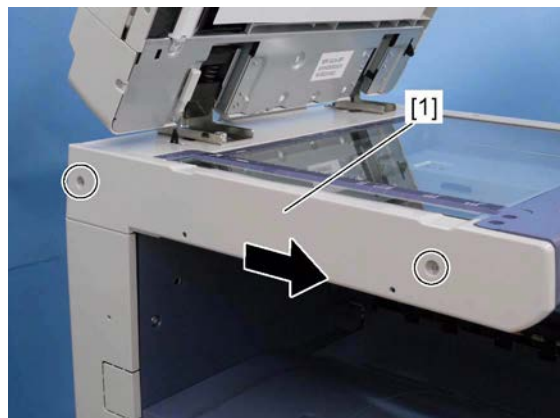
Fig. 4-5

4.1.6 Left rear cover

(1) Remove the left cover.
📖 P. 4-1 "4.1.2 Left cover"
(2) Remove the left top cover.
📖 P. 4-2 "4.1.5 Left top cover"
(3) Remove 3 screws and take off the left rear cover [1] by lifting it up.
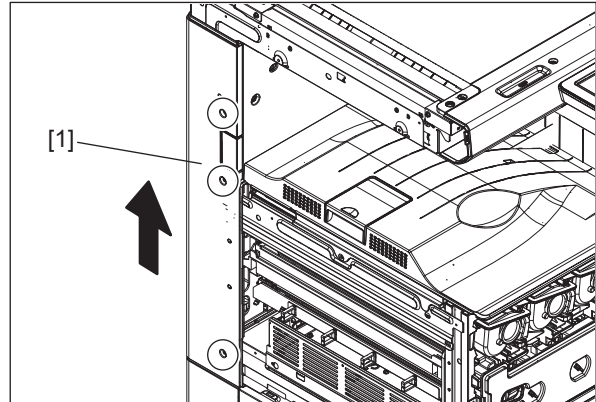
Fig. 4-6

4.1.7 Right top cover

(1) Remove 2 screws and take off the top right cover [1] by lifting it up.

Fig. 4-7

4.1.8 Right front cover

(1) Open the side cover.
(2) Remove the right top cover.
📖 P. 4-3 "4.1.7 Right top cover"
(3) Pull out the drawer.
(4) Remove 1 screw on the front cover and right front cover. Then, remove the right front cover [1] by lifting it up.

Fig. 4-8

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DISASSEMBLY AND REPLACEMENT

4.1.9 Right rear cover

(1) Open the side cover.
(2) Remove 3 screws and take off the right rear cover [1].
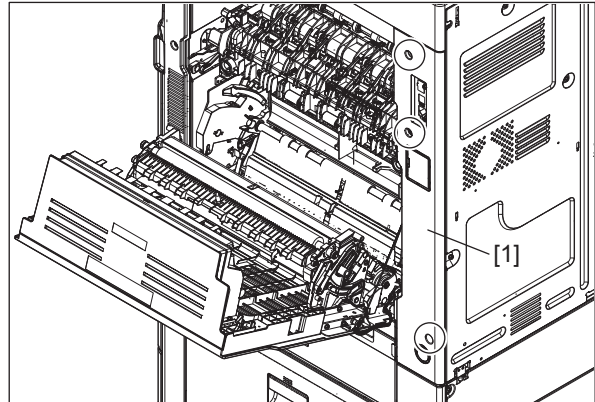
Fig. 4-9

4.1.10 Front top cover

(1) Remove the left top cover.
    📖 P. 4-2 "4.1.5 Left top cover"
(2) Remove the right top cover.
    📖 P. 4-3 "4.1.7 Right top cover"
(3) Remove 2 caps [1] and 2 screws [2], and then make the control panel [3] level.
(4) Pull out the front top cover [4] toward the front side and remove it by sliding it toward the left side.

Fig. 4-10

4.1.11 Front right cover

(1) Remove the right the front cover.
    📖 P. 4-3 "4.1.8 Right front cover"
(2) Remove the front top cover.
    📖 P. 4-4 "4.1.10 Front top cover"
(3) Remove 1 screw and take off the front right cover [1] while lowering it.

Fig. 4-11

4.1.12　Rear top cover

(1) Remove the RADF or the platen cover.
(2) Remove the left top cover.
     📖 P. 4-2 "4.1.5 Left top cover"
(3) Remove the right top cover.
     📖 P. 4-3 "4.1.7 Right top cover"
(4) Remove the 2 screws [1] and take off the
     rear top cover [2].
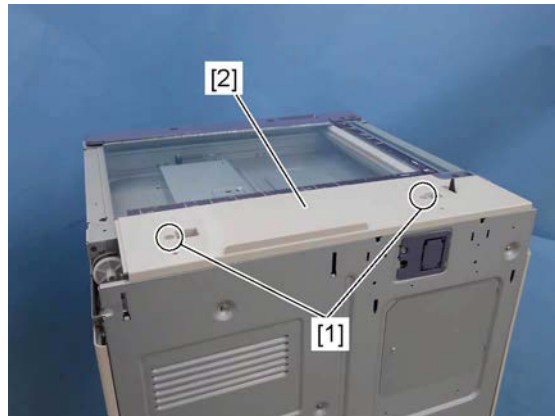
Fig. 4-12

4.1.13　Rear cover

(1) Remove 5 screws and take off the rear cover
     [1].
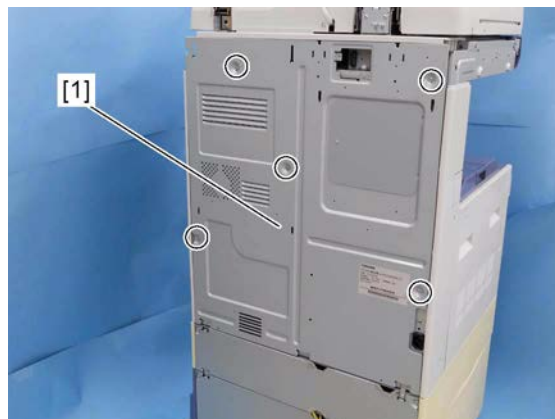
Fig. 4-13

4.1.14　Front cover switch (SW1)

(1) Remove the power cooling and ozone
     suction fan cover.
     📖 P. 4-81 "4.6.32 Switching regular cooling
     fan (F3)"
(2) Remove 1 screw and take off the front cover
     switch bracket [1].
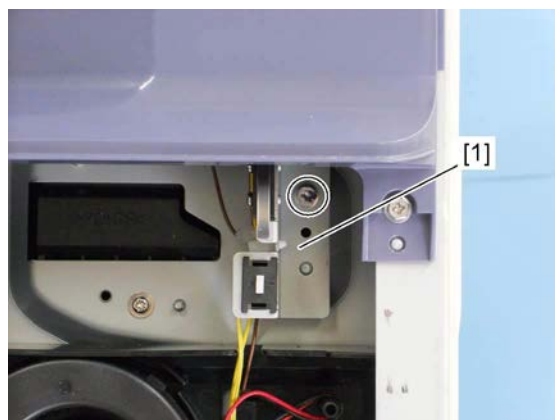
Fig. 4-14

(3) Disconnect 1 connector and remove the front cover opening/closing switch [1].
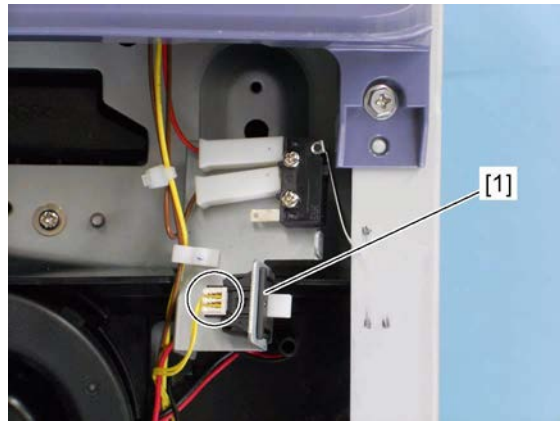
Fig. 4-15

4.1.15 Front cover interlock switch (SW2)

(1) Remove the front cover opening/closing switch bracket.
    📖 P. 4-5 "4.1.14 Front cover switch (SW1)"
(2) Remove 2 screws and disconnect 2 connectors, and then take off the front cover interlock switch [1].
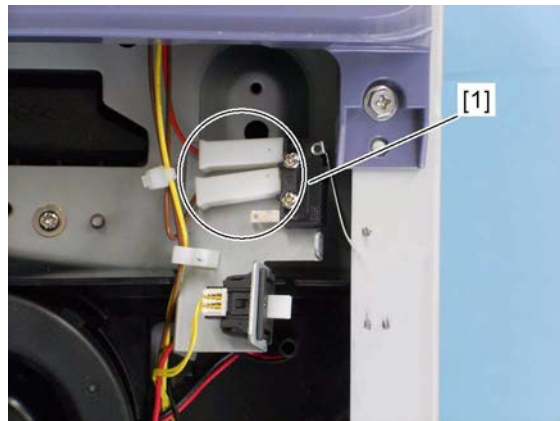
Fig. 4-16

4.2 Control Panel

4.2.1 Control panel unit

(1) Remove the right rear cover.
📖 P. 4-4 "4.1.9 Right rear cover"
(2) Remove the rear cover.
📖 P. 4-5 "4.1.13 Rear cover"
(3) Remove the SYS board cover.
📖 P. 4-80 "4.6.31 SYS board cooling fan (F1)"
(4) Disconnect 1 connector from the system control board (CN119) and release the harness [1] from the clamp.
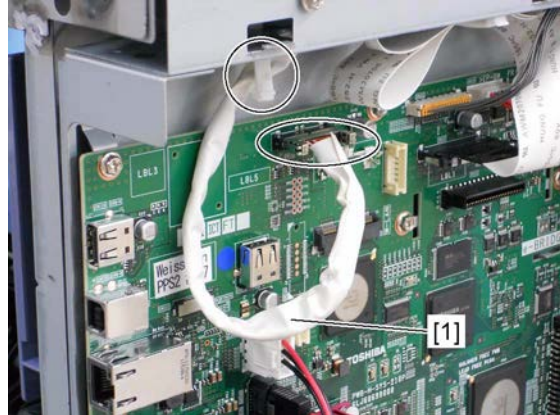
Fig. 4-17

(5) Remove the front top cover.
📖 P. 4-4 "4.1.10 Front top cover"
(6) Lower the control panel unit [1] and remove 2 screws.
(7) Remove the control panel unit [1] while sliding it.
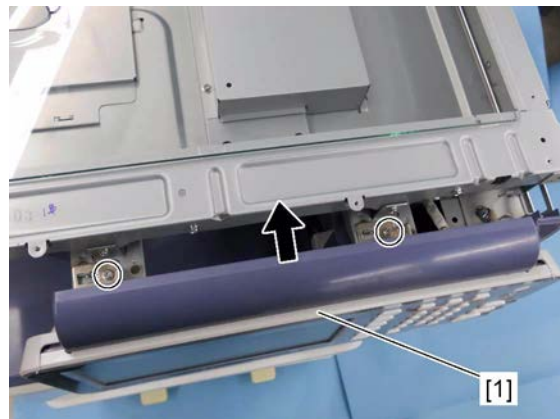
Fig. 4-18

Notes:
When installing, pass the harness through the harness clamp of the frame.

Fig. 4-19

4.2.2   KEY board

(1)   Remove the control panel unit.
         📖 P. 4-7 "4.2.1 Control panel unit"
(2)   Remove 8 screws and take off the cover [1].
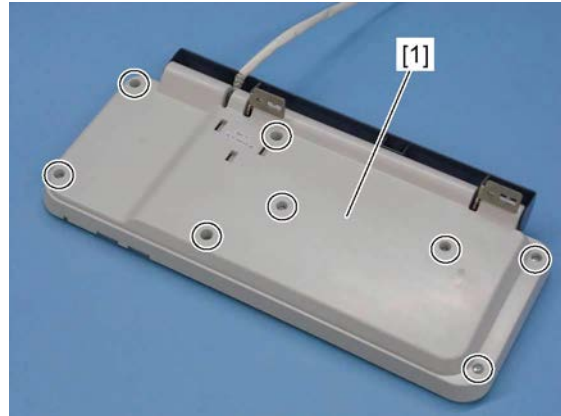
Fig. 4-20

(3)   Remove 7 screws and disconnect 1
         connector, and then take off the KEY board
         [1].
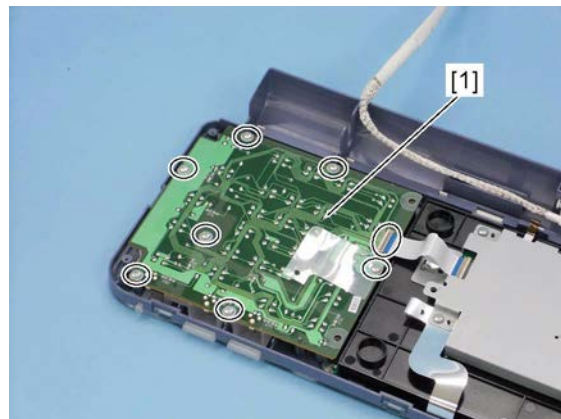
Fig. 4-21

4.2.3   DSP board

(1)   Remove the control panel unit.
         📖 P. 4-7 "4.2.1 Control panel unit"
(2)   Remove 8 screws and take off the cover [1].
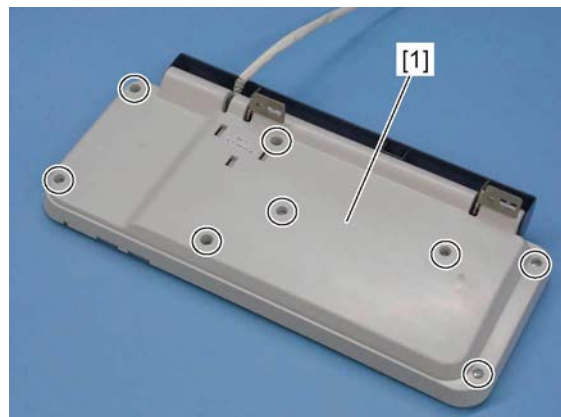
Fig. 4-22

(3) Disconnect 1 connector and remove 4 screws, and then take off the bracket [1].

Fig. 4-23

(4) Remove 3 conductive sheets [1] and disconnect 3 connectors.
(5) Remove the DSP board [2].

Fig. 4-24

4.2.4 Touch panel

(1) Remove the DSP board.
 📖 P. 4-8 "4.2.3 DSP board"
(2) Remove the touch panel [1].
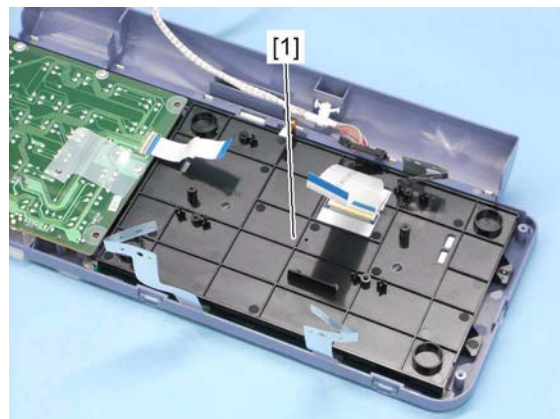
Fig. 4-25

(3) Remove the touch panel [2] from the case [1].
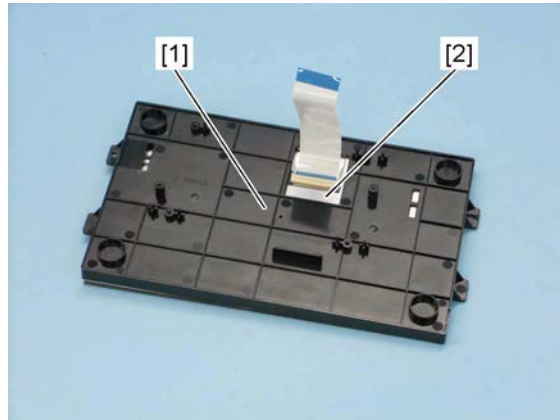
Fig. 4-26

(4) Disconnect the harness [2] from the touch panel [1].
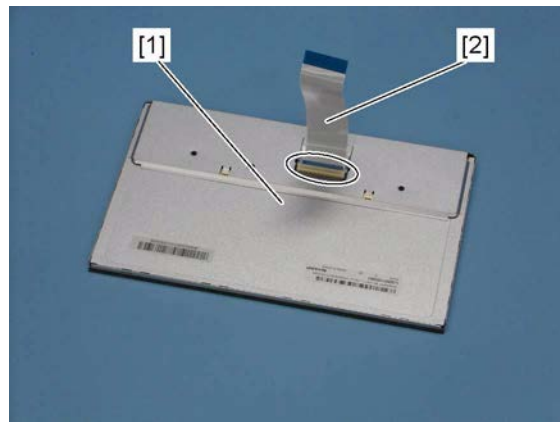
Fig. 4-27

4.3 Scanner Unit

Notes:

Since the scanner section is assembled with high precision, be sure not to perform any disassembling other than that instructed in the Service Manual.

4.3.1 Original glass

(1) Remove the right top cover.
   📖 P. 4-3 "4.1.7 Right top cover"
(2) Remove 2 screws and take off the original glasses [1] and [2].

Notes:

- Make sure that the original glass [2] is securely inserted into the groove of the fixing part of the original glass [1].
- Securely insert 2 pins of the original glass [1] into the holes in the frame.
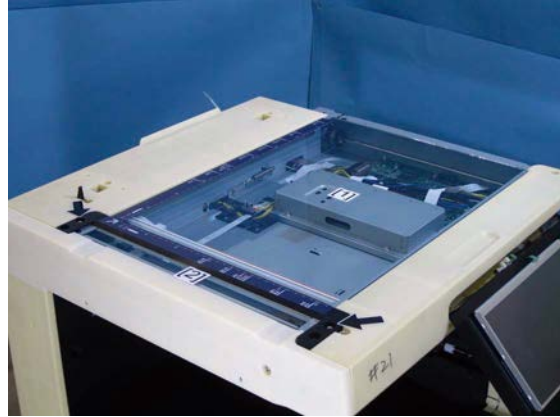
Fig. 4-28

4.3.2 Lens cover

(1) Remove the original glass.
   📖 P. 4-11 "4.3.1 Original glass"
(2) Remove 2 screws and take off the lens cover [1] by sliding it toward the left side.
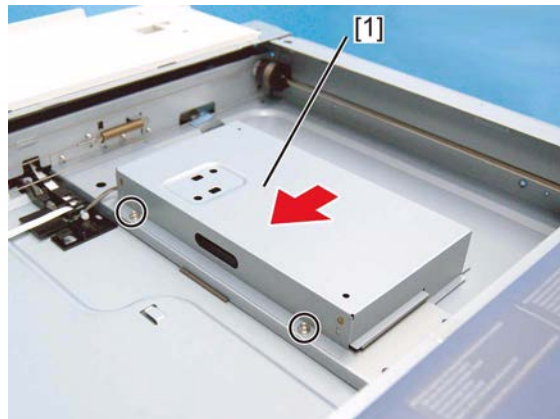
Fig. 4-29

4.3.3 Automatic original detection sensor-1, -2 (S24, S25)

(1) Remove the lens cover.
  📖 P. 4-11 "4.3.2 Lens cover"
(2) Remove 1 screw and take off the automatic original detection sensor-1 and -2 [1].

Notes:
  - Only the 20ppm/25ppm are equipped with automatic original detection sensors-1 and -2.
  - A4 models are equipped only with automatic original detection sensor-1 and LT models are equipped with automatic original detection sensors-1 and -2.
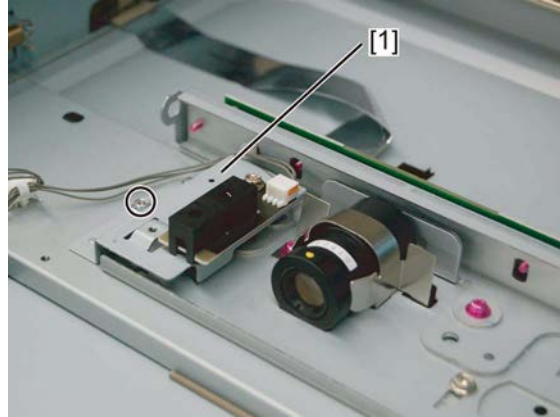
Fig. 4-30

4.3.4 Lens unit/CCD driving PC board

(1) Remove the automatic original detection sensor.
  📖 P. 4-12 "4.3.3 Automatic original detection sensor-1, -2 (S24, S25)"
(2) Disconnect 1 connector [1].
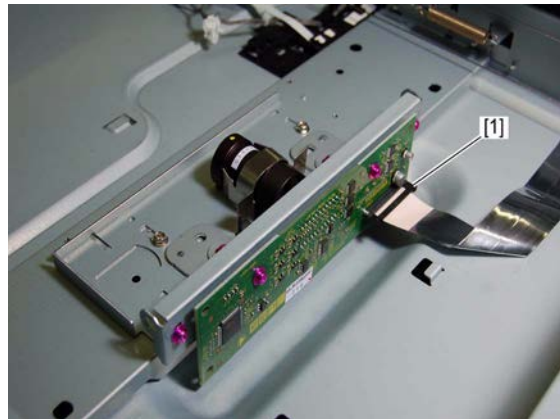
Fig. 4-31

(3) Remove 4 screws and take off the CCD lens unit [2].

Notes:
1. The CCD lens unit is adjusted finely, so the re-adjustment or replacement of some parts are impossible in the field. The lens unit must be replaced on a unit basis.
2. Handle the lens unit with care. Do not hold the adjustment unit or lens.
3. Count the number of lines [3] and write it down for later reference before removing the CCD lens unit. When installing the CCD lens unit, the same number of lines needs to be visible.
4. When replacing the lens unit, do not touch the screws (7 places).
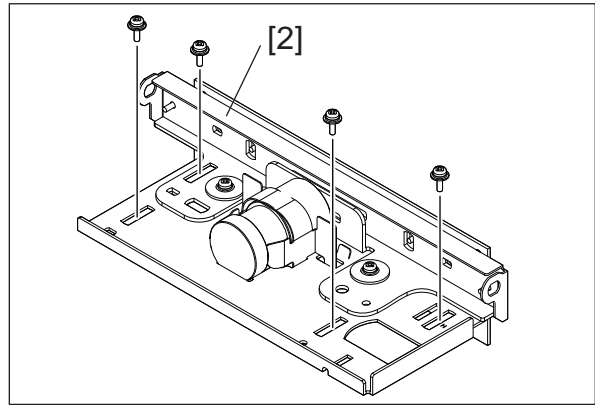
Fig. 4-32
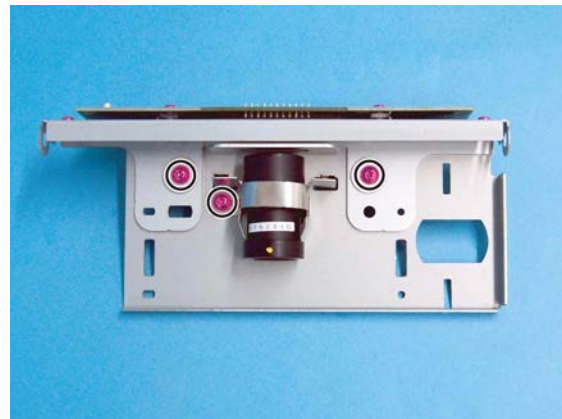
Fig. 4-33
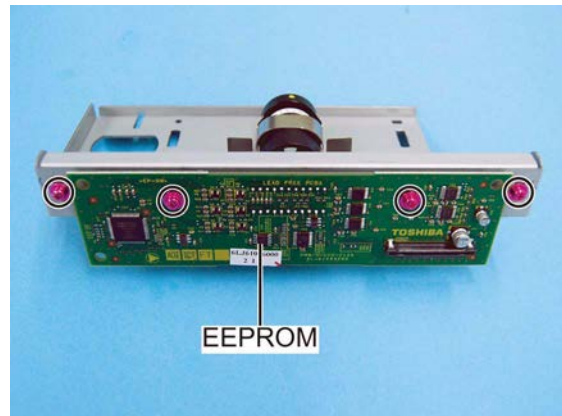
Fig. 4-34

4.3.5 Carriage home position sensor (S23)

(1) Remove the original glass.
🕮 P. 4-11 "4.3.1 Original glass"
(2) Remove the rear top cover.
🕮 P. 4-5 "4.1.12 Rear top cover"
(3) Disconnect the 1 connector [1], and release 3 latches and remove carriage home position sensor [2].
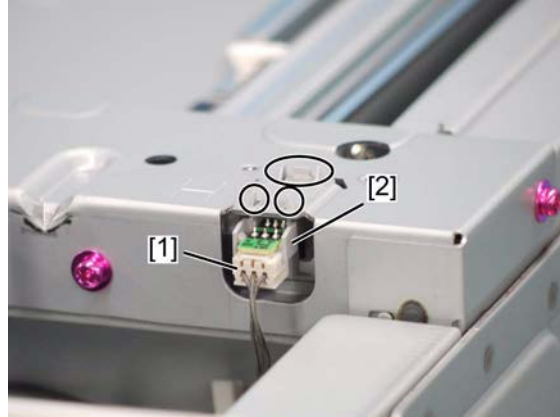
Fig. 4-35

4.3.6 Exposure lamp (EXP)

(1) Remove the original glass and front top cover.
🕮 P. 4-11 "4.3.1 Original glass"
🕮 P. 4-4 "4.1.10 Front top cover"
(2) Move carriage-1 [1] to a place where you can see the exposure lamp mounting screw through the frame hole.
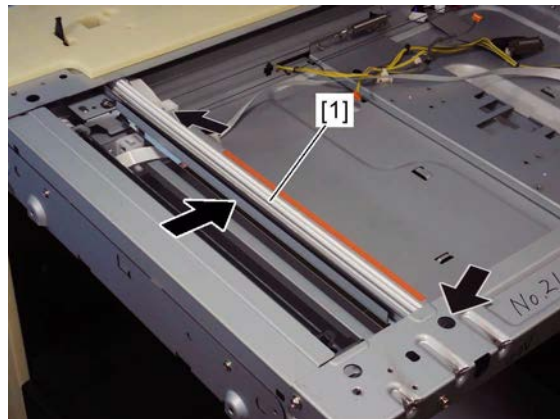
Fig. 4-36

Notes:
To move the carriage, manually rotate the drive pulley.
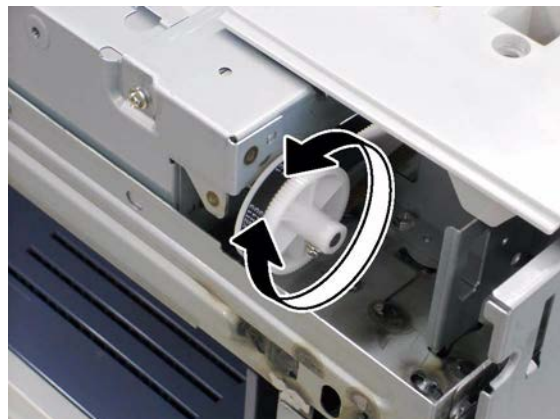
Fig. 4-37

(3) Remove 1 screw and take off the harness holder.
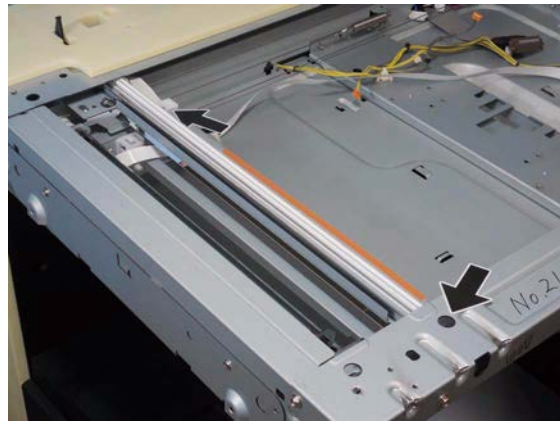
Fig. 4-38

(4) Rotate the front side of the exposure lamp [1] and remove the exposure lamp by sliding it toward the front side.

Fig. 4-39

(5) Disconnect the connector of the exposure lamp.

Notes:

When installing the exposure lamp, insert the rear side of the exposure lamp in the carriage, and then fix the front side screw. After installation, confirm that the exposure lamp comes in contact with the carriage.

Fig. 4-40

4

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DISASSEMBLY AND REPLACEMENT
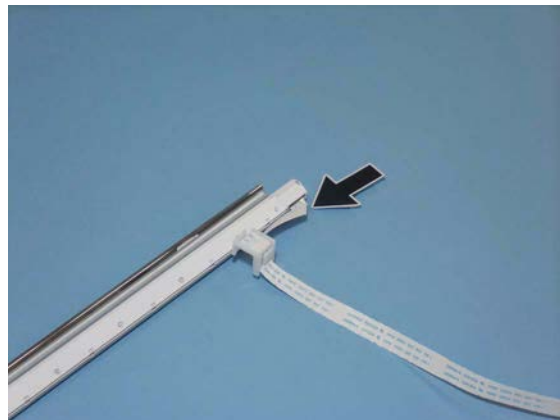
4.3.7   Scan motor (M1)

(1) Remove the rear cover.
     📖 P. 4-5 "4.1.13 Rear cover"
(2) Disconnect 1 connector.
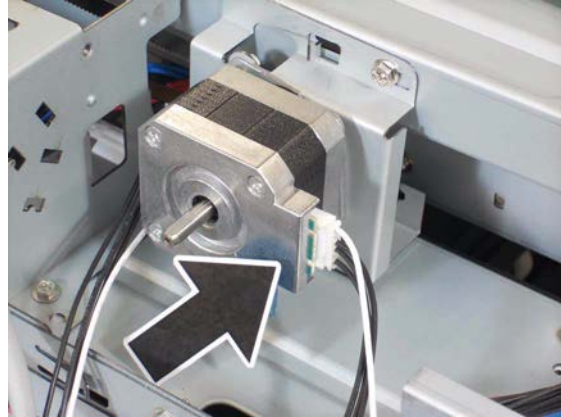
Fig. 4-41

(3) Remove 2 screws and take off the scan motor assembly.

   Notes:

   When installing the scan motor, use the belt tension jig.
   📖 P. 6-79 "6.6.3 Belt tension adjustment of the Scan motor"
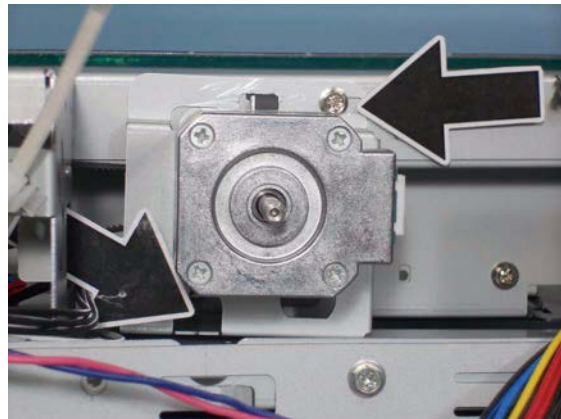
Fig. 4-42

(4) Remove 2 screws and take off the scan motor [1].
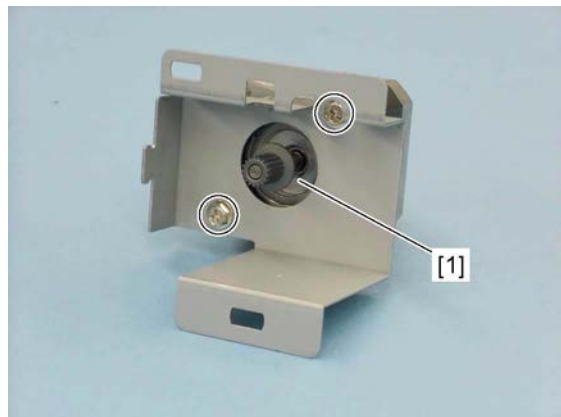
Fig. 4-43

4.3.8　Platen sensor (S21, S22)

(1) Remove the rear top cover.
　　📖 P. 4-5 "4.1.12 Rear top cover"
(2) Remove 5 screws and disconnect the ground cable, and take off the platen sensor assembly.
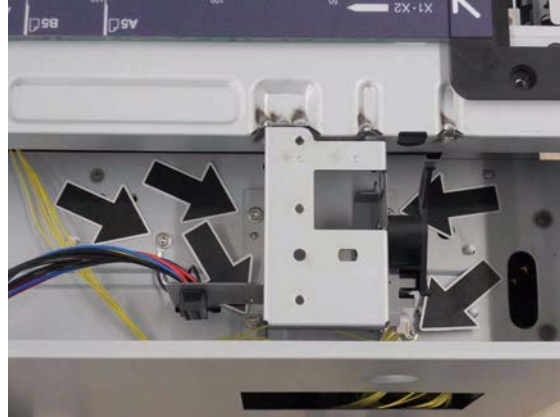
Fig. 4-44

(3) Disconnect 2 connectors and remove the platen sensor-1 [1] and -2 [2].
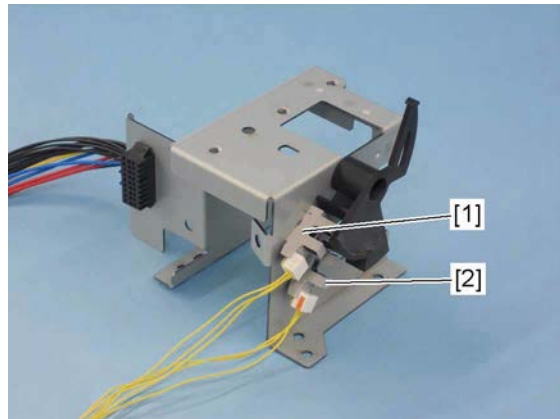
Fig. 4-45

4.3.9　Carriage-1

(1) Remove the original glass.
　　📖 P. 4-11 "4.3.1 Original glass"
(2) Remove the rear top cover.
　　📖 P. 4-5 "4.1.12 Rear top cover"
(3) Remove the front top cover.
　　📖 P. 4-4 "4.1.10 Front top cover"
(4) Move carriage-1 [1] to the leftmost side.

Fig. 4-46

4
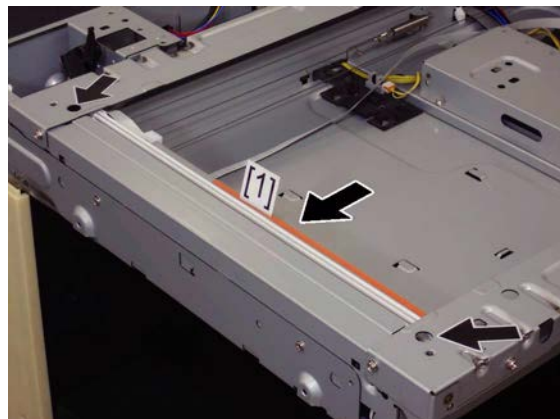
Notes:
> To move the carriage, manually rotate the drive pulley.
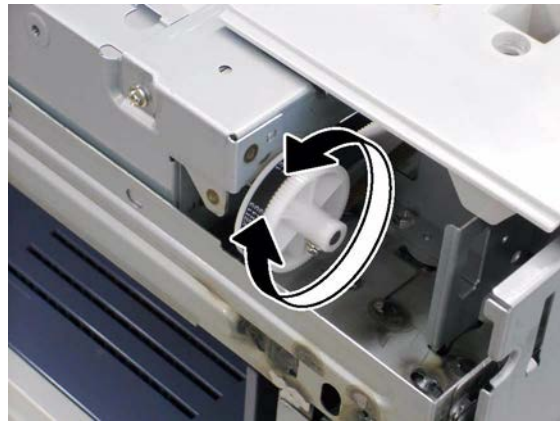
Fig. 4-47

(5) Remove 2 screws.

Fig. 4-48

(6) Rotate carriage-1 [1] in the direction shown in the figure, while trying not to touch the mirror. Then remove carriage-1 [1].

Fig. 4-49

Notes:

Follow the procedure below to connect the exposure lamp harness.

1. Push carriage-1 and -2 to the leftmost side and fix carriage-1.
2. Securely install the exposure lamp harness on the cable guide and SYS board.
3. After connecting the exposure lamp harness, move carriage-1 to the leftmost side and check the lamp harness for any twists.

4
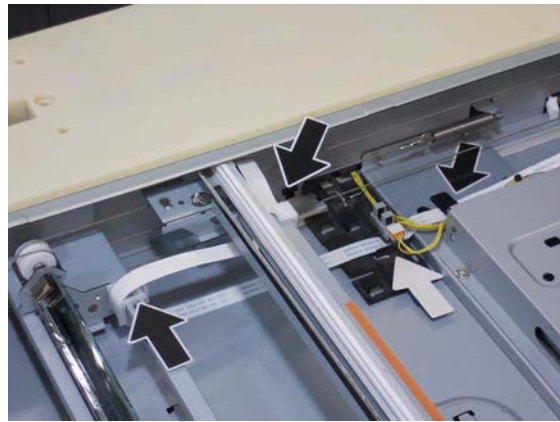
Fig. 4-50

4.3.10 Carriage wire, carriage-2

[A] Carriage wire, carriage-2

(1) Remove carriage-1.
   📖 P. 4-17 "4.3.9 Carriage-1"
(2) Move carriage-2 to the center.
(3) Attach the wire holder jig to the pulley to prevent the wire from coming loose.
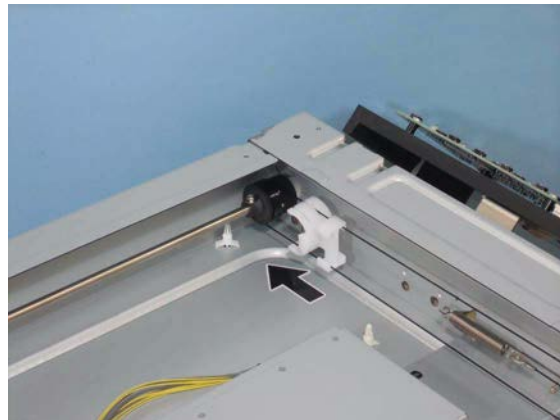
Fig. 4-51

Notes:

1. When attaching the wire holder jig [1], make sure that the wire has not shifted or become loose.
2. The wire should come out of the slot of the wire holder jig [1] and be passed under the jig arm [2].
3. When installing the wire holder jig, be careful of the orientation.
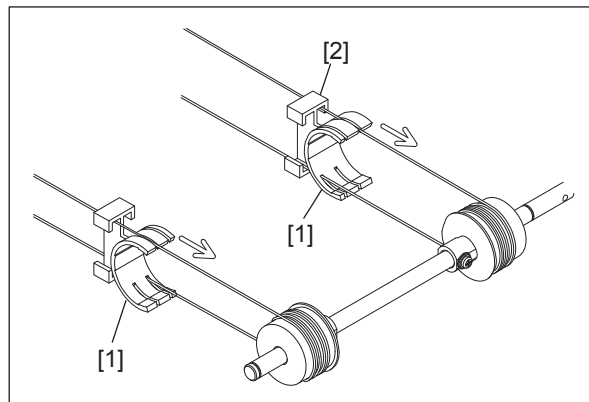
Fig. 4-52

(4) Remove the tension springs [1] in the front and rear sides.

(5) Remove the carriage wire.

Fig. 4-53

(6) Rotate carriage-2 [1] in the direction shown in the figure, while trying not to touch the mirror. Then remove carriage-2 [1].

Notes:
Replace mirror-2 and -3 together with carriage-2 [1]. Do not remove mirror-2 and -3.
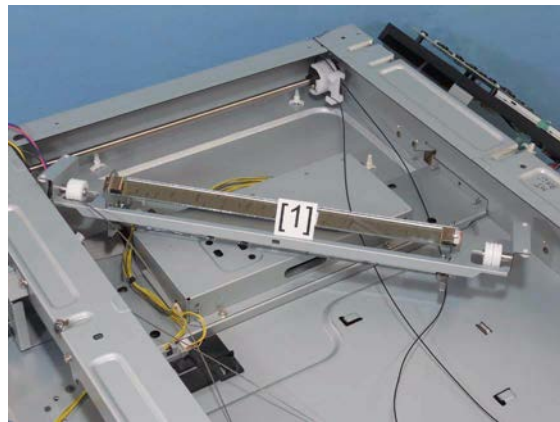
Fig. 4-54

[B]   Installing the carriage wire

(1)   As shown on the right, replace the carriage
       wire and install a new wire.
       [1] Wire pulley
       [2] Carriage wire
       [3] Carriage-2
       [4] Idler pulley
       [5] Hook
       [6] Tension spring
       [7] Front side
       [8] Rear side
   Notes:
       It is not necessary to adjust the carriage wire
       tension since a certain tension is applied to
       the carriage wires through the tension
       springs. Make sure the tension applied to the
       wire is normal.
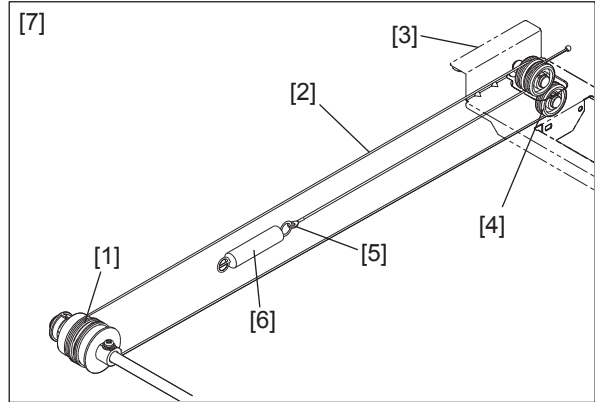
Fig. 4-55
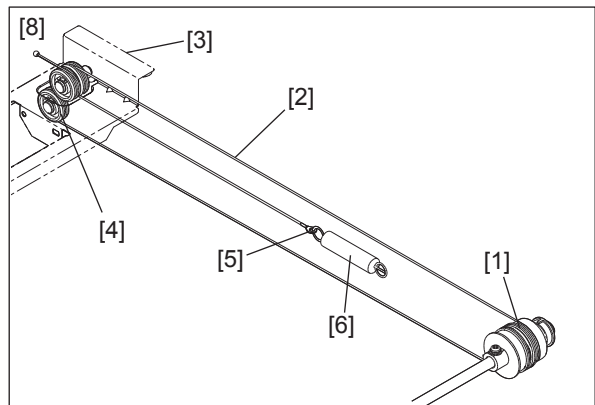
Fig. 4-56

[C] Winding on the wire pulley

(1) Pull the ø3 ball terminal [1] located at the center of the wire into a hole on the wire pulley. One end of the wire with the hook [2] attached comes to the outside.

(2) Wind the wires around the wire pulleys of the front side [3] and rear side [4]. The number of turns to be wound are as follows: 3 [5] toward the opposite side (outside) of the pulley boss, and 3 [6] toward the pulley boss side (inside).
[7] Black
[8] Silver

Notes:
When winding the wire onto the pulley, be sure to note the following.
- Do not twist the wire.
- Wind the wires tightly so that they are in complete contact with the surface of the pulleys.
- Each turn should be pushed against the previously wound turn so that there is no space between them.
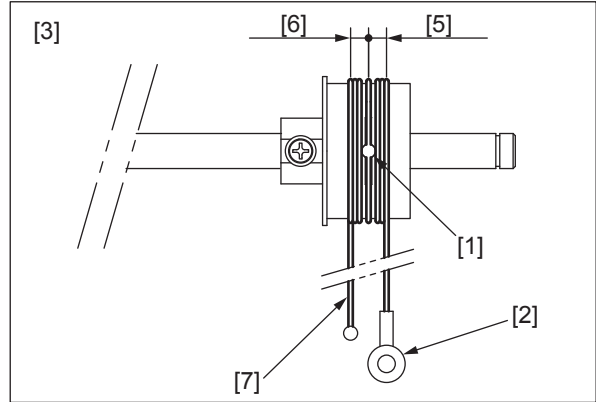
Fig. 4-57
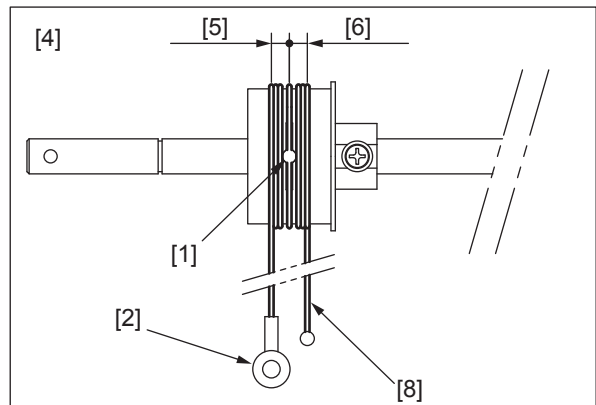
Fig. 4-58

(3) After winding the wires around the pulleys, attach the wire holder jigs to prevent the wire from coming loose.

Notes:
1. When attaching the wire holder jig [1], make sure that the wire has not shifted or become loose.
2. The wire should come out of the slot of the wire holder jig [1] and be passed under the jig arm [2].
3. When installing the wire holder jig, be careful of the orientation.
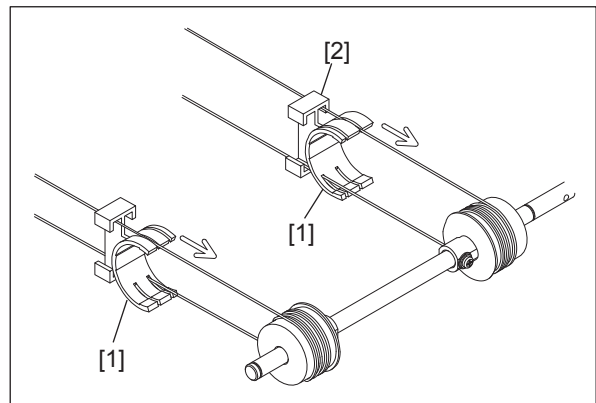
Fig. 4-59

4.3.11 Scanner damp heater

(1) Remove the original glass.
    📖 P. 4-11 "4.3.1 Original glass"
(2) Remove the connector [1].
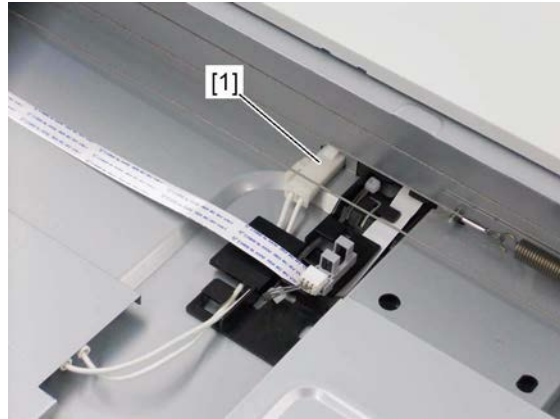
Fig. 4-60

(3) Remove the scanner damp heater [1] by sliding it toward the rear side.
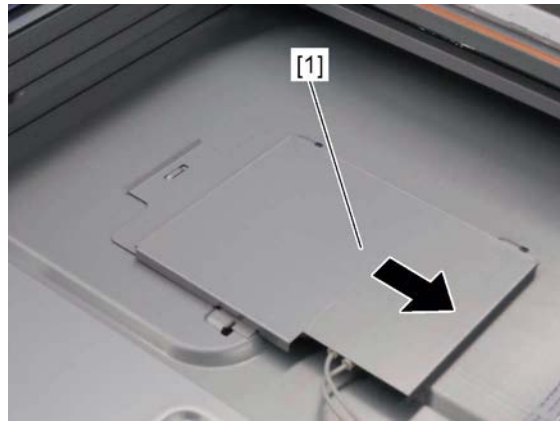
Fig. 4-61

4.4 LED Unit

4.4.1 LED Tray

(1) Remove the cleaner unit.
 📖 P. 4-61 "4.6.8 Cleaner unit"
(2) Remove the high-voltage transformer.
 📖 P. 9-6 "9.1.8 High-voltage transformer (HVT)"
(3) Disconnect 1 connector.
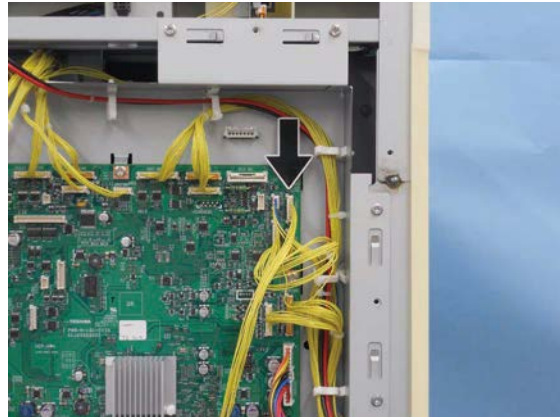
Fig. 4-62

(4) Disconnect 4 LED connectors and 4 flat cables.

Fig. 4-63

Notes:
- When removing the flat cable, change the lever position so that the connector is released, and remove the flat cable by lifting it up slightly (approx. 7 degrees) as shown in the right figure.
- When connecting the flat cable to the connector, insert the flat cable straightly and lock it securely. Confirm that the tabs are in the positions shown in the right figure.
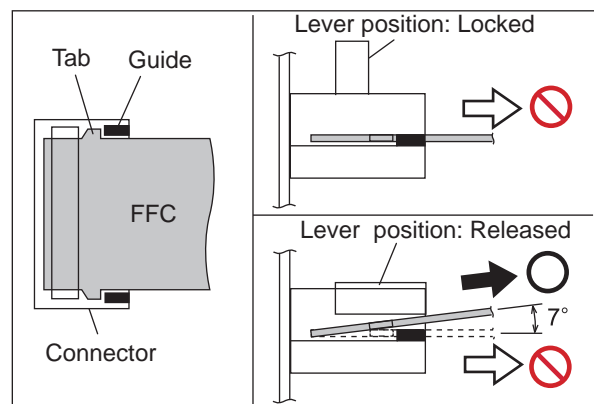
Fig. 4-64

Notes:
- When installing the flat cable, be careful not to insert it at an angle.
- Do not apply pressure to or damage the edge of the flat cable.
- When installing the flat cable, do not push it in strongly.
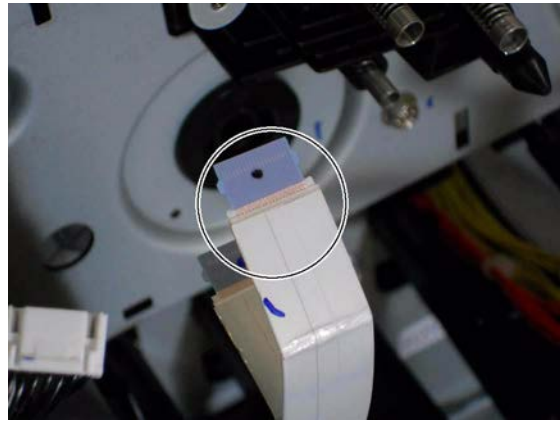
Fig. 4-65

(5) Slide the harness guide [1] upward and tilt it to the near side.
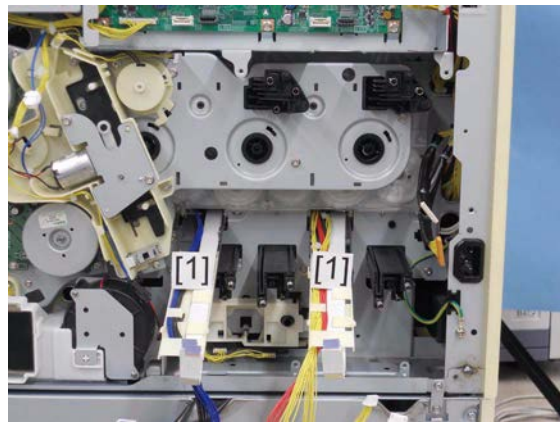
Fig. 4-66

(6) Install the harness holding jig [1].
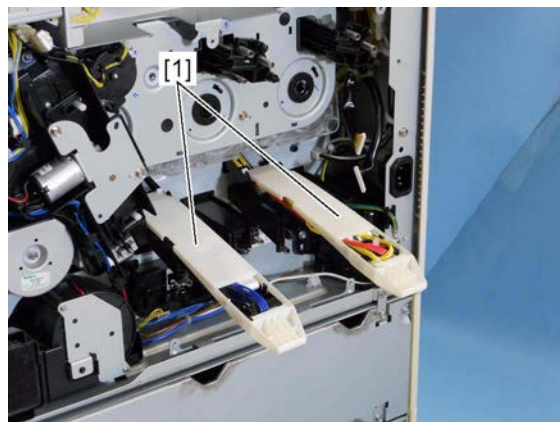
Fig. 4-67

Notes:
    Store the connector inside the jig.
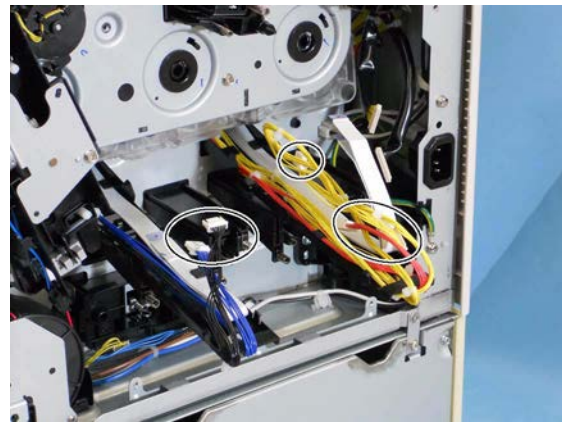
Fig. 4-68

(7) Remove the cleaner unit.
    📖 P. 4-61 "4.6.8 Cleaner unit"
(8) Remove 4 screws and pull out the LED tray [1] while lifting it up by holding the levers on both sides.
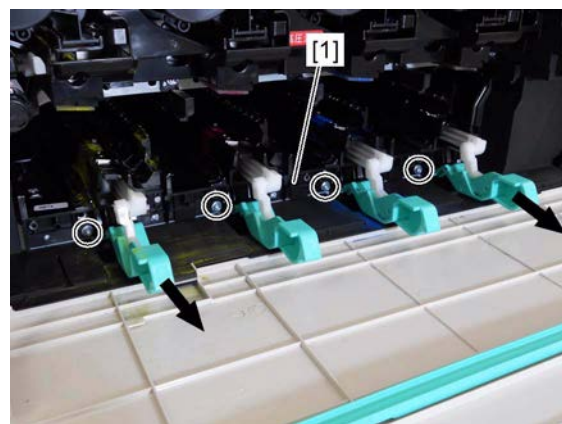
Fig. 4-69

Notes:
- Always hold both sides of the LED tray, and be careful not to touch the LED.
- Be careful not to leave any fingerprints on the lens of the LED printer head.
- The LED tray is a precision unit, so be careful when handling it so that it is not subjected to impact or vibration.
- The LED printer head is an electrical part, so be careful of static electricity when handling it. In particular, exercise great care when handling the LED printer head connector part.
- When installing the LED tray, attach the harness holding the jig and pass the harness through the hole in the frame.
- When installing the LED tray, mount the attachment screw from the left side.
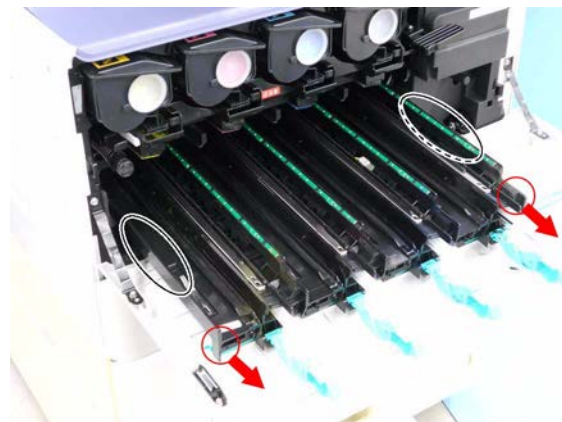
Fig. 4-70

4.4.2 Discharge LED

(1) Remove the LED unit.
  📖 P. 4-24 "4.4.1 LED Tray"
(2) Slide the discharge LED [1] to the front side and remove it by releasing the hook.
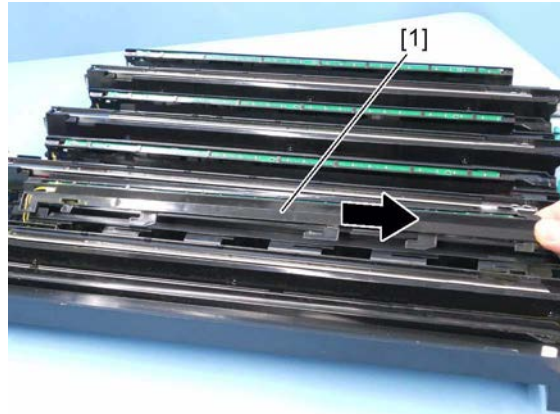
Fig. 4-71

(3) Disconnect the connector [1].
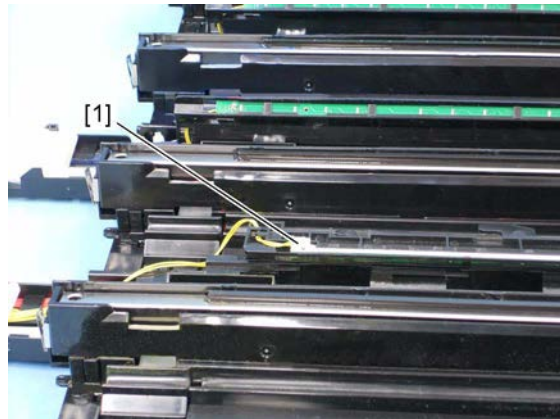
Fig. 4-72

(4) Remove the discharge LED [1].

Fig. 4-73

4.4.3   LED printer head

Notes:
- The LED printer head is an electrical part, so be careful of static electricity when handling it. In particular, exercise great care when handling the LED printer head connector part.
- If you accidentally touch the LED printer head, clean it using a dry cloth to remove stains. If grease adhered to the LED printer head, clean it with alcohol.

(1) Remove the LED tray.
     📖 P. 4-24 "4.4.1 LED Tray"
(2) Release 2 latches and remove the harness cover [1].
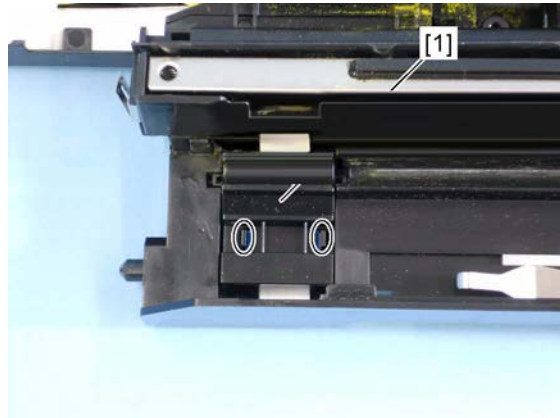
Fig. 4-74

(3) Remove the LED printer head contact/release lever link [1] and lever [2].
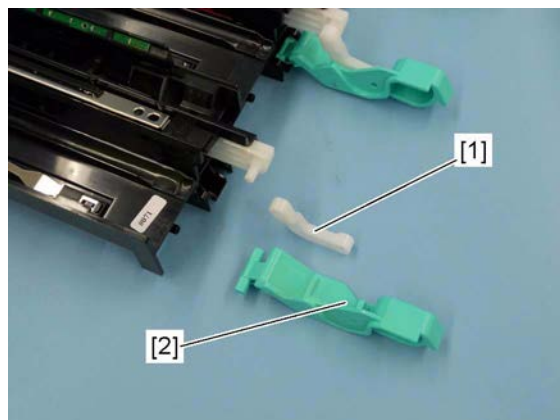
Fig. 4-75

(4) Press the contact/release arm [1] to place the LED printer head [2] into the contact state.
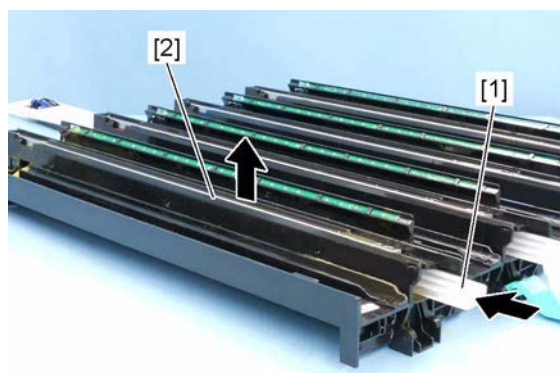
Fig. 4-76

(5) Tilt the LED printer head [1] toward the left side to release the latch in order to remove it.
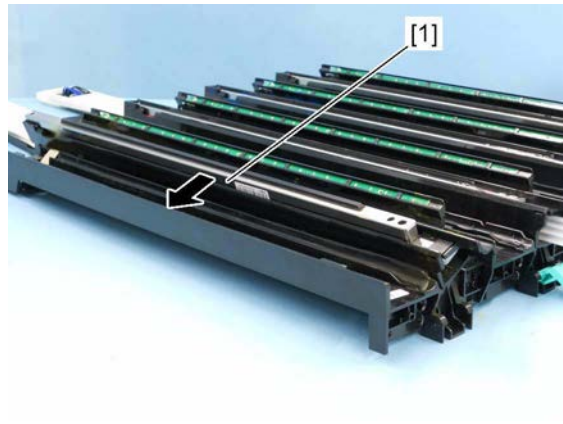
Fig. 4-77

Notes:

- Make sure that the plate spring [1] on the front of the LED printer head is placed in the groove [2].
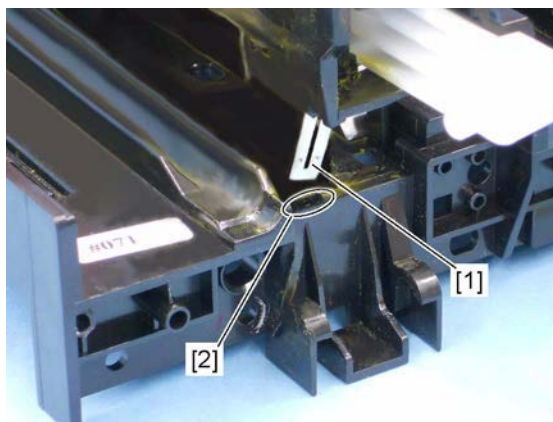
Fig. 4-78

- Before installing the LED printer head, mount the link alone.

[1] LED printer head contact/release lever link

[2] Lever
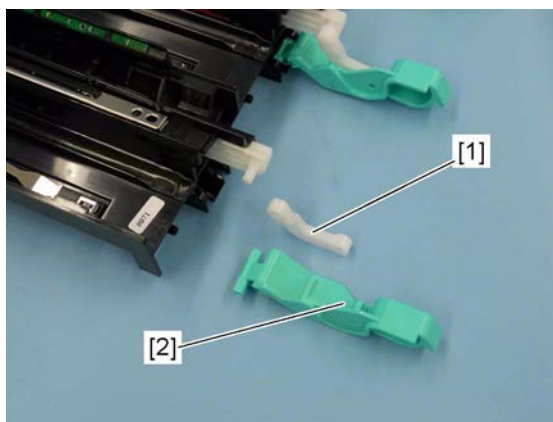
Fig. 4-79

- Make sure that the duct in the rear side is securely positioned without any clearance.
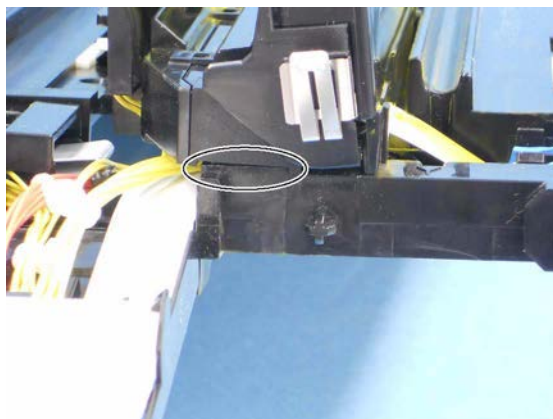
Fig. 4-80

Notes:

- When installing the LED printer head, push both sides [3] and then the center part [4] of the head inside. Then, make sure that the head is securely installed.
- After the link has been installed, check the contact/release operations.
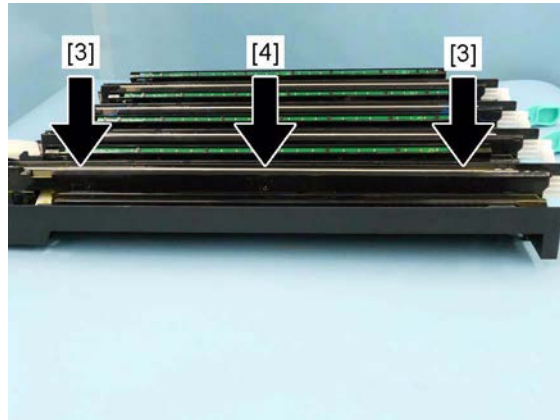
Fig. 4-81

(6) Remove the LED printer head side cover [1].
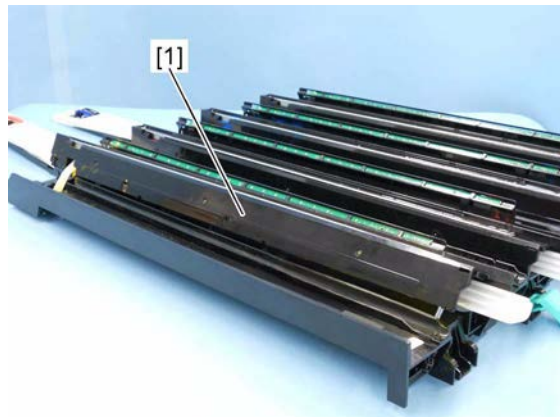
Fig. 4-82

(7) Disconnect the flat cable [1].
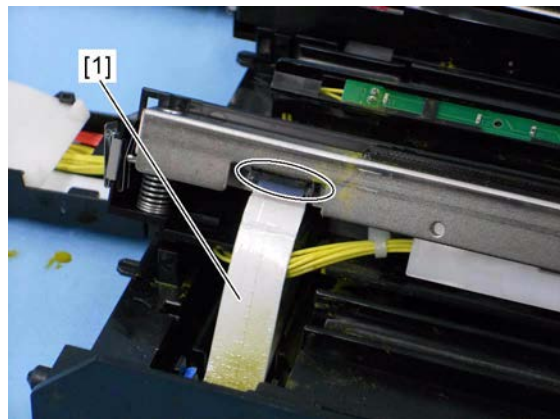
Fig. 4-83

Notes:

- When removing the flat cable, change the lever position so that the connector is released, and remove the flat cable by lifting it up slightly (approx. 7 degrees) as shown in the right figure.
- When connecting the flat cable to the connector, insert the flat cable straightly and lock it securely. Confirm that the tabs are in the positions shown in the right figure.
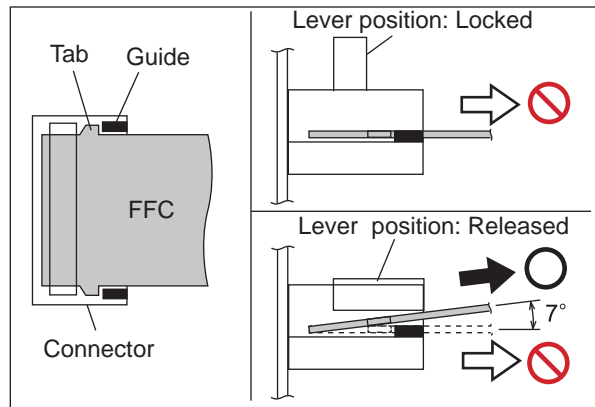
Fig. 4-84

Notes:

- When installing the flat cable, do not push it in strongly.
- When installing the flat cable, be careful not to insert it at an angle.
- Do not apply pressure to or damage the edge of the flat cable.
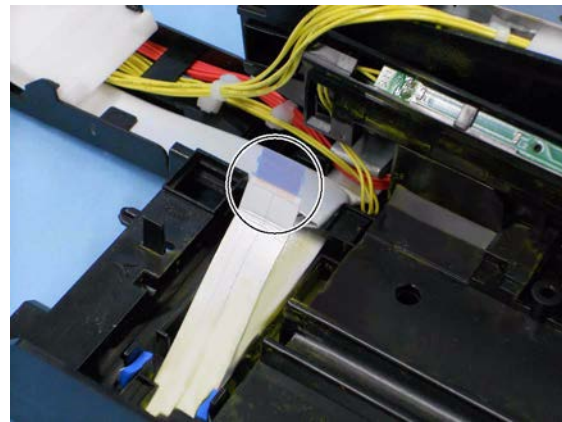
Fig. 4-85

(8) Remove the LED printer head [1].
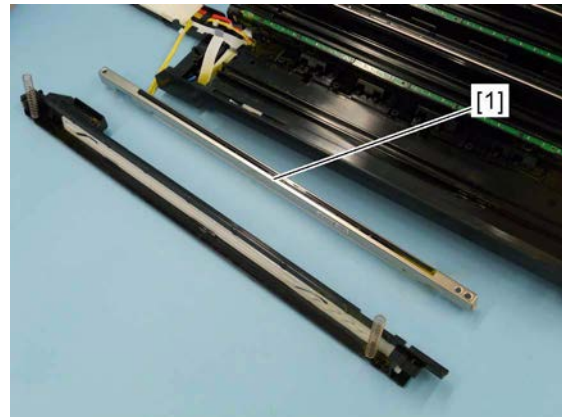
Fig. 4-86

Notes:

When installing the LED printer head, make sure that the flanges [1] in the front and rear sides of the LED printer head are inside the flat spring [2].
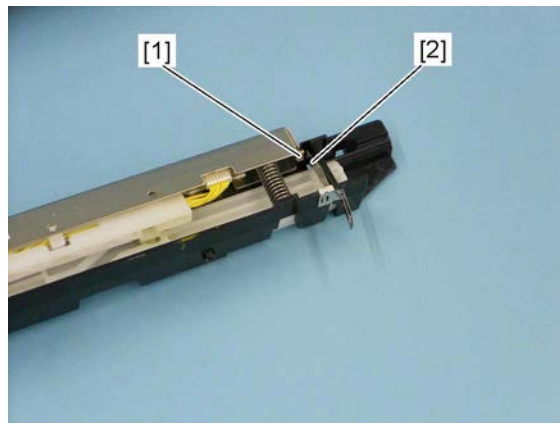
Fig. 4-87
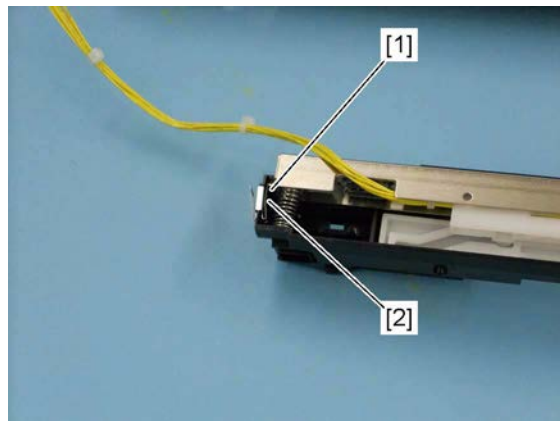
Fig. 4-88

(9) Remove the harness holder [1], connector [2], and LED printer head [3].

Fig. 4-89

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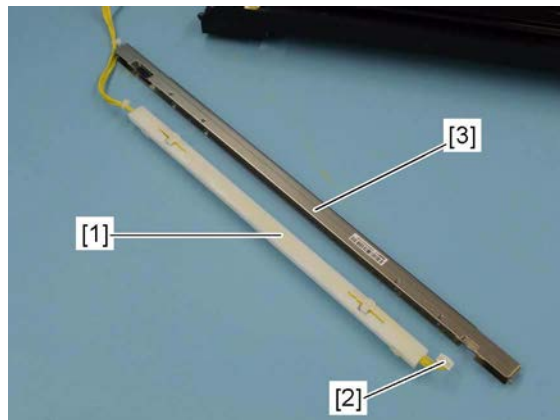
4.4.4 LED spacer 🅿🅼

(1) Remove the drum.
  📖 P. 4-63 "4.6.10 Drum"
(2) Remove the LED spacer [1] in the front side and the LED spacer [2] in the rear side.

Notes:

When attaching the LED spacer, make sure that it is placed in the correct orientation.
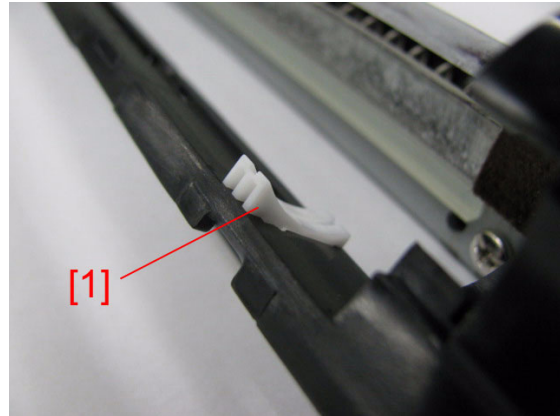
Fig. 4-90
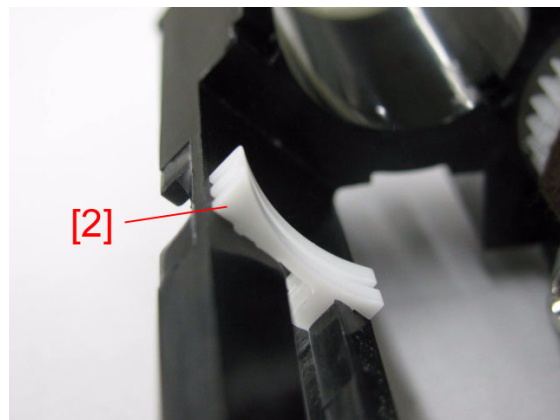
Fig. 4-91

4.5 Paper Feeding System

4.5.1 Bypass unit

(1) Slide the slide tray of the bypass unit.
(2) Remove 1 screw and take off the paper width detection PC board cover [1].
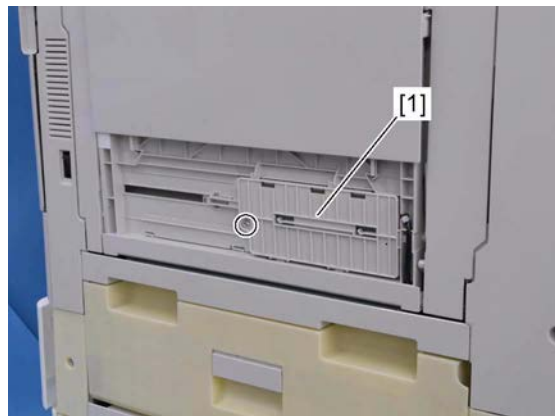
Fig. 4-92

(3) Pull out the paper width detection PC board connector [1].

Notes:
When removing the paper width detection PC board cover, be careful not to drop the gear web washers or washers.

Fig. 4-93

(4) Remove 2 hinge stoppers [1].

Notes:
When removing the hinge stoppers, move the projection portion to the wider part of the groove.
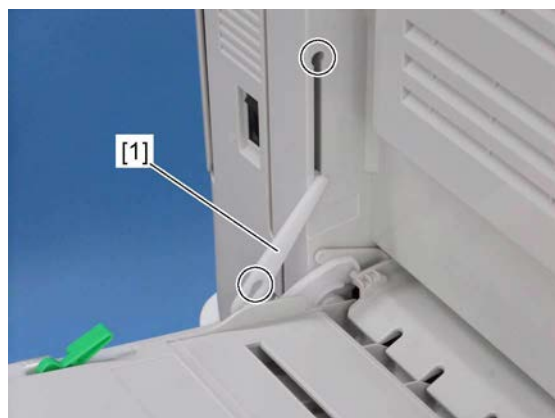
Fig. 4-94

(5) Remove the paper holder release levers [1] and [2].
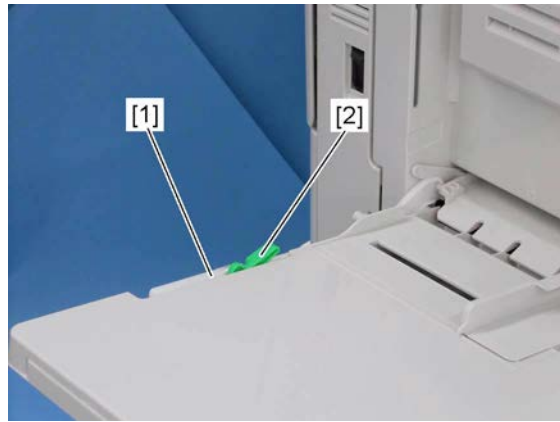
Fig. 4-95

(6) Remove the paper holder [1] and spring [2].
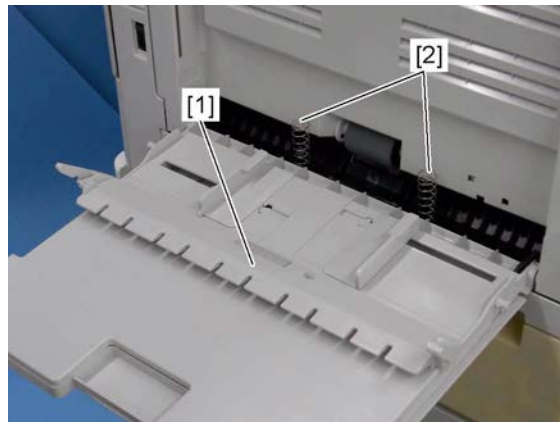
Fig. 4-96

(7) Pull the rear shaft of bypass tray [1] toward you and remove it from the bearing. Then, remove the front shaft and take off the bypass tray [1].
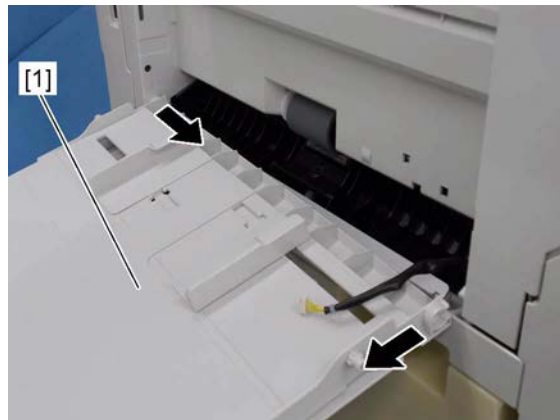
Fig. 4-97

4.5.2 Bypass feed roller🅿🅼

(1) Open the bypass tray.
(2) Tip the paper holder release lever outward to release the pressure.
(3) Remove the stopper [1] while pulling out it.
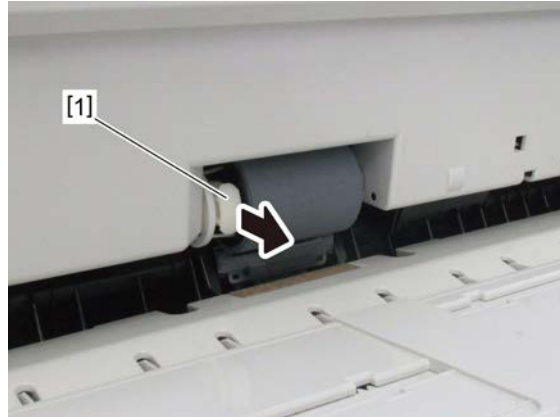
Fig. 4-98

(4) Press the collar [1] toward the rear side and release the lock.
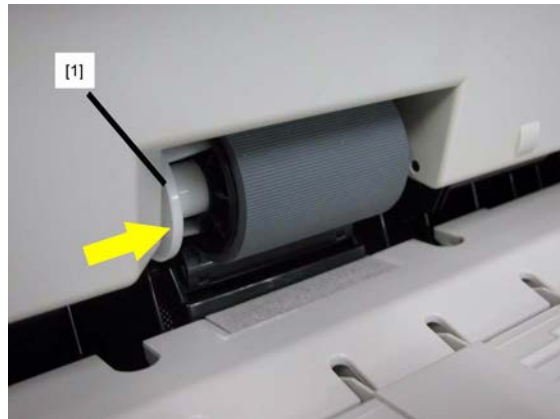
Fig. 4-99

(5) Remove the bypass feed roller [1] while pulling out it.

Fig. 4-100

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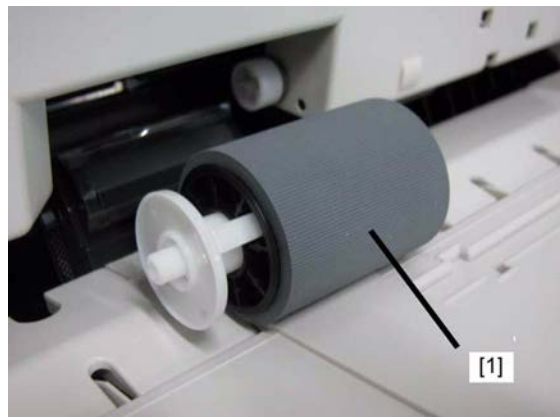
Notes:
- Make sure that the coupling is engaged when the bypass feed roller is replaced.

Fig. 4-101

4.5.3 Bypass separation pad🅿️🅼

(1) Remove the bypass feed roller.
    📖 P. 4-37 "4.5.2 Bypass feed roller"
(2) Push the bottom of the bypass separation pad [1] to the rear so that the double-faced tape peels off.
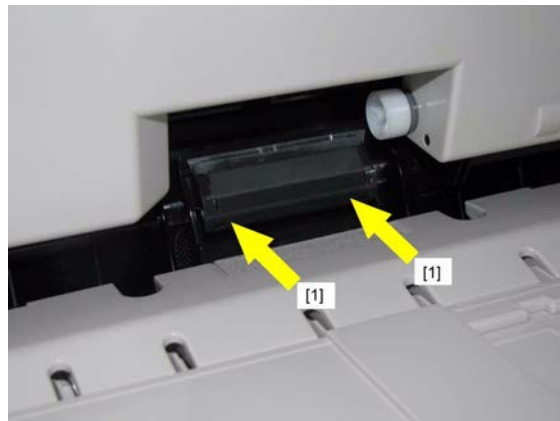
Fig. 4-102

(3) Remove the bypass separation pad.

Notes:
- Cleanly peel off any double-faced tape left on the base of the equipment after the bypass separation pad has been removed.

Fig. 4-103

Notes:
- Pay attention to the following items when attaching the bypass separation pad.
- Peel off the release paper from the double-faced tape.
- Push the upper part of the bypass separation pad [1] strongly so that it sticks securely. If not, an abnormal noise may occur when the pad and paper are in friction during paper feeding.
- When the upper part of the bypass separation pad is strongly pushed, be sure to use a clean cloth or some paper to avoid direct touching of the pad so that no oils or stains adhere.
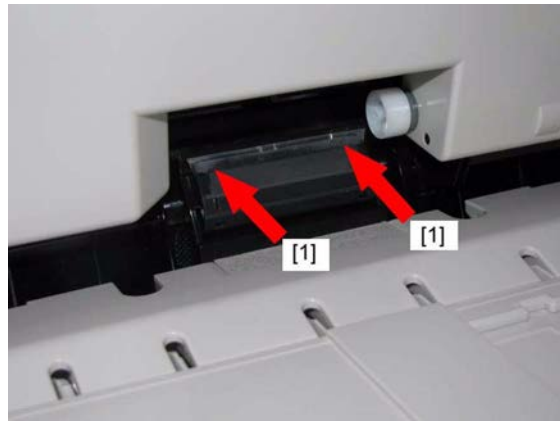
Fig. 4-104

4.5.4   Paper width detection PC board (S17)

(1) Slide the slide tray of the bypass unit.
(2) Remove 1 screw and take off the paper width detection PC board cover [1].
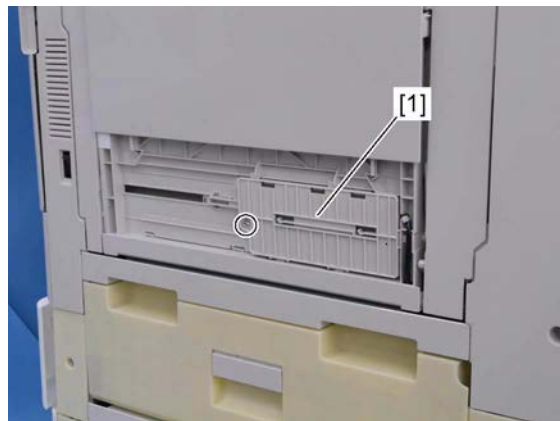
Fig. 4-105

(3) Disconnect 1 paper width sensor connector [1] and remove the paper width detection PC board.

Notes:
When removing the paper width detection PC board cover, be careful not to drop the gear web washers or washers.

Fig. 4-106

4.5.5   Bypass feed sensor (S16)

(1) Remove the transport unit.
📖 P. 4-127 "4.10.4 Transport unit"
(2) Press the flange inside and remove the bypass feed roller [1].
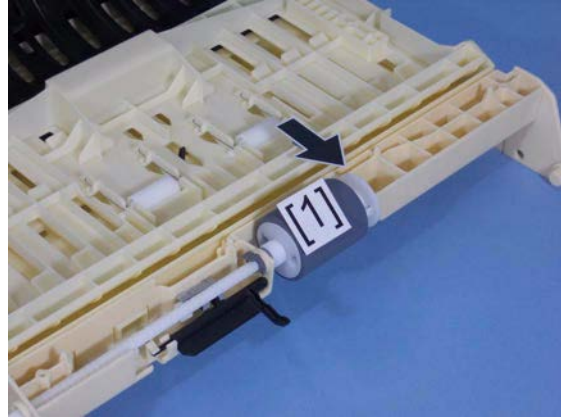
Fig. 4-107

(3) Remove the clip [1], shaft [2], and collar [3].
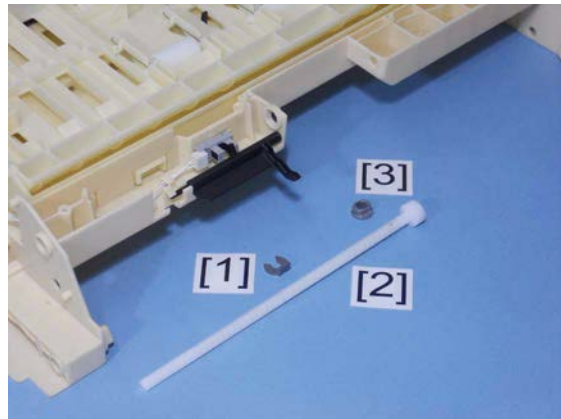
Fig. 4-108

(4) Remove the sensor arm [1] and bypass feed sensor [2].
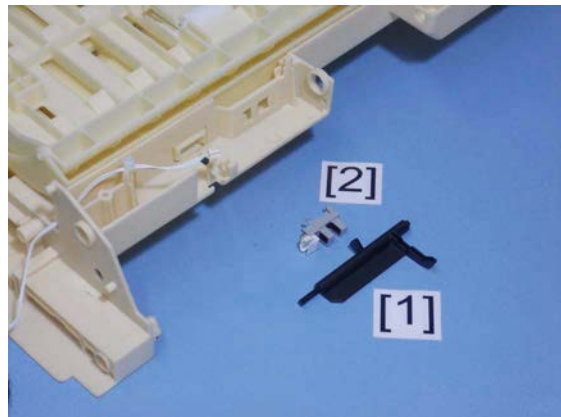
Fig. 4-109

4.5.6   Bypass paper feed clutch (CLT4)

(1) Remove the paper feeding/developer drive unit.
   📖 P. 4-75 "4.6.24 Paper feeding/developer drive unit"
(2) Remove 2 screws and then take off the bypass paper feed clutch cover [1].
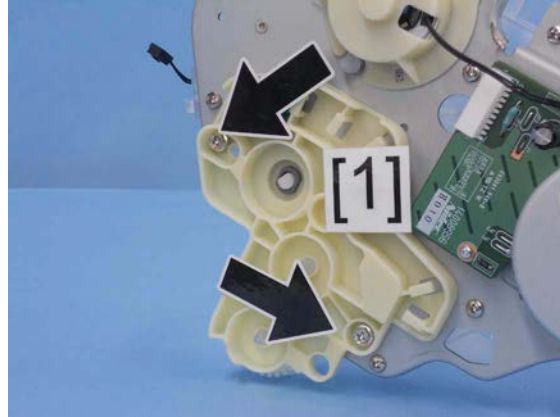
Fig. 4-110

(3) Remove 2 gears and bushings, and then take off the bypass feed clutch.
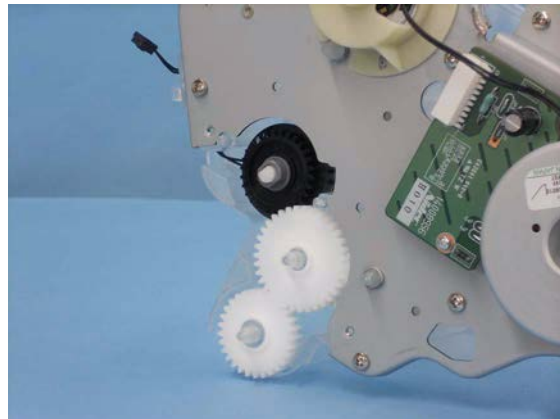
Fig. 4-111

4.5.7   Drawer feed roller🅿🅼

(1) Remove the drawer.
(2) Release the hook and remove the paper feed roller [1] by sliding the 2 collars [1] toward each other.
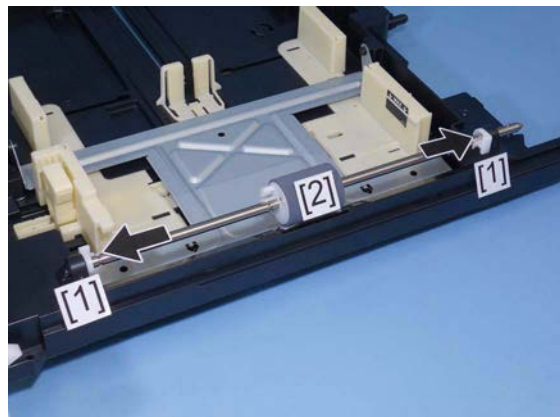
Fig. 4-112

4.5.8 Drawer separation pad🅿️🅜

(1) Remove the drawer feed roller.
   📖 P. 4-41 "4.5.7 Drawer feed roller"
(2) Place the drawer face down and remove the latch [1] at the bottom.
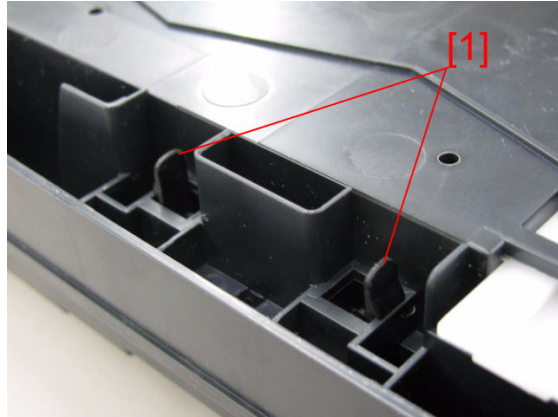
Fig. 4-113

(3) Remove the drawer separation pad [1].
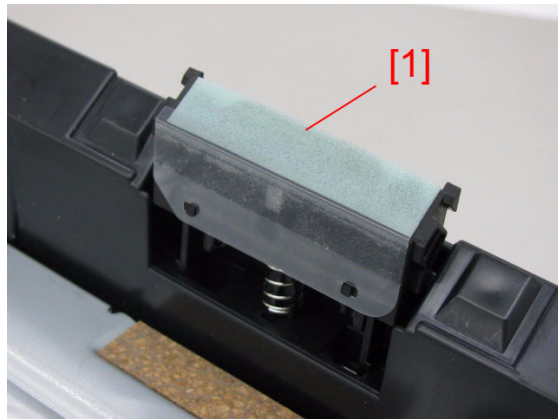
Fig. 4-114

4.5.9 1st drawer empty sensor (S5)

(1) Remove the paper guide.
   📖 P. 4-44 "4.5.13 Registration sensor (S19), feed sensor (S20)"
(2) Remove 1 screw and disconnect the connector, and then take off the 1st drawer empty sensor holder.
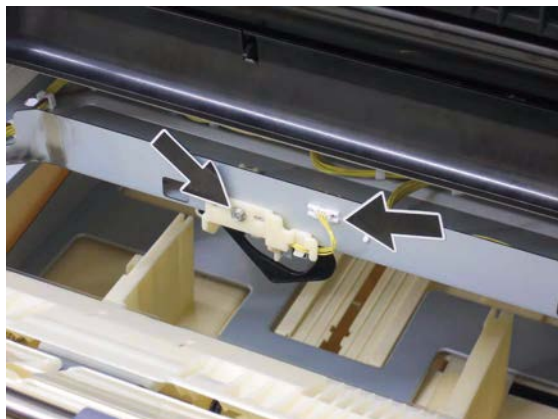
Fig. 4-115

(3) Disconnect the connector and remove the empty sensor [1].

Fig. 4-116

4.5.10 1st drawer size detection switch-1, -2 (SW6, SW7)

(1) Remove the HVT board.
   📖 P. 9-6 "9.1.8 High-voltage transformer (HVT)"
(2) Disconnect 2 connectors and release 2 latches, and then remove the 1st drawer size detection switch-1 [1] and -2 [2].
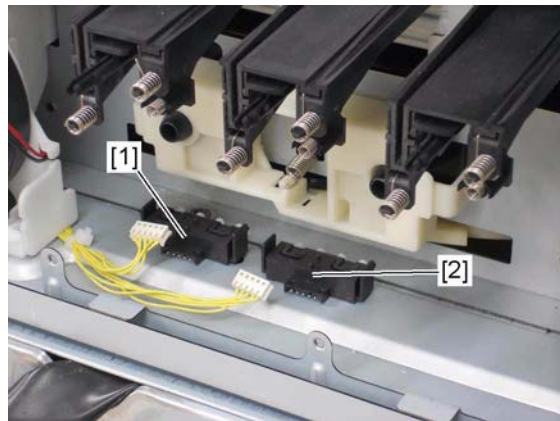
Fig. 4-117

4.5.11 1st drawer detection switch (SW8)

(1) Remove the ozone exhaust fan.
   📖 P. 4-79 "4.6.30 Ozone exhaust fan (F2)"
(2) Disconnect the connector and remove the 1st drawer detection switch.

Fig. 4-118

4.5.12 Side cover switch (SW5)

(1) Open the side cover.
(2) Release 2 hooks and disconnect the connector by pulling out the side cover switch.
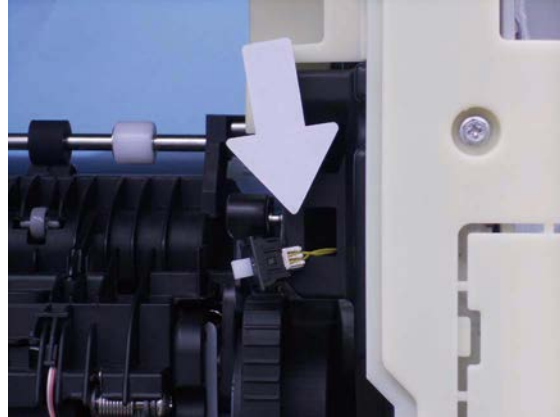
Fig. 4-119

4.5.13 Registration sensor (S19), feed sensor (S20)

(1) Remove the registration roller.
📖 P. 4-47 "4.5.15 Registration roller"
(2) Disconnect the connector from the CFD board.

Fig. 4-120

(3) Remove the harness from the guide.

Fig. 4-121

(4) Slide the paper guide toward the front side and pull out the rear shaft.
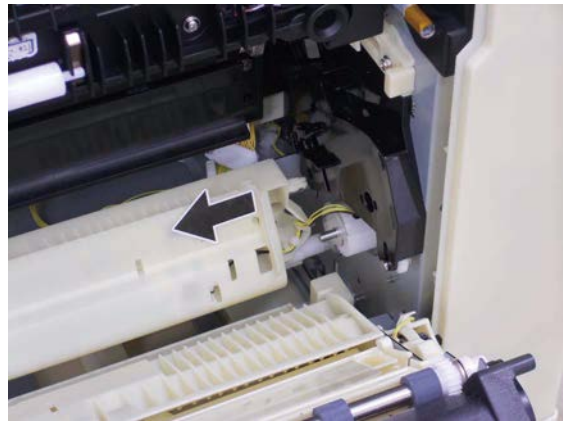
Fig. 4-122

(5) Slide the rear side of the paper guide [1] toward the rear side while lifting it up, and then remove the paper guide [1] by pulling out the front shaft.

Fig. 4-123

(6) Release 2 latches and remove the sensor bracket.

Fig. 4-124

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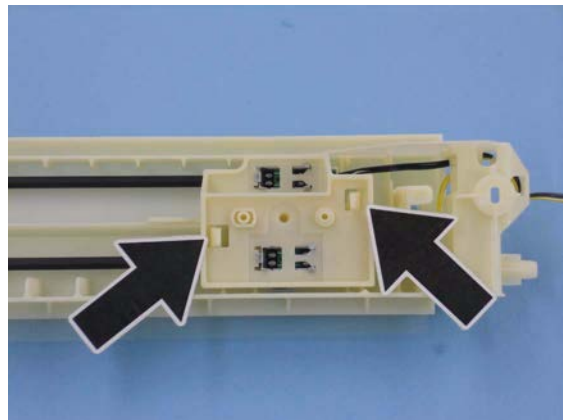
(7) Remove the feed sensor [1] and registration sensor [2].
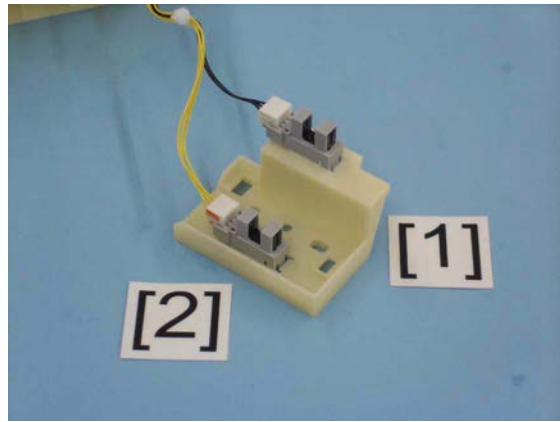
Fig. 4-125

4.5.14 Registration clutch (CLT1)

(1) Remove the rear cover.
    📖 P. 4-5 "4.1.13 Rear cover"
(2) Disconnect the connector and release 2 latches of the hook. Then, remove the registration clutch [1].
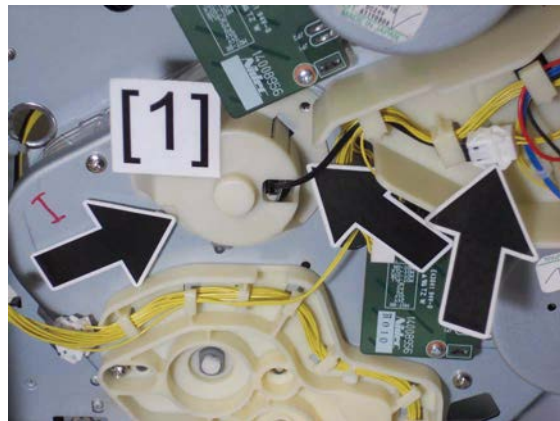
Fig. 4-126

Notes:
When installing the registration clutch, align the clutch stopper with the frame projection.
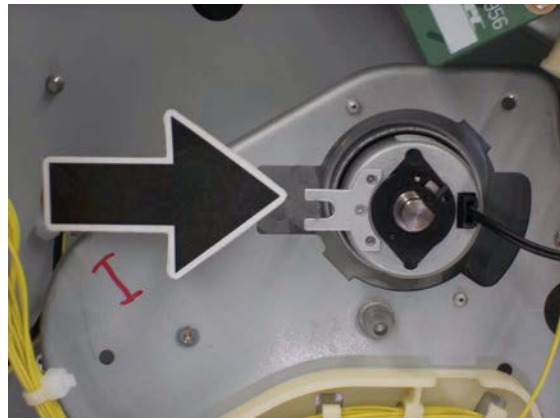
Fig. 4-127

4.5.15　Registration roller

(1) Remove the rear cover.
　　📖 P. 4-5 "4.1.13 Rear cover"
(2) Remove the registration clutch.
　　📖 P. 4-46 "4.5.14 Registration clutch (CLT1)"
(3) Open the side cover.
(4) Remove the clip, slide the roller shaft toward the rear side, remove the front shaft, and then take off the registration roller shaft [1].
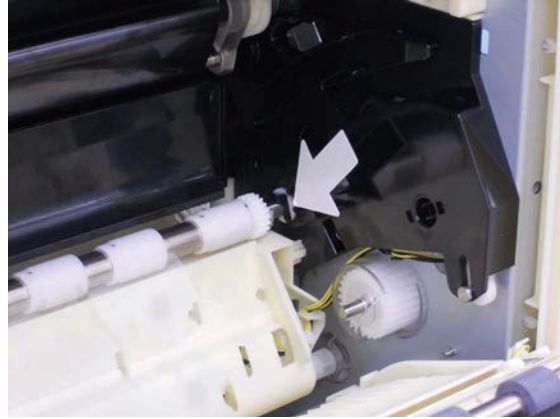
Fig. 4-128
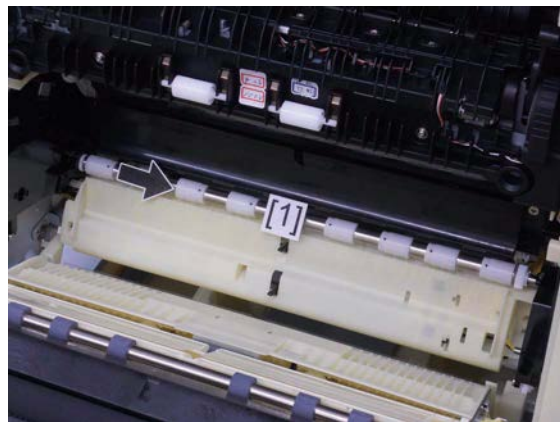
Fig. 4-129

(5) Remove the 2 bushings, E-ring, gear and pin.
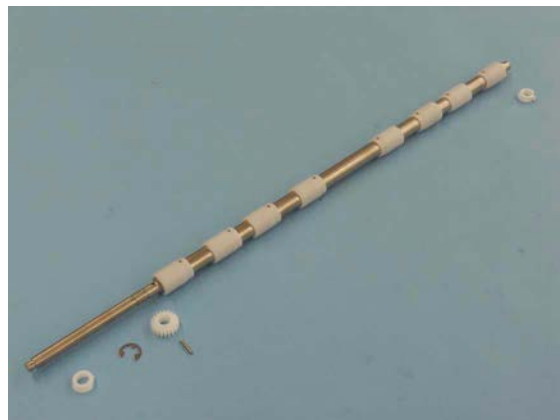
Fig. 4-130

4.5.16 Paper feed drive gear

(1) Remove the paper feeding/developer drive unit.
 📖 P. 4-75 "4.6.24 Paper feeding/developer drive unit"

(2) Remove the paper feed development motor [1] and registration clutch [2].
 📖 P. 4-75 "4.6.23 Paper feeding/developer unit drive motor (M2)"
 📖 P. 4-46 "4.5.14 Registration clutch (CLT1)"
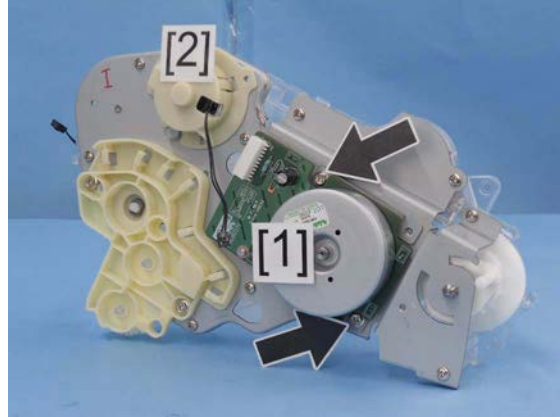
Fig. 4-131

(3) Remove 2 screws and take off the spring.
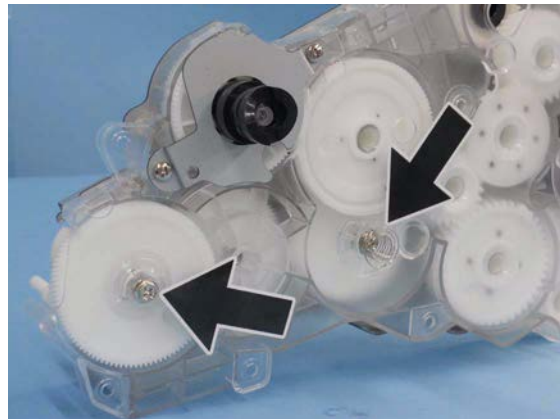
Fig. 4-132

(4) Remove 9 screws and take off the paper feed drive gear cover [1].
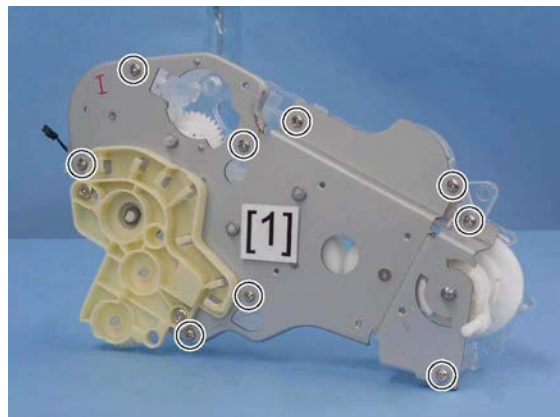
Fig. 4-133

(5) Remove the paper feed drive gear.
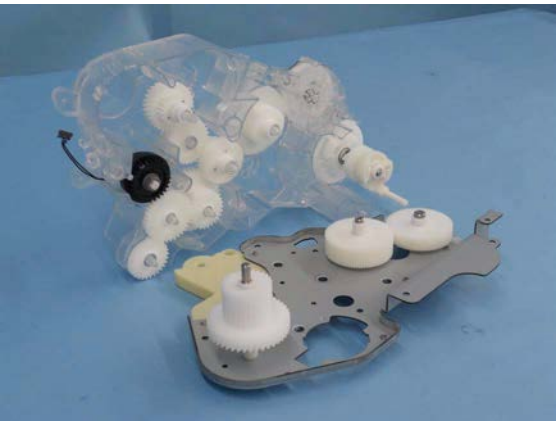
Fig. 4-134

4.6 Developer Unit, Cleaner

4.6.1 Waste toner box

(1) Open the front cover.
(2) Press down the hook and remove the waste toner box [1].

Fig. 4-135

4.6.2 Developer unit

(1) Remove the waste toner box.
   📖 P. 4-50 "4.6.1 Waste toner box"
(2) Press the lever [1] down and also press the lever of the developer unit cover down. Then, remove the developer unit [2].
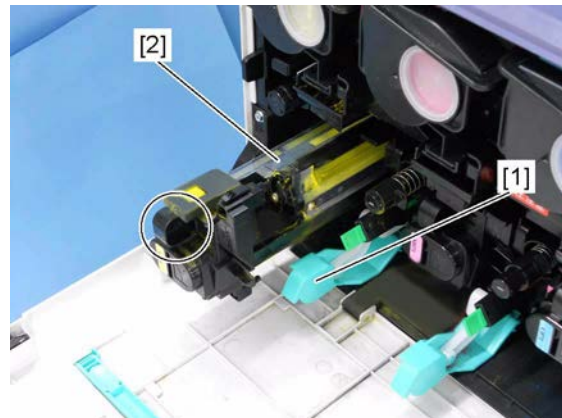
Fig. 4-136

Notes:
- When inserting the developer unit, align the corner [1] of the developer unit guide with the R part [2], and the corner [3] of the developer unit with the R part [4].
- If the lid of the developer unit is not closed while you take out the unit, close it by hand. Toner may spill from the developer unit if it is tilted with the lid open.
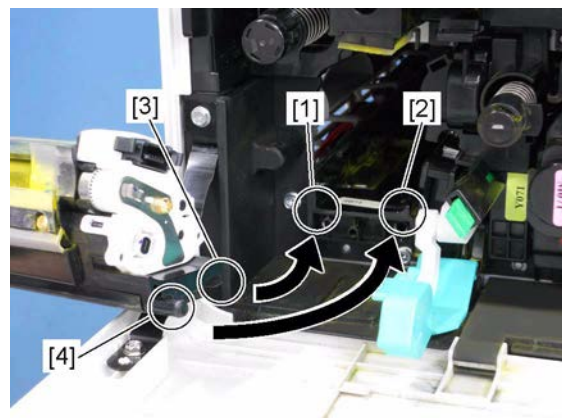
Fig. 4-137

Notes:
Do not peel off the film [1] on the upper part of the developer unit.
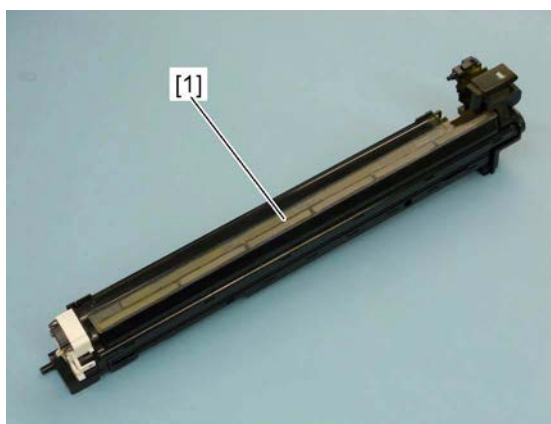
Fig. 4-138

Notes:
- When installing the developer unit, insert it carefully keeping it horizontal.
- If it is tilted (especially if its leading edge is upward), the upper part of the unit will catch the edge of the transfer belt. Pushing it will damage the belt.
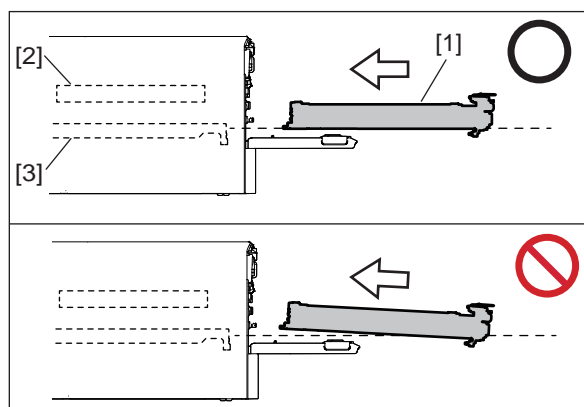
Fig. 4-139

4.6.3 Developer material🅟🅜

[A] Removing developer material

(1) Remove the developer unit.
    📖 P. 4-50 "4.6.2 Developer unit"
(2) Push the hook (white arrow section) and take off the knob [1] by sliding it to the right.

Fig. 4-140

(3) Remove 1 screw.
(4) Release the hook and remove the developer cover [1].
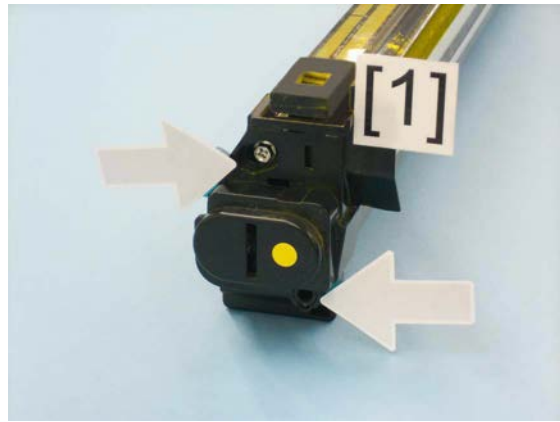
Fig. 4-141

(5) Lift the latch on the front side of the upper cover and release the latch from the developer case and developer sleeve shaft.
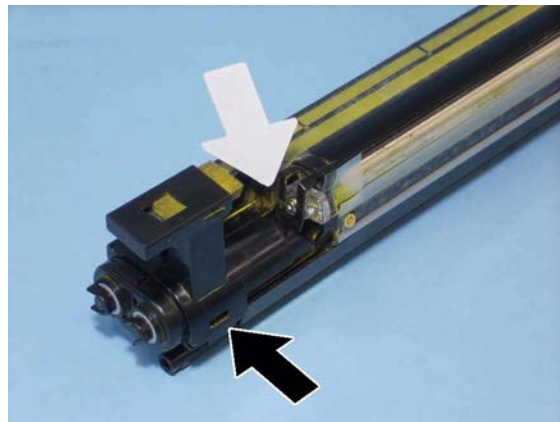
Fig. 4-142

(6) Release 6 latches at the side of the upper cover.

Fig. 4-143

(7) Release the latches in the rear side of the upper cover.
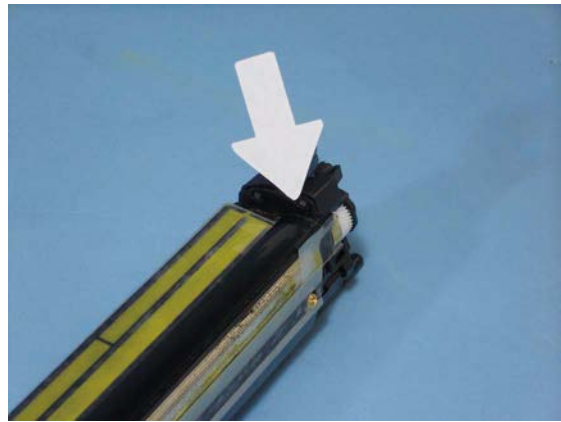
Fig. 4-144

(8) Remove the upper cover [1].

Notes:
Do not remove the developer material adhering to the magnetic rubber in the upper cover.

Fig. 4-145

Notes:
Do not remove the developer material adhering to the magnetic rubber in the upper cover.

Fig. 4-146

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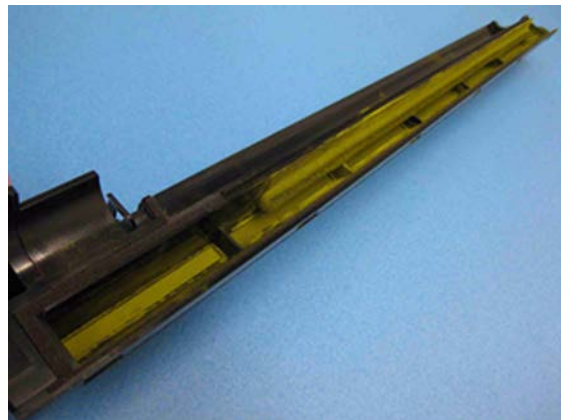
(9) Discharge the developer material.

Notes:
- Make sure not to have developer material adhering to the drive gears or bushings.
- If the developer material on the developer sleeve is hard to come off, use a brush (jig) to clean it off.
  4407915710 BRUSH-33
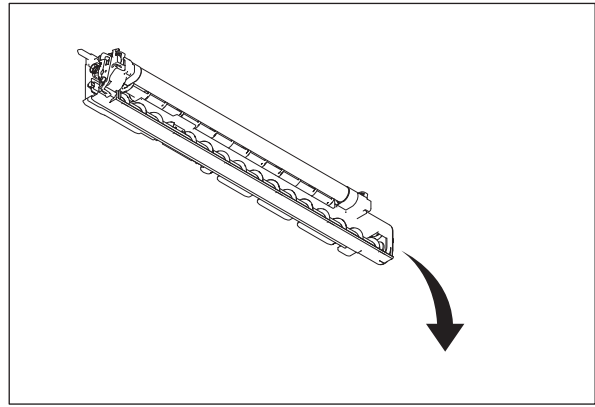
Fig. 4-147

[B] Filling developer unit with developer material

(1) Shake the developer material bottle and attach the nozzle to it.
(2) Pour in the developer until the mixer under the developer sleeve is full.

Fig. 4-148

(3) Turn the knob [1] in the direction of the arrow shown on the cover until the developer material is evenly adhered to the surface of the developer sleeve.
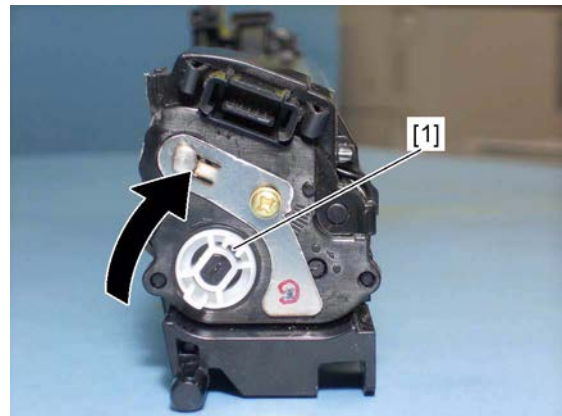
Fig. 4-149

(4) Lift the rear side of the developer unit up and move the developer material to the front side of the mixer under the developer sleeve.

Fig. 4-150

(5) Pour in more developer until the mixer under the developer sleeve is full.

Fig. 4-151

(6) Pour all the remaining developer material into another mixer.

Notes:
- Fill the developer material in the mixer section under the developer sleeve as much as possible.
- Check if the developer does not adhered to the joint of the upper cover.
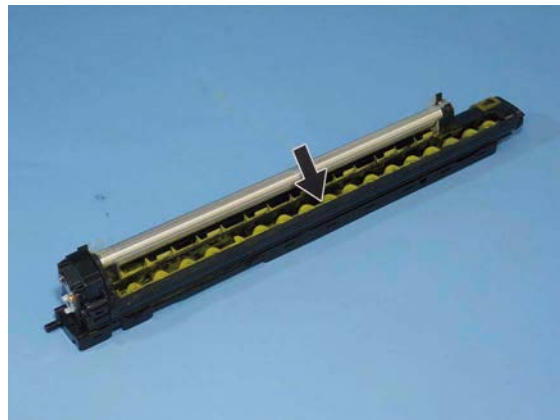
Fig. 4-152

(7) Install the upper cover.

Notes:
After the installation, check that all the protrusions and latches are fitted and locked securely.

Fig. 4-153

Notes:
Do not install the upper cover from the rear side by tilting it as shown in the figure.
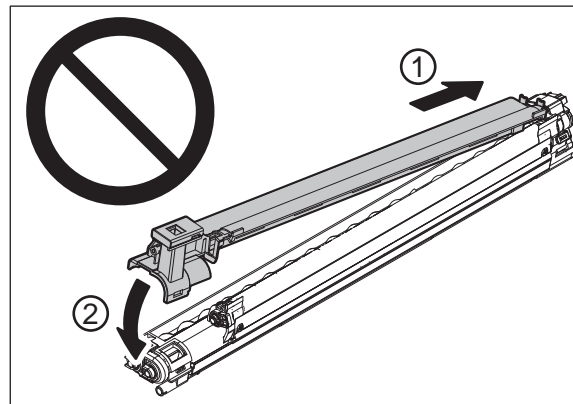
Fig. 4-154

Notes:
Hook the latches, and then install the cover while holding it from above.
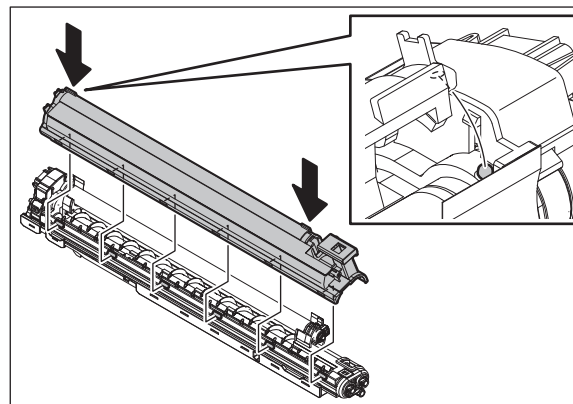
Fig. 4-155

Notes:
> Check that the seal material is not folded down. The folding allowance shall be 0.7 mm or less.

MAX 0.7
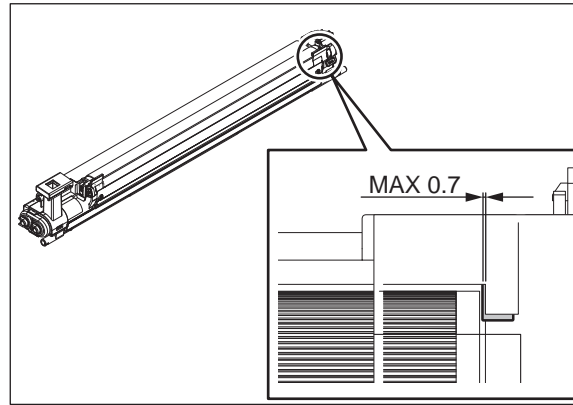
Fig. 4-156

4.6.4 Doctor blade

(1) Discharge the developer material.
      📖 P. 4-51 "4.6.3 Developer material"
(2) Remove 2 screws and take off the doctor blade [1].

Fig. 4-157

4.6.5 Auto-toner sensor (S1, S2, S3, S4)

The auto-toner sensor is installed in the developer unit (Y, M, C, K).
Developer unit (K): Auto-toner sensor (S1)
Developer unit (C): Auto-toner sensor (S2)
Developer unit (M): Auto-toner sensor (S3)
Developer unit (Y): Auto-toner sensor (S4)

(1) Remove the corresponding the developer unit, and then discharge the developer material out of the unit.
      📖 P. 4-50 "4.6.2 Developer unit"
      📖 P. 4-51 "4.6.3 Developer material"
(2) Remove 2 screws and take off the auto-toner sensor cover [1].

Fig. 4-158

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(3) Disconnect 1 connector.
(4) Lift the rib up and remove the auto-toner sensor by turning it clockwise.
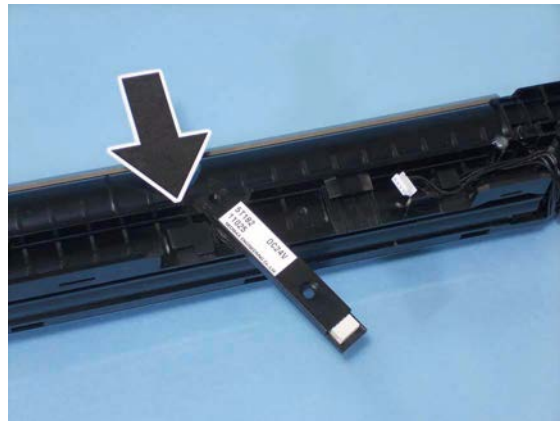
Fig. 4-159

4.6.6 Development sleeve

(1) Remove the developer unit.
    📖 P. 4-50 "4.6.2 Developer unit"
(2) Discharge the developer material.
    📖 P. 4-51 "4.6.3 Developer material"
(3) Remove 1 screw and take off the pole position adjustment plate.
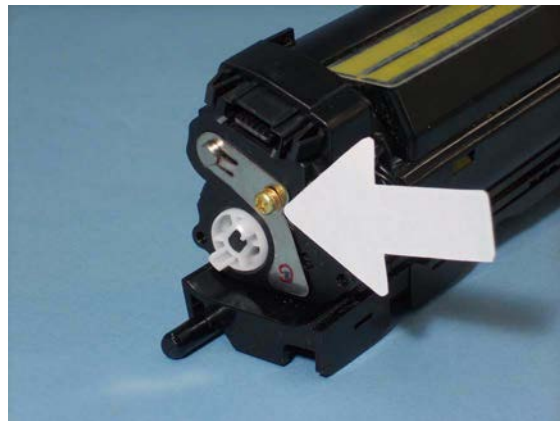
Fig. 4-160

(4) Release 2 latches and remove the gear cover.

  Notes:

    When installing, align the idler gear shaft to the hole of the gear holder.
(5) Disconnect the connector from the gear cover.
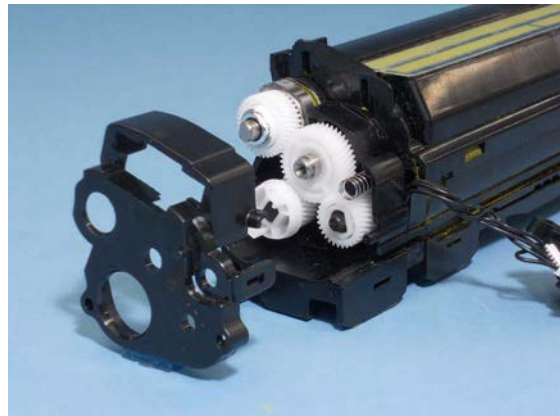
Fig. 4-161

(6) Remove the C-ring, drive gear, idler shaft, and idler gear.

Fig. 4-162

(7) Remove 1 screw.
(8) Release the hook and remove the developer cover [1].
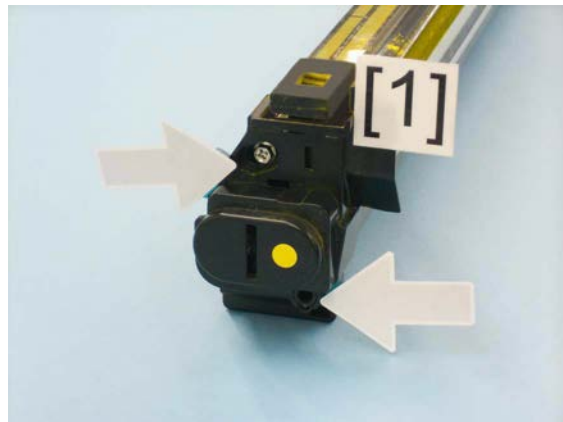
Fig. 4-163

(9) Remove the bearing holder [1], bearing [2], bushing [3], and developer sleeve [4].

Fig. 4-164

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4.6.7 Mixer

(1) Remove the developer sleeve.
 📖 P. 4-58 "4.6.6 Development sleeve"
(2) Remove 2 clips [1], and take off 2 bushings [2] and the front bushing holder [3].

Fig. 4-165

(3) Remove the separator [1], mixer [2], and bushing [3] from the front side.

Fig. 4-166

Notes:
 When installing a separator, turn the short collar [1] side to the left.
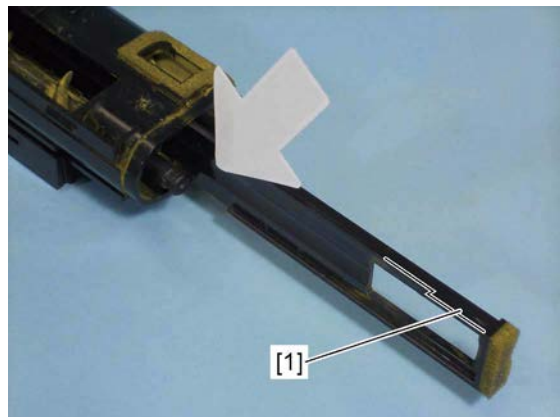
Fig. 4-167

4.6.8   Cleaner unit

(1) Remove the developer unit.
      📖 P. 4-50 "4.6.2 Developer unit"
(2) Press down the lever and take off the cleaner
      unit [1].

   Notes:
   • Before removing the cleaner unit, be sure
      to take off the developer unit for the
      corresponding color.
   • When installing the cleaner, make sure to
      correspond to the color.
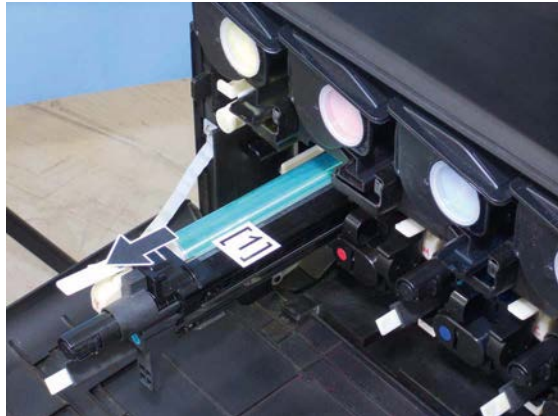
Fig. 4-168

   Notes:
   To remove the cleaner unit for black (K), pull
   the TBU release lever, turn it clockwise to
   release the lock, and then pull out the
   cleaner unit.

Fig. 4-169

   Notes:
   • When installing the cleaner unit, insert it
      carefully keeping it horizontal.
   • If it is tilted (especially if its leading edge
      is upward), the upper part of the unit will
      catch the edge of the transfer belt.
      Pushing it will damage the belt.
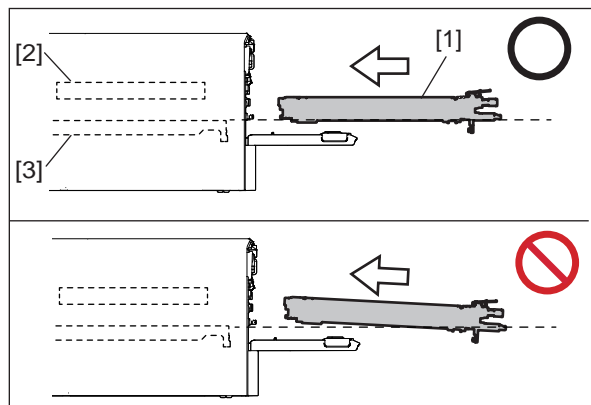
Fig. 4-170

4.6.9 Main charger **PM**

(1) Remove the cleaner unit.
📖 P. 4-61 "4.6.8 Cleaner unit"
(2) Remove 1 screw.
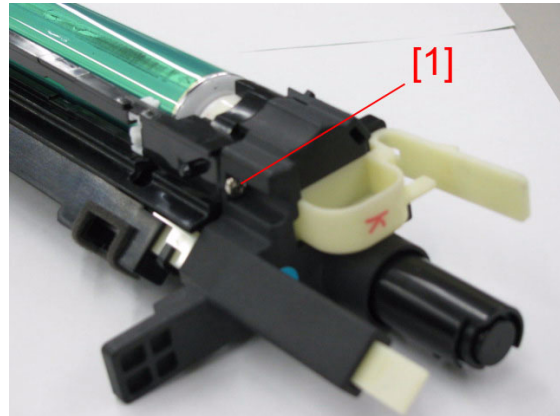
Fig. 4-171

(3) Release 2 latches [1] and remove the cleaner cover [2].
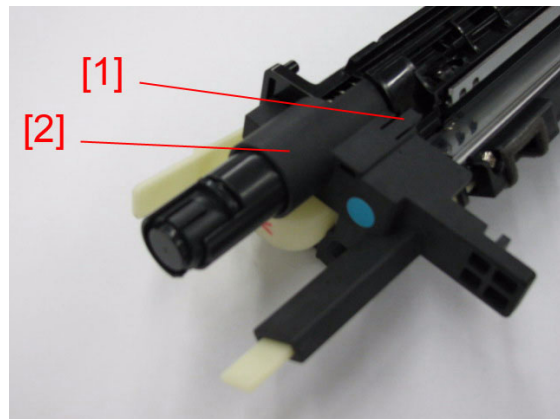
Fig. 4-172
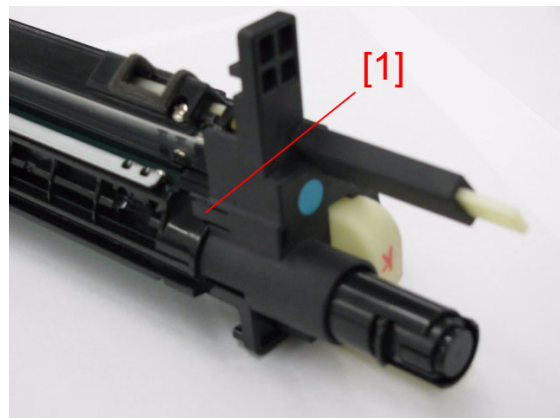
Fig. 4-173

(4) Pull down the main charger and release the latches [1].
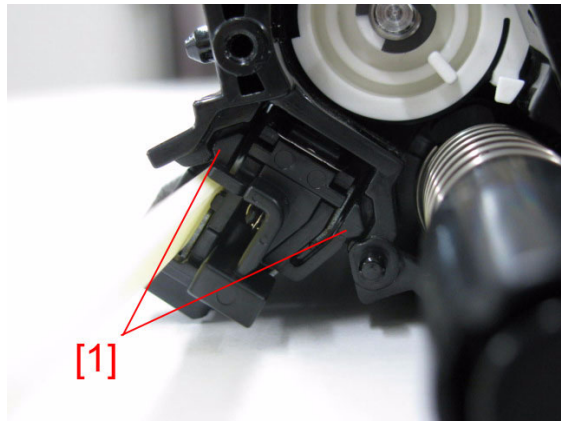
Fig. 4-174

(5) Remove the main charger [1].
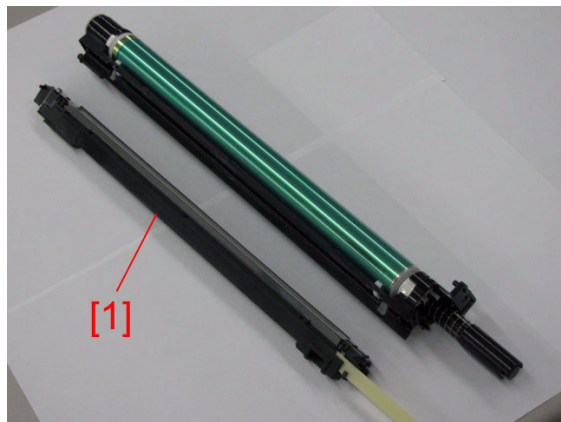
Fig. 4-175

4.6.10 Drum🅿🅼

(1) Remove the cleaner unit.
 📖 P. 4-61 "4.6.8 Cleaner unit"
(2) Remove the main charger.
 📖 P. 4-65 "4.6.13 Main charger grid"
(3) Turn the bushing [1] clockwise and release the lock.
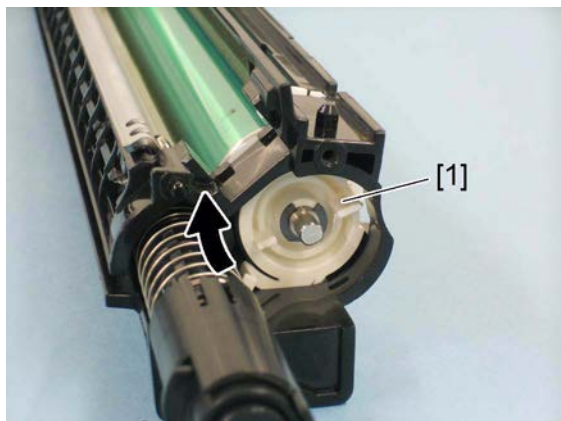
Fig. 4-176

(4) Remove the bushing [1].
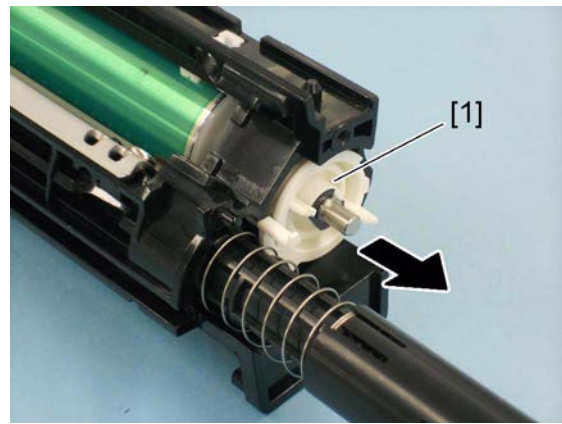
Fig. 4-177

(5) Remove the drum [1] and bushing [2] from the cleaner.

Notes:
- Be sure not to touch, spit or scratch on the drum surface.
- Avoid a direct sunlight onto the drum. Move it to a dark place as soon as it is taken off.
- Be sure not to touch or scratch the edge of the drum cleaning blade.

Fig. 4-178

4.6.11 Drum cleaning blade🅿️

(1) Remove the drum.
  📖 P. 4-63 "4.6.10 Drum"
(2) Remove 2 screws and take off the drum cleaning blade [1].

Notes:
Be sure not to touch or scratch the edge of the cleaning blade.
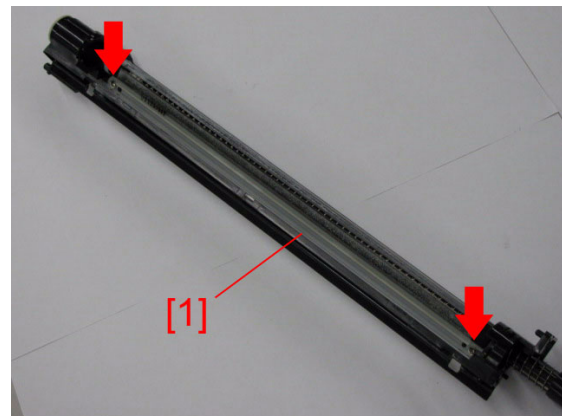
Fig. 4-179

4.6.12 Waste toner unit gear

(1) Remove the cleaner unit.
    📖 P. 4-61 "4.6.8 Cleaner unit"
(2) Remove the C-ring, waster, spring, bushing [1], and gear [2].

   Notes:
     To remove the gear, and release the lock by raising the latch.

Fig. 4-180

4.6.13 Main charger grid 🅿🅼

(1) Remove the main charger.
    📖 P. 4-62 "4.6.9 Main charger"
(2) Pull the lever [1].
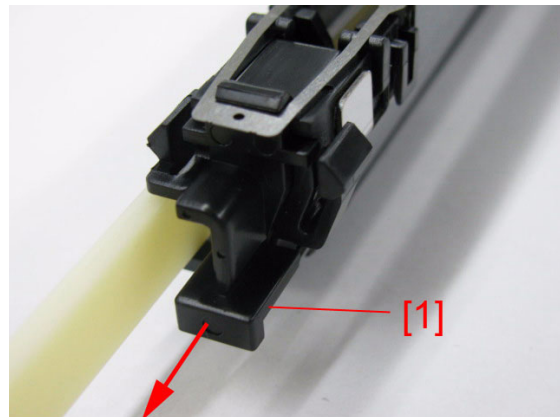
Fig. 4-181

(3) Remove the main charger grid [1].

   Notes:
    • Do not touch the mesh area of the grid.
    • When installing the grid, be careful not to let the urethane sheet adhered to the charge case get caught in it.

Fig. 4-182

Notes:

There are 2 holes on the rear side of the main charger grid for determining which is the front or back surface. Be sure to place the grid so that the 2 holes come as shown in the figure.

Fig. 4-183

4.6.14 Main charger cleaner🅿🅼

(1) Remove the main charger grid.
 📖 P. 4-65 "4.6.13 Main charger grid"
(2) Release the latch [1] and remove the main charger cleaner [2].
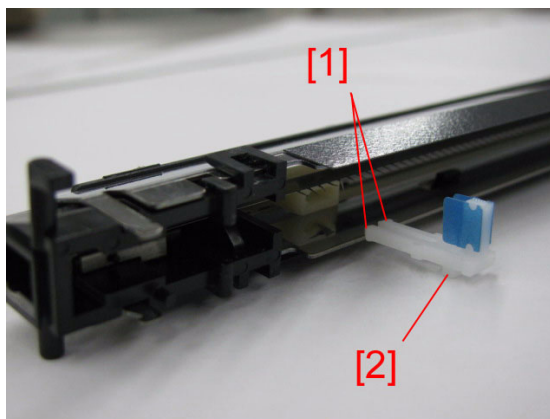
Fig. 4-184

4.6.15 Needle electrode🅿🅼

(1) Remove the main charger cleaner.
 📖 P. 4-66 "4.6.14 Main charger cleaner"
(2) Pull out the lever [1] and remove the needle electrode [2] together with the lever [1].

Notes:

When installing the needle electrode, be sure of the following:
• Be sure that its needle comes at its top side.
• Hook the needle electrode and the spring on both front and rear terminals securely.
• Do not twist the needle electrode.
• Do not touch the needle electrode directly with bare hands.
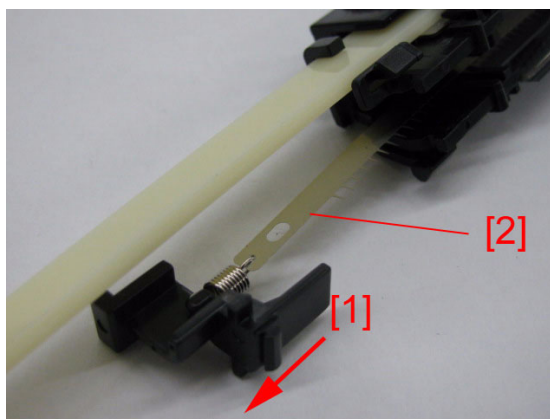
Fig. 4-185

4.6.16 New/old drum detection switches (SW9, SW10, SW11, SW12) and new/old developer unit detection switches (SW13, SW14, SW15, SW16)

(1) Remove the transfer belt unit.
    📖 P. 4-89 "4.7.3 Transfer belt unit (TBU)"
(2) Remove The Cleaner Unit.
    📖 P. 4-61 "4.6.8 Cleaner unit"
(3) Remove The Toner Motor Assembly.
    📖 P. 4-76 "4.6.26 Toner motor assembly"
(4) Remove 2 screws, release 5 upper latches, and then take off the toner cartridge holder [1].

Fig. 4-186

(5) Release the harness from the harness clamp [2].
(6) Remove 3 screws [3] and take off the top frame of toner cartridge [1] by sliding it leftward [4] to unlock it.
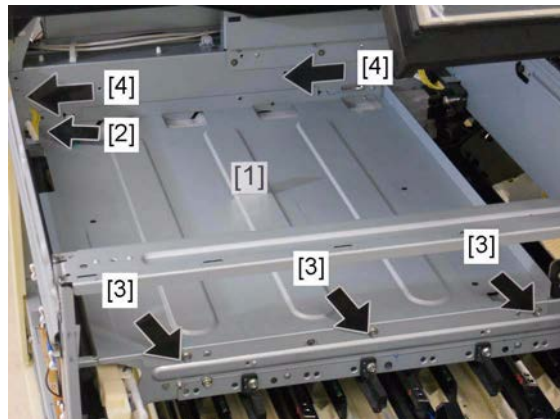
Fig. 4-187

(7) Remove 2 screws and take off the transfer belt cleaner guide (upper) [1].

Fig. 4-188

(8) Remove 1 screw and take off the transfer belt cleaner guide (lower) [1].
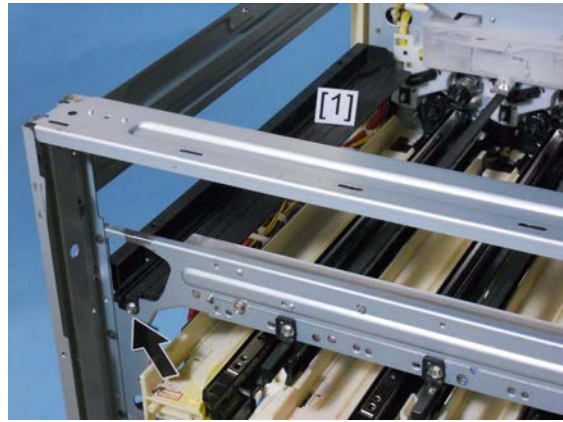
Fig. 4-189

(9) Remove 2 screws and take off the transfer belt rail (rear) [1].

Fig. 4-190

(10) Remove 4 screws and take off 4 cleaner unit rails [1].
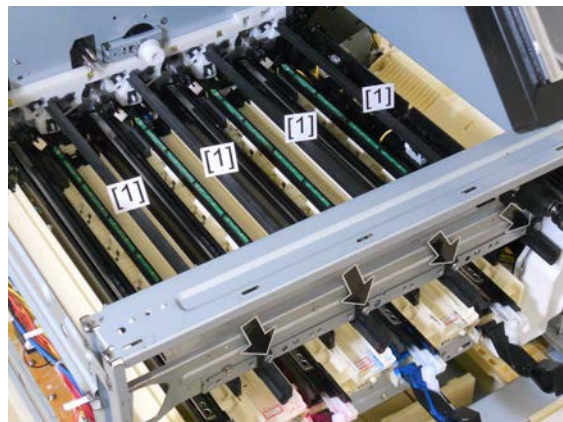
Fig. 4-191

(11) Remove 2 screws and take off the switch base [1].

Fig. 4-192

(12) Release the latches, and remove the new/old drum detection switch [1] and new/old developer unit detection switch [2] from the switch base.
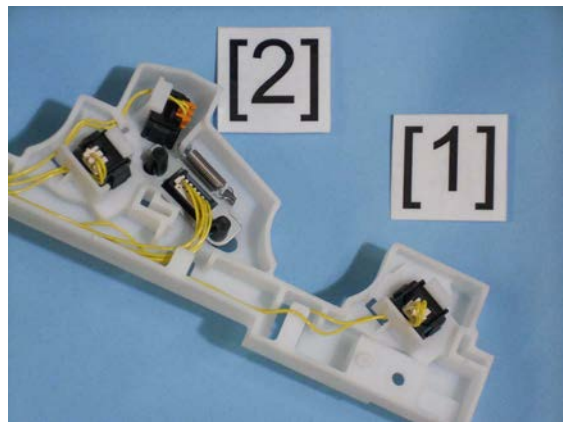
Fig. 4-193

(13) Disconnect the connector, and remove the new/old drum detection switch [1] and new/old developer unit detection switch [2].
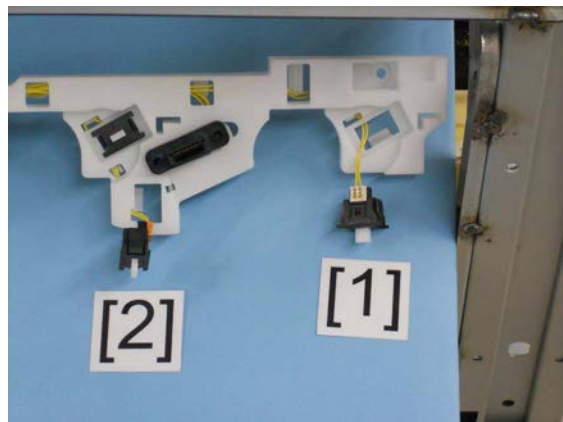
Fig. 4-194

4

New/old drum detection switches
- Y (SW9)
- M (SW10)
- C (SW11)
- K (SW12)

New/old developer unit detection switches
- Y (SW13)
- M (SW14)
- C (SW15)
- K (SW16)

Fig. 4-195

4.6.17 Drum thermistor (THM4)

(1) Remove the discharge LED (C).
 📖 P. 4-27 "4.4.2 Discharge LED"
(2) Remove 1 screw and disconnect the connector, and then take off the drum thermistor.
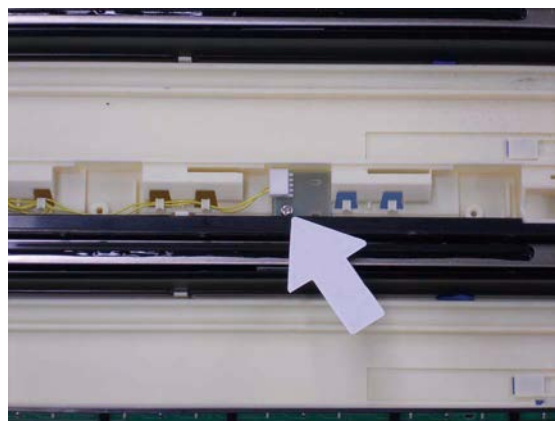
Fig. 4-196

4.6.18 Temperature/humidity sensor (S10)

(1) Remove the front cover.
 📖 P. 4-1 "4.1.1 Front cover"
(2) Remove the left cover.
 📖 P. 4-1 "4.1.2 Left cover"
(3) Remove the right front cover.
 📖 P. 4-3 "4.1.8 Right front cover"
(4) Remove the waste toner box.
 📖 P. 4-50 "4.6.1 Waste toner box"
(5) Remove the drawer.
(6) Remove 4 screws and take off the inner cover [1].

Fig. 4-197

(7) Disconnect 1 connector and remove the temperature/humidity sensor.

Fig. 4-198

4.6.19 Waste toner paddle rotation detection sensor (S9)

(1) Remove the waste toner paddle motor unit.
    📖 P. 4-71 "4.6.20 Waste toner paddle motor (M7)"
(2) Disconnect the connector and remove the waste toner paddle rotation detection sensor [1].

Fig. 4-199

4.6.20 Waste toner paddle motor (M7)

(1) Remove the front cover.
    📖 P. 4-1 "4.1.1 Front cover"
(2) Remove the left cover.
    📖 P. 4-1 "4.1.2 Left cover"
(3) Remove the right front cover.
    📖 P. 4-1 "4.1.1 Front cover"
(4) Remove the waste toner box.
    📖 P. 4-1 "4.1.1 Front cover"
(5) Remove the drawer.
(6) Remove 4 screws, and then take off the inner cover [1].

Fig. 4-200

(7) Remove 2 screws and disconnect the connector, and then remove the waste toner paddle motor unit [1].
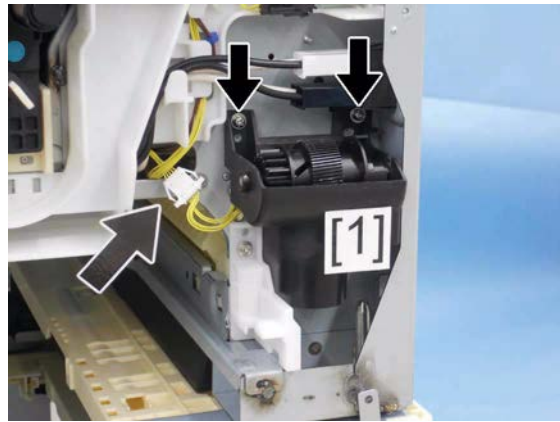
Fig. 4-201

(8) Remove the grip [1], bushing [2], and gear [3].
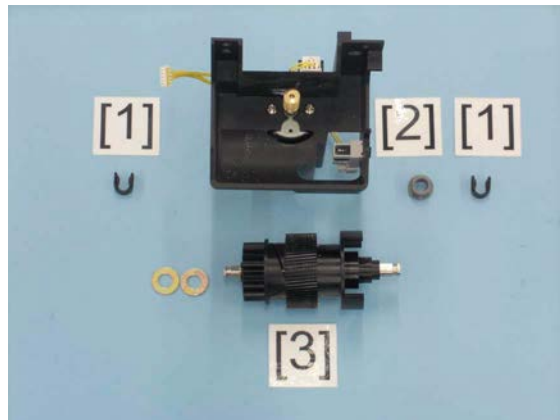
Fig. 4-202

(9) Remove 2 screws and disconnect the connector, and then take off the waste toner paddle motor [1].
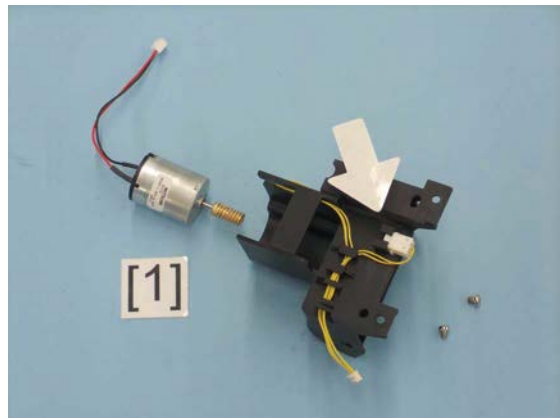
Fig. 4-203

4.6.21 Drum switching detection sensor (S11)

(1) Remove the rear cover.
　📖 P. 4-5 "4.1.13 Rear cover"
(2) Disconnect the motor and sensor connectors, and release the harness from the guide.
(3) Remove 3 screws and take off the drum switching unit [1].
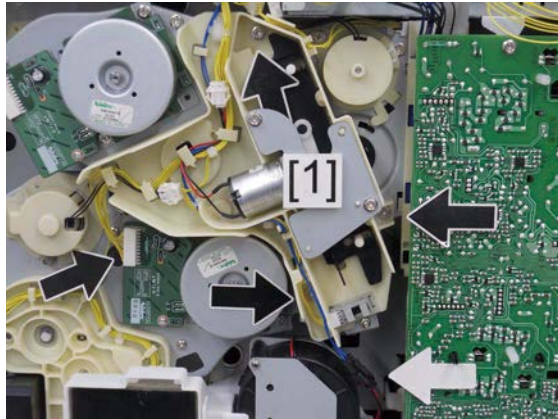
Fig. 4-204

(4) Remove the drum switching detection sensor.
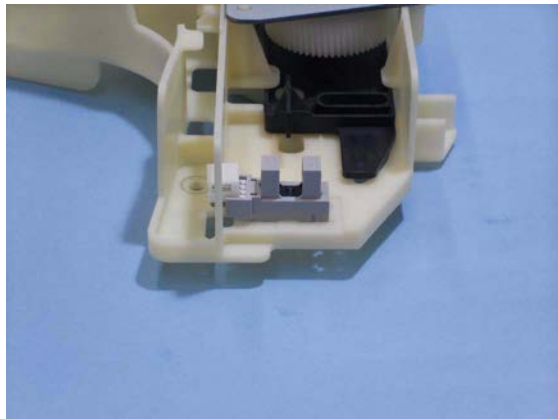
Fig. 4-205

4.6.22 Drum switching motor (M3)

(1) Remove the rear cover.
　📖 P. 4-5 "4.1.13 Rear cover"
(2) Disconnect the connector and release the harness from the guide.
(3) Remove 2 screws and take off the drum switching motor bracket [1].

Fig. 4-206

(4) Remove the arm.

Notes:

When installing the drum switching motor bracket, put the gear projection into the arm hole.
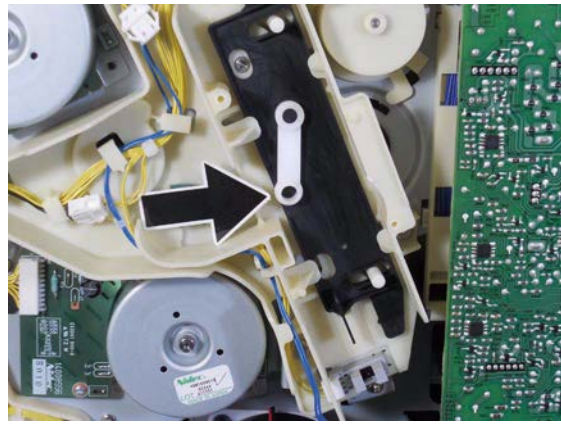
Fig. 4-207

(5) Remove the E-ring and gear.

Notes:

Before removing the gear, place a marking so that it can be re-assembled at the same position.
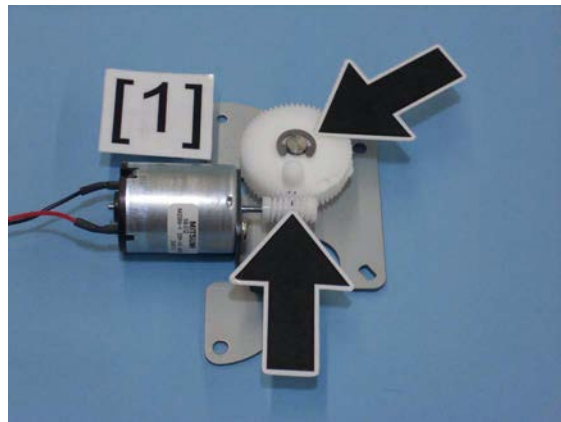
Fig. 4-208

(6) Remove 1 screw and take off the drum switching motor [1].

Notes:

Pay attention to the size (length) of the screws. If incorrect ones are used, the motor could be damaged.
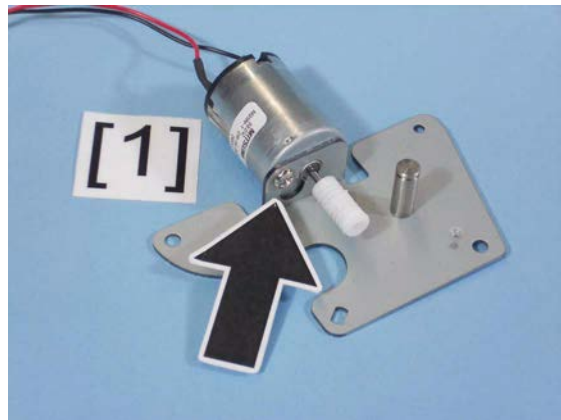
Fig. 4-209

4.6.23 Paper feeding/developer unit drive motor (M2)

(1) Remove the rear cover.
   📖 P. 4-5 "4.1.13 Rear cover"
(2) Remove 2 screws and disconnect the connector, and then take off the paper feeding/developer unit drive motor [1].

Fig. 4-210

4.6.24 Paper feeding/developer drive unit

(1) Remove the drum TBU drive unit.
   📖 P. 4-97 "4.7.13 Drum TBU drive unit"
(2) Remove the ozone exhaust fan duct.
   📖 P. 4-79 "4.6.30 Ozone exhaust fan (F2)"
(3) Remove the registration clutch.
   📖 P. 4-46 "4.5.14 Registration clutch (CLT1)"
(4) Release the harness from the harness guide.
(5) Remove 7 screws and take off the paper feeding/developer drive unit [1].
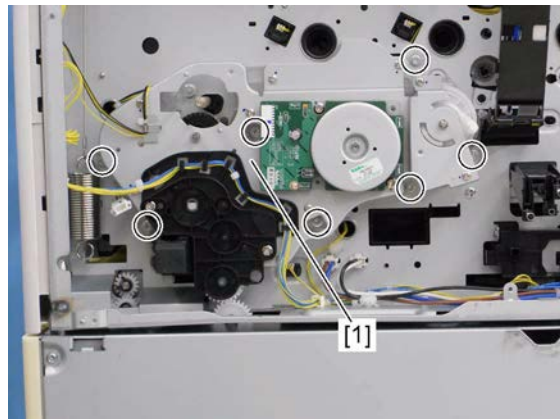
Fig. 4-211

Notes:
   If an optional PFU is installed, press the drive gear [2] down and install the drive unit.
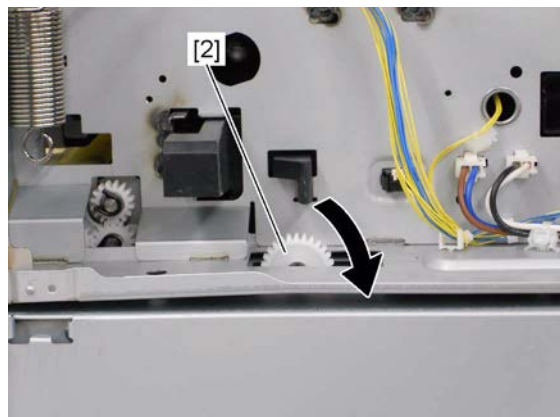
Fig. 4-212

4.6.25 Developer unit (K) drive gear

(1) Remove the paper feeding/developer drive unit.
   📖 P. 4-75 "4.6.24 Paper feeding/developer drive unit"

(2) Remove 2 screws and take off the developer unit (K) drive gear cover [1].

Fig. 4-213

(3) Remove the developer unit (K) drive gear.

Fig. 4-214

4.6.26 Toner motor assembly

The toner motor is installed depending on toner cartridge (Y, M, C, K).
Toner cartridge (Y): Toner motor (M8)
Toner cartridge (M): Toner motor (M9)
Toner cartridge (C): Toner motor (M10)
Toner cartridge (K): Toner motor (M11)

(1) Remove the receiving tray.
   📖 P. 4-2 "4.1.3 Receiving tray"
(2) Pull out the toner cartridge.
(3) Release the latch and remove 5 toner cartridge rails [1].
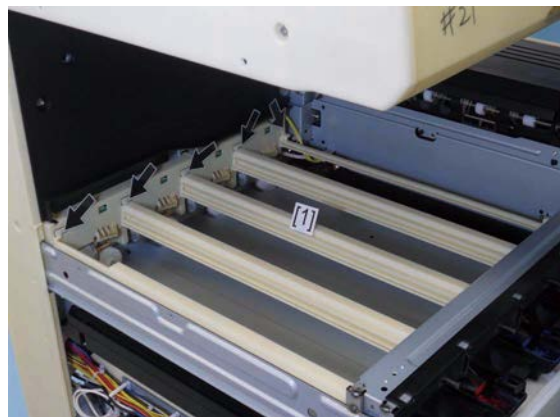
Fig. 4-215

Notes:
When installing the toner cartridge rail, securely align at the position at which the frame matches the rail groove.

Fig. 4-216

(4) Remove 2 screws and release 2 hooks. Then, remove the toner motor assembly [1] and disconnect the connector.

Fig. 4-217

Fig. 4-218

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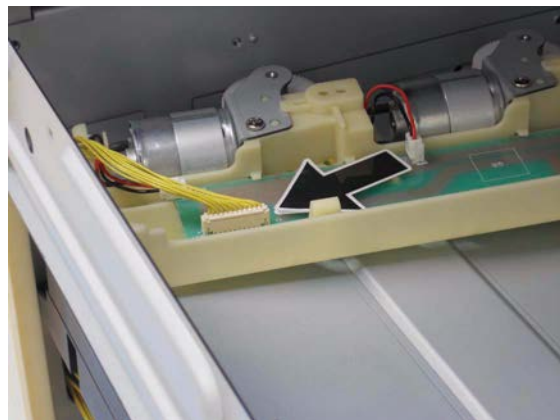
4.6.27　Toner motor (M8, M9, M10, M11)

(1)　Remove the toner motor assembly.
　　　📖 P. 4-76 "4.6.26 Toner motor assembly"
(2)　Release 2 latches and remove the gear [1].

Fig. 4-219

(3)　Remove 1 screw and disconnect the
　　　connector, and then take off the motor
　　　bracket [1].
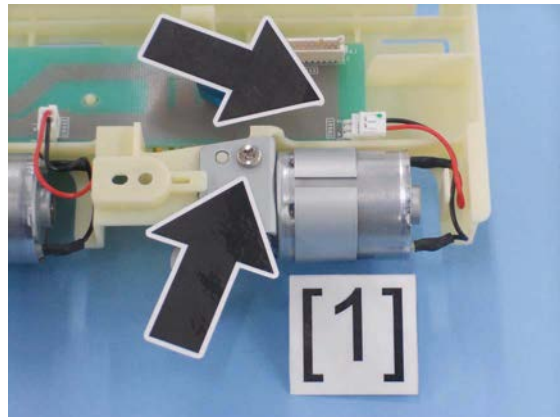
Fig. 4-220

(4)　Remove 2 screws and take off the toner
　　　motor [1].

**　Notes:**
　　　Pay attention to the size (length) of the
　　　screws. If incorrect ones are used, the motor
　　　could be damaged.
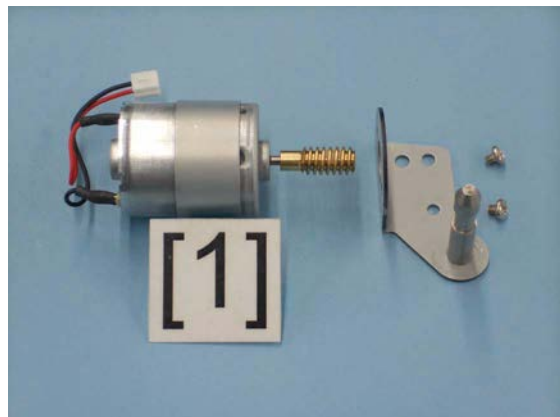
Fig. 4-221

4.6.28 Toner cartridge interface PC board

(1) Remove the toner motor assembly.
   📖 P. 4-76 "4.6.26 Toner motor assembly"
(2) Disconnect 4 connectors, release 4 latches, and then remove the toner cartridge interface PC board.
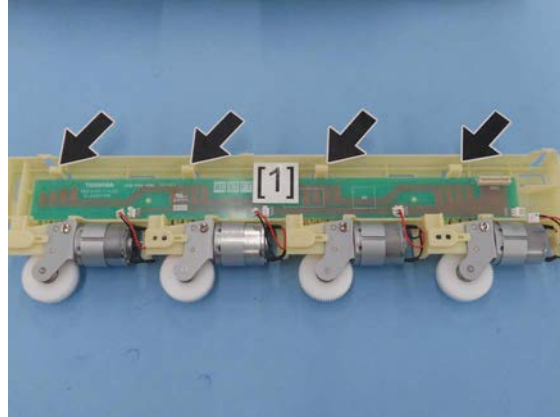
Fig. 4-222

4.6.29 Ozone filter

(1) Remove the rear cover.
   📖 P. 4-5 "4.1.13 Rear cover"
(2) Remove the ozone filter.
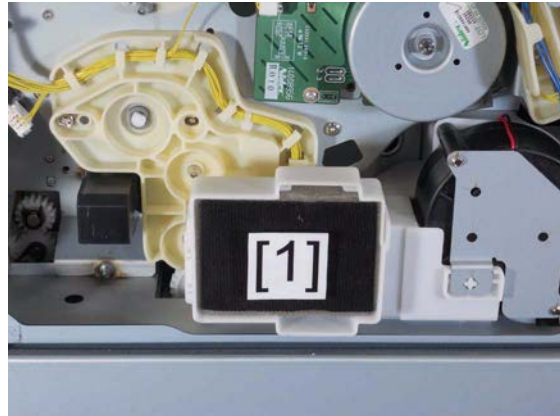
Fig. 4-223

4.6.30 Ozone exhaust fan (F2)

(1) Remove the rear cover.
   📖 P. 4-5 "4.1.13 Rear cover"
(2) Disconnect the connector, release the hook, and then remove the ozone exhaust fan duct [1].
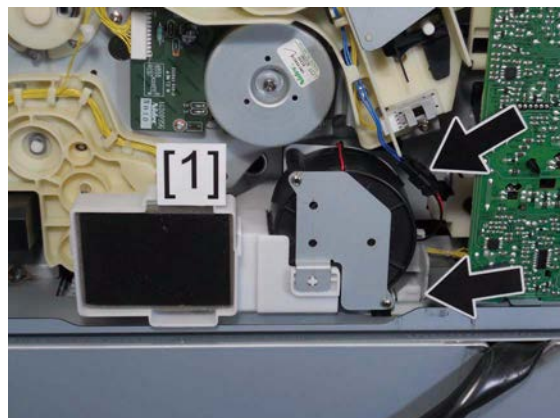
Fig. 4-224

(3) Remove 2 screws, release the harness from the guide, and then take off the ozone exhaust fan and bracket.
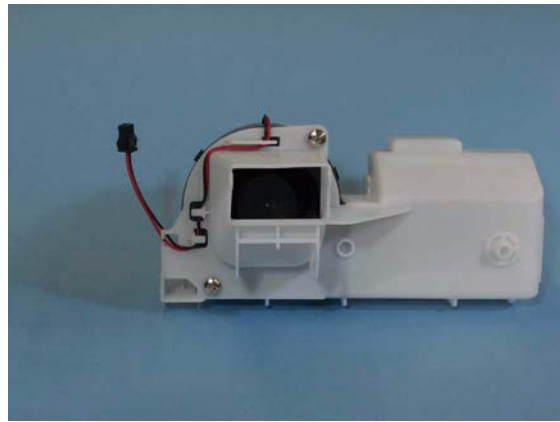
Fig. 4-225

4.6.31 SYS board cooling fan (F1)

(1) Remove the right rear cover.
    📖 P. 4-4 "4.1.9 Right rear cover"
(2) Remove the rear cover.
    📖 P. 4-5 "4.1.13 Rear cover"
(3) Remove 2 screws [1] and loosen 4 screws [2], and then take off the SYS board cover [3] by sliding it toward the right side.
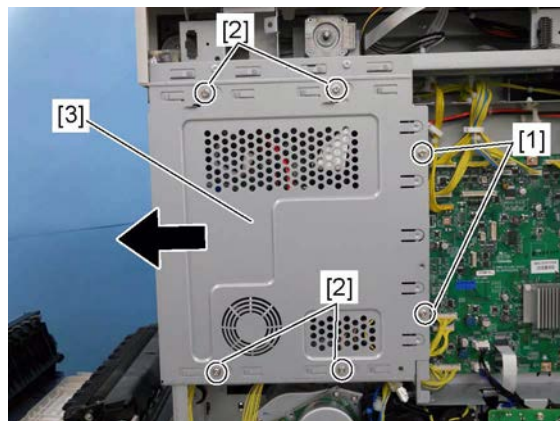
Fig. 4-226

(4) Disconnect 1 connector and lift up 2 latches. Then, remove the SYS board cooling fan [1] by sliding it out toward the rear side.
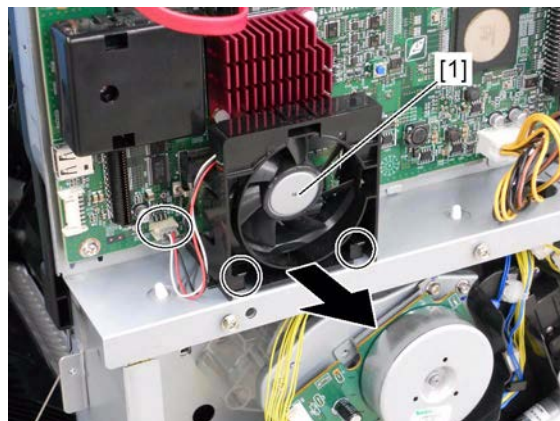
Fig. 4-227

4.6.32 Switching regular cooling fan (F3)

(1) Remove the front cover.
   📖 P. 4-1 "4.1.1 Front cover"
(2) Remove the left cover.
   📖 P. 4-1 "4.1.2 Left cover"
(3) Remove the right front cover.
   📖 P. 4-1 "4.1.1 Front cover"
(4) Remove the waste toner box.
   📖 P. 4-1 "4.1.1 Front cover"
(5) Remove the drawer.
(6) Remove 4 screws, and then take off the inner cover [1].

Fig. 4-228

(7) Remove 2 screws and disconnect the connector. Then release the harness from the guide and remove the switching regular cooling fan [1].
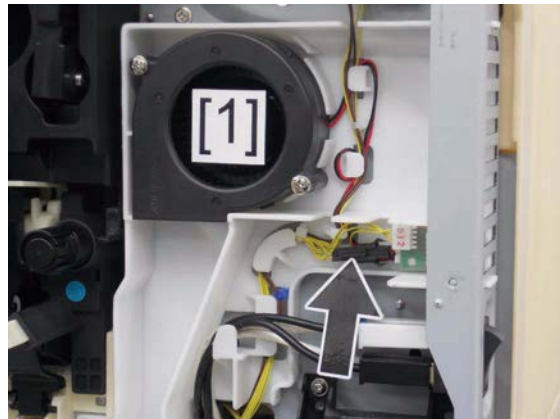
Fig. 4-229

4.6.33 Drum drive gear

(1) Remove the drum TBU drive unit.
   📖 P. 4-97 "4.7.13 Drum TBU drive unit"
(2) Remove the drum TBU motor [1] and the 1st transfer contact/release clutch [2].
   📖 P. 4-97 "4.7.12 Drum/TBU motor (M6)"
   📖 P. 4-95 "4.7.10 1st transfer contact/ release clutch (CLT3)"
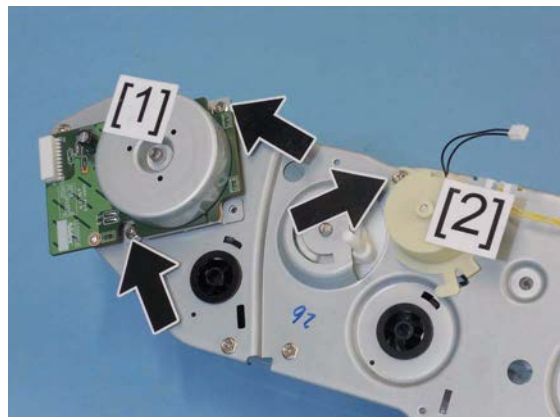
Fig. 4-230

(3) Remove 8 screws and take off the drum
     drive gear cover [1].

Fig. 4-231

Notes:
    When installing the drum drive gear cover,
    make sure that the spring is engaged with
    the concave portion of the gear.
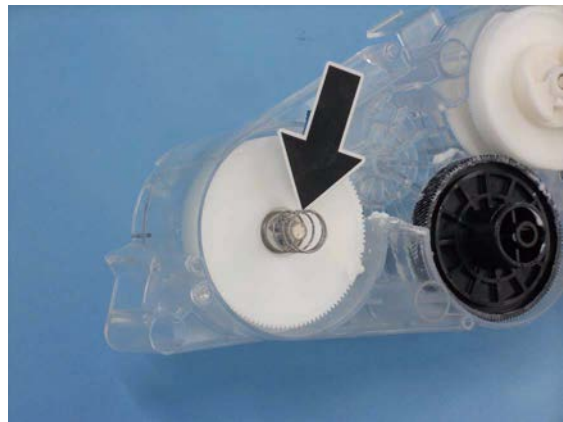
Fig. 4-232

(4) Remove the drum drive gear.

Fig. 4-233

4.6.34　Developer drive gear

(1) Remove the drum TBU drive unit.
　　📖 P. 4-97 "4.7.13 Drum TBU drive unit"
(2) Remove 3 screws and take off the developer drive gear cover [1].
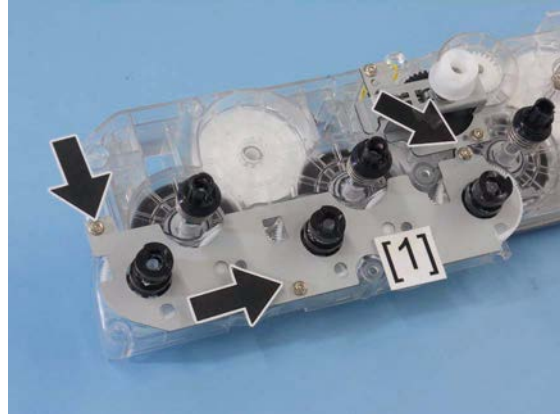
Fig. 4-234

(3) Remove the developer drive gear.
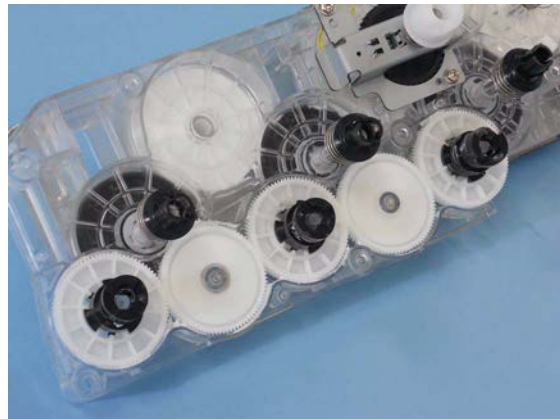
Fig. 4-235

4.6.35　Main power switch (SW4)

(1) Remove the front cover.
　　📖 P. 4-1 "4.1.1 Front cover"
(2) Remove the left cover.
　　📖 P. 4-1 "4.1.2 Left cover"
(3) Remove the right front cover.
　　📖 P. 4-3 "4.1.8 Right front cover"
(4) Remove the waste toner box.
　　📖 P. 4-50 "4.6.1 Waste toner box"
(5) Remove the drawer.
(6) Remove 4 screws and take off the inner cover [1].

Fig. 4-236

(7) Disconnect the connectors and remove the main power switch.

Fig. 4-237

4.6.36 Drum damp heater (Right)

(1) Remove the drawer.
(2) Remove 1 screw and take off the cover [1].
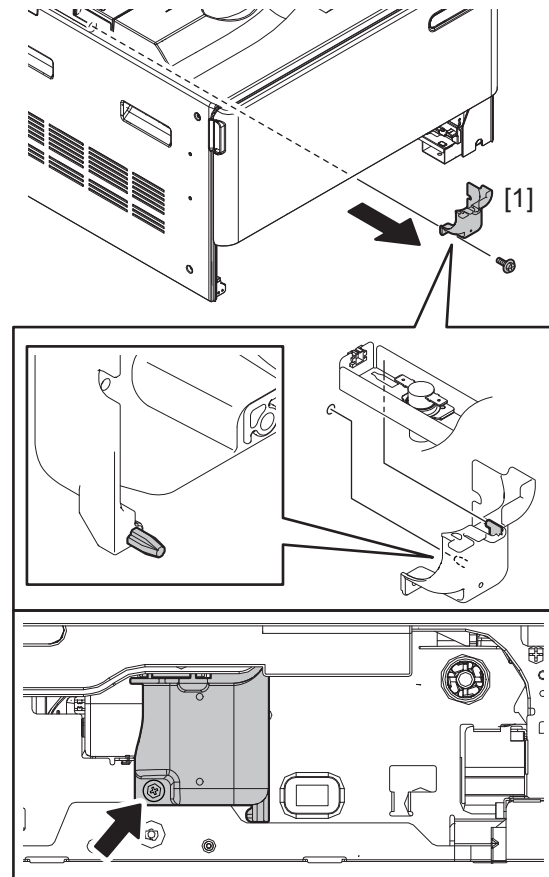
Fig. 4-238

(3)   Disconnect 1 connector and remove 1 screw.
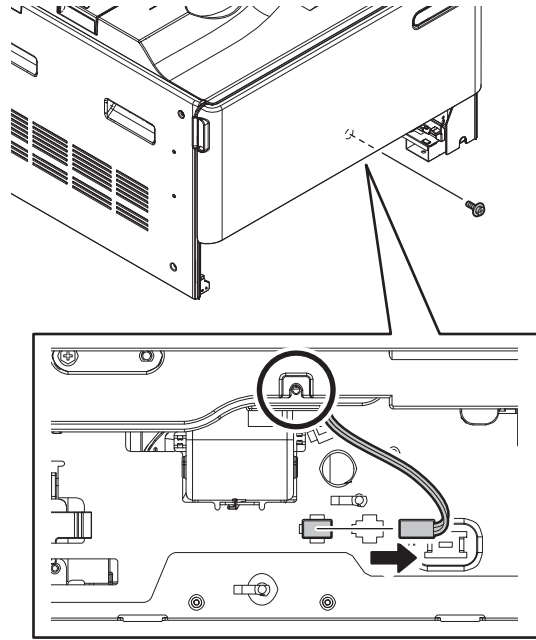
Fig. 4-239

(4)   As shown in the figure, slide the drum damp heater (right) [2] and take it off.
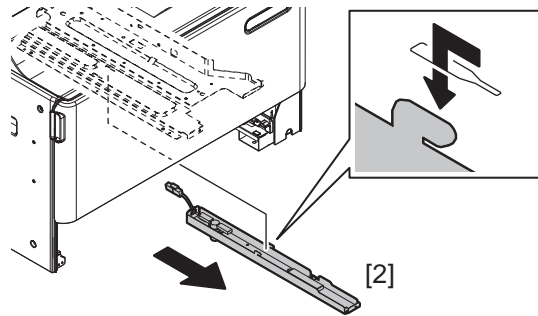
Fig. 4-240

4.6.37   Drum damp heater (Left)

(1)   Remove the left cover.
　　　📖 P. 4-1 "4.1.2 Left cover"
(2)   Loosen 2 screws and take off the cover [1].

Fig. 4-241

e-STUDIO2050C/2051C/2550C/2551C
DISASSEMBLY AND REPLACEMENT
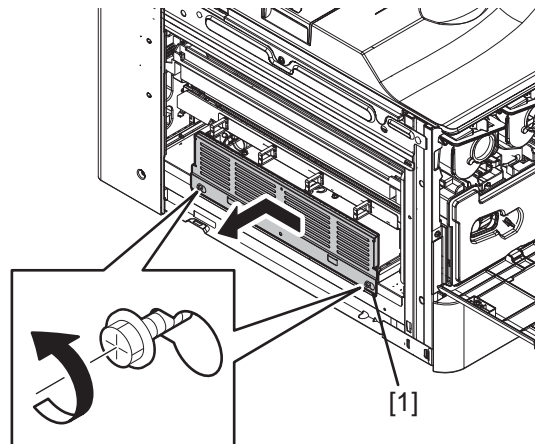
(3) Disconnect 1 connector
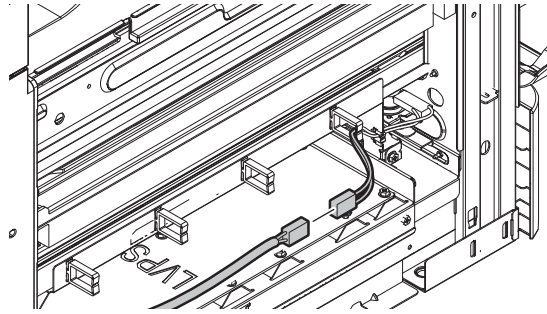
Fig. 4-242

(4) Remove 1 screw.
(5) As shown in the figure, slide the drum damp heater (right) [2] and take it off.
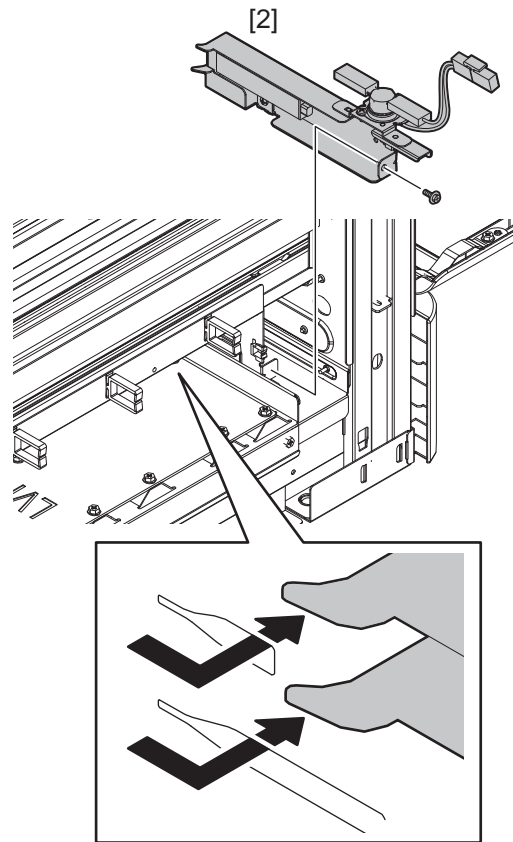
Fig. 4-243

Notes:

When installing, be sure that the wire harness is correctly set, and also be careful not to catch it between other parts.

a. Make sure that the harness for the damp heater is not above the metal plate edge.
b. Be sure to pass the harness for the damp heater through the clamps.

Fig. 4-244

e-STUDIO2050C/2051C/2550C/2551C
DISASSEMBLY AND REPLACEMENT
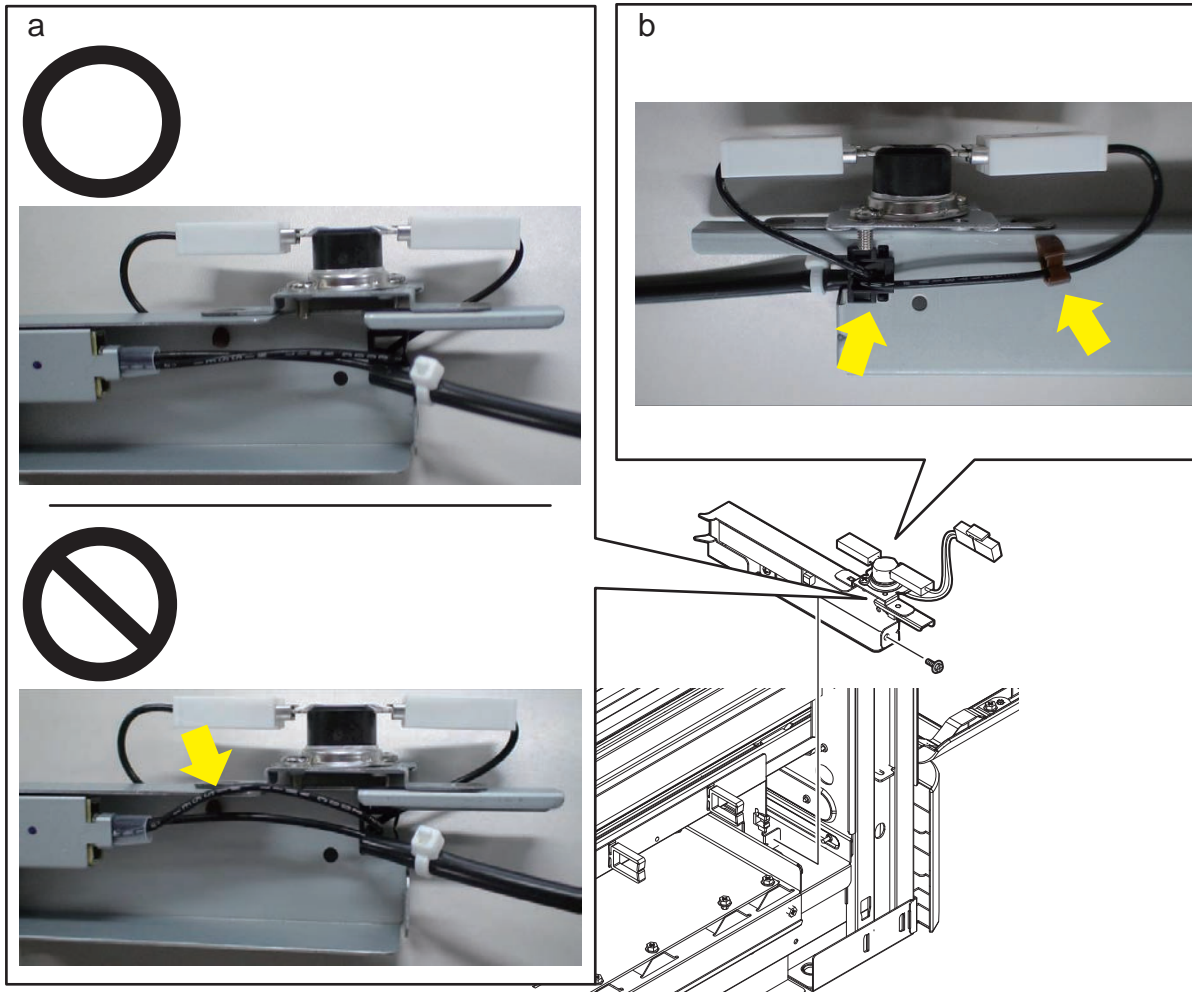
4.7 Transfer Units (TBU, TRU)

4.7.1 Transfer belt cleaning unit

(1) Remove the waste toner box.
   📖 P. 4-50 "4.6.1 Waste toner box"
(2) Hold the lever and pull the transfer belt cleaning unit [1] toward the front side to remove it.

Fig. 4-245

4.7.2 Transfer belt cleaning blade/blade seal

(1) Remove the transfer belt cleaning unit.
   📖 P. 4-88 "4.7.1 Transfer belt cleaning unit"
(2) Remove 2 screws and take off the transfer belt cleaning blade [1].
(3) Remove the front and rear blade seals.

   Notes:
   After the blade seals have been attached, be sure that no gap is left between the blade seals and the edge of the transfer belt cleaning blade.

Fig. 4-246

4.7.3   Transfer belt unit (TBU)

Notes:

You are recommended to wear gloves so that you do not touch the surface of the transfer belt with bare hands.

(1) Remove the transfer belt cleaning unit.
     📖 P. 4-88 "4.7.1 Transfer belt cleaning unit"
(2) Pull the TBU release lever and turn it clockwise to release the 1st transfer roller.

Fig. 4-247

(3) Open the side cover and lower the 2nd transfer roller unit (TRU) [1].

Fig. 4-248

(4) Pull the lever, loosen 2 screws to lower it, and then pull out the transfer belt unit.
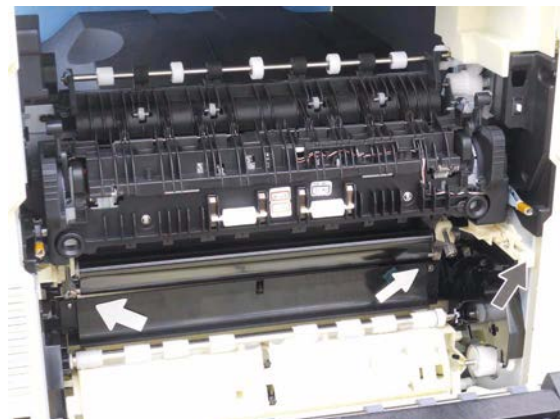
Fig. 4-249

Notes:
- Be careful not to generate any friction between the transfer belt and the 2nd transfer roller unit when pulling out the transfer belt unit.
- When installing the transfer belt unit, make sure that the lever [1] is pulled out.
- When installing the transfer belt unit, push the handle unit [3] inside while the screw [2] is lowered.
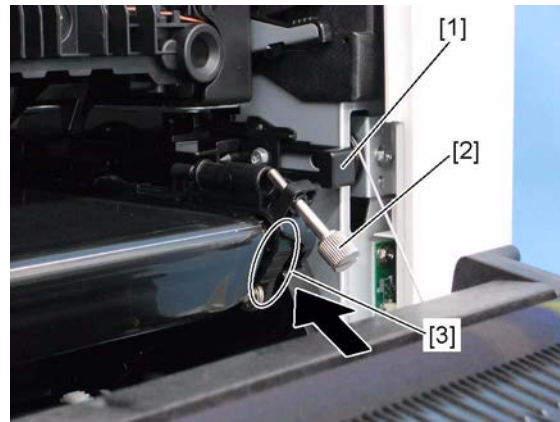
Fig. 4-250

4.7.4　Transfer belt

Notes:
You are recommended to wear gloves so that you do not touch the surface of the transfer belt with bare hands.

(1) Remove the transfer belt unit.
　　📖 P. 4-89 "4.7.3 Transfer belt unit (TBU)"
(2) Remove the spring [2] and the front tensioner [1].
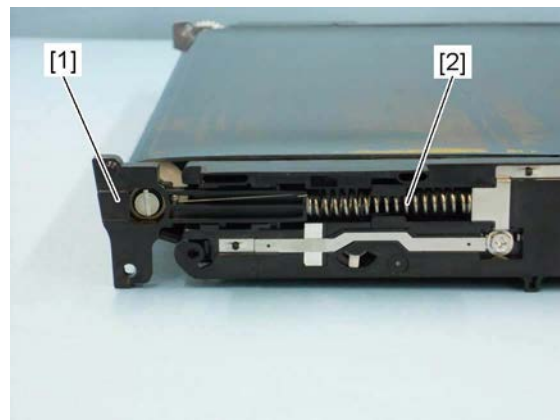
Fig. 4-251

(3) Remove the the spring [2] of the rear tensioner [1].
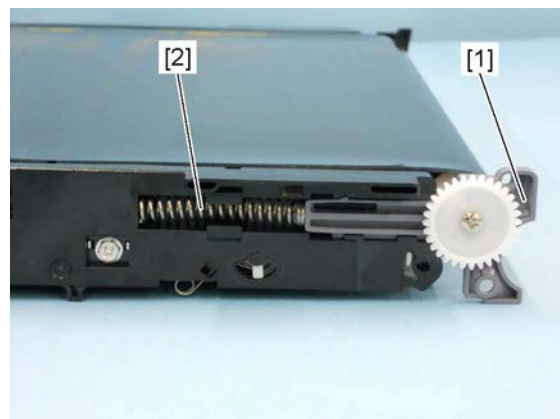
Fig. 4-252

(4) Remove 1 screw and take off the front drive roller bracket [1] on the front side.
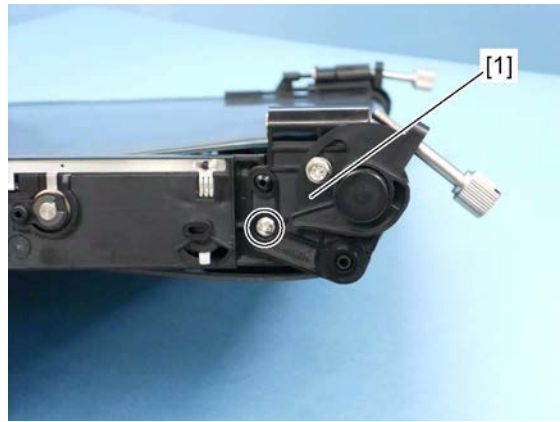
Fig. 4-253

(5) Using the material that is packed with the transfer belt (service part), stand the transfer belt unit [1] on the waste toner box [2].

Notes:

Use 1 piece of white urethane foam (138 x 138 x 25 mm) with a 30 mm diameter hole.
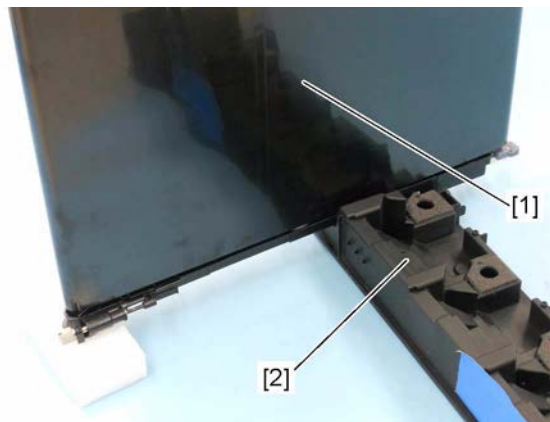
Fig. 4-254

Notes:

When installing, make sure that the △ mark [1] of the transfer belt unit is aligned with the △ mark [2] of the waste toner box.

Fig. 4-255

4
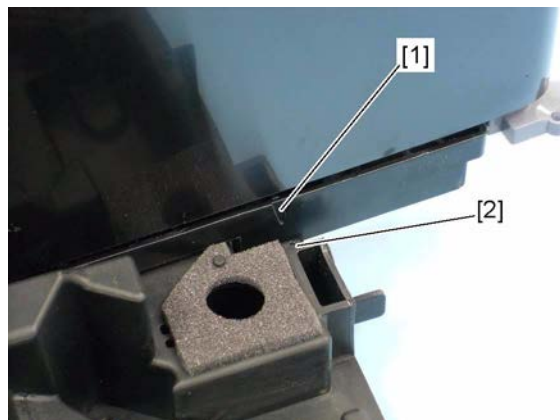
(6) Remove the transfer belt [1] upward.

Fig. 4-256

Notes:
- When installing the transfer belt, place the side with the serial number facing upward (front side).
- Install the transfer belt in the middle so that it does not move to one side.
- Do not touch the belt surface directly with bare hands.
- Be sure not to scratch the belt surface.
- Check if the rib on both ends of the transfer belt does not run on the rollers.

Fig. 4-257

4.7.5 Drive roller

(1) Remove the transfer belt.
(2) Remove the drive roller [1].

Fig. 4-258

Notes:

When installing the driver roller, correctly attach the spring [1] on the rear drive roller shaft.
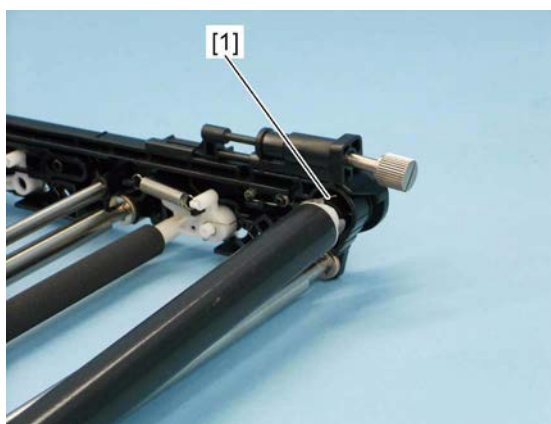
Fig. 4-259

4.7.6   1st transfer roller

(1) Remove the transfer belt.
    📖 P. 4-90 "4.7.4 Transfer belt"
(2) Place the transfer belt frame upside down.
(3) Remove the rear shaft on the 1st transfer roller.

Fig. 4-260

(4) Pull the 1st transfer roller [1] toward the rear side, and pull it out from the front shaft.
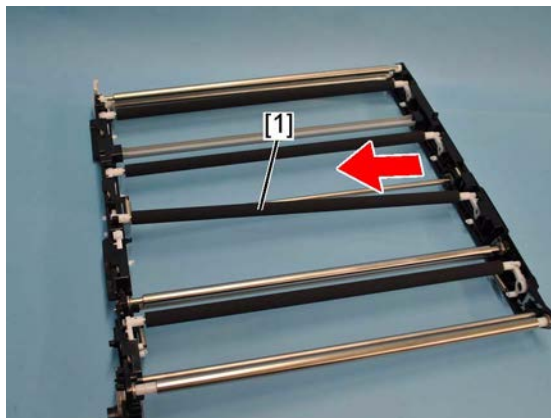
Fig. 4-261

4.7.7   2nd transfer roller

(1) Open the side cover.
(2) Raise the stopper and remove the 2nd
     transfer roller assembly [1].

Fig. 4-262

(3) Remove 2 E-rings, collars, and stoppers, and
     then take off the 2nd transfer roller.

Fig. 4-263

4.7.8   2nd transfer roller unit (TRU)

(1) Open the side cover.
(2) Remove 1 screw and take off the harness
     cover [1].

Fig. 4-264

(3) Remove 2 screws and 2 clips, disconnect 1 connector, and then remove the 2nd transfer roller unit [1].

Fig. 4-265

4.7.9 Paper clinging detection sensor (S18)

(1) Remove the 2nd transfer roller unit.
📖 P. 4-94 "4.7.8 2nd transfer roller unit (TRU)"
(2) Remove 1 screw and take off the paper clinging detection sensor (S18) [1].
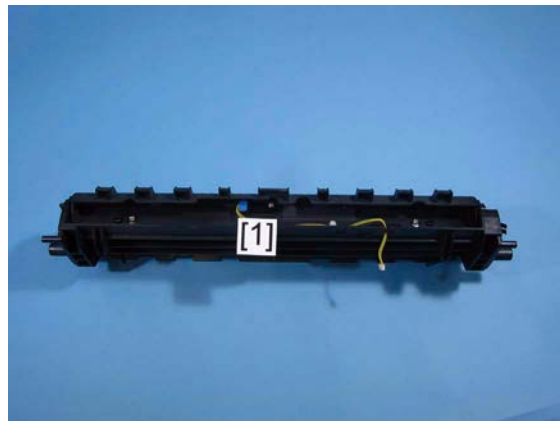
Fig. 4-266

4.7.10 1st transfer contact/release clutch (CLT3)

(1) Remove the rear cover.
📖 P. 4-5 "4.1.13 Rear cover"
(2) Disconnect the connector and remove 1 screw. Then pull up the latch toward the front side, rotate it clockwise, and remove the 1st transfer contact/release clutch cover [1].
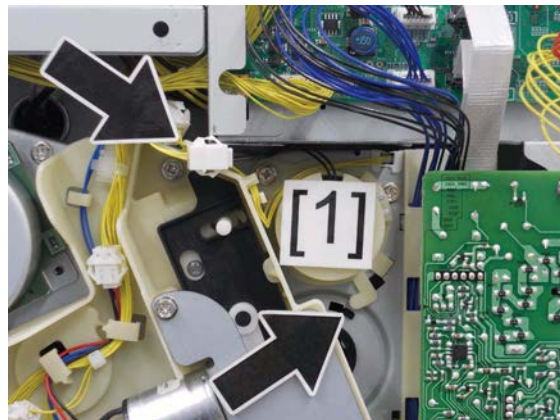
Fig. 4-267

(3) Remove the 1st transfer contact/release clutch.
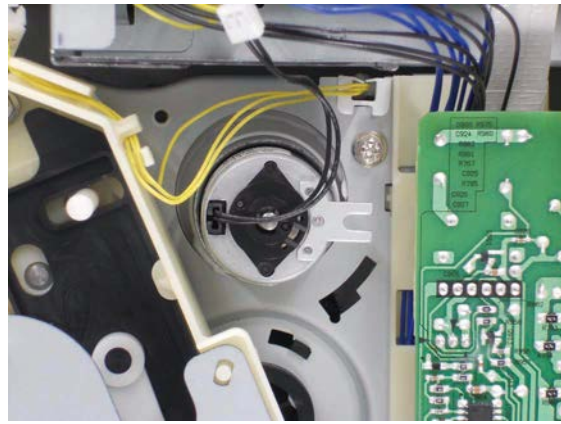
Fig. 4-268

4.7.11   1st transfer contact/release sensor (S12)

(1) Remove the drum TBU drive unit.
  📖 P. 4-97 "4.7.13 Drum TBU drive unit"
(2) Remove 2 screws and take off the 1st transfer contact/release gear unit [1].
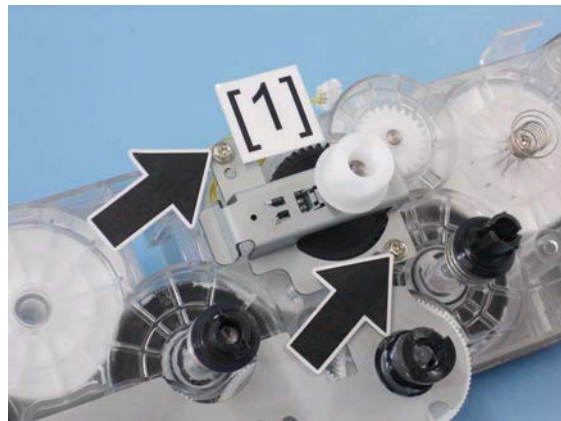
Fig. 4-269

Notes:
  When installing the 1st transfer contact/ release sensor, pass the harness through the harness guide.
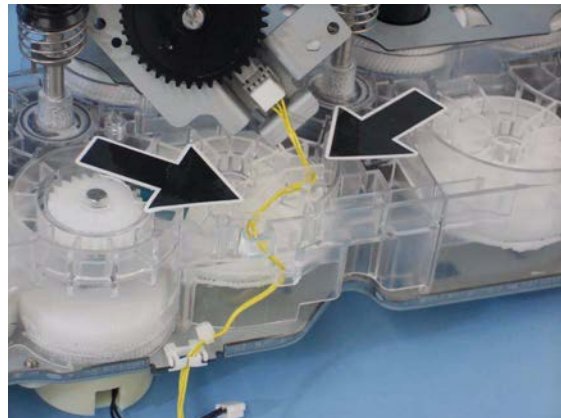
Fig. 4-270

(3) Remove the 1st transfer contact/release sensor [1] and disconnect the connector.
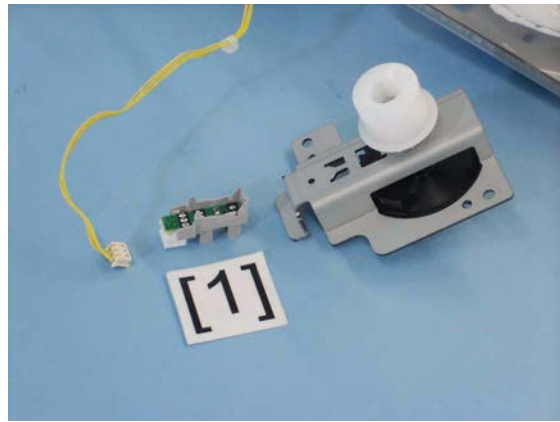
Fig. 4-271

4.7.12　Drum/TBU motor (M6)

(1) Remove the rear cover.
　　📖 P. 4-5 "4.1.13 Rear cover"
(2) Remove 2 screws and disconnect the connector, and then take off the drum/TBU motor [1].
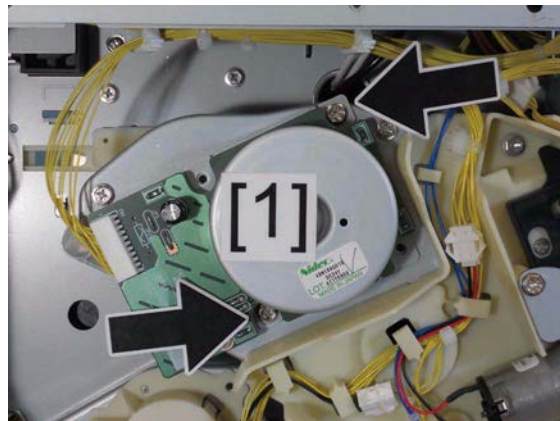
Fig. 4-272

4.7.13　Drum TBU drive unit

(1) Remove the high-voltage transformer.
　　📖 P. 9-6 "9.1.8 High-voltage transformer (HVT)"
(2) Disconnect 1 connector.

Fig. 4-273

(3) Disconnect 4 LED connectors and 4 flat cables.
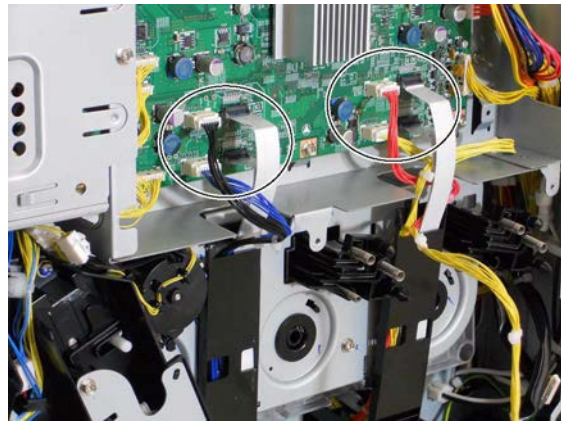
Fig. 4-274

Notes:
- When removing the flat cable, change the lever position so that the connector is released, and remove the flat cable by lifting it up slightly (approx. 7 degrees) as shown in the right figure.
- When connecting the flat cable to the connector, insert the flat cable straightly and lock it securely. Confirm that the tabs are in the positions shown in the right figure.
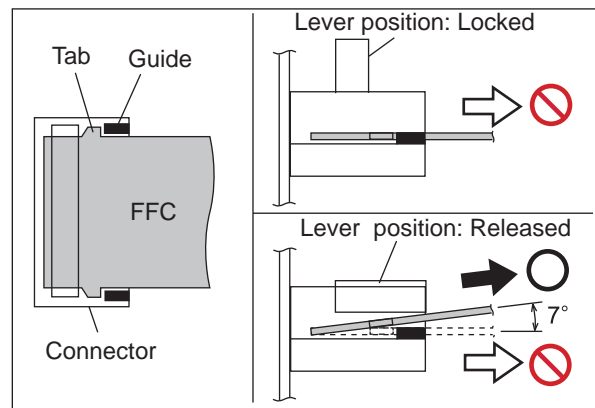
Fig. 4-275

Notes:
- When installing the flat cable, be careful not to insert it at an angle.
- Do not apply pressure to or damage the edge of the flat cable.
- When installing the flat cable, do not push it in strongly.
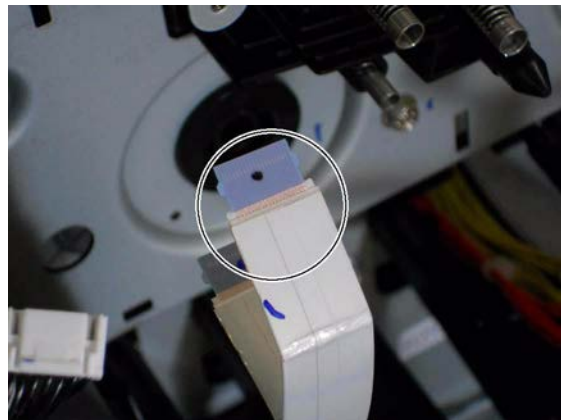
Fig. 4-276

(4) Slide the harness guide [1] upward and tilt it to the near side.
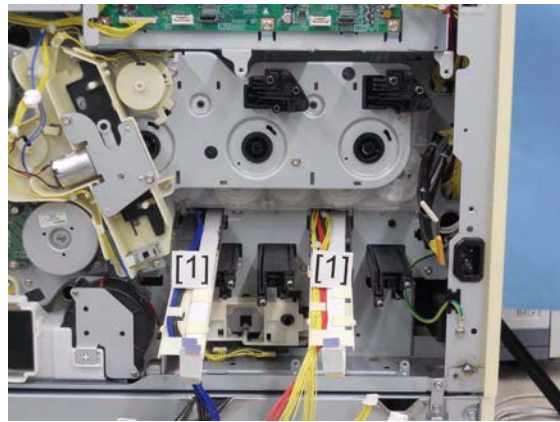
Fig. 4-277

(5) Remove the drum switching unit.
     📖 P. 4-73 "4.6.21 Drum switching detection sensor (S11)"
(6) Disconnect 4 connectors and release the harness from the harness guide.
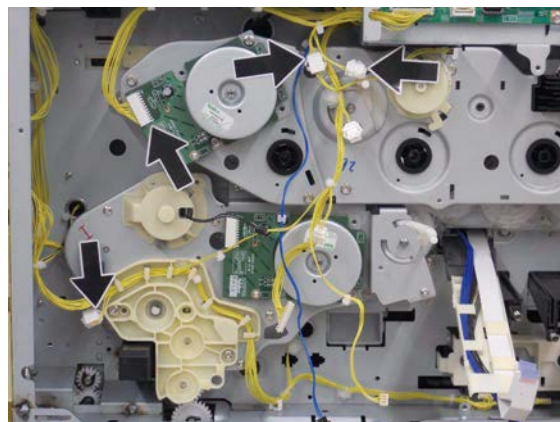
Fig. 4-278

(7) Remove 2 power supply terminals [1].

   Notes:
     The number of the springs for the left side power supply terminal differs from the one for the right side power supply terminal.

     Left side (see from rear side): 3 springs
     Right side (see from rear side): 2 springs
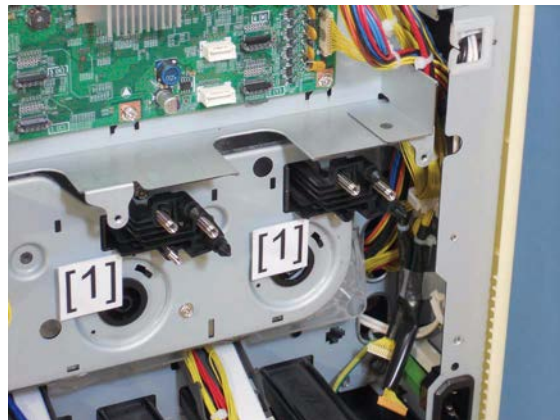
Fig. 4-279

(8) Remove 7 screws, release the upper hook, and then take off the drum TBU drive unit [1].
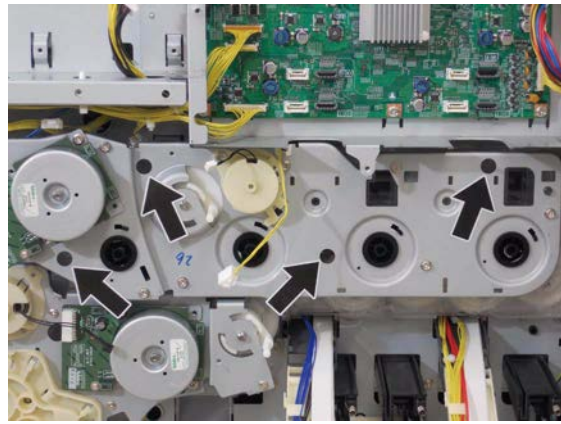
Fig. 4-280
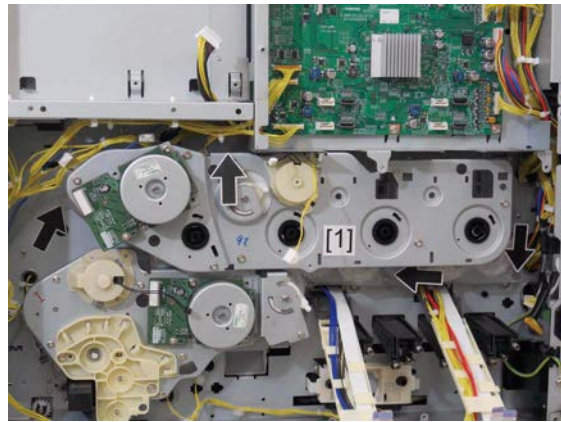
Fig. 4-281

Notes:
    When installing the drum TBU drive unit, insert the protrusion of the transfer belt drive shaft release arm into the hole in the lever.
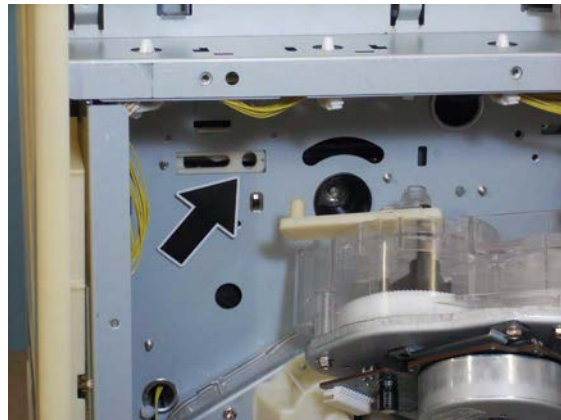
Fig. 4-282

(9) Remove the transfer belt drive shaft release arm [1].

Fig. 4-283

4

4.8 Image Quality Control

4.8.1 Image quality control unit

(1) Open the side cover.
(2) Remove the transfer belt unit.
    📖 P. 4-89 "4.7.3 Transfer belt unit (TBU)"
(3) Remove 2 screws and disconnect the connector, and then take off the image quality control unit [1].

> **Notes:**
> The attachment screw on the rear side is a shoulder screw, so exercise care when handling it during installation.
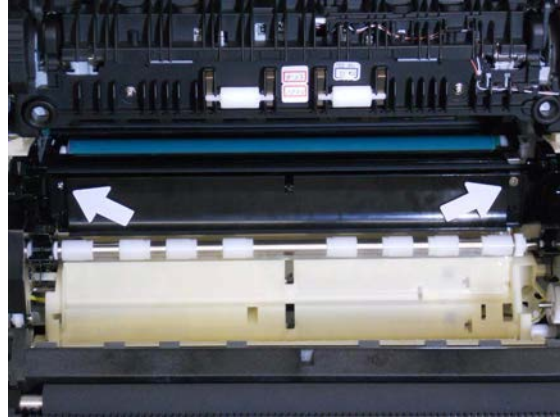
Fig. 4-284
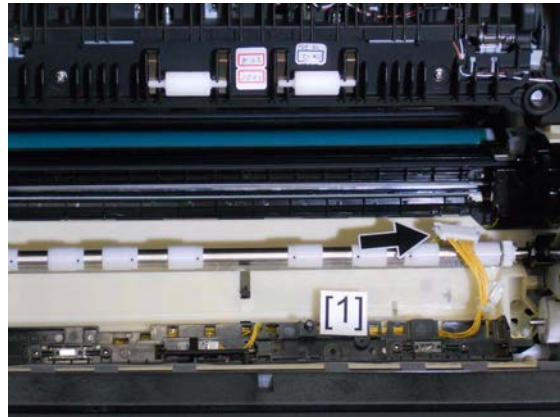
Fig. 4-285

> **Notes:**
> Be sure to pass the harness of the image quality control unit through the harness clamp.

Fig. 4-286

4.8.2 Image position aligning sensor (Front) (S7)

(1) Remove the image quality control unit.
📖 P. 4-102 "4.8.1 Image quality control unit"
(2) Remove 2 screws and disconnect the connector, and then take off the Image position aligning sensor (Front) [1].

Fig. 4-287

4.8.3 Image position aligning sensor (Rear)/Image quality sensor (S8)

(1) Remove the image quality control unit.
📖 P. 4-102 "4.8.1 Image quality control unit"
(2) Remove 2 screws and disconnect the connector, and then take off the image position aligning sensor (Rear)/image quality sensor [1].
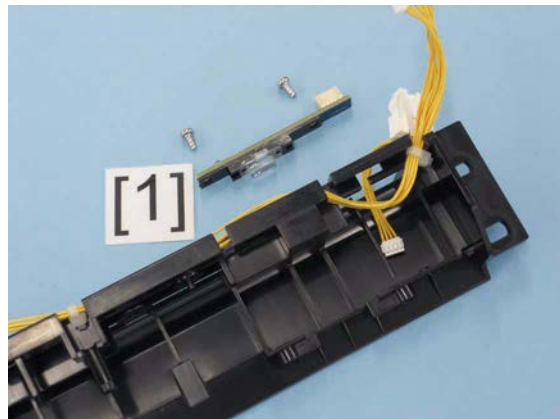
Fig. 4-288

4.8.4 Registration sensor (S6)

(1) Remove the image quality control unit.
📖 P. 4-102 "4.8.1 Image quality control unit"
(2) Disconnect the connector and remove the registration sensor [1].
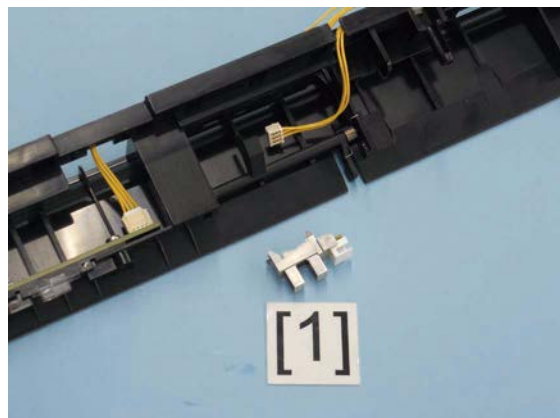
Fig. 4-289

4.9 Fuser Unit

4.9.1 Fuser unit

Notes:

- Be sure that the temperature of the fuser unit has lowered enough before removing it. If the unit still heated should be removed, wear a pair of gloves before working.
- When a new fuser unit is installed, be sure to check whether the fuser-related life counter values have been cleared in the list printing mode or the setting mode (08).
- When disassembling the fuser unit or replacing any parts in it, be sure that the wire harness is correctly set, and also be careful not to catch it between other parts.

a. Check the harness wiring to prevent the cover from catching the harnesses.

b. Be sure to wire the harness for the paper exit sensor as shown below and not to let it catch in the harness holder [1].
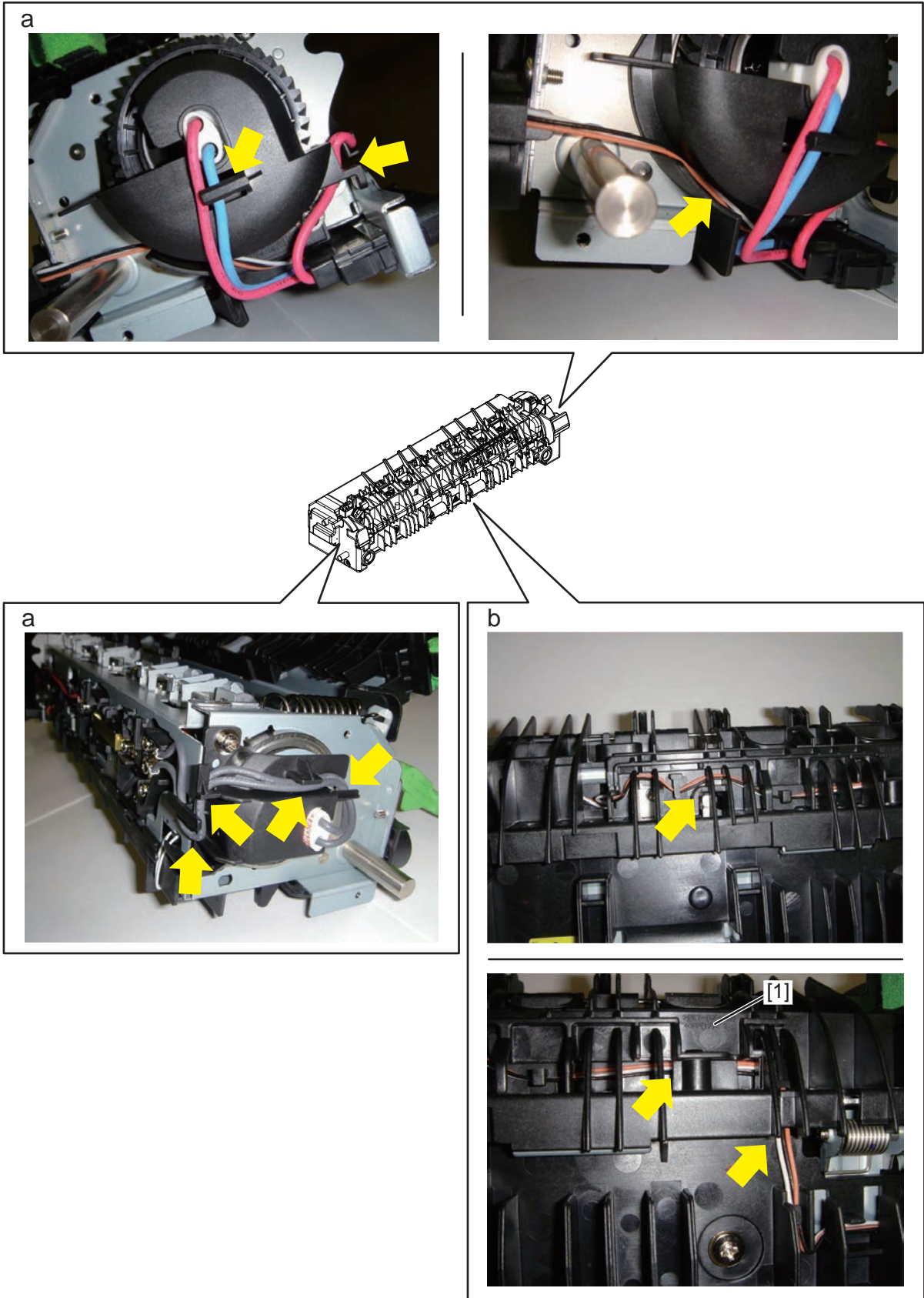
Fig. 4-290

c. Be sure to wire the harness for the fuser roller thermostat along the hooks of the harness holder [2] as shown below.

d. Be careful not to catch the harnesses for the fuser roller thermistor in the drawer connector bracket [3]. The harnesses will likely be caught if they are come off from the hook [4].

e. Be sure to wire the harnesses for the fuser roller thermistor along all the hooks of the harness holder [1] as shown below.

c

[2]

d

[3]

[4]

e

[1]

Fig. 4-291

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DISASSEMBLY AND REPLACEMENT
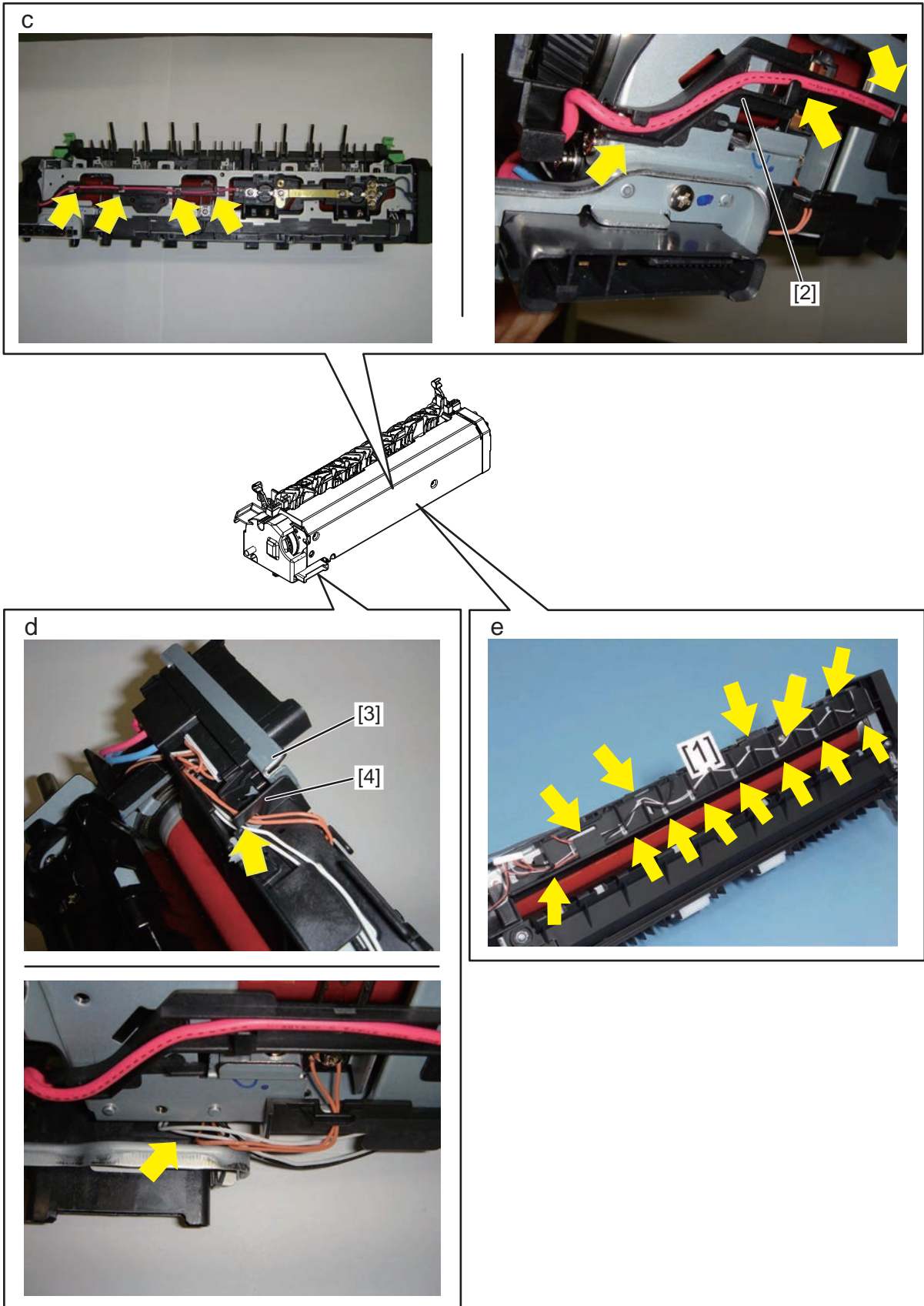
Notes:
>   If the equipment and the fuser unit are left unused for a long time, install the pressure release parts (SPACER-PRS-INI) to release the pressure of the fuser unit.
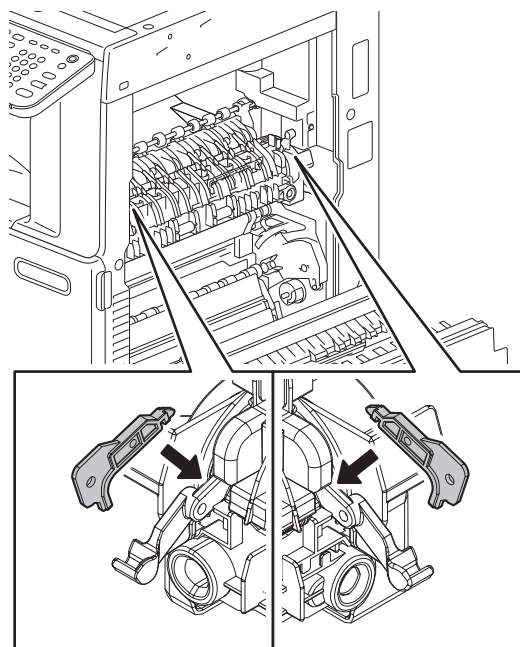
Fig. 4-292

(1) Open the side cover.
(2) Press down the lever and remove the fuser unit.

Notes:
>   • The fuser unit is extremely hot. When removing the fuser unit, hold the handles of the unit to avoid a direct touch on the unit.
>   • When installing the fuser unit, be sure to press it in until the lever goes up.

Fig. 4-293

4.9.2 Front side cover

(1) Remove the fuser unit.
    📖 P. 4-104 "4.9.1 Fuser unit"
(2) Remove 2 screws and take off the front side cover [1].
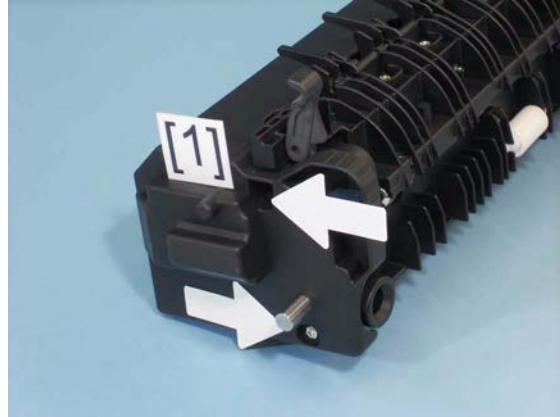
Fig. 4-294

4.9.3 Rear side cover

(1) Remove the fuser unit.
    📖 P. 4-104 "4.9.1 Fuser unit"
(2) Remove 2 screws and take off the rear side cover [1].

> **Notes:**
> When installing the cover, put the harness into the harness guide so that it will not be pinched by the cover.
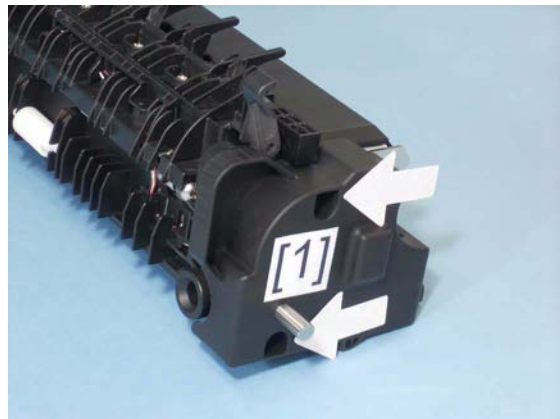
Fig. 4-295

4.9.4 Fuser roller cover

(1) Remove the fuser unit.
    📖 P. 4-104 "4.9.1 Fuser unit"
(2) Remove 2 screws and take off the fuser roller cover [1].

Fig. 4-296

4.9.5   Fuser roller separation finger

(1) Remove the fuser roller cover.
 📖 P. 4-109 "4.9.4 Fuser roller cover"
(2) Raise the fuser roller separation finger, and remove the fuser roller separation finger [1] and the spring.
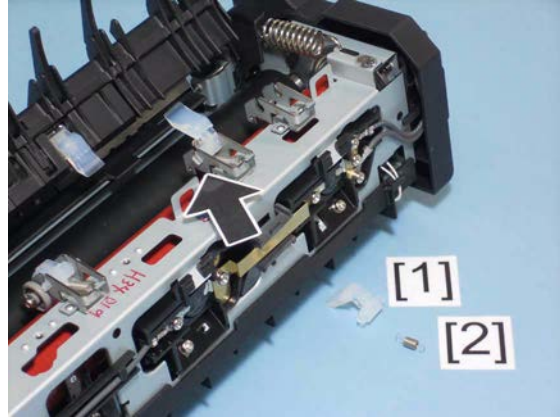
Fig. 4-297

4.9.6   Pressure roller separation finger

(1) Remove the pressure roller cover.
 📖 P. 4-116 "4.9.13 Paper exit sensor (S13)"
(2) Raise the pressure roller separation finger, and remove the pressure roller separation finger [1] and the spring.
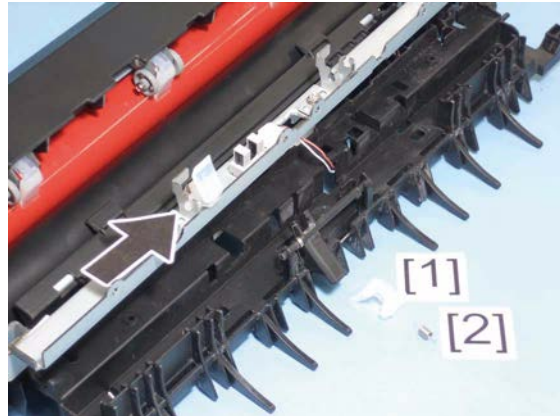
Fig. 4-298

4.9.7   Fuser roller center thermostat (THMO1)/fuser roller rear thermostat (THMO2)

(1) Remove the fuser roller cover.
 📖 P. 4-109 "4.9.4 Fuser roller cover"
(2) Remove 6 screws, and then take off the sensor thermostat [1] and side thermostat [2].

Notes:
   • When installing, be sure that the gap between the thermostat and fuser roller is 1.2 to 1.8 mm.
   • After replacing the center and side thermostats, adjust the gap between the thermostats and the fuser roller.
   • See the external document.: P. 6-** "6.12.2 Adjusting the gap of the thermostat"

Fig. 4-299

4.9.8 Fuser roller center thermistor (THM1)/fuser roller side thermistor (THM2)/fuser roller edge thermistor (THM3)

(1) Remove the rear side cover.
    📖 P. 4-109 "4.9.3 Rear side cover"
(2) Remove the fuser roller cover.
    📖 P. 4-109 "4.9.4 Fuser roller cover"
(3) Disconnect the connector of the paper exit sensor.
    📖 P. 4-116 "4.9.13 Paper exit sensor (S13)"
(4) Remove 1 screw, take off the connector bracket, and disconnect the connector.
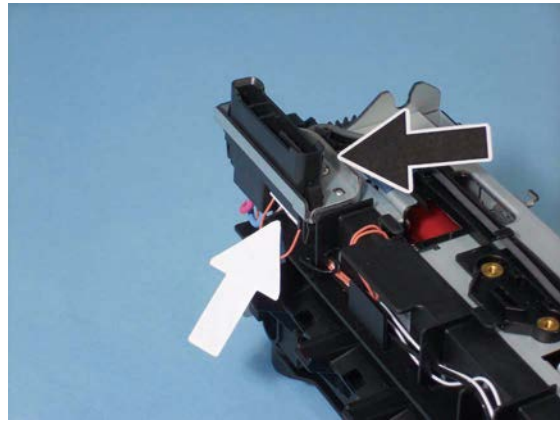
Fig. 4-300

(5) Remove 1 screw, release the harness from the guides, and then take off the harness guide [1].
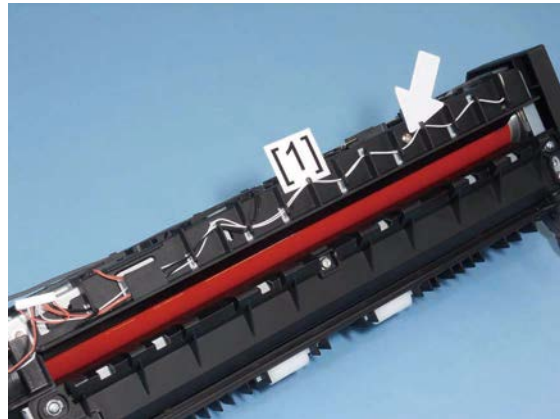
Fig. 4-301

(6) Remove 1 screw and take off the edge thermistor [1].

   Notes:
- Before installing the fuser roller edge thermistor, assemble the fuser roller.
- When installing, be careful not to deform the thermistor. Also, make sure that the thermistor is in touch with the fuser roller.
- After replacing the edge thermistor, be sure to calibrate the fuser thermistor.
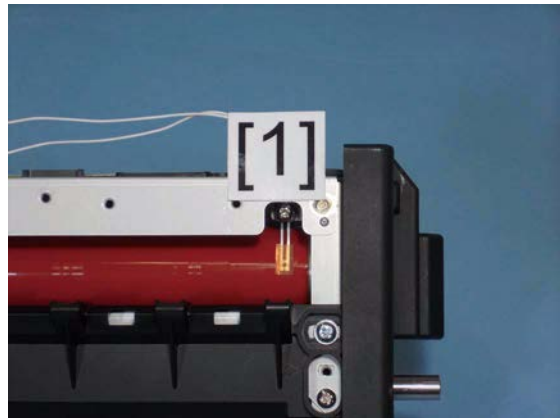
Fig. 4-302

(7) Remove 2 screws, and then take off the center thermistor [1] and side thermistor [2].

Notes:
- When installing, be careful not to cause any deformation to occur to the thermistor.
- After replacing the center and side thermistors, adjust the gap between the thermistor and the fuser roller. And, be sure that the gap between the thermister and fuser roller is 0.5 to 1.0 mm.
- See the external document.: 6.12.1 Adjustment of the non-contact thermistor Gap
- After adjusting the gap, be sure to calibrate the fuser thermistor.
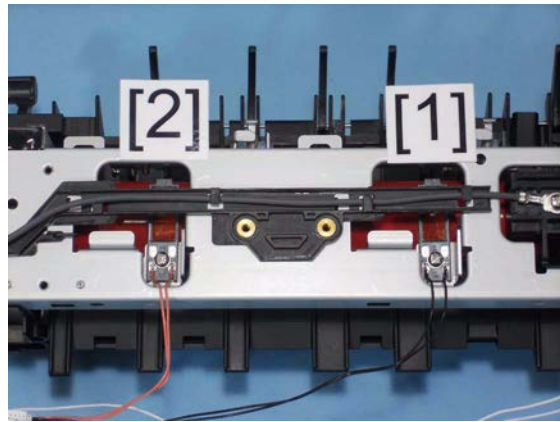
Fig. 4-303

4.9.9   Center heater lamp (LAMP1), Side heater lamp (LAMP2)

(1) Remove the front side cover.
📖 P. 4-109 "4.9.2 Front side cover"
(2) Remove the rear side cover.
📖 P. 4-109 "4.9.3 Rear side cover"
(3) Remove the fuser roller cover.
📖 P. 4-109 "4.9.4 Fuser roller cover"
(4) Remove 3 screws and take off the harness of the thermostat.

Fig. 4-304

(5) Remove 1 screw and release the harness of the lamp from the guide. Then remove the front lamp holder.
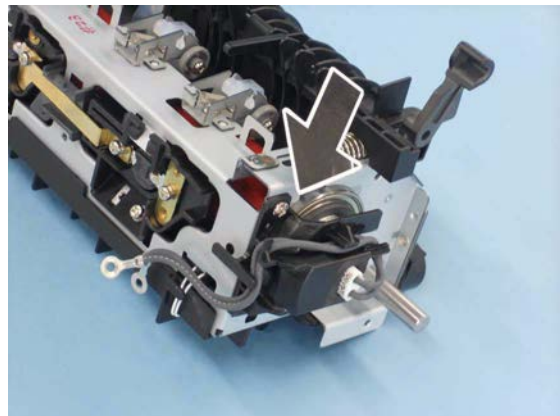
Fig. 4-305

(6) Remove 1 screw and release the harness of the lamp from the guide. Then remove the rear lamp holder.

(7) Remove the connector bracket and disconnect the connector.
📖 P. 4-111 "4.9.8 Fuser roller center thermistor (THM1)/fuser roller side thermistor (THM2)/fuser roller edge thermistor (THM3)"
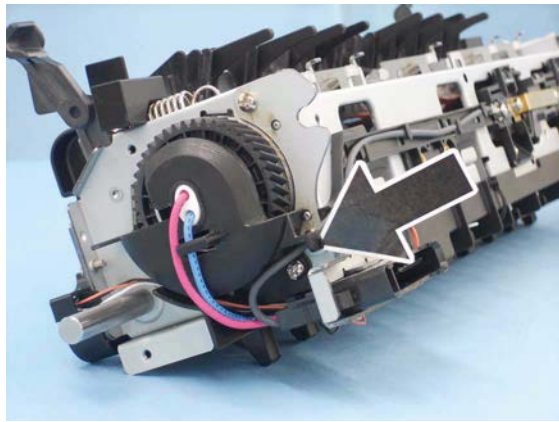
Fig. 4-306

(8) Remove the heater lamp [1].

Notes:
- Do not touch the heater lamp directly with your hands.
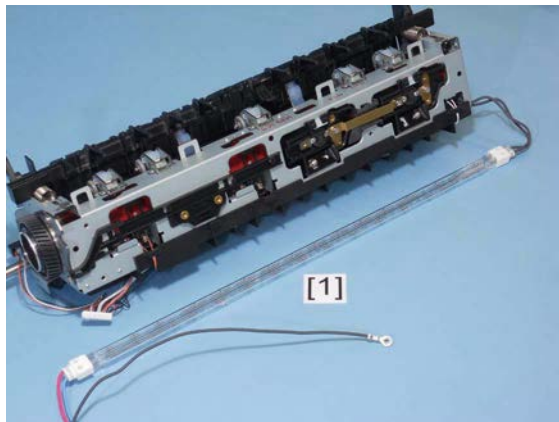
Fig. 4-307

4.9.10 Paper entrance guide

(1) Remove the front side cover.
📖 P. 4-109 "4.9.2 Front side cover"
(2) Remove the rear side cover.
📖 P. 4-109 "4.9.3 Rear side cover"
(3) Remove 2 screws and take off the paper entrance guide [1].

Fig. 4-308

(4) Remove 1 screw and take off the brush.

Fig. 4-309

4.9.11   Pressure roller

(1) Remove the paper entrance guide.
     📖 P. 4-113 "4.9.10 Paper entrance guide"
(2) Remove the harness holder [1].
(3) Release the harness from the harness guide.

Fig. 4-310

(4) Remove 2 screws and take off the pressure roller cover [1].
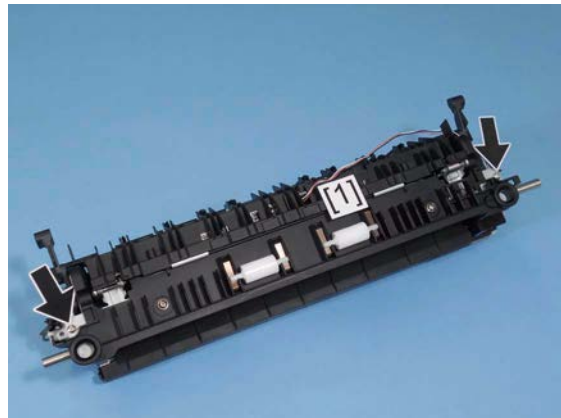
Fig. 4-311

(5) Remove 2 springs.

Notes:

- After replacing the springs, adjust the gap between the thermistor and the fuse roller. And, be sure that the gap between the thermister and fuser roller is 0.5 to 1.0 mm.
  See the external document.: 6.12.1 Adjustment of the non-contact thermistor Gap
- After adjusting the gap, be sure to calibrate the fuser thermistor.

Fig. 4-312

(6) Remove 2 levers [1] and the pressure roller [2].

Notes:

- After replacing the pressure roller, adjust the gap between thermistor and the fuser roller. And, be sure that the gap between the thermistor and fuser roller is 0.5 to 1.0 mm.
  See the external document.: 6.12.1 Adjustment of the non-contact thermistor Gap
- After adjusting the gap, be sure to calibrate the fuser thermistor.
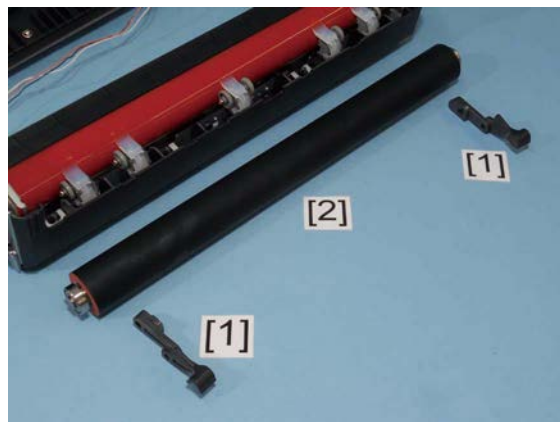
Fig. 4-313

4.9.12 Fuser roller

(1) Remove the pressure roller.
  📖 P. 4-114 "4.9.11 Pressure roller"
(2) Remove the heater lamp.
  📖 P. 4-112 "4.9.9 Center heater lamp (LAMP1), Side heater lamp (LAMP2)"
(3) Remove the E-ring and the pressure roller release lever.
(4) Raise the fuser roller separation finger.

Fig. 4-314

(5) Remove the C-ring [1], drive gear [2], collar [3], bearing [4], and fuser roller [5].

Fig. 4-315

Notes:
- Be careful not to damage the fuser roller.
- When removing or installing the C-ring, be careful not change its shape by forcefully opening it excessively.
- Be sure to fit the C-ring to the groove on the fuser roller. (Make sure that the 2 opening ends and the center part of the C-ring are firmly positioned in the groove.)
- After replacing the fuser roller, adjust the gap between the thermistors and fuser roller.
  And, be sure that the gap between the thermister and fuser roller is 0.5 to 1.0 mm.
- 📖 P. 6-86 "6.12.1 Adjustment of the non-contact thermistor Gap"
- After adjusting the gap, be sure to calibrate the fuser thermistor.
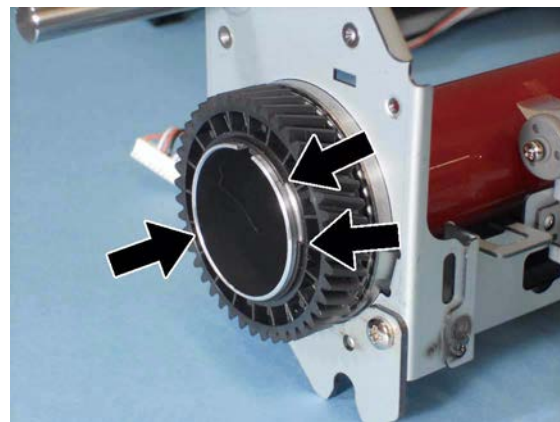
Fig. 4-316

4.9.13 Paper exit sensor (S13)

(1) Remove the fuser unit.
  📖 P. 4-104 "4.9.1 Fuser unit"
(2) Remove the harness holder [1].
(3) Release the harness from the harness guide.

Fig. 4-317

(4) Remove 2 screws [1] and take off the reverse guide [2].
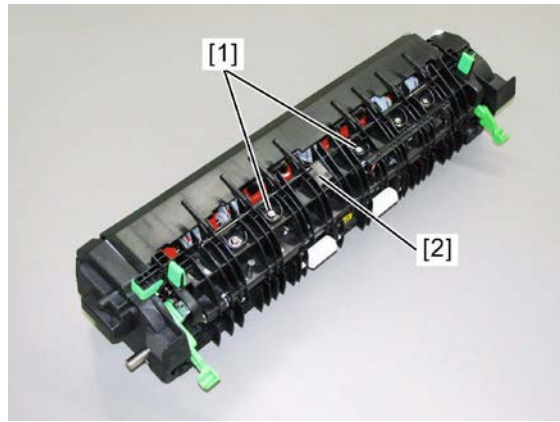
Fig. 4-318

(5) Remove the sensor cover [1]. Disconnect the connector and take off the paper exit sensor [2].

Fig. 4-319

4.9.14 Paper exit unit

(1) Remove the fuser unit.
 📖 P. 4-104 "4.9.1 Fuser unit"
(2) Remove 3 screws and take off the paper exit unit [1].
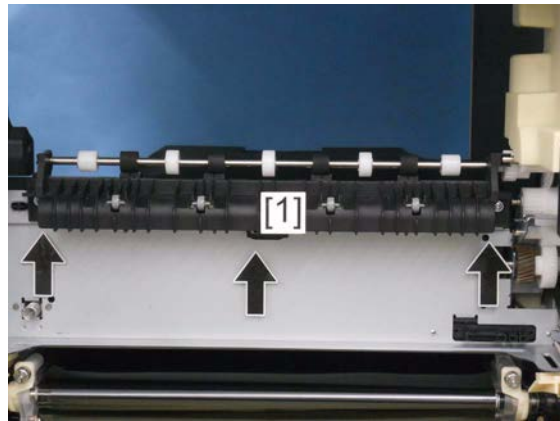
Fig. 4-320

Notes:
> When installing the paper exit unit, align the protrusion on the rear of the bottom of the screw hole with the frame hole, and fit the drive gear shaft into the bearing.
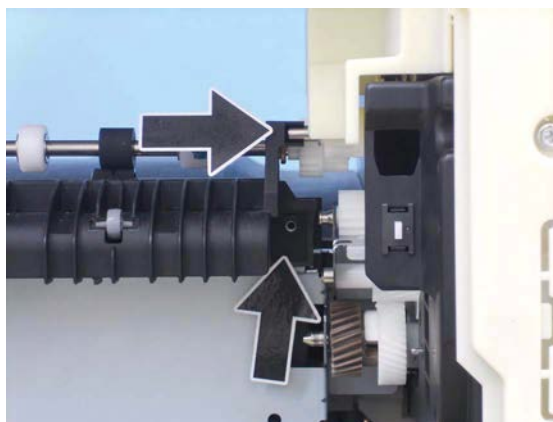
Fig. 4-321

4.9.15 Exit roller

(1) Remove the paper exit unit.
    📖 P. 4-117 "4.9.14 Paper exit unit"
(2) Remove the E-ring [1], gear [2], and bushing [3], then take off the exit roller [4].

Fig. 4-322

(3) Remove the idling roller [1] and spring [2].

Fig. 4-323

Notes:

When replacing the idling roller or idling roller shaft, apply 0.5 x 2 rice-sized grain of white grease (Molykote EM-30L) to each oil groove [1] and [2].

[2]

[1]
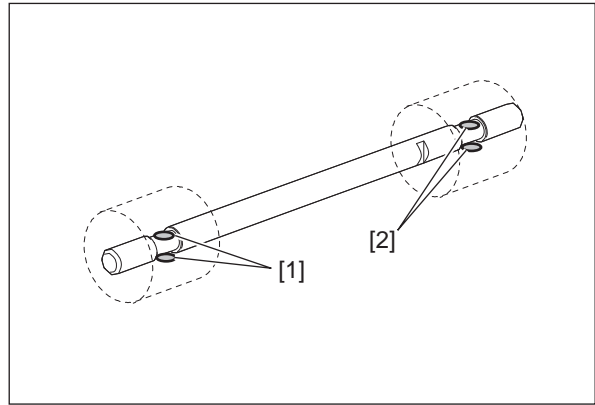
Fig. 4-324

4.9.16 Exit motor (M5)

(1) Remove the right rear cover.
     📖 P. 4-4 "4.1.9 Right rear cover"
(2) Remove the paper exit unit.
     📖 P. 4-117 "4.9.14 Paper exit unit"
(3) Loosen 1 screw and remove the exit motor cover [1].

[1]
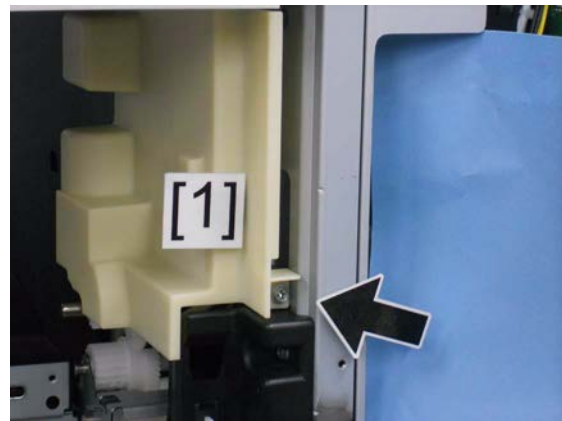
Fig. 4-325

(4) Remove 1 screw, take off the exit motor assembly [1], and disconnect the connector.
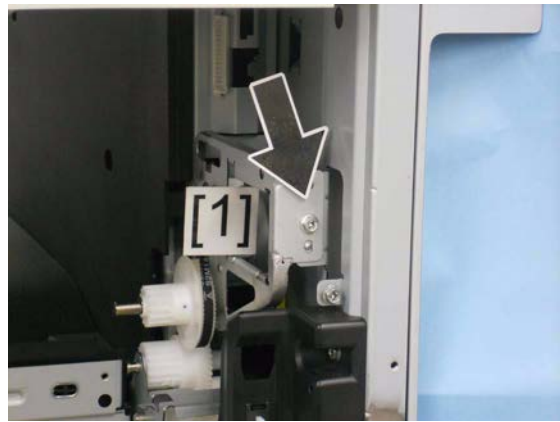
Fig. 4-326

Fig. 4-327

(5) Remove the belt [1].

Fig. 4-328

(6) Remove 2 screws, and take off the exit motor by letting the gear out of the large hole in the bracket.
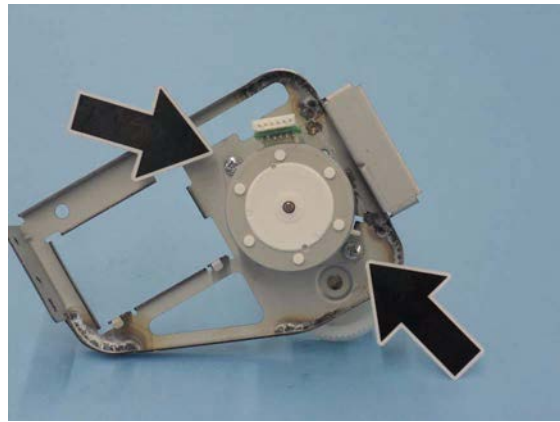
Fig. 4-329

4.9.17 Fuser motor (M4)

(1) Remove the SYS board cooling fan.
📖 P. 4-80 "4.6.31 SYS board cooling fan (F1)"
(2) Remove 4 screws and disconnect the connector, and then take off the HDD [1].
(3) Disconnect all connectors connected to the SYS board.
(4) Remove 9 screws and take off the SYS board [1].
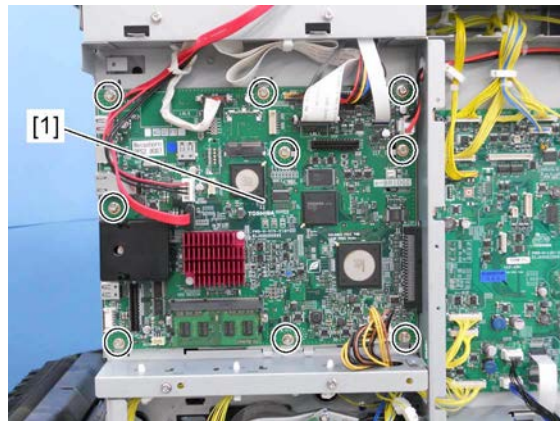
Fig. 4-330

(5) Remove 2 screws and take off the fuser motor cover [1].
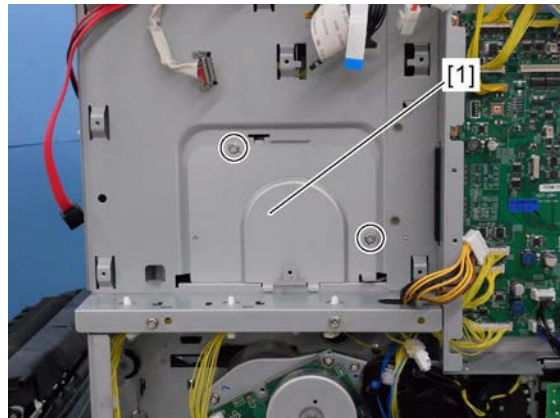
Fig. 4-331

(6) Remove 2 screws and disconnect the connector, and then take off the fuser motor [1].
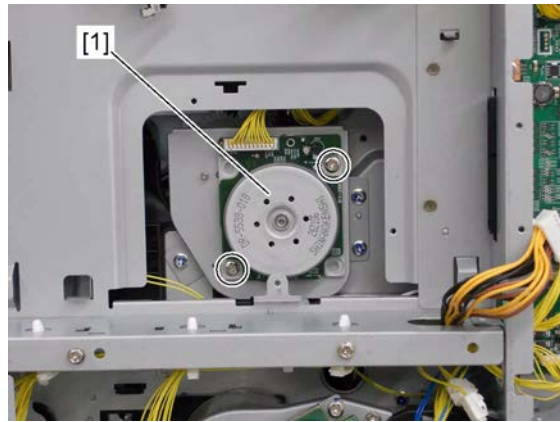
Fig. 4-332

4.9.18 Fuser drive unit

(1) Remove the fuser unit.
    📖 P. 4-104 "4.9.1 Fuser unit"
(2) Remove the fuser motor cover.
    📖 P. 4-121 "4.9.17 Fuser motor (M4)"
(3) Remove the 3 screws and unplug the connector, and then remove the fuser drive unit [1].
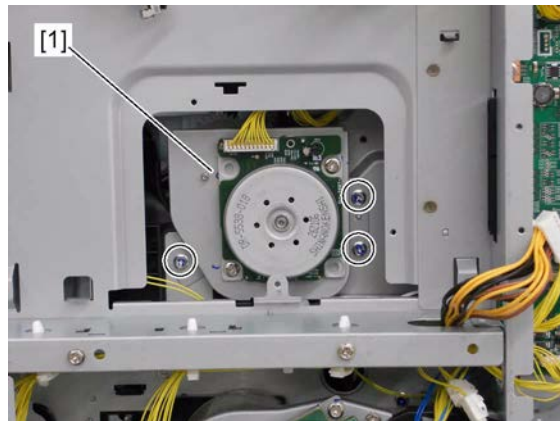
Fig. 4-333

Notes:
    Exercise care to ensure the inside gear [1] does not drop.
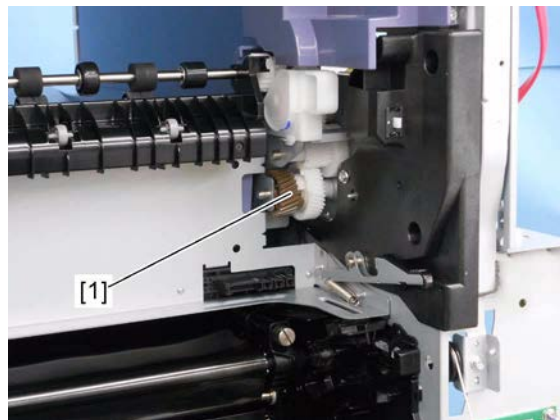
Fig. 4-334

(4) Remove the 2 screws, and then take off the bracket and fuser drive gear.

Fig. 4-335

4

e-STUDIO2050C/2051C/2550C/2551C
DISASSEMBLY AND REPLACEMENT
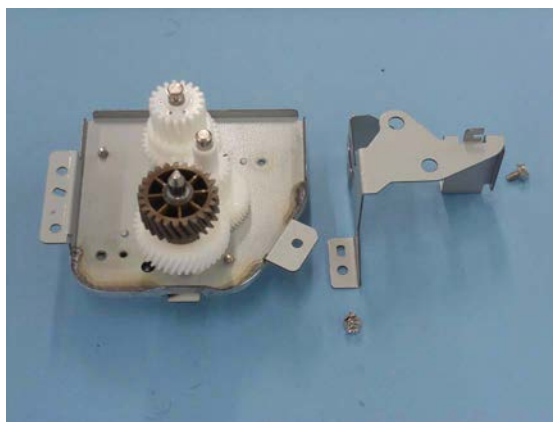
4.10 Automatic Duplexing Unit (ADU) (OPTION: MD-0105)

4.10.1 Automatic duplexing unit (ADU)

(1) Remove the right top cover.
   📖 P. 4-3 "4.1.7 Right top cover"
(2) Remove the right front cover.
   📖 P. 4-3 "4.1.8 Right front cover"
(3) Remove the right rear cover.
   📖 P. 4-4 "4.1.9 Right rear cover"
(4) Remove 3 connectors and take off the screw fixing the ground cable.

Fig. 4-336

(5) Remove 2 screws and take off the wire end bracket [1] by sliding it toward the rear side.
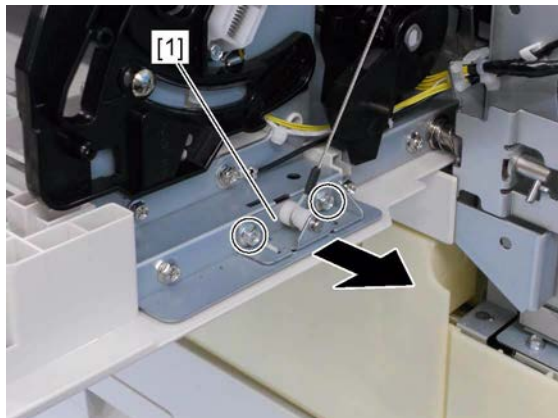
Fig. 4-337

(6) Slide the rear hinge outward and remove the rear shaft.

   Notes:
   During installation, turn the rear hinge downward, and then install the right rear cover.

Fig. 4-338

(7) Slightly lift up the automatic duplexing unit and slide it toward the rear side to remove it.

(8) Release the harness from the harness clamps.

Fig. 4-339

Notes:
When installing the automatic duplexing unit, fit the boss to the hole in the front hinge.

Fig. 4-340

4.10.2 Feed clutch (CLT2)

(1) Remove the automatic duplexing unit.
📖 P. 4-124 "4.10.1 Automatic duplexing unit (ADU)"

(2) Remove 1 screw and take off the clutch cover [1].
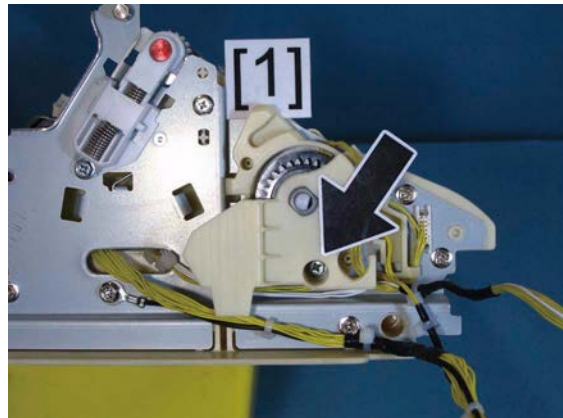
Fig. 4-341

(3) Disconnect 1 connector and remove the feed clutch.

   Notes:
      When installing the feed clutch, attach a rotation stopper.
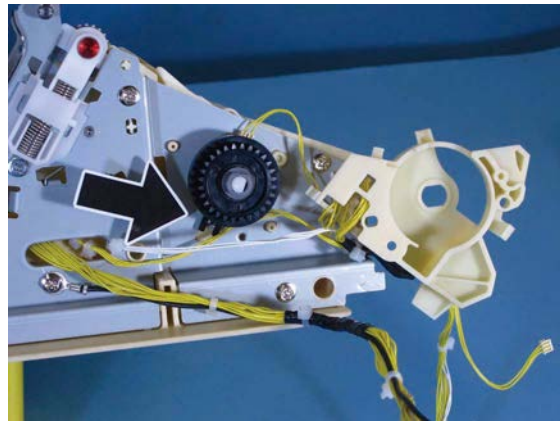
Fig. 4-342

4.10.3 Transport roller

(1) Remove the 2nd transfer roller unit (TRU).
     📖 P. 4-94 "4.7.8 2nd transfer roller unit (TRU)"
(2) Remove 2 screws, and then take off the transport roller together with the holder by positioning the notch while compressing the holder.
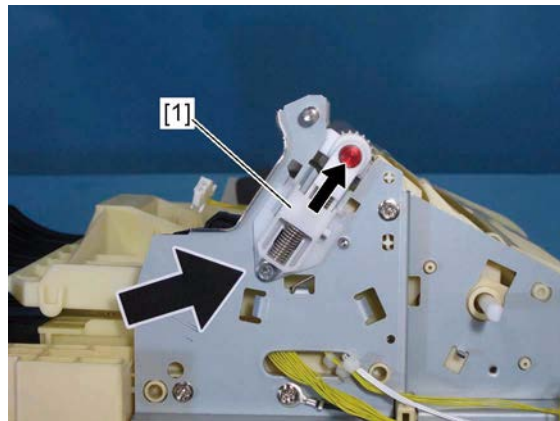
Fig. 4-343

(3) Remove the holder, spring, bushing, and gear.

Fig. 4-344

Notes:
Install the gear, bushing, and spring in the orientation shown in the figure.

Fig. 4-345

4.10.4 Transport unit

(1) Remove the feed clutch.
　📖 P. 4-125 "4.10.2 Feed clutch (CLT2)"
(2) Remove the transport roller.
　📖 P. 4-126 "4.10.3 Transport roller"
(3) Remove 6 screws and disconnect the ground cable, and then take off the rear bracket [1] of the transport unit.
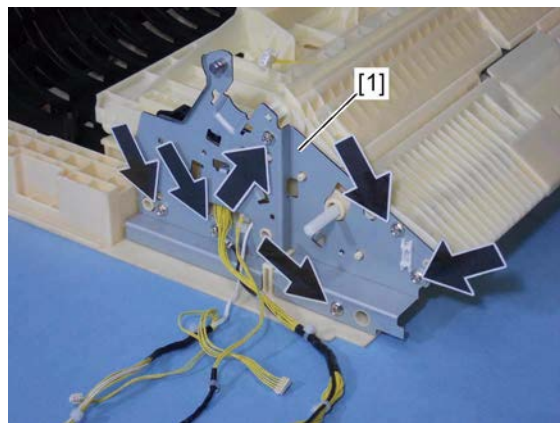
Fig. 4-346

(4) Remove 1 screw and take off the stopper [1].
(5) Remove 6 screws and take off the front bracket [2] of the transport unit.
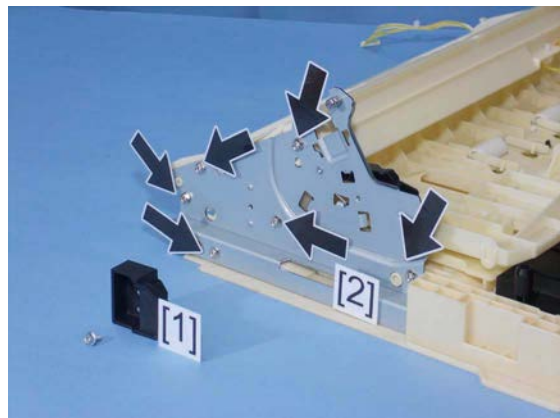
Fig. 4-347

(6) Remove the bypass separation pad [1], separation pad holder [2], spring [3], paper guide (lower) [4], and paper guide (upper) [5].
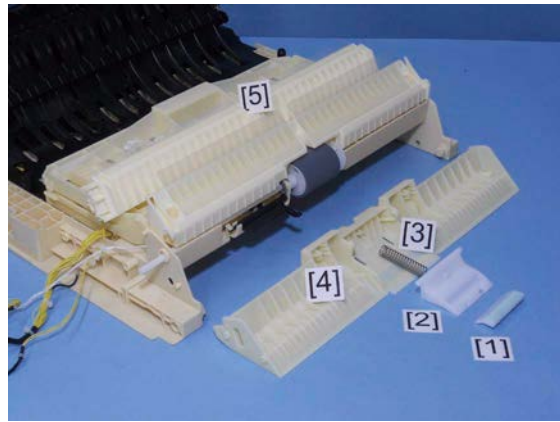
Fig. 4-348

(7) Remove 2 screws and take off the paper guide (middle) [1].
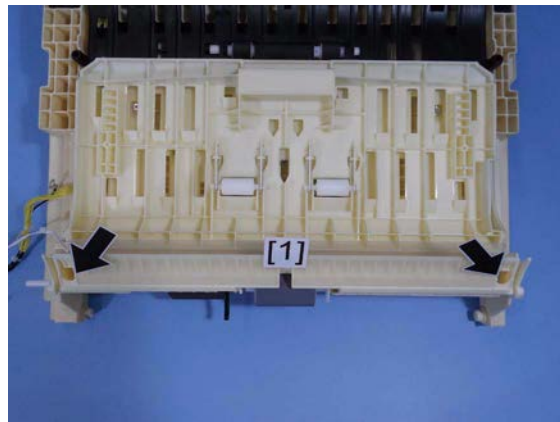
Fig. 4-349

4.10.5 ADU middle cover

(1) Remove the automatic duplexing unit.
    📖 P. 4-124 "4.10.1 Automatic duplexing unit (ADU)"
(2) Remove 2 screws and take off the ADU middle cover.
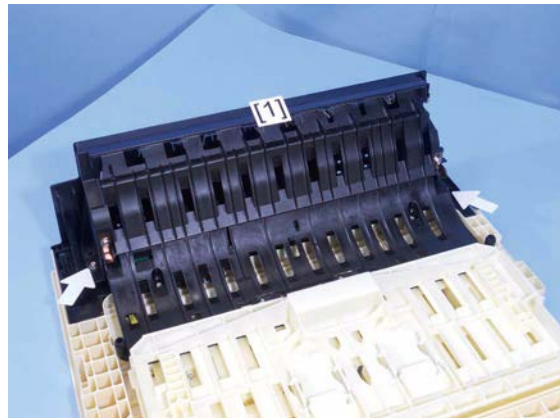
Fig. 4-350

4.10.6 ADU guide assembly

(1) Remove the transport unit.
   📖 P. 4-127 "4.10.4 Transport unit"
(2) Remove the ADU middle cover.
   📖 P. 4-128 "4.10.5 ADU middle cover"
(3) Remove 4 screws and take off the ADU guide assembly [1].
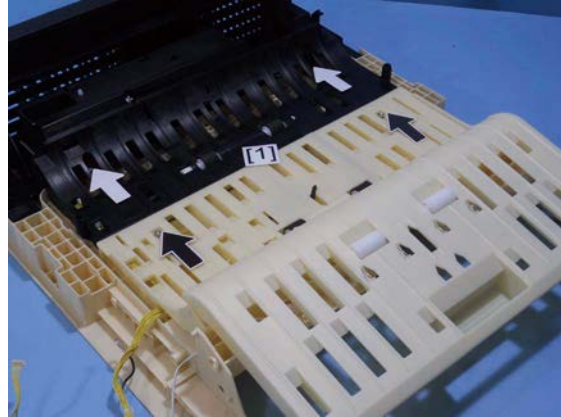
Fig. 4-351

(4) Remove 2 screws and take off the ADU upper cover [1].
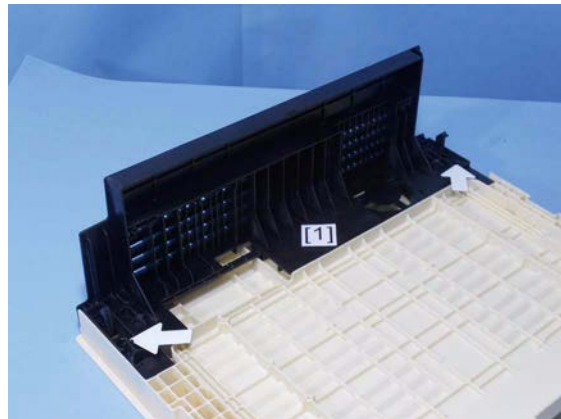
Fig. 4-352

4.10.7 ADU control board (ADU)

(1) Remove the ADU guide assembly.
   📖 P. 4-129 "4.10.6 ADU guide assembly"
(2) Disconnect 3 connectors and remove the ADU control board (ADU).
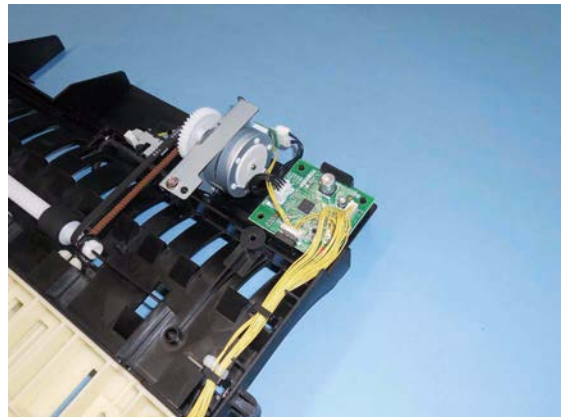
Fig. 4-353

4.10.8 ADU drive unit/ADU entrance sensor (S14)/ADU exit sensor (S15)/ ADU motor (M12)

(1) Remove the ADU guide assembly.
　📖 P. 4-129 "4.10.6 ADU guide assembly"
(2) Disconnect the connectors of the ADU control board (ADU) [1] and ADU motor (M12).
(3) Remove 2 screws, and then take off the ADU motor assembly [2] and ADU exit sensor (S15) [3].
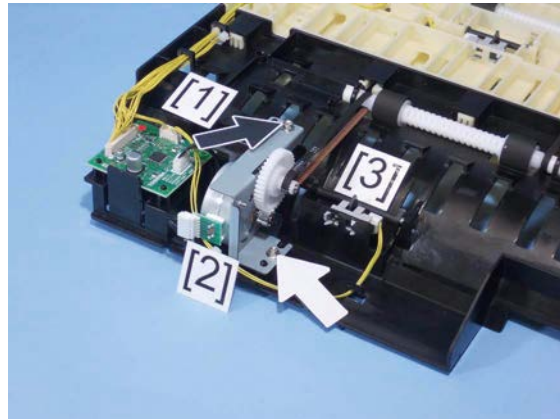
Fig. 4-354

(4) Remove the E-ring [1] and gear [2].
(5) Remove 2 screws and take off the ADU motor (M12) [3].
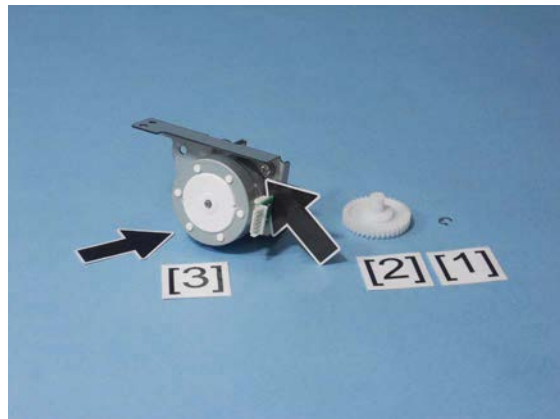
Fig. 4-355

(6) Remove the ADU entrance sensor (S14), and the drive belt [3] of ADU transport roller [2].
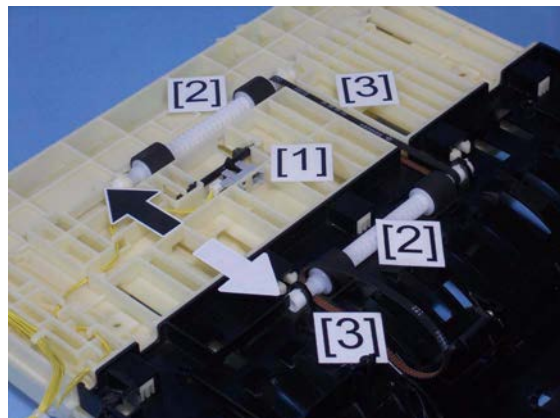
Fig. 4-356

Notes:
- When taking off the transport roller, bend the rib [1] to remove the collar [2], slide the shaft [3] onto the rib, and then take off the collar [4] on the opposite side to pull out the shaft.
- Be sure to attach the belt when carrying out installation.
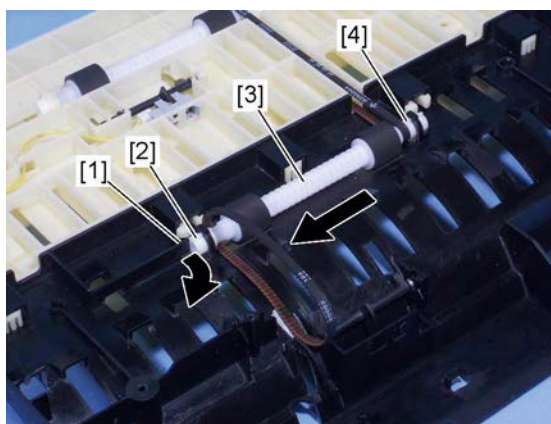
Fig. 4-357

4.10.9 Side cover interlock switch (SW3)

(1) Open the side cover.
(2) Remove 2 screws and take off the side cover interlock switch cover [1].

Fig. 4-358

(3) Release the latches and take off the side cover interlock switch. Disconnect 2 connectors.

Fig. 4-359

4.11 Removal and Installation of Options

Important:
- Before installing or removing options, turn the main power switch off and disconnect the power cable from the outlet.

4.11.1 MR-3024 (Reversing Automatic Document Feeder)

(1) Press the [Power] button on the control panel to shut it down.
(2) Turn the main power switch of the equipment off.
(3) Disconnect the power cable.
(4) Remove 1 screw and take off the connector cover.
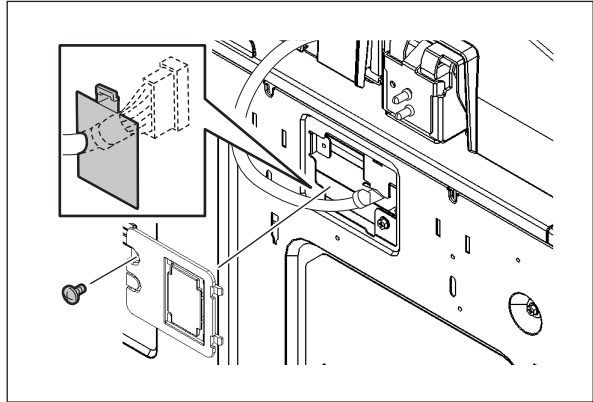
Fig. 4-360

(5) Disconnect 1 connector.
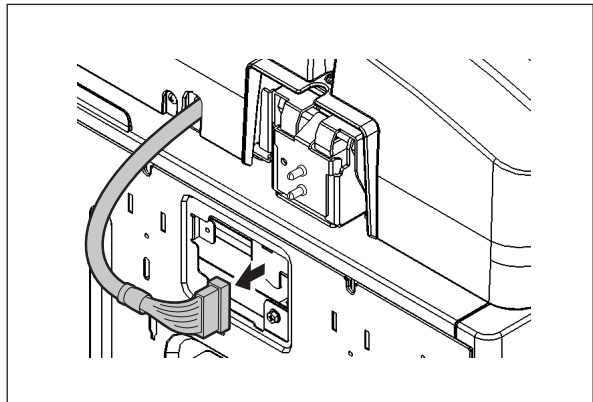
Fig. 4-361

(6) Remove 1 screw and take off the bracket.
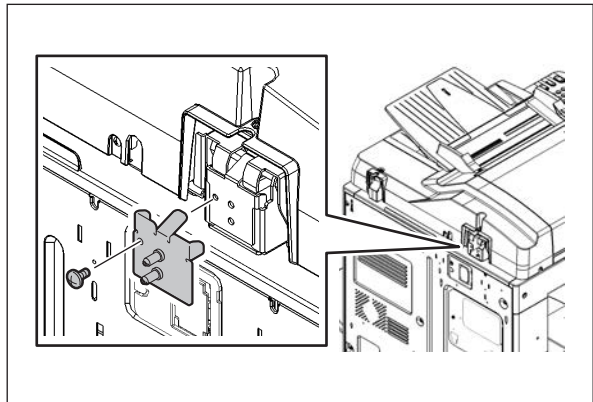
Fig. 4-362

(7) Remove 1 screw and 1 washer.
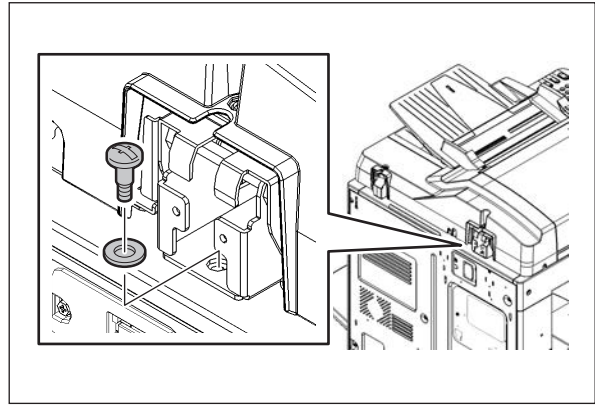
Fig. 4-363

(8) Remove 1 screw.
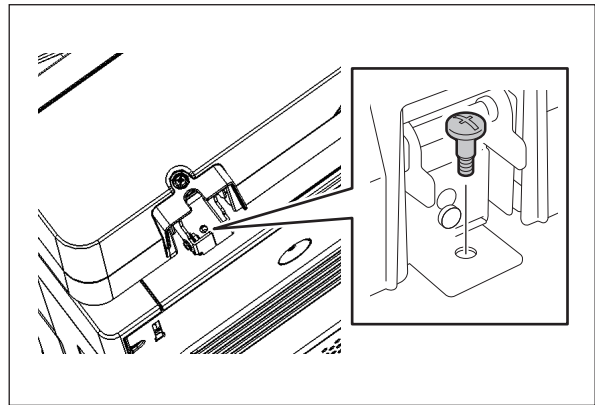
Fig. 4-364

(9) Remove 2 screws.

Fig. 4-365

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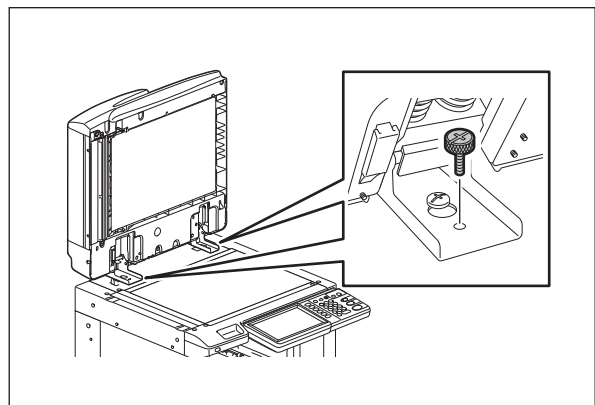
(10) Remove the reversing automatic document feeder by sliding it toward the rear side.
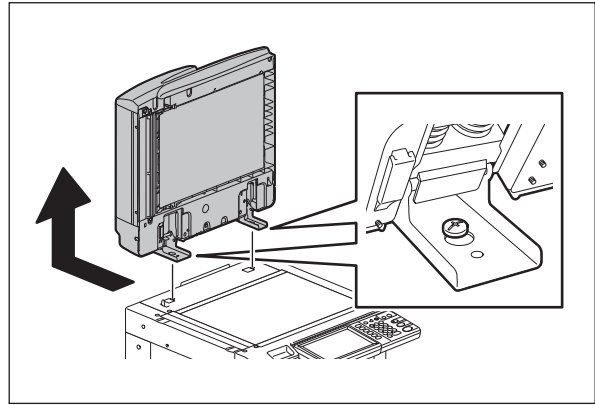
Fig. 4-366

4.11.2 KD-1032 (Paper Feed Pedestal)

(1) Press the [Power] button on the control panel to shut it down.
(2) Turn the main power switch of the equipment off.
(3) Disconnect the power cable.
(4) Remove 2 screws and take off the cover.
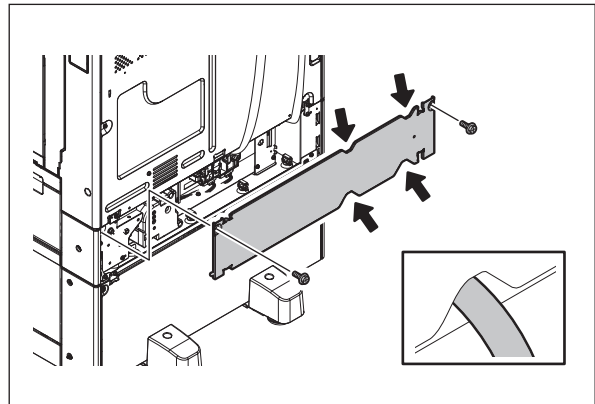
Fig. 4-367

(5) Disconnect the connector and ground cable.
[1] Damp heater harness
[2] Signal harness
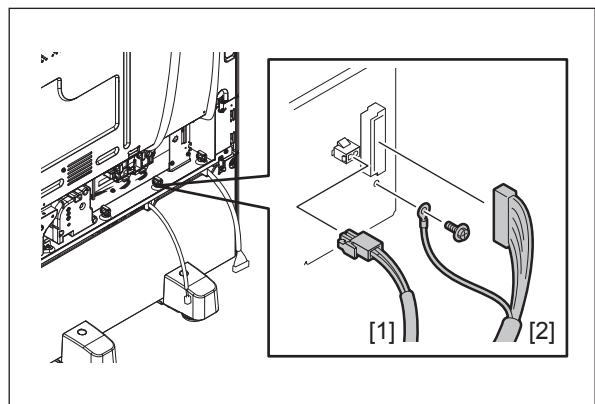
Fig. 4-368

(6) Install the cover.
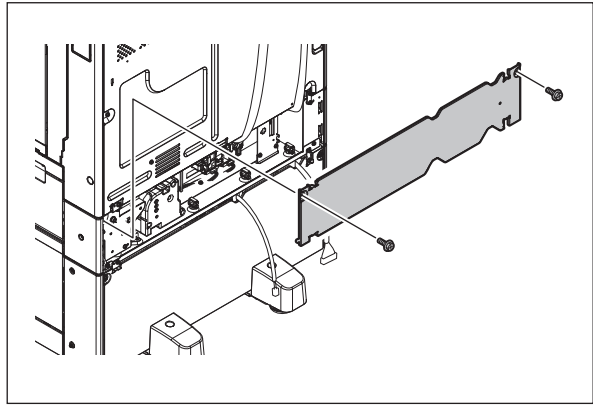
Fig. 4-369

(7) Remove 3 screws and take off 2 fixing brackets on the rear side.

Fig. 4-370

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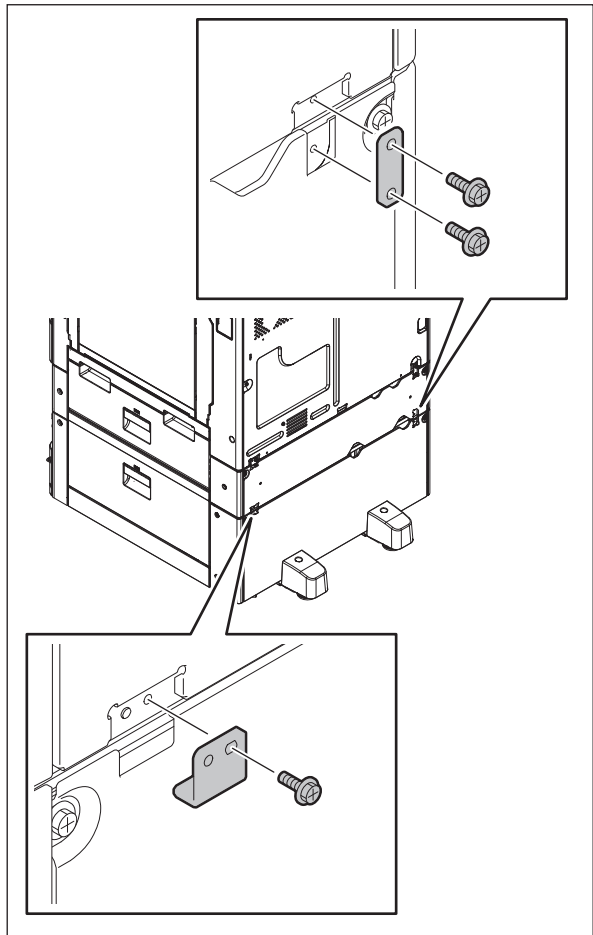
(8)   Pull out the drawer.
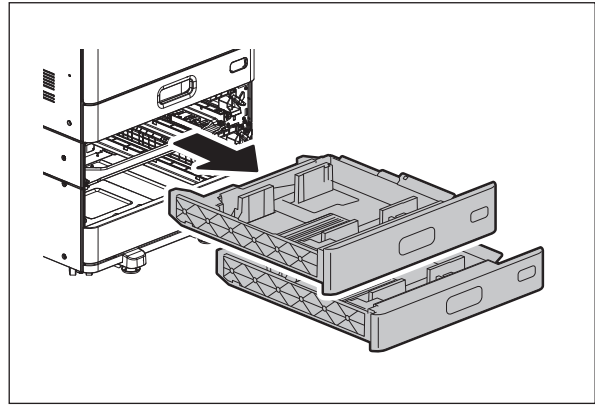
Fig. 4-371

(9)   Remove 3 screws and take off 2 fixing
      brackets on the front side.
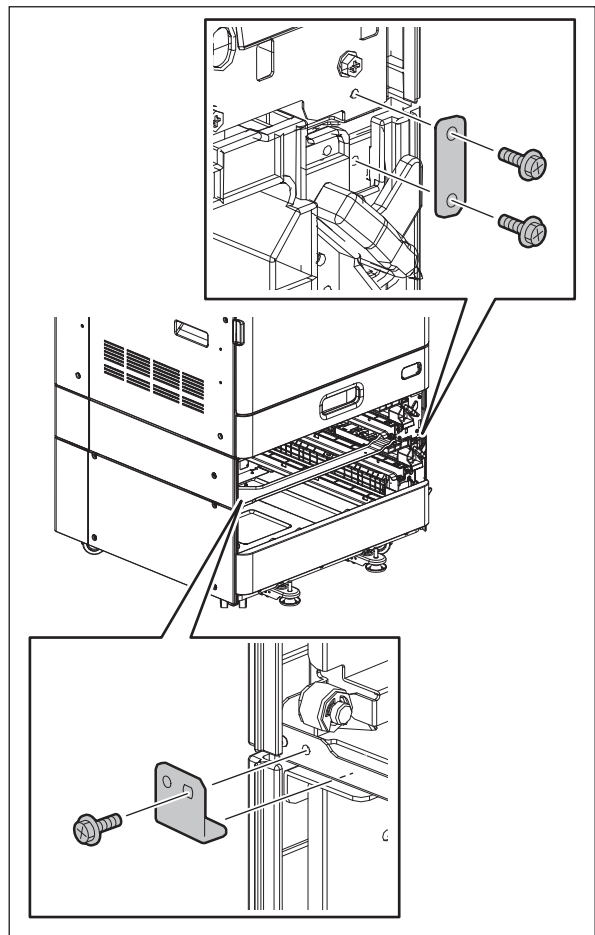
Fig. 4-372

(10) Lift the equipment up and remove the paper feed pedestal.
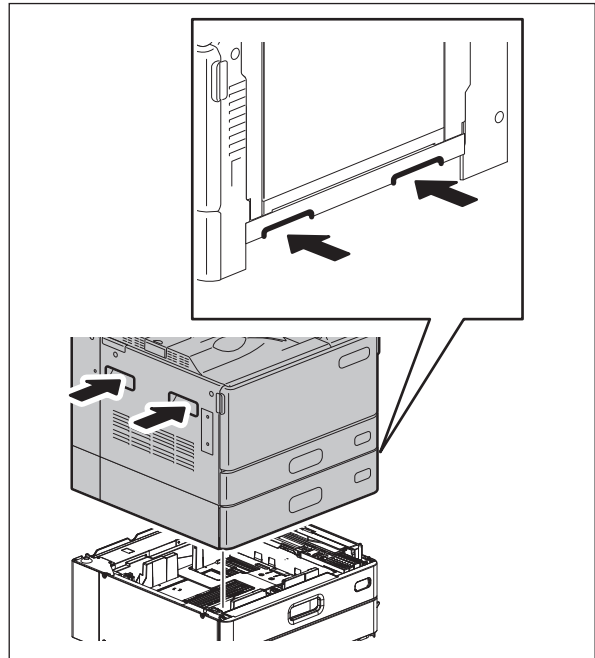
Fig. 4-373

4.11.3 KD-1031 (Large Capacity Feeder)

(1) Press the [Power] button on the control panel to shut it down.
(2) Turn the main power switch of the equipment off.
(3) Disconnect the power cable.
(4) Remove 2 screws and take off the cover.
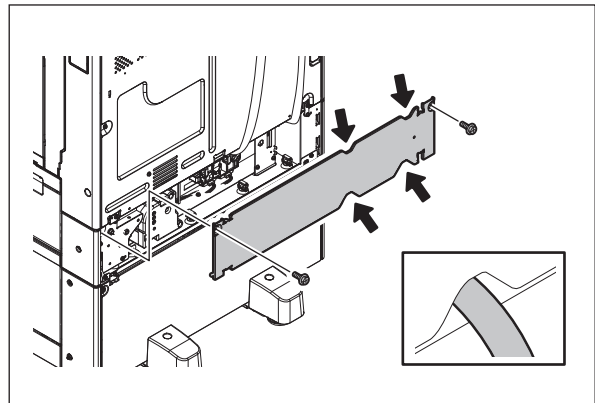
Fig. 4-374

(5) Disconnect the connector and ground cable.
[1] Damp heater harness
[2] Signal harness
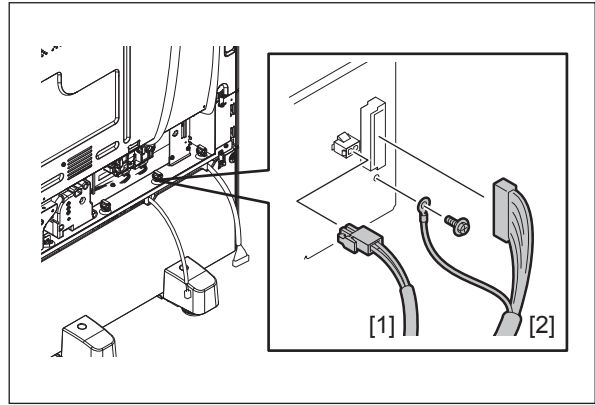
Fig. 4-375

(6) Install the cover.
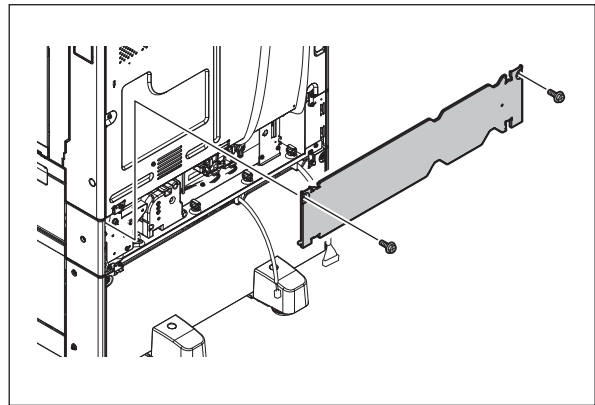
Fig. 4-376

(7) Remove 3 screws and take off 2 fixing brackets on the rear side.
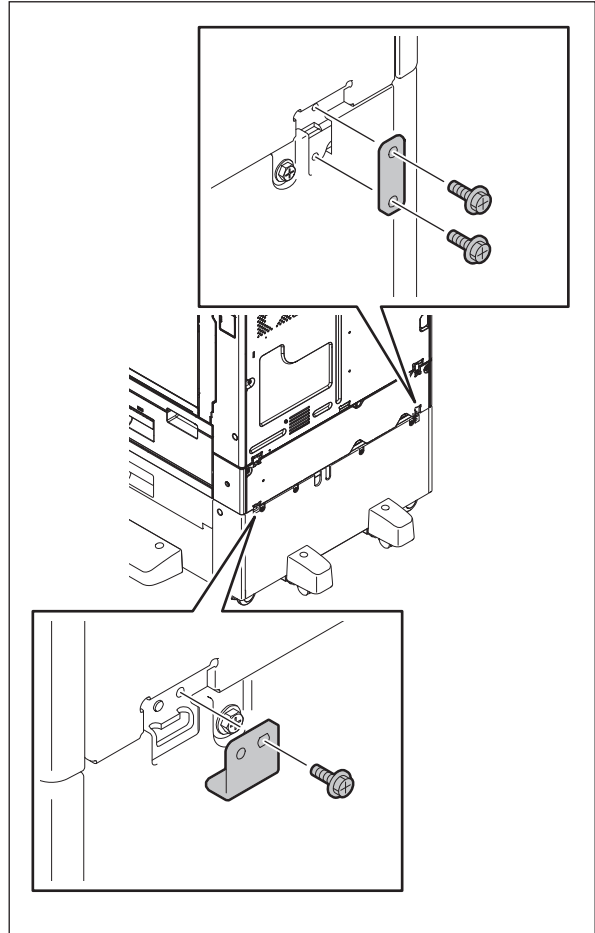
Fig. 4-377

(8) Pull out the drawer.
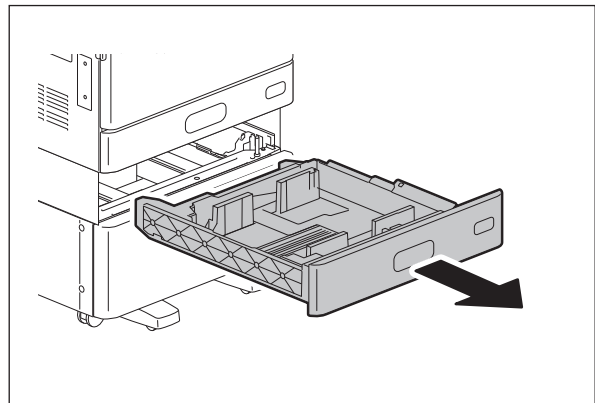
Fig. 4-378

(9) Pull out the large capacity feeder drawer.
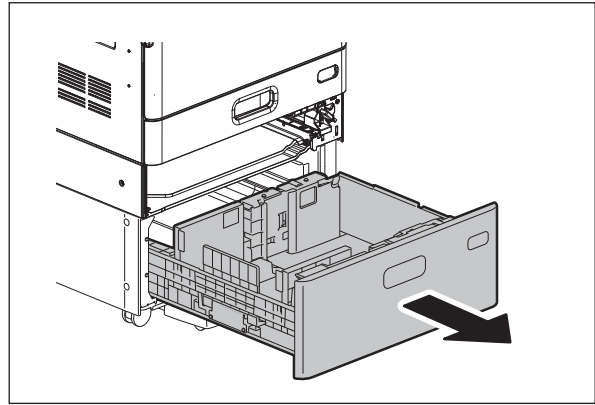
Fig. 4-379

(10) Remove 4 screws and take off 2 fixing brackets on the front side.
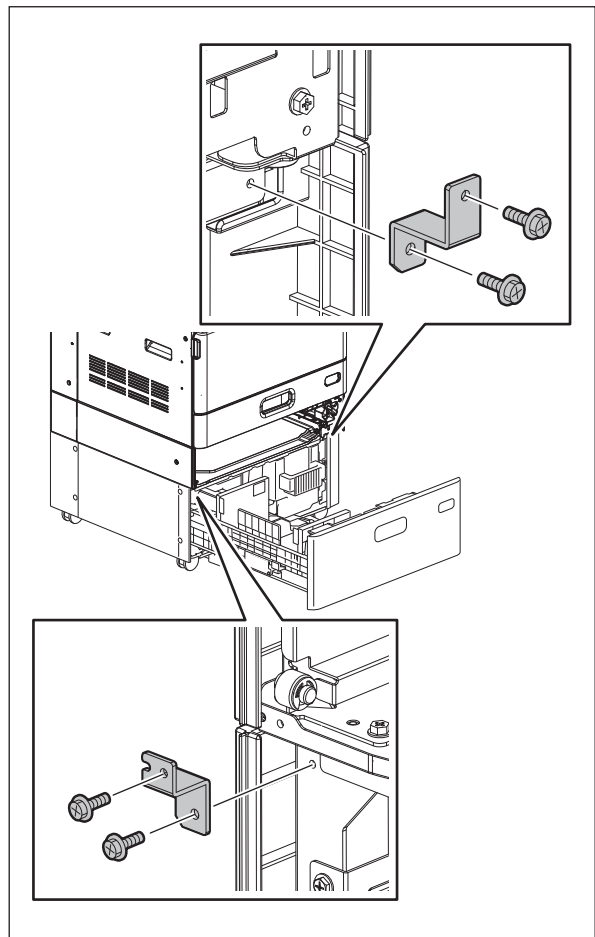
Fig. 4-380

(11) Lift the equipment up and remove the large capacity feeder.
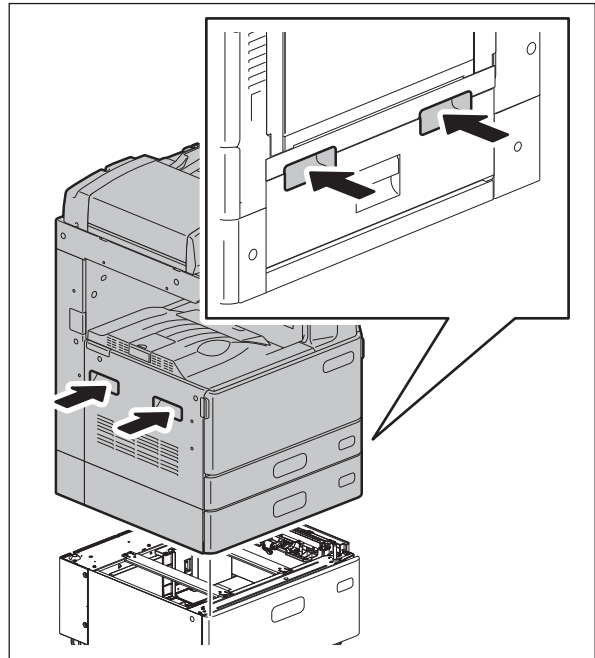
Fig. 4-381

4.11.4 MY-1040 (Paper Feed Unit)

(1) Press the [Power] button on the control panel to shut it down.
(2) Turn the main power switch of the equipment off.
(3) Disconnect the power cable.
(4) Pull out the drawer.
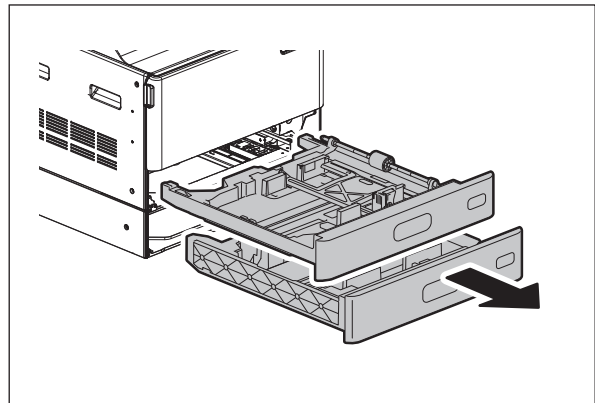
Fig. 4-382

(5) Remove 1 screw and take off the damp heater connector cover.
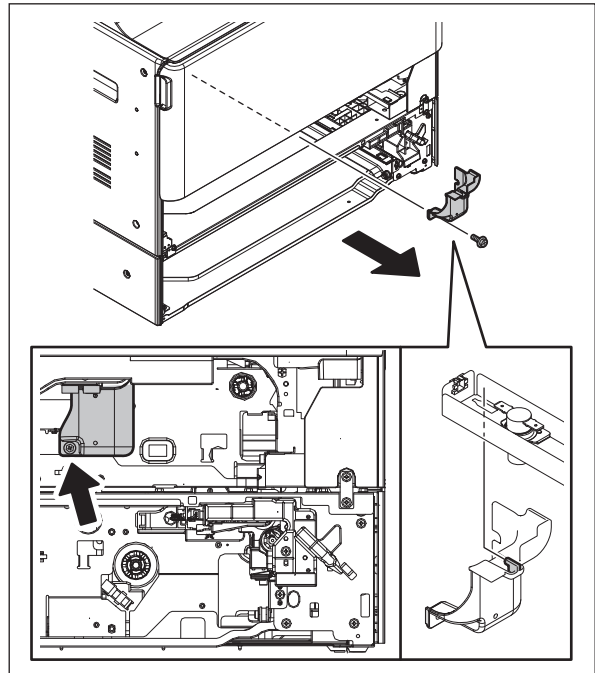
Fig. 4-383

(6) Disconnect the damp heater connector.
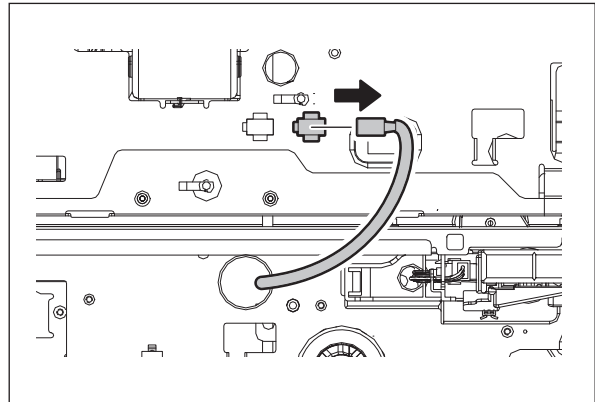
Fig. 4-384

(7) Install the damp heater connector cover.
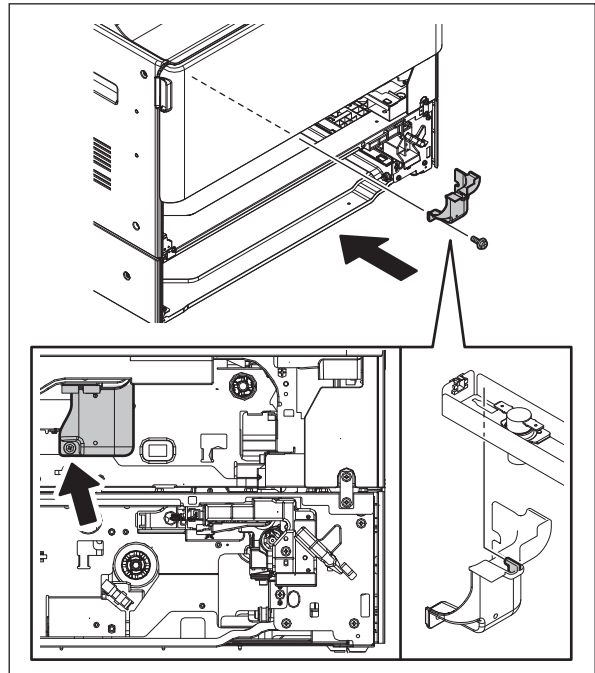
Fig. 4-385

(8) Remove 1 screw and take off the PFC cover.
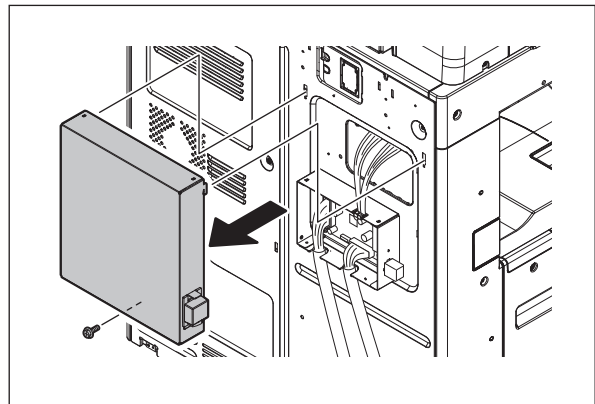
Fig. 4-386

(9) Remove 1 screw and disconnect the ground cable.

Fig. 4-387

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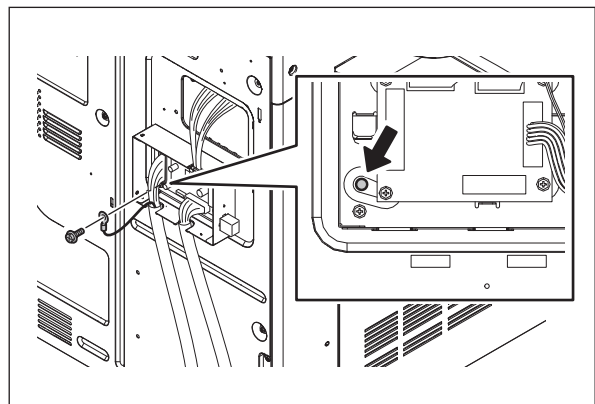
(10) Disconnect 2 connectors.
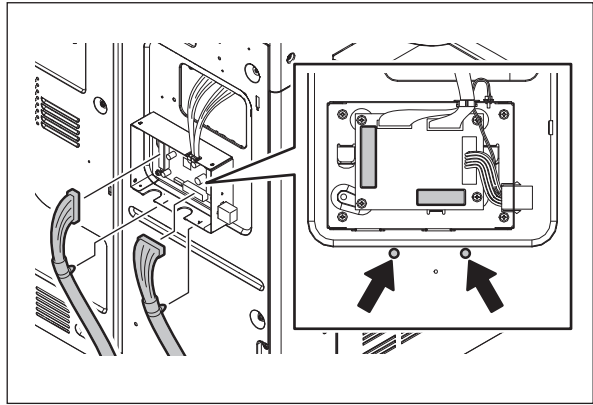
Fig. 4-388

(11) Install the PFC cover.
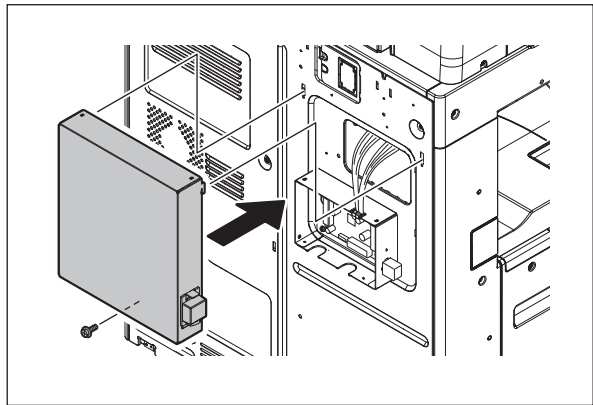
Fig. 4-389

(12) Remove 2 screws and take off the fixing bracket on the rear side.
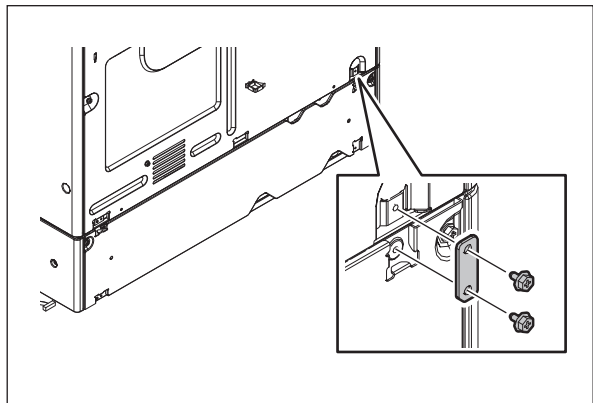
Fig. 4-390

(13) Remove 1 screw and take off the fixing bracket on the rear side.
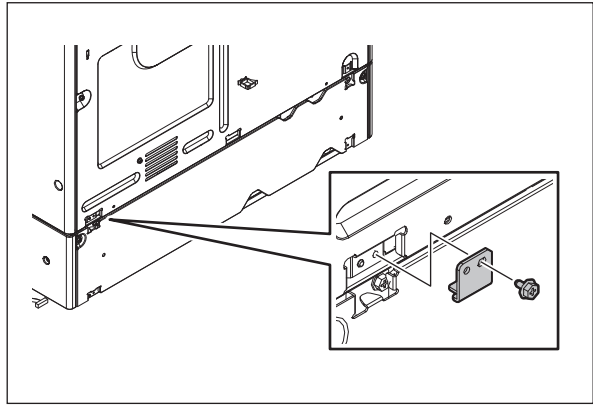
Fig. 4-391

(14) Remove 2 screws and take off the fixing bracket on the front side.
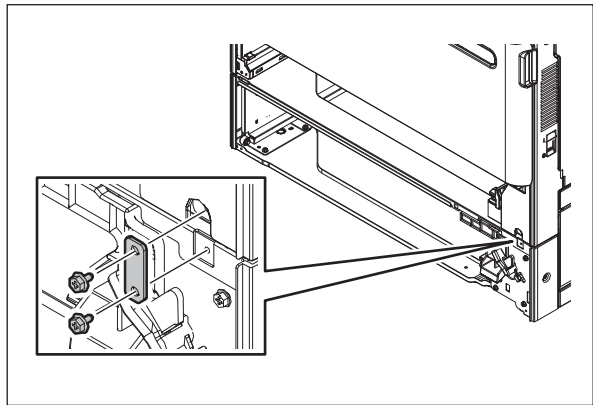
Fig. 4-392

(15) Remove 1 screw and take off the fixing bracket on the front side.
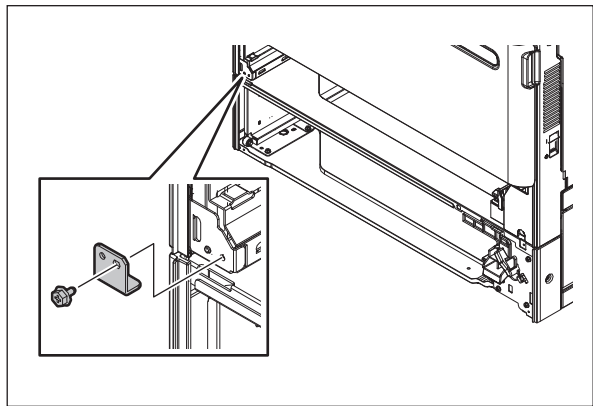
Fig. 4-393

(16) Lift the equipment up and remove the paper feed unit.
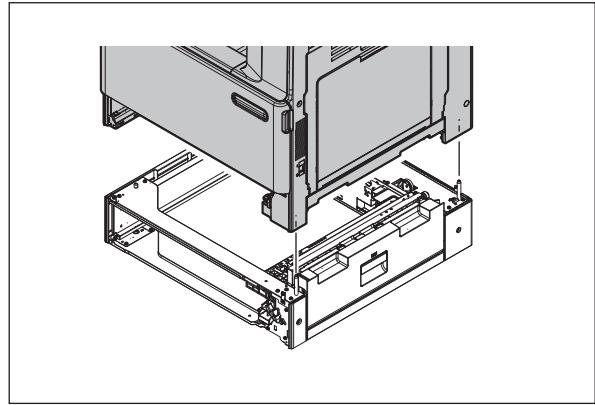
Fig. 4-394

4.11.5 KN-2550 (Bridge Kit)

(1) Press the [Power] button on the control panel to shut it down.
(2) Turn the main power switch of the equipment off.
(3) Disconnect the power cable.
(4) Open the side cover. Remove 1 screw and take off the connector cover.
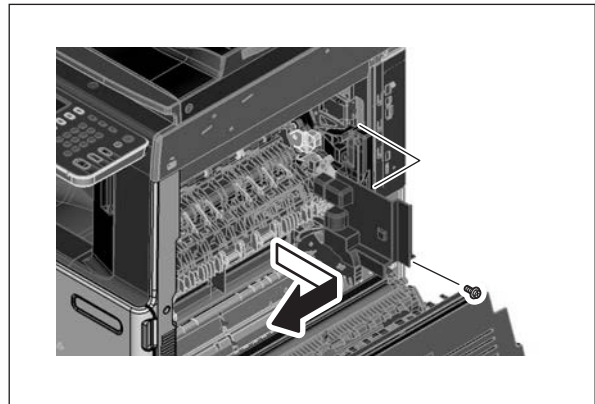
Fig. 4-395

(5) Disconnect 1 connector.
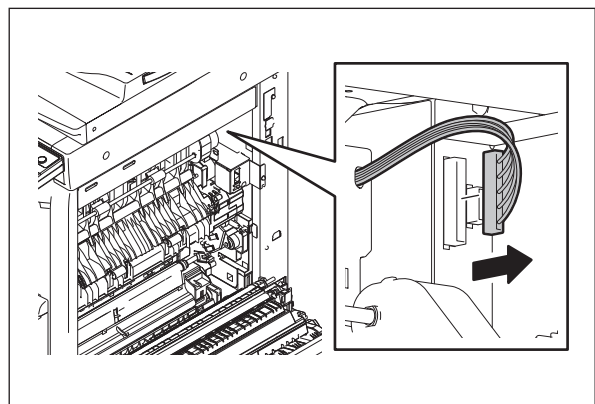
Fig. 4-396

(6) Remove 1 screw and take off the front cover of the bridge kit.
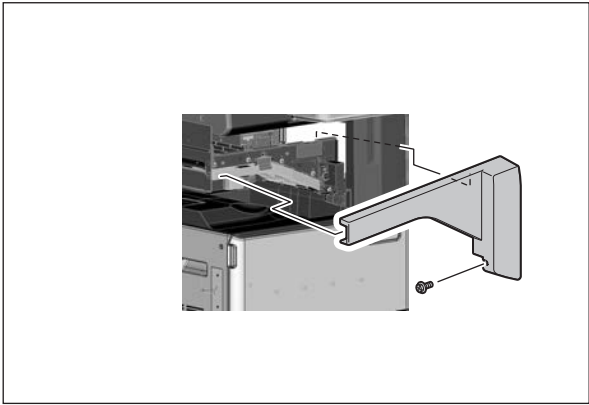
Fig. 4-397

(7) Remove 1 screw.
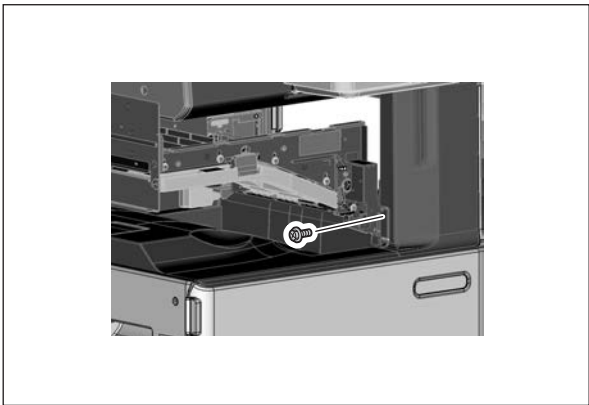
Fig. 4-398

(8) Remove 5 screws and take off the fixing bracket.

Fig. 4-399

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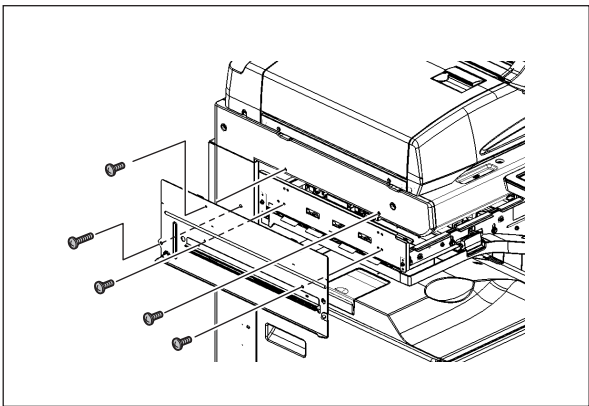
(9) Lift the bridge kit up to pull out the hook, and pull the bridge kit toward the front side to remove it.
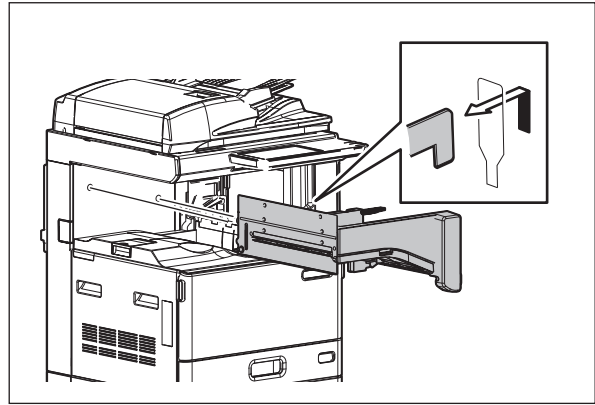
Fig. 4-400

4.11.6　MJ-1036 (Inner Finisher)

(1) Press the [Power] button on the control panel to shut it down.
(2) Turn the main power switch of the equipment off.
(3) Disconnect the power cable.
(4) Remove the connector cover.

Fig. 4-401

(5) Disconnect the connector.
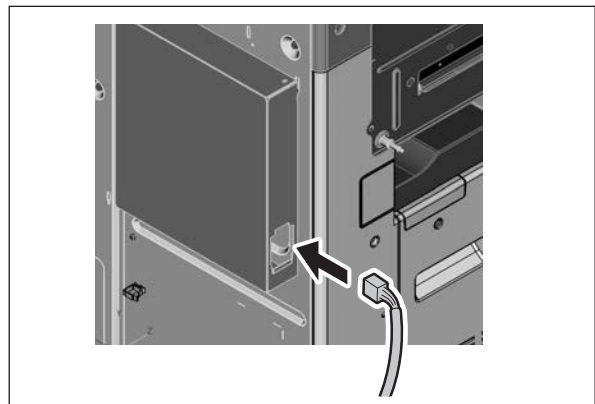
Fig. 4-402

(6) Open the finisher cover.
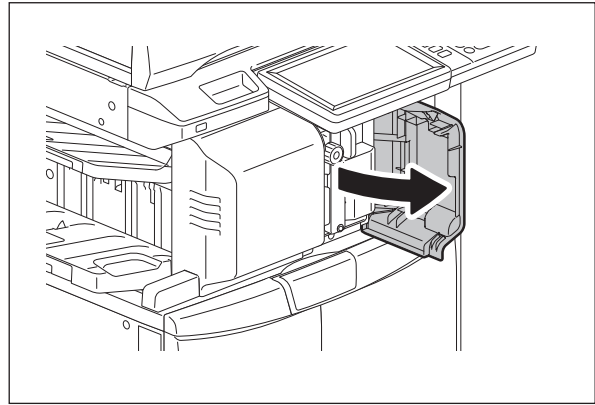
Fig. 4-403

(7) Press the button to release the lock. Pull out the finisher.
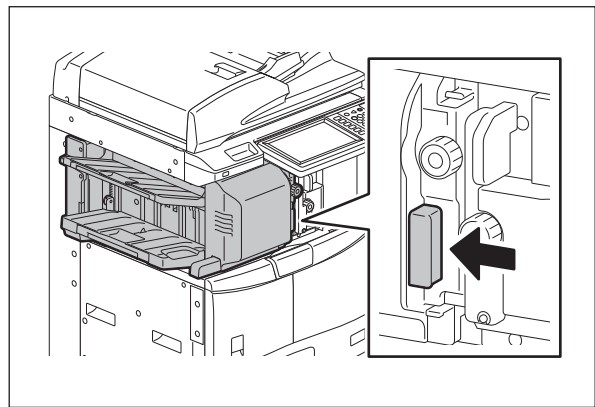
Fig. 4-404

(8) Remove 1 screw and take off 1 bracket.
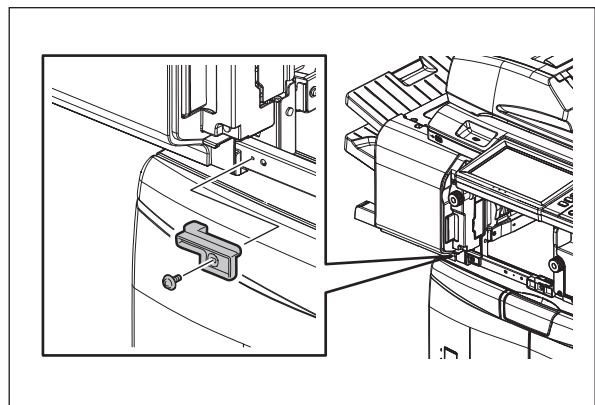
Fig. 4-405

(9) Install the finisher inside the equipment.
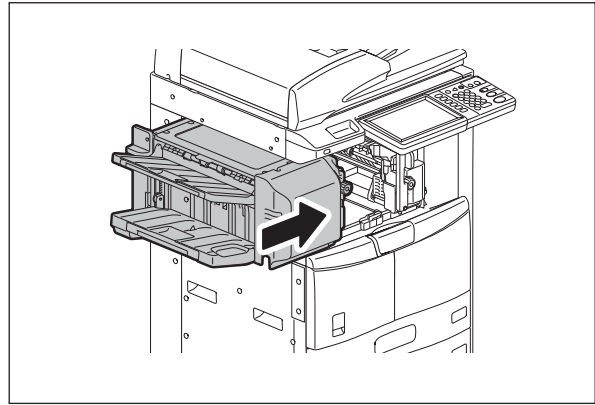
Fig. 4-406

(10) Remove 3 screws and take off the cover.
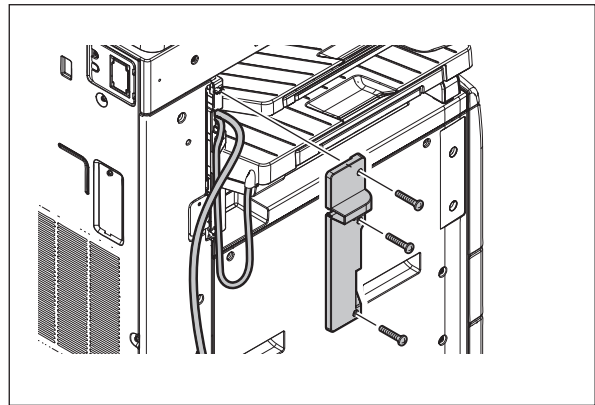
Fig. 4-407

(11) Remove 1 screw.
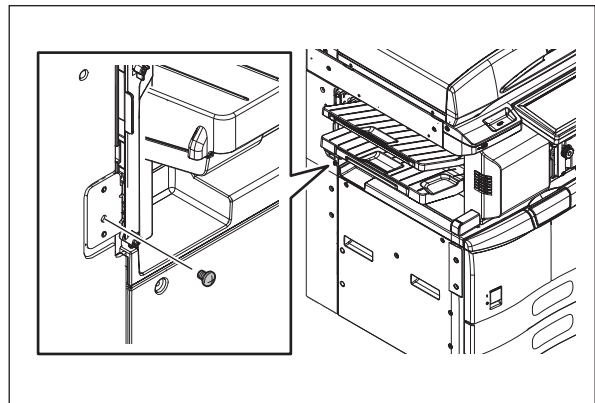
Fig. 4-408

(12) Remove the finisher.
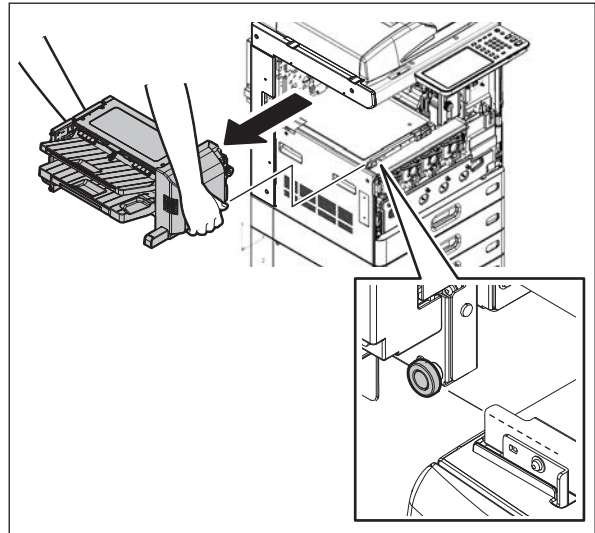
Fig. 4-409

4.11.7 MJ-1037 (Saddle Stitch Finisher)

(1) Press the [Power] button on the control panel to shut it down.
(2) Turn the main power switch of the equipment off.
(3) Disconnect the power cable.
(4) Remove the connector cover.

Fig. 4-410

(5) Disconnect the connector.

Fig. 4-411

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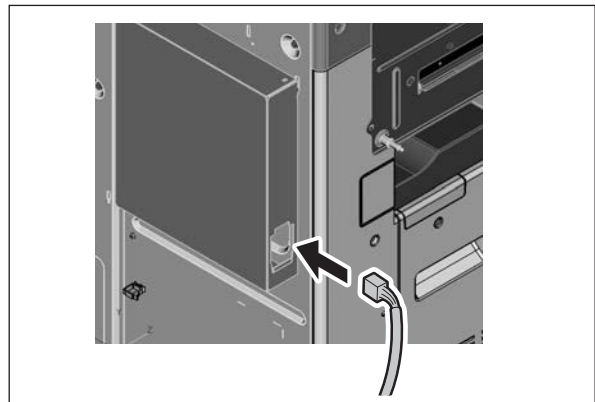
(6) Open the finisher cover and remove 1 fixing screw on the front side.
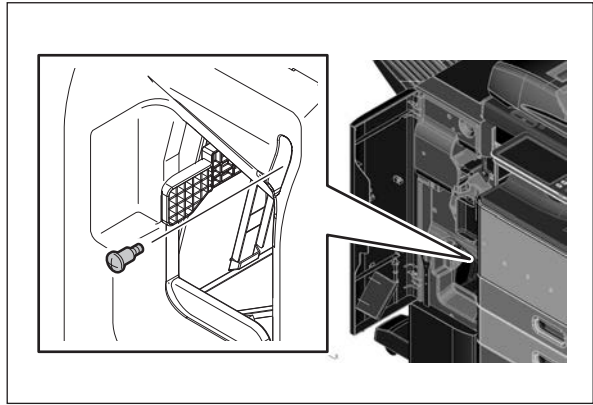
Fig. 4-412

(7) Remove 1 fixing screw on the rear side.
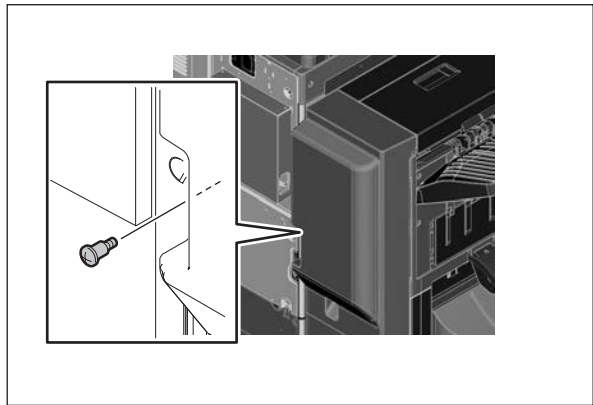
Fig. 4-413

(8) Remove the finisher.
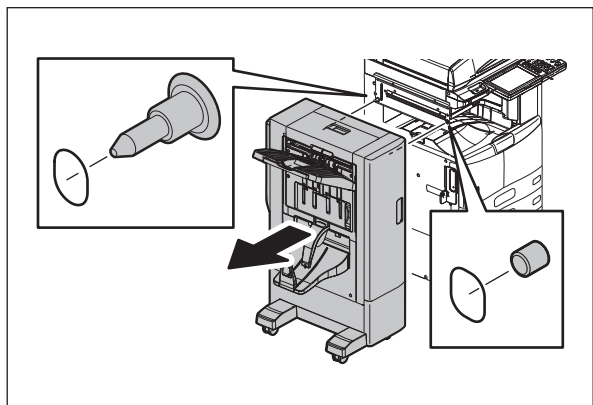
Fig. 4-414

4.11.8 MJ-5004 (Job Separator)

(1) Press the [Power] button on the control panel to shut it down.
(2) Turn the main power switch of the equipment off.
(3) Disconnect the power cable.
(4) Remove the tray.
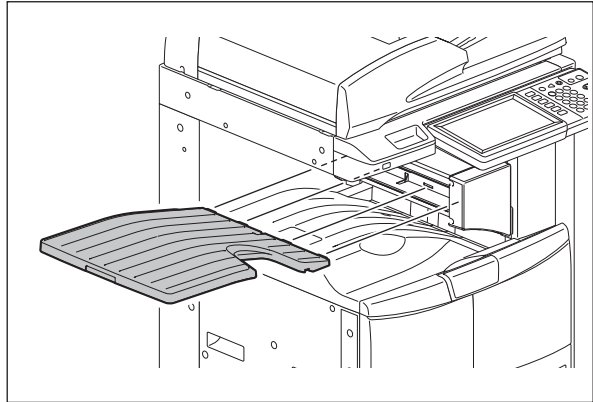
Fig. 4-415

(5) Remove 3 screws and take off the right rear cover.
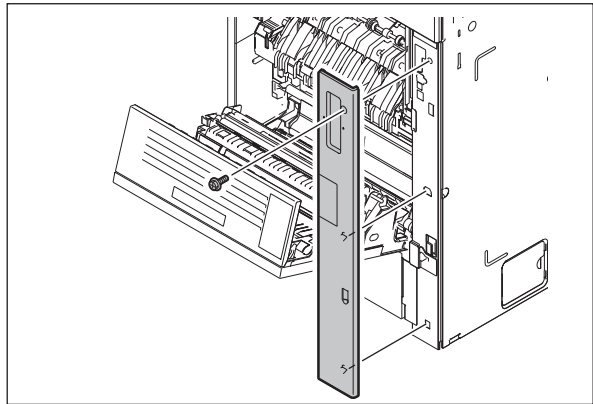
Fig. 4-416

(6) Remove the connector cover.

Fig. 4-417

e-STUDIO2050C/2051C/2550C/2551C
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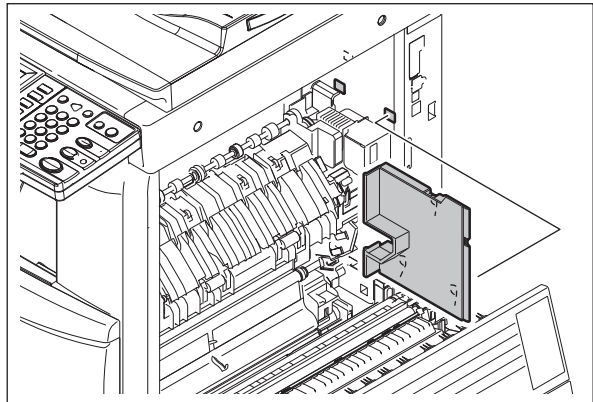
(7)   Disconnect 2 connectors.
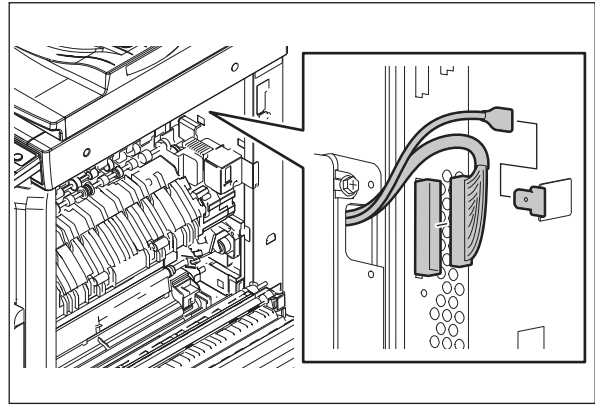
Fig. 4-418

(8)   Loosen 2 screws and take off the front cover of MJ-5004.
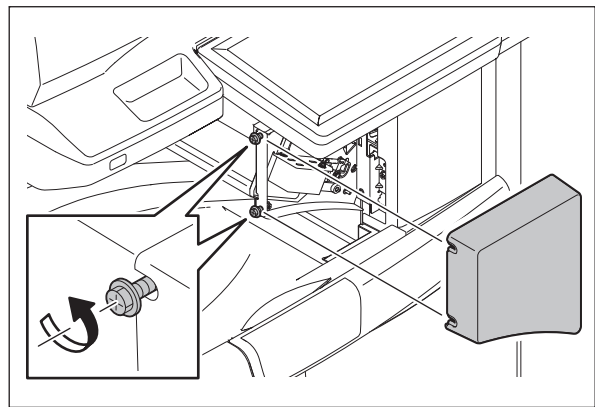
Fig. 4-419

(9)   Remove 1 screw. Lift up the job separator and release the hook. Take off the job separator toward the front.
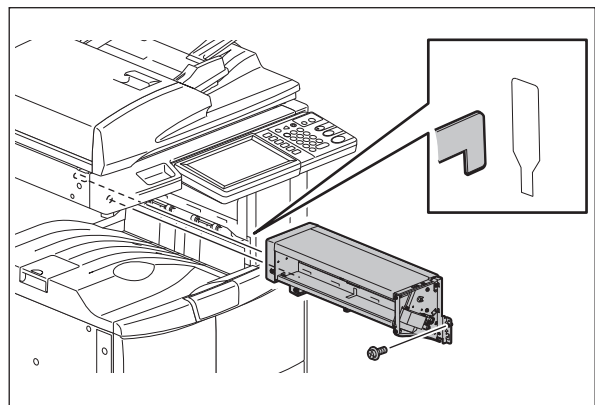
Fig. 4-420

5. SELF-DIAGNOSTIC MODE

5.1 Overview

[A] Starting each mode

To enter the desired mode, turn the power ON while pressing two digital keys designated to each mode (e.g. [0] and [5]) simultaneously. Hold the two keys until the [PRINT DATA] lamp is lit.

On the authentication screen displayed after starting up each mode, enter the service password, and then press [OK]. The password is not set by default.

Refer to "15. SELF-DIAGNOSIS CODE (03/04/05/08 CODE)" for the codes in Test mode (03), Test print mode (04), Adjustment mode (05), and Setting mode (08).

[B] Exiting from each mode

Shut down the equipment. When the power should be turned OFF, be sure to shut down the equipment by pressing the [ON/OFF] button for a few seconds.

[C] List of modes

Mode	For start	Contents	For exit	Display
Control panel check mode	[0] + [1] + [POWER]	All LEDs on the control panel are lit, and all the LCD pixels blink.	[POWER] OFF/ON	-
Test mode	[0] + [3] + [POWER]	Checks the status of input/output signals.	[POWER] OFF/ON	100% C TEST MODE
Test print mode	[0] + [4] + [POWER]	Outputs the test patterns.	[POWER] OFF/ON	100% P A4 TEST PRINT
Adjustment mode	[0] + [5] + [POWER]	Adjusts various items.	[POWER] OFF/ON	100% A A4 TEST MODE
Setting mode	[0] + [8] + [POWER]	Sets various items.	[POWER] OFF/ON	100% D TEST MODE
Assist mode	[3]+[C]+ [POWER]	Clears error flags or SRAM, or safely deletes data in the HDD or SRAM to support the replacement of the SYS board, SRAM or HDD.	[POWER] OFF/ON	-
HDD assist mode	[4]+[CLEAR]+ [POWER]	Assists the ADI-HDD by checking the type of the mounted HDD, reverting the HDD to a factory default or removing keys.	[POWER] OFF/ON	-
File system recovery mode	[5] + [C] + [POWER]	Checks, recovers or initializes the file system (HDD).	[POWER] OFF/ON	-
SRAM clear mode	[6]+[CLEAR]+ [POWER]	Recovers the equipment from particular errors such as F800 or F900.	[POWER] OFF/ON	-
List print mode	[9] + [START] + [POWER]	Prints various lists or outputs them in a CSV format.	[POWER] OFF/ON	100% L A4 LIST PRINT
PM support mode	[6] + [START] + [POWER]	Clears each counter.	[POWER] OFF/ON	100% 2 TEST MODE
Firmware update mode	[4] + [9] + [POWER]	Performs firmware update with USB device.	[POWER] OFF/ON	-
	[8] + [9] + [POWER]	Performs firmware update with download jig.	[POWER] OFF/ON	-
Password reset mode	[4] + [8] + [9] + [POWER]	Resets the administrator password and service password.	[POWER] OFF/ON	-
SRAM data cloning mode	[5] + [9] + [POWER]	Backs up the SRAM data to USB device.	[POWER] OFF/ON	-

Note:
Do not enter any of the modes shown below since they are provided only for production. If you do so, the equipment may not be restarted.

[2]+[CLEAR]+[POWER]
[7]+[CLEAR]+[POWER]
[8]+[CLEAR]+[POWER]
[9]+[CLEAR]+[POWER]

[D] State transition diagram of self-diagnosis modes
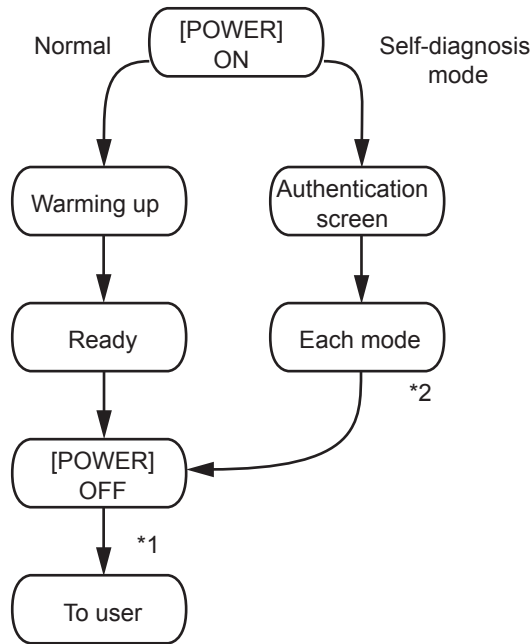
Fig.5-1

*1 If you have used a self-diagnostic mode, turn the power OFF before the customer starts using the equipment
*2 Mode shown in the table "[C] List of modes"

[E] About each mode

- Control panel check mode (01)

  Operation procedure
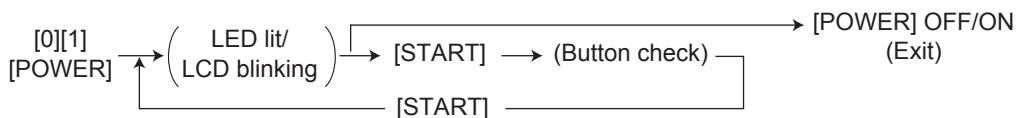
  Notes:
  - A mode can be cancelled by [POWER] OFF/ON when the LED is lit and the LCD is blinking.
  - Button Check
    Buttons with LED: Press to turn OFF the LED.
    Buttons without LED: Press to display the message on the control panel.
    Button on touch panel: Press to display the initial screen displayed at power-ON. Press [execution] on the touch panel and then the [CLEAR] button on the control panel. The screen then returns to the Button Check menu.

- Test mode (03)
  Refer to 📖 P. 5-8 "5.3 Input check (Test mode 03)" and 📖 P. 5-9 "5.4 Output check (test mode 03)".

- Test print mode (04)
  Refer to 📖 P. 5-10 "5.5 Test print mode (test mode 04)".

- Adjustment mode (05)
  Refer to 📖 P. 5-11 "5.6 Operation Procedure in Adjustment Mode (05)", 📖 P. 5-14 "5.7 Test print pattern in Adjustment Mode (05)", and "15. SELF-DIAGNOSIS CODE (03/04/05/08 CODE)" - "Adjustment Code (05)."

  Notes:
  When the power should be turned OFF, be sure to shut down the equipment by pressing the [ON/OFF] button for a few seconds.

  Remarks:
  - In "RAM", the SRAM of the board in which the data of each code is stored is indicated. "M" stands for the LGC board and "SYS" stands for the SYS board.

- Setting mode (08)
  Refer to 📖 P. 5-17 "5.8 Operation Procedure in Setting Mode (08)" and "15. SELF-DIAGNOSIS CODE (03/04/05/08 CODE)" - "Setting Code (08)."

  Notes:
  When the power should be turned OFF, be sure to shut down the equipment by pressing the [ON/OFF] button for a few seconds.

  Remarks:
  - In "RAM", the SRAM of the board in which the data of each code is stored is indicated. "M" stands for the LGC board, "SYS", "NIC" and "UTY" stands for the SYS board.

- Assist mode (3C)
  Refer to 📖 P. 5-19 "5.9 Assist Mode (3C)".

- HDD assist mode (4C)
  Refer to 📖 P. 5-22 "5.10 HDD Assist Mode (4C)".

- File system recovery mode (5C)
  Refer to 📖 P. 5-26 "5.11 File System Recovery Mode (5C)".

- SRAM clear mode (6C)
  Refer to 📖 P. 5-31 "5.12 SRAM Clear Mode (6C)".

- List print mode (9S)
  Refer to 📖 P. 5-34 "5.13 List print mode (9S)".

- PM support mode (6S)

  Operation procedure

  [6][START]
  [POWER] ⟶ (Operation started) ⟶ [POWER] OFF/ON
                                            (Exit)
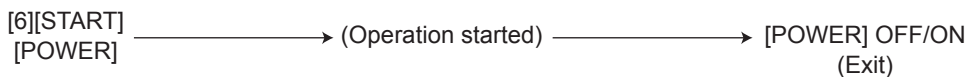
- Firmware update mode (49/89)
  Refer to 📖 P. 11-1 "11. FIRMWARE UPDATING".

- Password reset mode (489)

  This mode resets the administrator password and service password. The user data is erased when resetting the passwords.

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Operation procedure

[4][8][9]
[POWER] ——————————→ (Operation started) ——————————→ [POWER] OFF/ON
                                                              (Exit)
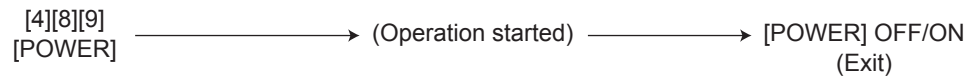
- SRAM data cloning mode (59)
  Refer to 📖 P. 12-1 "12.1 Data Cloning".

5.2 Service UI

5.2.1 Overview

The following self-diagnostic modes can be used with Service UI on the touch panel of the control panel.

- 04 TEST PRINT MODE
- 05 ADJUSTMENT MODE
- 08 SETTING MODE
- 6S PM SUPPORT MODE
- 9S LIST PRINT MODE
- FAX LIST PRINT MODE
- CHART PRINT MODE

Notes:
Not all codes of the self-diagnostic mode can be used with Service UI. Refer to "15. SELF-DIAGNOSIS CODE (03/04/05/08 CODE)" for the codes available with Service UI.

5.2.2 Login procedure

[1] In the normal mode
(1) Turn the power ON.

(2) Press the [USER FUNCTIONS] button.

(3) With the [USER FUNCTIONS] menu displayed, enter the Service Mode password provided during product training.
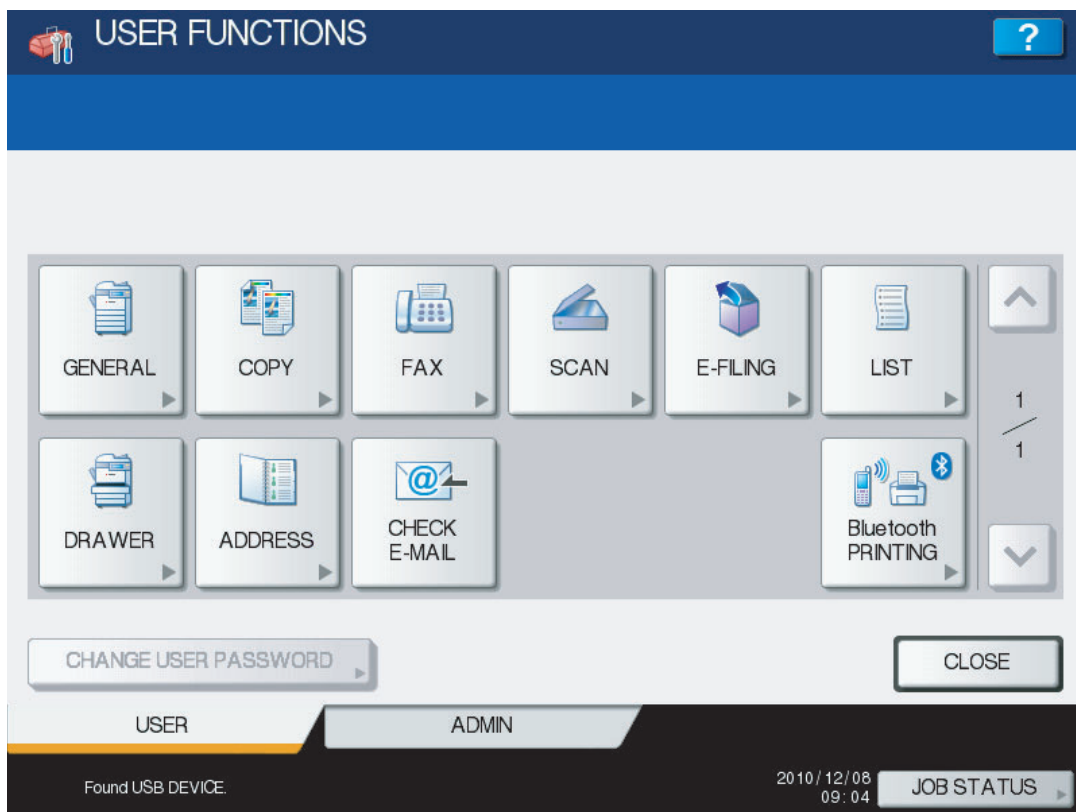
Fig.5-2

(4) Enter the user name and password on the SERVICE TECHNICIAN PASSWORD screen, then press [OK]. They are set by default as follows:

User Name	Service
Password	None
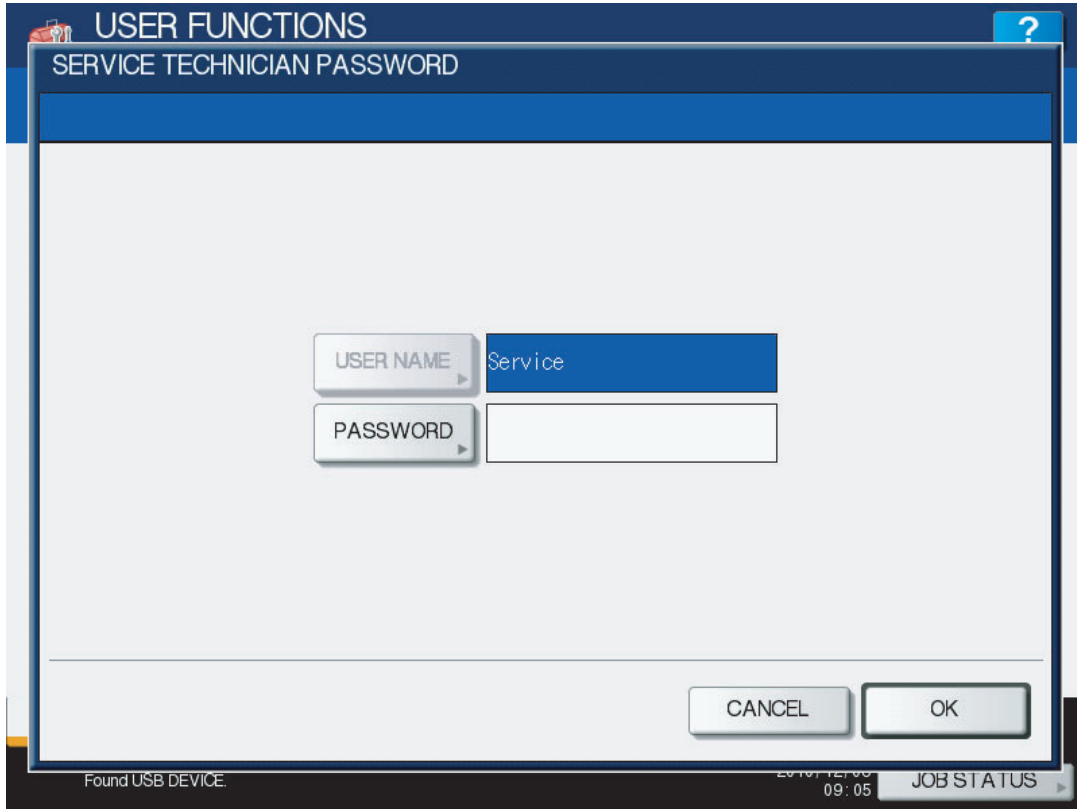
Fig.5-3

The SERVICE MODE screen is displayed.

[2] In the security mode

If the security mode (the value of 08-8911 is "3") is set, log into Service UI following the steps below.

(1) Turn the power ON.

(2) Enter the user name and password on the USER AUTHENTICATION screen. The password needs to be changed to log in for the first time.

Notes:
In case the password is forgotten, ask the administrator to reset the service password. In case both the service password and administrator password are forgotten, the passwords can be reset in the password reset mode. Note that the user data are deleted at that time.

(3) Press the [USER FUNCTIONS] button.

(4) Enter the password for Service UI on the USER FUNCTIONS screen. The SERVICE MODE screen is displayed.

5.2.3 [SERVICE MODE] Screen

After selecting the mode and pressing the [NEXT] button, the screen is switched to the selected mode.

- When the 05/08 mode is selected
  The codes are displayed in one of the levels from the first to fifth.

  You can proceed to the next level by selecting the item and pressing the [NEXT] button until the code appears up to the fifth level. Then if you select the code and press the [NEXT] button, the screen is switched to the adjustment mode or setting mode.

  If you press the [CLASSIC] button on the screen in the first level, the screen is switched to the adjustment mode or setting mode, so that you can enter the code number.

- When the modes other than 05/08 mode are selected
  The screen is switched to the selected mode.

5.2.4 Setting/Changing password

(1) Press the [SETTINGS] button on the SERVICE MODE screen to display the SETTINGS screen.
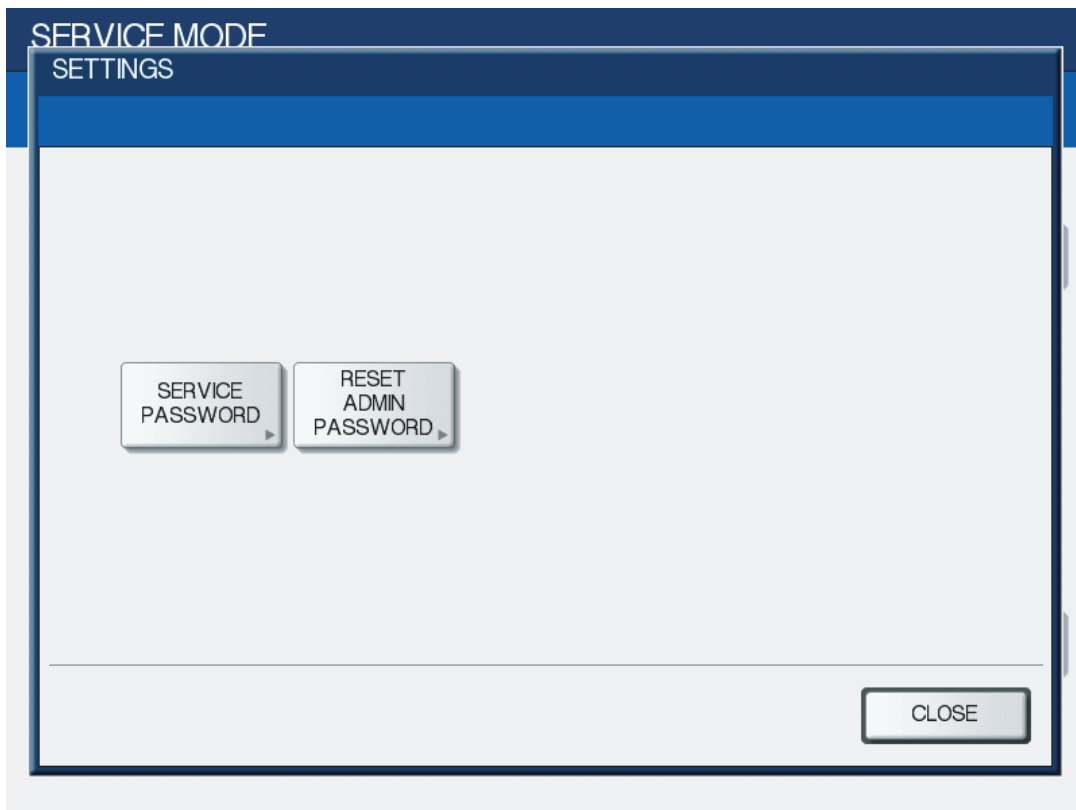
Fig.5-4

(2) Press the [SERVICE PASSWORD] button to change the service password, or [RESET ADMIN PASSWORD] to reset the administrator password.

5.3 Input check (Test mode 03)

> The status of each input signal can be checked by pressing the [FAX] button, [COPY] button, [SCAN] button and the digital keys in the test mode (03).

<Operation procedure>

```
                        [FAX]
  [0][3]              ([COPY])
 [POWER]  →  [START] →    or    → [Digital keys] → (LCD ON) → [POWER] OFF/ON
          ↑          ↑  [SCAN]                                     (Exit)
          └─[CLEAR]──┘  └──────────── [CLEAR] ───────────┘
```
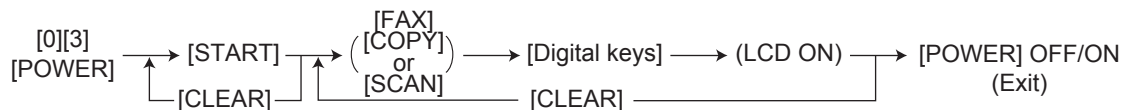
Notes:
- Initialization is performed before the equipment enters the test mode.
- The PRINT DATA lamp blinks when the input check is running.
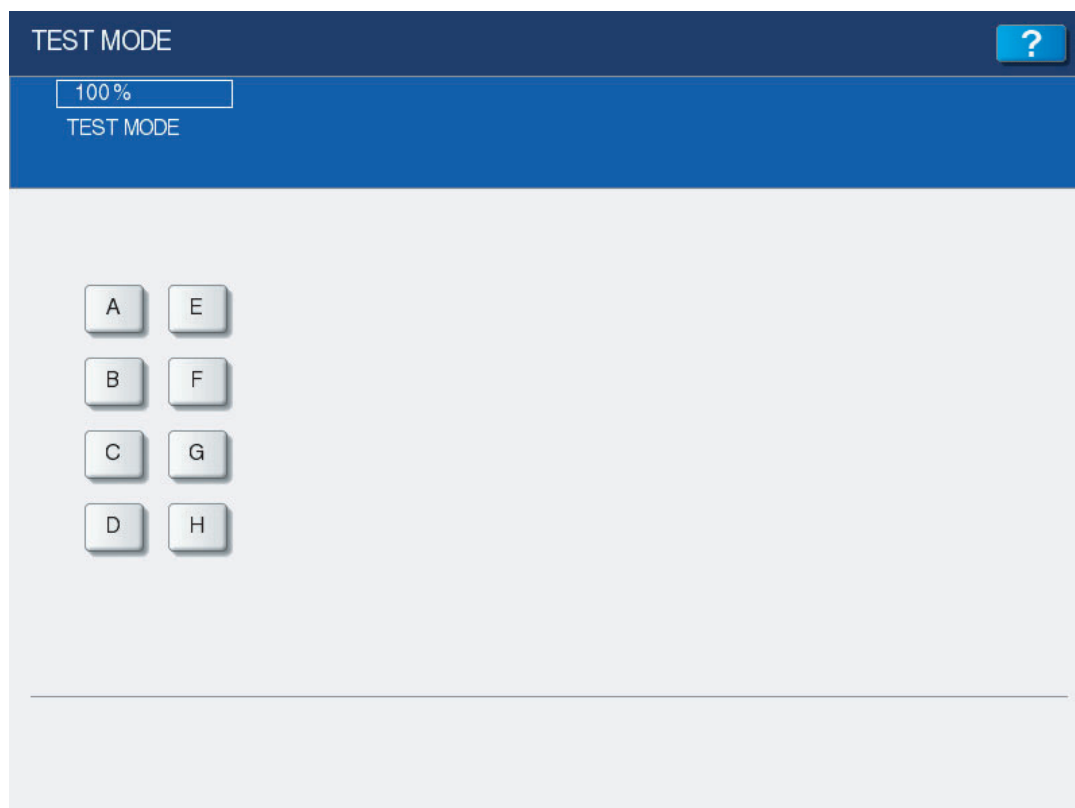
Fig.5-5 Example of display during input check

Refer to "15. SELF-DIAGNOSIS CODE (03/04/05/08 CODE)" in this manual for the items to be checked and the condition of the equipment when the buttons [A] to [H] are highlighted.

5.4 Output check (test mode 03)

Status of the output signals can be checked in the test mode 03.

<Operation procedure>

Procedure 1

[0][3] [POWER] → (Code) → [START] → (Operation ON) → (Stop code) → [START] → (Operation OFF) → [POWER] OFF/ON (Exit)

Procedure 2

[0][3] [POWER] → (Code) → [START] → (Operation One direction) → [CLEAR] → (Test mode standby) → [POWER] OFF/ON (Exit)

Procedure 3

[0][3] [POWER] → (Code) → [START] → (Operation ON) → [START] → (Operation OFF) → [CLEAR] → (Test mode standby) → [POWER] OFF/ON (Exit)

Procedure 4

[0][3] [POWER] → (Code) → [START] → [POWER] OFF

Procedure 5

[0][3] [POWER] → (Code) → [START] → [Digital keys] → [START] → [POWER] OFF/ON (Exit)
[START]
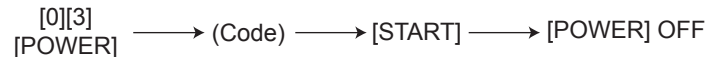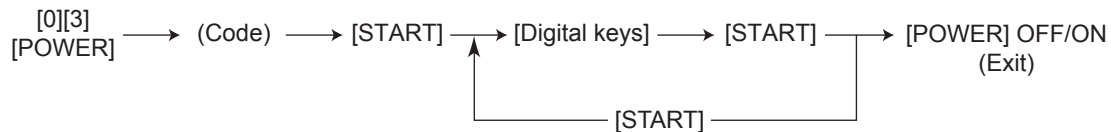
*   Return to the standby screen for code input by pressing the [CLEAR] button.

Refer to "15. SELF-DIAGNOSIS CODE (03/04/05/08 CODE)" in this manual for the codes available in the test mode 03.

5.5 Test print mode (test mode 04)

The embedded test pattern can be printed out in the test print mode (04).

\<Procedure 1\>

[0][4]
[POWER] → (Code) → (Media selection) → [START] → Operation (Continuous Test Printing) → [CLEAR] → [POWER] OFF/ON (Exit)

\<Procedure 2\>

[0][4]
[POWER] → (Code) → (Media selection) → [START] → (Color selection) → [START] → Operation (Continuous Test Printing) → [CLEAR] → [POWER] OFF/ON (Exit)
— [CLEAR] —

\<Procedure 5\>

[0][4]
[POWER] → (Code) → (Media selection) → [START] → (Color selection) → [Digital key] [FUNCTION CLEAR] (Input density) → [START] → Operation (Continuous Test Print) → [CLEAR] → [POWER] OFF/ON (Exit)
[CLEAR]

Notes:
- When an error occurs, it is indicated on the panel, but the recovery operation is not performed. Turn OFF the power and then back ON to clear the error.
- During test printing, the [CLEAR] button is disabled when "Wait adding toner" is displayed.

Remarks:
In the (Color selection) of \<Procedure 2\> or \<Procedure 5\>, the printing method is different between [K(1)] and [K(4)] as follows.
- [K(1)]: Printing by bringing one K color developer unit into contact with the transfer belt
- [K(4)]: The developer units of four (YMCK) colors are brought into contact with the transfer belt, but the test pattern is printed in K color only.
- *   The number in parentheses indicates the contact of the developer unit and the transfer belt.

Refer to "15. SELF-DIAGNOSIS CODE (03/04/05/08 CODE)" in this manual for the codes available in the test print mode.

5.6 Operation Procedure in Adjustment Mode (05)

Procedure 1
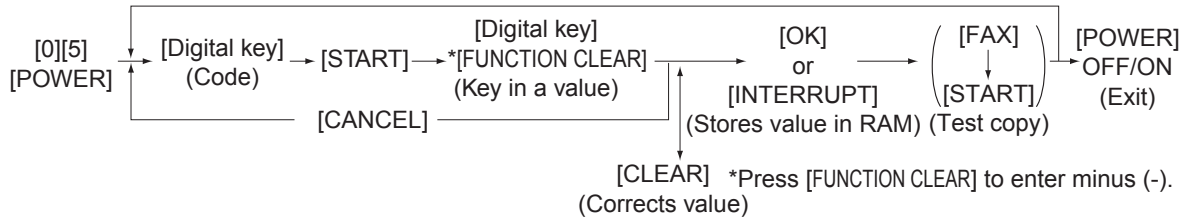
Procedure 2
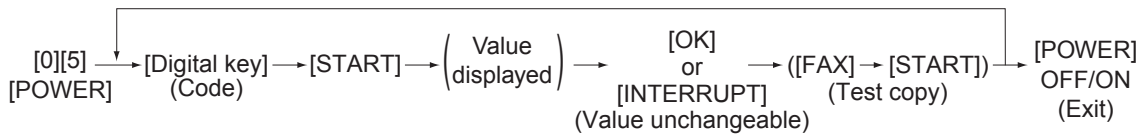
Procedure 3
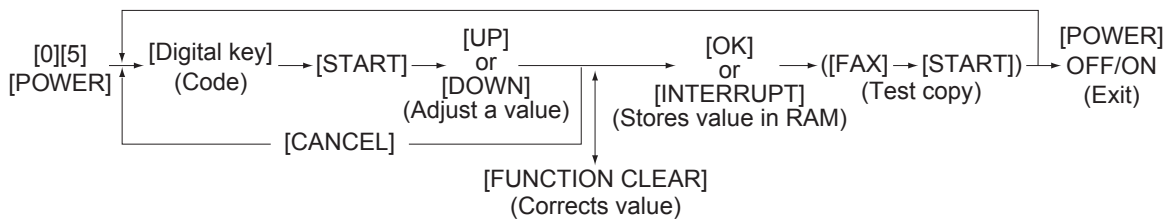
Procedure 4
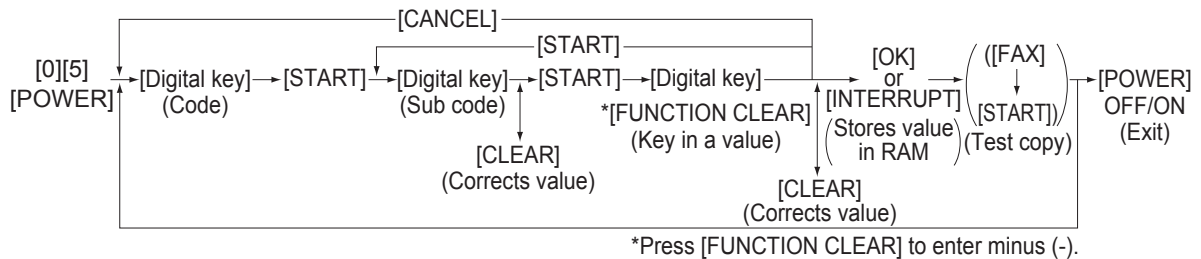
Procedure 5
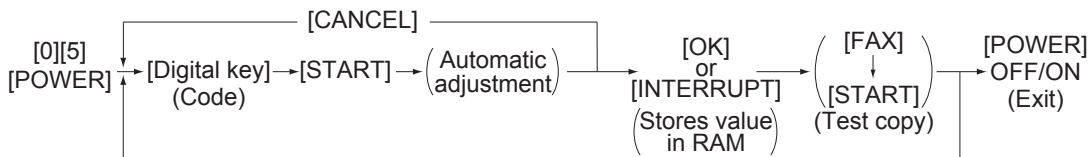
Procedure 6

* When the automatic adjustment ends abnormally, an error message is displayed.
* Return to standby screen by pressing the [CANCEL] or [CLEAR] button.

Procedure 7

[0][5] [POWER] → [Digital key] (Code) → [START] → [Digital key] (Sub code) → [START] → (Automatic adjustment) → [OK] (Stores value in RAM) → ([FAX] ↓ [START]) (Test copy) → [POWER] OFF/ON (Exit)

[CANCEL] (return path)

[CLEAR] (Corrects value)

*[CANCEL] or [CLEAR]

* When the automatic adjustment ends abnormally, an error message is displayed.
* Return to standby screen by pressing the [CANCEL] or [CLEAR] button.

Procedure 10

[0][5] [POWER] → [Digital key] (Code) → [START] → [Digital key] (Sub code) → [START] → (Value displayed) → [START] → [POWER] OFF/ON (Exit)

[OK] or [INTERRUPT] (Value unchangeable)

Procedure 12

[0][5] [POWER] → [Digital key] (Code) → [START] → [Digital key] (Key in a value) → (Manual adjustment) → [OK] or [INTERRUPT] (Stores value in RAM) → ([FAX] ↓ [START]) (Test copy) → [POWER] OFF/ON (Exit)

[CLEAR] (Corrects value)

[CANCEL]

Procedure 14

```
[0][5]  →  [Digital key]  →  [START]  →  [Digital key]  →  [START]  →  (Input value)  →          [OK]          →  ( [FAX]  )  →  [POWER]
[POWER]     (Code)                        (Sub code)                                               or                  ↓           OFF/ON
                                                                                              [INTERRUPT]         ( [START] )      (Exit)
                                                                                            ( Stores value )      (Test copy)
                                                                                            (   in RAM    )

                                                          [CLEAR]                    [FUNCTION CLEAR]
                                                       (Corrects value)               (Corrects value)
```

Notes:

The fuser roller temperature control at the adjustment mode is different from that at the normal state. Therefore, the problem of fusing efficiency may be occurred in the test copy at the adjustment mode. In that case, turn ON the power normally, leave the equipment for approx. 3 minutes after it has become ready state and then start up the adjustment mode again.

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5.7　Test print pattern in Adjustment Mode (05)

Operation:
One test print is printed out when the [FAX] button is pressed after the code is keyed in at Standby Screen.

Code	Types of test pattern	Remarks
1	Grid pattern (Black)	For printer related adjustment
3	Grid pattern (Black/Duplex printing)	Refer to 6.1.7Image dimensional adjustment at the printing section
4	Copier gamma adjustment pattern (Color & black integrated / All media types)	Refer to 6.2.1Automatic gamma adjustment
6	Copier gamma adjustment pattern (Black / All media types)	Refer to 6.2.1Automatic gamma adjustment
7	Copier gamma confirmation pattern (Color / All media types)	Refer to 6.2.1Automatic gamma adjustment
8	Grid pattern (Color)	
12	Secondary scanning direction 32 gradation steps (Y)	For checking the image of printer section
13	Secondary scanning direction 32 gradation steps (M)	For checking the image of printer section
14	Secondary scanning direction 32 gradation steps (C)	For checking the image of printer section
15	Secondary scanning direction 32 gradation steps (K)	For checking the image of printer section
55	Grid pattern (Full Color / Thick paper 2)	Refer to 6.1.6Paper alignment at the registration roller
57	Grid pattern (Full Color / OHP)	Refer to 6.1.6Paper alignment at the registration roller
58	Grid pattern (Black / Thick paper 2)	Refer to 6.1.6Paper alignment at the registration roller
60	Grid pattern (Black / OHP)	Refer to 6.1.6Paper alignment at the registration roller
70	Printer gamma correction table creation pattern (Plain paper)	Refer to 6.3.1Automatic gamma adjustment
71	Printer gamma correction table confirmation pattern (Plain paper)	Refer to 6.3.1Automatic gamma adjustment
74	Printer gamma correction table creation pattern	Refer to 6.3.1Automatic gamma adjustment

Code	Types of test pattern	Remarks
75	Printer gamma correction table confirmation pattern (Recycled paper)	Refer to 6.3.1Automatic gamma adjustment
76	Printer gamma correction table creation pattern (Thick paper 1)	Refer to 6.3.1Automatic gamma adjustment
77	Printer gamma correction table confirmation pattern (Thick paper 1)	Refer to 6.3.1Automatic gamma adjustment
78	Printer gamma correction table creation pattern (Thick paper 2)	Refer to 6.3.1Automatic gamma adjustment
79	Printer gamma correction table confirmation pattern (Thick paper 2)	Refer to 6.3.1Automatic gamma adjustment
84	Printer gamma correction table creation pattern (Special paper 1)	Refer to 6.3.1Automatic gamma adjustment
85	Printer gamma correction table confirmation pattern (Special paper 1)	Refer to 6.3.1Automatic gamma adjustment
86	Printer gamma correction table creation pattern (Special paper 2)	Refer to 6.3.1Automatic gamma adjustment
87	Printer gamma correction table confirmation pattern (Special paper 2)	Refer to 6.3.1Automatic gamma adjustment
98	Grid pattern -2 (For printing K(4) / Plain paper)	Refer to 6.1.7Image dimensional adjustment at the printing section
99	Grid pattern -2 (For printing K(4) / Thick paper 1)	
100	Grid pattern - 1 (Full color / Thick paper 1)	
101	Grid pattern - 1 (Black / Thick paper 1)	
104	Color deviation confirmation pattern (A3/ LD)	
200	Copier gamma adjustment pattern (Color & black integrated / Plain paper)	Refer to 6.2.1Automatic gamma adjustment
201	Copier gamma confirmation pattern (Color / Plain paper)	Refer to 6.2.1Automatic gamma adjustment
204	Copier gamma adjustment pattern (Color & black integrated / Recycled paper)	Refer to 6.2.1Automatic gamma adjustment
205	Copier gamma confirmation pattern (Color / Recycled paper)	Refer to 6.2.1Automatic gamma adjustment
206	Copier gamma adjustment pattern (Color & black integrated / Thick paper 1)	Refer to 6.2.1Automatic gamma adjustment
207	Copier gamma confirmation pattern (Color / Thick paper 1)	Refer to 6.2.1Automatic gamma adjustment
208	Copier gamma adjustment pattern (Color & black integrated / Thick paper 2)	Refer to 6.2.1Automatic gamma adjustment
209	Copier gamma confirmation pattern (Color / Thick paper 2)	Refer to 6.2.1Automatic gamma adjustment

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Code	Types of test pattern	Remarks
214	Copier gamma adjustment pattern (Color & black integrated / Special paper 1)	Refer to 6.2.1Automatic gamma adjustment
215	Copier gamma confirmation pattern (Color / Special paper 1)	Refer to 6.2.1Automatic gamma adjustment
216	Copier gamma adjustment pattern (Color & black integrated / Special paper 2)	Refer to 6.2.1Automatic gamma adjustment
217	Copier gamma confirmation pattern (Color / Special paper 2)	Refer to 6.2.1Automatic gamma adjustment
230	Copier gamma adjustment pattern (Plain paper / PS / 1200dpi) * Not supported by LL20/25ppm model.	Refer to 6.2.1Automatic gamma adjustment
231	Copier gamma confirmation pattern (Plain paper / PS / 1200dpi) * Not supported by LL20/25ppm model.	Refer to 6.2.1Automatic gamma adjustment
234	Copier gamma adjustment pattern (Recycled paper / PS / 1200dpi) * Not supported by LL20/25ppm model.	Refer to 6.2.1Automatic gamma adjustment
235	Copier gamma confirmation pattern (Recycled paper / PS / 1200dpi) * Not supported by LL20/25ppm model.	Refer to 6.2.1Automatic gamma adjustment
236	Copier gamma adjustment pattern (Thick paper 1 / PS / 1200dpi) * Not supported by LL20/25ppm model.	Refer to 6.2.1Automatic gamma adjustment
237	Copier gamma confirmation pattern (Thick paper 1 / PS / 1200dpi) * Not supported by LL20/25ppm model.	Refer to 6.2.1Automatic gamma adjustment
238	Copier gamma adjustment pattern (Thick paper 2 / PS / 1200dpi) * Not supported by LL20/25ppm model.	Refer to 6.2.1Automatic gamma adjustment
239	Copier gamma confirmation pattern (Thick paper 2 / PS / 1200dpi) * Not supported by LL20/25ppm model.	Refer to 6.2.1Automatic gamma adjustment
244	Copier gamma adjustment pattern (Special paper 1 / PS / 1200dpi) * Not supported by LL20/25ppm model.	Refer to 6.2.1Automatic gamma adjustment
245	Copier gamma confirmation pattern (Special paper 1 / PS / 1200dpi) * Not supported by LL20/25ppm model.	Refer to 6.2.1Automatic gamma adjustment
246	Copier gamma adjustment pattern (Special paper 2 / PS / 1200dpi) * Not supported by LL20/25ppm model.	Refer to 6.2.1Automatic gamma adjustment
247	Copier gamma confirmation pattern (Special paper 2 / PS / 1200dpi) * Not supported by LL20/25ppm model.	Refer to 6.2.1Automatic gamma adjustment

5.8 Operation Procedure in Setting Mode (08)

Procedure 1

```
                    ┌──────────── [CANCEL] ─────────────────────────────┐
                    │                                                    │
[0][8]          ↓[Digital key]           [Digital key]        [OK]       │
[POWER] ───────→  (Code)  ──→ [START] ──→ *[FUNCTION CLEAR]    or    ───→ [POWER] OFF/ON
                              ⎛   Sets or   ⎞    [INTERRUPT]           (Exit)
                              ⎝changes value⎠    (Stores value in RAM)
                                          │
                                          ↓
                                       [CLEAR]
                                   (Corrects value)
```

*   Press [FUNCTION CLEAR] to enter minus (-).

Procedure 2

```
                    ┌─────────────────────────────────┐
                    │                          [OK]    │
[0][8]          ↓[Digital key]                  or      │
[POWER] ───────→  (Code)  ──→ [START] ──→    [INTERRUPT] ──→ [POWER]OFF/ON
                              ⎛ Adjustment value ⎞        (Exit)
                              ⎝ cannot be changed ⎠
```

Procedure 3

```
              ┌──────────────────── [INITIALIZE] ──────────────────────┐
[0][8]        ↓[Digital key]              or                            │
[POWER] ─────→  (Code)  ──→ [START] ──→ [INTERRUPT] ──→ (Automatic setting) ──→ [POWER] OFF/ON
              │                         (Stores value in RAM)              (Exit)
              └──── [CANCEL] or [CLEAR] ───┘
```

Procedure 4

```
        ┌──────────────── [CANCEL] ────────────────────────────────┐
        │                      ┌──── [START] ─────────────┐          │
[0][8]  ↓[Digital key]         ↓[Digital key]          [OK]      [POWER]
[POWER]→ (Code) →[START]→ (Sub-code) →[START]→ [Digital key]  or     OFF/ON
        ↑                       │          * [FUNCTION CLEAR] [INTERRUPT] (Exit)
        │                       │          ⎛   Sets or   ⎞  (Stores value
        │                       ↓          ⎝changes value⎠   in RAM)
        │                    [CLEAR]              [CLEAR]
        │                 (Corrects value)   (Corrects value)
        └──────────────────────────────────────────┘
```

*   Press [FUNCTION CLEAR] to enter minus (-).

Procedure 5

```
                    ┌──────────── [CANCEL] ─────────────────────┐
[0][8]          ↓[Digital key]           [Digital key]    [OK]    │
[POWER] ───────→  (Code)  ──→ [START] ──→   Sets or        or    ──→ [POWER] OFF/ON
                              ⎛ changes value ⎞    [INTERRUPT]     (Exit)
                              ⎝              ⎠  (Stores value in RAM)
                                          │
                                          ↓
                                       [CLEAR]
                                   (Corrects value)
```

Procedure 9

```
                          ┌──────────── [CANCEL] ──────────────────┐
[0][8]        ↓          │                           [OK]          │
[POWER] ──→ [Digital key] ──→ [START] ──→ [Select button] ─┬→   or   ──→ [POWER] OFF/ON
            (Code)                                         │  [INTERRUPT]      (Exit)
                                                           │  (Stores value in RAM)
                                                           │
                                                      [CLEAR]
                                                   (Corrects value)
```

Procedure 10

```
                ┌─────────────────── [CANCEL] ────────────────────────────┐
[0][8]    ↓    │                                                 [OK]      │  [POWER]
[POWER] ─→ [Digital key] ─→ [START] ─→ [Digital key] ─→ [START] ─→ [Digital key] ─┬→  or   ─→ OFF/ON
           (Code)                     (1st setting)              (2nd setting)    │ [INTERRUPT]  (Exit)
                                           │                           │          (Stores value in RAM)
                                      [CLEAR]                     [CLEAR]
                                   (Corrects value)           (Corrects value)
```

Procedure 11 and 12

```
                ┌──────────── [CANCEL] ─── [Digital key] ────────┐
[0][8]    ↓    │                               or               │
[POWER] ─→ [Digital key] ─→ [START] ─→ [Software keyboard]  *2 [OK] ─→ [POWER] OFF/ON
           (Code)                    *1 [MONITOR/PAUSE]      (Stores value in RAM)   (Exit)
                                        ⎛ Sets or ⎞   [CLEAR]
                                        ⎝changes value⎠ (Corrects value)
```

*   Press [MONITOR/PAUSE] to enter "-", when entering telephone number.
*   The data are stored in SYS-RAM in procedure 11 and stored in NIC-RAM in procedure 12.

Procedure 14

```
                ┌──────────── [CANCEL] ──────────────────┐
[0][8]    ↓    │                                  [OK]   │  [POWER]
[POWER] ─→ [Digital key] ─→ [START] ─→ [Digital key] ─→ [START] ─→  or  ─→ OFF/ON
           (Code)                     (Sub-code)              [INTERRUPT]   (Exit)
                                           │            ⎛ Adjustment value ⎞
                                      [CLEAR]           ⎝cannot be changed ⎠
                                   (Corrects value)
```
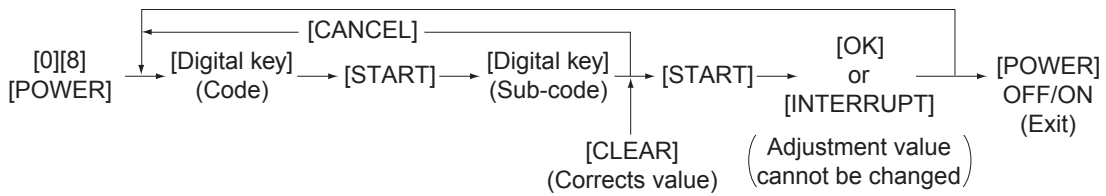
5.9   Assist Mode (3C)

5.9.1   General description

This is a mode to operate the partitions of HDD, initialize the SRAM data, erase the HDD/SRAM data, back up/restore the encryption key and licences.

Functions:
- Clearing update error flag (Clear Error Flag in Software Installation)
- Formatting data storage partition (Format Root Partition)
- Creating HDD partition (Format HDD)
- Formatting SRAM data (Clear SRAM)
- Backing up/restoring encryption key and license (Key Backup Restore)
- Erasing HDD securely (Erase HDD Securely)
- Erasing SRAM securely (Erase SRAM Securely)
- Clearing service tech password (Clear Service Tech)

5.9.2   Operating Procedure

(1)   Turn ON the power while [3] button and [CLEAR] button are pressed simultaneously.
       The following screen is displayed.

```
Firmware Assist Mode

Select number(1-8) and press START key

1. Clear Error Flag in Software Installation
2. Format Root Partition
3. Format HDD
4. Clear SRAM
5. Key Backup Restore
6. Erase HDD Securely
7. Erase SRAM Securely
8. Clear Service Tech Password
```
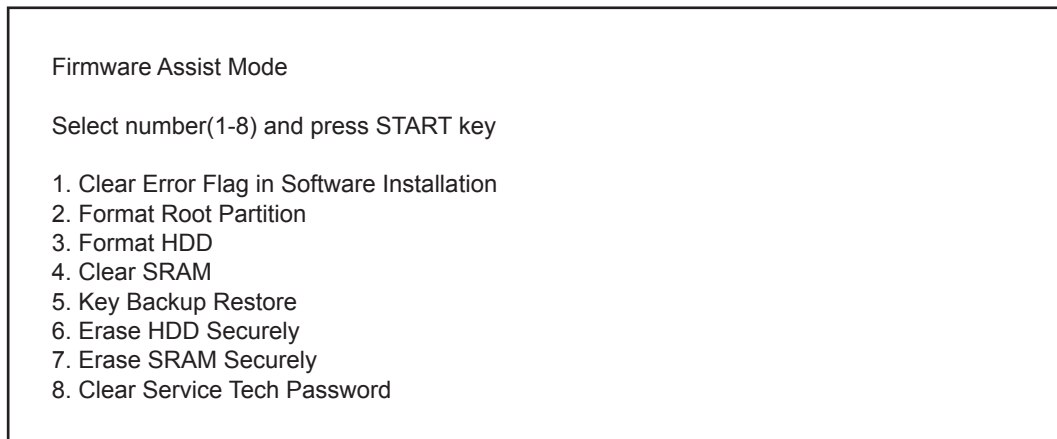
Fig.5-6

(2)   Select the item with the digital keys and press the [START] button.

5.9.3   Functions

[A]   Clearing update error flag (Clear Error Flag in Software Installation)

Even if the firmware downloading has been completed normally, the Recovery Mode may accidentally start up and an F600 error occurs when the power is turned ON again. In this case, clear the Update Error flags used in the download process with this function. (Normally, the flags are automatically cleared in the download process.)
Also in the case the Recovery Mode accidentally starts up after the replacement of SRAM on the SYS board, the flags are cleared with this function.

[B]   Formatting data storage partition (Format Root Partition)

When a defect occurs on the UI data, etc. which are stored in the HDD, the partition with the stored UI data, etc. is formatted with this function.
Do not use this function since it is not normally necessary. HDD data must be installed after performing this function.

[C] Creating HDD/SSD partition (Format HDD)

When the HDD/SSD is replaced or UI data, etc. are downloaded using the USB storage, it is necessary to format a partition in the HDD/SSD before downloading. In this case, the partition is created in the HDD/SSD with this function.

Notes:
- When downloading with a download jig, it is not necessary to format a partition in advance.
- Perform the HDD/SSD partition formatting only when a new HDD/SSD is installed since all data in the current HDD/SSD are erased by this operation.
- When this operation has been done, do not perform SRAM data formatting (Clear SRAM) before the normal start-up.

[D] Formatting SRAM data (Clear SRAM)

When SRAM is replaced with a new one, abnormal values may be written in the new SRAM. SRAM data must be formatted with this function for such case.

Notes:
- This function is required only when a new SRAM is installed.
- Do not perform this function in cases other than the installation of a new SRAM because all data in the SRAM will be deleted with this function.
- When this operation has been done, do not perform HDD partition creation (Format HDD) before the normal start-up.

[E] Backing up/restoring encryption key and license (Key Backup Restore)

When the SRAM board (for the SYS board) or the SYS board is replaced or initialized, the encryption key and license are erased. Therefore, they need to be backed up or restored with this function.

Configurations and functions of the "5.Key Backup Restore" menu.
1. Key SRAM to FROM
   Restore the encryption key from SRAM to FROM.

2. Key FROM to SRAM
   Back up the encryption key from FROM to SRAM.

3. License SRAM to FROM
   Restore the license from SRAM to FROM.

4. License FROM to SRAM
   Back up the license from FROM to SRAM.

5. ADIKey SRAM to FROM
   Restore the ADIKey from SRAM to FROM.

6. ADIKey FROM to SRAM
   Back up the ADIKey from FROM to SRAM.

[F] Erasing HDD/SSD securely (Erase HDD Securely)

This function is used when installing Data Overwrite Enabler (GP-1070) or before discarding the HDD/SSD.
It overwrites all the used areas on the HDD/SSD with the selected data, and makes it unusable.
After selecting this function, specify the level below to be overwritten.

1: LOW (Normally use this setting.)
   This is the standard overwriting method.

2: MEDIUM
   This overwriting method is more secure than LOW. The erasing time is between LOW and

HIGH.

3: HIGH

This is the most secure overwriting method. It takes the longest time to erase data.

4: SIMPLE

This is the simple overwriting method. It takes the shortest time to erase data.

Key in the level number to display "<" next to it.
(At this time, if "0" is entered, the screen returns to the initial one of the Assist Mode.)
Press the [START] button to display the reconfirmation screen, and then press the [START] button again to start overwriting.

  Notes:
    When this operation has been done, do not perform SRAM data formatting (Clear SRAM) before the normal start-up.

5

[G]   Erasing SRAM securely (Erase SRAM Securely)

This function is used before discarding the SRAM board (for the SYS board).
It overwrites all the used areas on the SRAM board with the selected data, and makes it unusable.
Immediately after selecting this function, the processing starts and is completed.

[H]   Clearing service tech password (Clear Service Tech)

This function is needed after the HDD/SSD is replaced.
When the HDD/SSD is replaced, the service tech password stored in the new one is set as a blank.
Therefore, its password is copied to the SRAM board so that both passwords become the same with this function. The setting is enabled when the equipment is started up in the normal mode after performing this function.

5.10 HDD Assist Mode (4C)

5.10.1 General description

This mode is available only when the security HDD (ADI-HDD) is mounted in the equipment. It enables you to check the type of the mounted HDD/SSD, revert the ADI-HDD to the factory default or remove keys.

Functions
- Checks the type (ADI, SATA, or SSD) of the mounted HDD/SSD.
- Disposes of ADI-HDD data safely without any of leakage.
- Deletes image data when reusing a used ADI-HDD.

5.10.2 Operation procedure
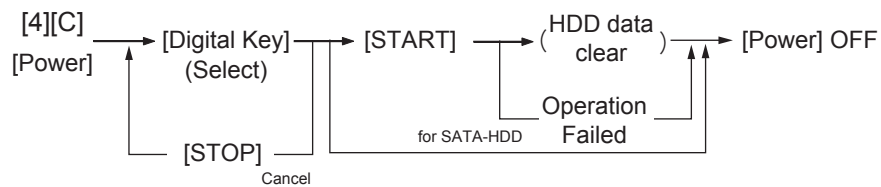
Turn the power ON while pressing the [4] and the [CLEAR] button simultaneously. Then the type of the mounted HDD is checked and either of the following screens is displayed.

- When the security HDD is mounted

| HDD Assist Mode | System Firmware Version : xxxx(x.x.x.x) |
| Current HDD type: ADI HDD | Update Mode : 4c Mode |

Select number (1-2) and press START key

　　1. Revert factory initial status HDD
　　2. Remove key

Fig.5-7

• When a normal HDD/SSD is mounted

```
┌─────────────────────────────────────────────────────────────────────────┐
│ HDD Assist Mode           ◤      System Firmware Version : xxxx(x.x.x.x)  │
│ Current HDD type: SATA HDD or SSD      Update Mode        : 4c Mode       │
├─────────────────────────────────────────────────────────────────────────┤
│ Select number (1-2) and press START key                                  │
│                                                                           │
│      1. Revert factory initial status HDD                                 │
│      2. Remove key                                                        │
│                                                                           │
├─────────────────────────────────────────────────────────────────────────┤
│                                                                           │
│                                                                           │
│                                                                           │
│                                                                           │
│                                                                           │
│                                                                           │
└─────────────────────────────────────────────────────────────────────────┘
```
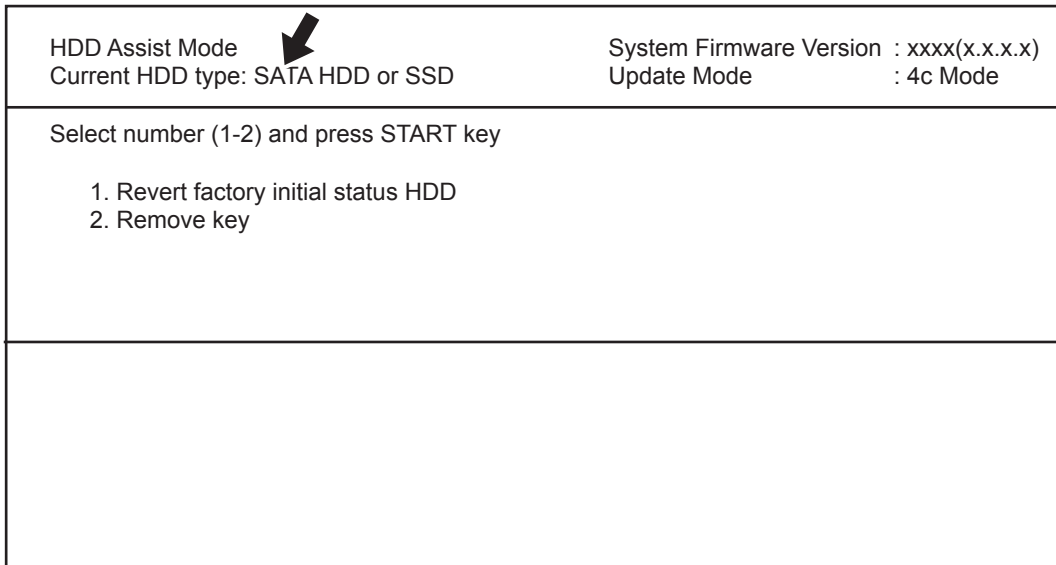
Fig.5-8

Remarks:
If the HDD/SSD type cannot be identified, "Unknown HDD" may appear on the screen.
Refer to 📖 P. 8-191 " [F106_1] ADI-HDD error: HDD type detection error"

Note:
When "SATA HDD" (normal HDD) is displayed, items 1 and 2 are not selectable.
If you select any of 1 and 2 and press the [START] button, the error message below appears.

```
┌─────────────────────────────────────────────────────────────────────────┐
│ HDD Assist Mode                  System Firmware Version : xxxx(x.x.x.x)  │
│ Current HDD type: SATA HDD             Update Mode        : 4c Mode       │
├─────────────────────────────────────────────────────────────────────────┤
│ Select number (1-2) and press START key                                  │
│                                                                           │
│  => 1. Revert factory initial status HDD                                  │
│      2. Remove key                                                        │
│                                                                           │
│                                                                           │
├─────────────────────────────────────────────────────────────────────────┤
│                                                                           │
│  Operation Failed.                                                        │
│  Press SoftPower Key to Switch Off                                        │
│                                                                           │
│                                                                           │
└─────────────────────────────────────────────────────────────────────────┘
```
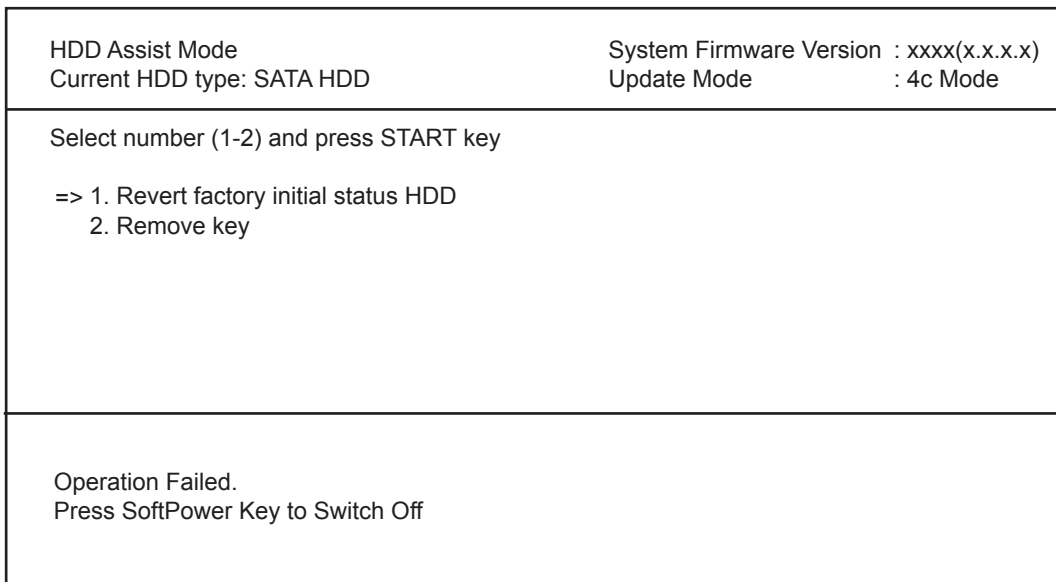
Fig.5-9

5.10.3 Functions

[A] 1. Revert factory initial status HDD

Select this to dispose of the ADI-HDD as well as the equipment.

When this item is selected, all data in the HDD are deleted and the HDD is reverted to its initial status at the factory shipment.

This operation requires only a few seconds; however, you must create the partition in the HDD in the 3C mode (Format HDD) and reinstall the HDD data in the 49 mode to make the HDD reusable.

When "1" is selected and then [START] button is pressed, the menu below appears.
To start, press the [START] button.

```
HDD Assist Mode                         System Firmware Version  : xxxx(x.x.x.x)
Current HDD type: ADI HDD                Update Mode              : 4c Mode

Select number (1-2) and press START key

 => 1. Revert factory initial status HDD
    2. Remove key
                          ┌──────────────────────────────┐
                          │ Confirmation Screen          │
                          │      Are you sure ???         │
                          │                               │
                          │ Press START to continue       │
                          │ Press STOP to cancel          │
                          └──────────────────────────────┘
```

Fig.5-10

When the operation is finished, the result appears on the menu.

```
HDD Assist Mode                         System Firmware Version  : xxxx(x.x.x.x)
Current HDD type: ADI HDD                Update Mode              : 4c Mode

Select number (1-2) and press START key

 => 1. Revert factory initial status HDD
    2. Remove key




    Data in the HDD has been complately erased.
    Press SoftPower Key to Switch Off
```

Fig.5-11

Note:
   If the equipment is started in the normal mode with this condition, an HDD mounting error occurs.

[B] 2. Remove Key

Select this to reuse the ADI-HDD as well as the equipment.
When this item is selected, image data in the HDD are deleted.
This operation requires approx. 20 minutes since the partition must be rebuilt.

When "2" is selected and then [START] button is pressed, the menu below appears.
To start, press the [START] button.

```
┌─────────────────────────────────────────────────────────────────────┐
│ HDD Assist Mode                    System Firmware Version : xxxx(x.x.x.x) │
│ Current HDD type: ADI HDD          Update Mode             : 4c Mode  │
├─────────────────────────────────────────────────────────────────────┤
│ Select number (1-2) and press START key                              │
│                                                                       │
│      1. Revert factory initial status HDD                            │
│ => 2. Remove key                                                     │
│                        ┌──────────────────────────┐                  │
│                        │ Confirmation Screen       │                  │
│                        │      Are you sure ???      │                  │
│                        │                           │                  │
│                        │ Press START to continue    │                  │
│                        │ Press STOP to cancel       │                  │
│                        └──────────────────────────┘                  │
├─────────────────────────────────────────────────────────────────────┤
│                                                                       │
│                                                                       │
│                                                                       │
└─────────────────────────────────────────────────────────────────────┘
```

Fig.5-12

When the operation is finished, the result appears on the menu.

```
┌─────────────────────────────────────────────────────────────────────┐
│ HDD Assist Mode                    System Firmware Version : xxxx(x.x.x.x) │
│ Current HDD type: ADI HDD          Update Mode             : 4c Mode  │
├─────────────────────────────────────────────────────────────────────┤
│ Select number (1-2) and press START key                              │
│                                                                       │
│      1. Revert factory initial status HDD                            │
│ => 2. Remove key                                                     │
│                                                                       │
│                                                                       │
│                                                                       │
├─────────────────────────────────────────────────────────────────────┤
│ Data in the HDD has been erased.                                     │
│ Press SoftPower Key to Switch Off                                    │
│                                                                       │
└─────────────────────────────────────────────────────────────────────┘
```

Fig.5-13

Note:
> After this operation, the equipment becomes reusable without reinstalling the firmware.

5.11　File System Recovery Mode (5C)

5.11.1　Overview

This is a mode to check if there is any damage to the file system (HDD) and recover it if necessary. Use this mode only in the following cases:.

- There is a possibility of damage to the file system (HDD).
- There is an apparent damage to the file system (HDD), requiring recovery or initialization.

This mode enables you to have the following functions:
- Check F/S: Checks the file system.
- Recovery F/S: Recovers the file system.
- Initialize HDD: Initializes partitions in the HDD/SSD.
- Initialize DB: Initializes database (LDAP DB/log DB/language DB).
- SMART Info: Displays the various information in the HDD/SSD.
- DISK Info: Displays the usage rate of HDD/SSD.
- HDD Utility: Initializes log files.

5.11.2　Operation procedure

[5][C]
[POWER] → [Digital key]
(Selection) → [START] → [Digital key]
(Selection) → [START] → (HDD formatting) → [POWER] OFF/ON
(DB formatting　　　　　(Exit)
such as log data)

Notes:
- Do not turn the main power switch OFF after you select a menu and processing has started (during processing).
- After the processing is completed, a beep sounds 4 times and either "Completed" or "Failed" appears on the screen.

Turn ON the power while pressing the [5] and [CLEAR] button simultaneously. The following screen is displayed.

```
File System(F/S) Recovery Mode -> Check F/S

    Please Select Mode

>1. Check F/S
 2. Recovery F/S
 3. Initialize HDD
 4. Initialize DB
 5. SMART Info
 6. DISK Info
 7. HDD Utility
```
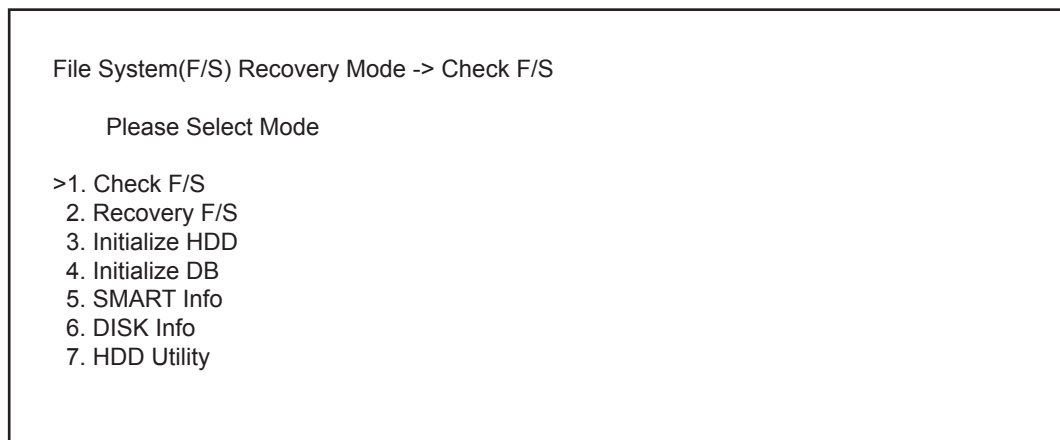
Fig.5-14

Remark:
When the mode is started, "1. Check F/S" is selected by default.
(">" is displayed on the left of the selected number.)

5.11.3 Functions

[A] Check of the File System (Check F/S)

In case that particular service calls occur or there is a possibility of damage to the file system, the status of each partition in the HDD can be checked.

```
File System(F/S) Recovery Mode -> Check F/S

    Please Select Partition          0: Main menu

  1. ALL
  2. /
  3. /work
  4. /registration
  5. /backup
  6. /imagedata
  7. /storage
  8. /encryption
```
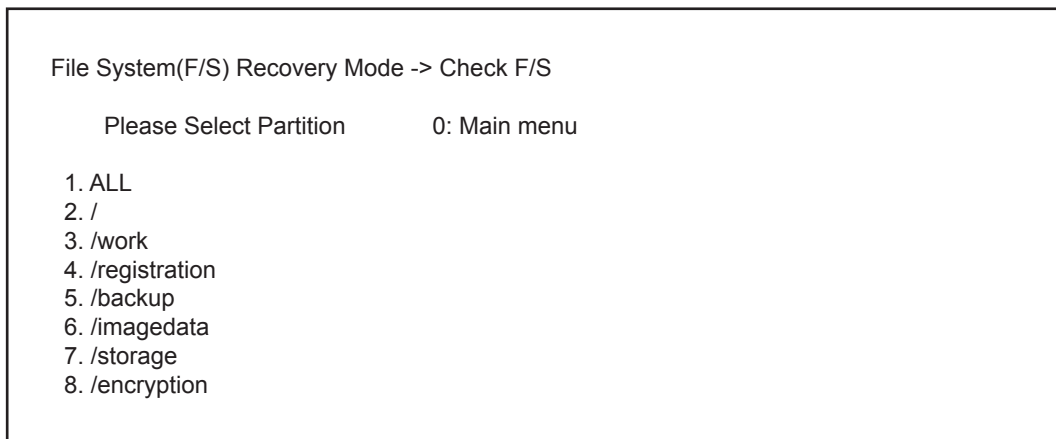
Fig.5-15

Explanation for each item
- 1: Checks all partitions.
- 2: Checks root partition only.
- 3-8: Checks each partition shown above.
  Note:
     More than one partition can be selected. (">" is displayed on the left of the selected number.)
- If damage is discovered, recover or initialize the file system (HDD).

[B] Recovery of the File System (Recovery F/S)

In case that an error occurs during the file system check, each partition can be recovered.

```
File System(F/S) Recovery Mode ->  Recovery F/S

    Please Select Partition          0: Main menu

  1. ALL
  2. /
  3. /work
  4. /registration
  5. /backup
  6. /imagedata
  7. /storage
  8. /encryption
```
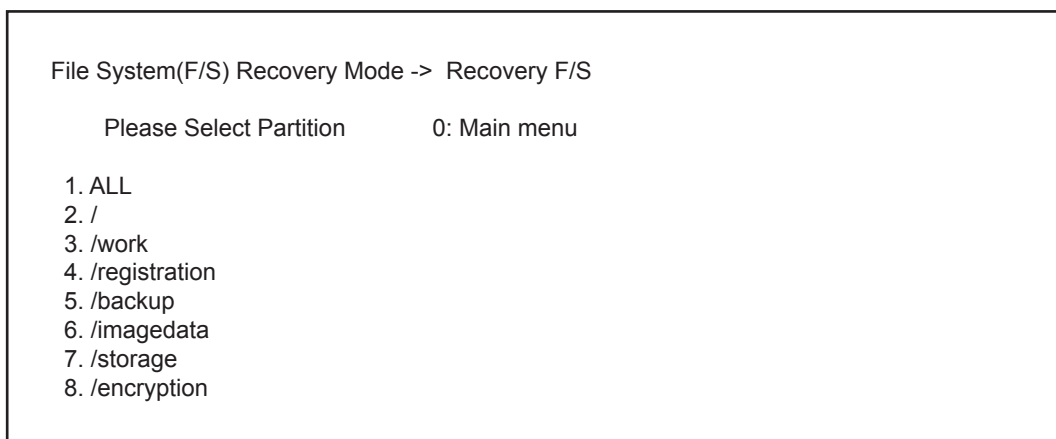
Fig.5-16

Explanation for each item
- 1: Recovers all partitions.
- 2: Recovers root partition only.
- 3-8: Recovers each partition shown above.
  Note:
     More than one partition can be selected. (">" is displayed on the left of the selected number.)

- If an error occurs during recovery, initialize the file system (HDD).

[C]   Initialize the File System (Initialize HDD)

In case that an error occurs during the file system check and the partition cannot be recovered with the recovery, each partition can be initialized.
It is recommended to export the user information such as address book before performing this function.

```
File System(F/S) Recovery Mode -> Initialize HDD

    Please Select Partition

  1. Except /
  2. /work
  3. /registration
  4. /backup
  5. /imagedata
  6. /storage
  7. /encryption
  8. /TAT
```
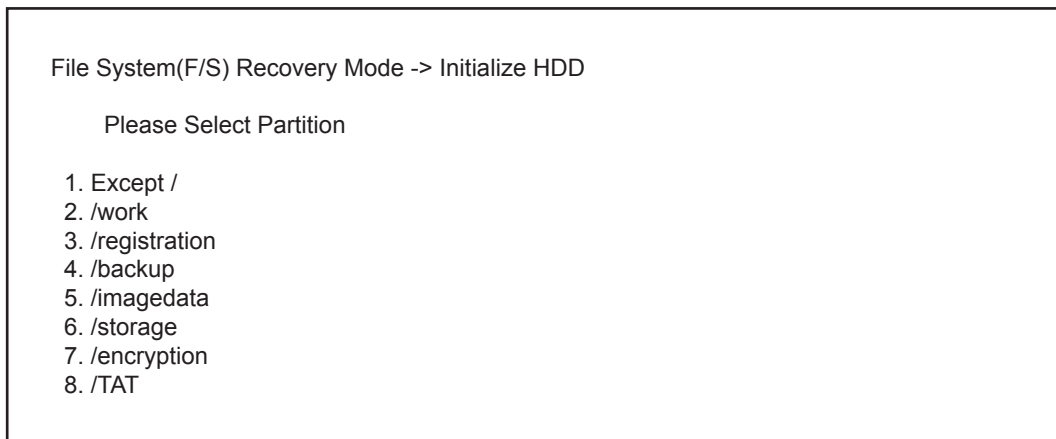
Fig.5-17

Explanation for each item
- 1: Initializes partitions other than root one and creates initial files.
- 2: Initializes a partition (/work) and creates an initial file.
- 3: Initializes a partition (/registration) and creates an initial file.
- 4: Initializes a partition (/backup) and creates an initial file.
- 5: Initializes a partition (/imagedata) and creates an initial file.
- 6: Initializes a partition (/storage) and creates an initial file.
- 7: Initializes a partition (/encryption) and creates an initial file.
- 8: Initializes a partition (/TAT) and creates an initial file.

Remark:
   More than one partition can be selected. (">" is displayed on the left of the selected number.)

Notes:
- If [1. Except /] or [7. /encryption] is selected, applications and OS data in the equipment are also initialized. In this case, the applications and the file system must be reinstalled. Install the system software (HD Data) by performing [49] -> [4] after initialization.
- If [1. Except /] is selected, minimal data necessary for normal startup are automatically recovered.
- If [1. Except /] is selected, log database is also initialized. Back up the data before initializing if necessary.
- If [1.Except/] is selected, do not perform SRAM data formatting (Clear SRAM) before the normal start-up.

[D]   Initialize the DB (Initialize DB)

In case that particular service calls occur or there is a possibility of damage to the databases, each one can be initialized.

```
┌─────────────────────────────────────────────────────────────┐
│                                                               │
│   File System(F/S) Recovery Mode ->   Initialize DB           │
│                                                               │
│       Please Select Partition        0: Main menu             │
│                                                               │
│     1. LDAP DB                                                │
│     2. Log DB(Job,Msg)                                        │
│     3. Language DB                                            │
│                                                               │
│                                                               │
│                                                               │
│                                                               │
│                                                               │
└─────────────────────────────────────────────────────────────┘
```
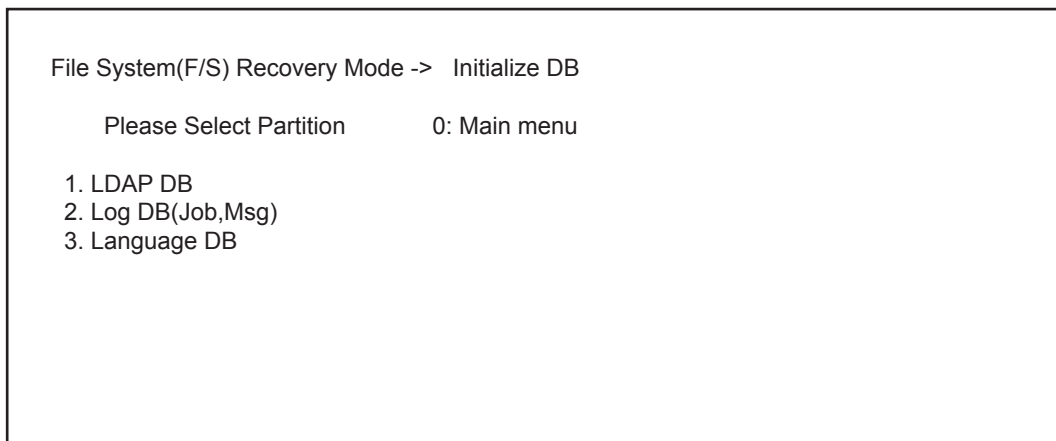
Fig.5-18

Explanation for each item
- 1: Initializes address book data and the user information database.
- 2: Initializes job log data and the message database.
- 3: Initializes the language database.

Notes:
    The selected databases are initialized and recreated in the next normal startup.

[E]   Displaying various data in the HDD/SSD (SMART Info)

Various data in the HDD/SSD can be displayed. (Data equivalent to the setting contents of 08-9065 are displayed.)
When this item is selected, data in the HDD/SSD embedded in the equipment are displayed. "---" is displayed for the items not supported.

```
┌─────────────────────────────────────────────────────────────┐
│                                                               │
│   File System(F/S) Recovery Mode ->   SMART Info              │
│                                                               │
│   Please Select    1: PrevPage    2:NextPage    0: Main menu  │
│                                                               │
│   Model  : Hitachi xxxxxxxxxxx           Serial  : xxxxxxxxx  │
│   ID NAME                     VALUE       NAV    Worst        │
│   01  Read Error Rate            0        100     100         │
│   02  Throughput Performance     0        100     100         │
│   03  Spin Up Time              15        253     253         │
│   .                              .         .       .          │
│   .                              .         .       .          │
│   .                              .         .       .          │
│                                                               │
└─────────────────────────────────────────────────────────────┘
```
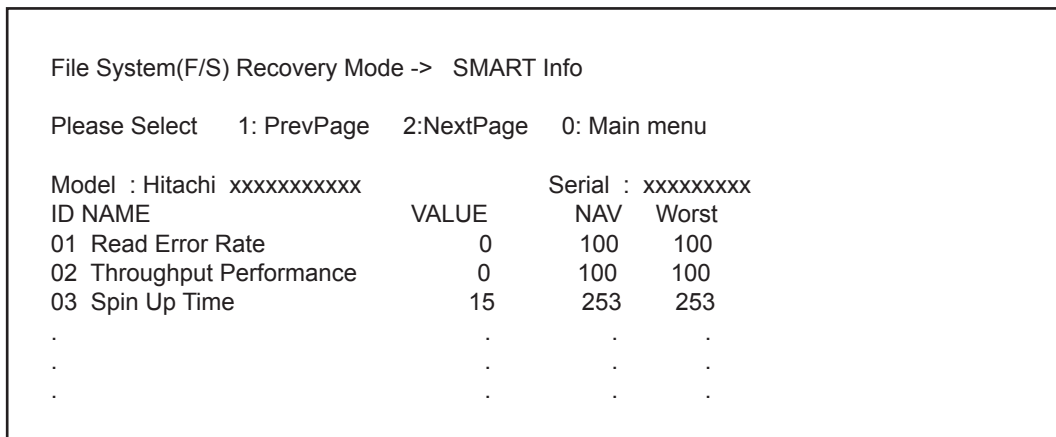
Fig.5-19

Remark:
- NAV: Normalized Attribute Value
  Indicates the value of the specified HDD condition as compared to the manufacturer's optimum value.
- Worst: Worst Ever Normalized Attribute Value
  Indicates the worst value of NAV permitted by the manufacturer.
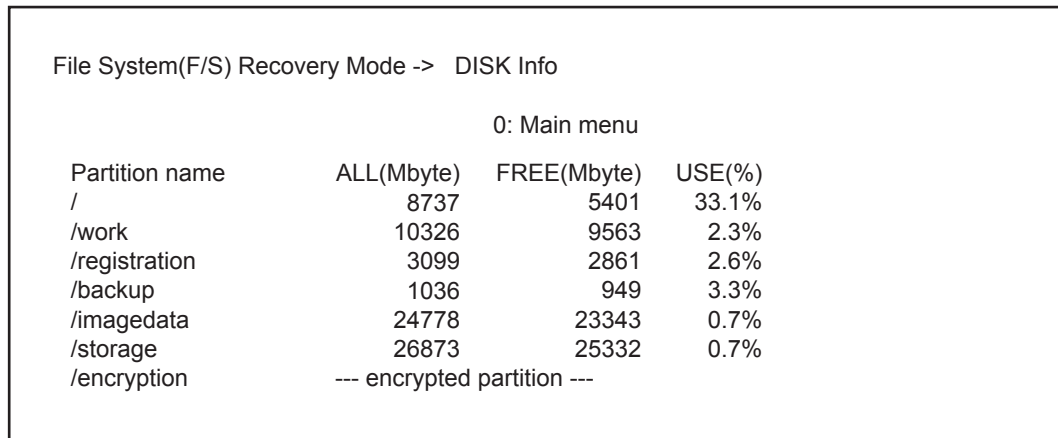
Notes:
    The values of NAV and Worst should be treated as a rough reference since their basis may differ depending on the specification of HDD manufacturers.

e-STUDIO2050C/2051C/2550C/2551C
SELF-DIAGNOSTIC MODE

[F] Displaying usage rate of each partition (DISK Info)

The usage rate of each partition can be checked.
When this item is selected, the usage rate of each partition is displayed.

```
File System(F/S) Recovery Mode ->   DISK Info

                            0: Main menu

Partition name        ALL(Mbyte)    FREE(Mbyte)    USE(%)
/                          8737          5401        33.1%
/work                     10326          9563         2.3%
/registration              3099          2861         2.6%
/backup                    1036           949         3.3%
/imagedata                24778         23343         0.7%
/storage                  26873         25332         0.7%
/encryption         --- encrypted partition ---
```

Fig.5-20

Remark:
> The disk information of a partition indicated as "Encrypted Partition" is not displayed as it is encrypted.

[G] Initialization of log file (HDD Utility)

Log files for researching can be deleted. Since only a certain amount of log files for researching is usually stored in the work area of an HDD, the use of this mode is not necessary. In case the performance level of the equipment is lowered (e.g.: the response of the control panel becomes extremely slow), make use of this mode. This phenomenon may be resolved.

5.12 SRAM Clear Mode (6C)

5.12.1 General description

This is a mode in which you can clear particular errors such as F800 or F900 without entering a Service Technician password.

For example, when SYS-SRAM is in an abnormal status or needs replacement but service technicians cannot log into the 3C mode, SRAM can be initialized by entering the SRAM clear mode (6C) and selecting item 1 below.

The content of item 1 in this mode is the same as that of item 4 in the 3C mode (Clear SRAM).

Use this mode to clear the SRAM data when a particular error occurs or service technicians cannot log in with their password and therefore cannot use the 3C mode.

Functions
- Sets the serial number of this equipment.
- Clears SRAM data when the 3C mode cannot be used.
- Clears F800 error.
- Clears F900 error.

5.12.2 Operation procedure
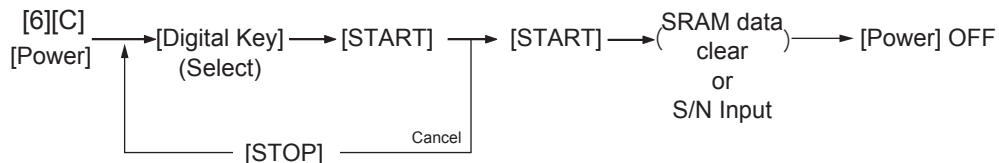
Turn the power ON while pressing the [6] and the [CLEAR] button simultaneously. Then the following screen is displayed.

Key in the desired item number and then press the [START] button.

```
SRAM Clear Mode                    System Firmware Version : xxxx(x.x.x.x)
                                   Update Mode             : 6c Mode
 ───────────────────────────────────────────────────────────────────────

    0. Set Serial Number
    1. Clear SRAM
    2. Reset Date and Time
    3. SRAM Re-Initialize Support
    4. L-LL




 ───────────────────────────────────────────────────────────────────────



```
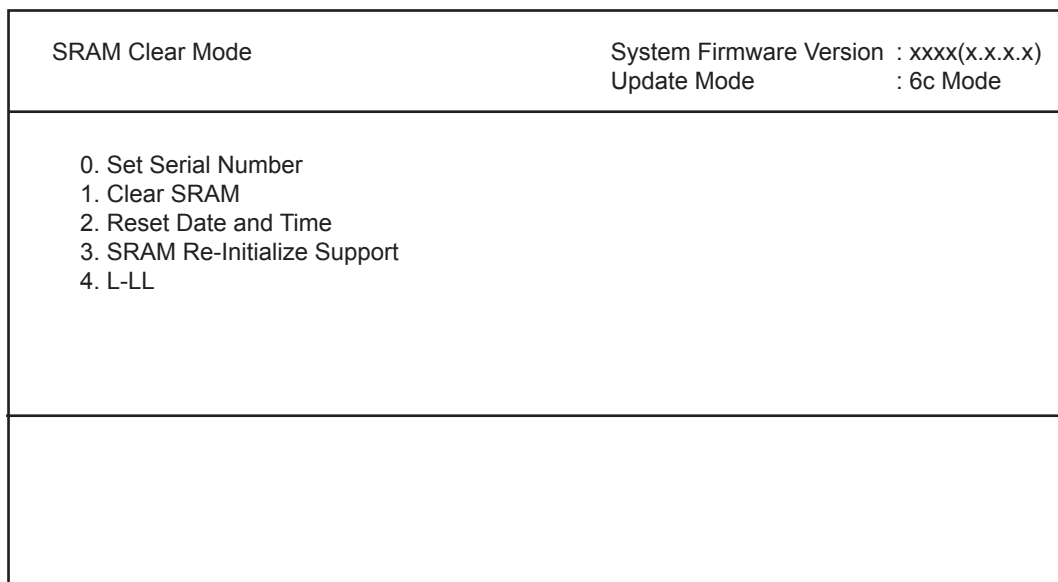
Fig.5-21

Notes:
- When "0" is keyed in and the [START] button is pressed, the menu to key in the serial number appears. Key in the serial number of this equipment and then press [OK] to determine the setting.
- Items 1 and 2 can be canceled while 0 and 3 cannot.

- When "3" is keyed in and the [START] button is pressed, the operation starts.

5.12.3 Functions

[A] 0. Set Serial Number

When replacing SYS-SRAM, select this to set the serial number of the equipment since it must be done in advance of recovery from SRAM backup data.
- Clear SRAM first and then set the serial number in this mode.
- Recover from SRAM backup data after setting the serial number.
  Refer to 📖 P. 12-2 "12.1.4 Cloning procedure"

Select "0" and then press the [START] button. Then key in the serial number of this equipment.
The keyed in serial number appears on the menu.

```
┌──────────────────────────────────────────────────────────────────────┐
│  SRAM Clear Mode                          System Firmware Version : xxxx(x.x.x.x)  │
│                                           Update Mode             : 6c Mode         │
├──────────────────────────────────────────────────────────────────────┤
│                                                                        │
│   > 0. Set Serial Number      Serial Number Setting Complated..  xxxxxxxxxx  │
│     1. Clear SRAM                                                      │
│     2. Reset Date and Time                                            │
│     3. SRAM Re-Initialize Support                                     │
│     4. L-LL                                                           │
│                                                                        │
│                                                                        │
├──────────────────────────────────────────────────────────────────────┤
│                                                                        │
│                                                                        │
│                                                                        │
│                                                                        │
└──────────────────────────────────────────────────────────────────────┘
```

Fig.5-22

[B] 1. Clear SRAM

Select this to clear all SRAM data when replacing SYS-SRAM.
- Replace the SRAM board and then clear the SRAM data.
- After clearing the SRAM data, initialize SRAM following its replacement procedure.
  Refer to 📖 P. 9-25 "9.2.5 Precautions and procedure when replacing the SRAM board (for the SYS board)".
  Notes:
  When this operation has been done, do not perform HDD partition creation (Format HDD) before the normal start-up.

[C] 2. Reset Date and Time

Select this to clear an F800 error which occurred when the date and time were set as after the end of the year 2037 or when the actual end of the year 2037 has come.
- After selecting this, start the equipment in the normal mode to reset the date and time.

[D] 3. SRAM Re-Initialize Support

Since an F900 error cannot be cleared in the 3C mode, use this function to clear the error in the following cases:
- When the SRAM board (for the SYS board) and the SYS board are replaced at the same time
- When the SRAM is initialized with wrong destination at the replacement of the SRAM board

- After updating with a download jig and performing Clear SRAM, select this item.
- After selecting this, initialize SRAM following its replacement procedure.
  Refer to 📖 P. 9-25 "9.2.5 Precautions and procedure when replacing the SRAM board (for the SYS board)".

[E] 4. L-LL

This function is used when the SYS board provided as service part for 20ppm/25ppm model is attached to the LL20ppm/LL25ppm model.

<Replacement procedure of SYS board using this function>
1. Attach the SYS board provided as service part for 20ppm/25ppm model to the LL20ppm/LL25ppm model.
2. Perform [6]+[C]+[POWER]->[4. L-LL].
3. Install the system firmware for LL20ppm/LL25ppm model in the [4]+[9] mode.
4. Perform "[D] Restore ADI key" and the subsequent procedure.
   Perform📖 P. 9-22 "[D] Restore ADI key".

5

5.13 List print mode (9S)

5.13.1 Operation procedure

[1] Print out

```
[9][START]
[POWER]  →  (Code) ──────→ [START] → [Digital keys] → [START] → [Digital keys] ──→ [START] → [POWER]
             101: Adjustment mode (05)  ( Key in the first )      ( Key in the last )  (List starts to)  OFF/ON
             102: Setting mode (08)     ( code to be printed )    ( code to be printed )( be printed )    (Exit)

         → (Code) ──────
             103: PM support mode
             104: Stored information of pixel counter (toner cartridge reference)
             105: Stored information of pixel counter (service technician reference)
             106: Error history (Maximum 1000 items)
             107: Error history (Latest 80 items)
             108: Firmware update log (Maximum 200 items)
             110: Power-ON/OFF log (Maximum 100 items)
             111: Version list
             114: Total counter list
             121: (05) adjustment value difference
             122: (08) setting value difference
```

[2] CSV output (USB)

```
[9][START]
[POWER]  → Connect → (Code) ──────→ [START] → [Digital keys] → [START] → [Digital keys] → [START] → Disconnect → [POWER]
            USB       201: Adjustment mode (05) ( Key in the first )      ( Key in the last )  (List starts to)  USB      OFF/ON
                      202: Setting mode (08)    ( code to be printed )    ( code to be printed )( be printed )             (Exit)

                   → (Code) ──────
                      203: PM support mode
                      204: Stored information of pixel counter (toner cartridge reference)
                      205: Stored information of pixel counter (service technician reference)
                      206: Error history (Maximum 1000 items)
                      208: Firmware update log (Maximum 200 items)
                      210: Power-ON/OFF log (Maximum 100 items)
                      211: Version list
                      212: Engine firmware log * Manufacture Purpose Only
                      214: Total counter list
                      221: (05) adjustment value difference
                      222: (08) setting value difference
                      223: Job log / Message log
                      300: ALL CSV files
```

Notes:

Precautions when storing information into USB device
- When storing the setting information of the equipment into a USB device, be sure to obtain permission from a user in advance.
- When storing the setting information of the equipment into a USB device, the information is printed out in a CSV format. Handle and manage the information with extra care.
- Do not lose or leak the setting information of the equipment.
- Do not use the setting information of the equipment for purposes other than maintenance or product services.
- Provide the information promptly if a user requires so.
- The buttons on the control panel keep blinking while data are being stored in the USB device. Do not disconnect the USB device while data are being stored.

Remarks:

In the USB storage procedure above, lists are stored in a CSV format. The names of the CSV files are shown below.

201: ADJUSTMENT_LIST_serial_date and time(YYYYMMDDHHMMSS).csv
202: SETTING_LIST_serial_date and time(YYYYMMDDHHMMSS).csv
203: PM_LIST_serial_date and time(YYYYMMDDHHMMSS).csv
204: PIXEL_TONER_LIST_serial_date and time(YYYYMMDDHHMMSS).csv
205: PIXEL_SERVICE_LIST_serial_date and time(YYYYMMDDHHMMSS).csv
206: ERROR_LOG_serial_date and time(YYYYMMDDHHMMSS).csv
208: FW_UPGRADE_LOG_serial_date and time(YYYYMMDDHHMMSS).csv
210: POWER_ONOFF_LOG_serial_date and time(YYYYMMDDHHMMSS).csv
211: VERSION_LIST_serial_date and time(YYYYMMDDHHMMSS).csv
212: ENG_FW_LOG_serial_date and time(YYYYMMDDHHMMSS).csv
214: TOTAL_COUNTER_LIST_serial_date and time(YYYYMMDDHHMMSS).csv
221: 05DIFFERENCE_CODE_LIST_serial_date and time(YYYYMMDDHHMMSS).csv
222: 08DIFFERENCE_CODE_LIST_serial_date and time(YYYYMMDDHHMMSS).csv
223: JOB_LOG_serial_date and time(YYYYMMDDHHMMSS) (encrypted file)/
    MESSAGE_LOG_ serial_date and time(YYYYMMDDHHMMSS) (encrypted file)

5.13.2 List Printing

Lists below are output in the list print mode.
List data are printed out or output in a CSV format by storing them in a USB device. Paper sizes available for this printing are A4 or LT or larger. This section introduces a sample of each list.
To start the list print mode, turn the power on while pressing [9] + [START] button.

Lists	List code	
	Printout	CSV file output
Adjustment mode (05) data list	101	201
Setting mode (08) data list	102	202
PM support mode data list	103	203
Pixel counter list (toner cartridge reference)	104	204
Pixel counter list (service call reference)	105	205
Error history list	106 (Maximum 1000 items)	206 (Maximum 1000 items)
Error history list	107 (Latest 80 items)	-
Firmware upgrade log	108 (Maximum 200 items)	208 (Maximum 200 items)
Power ON/OFF log	110 (Maximum 100 items)	210 (Maximum 100 items)
Version list	111	211
Engine firmware log	-	212
Total counter list	114	214
(05) adjustment value difference	121	221
(08) setting value difference	122	222
Job log/Message log	-	223
Output all CSV files	-	300 *

*: (05) adjustment value difference and (08) setting value difference are not output.

e-STUDIO2050C/2051C/2550C/2551C
SELF-DIAGNOSTIC MODE

- Adjustment mode (05)

```
┌──────────────────────────────────────────────────────────────────┐
│                                                                    │
│  05 ADJUSTMENT MODE    DATA LIST                                   │
│                                    S/N: xxxxxxxx      TOTAL:    9999999 │
│  20xx-xx-xx xx:xx                  TOSHIBA e-STUDIOxxx DF TOTAL: 9999999 │
│                                                                    │
│   CODE     DATA    CODE     DATA    CODE     DATA    CODE     DATA  │
│                                                                    │
│   2000     128     3860      88     4830     128     5920     128   │
│    .        .       .         .      .        .       .        .   │
│    .        .       .         .      .        .       .        .   │
│    .        .       .         .      .        .       .        .   │
│    .        .       .         .      .        .       .        .   │
│    .        .       .         .      .        .       .        .   │
│    .        .       .         .      .        .       .        .   │
│    .        .       .         .      .        .       .        .   │
│    .        .       .         .      .        .       .        .   │
│    .        .       .         .      .        .       .        .   │
│    .        .       .         .      .        .       .        .   │
│    .        .       .         .      .        .       .        .   │
│    .        .       .         .      .        .       .        .   │
└──────────────────────────────────────────────────────────────────┘
```

Fig.5-23

The selected adjustment codes and the current adjustment value for each code are output in a list.
See the following page for the adjustment code (05):
Refer to "15. SELF-DIAGNOSIS CODE (03/04/05/08 CODE)" - "Adjustment Code (05)."

- Setting mode (08)

```
08  SETTING  MODE    DATA  LIST      S/N: xxxxxxxxx      TOTAL:       9999999

20xx-xx-xx xx:xx                     TOSHIBA e-STUDIOxxx  DF TOTAL:    9999999


CODE      DATA    CODE      DATA    CODE      DATA    CODE      DATA

 2010       2     2880       12     3040        0     3070        0
  .          .      .          .      .          .      .          .
  .          .      .          .      .          .      .          .
  .          .      .          .      .          .      .          .
  .          .      .          .      .          .      .          .
  .          .      .          .      .          .      .          .
  .          .      .          .      .          .      .          .
  .          .      .          .      .          .      .          .
  .          .      .          .      .          .      .          .
  .          .      .          .      .          .      .          .
  .          .      .          .      .          .      .          .
  .          .      .          .      .          .      .          .
  .          .      .          .      .          .      .          .
  .          .      .          .      .          .      .          .
```

Fig.5-24

The selected setting codes and the current setting value for each code are output in a list. See the following page for the setting code (08):
Refer to "15. SELF-DIAGNOSIS CODE (03/04/05/08 CODE)" - "Setting Code (08)"

• PM support mode

```
PM SUPPORT CODE LIST
                                    S/N: xxxxxxxx        TOTAL:        9999999
                                    TOSHIBA e-STUDIOxxx  DF TOTAL:     9999999
20xx-xx-xx xx:xx

UNIT                    OUTPUT PAGES/    PM OUTPUT PAGE/   DRIVE COUNTS   PM DRIVE COUNTS
                        DEVELOP COUNTS   DEVELOP COUNTS
DRUM (K)                2516             70000            11735          170000
DRUM BLADE (K)          2516             70000            11735          170000
GRID (K)                2516             70000            11735          170000
MAIN CHARGER NEEDLE (K) 2516             70000            11735          170000
CHARGER CLEANING PAD (K) 2516            70000            11735          170000
DRUM (Y)                411              70000            8625           170000
DRUM BLADE (Y)          411              70000            8625           170000
GRID (Y)                411              70000            8625           170000
MAIN CHARGER NEEDLE (Y) 411              70000            8625           170000
CHARGER CLEANING PAD (Y) 411             70000            8625           170000
DRUM (M)                411              70000            8625           170000
DRUM BLADE (M)          411              70000            8625           170000
GRID (M)                411              70000            8625           170000
MAIN CHARGER NEEDLE (M) 411              70000            8625           170000
CHARGER CLEANING PAD (M) 411             70000            8625           170000
         .               .                 .               .             .
         .               .                 .               .             .
         .               .                 .               .             .
```

Fig.5-25

The number of pages currently output (OUTPUT PAGES/DEVELOP COUNTS), the recommended number of output pages for PM (PM OUTPUT PAGES/DEVELOP COUNTS), the current drive count (DRIVE COUNTS) and the recommended drive count for PM (PM DRIVE COUNTS) are output together with PM units. Use this list for confirming the PM units to be replaced at each PM. See the following page for PM:
  P. 7-1 "7. PREVENTIVE MAINTENANCE (PM)"

• Stored information of pixel counter (toner cartridge reference)

```
PIXEL COUNTER CODE LIST              S/N: xxxxxxxxx        TOTAL:        9999999
                                     TOSHIBA e-STUDIOxxx   DF TOTAL:     9999999

20xx-xx-xx xx:xx

TONERCARTRIDGE


No DATE          COLOR                        PPC    PRN    FAX    TOTAL

0  20xx-xx-xx  Y   Print Count[LT/A4]          181    45     ---    226
1  20xx-xx-xx  Y   Average Pixel Count[%]      2.70   1.74   ---    2.51
2  20xx-xx-xx  Y   Latest Pixel Count[%]       6.15   0.39   ---    0.39
3  20xx-xx-xx  M   Print Count[LT/A4]          181    45     ---    226
4  20xx-xx-xx  M   Average Pixel Count[%]      6.11   2      ---    5.29
5  20xx-xx-xx  M   Latest Pixel Count[%]       6.82   2.15   ---    2.15
6  20xx-xx-xx  C   Print Count[LT/A4]          181    45     ---    226
7  20xx-xx-xx  C   Average Pixel Count[%]      5.46   2      ---    4.81
8  20xx-xx-xx  C   Latest Pixel Count[%]       6.42   2.73   ---    2.73
9  20xx-xx-xx  K   Print Count[LT/A4]          278    145    9      432
10 20xx-xx-xx  K   Average Pixel Count[%]      6.15   3.86   23.25  5.74
11 20xx-xx-xx  K   Latest Pixel Count[%]       7.32   2.19   6.25   2.19
```

Fig.5-26

Pixel counter data (toner cartridge reference) are output in a list. See the following page for the pixel counter:
📖 P. 5-48 "5.14 Pixel counter"

5

- Stored information of pixel counter (service technician reference)

```
PIXEL COUNTER CODE LIST          S/N: xxxxxxxxx      TOTAL:        9999999
                                 TOSHIBA e-STUDIOxxx  DF TOTAL:     9999999

20xx-xx-xx xx:xx

SERVICEMAN


No  DATE       COLOR                        PPC    PRN    FAX   TOTAL

0   20xx-xx-xx F   Print Count[LT/A4]       181    45     ---    226
1   20xx-xx-xx F   Average Pixel Count[%]   4.95   2.34   ---    4.43
2   20xx-xx-xx F   Latest Pixel Count[%]    8.36   2.34   ---    2.34
3   20xx-xx-xx Y   Print Count[LT/A4]       181    45     ---    226
4   20xx-xx-xx Y   Average Pixel Count[%]   2.7    1.74   ---    2.51
5   20xx-xx-xx Y   Latest Pixel Count[%]    6.15   0.39   ---    0.39
6   20xx-xx-xx M   Print Count[LT/A4]       181    45     ---    226
7   20xx-xx-xx M   Average Pixel Count[%]   6.11   2      ---    5.29
8   20xx-xx-xx M   Latest Pixel Count[%]    6.82   2.15   ---    2.15
9   20xx-xx-xx C   Print Count[LT/A4]       181    45     ---    226
10  20xx-xx-xx C   Average Pixel Count[%]   5.46   2.18   ---    4.81
11  20xx-xx-xx C   Latest Pixel Count[%]    6.42   2.73   ---    2.73
12  20xx-xx-xx K   Print Count[LT/A4]       181    45     ---    226
13  20xx-xx-xx K   Average Pixel Count[%]   5.51   3.43   ---    5.10
14  20xx-xx-xx K   Latest Pixel Count[%]    14.05  4.10   ---    4.10
15  20xx-xx-xx K   Print Count[LT/A4]       97     100    9      206
16  20xx-xx-xx K   Average Pixel Count[%]   7.36   4.06   23.25  6.45
17  20xx-xx-xx K   Latest Pixel Count[%]    7.32   2.19   6.25   2.19
```

Fig.5-27

Pixel counter data (service call reference) are output in a list. See the following page for the pixel counter:

• Error history

```
ERROR  HISTORY  LIST
                                    S/N: xxxxxxxxx        TOTAL:        9999999
                                    TOSHIBA e-STUDIOxxx   DF TOTAL:     9999999
20xx-xx-xx xx:xx

CODE   COUNTER    DATE       TIME      ZOOM_XY    ABCD EFHI JLOP Q R
F110   00000000   xxxx-xx-xx xx:xx:xx  000 000    0000_0000_0000_0_0000000000
F110   00000000   xxxx-xx-xx xx:xx:xx  000 000    0000_0000_0000_0_0000000000
F110   00000000   xxxx-xx-xx xx:xx:xx  000 000    0000_0000_0000_0_0000000000
F110   00000000   xxxx-xx-xx xx:xx:xx  000 000    0000_0000_0000_0_0000000000
F110   00000000   xxxx-xx-xx xx:xx:xx  000 000    0000_0000_0000_0_0000000000
EAD0   00000000   xxxx-xx-xx xx:xx:xx  000 000    0000_0000_0000_0_0000000000
E860   00000000   xxxx-xx-xx xx:xx:xx  000 000    0000_0000_0000_0_0000000000
E731   00000000   xxxx-xx-xx xx:xx:xx  000 000    0000_0000_0000_0_0000000000
E090   00000000   xxxx-xx-xx xx:xx:xx  000 000    0000_0000_0000_0_0000000000
E870   00000000   xxxx-xx-xx xx:xx:xx  000 000    0000_0000_0000_0_0000000000
E724   00000000   xxxx-xx-xx xx:xx:xx  000 000    0000_0000_0000_0_0000000000
```

Fig.5-28

The error history is output. See the following page for the parameters for each error:
📖 P. 8-31 "8.2.4 Printer function error"

- Firmware update log

Fig.5-29

Firmware update logs are output.
- MANUFACTURE DATE: the date of manufacture / UNPACKING DATE: the date that the equipment was unpacked.
- Only the versions of ROMs updated with USB device are output.

Item	Content
USER	User who updated firmware
ROM/VERSION	Version of firmware
DATE	Date that firmware was updated
TOTAL	Total counter data when firmware was updated
COPY (B)	Copier counter data (black) when firmware was updated
COPY (2)	Copier counter data (twin color) when firmware was updated
COPY (C)	Copier counter data (full color) when firmware was updated
PRINT (B)	Printer counter data (black) when firmware was updated
PRINT (2)	Printer counter data (twin color) when firmware was updated
PRINT (C)	Printer counter data (full color) when firmware was updated
LIST	List print counter data when firmware was updated
FAX	Fax print counter data when firmware was updated
STATUS	Result of update

• Power-ON/OFF log

```
POWER ON_OFF LOG
                                    S/N: xxxxxxxxx        TOTAL:      9999999
                                    TOSHIBA e-STUDIOxxx   DF TOTAL:   9999999
20xx-xx-xx xx:xx

DATE       TIME      FUNCTION    TOTAL            DATE       TIME      FUNCTION    TOTAL
xxxx-xx-xx xx:xx:xx  ON          99999999         xxxx-xx-xx xx:xx:xx  ON          99999999
xxxx-xx-xx xx:xx:xx  OFF         99999999         xxxx-xx-xx xx:xx:xx  OFF         99999999
xxxx-xx-xx xx:xx:xx  ON          99999999         xxxx-xx-xx xx:xx:xx  ON          99999999
xxxx-xx-xx xx:xx:xx  OFF         99999999         xxxx-xx-xx xx:xx:xx  OFF         99999999
xxxx-xx-xx xx:xx:xx  ON          99999999         xxxx-xx-xx xx:xx:xx  RMT_OFF     99999999
xxxx-xx-xx xx:xx:xx  OFF         99999999
xxxx-xx-xx xx:xx:xx  ON          99999999
xxxx-xx-xx xx:xx:xx  OFF         99999999
xxxx-xx-xx xx:xx:xx  RMT_OFF     99999999
xxxx-xx-xx xx:xx:xx  OFF         99999999
   .          .         .            .
   .          .         .            .
   .          .         .            .
```

Fig.5-30

Power ON/OFF logs are output.
- Note that cases that the power was turned OFF with the main switch (not with the [ON/OFF] button on the control panel) will not be displayed.

Item	Content
DATE	Date that the power was turned ON or OFF
TIME	Time that the power was turned ON or OFF
FUNCTION	Whether the power was turned ON or OFF, or if it was turned ON or OFF with a remote reset function
TOTAL	Total counter data when the power was turned OFF and then back ON

• Version list

```
VERSION LIST                              S/N: xxxxxxxxx        TOTAL:      9999999
                                          TOSHIBA e-STUDIOxxx   DF TOTAL:   9999999

20xx-xx-xx xx:xx

SYSTEM FIRMWARE ROM VERSION          : Txxxxxxxxxxx
SYSTEM FIRMWARE INTERNAL ROM VERSION: Vx.x.x.xx.xx
PRINTER ROM VERSION                  : xxxM-xxx
SCANNER ROM VERSION                  : xxxS-xxx
PFC ROM VERSION                      : xxxF-xxx
RADF ROM VERSION                     : DF-xxx
FINISHER STACKER ROM VERSION         : FIN-
FINISHER SADDLE ROM VERSION          : SDL-
FINISHER PUNCH ROM VERSION           : PUN-
FAX BOARD FIRMWARE ROM VERSION       : Fxx-xxx
SYSTEM FIRMWARE INTERNAL OS VERSION  : Vx.xxx.x.x
HDD DATA VERSION                     : Txxxxxxxxxxx
SYSTEM FIRMWARE OS VERSION           : Txxxxxxxxxxx
LANGUAGE VERSION
  English(US)                        : xxx.xxx  xxx xxx xx xx:xx:xx xxxx
           .                                         .
           .                                         .
           .                                         .

CAPACITY OF HDD                      : xx.x GB
DEVICE INFORMATION OF HDD            : xxx xxxxxxx-xxxxxx
SERIAL NUMBER OF HDD                 : xx-xxxxxxxxxxxx
MEMORY SIZE                          : xxxx MB / xxxx MB
INSTALLED ELK NAME                   : Data overwrite enabler
                                       IPSec enabler
                                       Meta scan enabler
                                       External interface enabler
                                                .
                                                .
                                                .
```

Fig.5-31

The list of versions is output.

Notes:
Some of the characters in the fonts that are used to print the version list are not supported. As a result, the language names under LANGUAGE VERSION may not be printed correctly when printing the version list.

- Engine firmware log

```
ENGINE FW LOG
20xx/xx/xx xx:xx
TOSHIBA e-STUDIOxxxx
Cxxxxxxxx
FIN S/N-xxxxxxxx
TOTAL, 9999999, DF TOTAL, 9999999

CODE        SUB      DATA

 4624        0        0
 4624        1        0
 4624        2        58
 4624        3        3
 4624        4        58
 4624        5        3
 4624        6        0
 4624        7        56
 4624        8        3
 4624        9        0
 4624       10        41
 4624       11        1
 4624       12        29
 4624       13        7
 4624       14        0
 4624       15        0
 4624       16        0
 4624       17        0
 4624       18        0
 4624       19        0
 4624       20        0
  .          .        .
  .          .        .
  .          .        .
  .          .        .
  .          .        .
  .          .        .
```

Fig.5-32

The log of engine firmware is output.

e-STUDIO2050C/2051C/2550C/2551C
SELF-DIAGNOSTIC MODE

• Total counter list

TOTAL COUNTER LIST   S/N: xxxxxxxxx TOTAL: 9999999
20xx-xx-xx xx:xx   TOSHIBA e-STUDIOxxx DF TOTAL: 9999999

PRINT COUNTER
  TOTAL

	FULL COLOR	TWIN/MONO COLOR	BLACK	TOTAL
COPY	37	0	1	38
FAX	0	0	0	0
PRINTER	122	0	60	182
LIST	0	0	0	0
TOTAL	159	0	61	220

  COPY

	FULL COLOR	TWIN/MONO COLOR	BLACK	TOTAL
SMALL	37	0	1	38
LARGE	0	0	0	0
TOTAL	37	0	1	38

  FAX

	FULL COLOR	TWIN/MONO COLOR	BLACK	TOTAL
SMALL	0	0	0	0
LARGE	0	0	0	0
TOTAL	0	0	0	0

  PRINTER

	FULL COLOR	TWIN/MONO COLOR	BLACK	TOTAL
SMALL	118	0	60	178
LARGE	4	0	0	4
TOTAL	122	0	60	182

  LIST

	FULL COLOR	TWIN/MONO COLOR	BLACK	TOTAL
SMALL	0	0	0	0
LARGE	0	0	0	0
TOTAL	0	0	0	0

CALIBRATION COUNTER : 0
SCAN COUNTER
  TOTAL

	FULL COLOR	TWIN/MONO COLOR	BLACK	TOTAL
COPY	7	0	1	8
FAX	0	0	0	0
NETWOF	0	0	0	0
TOTAL	7	0	1	8

  COPY

	FULL COLOR	TWIN/MONO COLOR	BLACK	TOTAL
SMALL	7	0	1	8
LARGE	0	0	0	0
TOTAL	7	0	1	8

  FAX

	FULL COLOR	TWIN/MONO COLOR	BLACK	TOTAL
SMALL	0	0	0	0
LARGE	0	0	0	0
TOTAL	0	0	0	0

  NETWORK

	FULL COLOR	TWIN/MONO COLOR	BLACK	TOTAL
SMALL	0	0	0	0
LARGE	0	0	0	0
TOTAL	0	0	0	0

Fig.5-33

The list of total counter is output.

- (05) adjustment value/(08) setting value difference

```
05 DIFFERENCE LIST                      S/N: xxxxxxxxx      TOTAL:        9999999

xx-xx-xx xx:xx                          TOSHIBA e-STUDIOxxxx  DF TOTAL:   9999999


     CODE      BACKUP     CURRENT        CODE      BACKUP      CURRENT

  *  2400      128        160
      .          .          .
      .          .          .
      .          .          .
      .          .          .
      .          .          .
      .          .          .
      .          .          .
      .          .          .
      .          .          .
      .          .          .
      .          .          .
      .          .          .
```

Fig.5-34

The function in which the 05/08 setting value differences between the factory default and the current value can be printed or output with a CSV file.
The difference list between the current values and backed up values of (05) adjustment value and (08) setting values is output. "*" is output on the left side of code if there is a difference, and "+" is output on the left side of code if there is no backed up value.

Notes:
- Back-up data of the factory default are automatically created when the automatic gamma adjustment of the easy set-up mode has been completed during the unpacking and setting up of the equipment. The back-up file is retained even if the firmware is upgraded. However, the file is deleted when 3C-3 (Format HDD) is performed or HDD/SSD is replaced.

- A back-up file does not exist for equipment to which the easy set-up mode has been performed before this function is applied.

- When the easy set-up mode is restarted while a specified value such as 4 through 8 is set for 08-9022 (Production process management status for easy setup), the back-up file stored during unpacking and setting up after the completion of the automatic gamma adjustment is deleted, and another file as of then is newly created.

- When no back-up file exists
When 9S-121 (122) is performed, the equipment returns to the ready state of the 9S mode without performing printing.
When 9S-221 (222) is performed, the equipment returns to the ready state of the 9S mode and the error message "The file cannot be saved." appears on the panel.

- When you want to create a back-up file if one does not exist
A back-up file can be automatically created after the completion of the automatic gamma adjustment when the easy set-up mode is restarted while a specified value such as 4 through 8 is set for 08-9022 (Production process management status for easy setup).
In this case, the current values are stored in the file, but not the ones for unpacking and setting up.

e-STUDIO2050C/2051C/2550C/2551C
SELF-DIAGNOSTIC MODE

5.14 Pixel counter

5.14.1 Outline

[1] Outline
Pixel counter is a function that counts the number of dots emitted by the LED printer heads and converts it into the print ratio (%) per standard paper size. This "Print ratio (%) per standard paper size" is called Pixel count (%).

This function enables you to know how each user uses the equipment and to grasp the tendency of toner consumption (number of output pages per cartridge).

[2] Factors affecting toner consumption
Standard number of output pages per cartridge shows the average number of output pages under the condition that the data of print ratio 6% is printed on the standard paper size (A4/LT) at a normal temperature and humidity.
However, users do not always print under the above condition. As for the type of original, copy/print mode and environment, each user has different tendency, and as a result, the number of output pages per cartridge becomes different depending on the user.

The major factors affecting toner consumption are as follows:
*   Original/Data coverage
*   Original/Data density
*   Original/Print mode
*   Density setting
Also there are other factors in addition to the above, such as environment, individual difference of equipment, difference in lot quality of materials, toner density and drum surface potential.

The general relations between the above 4 factors and toner consumption per output page in the copy function are as follows:
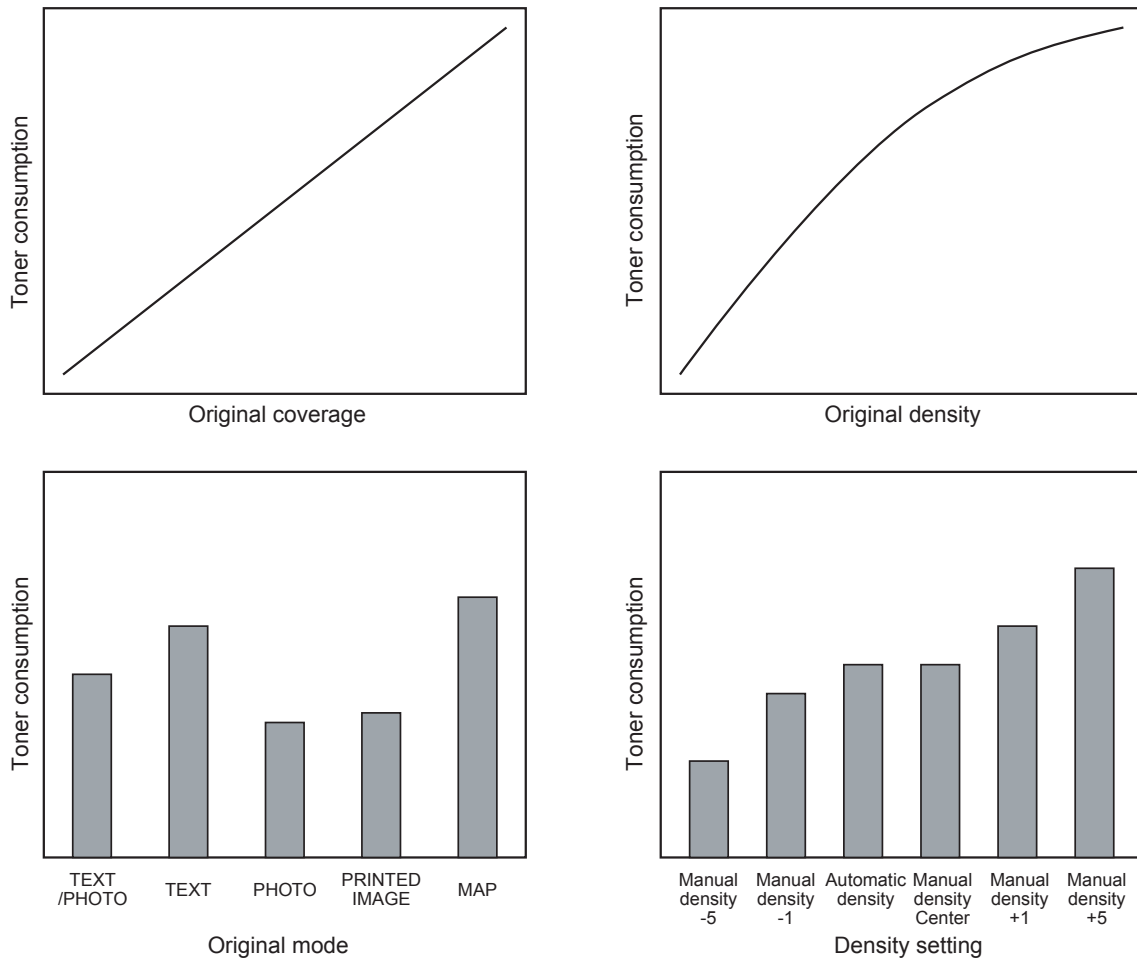
Fig.5-1 Factors affecting toner consumption and the tendency

[3]   Details of pixel counter
- Toner cartridge reference and service technician reference
  The pixel counter function in this equipment has 2 references, toner cartridge reference and service technician reference.

Toner cartridge reference
This is a system that accumulates data between the installation of a new toner cartridge and next installation.
The installation of new toner cartridge is judged when the total number of pixel count or output pages after the detection of toner cartridge empty has exceeded the threshold.
The threshold to be used is selectable in the setting mode (08-6506) between the pixel count and output pages (0: Output pages 1: Pixel counter). The threshold of pixel count is set in the setting mode (08-6508) and that of output pages is set in the setting mode (08-6507). When the new toner cartridge is judged as installed, the data related with the previous cartridge is cleared and replaced with the data after the installation of new cartridge. Clearing of the counter of the toner cartridge reference is performed in the setting mode (08-6503).

Service technician reference
This is a system that accumulates data between clearing the counter of the service technician reference by service technician and subsequently clearing the same counter.

Clearing of the counter of the service technician reference is performed in the setting mode (08-6502).

- Print count (number of output pages)
  The number of output pages shown at the pixel counter is counted after converting all paper sizes to the standard paper size (A4/LT). Printing on other than the standard size is converted by paper area ratio. The standard paper size is set in the setting mode (08-6500).
  The examples of conversion are as follows:
  Ex.)
  "1" is added to the print count when printing on A4/LT size.

  "2" is added to the print count when printing on A3/LD size. (area ratio to A4/LT: 200%)

  "1.49" is added to the print count when printing on B4 size. (area ratio to A4: 149%)

  "1.27" is added to the print count when printing on LG size. (area ratio to LT: 127%)

- Pixel count (%)
  Pixel count (%) shows the ratio of the emitting pixels of the LED printer heads to all pixels on standard paper.
  The examples of pixel count are as follows:

  Notes:
      In the following examples, 'solid copy' is considered to be 100%. But since the image has 4 margins, it never becomes 100% actually.
  Ex.)
  Printing 5 pages on A4/LT size with solid copy (LED printer heads emit to all pixels.)
  → Pixel count: 100%, Print count: 5

  Printing 5 pages on A4/LT size with blank copy (LED printer heads never emit.)
  → Pixel count: 0%, Print count: 5

  Printing 2 pages on A4/LT size with solid copy (LED printer heads emit to all pixels.)
  Printing 2 pages on A4/LT size with blank copy (LED printer heads never emit.)
  → Pixel count: 50%, Print count: 4

  Printing 3 pages on A4/LT size with 6% of LED printer heads emission
  Printing 1 page on A4/LT size with 2% of LED printer heads emission
  → Pixel count: 5%, Print count: 4

  Printing 2 pages on A3/LD size with solid copy (LED printer heads emit to all pixels.)
  → Pixel count: 100%, Print count: 4

  Printing 2 pages on A3/LD size with 6% of LED printer heads emission
  → Pixel count: 6%, Print count: 4

- Average pixel count (%) and latest pixel count (%)
  There are 2 types of the value calculated as the pixel count, average pixel count (%) and latest pixel count (%).

  Average pixel count (%)
  The average value of all pixel count data after each reference data is cleared is calculated and displayed.

  Latest pixel count (%)
  The value is displayed for printing just before the pixel counter is confirmed.

- Type of calculated data
  Since this is multifunctional and color equipment, the data of pixel count is calculated for each function and color.

The following list is the information that can be confirmed by LCD screen. But actually, more information can be confirmed by the setting mode (08).
See after-mentioned "5)-Display in the setting mode (08)" for details.

Table 2-201 Type of calculated data

| | Toner cartridge reference | | | | Service technician reference | | | | | |
| | | | | | Full color/Twin color | | | | | Black |
	Yellow	Magenta	Cyan	Black	Total	Yellow	Magenta	Cyan	Black	
Copier function	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Printer function	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FAX function	No	No	No	Yes	No	No	No	No	No	Yes
Total	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Yes: With data
No: Without data

- Setting related with the pixel counter function
  Standard paper size setting
  The standard paper size (A4 or LT) to convert it into the pixel count is selected (08-6500).

  Pixel counter display setting
  Whether or not to display the pixel counter on the LCD screen is selected (08-6504).

  Display reference setting
  The reference when displaying the pixel counter on the LCD screen (toner cartridge reference or service technician reference) is selected (08-6505).

  Determination counter of toner empty
  This is the counter to determine the replacement of new toner cartridge after the toner empty is detected.
  After the toner empty is detected by the auto-toner sensor, this counter checks if toner empty is not detected one more time while the specified number of pixel count or output pages is counted.

  Pixel counter clearing
  There are 3 types for the pixel count clear as follows:
  08-6501: All information related to the pixel count is cleared.
  08-6502: All information related to the service technician reference pixel count is cleared.
  08-6503: All information related to the toner cartridge reference pixel count is cleared.

[4] Relation between pixel count and toner consumption

The user's printing out the image with large coverage or high density may cause the large value of pixel count. And the setting that toner consumption becomes high in the original mode or density setting may cause it as well.
In this case, the replacement cycle of toner cartridge is faster than the standard number of output pages. Therefore, this trend needs to be grasped for the service.
The relation between pixel count and number of output pages per cartridge is as follows:

5

e-STUDIO2050C/2051C/2550C/2551C
SELF-DIAGNOSTIC MODE
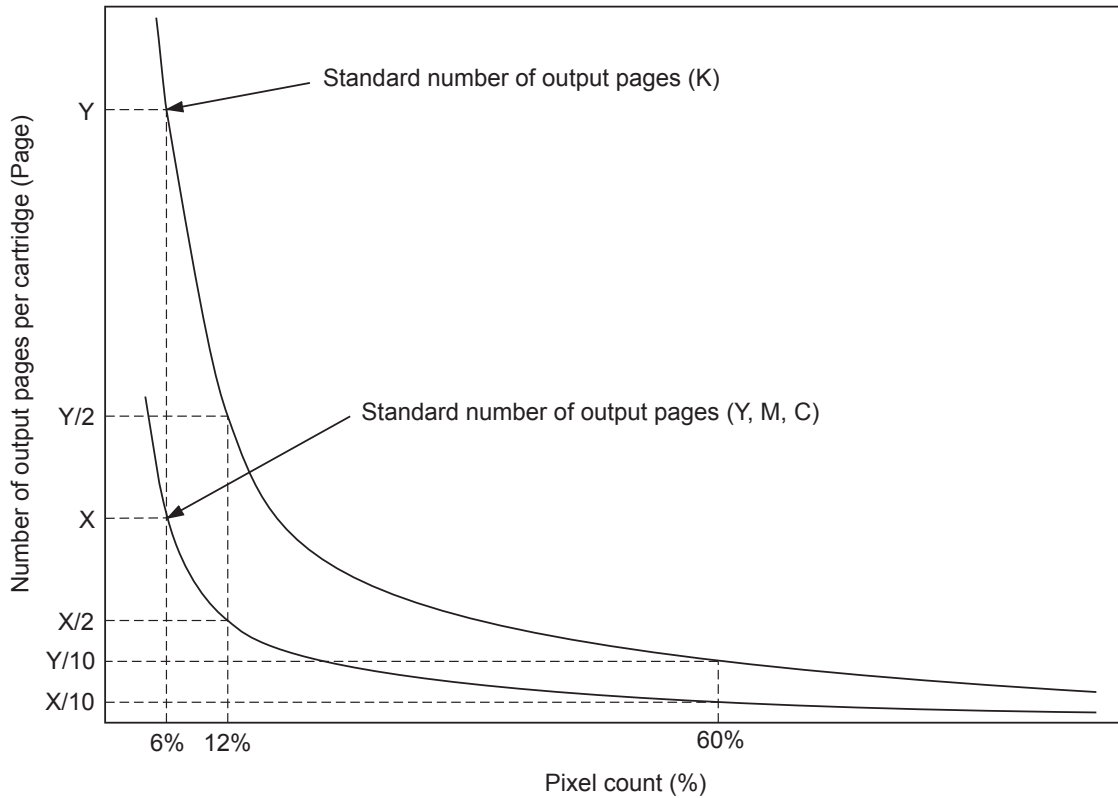
Fig.5-2 Pixel count and number of output pages per cartridge

[5]   Pixel counter confirmation

- Display on LCD screen
  Whether or not to display the pixel counter on the LCD screen is selected (0: Displayed, 1: Not displayed) in the setting mode (08-6504), and whether or not to display it at the service technician reference or toner cartridge reference is selected (0: Service technician reference, 1: Toner cartridge reference) in the setting mode (08-6505).

  The following screen is displayed when the buttons, [COUNTER] and [PIXEL COUNTER] are pressed in this order after "Displayed" is selected with the code above and the power is, as usual, turned ON. (The displayed buttons are depending on the setting of 08-6505.)
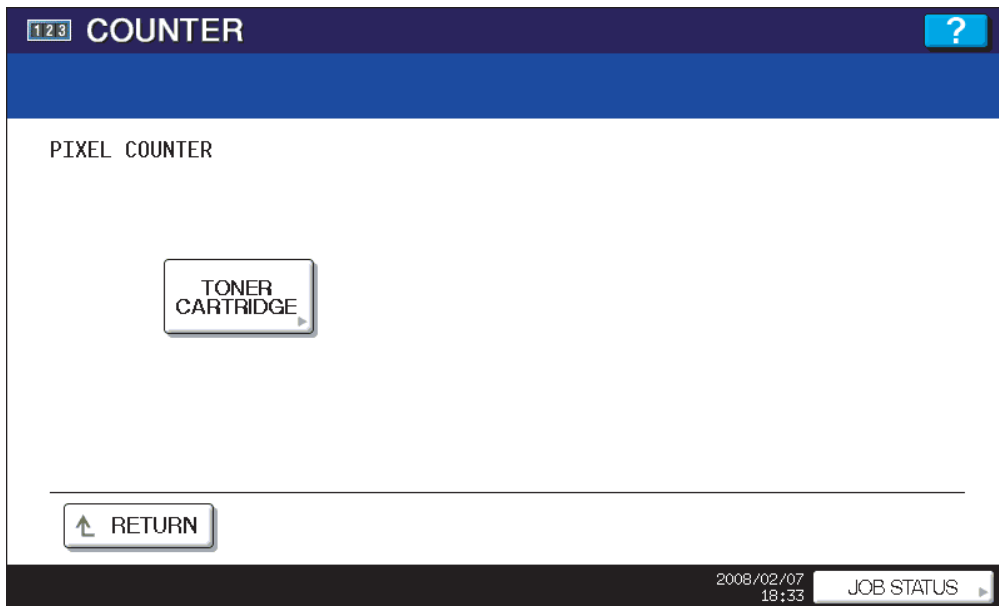
Fig.5-3
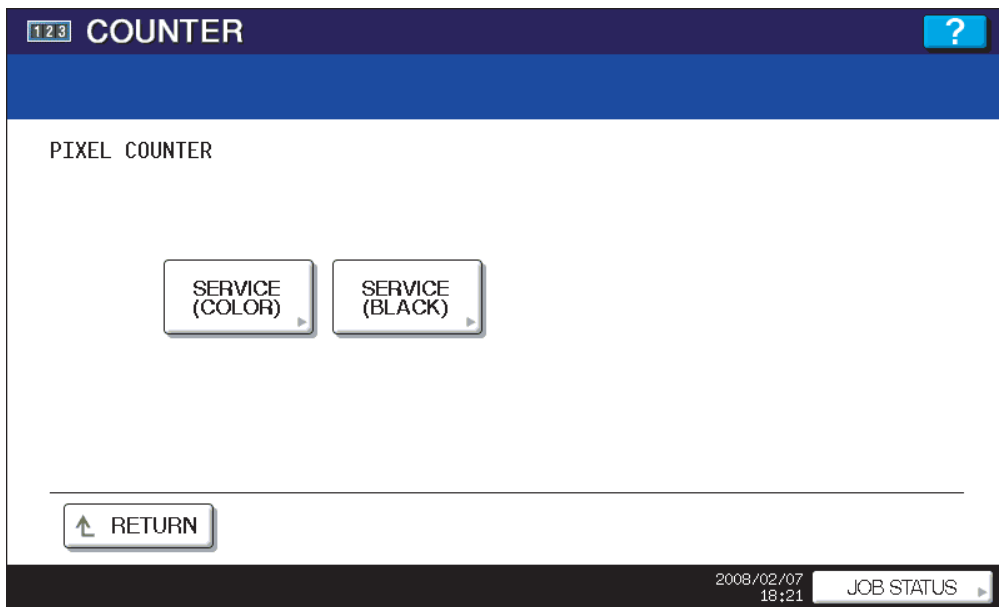
Fig.5-4 Reference selection screen

When selecting and pressing the button in the above screen, each pixel counter screen is displayed.
[TONER CARTRIDGE] button: Information screen of toner cartridge reference is displayed.
[SERVICE (COLOR)] button: Information screen of service technician reference (full color) is displayed.
[SERVICE (BLACK)] button: Information screen of service technician reference (black) is displayed.

The following screen is displayed when pressing the [TONER CARTRIDGE] button.

e-STUDIO2050C/2051C/2550C/2551C
SELF-DIAGNOSTIC MODE
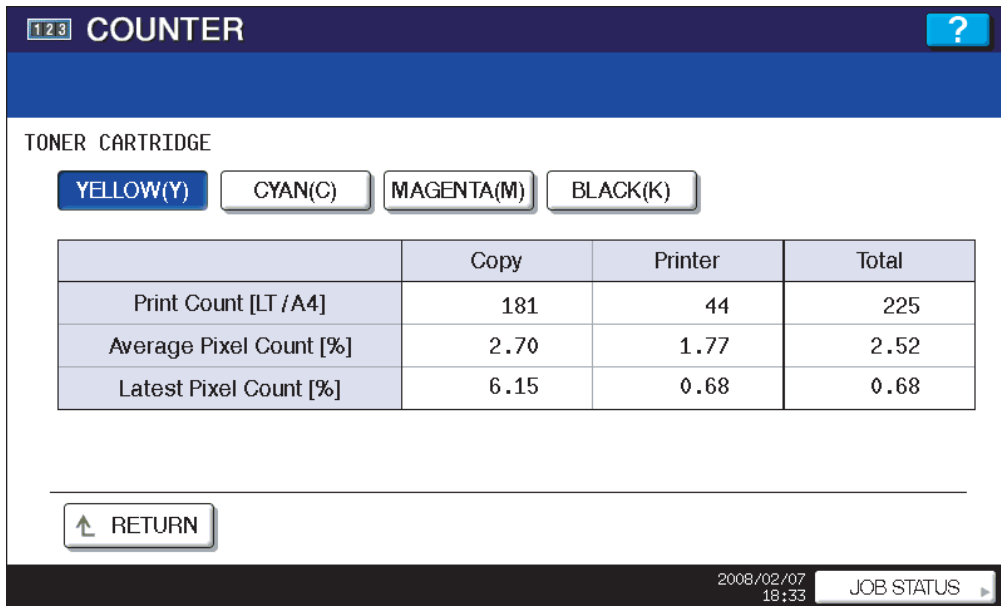
Fig.5-5 Information screen of toner cartridge reference

The following screen is displayed when pressing the [SERVICE (COLOR)] button.
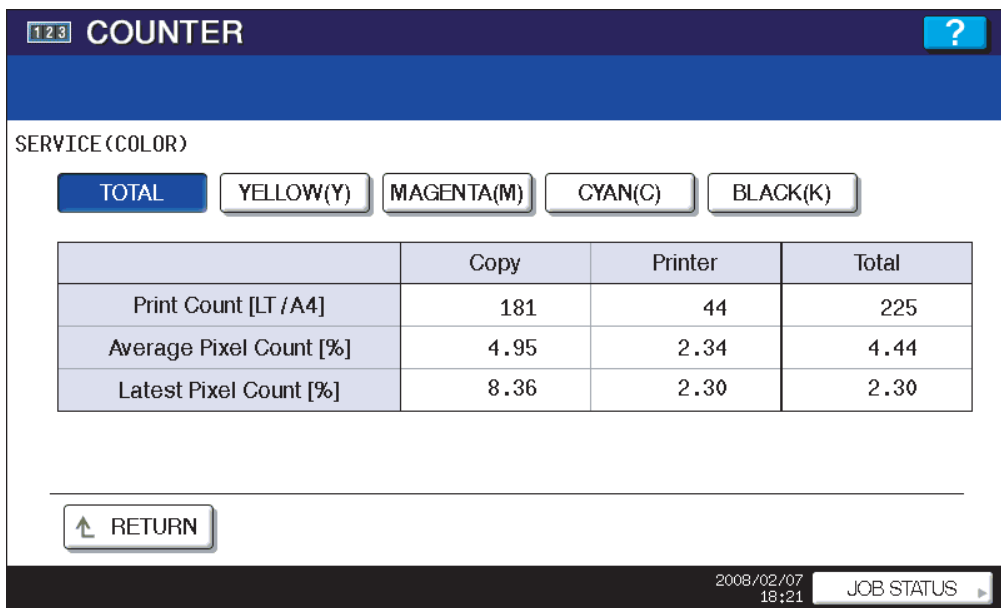
Fig.5-6 Information screen of service technician reference (full color)

The following screen is displayed when pressing the [SERVICE (BLACK)] button.

5 - 55

SERVICE(BLACK)

	Copy	Printer	Fax	Total
Print Count [LT /A4]	91	91	8	190
Average Pixel Count [%]	7.29	4.09	25.38	6.52
Latest Pixel Count [%]	0.15	0.96	29.98	0.15

⬆ RETURN

2008/02/07
18:23   JOB STATUS ▶

5

Fig.5-7 Information screen of service technician reference (black)

- Data list printing
  The data for pixel counter can be printed in the list print mode (9S).
  9S-104: The data of the toner cartridge reference is printed.
  9S-105: The data of service technician reference is printed.

```
PIXEL COUNTER CODE LIST          S/N: xxxxxxxxx        TOTAL:        9999999

                                 TOSHIBA e-STUDIOxxx   DF COUNTER:   9999999
'08-02-08 20:13




TONERCARTRIDGE

No DATE      COL.                        PPC    PRN    FAX    TOTAL
----------------------------
0  20080208  Y   Print Count[LT/A4]       181    45    ---     226
1  20080208  Y   Average Pixel Count[%]  2.70   1.74   ---    2.51
2  20080208  Y   Latest Pixel Count[%]   6.15   0.39   ---    0.39
3  20080208  M   Print Count[LT/A4]       181    45    ---     226
4  20080208  M   Average Pixel Count[%]  6.11    2     ---    5.29
5  20080208  M   Latest Pixel Count[%]   6.82   2.15   ---    2.15
6  20080208  C   Print Count[LT/A4]       181    45    ---     226
7  20080208  C   Average Pixel Count[%]  5.46    2     ---    4.81
8  20080208  C   Latest Pixel Count[%]   6.42   2.73   ---    2.73
9  20080208  K   Print Count[LT/A4]       278   145     9      432
10 20080208  K   Average Pixel Count[%]  6.15   3.86  23.25   5.74
11 20080208  K   Latest Pixel Count[%]   7.32   2.19   6.25   2.19
```

Fig.5-8 Data list of toner cartridge reference

```
PIXEL COUNTER CODE LIST

                              S/N: xxxxxxxx        TOTAL:         9999999
'08-02-08 20:13               TOSHIBA e-STUDIOxxx  DF COUNTER:    9999999


SERVICEMAN


No  DATE       COL.                      PPC    PRN    FAX   TOTAL
--------------------------
0   20080208   F   Print Count[LT/A4]     181    45    ---    226
1   20080208   F   Average Pixel Count[%] 4.95   2.34  ---    4.43
2   20080208   F   Latest Pixel Count[%]  8.36   2.34  ---    2.34
3   20080208   Y   Print Count[LT/A4]     181    45    ---    226
4   20080208   Y   Average Pixel Count[%] 2.7    1.74  ---    2.51
5   20080208   Y   Latest Pixel Count[%]  6.15   0.39  ---    0.39
6   20080208   M   Print Count[LT/A4]     181    45    ---    226
7   20080208   M   Average Pixel Count[%  6.11   2     ---    5.29
8   20080208   M   Latest Pixel Count[%]  6.82   2.15  ---    2.15
9   20080208   C   Print Count[LT/A4]     181    45    ---    226
10  20080208   C   Average Pixel Count[%] 5.46   2.18  ---    4.81
11  20080208   C   Latest Pixel Count[%]  6.42   2.73  ---    2.73
12  20080208   K   Print Count[LT/A4]     181    45    ---    226
13  20080208   K   Average Pixel Count[%] 5.51   3.43  ---    5.10
14  20080208   K   Latest Pixel Count[%]  14.05  4.10  ---    4.10
15  20080208   K   Print Count[LT/A4]     97     100   9      206
16  20080208   K   Average Pixel Count[%] 7.36   4.06  23.25  6.45
17  20080208   K   Latest Pixel Count[%]  7.32   2.19  6.25   2.19
```

Fig.5-9 Data list of service technician reference

- Display in the setting mode (08)

  Information of pixel count can be also checked in the setting mode (08).

  For details, see "15. SELF-DIAGNOSIS CODE (03/04/05/08 CODE)" - "SETTING CODE (08)".

Print count, pixel count

Table 2-202 Pixel count code table (toner cartridge reference)

		Full color/Twin color				Black	Black (at color) + Black
		Yellow	Magenta	Cyan	Black		
Copier function	Print count (page)	6567	6569	6571	6562	6563	-
	Average pixel count (%)	6619	6620	6621	6622	6623	6624
	Latest pixel count (%)	6636	6637	6638	6639	6724	-
Printer function	Print count (page)	6568	6570	6572	6564	6565	-
	Average pixel count (%)	6625	6626	6627	6628	6629	6630
	Latest pixel count (%)	6640	6641	6642	6643	6725	-
FAX function	Print count (page)	-	-	-	-	6566	-
	Average pixel count (%)	-	-	-	-	6635	-
	Latest pixel count (%)	-	-	-	-	6644	-
Total	Average pixel count (%)	6631	6632	6633	-	-	6634

Table 2-203 Pixel count code table (service technician reference)

		Full color/Twin color					Black
		Total	Yellow	Magenta	Cyan	Black	
Copier function	Print count (page)	6557	-	-	-	-	6558
	Average pixel count (%)	6587	6588	6589	6590	6591	6602
	Latest pixel count (%)	6606	6607	6608	6609	6610	6616
Printer function	Print count (page)	6559	-	-	-	-	6560
	Average pixel count (%)	6592	6593	6594	6595	6596	6603
	Latest pixel count (%)	6611	6612	6613	6614	6615	6617
FAX function	Print count (page)	-	-	-	-	-	6561
	Average pixel count (%)	-	-	-	-	-	6604
	Latest pixel count (%)	-	-	-	-	-	6618

		Full color/Twin color					Black
		Total	Yellow	Magenta	Cyan	Black	
Total	Average pixel count (%)	6597	6598	6599	6600	6601	6605

Pixel count distribution
Table 2-204 Pixel count code table

		Full color/Twin color				Black
		Yellow	Magenta	Cyan	Black	
Copier function	Print count distribution (page)	6713	6714	6715	6716	6721
Printer function	Print count distribution (page)	6717	6718	6719	6720	6722
FAX function	Print count distribution (page)	-	-	-	-	6723

Notes:
By entering the sub code at the above code, the pixel count distribution can be displayed dividing into 10 ranges. The sub codes are as follows.

0: 0 - 5%   1: 5.1 - 10%   2: 10.1 - 15%   3: 15.1 - 20%   4: 20.1 - 25%
5: 25.1 - 30%   6: 30.1 - 40%   7: 40.1 - 60%   8: 60.1- 80%   9: 80.1 - 100%

Other information
Toner cartridge replacement counter.
The toner cartridge replacement count is displayed.
    08-6573: Toner cartridge Y
    08-6574: Toner cartridge M
    08-6575: Toner cartridge C
    08-6576: Toner cartridge K

Toner cartridge reference count started date
The toner cartridge reference count started date is displayed.
    08-6519: Toner cartridge Y
    08-6520: Toner cartridge M
    08-6521: Toner cartridge C
    08-6522: Toner cartridge K

Service technician reference cleared date
The service technician reference cleared date (08-6510) is displayed.
The date (08-6502 was performed) is stored.

Toner cartridge reference cleared date
The toner cartridge reference cleared date is displayed.
The date (08-6503 was performed) is stored.
    08-6511: Toner cartridge Y
    08-6512: Toner cartridge M
    08-6513: Toner cartridge C
    08-6514: Toner cartridge K

5.15 Batch setting for installing/disconnection HDD

The setting values of the following codes are changed when "Batch setting for HDD installation (08-8759)" and "Batch setting for disconnecting HDD (08-8760)" are performed.

Notes:
Do not change the setting values of the following codes after performing "Batch setting for disconnecting HDD (08-8760)". If the values are changed, the operation cannot be guaranteed.

Code	Sub-code	Item	Description	Default value when 08-8759 is performed	Default value when 08-8760 is performed
08-8667		Saving image log	0: Disabled 1: Enabled	0	–
08-8668		Number of pages saved as image log	0: First page 1: All pages	1	–
08-8673		Disclosure of image log function	0: Not opened to public 1: Opened to public	0	–
08-8735		Sending setting of ScanToURL	0: Disabled 1: Enabled	0	–
08-8914	1	MFP function setting: e-Filing	0: Disable the function 1: Enable the function	1	0
	5	MFP function setting: Save as Local HDD	0: Disable the function 1: Enable the function	1	0
	6	MFP function setting: Save as Local HDD from Print	0: Disable the function 1: Enable the function	1	0
08-9599		Samba Server ON/OFF	1: Enable Samba 2: Disable Samba 3: Disable Print Share 4: Disable File Share	1	4
08-8900	0	Registration number for workflow: Total		2000	1000
	2	Registration number for workflow: Number of transmission and calling of Fax/InternetFax		100	50
	3	Registration number for workflow: Number of printing		1000	500
08-9121		Print setting without department code	0: Printed forcibly 1: Not printed 2: Deleted forcibly	1	2
08-9397		Execution of user authentication when the user ID is not entered	0: Forcible execution 1: Execution impossible (pooled in the invalid queue) 2: Forcible deletion	2	2
08-9946		Number of Email transmission retries	0-14	3	0
08-8526		Scan preview default setting	0: OFF 1: ON	No change	0

Code	Sub-code	Item	Description	Default value when 08-8759 is performed	Default value when 08-8760 is performed
08-8901		Fax preview default setting	0: OFF 1: ON	No change	0
08-8904		Job skip setting	0: Disabled 1: Enabled	No change	0
08-9344		Network print restriction mode	0: Normal mode 1: Private Print limited mode 2: Hold Print limited mode 3: Private/Hold Print limited mode	No change	0
08-9379		AES data encryption function setting	0: Encryption invalid 1: Encryption valid (Security priority) 2: Encryption valid (Performance priority)	No change	NAD: 2 Others: 0
08-8911		Security mode (level) setting	Security function level setting 1: Low security 2: - 3: High security 4: -	No change	1

5

6. SETTING / ADJUSTMENT

6.1 Image Related Adjustment

6.1.1 Adjustment Order

This chapter mainly explains the procedures for image related adjustment. When replacing components which have other specified instructions for adjustment, those specified instructions are to be obeyed in priority.

In the following diagram, the solid lines with arrow lead to essential adjustments, while the dotted lines lead to adjustments to be performed if necessary.

Parts to be replaced				
Developer material	Photoconductive drum	Drum cleaning blade	Transfer belt(*1)	LED head(*1)
	1st transfer roller(*1)	Image position aligning sensor(*1)	Needle electrode	LED gap spacer
	Main charger grid		Image quality sensor(*1)	

Item to be adjusted	Code in mode 05
6.1.2 Adjustment of the auto-toner sensor(*2)	2400 (Y,M,C,K), 2401 (Yellow) 2402 (Magenta), 2403 (Cyan) 2404 (Black), 2406 (Y,M,C)

Life counter clear ([6] + [START] : PM support mode)

Item to be adjusted	Code in mode 05
6.1.3 Adjustment of image quality control / Forced performing of image quality closed-loop control	2742(*3)

Item to be adjusted	Code in mode 05
6.1.4 Adjustment of color registration control	4719

6.1.6 Image dimensional adjustment			
Order		Items	Code in mode 05
1		6.1.6 Paper alignment at the registration roller	4100, 4101, 4103, 4104, 4105, 4106, 4107, 4108, 4109, 4110, 4111, 4115, 4116, 4117, 4118, 4120, 4128, 4129
2	6.1.7 Image dimensional adjustment at the printing section	(a) Primary scanning data writing start position	4006
3		(b) Reproduction ratio of secondary scanning direction	4526
4		(c) Secondary scanning data writing start position	4402, 4058, 4059, 4060, 4061, 4062, 4560
5		(d) Primary scanning data writing start position at duplexing	4019
6	6.1.8 Image dimensional adjustment at the scanning section	(a) Image distortion	−
7		(b) Image location of primary scanning direction	3030
8		(c) Reproduction ratio of secondary scanning direction	3032
9		(d) Image location of secondary scanning direction	3031
10		(e) Top margin	4050
11		(f) Right margin	4052
12		(g) Bottom margin	4053
13	6.1.9 Image dimensional adjustment in the copy/printer/fax function	(h) Reproduction ratio adjustment of primary scanning direction (PPC)	7000
14		(i) Reproduction ratio adjustment of primary scanning direction (PRT/FAX)	7001 (*7)

Item to be adjusted	Code in mode 05
6.2.1 Automatic gamma adjustment (PPC)	7869 (*4), 7871-0, 2 to 4, 7, 8
6.3.1 Automatic gamma adjustment (PRT)	8008 (*5), 8004-0, 2 to 4, 7, 8, 8009 (*6), 8005-0, 2 to 4, 7, 8 (*6)

Adjust the image quality if necessary. ▶ (Chapter 6.2, 6.3, 6.4, 6.5)

END

*1: There is no need to perform counter clear.
*2: Adjust only the color changed.
*3: When upgrading firmware, perform the adjustment from 05-2742.
*4: Use [4] + [FAX] test pattern.
*5: For 600 dpi. Use [70] + [FAX] test pattern.
*6: For 1200 dpi. Use [230] + [FAX] test pattern. Not supported by LL20/25ppm model.
*7: Adjustment can be done only for enlarging image.

Fig.6-1

6.1.2 Adjustment of the Auto-Toner Sensor

When the developer material is replaced, adjust the auto-toner sensor in the following procedure.
If the value of 08-2707 (toner density ratio manual offset control) of the replacing developer material has been changed from "0" (default), return the sub code value of the corresponding color to "0".

(1) Install the cleaner unit and developer unit.

Notes:

Do not install the toner cartridge.

(2) While pressing [0] and [5] simultaneously, turn the power ON. The following message will be displayed.

[0] [5]
[POWER] →

```
┌─────────────────────────┬────┐
│ 100%               A     │ A3 │
│ TEST MODE                │    │
└─────────────────────────┴────┘
```
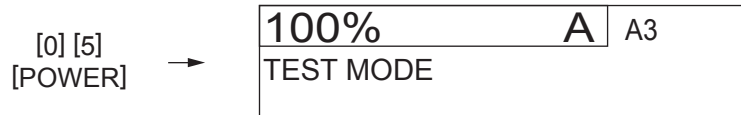
Fig.6-2

(3) Key in a code and press the [START] button.

Code	2400: All developer materials	2401: Developer material Y	2402: Developer material M
	2403: Developer material C	2404: Developer material K	2406: Developer material YMC

(Code)
↓

```
┌─────────────────────────┬────┐
│ 100%          2400       │ A3 │
│ TEST MODE                │    │
└─────────────────────────┴────┘
```
→ [START]
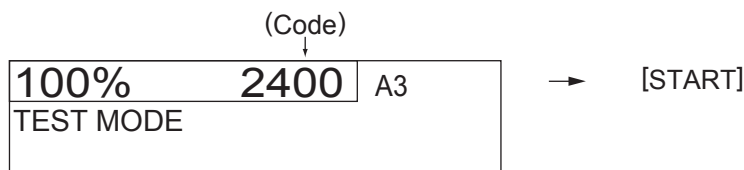
Fig.6-3

(4) The message below will be displayed approx. 2 minutes later and the adjustment starts:
   • During the adjustment, "Current sensor voltage (V)" shown in (B) automatically changes and gradually approaches to "Target value (V) for adjustment reference voltage" shown in (A).

```
(B) →  ┌──────────────────────────────────────────┐
       │ Y: x.xxV   M: x.xxV   C: x.xxV   K: x.xxV │
(C) →  │ Y:****     M:****     C:****     K:****   ww% │
(A) →  │ Y: z.zzV   M: z.zzV   C: z.zzV   K: z.zzV │
       └──────────────────────────────────────────┘
```
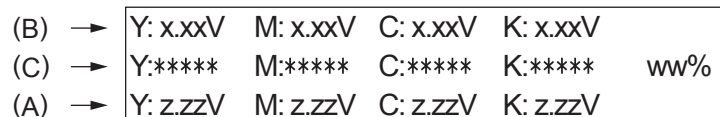
(B): Current sensor voltage (V)

(C): Adjustment value, Humidity (%)

(A): Target value (V) for adjustment reference voltage

Fig.6-4

(5) When the "Current sensor voltage (V)" in (B) is converged and the "Sensor output control value (bit value)" corresponding to the value for initial developer material is displayed in (C), the adjustment is completed.
   • When the adjustment is completed, the [OK] button is displayed on the screen.

(B) → | Y: x.xxV   M: x.xxV   C: x.xxV   K: x.xxV
(C) → | Y: yyy   M: yyy   C: yyy   K: yyy
(A) → | Y: z.zzV   M: z.zzV   C: z.zzV   K: z.zzV

   (B): Current sensor voltage (V)

   (C): Sensor output control value (bit value)

   (A): Target value (V) for adjustment reference voltage

Fig.6-5

Notes:
The values in (A), (B) and (C) vary with humidity.

(6) Press the [OK] button to store the adjustment result in the memory.

(7) Turn the power OFF and install the toner cartridges.

Notes:
When "Waste toner box replacement" is displayed at adjustment, follow the steps below.

   <When "Waste toner box replacement" is displayed>
   📖 Basic Manual "[E] Waste toner box replacement"
   1.Replace the waste toner box with a new one and close the front cover.
   2.Key in [4833] (Recovery from toner empty/waste toner full).
   3.Check that "WAIT" is displayed.

6.1.3 Performing Image Quality Control

(1) When unpacking
Prior to image dimensional adjustment, perform the "Forced performing of image quality closed-loop control (05-2742)" procedure.

(2) When any of the following parts is replaced, be sure to perform the "Forced performing of image quality closed-loop control (05-2742)" procedure.

- Photoconductive drum
- Developer material
- LED printer head
- LED gap spacer
- Transfer belt
- 1st transfer roller
- Drum cleaning blade
- Needle electrode
- Main charger grid
- Image position aligning sensor (Front)
- Image position aligning sensor (Rear)/Image quality sensor

Notes:
When performing "Automatic gamma adjustment" in addition, "Forced performing of image quality closed-loop control (05-2742)" should be done first.

(3) When performing "Automatic gamma adjustment" in cases no parts written above are replaced, do the "Forced performing of image quality closed-loop control (05-2742)" procedure before "Automatic gamma adjustment".

Code	Item to be adjusted	Contents
2742	Forced performing of image quality closed-loop control	<Procedure> 1. While pressing [0] and [5] simultaneously, turn the power ON. → Adjustment Mode 2. Key in [2742] and press the [START] button. 3. "WAIT" is displayed. 4. When the adjustment finishes normally, the equipment returns to the initial state of Adjustment Mode. When an error occurs <When "Waste toner box replacement" is displayed> 📖 Basic Manual "[E] Waste toner box replacement" 1. Replace the waste toner box with a new one and close the front cover. 2. Key in [4833] (Recovery from toner empty/waste toner full). 3. Check that "WAIT" is displayed. <When toner empty is displayed> 📖 Basic Manual "[C] No toner in the cartridge" 1. Replace the empty toner cartridge with a new one and close the front cover. 2. Key in [4833] (Recovery from toner empty/waste toner full). 3. Check that "WAIT" is displayed. <Other abnormalities> Take the appropriate action described in Troubleshooting. 📖 P. 8-1 "8. ERROR CODE AND TROUBLESHOOTING"

6.1.4 Adjustment of Color Registration Control

After having finished the "Forced performing of image quality closed-loop control (05-2742)" procedure, perform the "Forced performing of color registration control adjustment (05-4719)" procedure.

Code	Item to be adjusted	Contents
4719	Forced performing of color registration control	<Procedure> 1. While pressing [0] and [5] simultaneously, turn the power ON. → Adjustment mode 2. Key in [4719] and press the [START] button. 3. When the adjustment finishes normally, the equipment returns to the initial state of Adjustment Mode. If the following errors are displayed after performing 05-4719, clear the error by following the steps below, and then perform 05-4719 again. <When "Waste toner box replacement" is displayed> 📖 Basic Manual "[E] Waste toner box replacement" 1. Replace the waste toner box with a new one and close the front cover. 2. Key in [4833] (Recovery from toner empty/waste toner full). 3. Check that "WAIT" is displayed. <When toner empty is displayed> 📖 Basic Manual "[C] No toner in the cartridge" 1. Replace the empty toner cartridge with a new one and close the front cover. 2. Key in [4833] (Recovery from toner empty/waste toner full). 3. Check that "WAIT" is displayed. <Other abnormalities> Take the appropriate action described in Troubleshooting. 📖 P. 8-1 "8. ERROR CODE AND TROUBLESHOOTING"

6

6.1.5 Image Dimensional Adjustment

There are several adjustment items in the image dimensional adjustment, as listed below. Prior to this image dimensional adjustment, perform "Forced performing of image quality closed-loop control (05-2742)" and "Forced performing of color registration control (05-4719)".
When adjusting these items, the following adjustment order should strictly be observed.

Item to be adjusted		Code in mode 05
1. Paper alignment at the registration roller		4100, 4101, 4103, 4104, 4105, 4106, 4107, 4108, 4109, 4110, 4111, 4115, 4116, 4117, 4118, 4120, 4128, 4129
2. Printer-related image dimensional adjustment	Primary scanning data writing start position	4006
	Reproduction ratio of secondary scanning direction (Fine adjustment of transfer belt motor rotation speed)	4526
	Secondary scanning data writing start position	4402, 4058, 4059, 4060, 4560, 4061, 4062
	Primary scanning data writing start position at duplexing	4019
3. Scanner-related image dimensional adjustment	Image distortion	-
	Image location of primary scanning direction	3030
	Reproduction ratio of secondary scanning direction	3032
	Image location of secondary scanning direction	3031
	Top margin	4050
	Right margin	4052
	Bottom margin	4053
4. Image dimensional adjustment in the copy/printer/fax function	Reproduction ratio adjustment of primary scanning direction (PPC)	7000
	Reproduction ratio adjustment of primary scanning direction (PRT/FAX)	7001*1

*1: Adjustment can be done only for enlarging image.

[Procedure to key in adjustment values]

In accordance with the procedure described below, make adjustment of each adjustment item so that the measured values obtained from test copies satisfy the specification. By pressing the [FAX] button, immediately after starting the Adjustment Mode (05), single-sided test copying can be performed (normal copy mode).

<Operation keys>   <Display>

```
  [0]   [5]                    ┌──────────────────────┐
  [POWER]                      │ 100%            A │ A3 │
                               │ TEST MODE            │
 ①──→│                         └──────────────────────┘
  [Digital keys] : Key in codes.
     │                                        ┌── Code No.
  [START]                       ┌──────────────────────┐
     │                          │ 100%         XXX │ A3 │
  [Digital keys] : Key in       │ TEST MODE            │
     │          adjustment      │    ──→ YYY      ZZZ ←─│── Adjustment value newly keyed in.
                values.         └──────────────────────┘   (If no entering, YYY is displayed.)
  ([CLEAR] Use to make corrections)    └── Current adjustment value
     │
   [OK]      Value ZZZ is stored  ┌──────────────────────┐
    or       replacing values YYY.│ 100%            A │ A3 │
  [INTERRUPT]                     │ TEST MODE            │
     │                            └──────────────────────┘
   [FAX]  ┐
     │    ├ Test copy            ┌──────────────────────┐
  [START] ┘                      │ 100%            A │ A3 │
                                 │ Wait Warming Up      │
     │  ──→ If the test copy does not └──────────────────┘
           satisfy the specified values,
           return to step ① and  ┌──────────────────────┐
           repeat the adjustment  │ 100%            A │ A3 │
           procedure.             │ COPYING              │
     │                            └──────────────────────┘
  [Power OFF/ON] : Exit the Adjustment Mode.
```

Fig.6-6

e-STUDIO2050C/2051C/2550C/2551C
SETTING / ADJUSTMENT

6.1.6 Paper alignment at the registration roller

[A] Adjustment with touch panel

Paper alignment at the registration roller can be adjusted in the following procedure by performing the code 05-4579.

1. Select the drawer.
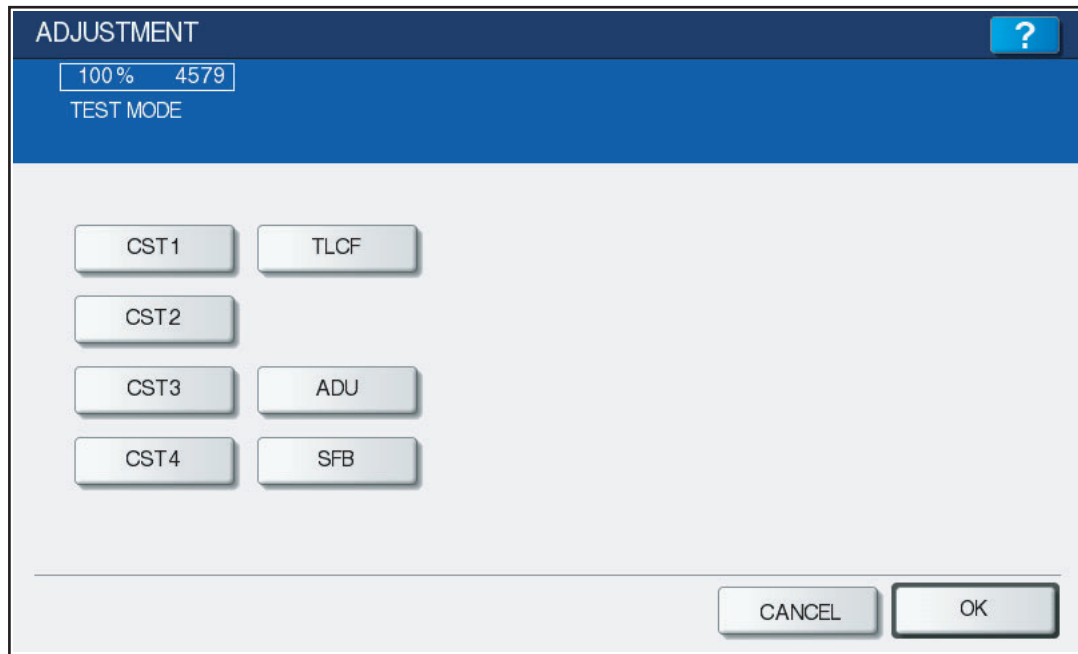
Fig.6-7

2. Select the paper size.
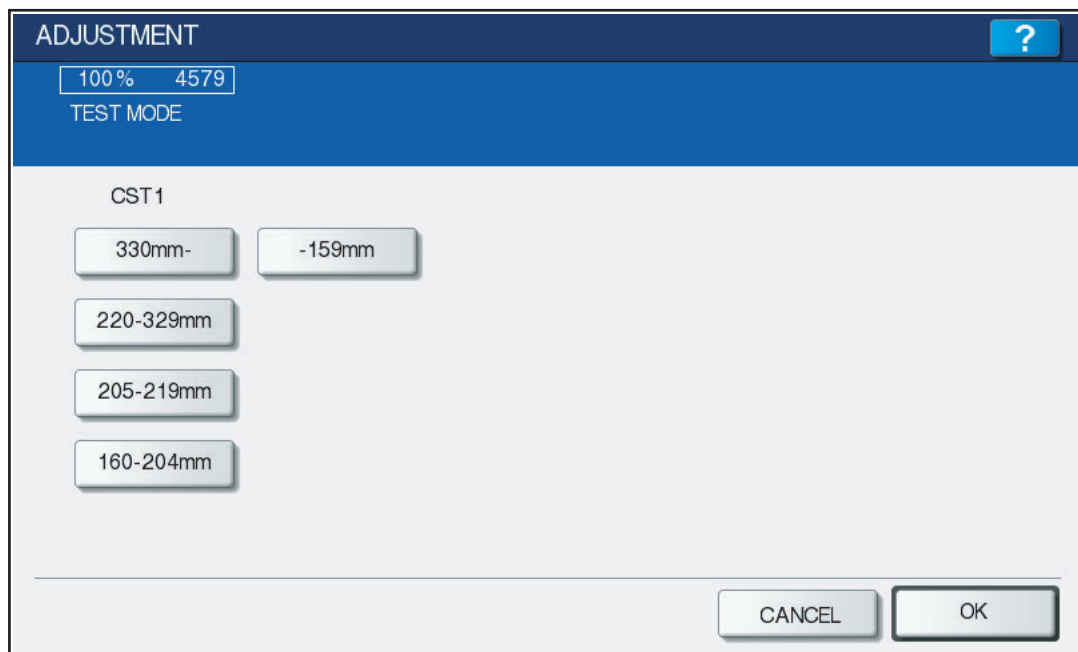
Fig.6-8

3. Select the media type.
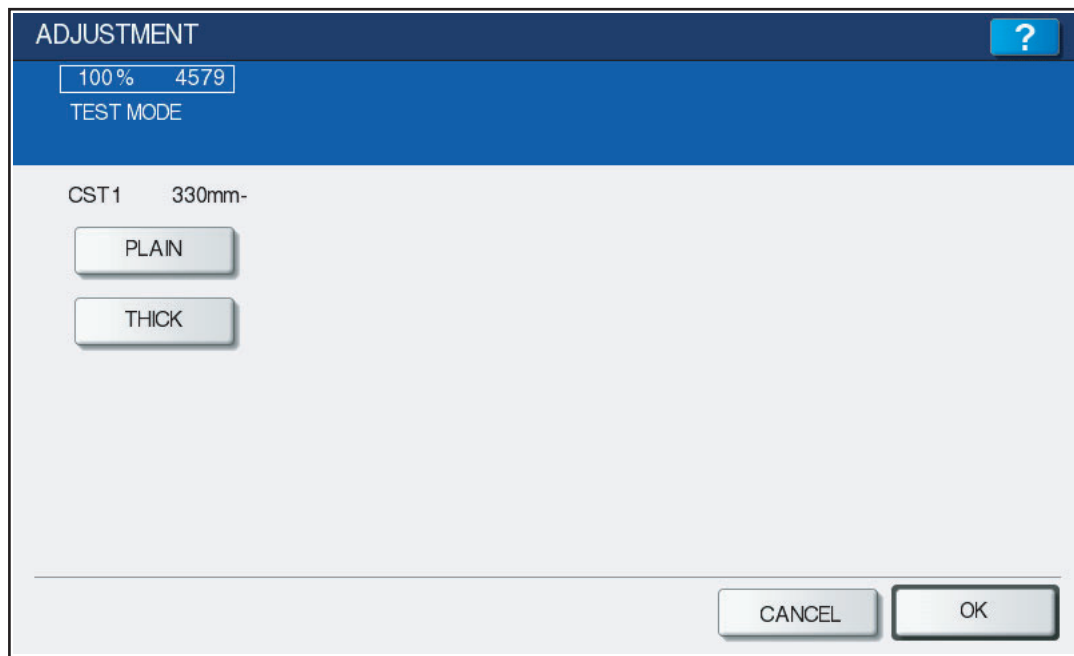
Fig.6-9

4. Key in the adjustment value.
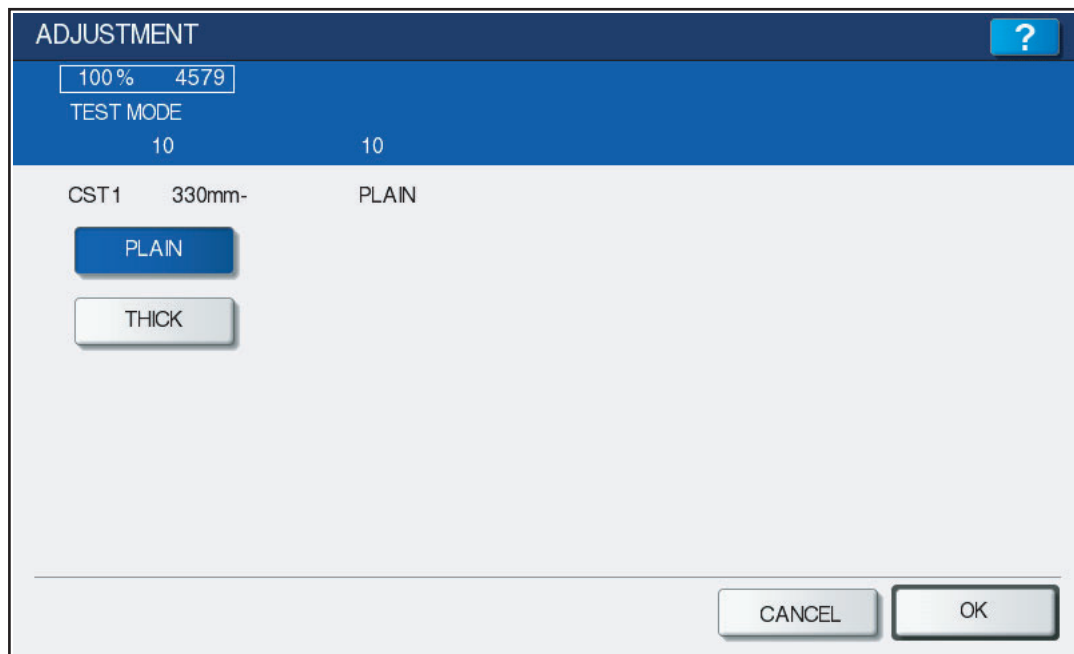
Fig.6-10

5. Press the [OK] button to finish the adjustment.
* Press the [FUNCTION CLEAR] or [CANCEL] button to return to the previous menu.

e-STUDIO2050C/2051C/2550C/2551C
SETTING / ADJUSTMENT

[B] Adjustment by direct code entry

The aligning amount is adjusted by using the following codes in Adjustment Mode (05).

Drawer	Code	Sub code	Paper size (Select the paper size with the sub code.)	Paper type*
1st drawer (CST1)	4100	0,1,2,3,4	0: 330 mm or longer (13.0 inches or longer) 1: 220–329 mm (8.7–12.9 inches) 2: 205–219 mm (8.1–8.6 inches) 3: 160-204 mm (6.3–8.0 inches) 4: 159 mm or shorter (6.26 inches or shorter)	Plain paper
	4115	0,1,2,3,4		Thick paper 1
2nd drawer (CST2)	4101	0,1,2,3,4		Plain paper
	4116	0,1,2,3,4		Thick paper 1
3rd drawer (CST3)	4108	0,1,2,3,4		Plain paper
	4117	0,1,2,3,4		Thick paper 1
4th drawer (CST4)	4109	0,1,2,3,4		Plain paper
	4118	0,1,2,3,4		Thick paper 1
Bypass feed	4103	0,1,2,3,4		Plain paper
	4104	0,1,2,3,4		Thick paper 1
	4105	0,1,2,3,4		Thick paper 2
	4107	0,1,2,3,4		OHP
	4128	0,1,2,3,4		Special paper 1
	4129	0,1,2,3,4		Special paper 2
LCF	4111		-	Plain paper
ADU	4110	0,1,2,3,4	0: 330 mm or longer (13.0 inches or longer) 1: 220–329 mm (8.7–12.9 inches) 2: 205–219 mm (8.1–8.6 inches) 3: 160-204 mm (6.3–8.0 inches) 4: 159 mm or shorter (6.26 inches or shorter)	Plain paper
	4120	0,1,2,3,4		Thick paper 1/Special paper 1/Special paper 2

*Weight:
Plain paper: 60 to 105 g/m2 (16 lb. Bond to 28 lb. Bond)
Thick paper 1: 106 to 163 g/m2 (28 lb. Bond to 60 lb. Cover (90 lb. Index))
Thick paper 2: 164 to 209 g/m2 (61 lb. Cover to 77.3 lb. Cover (115.7 lb. Index))

\<Procedure\>
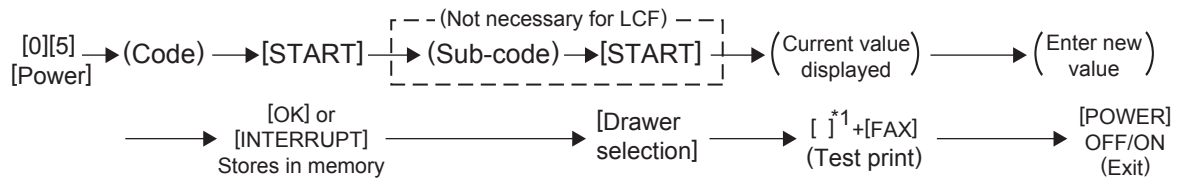
Fig.6-11

(*1)　1:　　Single-sided grid pattern in Black Mode
　　　3:　　Double-sided grid pattern in Black Mode
　　　55:　Grid pattern of thick paper 2 in Full Color Mode
　　　57:　Grid pattern of OHP film in Full Color Mode
　　　58:　Single-sided grid pattern of thick paper 2 in Black Mode
　　　60:　Single-sided grid pattern of OHP film in Black Mode
　　　98:　Single-sided grid pattern in K(4)* Mode

K(4)*: System in which the test pattern is printed only in the black mode, though the four color developers (Y, M, C, K) are contacted to the transfer belt.

Notes:
If the aligning amount is too large, abnormal noise (paper-folding noise) or actual paper folding may occur during paper feeding. If the aligning amount is too small, on the other hand, a skew, an image dislocation in feeding direction, E010 (Jam not reaching the exit sensor), E011 (Transfer belt paper-clinging jam), or E013 (The paper jam occurred between the registration pass sensor and the paper clinging detection sensor) may occur. Pay attention to the above and select the appropriate value.

6.1.7 Image dimensional adjustment at the printing section

The printer related adjustment is performed by using the printed out grid pattern.
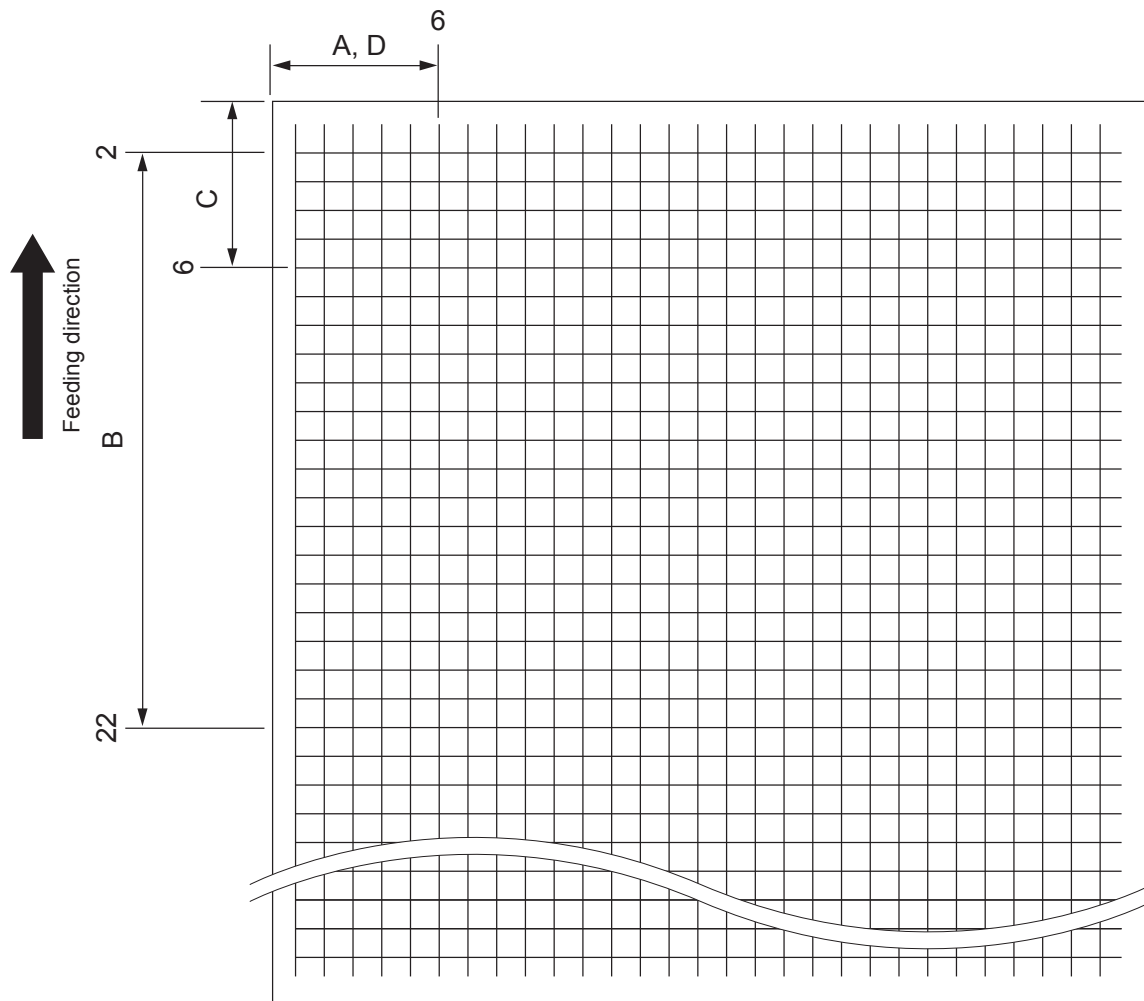
Fig.6-12

	Adjustment Tolerance	Detail of adjustment
A	52 ± 0.5mm	◻ P. 6-13 "[A] Primary scanning data writing start position (Printer)"
B	200 ± 0.5mm	◻ P. 6-14 "[B] Reproduction ratio of secondary scanning direction (Fine adjustment of transfer belt motor rotation speed)"
C	52 ± 0.5mm	◻ P. 6-15 "[C] Secondary scanning data writing start position"
D	52 ± 0.5mm	◻ P. 6-16 "[D] Primary scanning data writing start position at duplexing"

[A] Primary scanning data writing start position (Printer)

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)
(2) Press [98] → [FAX]. (A grid pattern with 10 mm pitch is printed out. Use A3/LD from the 1st drawer.)
(3) Measure the distance A from the left edge of the paper to the 6th line of the grid pattern.
(4) Check if the distance A is within 52±0.5 mm.
   If not, use the following procedure to change values and measure the distance A again.

   <Procedure>
   (Adjustment Mode) → (Key in the code [4006]) → [START]
   → (Key in a value (acceptable values: 0 to 255))
   → [OK] or [INTERRUPT] (Stored in memory)
   → "100% A" is displayed
   → Press [98] → [FAX] → (A grid pattern is printed out.)
   * The larger the adjustment value is, the longer the distance A becomes (approx. 0.04 mm/ step).

   Notes:
   Make sure the first line of the grid pattern is printed out since the line is occasionally vanished.

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[B] Reproduction ratio of secondary scanning direction (Fine adjustment of transfer belt motor rotation speed)

Code	Sub code	Function	Remarks
4526	0	PRT/PPC (Normal speed)	When the value increases, the reproduction ratio in the secondary scanning direction becomes larger. (Approx. 0.15 mm/1steps)
	4	PRT/PPC (Reduced speed)	

If the sub code "0" of 05-4526 is adjusted, the adjustment values of sub code 4 is also changed automatically, being operated with the adjusted value, according to the proper parameter. Basically, adjusting only the sub code "0" completes all the adjustment of PRT, PPC and FAX.

[B-1] Confirmation of 05-4526-0
1. While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)
2. Press [98] → [FAX]. (A grid pattern with 10 mm pitch is printed out. Use A3/LD from the 1st drawer.)
3. Measure the distance B from the 2nd line at the leading edge of the paper to the 22nd line of the grid pattern.
* Normally, the 1st line of the grid pattern is not printed.
4. Check if the distance B is within 200±0.5 mm.
5. If not, perform the procedure in "[B-2] Adjustment of 05-4526-0" to change the values and measure the distance B again.
6. Perform the color registration (4719) after the adjustment.

[B-2] Adjustment of 05-4526-0
(Adjustment Mode) → (Key in the code [4526]) → [START] → (Key in the sub-code [0])
→ [START] → (Key in a value (acceptable values: 0 to 255))
→ [OK] or [INTERRUPT] (Stored in memory)
* When the value is not within the recommended values, the trailing edge area of the image may be out of position for the paper length or the density at the trailing edge area of the image may become lower. Perform the adjustment confirming the image.
→ "100% A" is displayed
→ Press [98] → [FAX] → (A grid pattern is printed out.)
* The larger the adjustment value is, the longer the distance B becomes (approx. 0.15 mm/ step).
→ (Key in the code [4719]) → [START] → (Enforced color registration)

Notes:
• The grid pattern output by pressing [0][5] → [98] → [FAX] is the one of PRT (05-4526-0). Even though the sub code 4 is are adjusted, the result cannot be confirmed in the grid pattern output by pressing [0][5] → [98] → [FAX].
• When "05-4526-0" is performed, a proper value is automatically calculated for the size of an image in each function mode (copy/printer/Fax) or at each speed (normal speed/reduced speed/ high speed). The speed of the transfer belt motor is also adjusted. Therefore, use the above default value other than the sub code "0," unless otherwise required.

Remarks:
For A3/LD, it is recommended to adjust the distance B above within the range of 199.5 mm and 200 mm otherwise the margin of the trailing edge may be deleted.

[C] Secondary scanning data writing start position

Performing the code 05-4402 covers this adjustment for all paper sources.
The adjustment for each paper source is also available.

For all paper sources

Code	Paper size	Acceptable value	Remarks
4402	A3/LD	0 to 200	Performs the adjustment for all paper sources.

For each paper source

Order for adjustment	Paper source	Code	Paper size	Acceptable value	Remarks
1	1st drawer	4058	A4/LT	0 to 100	
2	2nd drawer	4059	A3/LD	0 to 100	
3	3rd drawer	4060	A4/LT	0 to 100	
4	4th drawer	4560	A4/LT	0 to 100	
5	Bypass feed	4061	A4/LT	0 to 100	
6	Duplexing	4062	A3/LD	0 to 100	Paper fed from the 1st drawer

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)
(2) Press [98] ([3] for duplexing) → [FAX]. (A grid pattern with 10 mm pitch is printed out.)
(3) Measure the distance C from the leading edge of the paper to the 6th line of the grid pattern.
   * Normally, the 1st line of the grid pattern is not printed.
   * At the duplexing, measure it on the top side of the grid pattern.
(4) Check if the distance C is within 52±0.5 mm.
(5) If not, use the following procedure to change values and measure the distance C again.
   <Procedure>
   (Adjustment Mode) → (Key in the code shown above) → [START]
   → (Key in an acceptable value shown above)
   → [OK] or [INTERRUPT] (Stored in memory)
   → "100% A" is displayed
   → Press [98] ([3] for duplexing)
   → [FAX] → (A grid pattern is printed out.)
   * The larger the adjustment value is, the longer the distance C becomes (approx. 0.10 mm/step).

[D] Primary scanning data writing start position at duplexing

> **Notes:**
> Make sure the first line of the grid pattern is printed out since the line is occasionally vanished.

[D-1] Adjustment for long-sized paper

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)
(2) Press [3] → [FAX]. (A grid pattern with 10 mm pitch is printed out. Use A3/LD from the 1st drawer.)
(3) Check the grid pattern on the test print and measure the distance D from the left edge of the paper to the 6th line of the grid pattern.
(4) Check if the distance D is within 52±0.5 mm.
(5) If not, use the following procedure to change values and measure the distance D again.
      <Procedure>
       (Adjustment Mode) → (Key in the code [4019]) → [START] → [0] → [START]
       → (Key in a value (acceptable values: 0 to 255))
       → [OK] or [INTERRUPT] (Stored in memory)
       → "100% A" is displayed.
       → Press [3] → [FAX] → (A grid pattern is printed out.)
       * The larger the adjustment value is, the longer the distance D becomes (approx. 0.04 mm/ step).

[D-2] Adjustment for short-sized paper

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)
(2) Press [3] → [FAX]. (A grid pattern with 10 mm pitch is printed out. Use A4/LT from the 1st drawer.)
(3) Check the grid pattern on the test print and measure the distance D from the left edge of the paper to the 6th line of the grid pattern.
(4) Check if the distance D is within 52±0.5 mm.
(5) If not, use the following procedure to change values and measure the distance D again.
      <Procedure>
      (Adjustment Mode) → (Key in the code [4019]) → [START] → [1] → [START]
      → (Key in a value (acceptable values: 0 to 255))
      → [OK] or [INTERRUPT] (Stored in memory)
      → "100% A" is displayed
      → Press [3] → [FAX] → (A grid pattern is printed out.)
      * The larger the adjustment value is, the longer the distance D becomes (approx. 0.04 mm/ step).

[D-3] Adjustment for medium-sized paper (Length: 220 mm to 329 mm)

1. While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)
2. Press [3] → [FAX]. (A grid pattern with 10 mm pitch is printed out. Use A4-R/LT-R from the 1st drawer.)
3. Check the grid pattern on the test print and measure the distance D from the left edge of the paper to the 6th line of the grid pattern.
4. Check if the distance D is within 52±0.5 mm.
5. If not, use the following procedure to change values and measure the distance D again.

      <Procedure>
      (Adjustment Mode) → (Key in the code [4019]) → [START] → [2] → [START]
      → (Key in a value (acceptable values: 0 to 255))
      → [OK] or [INTERRUPT] (Stored in memory)
      → "100% A" is displayed
      → Press [3] → [FAX] → (A grid pattern is printed out.)
      * The larger the adjustment value is, the longer the distance D becomes (approx. 0.04 mm/ step).

Notes:

When the writing start position (05-4019-0) for long-sized paper is changed, the one for medium-sized paper is also altered. (However, the value of 05-4019-2 is not changed.)

If 05-4019-0 is changed, check it with A4-R/LT-R paper and adjust the value of 05-4019-2 again as required.

<Adjustment procedure summarization for A to D>

[0] [5] [Power ON] → [98] ([3](05-4062, 4019) for duplexing) → [FAX]

A:	05-4006 (1st drawer, A3/LD)	→	52±0.5 mm (0.04 mm/step)
B:	05-4526-0 (1st drawer, A3/LD)	→	200±0.5 mm (0.15 mm/step)
C:	05-4402 (1st drawer, A3/LD)	→	52±0.5 mm (0.1 mm/step)
	05-4058 (1st drawer, A4/LT)		
	05-4059 (2nd drawer, A3/LD)		
	05-4060 (3rd drawer, A4/LT)		
	05-4560 (4th drawer, A4/LT)		
	05-4061 (Bypass feed, A4/LT)		
	05-4062 (Duplexing, A3/LD)		
D:	05-4019-0 (1st drawer, A3/LD),	→	52±0.5 mm (0.04 mm/step)
	05-4019-1 (1st drawer, A4/LT)		
	05-4019-2 (A4-R/LT-R)		

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6.1.8 Image dimensional adjustment at the scanning section

[A] Image distortion
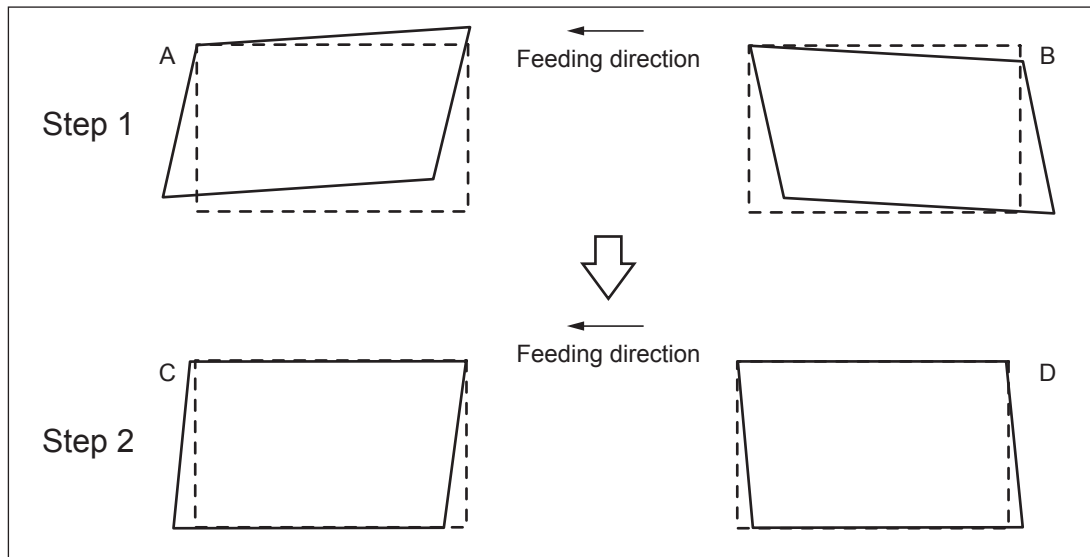
Fig.6-13

(1) While pressing [0] and [5] simultaneously, turn the power ON.
(2) Press [FAX] to make a copy of any image on a sheet of A3/LD paper.
(3) Key in [3033] and press the [START] button to move the carriage to the adjustment position.
(4) Make an adjustment in the order of step 1 and 2.

Step 1
In case of A:
Tighten the mirror-3 adjustment screw (Rear) [1]
(CW).
In case of B:
Loosen the mirror-3 adjustment screw (Rear) [1]
(CCW).
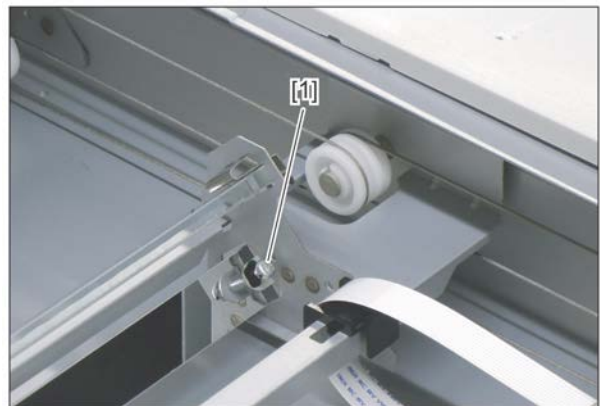
Fig.6-14

Step 2
In case of C:
Tighten the mirror-1 adjustment screw (Rear) [1] (CW).
In case of D:
Loosen the mirror-1 adjustment screw (Rear) [1] (CCW).
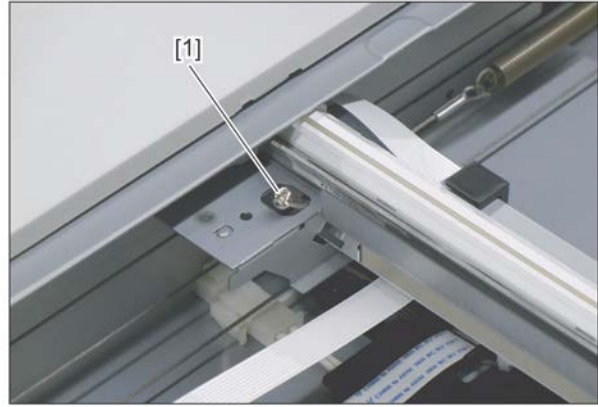
Fig.6-15

(5) Apply the screw locking agents to the adjustment screws. (2 areas)
   • Recommended screw lock agent
     Manufacturer: Three Bond
     Product name: 1401E

The following adjustments (B) to (E) should be performed with Test Chart No. TCC-1/TCC-2.
📖 P. 6-24 " Adjustments and Checks using Test Chart No. TCC-1/TCC-2"

[B] Image location of primary scanning direction

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)
(2) Place Test Chart No. TCC-1/TCC-2 on the original glass (with the arrow positioned at the left rear side).
(3) Press [FAX] → [START] to make a copy at the mode of A4/LT, 100%, Full color and Text/Photo.
(4) Measure the distance B from the left paper edge to the 5 mm line of left grid pattern on the copy with a ruler.
(5) Check if the distance B is within 5±0.5 mm.
(6) If not, use the following procedure to change values and repeat step 3. to 5. above.
   <Procedure>
   (Adjustment Mode) → (Key in code [3030]) → [START]
   → (Key in a value (acceptable values: 0 to 255))
   → [OK] or [INTERRUPT] (Stored in memory)
   * The larger the adjustment value is, the longer the distance B becomes (approx. 0.04 mm/ step).

[C] Reproduction ratio of secondary scanning direction

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)
(2) Place Test Chart No. TCC-1/TCC-2 on the original glass (with the arrow positioned at the left rear side).
(3) Press [FAX] → [START] to make a copy at the mode of A4/LT, 100%, Full color and Text/Photo.
(4) Measure the distance C between M3 and M4 on the copy with a ruler.
(5) Check if the distance C is within 150±0.5 mm.
(6) If not, use the following procedure to change values and repeat step 3. to 5. above.
   <Procedure>
   (Adjustment Mode) → (Key in the code [3032]) → [START]
   → (Key in a value (acceptable values: 0 to 255))
   → [OK] or [INTERRUPT] (Stored in memory)
   * The larger the adjustment value is, the longer the distance C becomes (approx. 0.03 mm/ step).

[D] Image location of secondary scanning direction

(1)   While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)

(2)   Place Test Chart No. TCC-1/TCC-2 on the original glass (with the arrow positioned at the left rear side).

(3)   Press [FAX] → [START] to make a copy at the mode of A4/LT, 100%, Full color and Text/Photo.

(4)   Measure the distance D from the top paper edge to the 10 mm line of top grid pattern on the copy with a ruler.

(5)   Check if the distance D is within 10±0.5 mm.

(6)   If not, use the following procedure to change values and repeat step 3. to 5. above.
      <Procedure>
      (Adjustment Mode) → (Key in the code [3031]) → [START]
      → (Key in a value (acceptable values: 67 to 189))
      → [OK] or [INTERRUPT] (Stored in memory)
      *   The larger the adjustment value is, the longer the distance D becomes (approx. 0.08 mm/ step).

[E] Top margin

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)
(2) Open the platen cover or RADF.
(3) Press [FAX] → [START] to make a copy at the mode of A3/LD, 100%, Full color, Text/Photo and 2nd drawer.
(4) Measure the blank area E at the leading edge of the copied image.
(5) Check if the blank area E is within the range.

Function	Black	Color
Copy	4.2 mm + 2.8 mm / -1.2 mm	5 - 1.0 mm, 5 + 2.0 mm (4.0 to 7.0 mm)

(6) If not, use the following procedure to change values and repeat the steps 3. to 5. above.
  <Procedure>
  (Adjustment Mode) → (Key in the code [4050]) → [START]
  → (Key in a value (acceptable values: 0 to 255))
  → [OK] or [INTERRUPT] (Stored in memory)
  → ("100% A" is displayed.)
  * The larger the adjustment value is, the wider the blank area becomes (approx. 0.04 mm/ step).
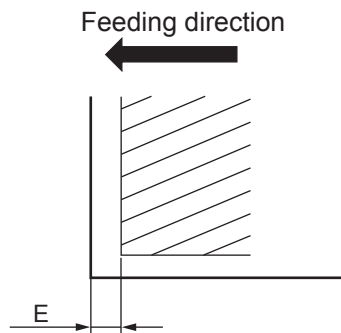
Fig.6-16

Notes:

Paper jams tend to occur in equipment in which thin paper such as 64g/m^2 (17lb. Bond) paper is used or a large amount of high density images such as pictures are output. For this equipment, we recommend that you adjust the top margin "in the plus direction" in order to prevent paper jamming.

Range of top margin adjustment (e.g.)

Function	Black	Color
Copy	4.2 - 7.0 mm	5.0 - 7.0 mm

6

[F] Right margin

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)
(2) Open the platen cover or RADF.
(3) Press [FAX] → [START] to make a copy at the mode of A3/LD, 100%, Full color, Text/Photo and 2nd drawer.
(4) Measure the blank area F at the right side of the copied image.
(5) Check if the blank area F is within the range.

Function	Black	Color
Copy	2±2.0 mm	2±2.0 mm

(6) If not, use the following procedure to change values and repeat the steps 3. to 5. above.
    <Procedure>
    (Adjustment Mode) → (Key in the code [4052]) → [START]
    → (Key in a value (acceptable values: 0 to 255))
    → [OK] or [INTERRUPT] (Stored in memory).
    → ("100% A" is displayed.)
    * The larger the adjustment value is, the wider the blank area at the right side becomes (approx. 0.04 mm/step).

Feeding direction
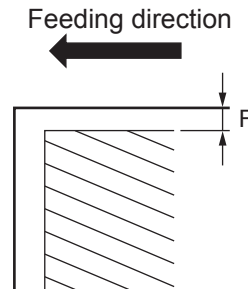
Fig.6-17

[G] Bottom margin

(1)   While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)
(2)   Open platen cover or RADF.
(3)   Press the [FAX] → [START] to make a copy at the mode of A3/LD, 100%, Full color, Text/Photo and 2nd drawer.
(4)   Measure the blank area G at the trailing edge of the copied image.
(5)   Check if the blank area G is within the range.

Function	Black	Color
Copy	3±2.0 mm	3±2.0 mm

(6)   If not, use the following procedure to change values and repeat the steps 3. to 5. above.
       <Procedure>
       (Adjustment Mode) → (Key in the code [4053]) → [START]
       → (Key in value (acceptable values: 0 to 255))
       → [OK] or [INTERRUPT] (stored in memory)
       → ("100% A" is displayed.)
       *   The larger the adjustment value is, the wider the blank area at the trailing edge becomes (approx. 0.04 mm/step).

6

Feeding direction
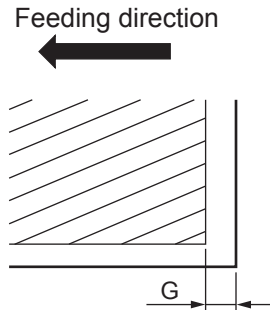
Fig.6-18

Adjustments and Checks using Test Chart No. TCC-1/TCC-2

Following items can be checked with the Test Chart No. TCC-1/TCC-2.

1. Points to be measured in the chart
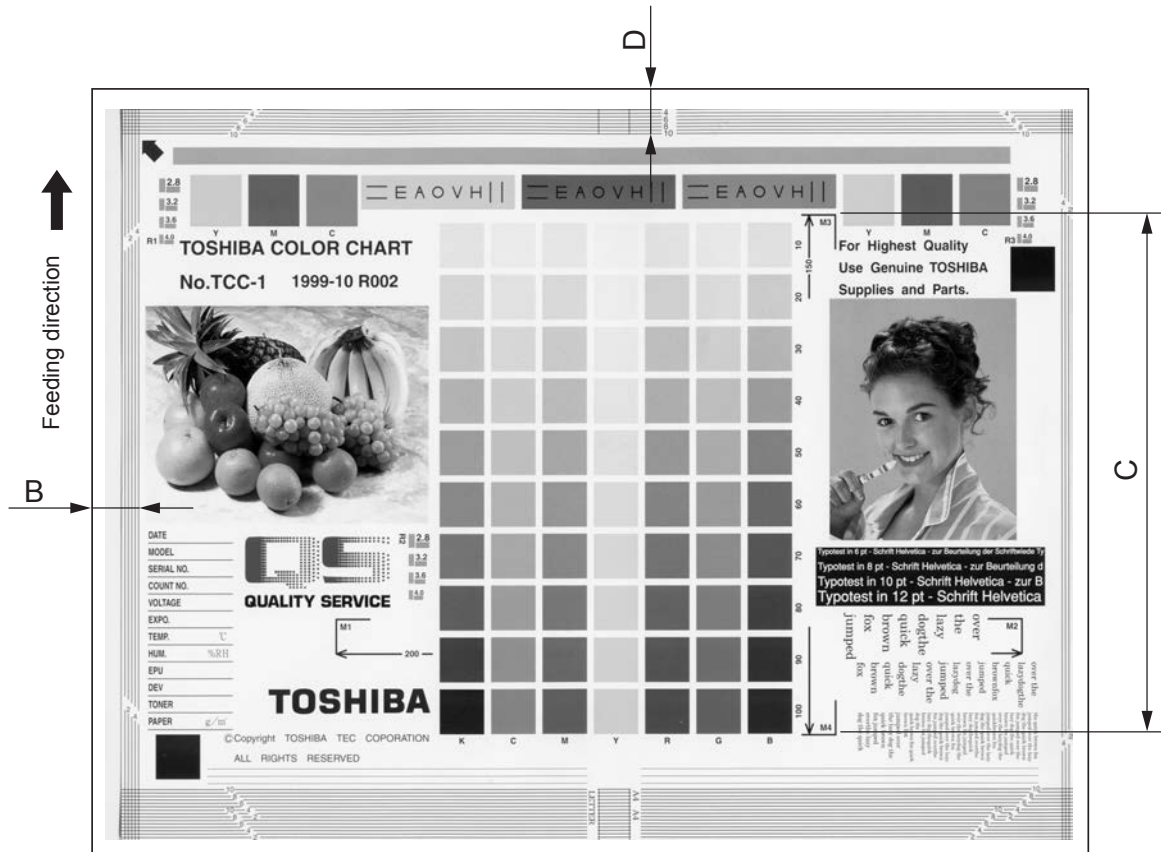
Fig.6-19

<Adjustment order>

[0] [5] [Power ON] → (Chart TCC-1/TCC-2) → [FAX] → [START] (A3/LD, 100%, Full color and Text/Photo)

   B: 05-3030 → 5±0.5 mm (0.04 mm/step)
   C: 05-3032 → 150±0.5 mm (0.03 mm/step)
   D: 05-3031 → 10±0.5 mm (0.08 mm/step)

2. Checking areas of the chart and their descriptions
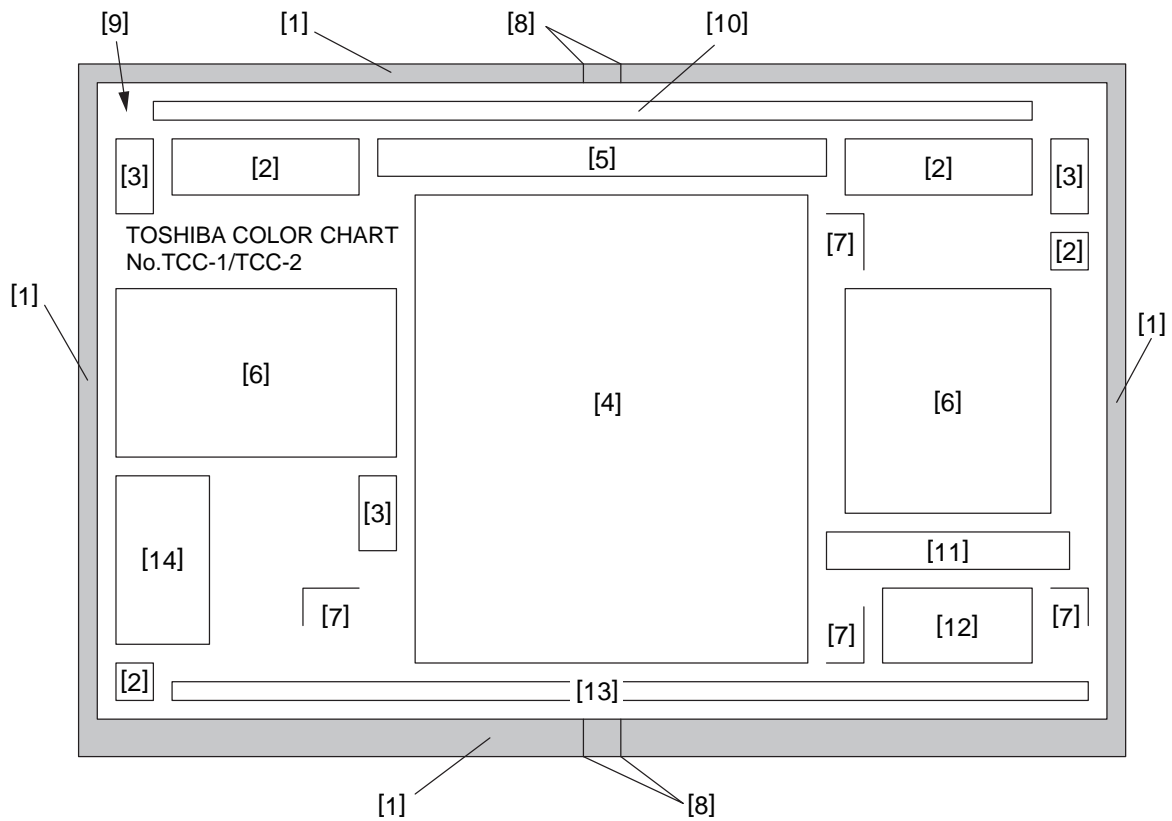
Fig.6-20

[1]   Grid patterns   : For adjusting margin (void) and scanner section
[2]   YMCK patches   : For checking uniformity
[3]   Resolution patterns   : For checking resolution
[4]   Gradation pattern   : Gradation pattern of seven colors (Y, M, C, R, G, B and K)
                                 Coverage: 10-100%
                                 For adjusting the halftone reproduction and gray balance
[5]   Color registration pattern : For checking color registration
[6]   Pictures   : For checking color reproduction and moire
[7]   Magnification lines   : For checking the magnification error of primary and secondary
                                 scanning directions
[8]   Center lines   : Center lines for A4/LT sizes
[9]   Arrow   : A mark for placing the chart properly onto the original glass
                                 (place it to the left rear corner of the original glass.)
[10] Halftone band   : For checking uniformity
[11] White text on the black : For checking the reproduction of white text on black solid
      solid
[12] Text   : For checking reproduction of text
[13] Thin lines   : For checking reproduction of the thin lines (line width: 100μm)
[14] Note area   : For recording the date, conditions, etc.

6.1.9   Image dimensional adjustment in the copy/printer/fax function

[1]   Reproduction ratio adjustment of primary scanning direction

The reproduction ratio in the primary scanning direction of the printed image can be adjusted as follows:

<Adjustment Mode (05)>

Code	Function	Remarks
7000	PPC	The larger the value is, the larger the reproduction ratio in the primary scanning direction becomes. (0.1%/step) Acceptable values: 0 to 255 (Default: 128)
7001	PRT(*1)/FAX	The larger the value is, the larger the reproduction ratio in the primary scanning direction becomes. (0.1%/step) Acceptable values: 128 to 255 (Default: 128)

*1: This adjustment is not available for the printer function when the resolution of the image is 600 x 1200 dpi.

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustments according to the following procedure:

Notes:
- Since the reproduction ratio may vary due to expansion and contraction of the paper immediately after the image is printed out, it is recommended to measure its dimension after at least 3 minutes have passed.
- This adjustment may cause image troubles such as moire, disappearance or breaking of thin lines on the printed image. Therefore check if there is no such image trouble while you are performing the adjustment.

<Procedure>
 (1)   While pressing [0] and [5] simultaneously, turn the power ON.
 (2)   Key in a code and press the [START] button.
 (3)   Key in the adjustment value. (To correct a value, press the [CLEAR] button.)
 (4)   Press the [OK] or [INTERRUPT] button to store the value. -> The equipment goes back to the ready state.
 (5)   Make a test copy and check the image copied. To check the printed image, turn off the power and then back on, and then print the image. If the image is not in the desired reproduction ratio, repeat steps (2) to (4).

6.2 Image Quality Adjustment (Copying Function)

6.2.1 Automatic gamma adjustment

When the reproduction of gradation is not appropriate, the gradation reproducibility of all colors Y, M, C and K can be corrected by performing this automatic gamma adjustment. In case the gradation reproduction of the image checked is not satisfactory, make this adjustment as described below at parts replacement.

(1) When unpacking or any of the following parts has been replaced, be sure to make this adjustment:

- Photoconductive drum
- Developer material
- LED printer head
- LED gap spacer
- Transfer belt
- 1st transfer roller
- Drum cleaning blade
- Needle electrode
- Main charger grid
- Image position aligning sensor (Front)
- Image position aligning sensor (Rear)/Image quality sensor
- SRAM board (SYS board)
- EEPROM (LGC board)
- HDD

(2) When any of the following parts are replaced or adjusted, make a copy and check the image to determine if adjustment is necessary:

- 2nd transfer roller

Notes:
Be sure that this adjustment be made after performing the image adjustment in 📖 P. 6-4 "6.1.3 Performing Image Quality Control" and 📖 P. 6-6 "6.1.5 Image Dimensional Adjustment".

<Procedure>
(1) While pressing [0] and [5] simultaneously, turn the power ON. → Adjustment Mode
(2) Select the A4/LT/A3/LD drawer. Key in the pattern number and press the [FAX] button to output a "Patch chart for gamma adjustment".

<Adjustment Mode (05)>

Pattern No.	Pattern No.	Remark	Paper type
4	Color/black integrated	When performing code 05-7869	All paper types
200	Color/black integrated	When performing code 05-7871-0	Plain paper
204	Color/black integrated	When performing code 05-7871-2	Recycled paper
206	Color/black integrated	When performing code 05-7871-3	Thick paper1
208	Color/black integrated	When performing code 05-7871-4	Thick paper2
214	Color/black integrated	When performing code 05-7871-7	Special paper 1
216	Color/black integrated	When performing code 05-7871-8	Special paper 2

(3) Place the patch chart for adjustment printed in step (2) face down on the original glass.
Place the chart aligning its side with 2 black squares against the original scale.

(4) Key in a code and press the [START] button.
$\rightarrow$ The scanner reads the chart automatically and performs automatic gamma adjustment calculation (approx.30 sec.).

<Adjustment Mode (05)>

Code	Item to be adjusted	Contents
7869 (7871)	Automatic gamma adjustment	When the reproduction of gradation is not appropriate, the gradation reproducibility of all colors Y, M, C and K can be corrected by performing this automatic gamma adjustment. The result of 7869 is applied to all paper types. The result of 7871 is applied to the specified paper type.

(5) When the adjustment has finished normally, press the [OK] button to have the adjustment results reflected.
(To cancel the reflection of adjustment results, press the [CANCEL] button.)
In the case of an abnormal ending, "ADJUSTMENT ERROR" is shown.
Press the [CANCEL] button to clear the error display. When it is cleared, the control panel display will return to the ready state. Then, check if the patch chart on the original glass is placed in the wrong direction or if it is placed inclined on the original glass, and then repeat step (3) and afterward.

Remarks:
To select the paper type for the automatic gamma adjustment in user calibration, change the code below to "1". (copy/print)

Code	Remarks
08-9059	0: No paper selecting buttons displayed 1: Paper selecting buttons displayed. (For both Copy and Printer)

6.2.2 Density adjustment

The center density and the density variation controlled by density adjustment keys can be adjusted as follows.

<Adjustment Mode (05)>

Color mode	Original mode							Item to be adjusted	Remarks
	Text/ Photo (*1)	Text	Printed Image (*2)	Photo	Map	Custom Mode	Red Seal Color Mode		
Full color	7713	7714	7715	7716	7717	7718	7719	Manual density mode center value	The larger the value is, the darker the image becomes. Acceptable values: 0 to 255 (Default: 128)
	7720	7721	7722	7723	7724	7725	7726	Automatic density	
Twin color	7733	7734	7735	-	-	-	-	Manual density mode center value	
	7736	7737	7738	-	-	-	-	Automatic density	
Mono color	7727	7728	7729	-	-	-	-	Manual density mode center value	
	7730	7731	7732	-	-	-	-	Automatic density	

<Adjustment Mode (05)>

Color mode	Original mode					Item to be adjusted	Remarks
	Text/ Photo	Text	Photo	Gray scale	Custom Mode		
Black	7114	7115	7116	7138	7134	Manual density mode center value	The larger the value is, the darker the image becomes. Acceptable values: 0 to 255 (Default: 128)
	7123	7124	7125	7141	7137	Automatic density mode	

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustments according to the following procedure.

Notes:
Be sure that this adjustment is made after performing 📖 P. 6-27 "6.2.1 Automatic gamma adjustment".

<Procedure>
(1) While pressing [0] and [5] simultaneously, turn the power ON.
(2) Key in a code and press the [START] button.
(3) Key in an adjustment value.
(To correct the value once keyed in, press the [CLEAR] button.)
(4) Press the [OK] or [INTERRUPT] button to store the value. → The equipment goes back to the ready state.
(5) Press the [FAX] button and then press the [START] button to make a test copy.
(6) If the desired image quality has not been attained, repeat step (2) to (5).

6.2.3 Color balance adjustment

The color balance is adjusted by adjusting the density of each color at the Full Color Mode. The adjustment is performed by selecting its density area from the following: low density, medium density and high density.

<Adjustment Mode (05)>

Color	Original mode							Item to be adjusted	Remarks
	Text/ Photo	Text	Printed Image	Photo	Map	Custom mode	Red Seal Color		
Yellow	7960-0	7961-0	7962-0	7963-0	7964-0	7980-0	7984-0	Low density	The larger the value is, the darker the color to be adjusted becomes. Acceptable values: 0 to 255 (Default: 128)
	7960-1	7961-1	7962-1	7963-1	7964-1	7980-1	7984-1	Medium density	
	7960-2	7961-2	7962-2	7963-2	7964-2	7980-2	7984-2	High density	
Magenta	7965-0	7966-0	7967-0	7968-0	7969-0	7981-0	7985-0	Low density	
	7965-1	7966-1	7967-1	7968-1	7969-1	7981-1	7985-1	Medium density	
	7965-2	7966-2	7967-2	7968-2	7969-2	7981-2	7985-2	High density	
Cyan	7970-0	7971-0	7972-0	7973-0	7974-0	7982-0	7986-0	Low density	
	7970-1	7971-1	7972-1	7973-1	7974-1	7982-1	7986-1	Medium density	
	7970-2	7971-2	7972-2	7973-2	7974-2	7982-2	7986-2	High density	
Black	7975-0	7976-0	7977-0	7978-0	7979-0	7983-0	7987-0	Low density	
	7975-1	7976-1	7977-1	7978-1	7979-1	7983-1	7987-1	Medium density	
	7975-2	7976-2	7977-2	7978-2	7979-2	7983-2	7987-2	High density	

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustments according to the following procedure.

Notes:
Be sure that this adjustment is made after performing 📖 P. 6-27 "6.2.1 Automatic gamma adjustment".
Changing the adjustment setting influences the adjacent density area slightly.
E.g.: When the value of the medium density is larger, the adjacent areas in the low density and high density range will become slightly darker.

<Procedure>
(1) While pressing [0] and [5] simultaneously, turn the power ON.
(2) Key in the code of the mode to be adjusted (color and original mode) and press the [START] button.
(3) Select the density area to be adjusted with digital keys (0, 1 or 2), and press the [START] button.
   0: Low density
   1: Medium density
   2: High density
(4) Key in an adjustment value. (To correct the value once keyed in, press the [CLEAR] button.)
(5) Press the [OK] or [INTERRUPT] button to store the value in memory.

         $\rightarrow$ The equipment goes back to the ready state.

(6)   For resetting the value, repeat step (2) to (5).

(7)   Press the [FAX] button and then press the [START] button to make a test copy.

(8)   If the desired image quality has not been attained, repeat step (2) to (7).

6

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SETTING / ADJUSTMENT

<Range of the density area (low density, medium density, high density)>

The color from 10 to 30 (low density), from 40 to 70 (medium density) and from 80 to 100 (high density) in No. TCC-1/TCC-2 chart can be used as a guide for the range of the density area influenced by the change of the adjustment value (low density, medium density, high density).
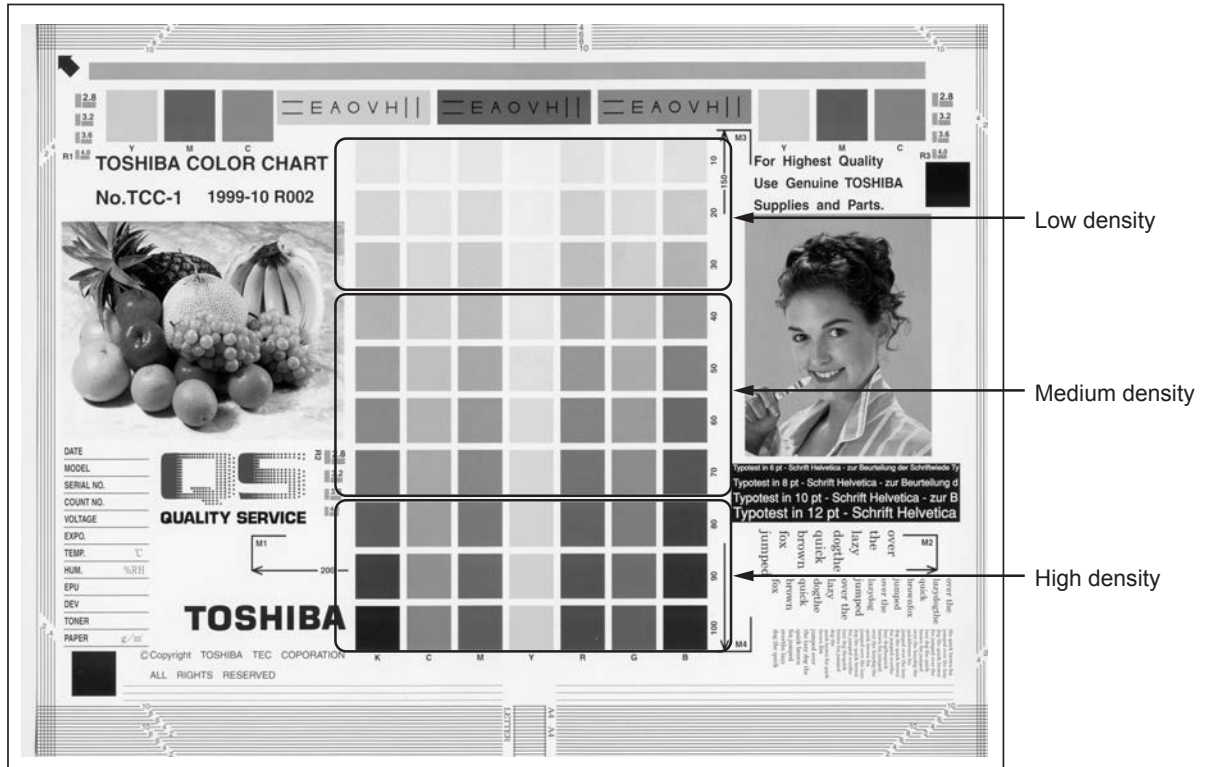
Fig.6-21

6.2.4 Gamma balance adjustment

The density adjustment at the Black Mode is performed by selecting its density area from the following: low density, medium density and high density.

<Adjustment Mode (05)>

Color mode	Original mode					Item to be adjusted	Remarks
	Text/ Photo	Text	Photo	Gray scale	Custom mode		
Black	7190-0	7191-0	7192-0	7956-0	7276-0	Low density	The larger the value is, the density of the item to be adjusted becomes darker. Acceptable values: 0 to 255 (Default: 128)
	7190-1	7191-1	7192-1	7956-1	7276-1	Medium density	
	7190-2	7191-2	7192-2	7956-2	7276-2	High density	

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustments according to the following procedure.

Notes:
Be sure that this adjustment is made after performing 📖 P. 6-27 "6.2.1 Automatic gamma adjustment".

<Procedure>
The procedure is the same as that of 📖 P. 6-30 "6.2.3 Color balance adjustment".

6.2.5 Background adjustment

The density of the background can be adjusted as follows.

<Adjustment Mode (05)>

Color mode	Original mode								Remarks
	Text/Photo	Text	Printed Image	Photo	Map	Custom mode	Gray scale	Red Seal Color Mode	
Full color	7656	7657	7658	7659	7660	7661	---	7662	The larger the value is, the darker the background becomes. Acceptable values: 0 to 255 (Default: 128)
Mono color	7707	7708	7709	---	---	---	---	---	
Twin color	7710	7711	7712	---	---	---	---	---	
Black	7100	7101	---	7102	---	7106	7105	---	

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure.

<Procedure>
The procedure is the same as that of 📖 P. 6-29 "6.2.2 Density adjustment".

6.2.6 Judgment threshold for ACS (common for copy and scan)

Judgment levels for automatically identifying whether an original is color or black are adjusted. This adjustment is for judgment levels when "Auto Color" is selected as a color mode. The same adjustment value is simultaneously applied to all cases of originals on the original glass for copier functions and network scanning functions, and those placed on the RADF.

<Adjustment Mode (05)>

Code	Item to be adjusted	Contents
7630	Judgment threshold for ACS	The larger the value is, the more an original tends to be judged as black even at the Auto Color Mode. The smaller value is, the more it tends to be judged as color. Acceptable values: 0 to 255 (Default: 70)

Make a test copy and compare the image obtained with the current settings; if necessary and make adjustment.

<Procedure>
The procedure is the same as that of 📖 P. 6-29 "6.2.2 Density adjustment".

6.2.7 Sharpness adjustment

If you want to make copy images look softer or sharper, perform the following adjustment.
The adjustment can be made for each of the color modes and original modes independently.

<Adjustment Mode (05)>

Code	Color mode	Original mode	Contents
7796	Full Color	Text/Photo	The larger the value is, the sharper the image becomes; while the smaller the value is, the softer the image becomes. The smaller the value is, the less moire tends to appear. Acceptable values: 0 to 255 (Default: 128)
7797		Text	
7798		Printed Image	
7799		Photo	
7800		Map	
7795		Custom mode	
7794		Red Seal Color Mode	
7801	Mono color	Text/Photo	
7802		Text	
7803		Printed Image	
7804	Twin color	Text/Photo	
7805		Text	
7806		Printed Image	
7056	Black	Text/Photo	
7057		Text	
7058		Photo	
7249		Custom mode	
7061		Gray scale	

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment.

Notes:
You have to make adjustment by balancing between moire and sharpness.
<Procedure>
The procedure is the same as that of 📖 P. 6-29 "6.2.2 Density adjustment".

6.2.8 Setting range correction

The values of the background peak/text peak in the range correction at the Black Mode can be switched to "varied" or "fixed" in the following codes.
If they are fixed, the range correction is performed with standard values.
The values of the background peak affects the reproduction of the background density, and the values of the text peak affects that of the text density.

<Adjustment Mode (05)>

Original mode	Original mode			Item to be adjusted	Remarks
	Text/Photo	Text	User Custom		
Black	7286	7287	7237	Manual density mode	0: Background peak / fixed 1: Background peak / varied

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment.

<Procedure>
The procedure is the same as that of 📖 P. 6-29 "6.2.2 Density adjustment".

6.2.9 Adjustment of smudged/faint text

The smudge/faint text at a Black Mode can be set at the following codes.

<Adjustment Mode (05)>

Color mode	Original mode			Item to be adjusted	Remarks
	Text/ Photo	Text	Custom mode		
Black	7097	7098	7252	Adjustment of smudged/ faint text	When the value decreases, the faint text is improved. When the value increases, the smudged text is improved. Acceptable values: 0 to 4 (Default: 2)

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment.

Notes:
Remember the image specifications and life span of the replacing parts may not meet the standard when the setting value is changed from the default value.

<Procedure>
The procedure is the same as that of 📖 P. 6-29 "6.2.2 Density adjustment".

6.2.10 Color Adjustment of Marker

The color of the one touch adjustment "MARKER" can be adjusted so that any marker colors already on the original can be distinguished.

<Adjustment Mode (05)>

Code	Item to be adjusted	Relation between the adjustment value and the color (Acceptable values: 0 to 6)		
		0 to 2	3 (Default)	4 to 6
7850-0	Yellow	The smaller the value is, the more reddish the color becomes.	Yellow	The larger the value is, the more greenish the color becomes.
7850-1	Magenta	The smaller the value is, the more bluish the color becomes.	Magenta	The larger the value is, the more reddish the color becomes.
7850-2	Cyan	The smaller the value is, the more greenish the color becomes.	Cyan	The larger the value is, the more bluish the color becomes.
7850-3	Red	The smaller the value is, the closer to Magenta the color becomes.	Red	The larger the value is, the more yellowish the color becomes.
7850-4	Green	The smaller the value is, the more yellowish the color becomes.	Green	The larger the value is, the closer to Cyan the color becomes.
7850-5	Blue	The smaller the value is, the closer to Cyan the color becomes.	Blue	The larger the value is, the closer to Magenta the color becomes.

Notes:
  The color may not always be reproduced precisely due to the characteristics of the fluorescent ink.

<Procedure>
 (1) While pressing [0] and [5] simultaneously, turn the power ON.
 (2) Key in a code and press the [START] button.
 (3) Key in a sub-code and press the [START] button.
 (4) Key in an adjustment value.
       (To correct a value once keyed in, press the [CLEAR] button.)
 (5) Press the [OK] or [INTERRUPT] button to store the value. → The equipment goes back to the ready state.
 (6) Turn the power OFF and back ON in the normal mode. Then make a copy in the one touch adjustment "MARKER" mode.
 (7) If the desired image quality has not been attained, repeat step (1) to (6).

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6.2.11 LED emission level adjustment

The LED emission level in the black mode can be adjusted as follows. This adjustment adjusts the dot size.

<Adjustment Mode (05)>

Code	Item to be adjusted	Remarks
7212-0	LED emission level 0/4	The smaller the value is, the smaller the LED emission level becomes. Therefore, the smaller dot is reproduced accordingly. Acceptable values: 0 to 255 (Default: Level 0/4: 0, Level 1/4: 63, Level 2/4: 127, Level 3/4: 191, Level 4/4: 240)
7212-1	LED emission level 1/4	
7212-2	LED emission level 2/4	
7212-3	LED emission level 3/4	
7212-4	LED emission level 4/4	

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustments according to the following procedure.

<Procedure>
 (1)   While pressing [0] and [5] simultaneously, turn the power ON.
 (2)   Key in a code and press the [START] button.
 (3)   Key in a sub-code and press the [START] button.
 (4)   Key in an adjustment value.
        (To correct a value once keyed in, press the [CLEAR] button.)
 (5)   Press the [OK] or [INTERRUPT] button to store the value. → The equipment goes back to the ready state.
 (6)   Press the [FAX] button and then press the [START] button to make a test copy.
 (7)   If the desired image quality has not been attained, repeat step (2) to (6).

   Notes:
   • The setting value must increase as the LED emission level number (0 to 4) becomes higher. Do not increase this order when setting the values.
   • Usually, LED emission level 4 / 4 is most effective in the black mode.

6.2.12 Maximum toner density adjustment to paper type

The maximum toner adhesion amount can be adjusted for each paper type.
It is used when offsetting occurs.

<Adjustment Mode (05)>

Code	Paper type	Remarks
7913-0	Plain paper	The smaller the value is, the toner amount adhered decreases of the high density area (ex. prevention of fusing offsetting, etc.). Acceptable values: 0 to 255 (Default: 128)
7913-2	Recycled paper	
7913-3	Thick paper 1	
7913-4	Thick paper 2	
7913-7	Special paper 1	
7913-8	Special paper 2	
7913-11	Envelop	
7913-12	OHP film	

   Notes:
     Even if a large value is set, the image does not drastically appear dark (the amount of toner adhering is not increased).

<Procedure>

The procedure is the same as that of 📖 P. 6-29 "6.2.2 Density adjustment".

6.2.13 Maximum text density adjustment

The maximum text density in each color in the full color mode (Text/Photo, Text, Map mode) can be adjusted.

<Adjustment Mode (05)>

Color	Code	Item to be adjusted	Remarks
Yellow	7889	Maximum text density	The larger the value is, the darker the maximum text density of each color to be adjusted becomes. Acceptable values: 0 to 10 (Default: 5)
Magenta	7890		
Cyan	7891		
Black	7892		

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustments according to the following procedure.

Notes:
Be sure that this adjustment is made after performing 📖 P. 6-27 "6.2.1 Automatic gamma adjustment".

<Procedure>
The procedure is the same as that of 📖 P. 6-29 "6.2.2 Density adjustment".

6.2.14 Text/Photo reproduction level adjustment

Text/Photo reproduction level at the Full color mode and Auto color mode can be adjusted.
Text/Photo reproduction level adjustment can be switched to "Photo oriented 1", "Photo oriented 2", "Text oriented 1" or "Text oriented 2" in the following codes.

<Adjustment Mode (05)>

Mode			Item to be adjusted	Contents
Text/ Photo	Custom mode (Text/Photo base)	Red Seal Color Mode		
7840	7841	7842	Text/Photo reproduction level adjustment	0, 5: Default The smaller the value, the higher the printed image reproduction level becomes (Photo oriented). The larger the value, the higher the text reproduction level becomes (Text oriented).

Notes:
- The text reproduction level is lower when the mode is switched from the default value to the Photo oriented.
- When you change the setting from the default value to Text oriented, noise occurs in a printed photo with a few lines.
- The codes for the user custom setting are enabled only when the base original mode of the user custom mode is Text/Photo.

<Procedure>
The procedure is the same as that of 📖 P. 6-29 "6.2.2 Density adjustment".

6.2.15 Black header density level adjustment

The density level of headers in the black mode is adjusted.

<Adjustment Mode (05)>

Mode	Code	Original mode	Remarks
Full Color	7811	Text/Photo	The larger the value is, the darker the headers become. However, the density level differs depending on the modes. Acceptable values: 0 to 8 (Default: 0) If the value is set to "0", the table specified by default is used. The default tables are as follows: • Text/Photo mode: 4 • Text mode: 4 • User custom setting (in the Text/Photo, Map, or Text mode base): 4 • User custom setting (in the Photo or Printed image mode base): 3
	7812	Text	
	7816	Custom mode	
	7817	Red Seal Color Mode	

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment.

<Procedure>
The procedure is the same as that of 📖 P. 6-29 "6.2.2 Density adjustment".

6.2.16 Black area adjustment in twin color copy mode

<Adjustment Mode (05)>

Mode	Code	Item to be adjusted	Remarks
Twin color mode with selected colors	7641-0	High density	The larger the value is, the larger the area recognized as black in the original becomes. The smaller the value is, the larger the area recognized as the color other than black becomes. Acceptable values: 0 to 255 (Default: 128)
	7641-1	Medium density	
	7641-2	Low density	
Twin color mode (Black and red)	7642-0	High density	The larger the value is, the larger the black area becomes. The smaller the value is, the larger the red area becomes. Acceptable values: 0 to 255 (Default: 128)
	7642-1	Medium density	
	7642-2	Low density	

<Procedure>
The procedure is the same as that of 📖 P. 6-30 "6.2.3 Color balance adjustment".

6.2.17 Judgment threshold adjustment for blank originals (common for copy and scan)

The judgment level is adjusted for automatic identification of whether the original set is blank or not.
This adjustment is made when "OMIT BLANK PAGE" is selected on the control panel.
The adjustment value is simultaneously applied to all modes at PPC and scanning.

<Adjustment Mode (05)>

Code	Item to be adjusted	Remarks
7618	Judgment threshold adjustment for blank original	The larger the value is, the more an original tends to be judged as a bank sheet. Acceptable values: 0 to 255 (Default: 128)

<Procedure>
The procedure is the same as that of 📖 P. 6-29 "6.2.2 Density adjustment".

6.2.18 Background offsetting adjustment for RADF (common for copy, scan and fax)

The background level for scanning originals with the RADF is adjusted when the background fogging at the scanning of a manually-set original and an original used with the RADF is different. This is to adjust the level of the background image removed when the scanning of the originals with the RADF is performed.

<Adjustment Mode (05)>

Color mode	Code	Remarks
Color	7026	The larger the value is, the darker the background density becomes. Acceptable values: 0 to 255 (Default: 128)
Black	7025	

<Procedure>
The procedure is the same as that of 📖 P. 6-29 "6.2.2 Density adjustment".

6.2.19 Twin color copy / mono color copy adjustment

The density of the color specified on the touch panel is adjusted in the monocolor copy or twin color copy mode. This adjustment is reflected to both monocolor and twin color copying.

<Adjustment Mode (05)>

Code	Subcode				Remarks
	Y	M	C	K	
Magenta	7644-0	7644-1	7644-2	7644-3	The larger the value is, the darker the density becomes, and the smaller the value is, the lighter the density becomes. When "255" is set, the specified solid color is used for printing. When "0" is set, nothing is printed. For example, in case of "Red", the color when "Red" is specified becomes blue if you set as follows: (Y) 7649-0=0 (M) 7649-1=128 (C) 7649-2=255 Acceptable value: 0 to 255 (Default: 128)
Yellow	7645-0	7645-1	7645-2	7645-3	
YellowGreen	7646-0	7646-1	7646-2	7646-3	
Cyan	7647-0	7647-1	7647-2	7647-3	
Pink	7648-0	7648-1	7648-2	7648-3	
Red	7649-0	7649-1	7649-2	7649-3	
Orange	7650-0	7650-1	7650-2	7650-3	
Green	7651-0	7651-1	7651-2	7651-3	
Blue	7652-0	7652-1	7652-2	7652-3	
Purple	7653-0	7653-1	7653-2	7653-3	

Notes:
- If a large value is set for all of YMCK, offsetting may occur. Make an adjustment while checking the image.
- If "0" is set for all four colors of YMCK, when a color is specified for the adjustment item, nothing is printed.

<Procedure>
 (1) While pressing [0] and [5] simultaneously, turn the power ON.
 (2) Key in the code of the mode to be adjusted (color and original mode) and press the [START] button.
 (3) Select the density area to be adjusted with digital keys (0, 1, 2 or 3), and press the [START] button.
      0: Y
      1: M
      2: C
      3: K
 (4) Key in an adjustment value. (To correct the value once keyed in, press the [CLEAR] button.)
 (5) Press the [OK] or [INTERRUPT] button to store the value in memory.
      → The equipment goes back to the ready state.
 (6) For resetting the value, repeat step (2) to (5).
 (7) Turn ON the power of the equipment and make a copy.
 (8) If the desired image quality has not been attained, repeat step (1) to (7).

6.2.20 Maximum density adjustment for each paper type

The maximum density for each paper type can be adjusted collectively.

<Adjustment Mode (05)>

Code	Paper type	Remarks
7902	Plain paper	The smaller the value is, the lower the density of the whole image becomes. Acceptable values: 0 to 255 (Default: Plain paper: 255, Recycled paper: 255, Thick paper 1: 255, Thick paper 2: 255, Special paper 1: 255, Special paper 2: 255, Envelope: 255, OHP film: 240)
7904	Recycled paper	
7905	Thick paper 1	
7906	Thick paper 2	
7909	Special paper 1	
7910	Special paper 2	
7901	Envelope	
7911	OHP film	

Notes:
Be aware that if too small a value is set, a faint image occurs.

<Procedure>
The procedure is the same as that of 📖 P. 6-29 "6.2.2 Density adjustment".

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SETTING / ADJUSTMENT

6.2.21 Color reproduction selection

When the custom mode or red seal color mode is selected, the color reproduction can be adjusted as follows.

<Adjustment Mode (05)>

Code	Original mode	Item to be adjusted	Remarks
7690	Custom mode	Color reproduction adjustment	0: Text/Photo, printed image, text, map 1: Photo 2: Red seal color mode 3: Text/Photo, printed image, text, map 4: Text/Photo, printed image, text, map <Default value> Custom mode: 0 Red seal color mode: 2
7691	Red seal color mode		

Notes:
Be sure that this adjustment is made after performing 📖 P. 6-27 "6.2.1 Automatic gamma adjustment".

<Procedure>
 (1) While pressing [0] and [5] simultaneously, turn the power ON.
 (2) Key in a code and press the [START] button.
 (3) Key in an adjustment value.
    (To correct a value once keyed in, press the [CLEAR] button.)
 (4) Press the [OK] or [INTERRUPT] button to store the value. → The equipment goes back to the ready state.
 (5) Press the [FAX] button and then press the [START] button to make a test copy.
 (6) If the desired image quality has not been attained, repeat step (2) to (5).

6.2.22 Hue adjustment

The hue in the full color mode can be adjusted as follows.

<Adjustment Mode (05)>

Code	Original mode	Item to be adjusted	Description	Remarks
7665-0	Text/Photo	Red	The larger the value, the darker the yellow becomes. The smaller the value, the darker the magenta becomes.	Acceptable value: 0 to 255 Default value: 128
7665-1	Text/Photo	Yellow	The larger the value, the darker the green becomes. The smaller the value, the darker the red becomes.	
7665-2	Text/Photo	Green	The larger the value, the darker the cyan becomes. The smaller the value, the darker the yellow becomes.	
7665-3	Text/Photo	Cyan	The larger the value, the darker the blue becomes. The smaller the value, the darker the green becomes.	
7665-4	Text/Photo	Blue	The larger the value, the darker the magenta becomes. The smaller the value, the darker the cyan becomes.	
7665-5	Text/Photo	Magenta	The larger the value, the darker the red becomes. The smaller the value, the darker the blue becomes.	
7666-0	Text	Red	The larger the value, the darker the yellow becomes. The smaller the value, the darker the magenta becomes.	
7666-1	Text	Yellow	The larger the value, the darker the green becomes. The smaller the value, the darker the red becomes.	
7666-2	Text	Green	The larger the value, the darker the cyan becomes. The smaller the value, the darker the yellow becomes.	
7666-3	Text	Cyan	The larger the value, the darker the blue becomes. The smaller the value, the darker the green becomes.	
7666-4	Text	Blue	The larger the value, the darker the magenta becomes. The smaller the value, the darker the cyan becomes.	
7666-5	Text	Magenta	The larger the value, the darker the red becomes. The smaller the value, the darker the blue becomes.	
7667-0	Printed image	Red	The larger the value, the darker the yellow becomes. The smaller the value, the darker the magenta becomes.	
7667-1	Printed image	Yellow	The larger the value, the darker the green becomes. The smaller the value, the darker the red becomes.	
7667-2	Printed image	Green	The larger the value, the darker the cyan becomes. The smaller the value, the darker the yellow becomes.	
7667-3	Printed image	Cyan	The larger the value, the darker the blue becomes. The smaller the value, the darker the green becomes.	
7667-4	Printed image	Blue	The larger the value, the darker the magenta becomes. The smaller the value, the darker the cyan becomes.	
7667-5	Printed image	Magenta	The larger the value, the darker the red becomes. The smaller the value, the darker the blue becomes.	

Code	Original mode	Item to be adjusted	Description	Remarks
7668-0	Photo	Red	The larger the value, the darker the yellow becomes. The smaller the value, the darker the magenta becomes.	Acceptable value: 0 to 255 Default value: 128
7668-1	Photo	Yellow	The larger the value, the darker the green becomes. The smaller the value, the darker the red becomes.	
7668-2	Photo	Green	The larger the value, the darker the cyan becomes. The smaller the value, the darker the yellow becomes.	
7668-3	Photo	Cyan	The larger the value, the darker the blue becomes. The smaller the value, the darker the green becomes.	
7668-4	Photo	Blue	The larger the value, the darker the magenta becomes. The smaller the value, the darker the cyan becomes.	
7668-5	Photo	Magenta	The larger the value, the darker the red becomes. The smaller the value, the darker the blue becomes.	
7669-0	Map	Red	The larger the value, the darker the yellow becomes. The smaller the value, the darker the magenta becomes.	
7669-1	Map	Yellow	The larger the value, the darker the green becomes. The smaller the value, the darker the red becomes.	
7669-2	Map	Green	The larger the value, the darker the cyan becomes. The smaller the value, the darker the yellow becomes.	
7669-3	Map	Cyan	The larger the value, the darker the blue becomes. The smaller the value, the darker the green becomes.	
7669-4	Map	Blue	The larger the value, the darker the magenta becomes. The smaller the value, the darker the cyan becomes.	
7669-5	Map	Magenta	The larger the value, the darker the red becomes. The smaller the value, the darker the blue becomes.	
7670-0	Custom	Red	The larger the value, the darker the yellow becomes. The smaller the value, the darker the magenta becomes.	
7670-1	Custom	Yellow	The larger the value, the darker the green becomes. The smaller the value, the darker the red becomes.	
7670-2	Custom	Green	The larger the value, the darker the cyan becomes. The smaller the value, the darker the yellow becomes.	
7670-3	Custom	Cyan	The larger the value, the darker the blue becomes. The smaller the value, the darker the green becomes.	
7670-4	Custom	Blue	The larger the value, the darker the magenta becomes. The smaller the value, the darker the cyan becomes.	
7670-5	Custom	Magenta	The larger the value, the darker the red becomes. The smaller the value, the darker the blue becomes.	
7671-0	Red seal color	Red	The larger the value, the darker the yellow becomes. The smaller the value, the darker the magenta becomes.	
7671-1	Red seal color	Yellow	The larger the value, the darker the green becomes. The smaller the value, the darker the red becomes.	

Code	Original mode	Item to be adjusted	Description	Remarks
7671-2	Red seal color	Green	The larger the value, the darker the cyan becomes. The smaller the value, the darker the yellow becomes.	Acceptable value: 0 to 255 Default value: 128
7671-3	Red seal color	Cyan	The larger the value, the darker the blue becomes. The smaller the value, the darker the green becomes.	
7671-4	Red seal color	Blue	The larger the value, the darker the magenta becomes. The smaller the value, the darker the cyan becomes.	
7671-5	Red seal color	Magenta	The larger the value, the darker the red becomes. The smaller the value, the darker the blue becomes.	

Notes:
Be sure that this adjustment is made after performing 📖 P. 6-27 "6.2.1 Automatic gamma adjustment".

<Procedure>
(1) While pressing [0] and [5] simultaneously, turn the power ON.
(2) Key in a code and press the [START] button. (e.g. 7665)
(3) Key in a value to adjust the color.
    0: Red
    1: Yellow
    2: Green
    3: Cyan
    4: Blue
    5: Magenta
    (To correct a value once keyed in, press the [CLEAR] button.)
(4) Press the [OK] or [INTERRUPT] button to store the value. → The equipment goes back to the ready state.
(5) Repeat step (2) to (4) to make the setting again.
(6) Press the [FAX] button and then press the [START] button to make a test copy.
(7) If the desired image quality has not been attained, repeat step (2) to (6).

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6.2.23 Saturation adjustment

The saturation of the copied image in the color copying function can be adjusted as follows.

<Adjustment Mode (05)>

Code	Original mode	Item to be adjusted	Description	Remarks
7675-0	Text/Photo	Red	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	Acceptable value: 0 to 255 Default value: 128
7675-1	Text/Photo	Yellow		
7675-2	Text/Photo	Green		
7675-3	Text/Photo	Cyan		
7675-4	Text/Photo	Blue		
7675-5	Text/Photo	Magenta		
7676-0	Text	Red		
7676-1	Text	Yellow		
7676-2	Text	Green		
7676-3	Text	Cyan		
7676-4	Text	Blue		
7676-5	Text	Magenta		
7677-0	Printed image	Red		
7677-1	Printed image	Yellow		
7677-2	Printed image	Green		
7677-3	Printed image	Cyan		
7677-4	Printed image	Blue		
7677-5	Printed image	Magenta		
7678-0	Photo	Red		
7678-1	Photo	Yellow		
7678-2	Photo	Green		
7678-3	Photo	Cyan		
7678-4	Photo	Blue		
7678-5	Photo	Magenta		
7679-0	Map	Red		
7679-1	Map	Yellow		
7679-2	Map	Green		
7679-3	Map	Cyan		
7679-4	Map	Blue		
7679-5	Map	Magenta		
7680-0	Custom	Red		
7680-1	Custom	Yellow		
7680-2	Custom	Green		
7680-3	Custom	Cyan		
7680-4	Custom	Blue		
7680-5	Custom	Magenta		
7681-0	Red seal color	Red		
7681-1	Red seal color	Yellow		
7681-2	Red seal color	Green		
7681-3	Red seal color	Cyan		
7681-4	Red seal color	Blue		
7681-5	Red seal color	Magenta		

Notes:

Be sure that this adjustment is made after performing 📖 P. 6-27 "6.2.1 Automatic gamma adjustment".

<Procedure>
(1) While pressing [0] and [5] simultaneously, turn the power ON.
(2) Key in a code and press the [START] button. (e.g. 7675)
(3) Key in a value to adjust the color.
     0: Red
     1: Yellow
     2: Green
     3: Cyan
     4: Blue
     5: Magenta
     (To correct a value once keyed in, press the [CLEAR] button.)
(4) Press the [OK] or [INTERRUPT] button to store the value. → The equipment goes back to the ready state.
(5) Repeat step (2) to (4) to make the setting again.
(6) Press the [FAX] button and then press the [START] button to make a test copy.
(7) If the desired image quality has not been attained, repeat step (2) to (6).

6.2.24 ADF noise reduction (Copying Function)

The noise reduction level for streaks can be adjusted with the following codes when a copy job whose color mode is [BLACK] is performed using the ADF while its scan noise reduction function is set to enable (*).
* When [LOW], [MIDDLE] or [HIGH] is selected in the [ADMIN] tab of the [USER FUNCTIONS] menu, or when "0", "1" or "2" is selected in 08-7617.

<Adjustment Mode (05)>

Color mode	Original mode			Item to be adjusted	Remarks
	Text/ Photo	Text	Custom mode		
Black	7151	7152	7150	ADF noise reduction	When the value decreases, the effect of reducing streaks (set with 08-7617) becomes larger. When the value increases, the effect of reducing streaks (set with 08-7617) becomes smaller. When "0" is set, this function is disabled. Acceptable values: 0 to 200 (Default: 100)

When [FULL COLOR] or [AUTO COLOR] is selected for the color mode, the ADF noise reduction function for streaks can be set to enable or disable with the following codes.

Color mode	Original mode			Item to be adjusted	Remarks
	Text/ Photo	Text	Custom mode		
Color	7694	-	7693	ADF noise reduction	Enable/Disable setting 0: Disabled 1: Enabled (Default: 1) 05-7693 is available only when "1" (TEXT/PHOTO base" is set for 08-7614.

Notes:
• Remember the image specifications and life span of the replacing parts may not meet the standard when the setting value is changed from the default value.
• If too small a value is set, the text may not be printed clearly.

<Procedure>
The procedure is the same as that of 📖 P. 6-29 "6.2.2 Density adjustment".

6.3 Image Quality Adjustment (Printing Function)

6.3.1 Automatic gamma adjustment

When the reproduction of gradation is not appropriate, the gradation reproducibility of all colors Y, M, C and K can be corrected by performing this automatic gamma adjustment. In case the gradation reproduction of the image checked is not satisfactory, make this adjustment as described below at parts replacement.

1. When unpacking or any of the following parts has been replaced, be sure to make this adjustment:
   - Photoconductive drum
   - Developer material
   - LED printer head
   - LED gap spacer
   - Transfer belt
   - 1st transfer roller
   - Drum cleaning blade
   - Needle electrode
   - Main charger grid
   - Image position aligning sensor (Front)
   - Image position aligning sensor (Rear)/Image quality sensor
   - SRAM board (SYS board)
   - EEPROM (LGC board)
   - HDD

2. When any of the following parts are replaced or adjusted, make a print and check the image to determine if adjustment is necessary:
   - 2nd transfer roller
   - Screen switchover (for color: 08-8110, for black: 08-7310)
     📖 P. 6-61 "6.3.13 Sharpness adjustment"
     📖 P. 6-53 "6.3.2 Gamma balance adjustment (Black Mode)"

   Notes:
   Be sure to perform this adjustment after performing 📖 P. 6-4 "6.1.3 Performing Image Quality Control".

<Procedure>
(1) While pressing [0] and [5] simultaneously, turn the power ON. → Adjustment Mode
(2) Select the A4/LT/A3/LD drawer. Key in the pattern number and press the [FAX] button to output a "Patch chart for adjustment".

600dpi

Pattern No.	Paper type	Remarks
70	Plain paper	Used when the code 8004-0 is performed
74	Recycled paper	Used when the code 8004-2 is performed
76	Thick paper 1	Used when the code 8004-3 is performed
78	Thick paper 2	Used when the code 8004-4 is performed
84	Special paper 1	Used when the code 8004-7 is performed
86	Special paper 2	Used when the code 8004-8 is performed

Notes:
However, this is applied to all paper types when 05-8008 is performed.

1200dpi

Pattern No.	Paper type	Remarks
230	Plain paper	Used when the code 8005-0 is performed
234	Recycled paper	Used when the code 8005-2 is performed
236	Thick paper 1	Used when the code 8005-3 is performed
238	Thick paper 2	Used when the code 8005-4 is performed
244	Special paper 1	Used when the code 8005-7 is performed
246	Special paper 2	Used when the code 8005-8 is performed

Notes:
However, this is applied to all paper types when 05-8009 is performed.

(3) Place the patch chart for adjustment printed in step (2) face down on the original glass, with its side, on which two black squares are present, aligned against the original scale.
(4) Key in a code and press the [START] button. → The scanner reads the chart automatically and performs automatic gamma adjustment calculation (approx. 30 sec.).

600dpi

Code	Paper type	Remarks
8004-0	Plain paper	When the reproduction of gradation is not appropriate, the gradation reproducibility of all colors Y, M, C and K can be corrected by performing this automatic gamma adjustment.
8004-2	Recycled paper	
8004-3	Thick paper 1	
8004-4	Thick paper 2	
8004-7	Special paper 1	
8004-8	Special paper 2	
8008	All paper types	

* If the code 8008 is performed, the adjustment will be applied to all paper types.

1200dpi

Code	Paper type	Remarks
8005-0	Plain paper	When the reproduction of gradation is not appropriate, the gradation reproducibility of all colors Y, M, C and K can be corrected by performing this automatic gamma adjustment.
8005-2	Recycled paper	
8005-3	Thick paper 1	
8005-4	Thick paper 2	
8005-7	Special paper 1	
8005-8	Special paper 2	
8009	All paper types	

* If the code 8009 is performed, the adjustment will be applied to all paper types.
* 05-8005 and 8009 are not supported by LL20/25ppm model.

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(5)　When the adjustment has finished normally, press the [OK] button to have the adjustment results reflected.
(To cancel the reflection of adjustment results, press the [CANCEL] button.)
In the case of an abnormal ending, "ADJUSTMENT ERROR" is shown. Press the [CANCEL] button to clear the error display.
When it is cleared, the control panel display will return to the ready state. Then, check if the patch chart on the original glass is placed in the wrong direction or if it is placed inclined on the original glass, and then repeat step (3) and afterward.

To select the paper type for the automatic gamma adjustment in user calibration, change the code below to "1". (copy/print)

Code	Remarks
08-9059	0: No paper selecting buttons displayed 1: Paper selecting buttons displayed. (For both Copy and Printer)

6.3.2 Gamma balance adjustment (Black Mode)

The gamma balance is adjusted by adjusting the density at the Black Mode. The adjustment is performed by selecting its density area from the following: low density, medium density, and high density.

When "Black" (600 dpi) is set for the color mode and "Auto" is selected for the halftone setting, the gamma balance can be adjusted in each area of Text, Graphics and Image.

Notes:
PS, XPS, and 1200dpi are not supported by LL20/25ppm model.

<Adjustment Mode (05)>

Color mode	Smooth (PS)	Detail (PS)	Smooth (PCL)	Detail (PCL)	Smooth (XPS)	Detail (XPS)	Remarks
Black (600dpi)	7315-0	7316-0	7317-0	7318-0	7319-0	7320-0	The larger the value is, the density of the item to be adjusted becomes darker. Acceptable values: 0 to 255 (Default: 128)
	7315-1	7316-1	7317-1	7318-1	7319-1	7320-1	
	7315-2	7316-2	7317-2	7318-2	7319-2	7320-2	
Black (1200dpi)	7309-0	7310-0	---	---	---	---	The larger the value is, the density of the item to be adjusted becomes darker. Acceptable values: 0 to 255 (Default: 128)
	7309-1	7310-1	---	---	---	---	
	7309-2	7310-2	---	---	---	---	

Color mode	Auto (PS)		Auto (PCL)				Remarks
	Smooth (PS)	Detail (PS)	Smooth (PCL)	Detail (PCL)	Smooth (XPS)	Detail (XPS)	
Black (600dpi)	7360-0	7361-0	7362-0	7363-0	7364-0	7365-0	The larger the value is, the density of the item to be adjusted becomes darker. Acceptable values: 0 to 255 (Default: 128)
	7360-1	7361-1	7362-1	7363-1	7364-1	7365-1	
	7360-2	7361-2	7362-2	7363-2	7364-2	7365-2	

Color mode	Auto (XPS)			Remarks
	Smooth (PS)	Detail (PS)	Smooth (PCL)	
Black (600dpi)	7366-0	7367-0	7368-0	The larger the value is, the density of the item to be adjusted becomes darker. Acceptable values: 0 to 255 (Default: 128)
	7366-1	7367-1	7368-1	
	7366-2	7367-2	7368-2	

Notes:
- Be sure that this adjustment be made after performing 📖 P. 6-50 "6.3.1 Automatic gamma adjustment".
- Changing the adjustment setting influences the adjacent density area slightly.
  E.g.: When the value of the medium density is larger, the adjacent areas in the low density and high density range will become slightly darker.

<Procedure>
(1) While pressing [0] and [5] simultaneously, turn the power ON.
(2) Key in the codes to be adjusted (language and screen) and press the [START] button.
(3) Key in the value corresponding to the density area to be adjusted (0, 1 or 2) and press the [START] button.
    0: Low density 1: Medium density 2: High density/Highest density

(4)   Key in the adjustment value. (To correct the value once keyed in, press the [CLEAR] button.)
(5)   Press the [OK] or [INTERRUPT] button to store the value in memory. → The equipment goes back to the ready state.
(6)   For resetting the value, repeat step (2) to (5).
(7)   Let the equipment restart and perform the printing job.
(8)   If the image density has not been attained, repeat step (1) to (7)

<Range of the density area (low density, medium density, high density)>
The color from the 1st to the 7th stage (low density), from the 8th to the 11th stage (medium density) and from the 12th to the 13th stage (high density) in "Patch chart for gamma adjustment ([71] [FAX])" output as a confirmation in 📖 P. 6-50 "6.3.1 Automatic gamma adjustment" can be used as a guide for the range of the density area (low density, medium density, high density) influenced by the change of the adjustment value.
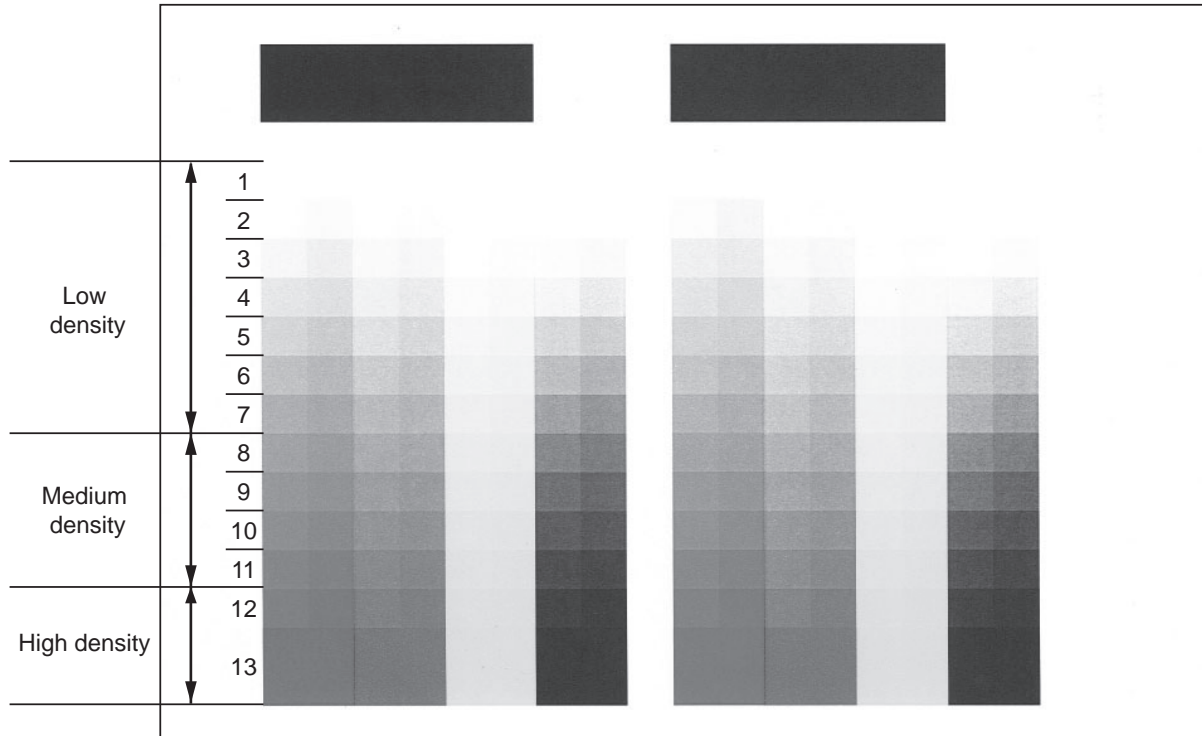
Fig.6-22

6.3.3 Color balance adjustment

The color balance is adjusted by adjusting the density of each color. The adjustment is performed by selecting its density area from the following: low density, medium density, and high density.

Notes:
PS, XPS, and 1200dpi are not supported by LL20/25ppm model.

<Adjustment Mode (05)>
For color printing

Color	PS		PCL		XPS		Remarks
	Smooth	Detail	Smooth	Detail	Smooth	Detail	
Yellow (600dpi)	8050-0	8054-0	8058-0	8062-0	8042-0	8046-0	The larger the value is, the darker the color to be adjusted becomes. Acceptable values: 0 to 255 (Default: 128)
	8050-1	8054-1	8058-1	8062-1	8042-1	8046-1	
	8050-2	8054-2	8058-2	8062-2	8042-2	8046-2	
Magenta (600dpi)	8051-0	8055-0	8059-0	8063-0	8043-0	8047-0	
	8051-1	8055-1	8059-1	8063-1	8043-1	8047-1	
	8051-2	8055-2	8059-2	8063-2	8043-2	8047-2	
Cyan (600dpi)	8052-0	8056-0	8060-0	8064-0	8044-0	8048-0	
	8052-1	8056-1	8060-1	8064-1	8044-1	8048-1	
	8052-2	8056-2	8060-2	8064-2	8044-2	8048-2	
Black (600dpi)	8053-0	8057-0	8061-0	8065-0	8045-0	8049-0	
	8053-1	8057-1	8061-1	8065-1	8045-1	8049-1	
	8053-2	8057-2	8061-2	8065-2	8045-2	8049-2	
Yellow (1200dpi)	8268-0	8272-0	---	---	---	---	
	8268-1	8272-1	---	---	---	---	
	8268-2	8272-2	---	---	---	---	
Magenta (1200dpi)	8269-0	8273-0	---	---	---	---	
	8269-1	8273-1	---	---	---	---	
	8269-2	8273-2	---	---	---	---	
Cyan (1200dpi)	8270-0	8274-0	---	---	---	---	
	8270-1	8274-1	---	---	---	---	
	8270-2	8274-2	---	---	---	---	
Black (1200dpi)	8271-0	8275-0	---	---	---	---	
	8271-1	8275-1	---	---	---	---	
	8271-2	8275-2	---	---	---	---	

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Twin color print

Color specified for twin color print	Item to be adjusted				Remarks
	Black	Yellow	Magenta	Cyan	
Black	8023-0	-	-	-	The larger the value is, the darker the color to be adjusted becomes. Acceptable values: 0 to 255 (Default: 128)
	8023-1	-	-	-	
	8023-2	-	-	-	
Cyan	-	8024-0	8025-0	8026-0	
	-	8024-1	8025-1	8026-1	
	-	8024-2	8025-2	8026-2	
Magenta	-	8027-0	8028-0	8029-0	
	-	8027-1	8028-1	8029-1	
	-	8027-2	8028-2	8029-2	
Yellow	-	8030-0	8031-0	8032-0	
	-	8030-1	8031-1	8032-1	
	-	8030-2	8031-2	8032-2	
Red	-	8033-0	8034-0	8035-0	
	-	8033-1	8034-1	8035-1	
	-	8033-2	8034-2	8035-2	
Green	-	8036-0	8037-0	8038-0	
	-	8036-1	8037-1	8038-1	
	-	8036-2	8037-2	8038-2	
Blue	-	8039-0	8040-0	8041-0	
	-	8039-1	8040-1	8041-1	
	-	8039-2	8040-2	8041-2	

Notes:
- Be sure that this adjustment be made after performing ☐ P. 6-50 "6.3.1 Automatic gamma adjustment".
- Changing the adjustment setting influences the adjacent density area slightly.
  E.g.: When the value of the medium density is larger, the adjacent areas in the low density and high density range will become slightly darker.

<Procedure>
The procedure is the same as that of ☐ P. 6-53 "6.3.2 Gamma balance adjustment (Black Mode)".

<Range of the density area (low density, medium density, high density)>
The color from the 1st to the 7th stage (low density), from the 8th to the 11th stage (medium density), from the 12th to the 13th stage (high density) in "Patch chart for gamma adjustment ([71] [FAX])" output in ☐ P. 6-50 "6.3.1 Automatic gamma adjustment" can be used as a guide for the range of the density area influenced by the adjustment with the printer driver and the change of the adjustment value (low density, medium density, and high density (Refer to ☐ P. 6-54 "Fig.6-22 ").

6.3.4 Adjustment of faint text

The faint text can be improved in the following codes.

Notes:

PS and XPS are not supported by LL20/25ppm model.

\<Adjustment Mode (05)\>

Black mode			Color mode			Remarks
PS	PCL	XPS	PS	PCL	XPS	
7340	7341	7342	8130	8131	8132	When the small characters or fine lines in a halftone image are faint, they can be improved by increasing the value to raise the density level. Acceptable values: 0 to 8 (Default: 0)

\<Procedure\>
 (1) While pressing [0] and [5] simultaneously, turn the power ON.
 (2) Key in the codes to be adjusted and press the [START] button.
 (3) Key in the adjustment value. (To correct the value once keyed in, press the [CLEAR] button.)
 (4) Press the [OK] or [INTERRUPT] button to store the value in memory. → The equipment goes back to the ready state.
 (5) For resetting the value, repeat step (2) to (4).
 (6) Let the equipment restart and perform the printing job.
 (7) If the desired image has not been attained, repeat step (1) to (6).

6.3.5 Upper limit value in the Toner Saving Mode

The upper limit value of the density when "Toner save" is selected in the Custom tab of the printer driver can be adjusted.

Notes:

PS, XPS, and 1200dpi are not supported by LL20/25ppm model.

\<Adjustment Mode (05)\>

Color	PS	PCL	XPS	1200dpi	Remarks
Black mode	7307-0	7307-1	7307-2	7302	The smaller the value is, the lighter the density of image becomes. Acceptable values: 0 to 255 (Default: 176)
Color mode	8160-0	8160-1	8160-2	8161	

\<Procedure\>
The procedure is the same as that of 📖 P. 6-53 "6.3.2 Gamma balance adjustment (Black Mode)".

6.3.6   Maximum toner density adjustment (OHP)

The maximum toner amount adhering to the paper can be controlled.

Notes:
> 1200dpi is not supported by LL20/25ppm model.

<Adjustment Mode (05)>

Color	Code	Paper type	Remarks
Color (600dpi)	8145	OHP film	The smaller the value is, the toner amount adhered decreases of the high density area (ex. prevention of fusing offsetting, etc.). Acceptable values: 0 to 255 (Default: 200)
Color (1200dpi)	8149		

<Procedure>
The procedure is the same as that of 📖 P. 6-57 "6.3.4 Adjustment of faint text".

> Notes:
> The larger the value is, the more frequently fusing offsetting occurs.

6.3.7   Fine line enhancement switchover

The setting of the thin line enhancement is changed.

Notes:
> PS and XPS are not supported by LL20/25ppm model.

<Adjustment Mode (05)>

Black mode			Color mode			Remarks
PS	PCL	XPS	PS	PCL		
7322-0	7322-1	7322-2	8102-0	8102-1	8102-2	Whether fine lines are enhanced or not can be switched. 0: OFF 1: ON Acceptable values: 0 to 1 (Default: 1)

<Procedure>
The procedure is the same as that of 📖 P. 6-53 "6.3.2 Gamma balance adjustment (Black Mode)".

6.3.8   "PureBlack/PureGray" threshold adjustment (PCL)

<Adjustment Mode (05)>

Original mode				Item to be adjusted	Remarks
General	Photographic	Presentation	Line art		
8210-0	8210-1	8210-2	8210-3	Text	The larger the value is, the wider the color range to be printed only with the black toner becomes. The smaller the value is, the narrower this color range becomes. Acceptable values: 1 to 255
8211-0	8211-1	8211-2	8211-3	Graphics	
8212-0	8212-1	8212-2	8212-3	Image	

<Procedure>
The procedure is the same as that of 📖 P. 6-53 "6.3.2 Gamma balance adjustment (Black Mode)".

6.3.9 "PureBlack/PureGray" threshold adjustment (Twin color mode)

\<Adjustment Mode (05)\>

Code	Item to be adjusted	Remarks
8213	Text	The larger the value is, the wider the color range to be printed only with the black toner becomes. The smaller the value is, the narrower this color range becomes. Acceptable values: 1 to 255
8214	Graphics	
8215	Image	

\<Procedure\>
The procedure is the same as that of P. 6-57 "6.3.4 Adjustment of faint text".

6.3.10 "PureBlack/PureGray" threshold adjustment (PS)

Notes:
This adjustment is not supported by LL20/25ppm model.

\<Adjustment Mode (05)\>

Original mode					Item to be adjusted	Remarks
General	Photographic	Presentation	Line art	Color profile		
8252-0	8252-1	8252-2	8252-3	8252-4	Text	The larger the value is, the wider the color range to be printed only with the black toner becomes. The smaller the value is, the narrower this color range becomes. Acceptable values: 1 to 255
8253-0	8253-1	8253-2	8253-3	8253-4	Graphics	
8254-0	8254-1	8254-2	8254-3	8254-4	Image	

\<Procedure\>
The procedure is the same as that of P. 6-53 "6.3.2 Gamma balance adjustment (Black Mode)".

6.3.11 "PureBlack/PureGray" threshold adjustment (XPS)

Notes:
This adjustment is not supported by LL20/25ppm model.

\<Adjustment Mode (05)\>

Original mode					Item to be adjusted	Remarks
General	Photographic	Presentation	Line art	Color profile		
8249-0	8249-1	8249-2	8249-3	8249-4	Text	The larger the value is, the wider the color range to be printed only with the black toner becomes. The smaller the value is, the narrower this color range becomes. Acceptable values: 1 to 255
8250-0	8250-1	8250-2	8250-3	8250-4	Graphics	
8251-0	8251-1	8251-2	8251-3	8251-4	Image	

\<Procedure\>
The procedure is the same as that of P. 6-53 "6.3.2 Gamma balance adjustment (Black Mode)".

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6.3.12 Toner limit threshold adjustment

Notes:

1200dpi is not supported by LL20/25ppm model.

<Adjustment Mode (05)>

Smooth/ Auto (PS/PCL/ XPS)	Detail (PS/PCL/ XPS)	Smooth (1200dpi)	Detail (1200dpi)	Paper type	Remarks
8071-0	8070-0	8090-0	8089-0	Plain paper	When you set a larger value, the density becomes high in some parts of the high density area since the maximum amount of toner adhering increases. When you set a smaller value, the reproduction of the gradation tends to be reduced since the maximum amount of toner adhering decreases and the maximum density becomes low. Be aware that if too large a value is set, offsetting occurs. Acceptable values: 0 to 255 (Default: 128)
8071-2	8070-2	8090-2	8089-2	Recycled paper	
8071-3	8070-3	8090-3	8089-3	Thick paper 1	
8071-4	8070-4	8090-4	8089-4	Thick paper 2	
8071-7	8070-7	8090-7	8089-7	Special paper 1	
8071-8	8070-8	8090-8	8089-8	Special paper 2	
8071-11	8070-11	8090-11	8089-11	Envelope	
8071-12	8070-12	8090-12	8089-12	OHP film	

<Procedure>

The procedure is the same as that of 📖 P. 6-53 "6.3.2 Gamma balance adjustment (Black Mode)".

6.3.13 Sharpness adjustment

This adjustment is applied when images need to be softer or sharper.
The adjustment for each original mode is available.
The performance of this adjustment differs depending on the setting value of 05-7322 or 05-8102 with
"📖 P. 6-58 "6.3.7 Fine line enhancement switchover"" as shown below.

<Adjustment Mode (05)>

When the value of 8102 is "0"

| Item to be adjusted | Color | | | | | Twin color | Black | Remarks |
	General	Photo	Present ation	Line art	Red Seal Color			
Text	8110-0	8111-0	8112-0	8113-0	8109-0	8108-0	8118-0	The larger the value is, the sharper the image becomes. The smaller the value is, the softer the image becomes. Acceptable values: 0 to 255 (Default: 128)
Graphics	8110-1	8111-1	8112-1	8113-1	8109-1	8108-1	8118-1	
Image	8110-2	8111-2	8112-2	8113-2	8109-2	8108-2	8118-2	

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When the value of 8102 is "1"

| Item to be adjusted | Color | | | | | Twin color | Black | Remarks |
	General	Photo	Present ation	Line art	Red Seal Color			
Text/ Others	8110-0	8111-0	8112-0	8113-0	8109-0	8108-0	8118-0	The larger the value is, the sharper the image becomes. The smaller the value is, the softer the image becomes. Acceptable values: 0 to 255 (Default: 128)
Thin text	8110-1	8111-1	8112-1	8113-1	8109-1	8108-1	8118-1	
Image	8110-2	8111-2	8112-2	8113-2	8109-2	8108-2	8118-2	

<Procedure>

The procedure is the same as that of 📖 P. 6-53 "6.3.2 Gamma balance adjustment (Black Mode)".

6.3.14   Thin line width lower limit adjustment

Notes:

Code 05-8241 is not supported by LL20/25ppm model.

<Adjustment Mode (05)>

Code	Remarks
8240 (600dpi)	Sets the lower limit value of the thin line width when "Distinguish Thin Lines" is selected in the screen selecting menu of the printer driver.
8241 (1200dpi)	The larger the value is, the thicker (darker) the thin line becomes. Acceptable values: 1 to 9 (Default: 2)

<Procedure>

The procedure is the same as that of 📖 P. 6-57 "6.3.4 Adjustment of faint text".

6.3.15 Offsetting adjustment for background processing

The density of background can be adjusted as follows.

Notes:
PS, XPS, and 1200dpi are not supported by LL20/25ppm model.

<Adjustment Mode (05)>

Mode	PS		PCL		XPS		1200dpi		Remarks
	Smooth	Detail	Smooth	Detail	Smooth	Detail	Smooth	Detail	
Color	8010-0	8013-0	8010-1	8013-1	8010-2	8013-2	8016	8017	The larger the value is, the darker the background becomes. The smaller the value is, the lighter the background becomes. Acceptable values: 0 to 255 (default: 128)
Twin Color	8011-0	8014-0	8011-1	8014-1	8011-2	8014-2	-	-	
Black	8012-0	8015-0	8012-1	8015-1	8012-2	8015-2	8018	8019	

<Procedure>
The procedure is the same as that of 📖 P. 6-53 "6.3.2 Gamma balance adjustment (Black Mode)".

6.3.16 Color/black judgment setting for twin color printing images

The color reproduction of the image object is specified in the twin color mode.
<Adjustment Mode (05)>

Code	Remarks
8218	0 : Reproduced with black and the specified color 1 : Reproduced with black only Acceptable values: 0 to 1 (Default: 0)

<Procedure>
The procedure is the same as that of 📖 P. 6-57 "6.3.4 Adjustment of faint text".

6.3.17 LED emission level adjustment

The LED emission level in the BOX printing (black/binary), network FAX and e-mail FAX can be set. The size of the dots can be adjusted.

\<Adjustment Mode (05)\>

Code	Item to be adjusted	Remarks
7330-0	LED emission level 0/4	The smaller the value is, the smaller the LED emission level of the primary scanning direction becomes. Therefore, the smaller dots are reproduced accordingly.
7330-1	LED emission level 1/4	
7330-2	LED emission level 2/4	
7330-3	LED emission level 3/4	Acceptable values: 0 to 255
7330-4	LED emission level 4/4	(Default: Level 0/4: 0, Level 1/4: 63, Level 2/4: 127, Level 3/4: 191, Level 4/4: 255)

Restart the equipment, and perform the printing job.

\<Procedure\>
The procedure is the same as that of P. 6-53 "6.3.2 Gamma balance adjustment (Black Mode)".

Notes:
- The setting value must increase as the LED emission level number (0 to 4) becomes higher. Do not increase this order when setting the values.
- Usually, LED emission level 4 / 4 is the most effective in the black mode.
- It is not applied to the images printed in the Black mode by the printer driver.

6.3.18 Density adjustment of graphic lines (1200 dpi)

This adjustment is available regardless of whether "Distinguish Thin Lines" of the printer driver is selected or not.

Notes:
Code 05-8242 and 05-8243 are not supported by LL20/25ppm model.

\<Adjustment Mode (05)\>

Color mode	Code	Remarks
Color/Black	8242-0	The density of the line in Black in the line density range specified by "05-8243-0" or "05-8243-1" can be adjusted. The larger the value is, the darker the line density becomes. Acceptable value: 0 to 5 (Default: 3)
	8242-1	The density of the line in Yellow, Magenta, Cyan, and Black in the line density range specified by "05-8243-2" or "05-8243-3" can be adjusted. The larger the value is, the darker the line density becomes. Acceptable value: 0 to 5 (Default: 1)

Color mode	Code	Remarks	
Color/Black	8243-0	The effective range (lower limit) of the density adjustment for the line in Black can be set. Acceptable value: 0 to 255 (Default: 1)	The density range selected in the upper and lower limit is adjusted with 05-8242-0.
	8243-1	The effective range (upper limit) of the density adjustment for the line in Black can be set. Acceptable value: 0 to 255 (Default: 200)	
	8243-2	The effective range (lower limit) of the density adjustment for the line in Yellow, Magenta, Cyan, and Black can be set. Acceptable value: 0 to 255 (Default: 1)	The density range selected in the upper and lower limit is adjusted with 05-8242-1.
	8243-3	The effective range (upper limit) of the density adjustment for the line in Yellow, Magenta, Cyan, and Black can be set. Acceptable value: 0 to 255 (Default: 255)	

Notes:
Be sure to set the values of the upper and lower limit properly so that they are not set in reverse.
The line density adjustment codes with black (8242-0, 8243-0 and 8243-1) are in common for both the color and black modes.

\<Procedure\>
The procedure is the same as that of 📖 P. 6-53 "6.3.2 Gamma balance adjustment (Black Mode)".

6.4 Image Quality Adjustment (Scanning Function)

6.4.1 Gamma balance adjustment

The gamma balance at the Black Mode is adjusted by adjusting the density. The adjustment is performed by selecting its density area from the following: low density, medium density and high density.

<Adjustment Mode (05)>

Black				Gray Scale	Item to be adjusted	Remarks
Original mode						
Text/ Photo	Text	Photo	Custom mode			
7485-0	7486-0	7487-0	7480-0	7488-0	Low density	The larger the value is, the density of the item to be adjusted becomes darker. Acceptable values: 0 to 255 (Default: 128)
7485-1	7486-1	7487-1	7480-1	7488-1	Medium density	
7485-2	7486-2	7487-2	7480-2	7488-2	High density	

<Procedure>
(1) While pressing [0] and [5] simultaneously, turn the power ON.
(2) Key in the code corresponding to the desired original mode and press the [START] button.
(3) Key in the value corresponding to the density area to be adjusted (0, 1 or 2) and press the [START] button.
    0: Low density (L), 1: Medium density (M), 2: High density (H)
(4) Key in the adjustment value. (To correct the value once keyed in, press the [CLEAR] button.)
(5) Press the [OK] or [INTERRUPT] button to store the value in memory.
    → The equipment goes back to the ready state.
(6) For resetting the value, repeat step (2) to (5).
(7) Let the equipment restart and perform the scanning job.
(8) If the desired image has not been attained, repeat step (1) to (7).

6.4.2 Density adjustment

Adjusts the center density.

<Adjustment Mode (05)>

Color Mode	Original mode				Item to be adjusted	Remarks
	Text/ Photo	Text	Photo	Custom mode		
Color	8339	8340	8341	8380	Manual density center value	The larger the value is, the darker the image becomes. Acceptable values: 0 to 255 (Default: 128)

<Adjustment Mode (05)>

Mode	Original mode				Gray Scale	Item to be adjusted	Remarks
	Text/ Photo	Text	Photo	Custom mode			
Black	7444	7445	7446	7475	7447	Manual density center value	The larger the value is, the darker the image becomes. Acceptable values: 0 to 255 (Default: 128)
	7456	7457	7458	7478	7459	Automatic density	

<Procedure>
(1) While pressing [0] and [5] simultaneously, turn the power ON.
(2) Key in a code and press the [START] button.
(3) Key in an adjustment value (acceptable values: 0 to 255).
  (To correct a value once keyed in, press the [CLEAR] button.)
(4) Press the [OK] or [INTERRUPT] button to store the value in memory.
  → The equipment goes back to the ready state.
(5) Let the equipment restart and perform the scanning.
(6) If the desired image quality has not been attained, repeat step (1) to (5).

6.4.3 Background adjustment (Color Mode)

The adjustment level of background center value is adjusted. The control value of background adjustment button is automatically adjusted to the same level as the adjusted center value.
For example, when the control value of background adjustment key ranges from 0 to 6, the background center value (-2 to +2) is used to be the range from 6 to 14 accordingly.
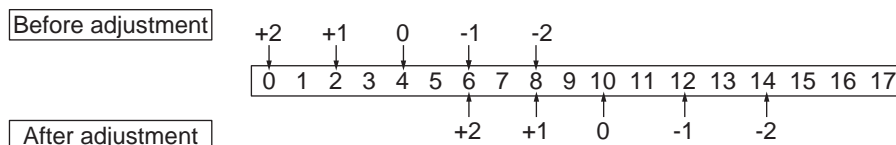
Fig.6-23

<Adjustment Mode (05)>

Code	Original mode	Remarks
8309	Text/Photo	The smaller the value is, the background becomes lighter.
8310	Text	Acceptable values: 0 to 255 (Default: 128)
8311	Photo	
8370	Custom mode	

<Procedure>
(1) While pressing [0] and [5] simultaneously, turn the power ON.
(2) Key in the codes and press the [START] button.
(3) Key in the adjustment values. Acceptable values: 0 to 50. (To correct the value once keyed in, press the [CLEAR] button.)
(4) Press the [OK] or [INTERRUPT] button to store the value in memory. → The equipment goes back to the ready state.
(5) Let the equipment restart and perform the scanning job.
(6) If the desired image has not been attained, repeat step (1) to (5).

6.4.4 Background adjustment (Black/Grayscale)

The density of background can be adjusted as follows.

<Adjustment Mode (05)>

Code	Color mode	Original mode	Remarks
7436	Black	Text/Photo	The smaller the value is, the background becomes lighter. Acceptable values: 0 to 255 (Default: 128)
7437		Text	
7438		Photo	
7441		Custom mode	
7439	Grayscale	-	

<Procedure>
The procedure is the same as that of 📖 P. 6-67 "6.4.2 Density adjustment".

6.4.5 Judgment threshold for ACS (common for copy and network scan)

The judgment level is adjusted for the automatic identification of whether the original set on the glass is black or color. Namely, this is to adjust the judgment level used when "Auto Color" is selected at color modes. The same adjustment value is simultaneously applied to all cases of originals on the original glass for copier functions and network scanning functions, and those placed on the RADF.

<Adjustment Mode (05)>

Code	Item to be adjusted	Contents
7630	Judgment threshold for ACS	The larger the value is, the more an original tends to be judged as black even at the Auto Color Mode. The smaller the value is, the more it tends to be judged as color. Acceptable values: 0 to 255 (Default: 70)

<Procedure>:
The procedure is the same as that of 📖 P. 6-67 "6.4.2 Density adjustment".

6.4.6 Sharpness adjustment

If you want to make scan images look softer or sharper, perform the following adjustment. The adjustment can be made for each of the color modes and original modes independently.

<Adjustment Mode (05)>

Code	Color mode	Original mode	Contents
8354	Full Color	Text/Photo	The larger the value is, the sharper the image becomes; while the smaller the value is, the softer the image becomes. The smaller the value is, the less moire tends to appear. The acceptable values are 0 to 255. The center value is 128.
8335		Text	
8336		Photo	
8375		Custom mode	
7430	Black	Text/Photo	
7431		Text	
7432		Photo	
7470		Custom mode	
7433	Gray Scale	-	

Notes:
You have to make adjustment by balancing between moire and sharpness.

<Procedure>
The procedure is the same as that of 📖 P. 6-67 "6.4.2 Density adjustment".

6.4.7 Fine adjustment of black density

The density of black side on scanned image is adjusted at color-scanning.

<Adjustment Mode (05)>

Code	Original mode	Remarks
8314	Text/Photo	The larger the value is, the black side of the image becomes darker. Acceptable values: 0 to 4 (Default: 1)
8315	Text	The larger the value is, the black side of the image becomes darker. Acceptable values: 0 to 4 (Default: 0)
8316	Photo	
8371	Custom mode	

Notes:
Be careful for the value not to be too large since the gradation is reproduced worse in darker side.

<Procedure>
(1) While pressing [0] and [5] simultaneously, turn the power ON.
(2) Key in the codes and press the [START] button.
(3) Key in the adjustment values. Acceptable values: 0 to 4. (To correct the value once keyed in, press the [CLEAR] button.)
(4) Press the [OK] or [INTERRUPT] button to store the value in memory. → The equipment goes back to the ready state.
(5) Let the equipment restart and perform the scanning job.
(6) If the desired image has not been attained, repeat step (1) to (5).

6.4.8 RGB conversion method selection

The color space conversion method of image is decided at color-scanning.

<Adjustment Mode (05)>

Code	Original mode	Remarks
8319	Text/Photo	0: sRGB, 1: AppleRGB, 2: ROMMRGB, 3: AdobeRGB (Default: 0)
8320	Text	
8321	Photo	
8372	Custom mode	

<Procedure>
(1) While pressing [0] and [5] simultaneously, turn the power ON.
(2) Key in the codes and press the [START] button.
(3) Key in the adjustment values. Acceptable values: 0 to 3. (To correct the value once keyed in, press the [CLEAR] button.)
(4) Press the [OK] or [INTERRUPT] button to store the value in memory. → The equipment goes back to the ready state.
(5) Let the equipment restart and perform the scanning job.
(6) If the desired image has not been attained, repeat step (1) to (5).

6.4.9 Adjustment of saturation

The saturation of the scanned image is adjusted for color-scanning.

<Adjustment Mode (05)>

Code	Original mode	Remarks
8324	Text/Photo	The larger the value is, the brighter the image becomes.
8325	Text	The smaller the value is, the duller the image becomes.
8326	Photo	Acceptable values: 0 to 255 (Default: 128)
8373	Custom mode	

<Procedure>
 (1)   While pressing [0] and [5] simultaneously, turn the power ON.
 (2)   Key in the codes and press the [START] button.
 (3)   Key in the adjustment values. Acceptable values: 0 to 255.
        (To correct the value once keyed in, press the [CLEAR] button.)
 (4)   Press the [OK] or [INTERRRUPT] button to store the value in the memory. → The equipment goes
        back to the ready state.
 (5)   Let the equipment restart and perform the scanning job.
 (6)   If the desired image has not been attained, repeat step (1) to (5).

6.4.10 Background offsetting adjustment for RADF (common for copy, scan and fax)

The background level for scanning originals with the RADF is adjusted when the background fogging at the scanning of a manually-set original and an original used with the RADF is different. This is to adjust the level of the background image removed when the scanning of the originals with the RADF is performed.

<Adjustment Mode (05)>

Color mode	Code	Remarks
Color	7026	The larger the value is, the darker the background density becomes.
Black	7025	Acceptable values: 0 to 255 (Default: 128)

<Procedure>
The procedure is the same as that of 📖 P. 6-67 "6.4.2 Density adjustment".

6.4.11 Adjustment of the capacity and image quality of SlimPDF

The compression quality or the resolution is adjusted to reduce the file capacity of a SlimPDF or improve its quality.

<Adjustment Mode (05)>

Code	Item to be adjusted	Remarks
9104	Compression quality of SlimPDF background processing	The smaller the value, the less the file capacity and the lower the image quality becomes. The larger the value, the greater the file capacity and the higher the image quality becomes. Acceptable values: 0 to 10 (Default: 5)
9107	Resolution of SlimPDF background processing	The smaller the value, the less the file capacity and the lower the image quality becomes. The larger the value, the greater the file capacity and the higher the image quality becomes. 0: 75dpi 1: 100dpi 2: 150dpi 3: 200dpi Acceptable values: 0 to 3 (Default: 1)

<Procedure>
(1) While pressing [0] and [5] simultaneously, turn the power ON.

(2) Key in the codes to be adjusted and press the [START] button.

(3) Key in the adjustment value. (To correct a value once keyed in, press the [CLEAR] button.)

(4) Press the [OK] or [INTERRUPT] button to store the value in memory. -> The equipment goes back to the ready state.

(5) Let the equipment restart. Acquire the SlimPDF file and check it.

(6) If the desired image quality has not been attained, repeat step (1) to (5).

6.4.12 Surrounding void amount adjustment

The void amount around the network scanned image is adjusted.
In network scanning, since the void amount is very small in stored images, a shadow may appear around the scanned image due to the subtle difference in the original sizes. This shadow can be eliminated by adjusting the setting value.
The setting value is applied to all resolutions and color modes.

<Adjustment Mode (05)>

Code	Item to be adjusted	Remarks
7489	Surrounding void amount adjustment	When the value increases, the blank area around the scanned image becomes wider, and the data on the image decrease. Acceptable values: 0 to 255 (Default: 0) The setting value "1" is equal to 1 dot with 600 dpi. (The value "24" is equal to approx. 1 mm.)

<Procedure>
The procedure is the same as that of 📖 P. 6-67 "6.4.2 Density adjustment".

6.4.13 Judgment threshold adjustment for blank originals (common for copy and scan)

The judgment level is adjusted for automatic identification of whether the original set is blank or not.
This adjustment is made when "OMIT BLANK PAGE" is selected on the control panel.
The adjustment value is simultaneously applied to all modes at PPC and scanning.

<Adjustment Mode (05)>

Code	Item to be adjusted	Remarks
7618	Judgment threshold adjustment for blank original	The larger the value is, the more an original tends to be judged as a bank sheet. Acceptable values: 0 to 255 (Default: 128)

<Procedure>
The procedure is the same as that of 📖 P. 6-67 "6.4.2 Density adjustment".

6.4.14 JPEG compression level adjustment

The compression level for saving the scanned data in the JPEG format can be adjusted as follows.

<Adjustment Mode (05)>

Code	Item to be adjusted	Remarks
8304-0	High quality	The larger the value is, the better the quality becomes, and the larger the size of file becomes. Acceptable values: 0 to 255 (Default: 128)
8304-1	Standard	
8304-2	Low quality	

<Procedure>
The procedure is the same as that of 📖 P. 6-67 "6.4.2 Density adjustment".

6.4.15 ADF noise reduction (Scanning Function)

The noise reduction level for streaks can be adjusted with the following codes when a scan job is performed using the ADF while its scan noise reduction function is set to enable (*).
* When [LOW], [MIDDLE] or [HIGH] is selected in the [ADMIN] tab of the [USER FUNCTIONS] menu, or when "0", "1" or "2" is selected in 08-8300.

<Adjustment Mode (05)>

Color				Item to be adjusted	Remarks
Original mode					
Text/ Photo	Text	Photo	Custom mode		
8413	8414	8415	8412	ADF noise reduction	When the value decreases, the effect of reducing streaks becomes larger. When the value increases, the effect of reducing streaks becomes smaller. When "0" is set, this function is disabled. Acceptable values: 0 to 200 (Default: 100)

Black				Gray scale	Item to be adjusted	Remarks
Original mode						
Text/ Photo	Text	Photo	Custom mode			
7401	7402	7403	7400	7404	ADF noise reduction	When the value decreases, the effect of reducing streaks becomes larger. When the value increases, the effect of reducing streaks becomes smaller. When "0" is set, this function is disabled. Acceptable values: 0 to 200 (Default: 100)

Notes:
- Remember the image specifications and life span of the replacing parts may not meet the standard when the setting value is changed from the default value.
- If too small a value is set, the text may not be printed clearly.

<Procedure>
The procedure is the same as that of ⟐ P. 6-67 "6.4.2 Density adjustment".

6.5 Image Quality Adjustment (FAX Function)

6.5.1 Density adjustment

The center density and the density variation controlled by density adjustment keys can be adjusted as follows.

<Adjustment Mode (05)>

Color mode	Original mode			Item to be adjusted	Remarks
	Text/ Photo	Text *	Photo		
Black	7533	7534	7535	Manual density center value	[TEXT/PHOTO], [PHOTO]: The larger the value is, the darker the image becomes. [Text]: The larger the value is, the lighter the image becomes. Acceptable values: 0 to 255 (Default: 128)
	7542	-	7543	Automatic density mode	The larger the value is, the darker the image becomes. Acceptable values: 0 to 255 (Default: 128)

* Since the gradation in this mode is reproduced in a binary image (black and white), this adjustment should be a simple binary threshold adjustment.

<Procedure>
(1) While pressing [0] and [5] simultaneously, turn the power ON.
(2) Key in a code and press the [START] button.
(3) Key in an adjustment value.
(To correct the value once keyed in, press the [CLEAR] button.)
(4) Press the [OK] or [INTERRUPT] button to store the value. → The equipment goes back to the ready state.
(5) Turn the power OFF.

<Confirmation>
If possible, perform a Fax transmission and check the adjusted density with the image on the recipient's side.

6.5.2 LED emission level adjustment

The LED emission level in the fax function can be set. In this setting the size of dots is adjusted.

<Adjustment Mode (05)>

Code	Item to be adjusted	Remarks
7594-0	LED emission level 0/4	The smaller the value is, the smaller the LED emission level becomes. Therefore, the smaller dot is reproduced accordingly. Acceptable values: 0 to 255 (Default: Level 0/4: 0, Level 1/4: 63, Level 2/4: 127, Level 3/4: 191, Level 4/4: 255)
7594-1	LED emission level 1/4	
7594-2	LED emission level 2/4	
7594-3	LED emission level 3/4	
7594-4	LED emission level 4/4	

<Procedure>
 (1)   While pressing [0] and [5] simultaneously, turn the power ON.
 (2)   Key in a code and press the [START] button.
 (3)   Key in a sub-code and press the [START] button.
 (4)   Key in an adjustment value.
       (To correct a value once keyed in, press the [CLEAR] button.)
 (5)   Press the [OK] or [INTERRUPT] button to store the value. → The equipment goes back to the ready state.
 (6)   Take the POWER OFF.

<Confirmation>
Check the LED emission level setting with the actual fax data received, if possible.
   Notes:
   •   The setting value must increase as the LED emission level number (0 to 4) becomes higher. Do not increase this order when setting the values.
   •   Usually, LED emission level 4 / 4 is the most effective in the black mode.

6.5.3 Background offsetting adjustment for RADF (common for copy, scan and fax)

The background level for scanning originals with the RADF is adjusted when the background fogging at the scanning of a manually-set original and an original used with the RADF is different. This is to adjust the level of the background image removed when the scanning of the originals with the RADF is performed.

<Adjustment Mode (05)>

Color mode	Code	Remarks
Black	7025	The larger the value is, the darker the background density becomes. Acceptable values: 0 to 255 (Default: 128)

<Procedure>
The procedure is the same as that of 📖 P. 6-29 "6.2.2 Density adjustment".

6.6 Scanner

6.6.1 Adjustment carriages-1 positions

(1) Take off the RADF.
    📖 P. 4-132 "4.11.1 MR-3024 (Reversing Automatic Document Feeder)"
(2) Take off the right top cover.
    📖 P. 4-3 "4.1.7 Right top cover"
(3) Take off the original glass.
    📖 P. 4-11 "4.3.1 Original glass"
(4) Take off the left top cover.
    📖 P. 4-2 "4.1.5 Left top cover"
(5) Move the carriage-1[1] toward the exit side.

   Notes:

   Rotate the drive pulley to move the carriage.

(6) Loosen the 2 fixing screws of the wire. Tighten the screws by aligning the sections [5] and [6] of the carriage-1 with the inside of the exit side frame [2].

   Notes:

   Confirm that they are aligned properly through the windows [3] and [4] of the exit side frame [2].
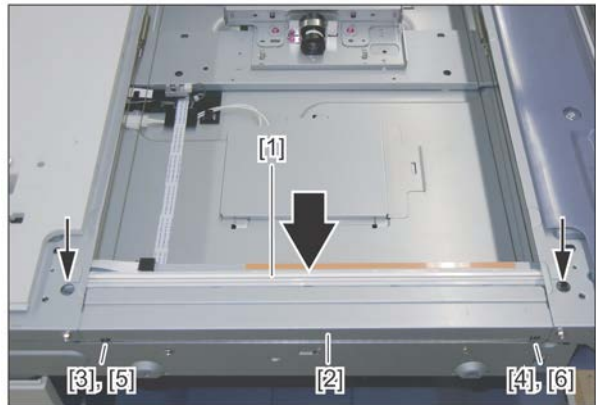
Fig.6-24
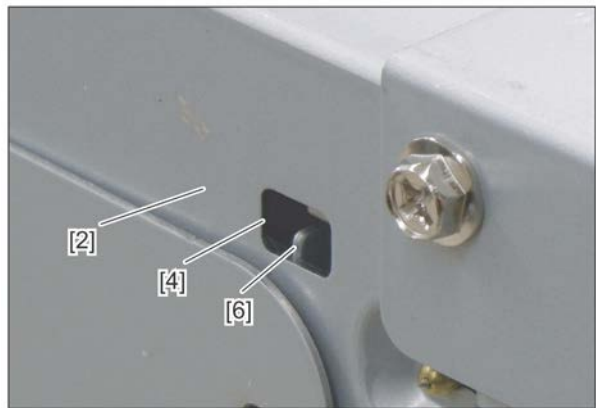
Fig.6-25

6.6.2 Position adjustment of CCD lens unit

Count the number of lines and write it down for later reference before removing the CCD lens unit.
When installing the CCD lens unit, the same number of lines needs to be visible.
📖 P. 4-12 "4.3.4 Lens unit/CCD driving PC board"

6.6.3 Belt tension adjustment of the Scan motor

(1) Take off the rear cover.
   📖 P. 4-5 "4.1.13 Rear cover"
(2) Hook the belt tension jig[1] to the motor
   bracket[2] and hook section of the flame[3].
(3) Loosen the screws [4] and [5].
(4) The scan motor [6] is pulled by the belt
   tension jig [1]. When it is stopped, tighten the
   screws in order of [4] and [5].
(5) Remove the belt tension jig[1].
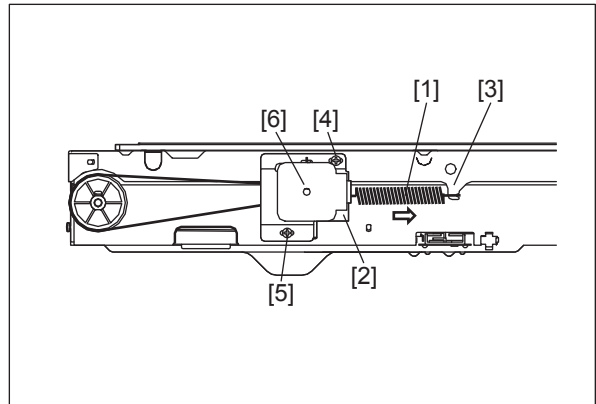
Fig.6-26
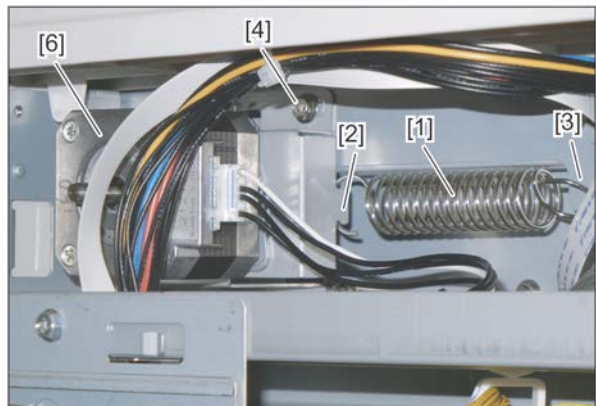
Fig.6-27

6.7 Writing Section

6.7.1 Image Adjustment in the Writing Section

Refer to the following pages for details.

6.8　Paper Feeding System

6.8.1　Adjusting the clearance of the paper and side guides

If the clearance between the paper and the side guides is too wide, it can be adjusted to between 0 and 1 mm using the following procedure (the clearance between the paper and the guides is 1 to 2 mm including both front and rear sides).
<Procedure>

(1)　Take out the drawer.
(2)　Move the side guide[1]. Loosen 2 screws.
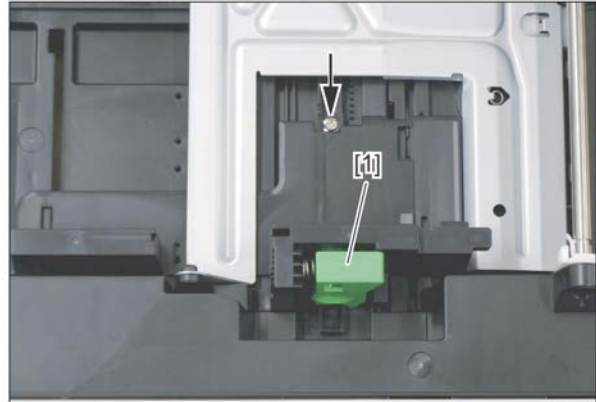
Fig.6-28
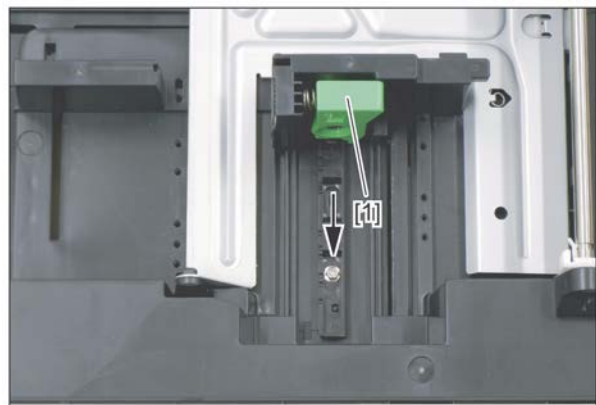
Fig.6-29

(3)　Move the side guide adjustment piece[1] to the front and tighten the screws (by 0.5 mm).

Fig.6-30

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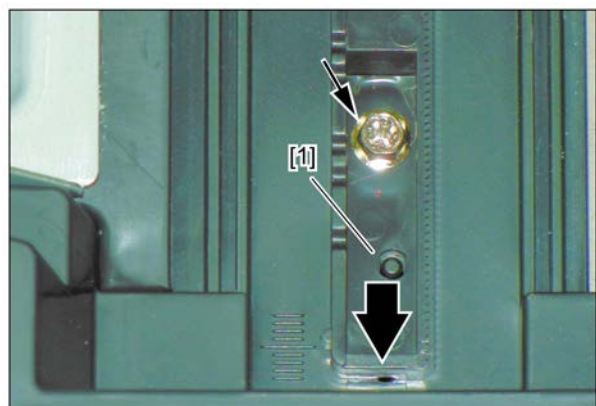
6.8.2　Separation roller pressure force adjustment (PFU/PFP)

Generally paper jams and multiple feeding often occur as the life end of the roller approaches. However, if they often occur even though its life has not yet reached its replacement timing, or if the life end comes much earlier than the scheduled replacement timing, the jams and multiple feeding can be suppressed by adjusting the pressure force of the separation roller.

In this method, however, when the roller life becomes longer, jams and multiple feeding may occur frequently, and when the jams and multiple feeding are suppressed, the roller life may become shorter. Therefore, perform this adjustment while checking the status carefully, and if necessary, give a sufficient explanation to users.

<Adjustment procedure>

(1) Take off the drawer feeding unit.
     📖 P. 4-53 "4.5.14 1st drawer paper feed unit"
     📖 P. 4-54 "4.5.16 2nd drawer paper feed unit"
(2) Remove 1 screw, and then screw it temporarily into the oblong hole which is located next to it.

Notes:

Make a mark for the installation position of the holder [1] in advance.
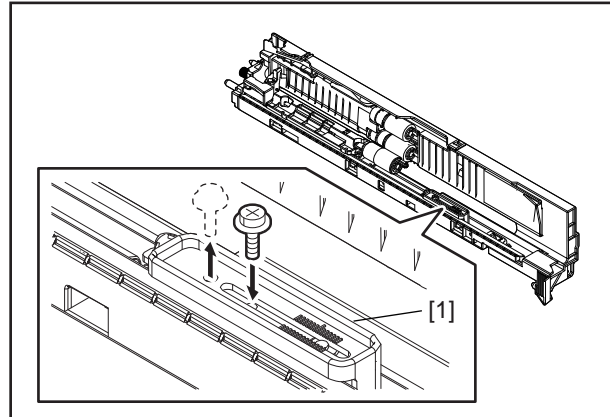
Fig.6-31

(3) Move the holder [1].

Remarks:

- Moving in the direction of A: The roller life will become longer (but multiple feeding may occur frequently).
- Moving in the direction of B: Multiple feeding will be suppressed (but the roller life may become shorter).

Notes:

The recommended moving distance of the holder [1] is within 1 or 2 scale marks.
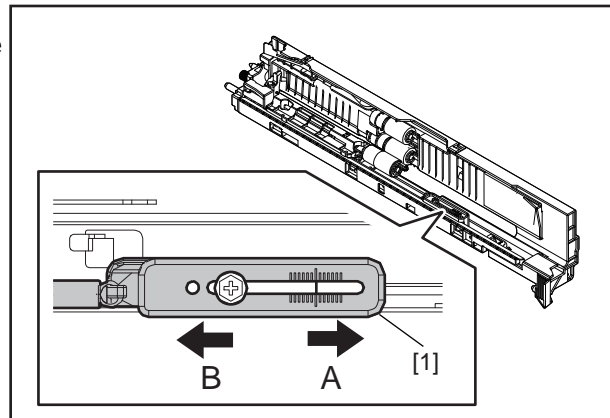
Fig.6-32

6.9 Process Unit Related Section

6.9.1 High-Voltage Transformer Setting

The high-voltage transformers (PS-HVT) supply high-voltage to the parts related to charging, development, transfer and Discharging blade.
The high-voltage transformer has the following high-voltage outputs.

CH1	1	Main charger bias (Y)
	2	Main charger bias (M)
	3	Main charger bias (C)
	4	Main charger bias (K)
CH2	1	Main charger grid bias (Y)
	2	Main charger grid bias (M)
	3	Main charger grid bias (C)
	4	Main charger grid bias (K)
CH3	1	Developer bias (Y)
	2	Developer bias (M)
	3	Developer bias (C)
	4	Developer bias (K)
CH4	1	1st transfer roller bias (Y)
	2	1st transfer roller bias (M)
	3	1st transfer roller bias (C)
	4	1st transfer roller bias (K)
CH5	-	2nd transfer roller bias

Notes:
Never move the variable resistance on the board since the output adjustment has been performed at the shipment for the high-voltage transformer supplied as a service part. Also do not perform the setting change when the high-voltage power supply is replaced.

6.10 Developer Unit

6.10.1 Adjustment of the Auto-Toner Sensor

When the developer material is replaced, adjust the auto-toner sensor.
📖 P. 6-2 "6.1.2 Adjustment of the Auto-Toner Sensor"

6.10.2 Adjustment of the doctor-to-sleeve gap

For the adjustment of the doctor-to-sleeve gap, perform the same procedure for the Y, M, C and K developer units.
Adjustment tool to use: Doctor-sleeve gap jig

<Adjustment procedure>

(1) Take out the developer unit. Then discharge the developer material.
    📖 P. 4-51 "4.6.3 Developer material"
(2) Loosen 2 doctor blade fixing screws[1].

Fig.6-33

(3) Insert the doctor-sleeve gap jig[1] to adjust the gap.
    Insert the gauge "0.60" of the doctor-sleeve gap jig between the developer sleeve and the doctor blade to adjust the gap, and tighten the screws.

Fig.6-34

Notes:

Flip up protection sheet[1] for the doctor blade from the sleeve before inserting the gauge. Also, be sure not to damage the protection sheet[1].
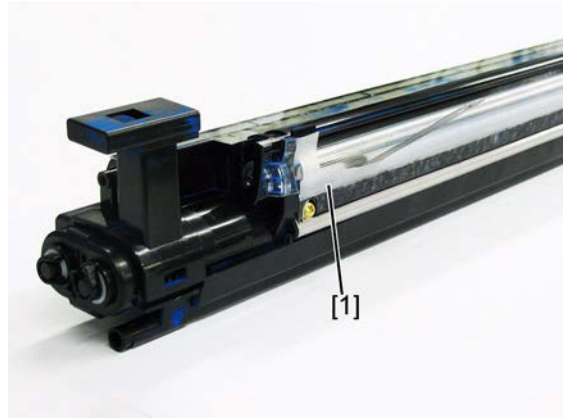
Fig.6-35

(4) Insert the gauge "0.55" of the doctor-sleeve gap jig[1] between the developer sleeve and the doctor blade to make sure that the gauge can move smoothly in the front/rear direction and the gauge "0.65" cannot be inserted into the gap.

Fig.6-36

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6.11 Image Quality Control

6.11.1 Performing Image Quality Control

When the image position aligning sensor (front) or image position aligning sensor (rear)/image quality sensor is replaced, perform the automatic initialization of the image quality control and adjustment of color registration control.

📖 P. 6-4 "6.1.3 Performing Image Quality Control"
📖 P. 6-5 "6.1.4 Adjustment of Color Registration Control"

6.12 Fuser Unit / Paper Exit Section

6.12.1 Adjustment of the non-contact thermistor Gap

Perform this adjustment when the following parts are replaced or disassembled.
- Fuser roller
- Pressure roller
- Center thermistor(Non-contact thermistor)
- Side thermistor(Non-contact thermistor)
- Front thermistor
- Pressure spring

Adjustment tool to use: Non-contact thermistor/thermostat gap jig (Thin side)

Notes:
- Perform gap adjustment when the fuser unit is at a normal temperature.
- Make sure that the pressure roller is pressed.
- Be careful not to damage the fuser roller and jig.
- Perform non-contact thermistor correction after the adjustment.

<Adjustment procedure>

(1) Take off the fuser unit.
   📖 P. 4-104 "4.9.1 Fuser unit"
(2) Take off the front side cover, rear side cover, and heat roller cover.
   📖 P. 4-109 "4.9.2 Front side cover"
   📖 P. 4-109 "4.9.3 Rear side cover"
   📖 P. 4-109 "4.9.4 Fuser roller cover"

(3) Take off the heat roller separation finger installed in the window in which the side thermistor[1] can be seen.
📖 P. 4-110 "4.9.5 Fuser roller separation finger"

(4) Remove 1 screws and take off the bracket [2].
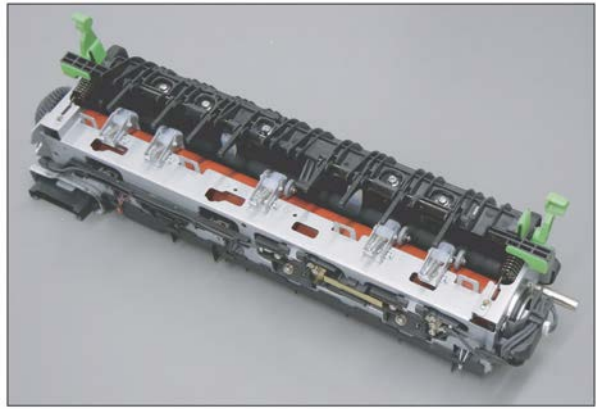
Fig.6-37
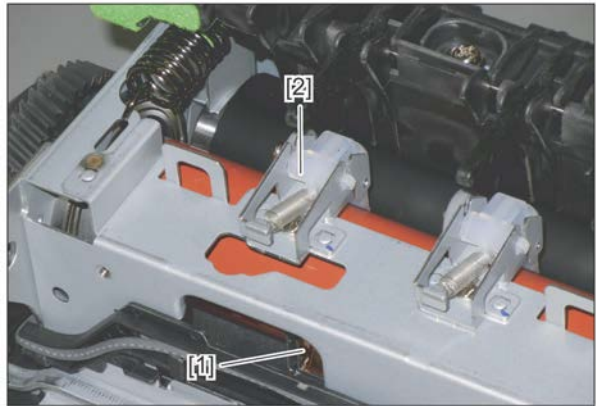
Fig.6-38

(5) Insert the jig [2] between the side thermistor [3] and the fuser roller [4] through the window [1] in which the side thermistor [3] can be seen. Then confirm that the portion of the jig coming out of the window falls within the specified range of the scales.

Notes:
- The jig should be inserted under its own weight.

Fig.6-39

e-STUDIO2050C/2051C/2550C/2551C
SETTING / ADJUSTMENT
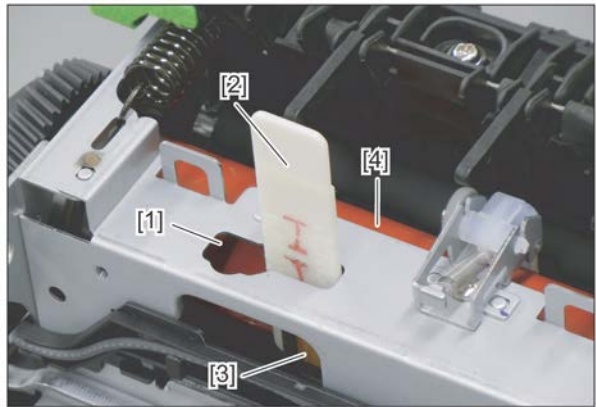
(6) If the gap is out of the specified value, loosen 1 screw of the side thermistor [1], adjust the gap and then tighten the screw.
Repeat the confirmation of step 5 until the portion falls within the specified range.
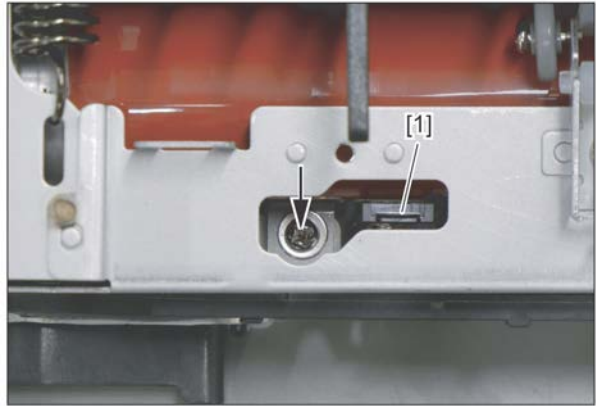
Fig.6-40

(7) Check the gap between the center thermistor [1] and the fuser roller in the same manner. Adjust it if needed.
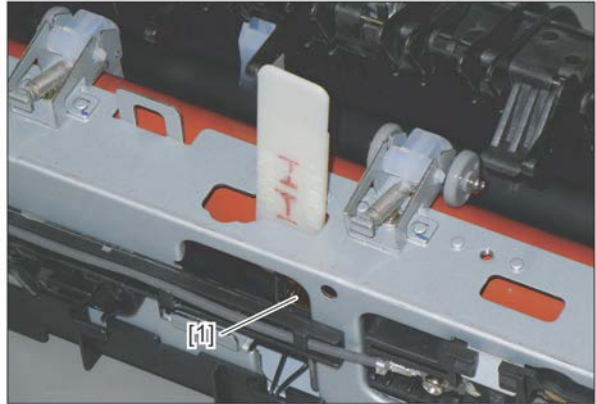
Fig.6-41

(8) Perform non-contact thermistor correction.
📖 P. 6-89 "6.12.2 Correction of Performing non-contact thermistor"

6.12.2 Correction of Performing non-contact thermistor

Since the center thermistor and the side thermistor are non-contact thermistors, the temperature detected or controlled by these thermistors may differ depending on the gap between the fuser roller and these thermistors. Therefore they must be corrected.

(1) When unpacking
Perform the "Forced performing of non-contact thermistor correction (05-5990)" procedure before you start printing (or gamma adjustment).

(2) When any of the following parts is replaced, be sure to perform the "Forced performing of non-contact thermistor correction (05-5990)" procedure.

- Fuser unit
- Heater lamp
- Fuser roller
- Pressure roller
- Center thermistor(Non-contact thermistor)
- Side thermistor(Non-contact thermistor)
- Front thermistor
- Pressure spring
- EEPROM

(3) Procedure

Code	Item to be adjusted	Contents
5990	Forced performing of non-contact thermistor correction	1. While pressing [0] and [5] simultaneously, turn the power ON. → Adjustment Mode 2. Key in [5990] and press the [START] button. 3. "WAIT" is displayed. 4. When the adjustment finishes normally, the equipment returns to the initial state of Adjustment Mode. When an error occurs Refer to the C4F0 and C4F1. 📖 P. 8-112 " [C4F0] Center thermistor error correction" 📖 P. 8-112 " [C4F1] Side thermistor error correction"

6.12.3 Adjustment of the thermostat Gap

Perform this adjustment when the following parts are replaced or disassembled.
- Fuser roller
- Center thermostat
- Side thermostat

Adjustment tool to use: Non-contact thermistor/thermostat gap jig (Thick side)

   Notes:
   - Perform gap adjustment when the fuser unit is at a normal temperature.
   - Make sure that the pressure roller is pressed.
   - Be careful not to damage the fuser roller and jig.

<Adjustment procedure>

(1) Take off the fuser unit.
 📖 P. 4-104 "4.9.1 Fuser unit"
(2) Take off the front side cover, rear side cover, and heat roller cover.
 📖 P. 4-109 "4.9.2 Front side cover"
 📖 P. 4-109 "4.9.3 Rear side cover"
 📖 P. 4-109 "4.9.4 Fuser roller cover"

(3) Take off the heat roller separation finger installed in the window in which the side thermostat[1] can be seen.
 📖 P. 4-110 "4.9.5 Fuser roller separation finger"
(4) Remove 1 screws and take off the bracket [2].
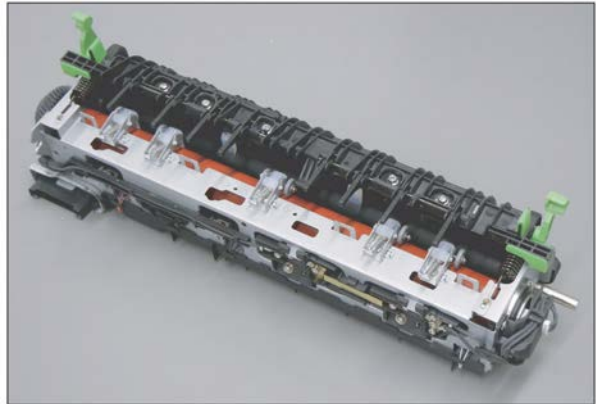
Fig.6-42
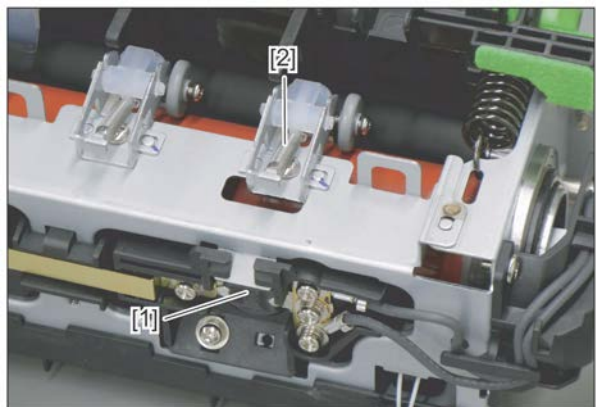
Fig.6-43

(5) Insert the jig [2] between the side thermostat [3] and the fuser roller [4] through the window [1] in which the side thermostat [3] can be seen. Then confirm that the portion of the jig coming out of the window falls within the specified range of the scales.

Notes:
- The jig should be inserted under its own weight.
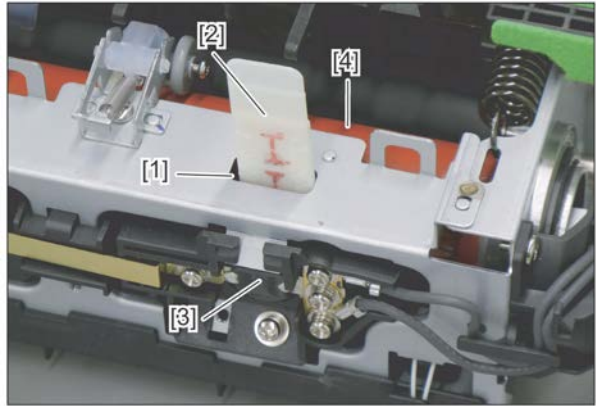
Fig.6-44

(6) If the gap is not at the specified value, remove 1 screw of the side thermostat and screw it in the adjustment hole [1]. Then adjust the gap and tighten the screw. Repeat the confirmation of step 5 until the portion falls within the specified range.
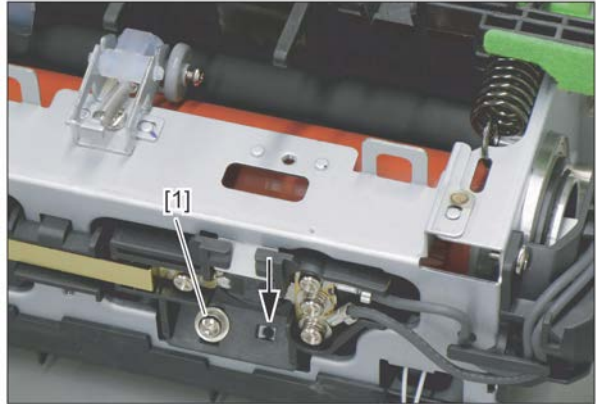
Fig.6-45

(7) Check the gap between the center thermostat [1] and the fuser roller as in the same manner. Adjust it if needed.
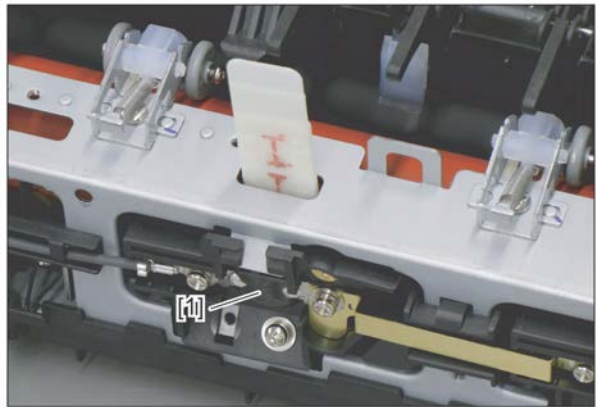
Fig.6-46

6

7. PREVENTIVE MAINTENANCE (PM)

7.1 General Description

The purpose of preventive maintenance (PM) is to maintain the quality level of this equipment by periodically inspecting and cleaning this equipment and also replacing the parts whose replacement timing has come according to the maintenance contract. There are PM kits packaged for each unit or a group of parts with the same replacement number of output pages, allowing you to carry out efficient parts replacement.

7.2 PM Display

7.2.1 General Description

The maintenance timing for the PM parts of the process unit, such as the drum and developer material, and the PM parts of the units other than the process unit, such as the 2nd transfer roller varies depending on the conditions of the use, such as the ratio of color/black printing. Therefore, this equipment shows the appropriate maintenance timing of each part on the control panel LCD.

7.2.2 PM Display Conditions

The conditions of the PM display consist of the codes of the setting mode (08) for "the setting value treated as a threshold of the PM display", "the counter indicating the current number of prints and driving time" and "the setting value which determines the display conditions".
The PM timing is displayed when the counter exceeds the setting value according to the display condition based on "the setting value which determines the display conditions".

- Setting value treated as a threshold of the PM display

  Notes:
  When "0" is entered as the setting value, PM timing is not displayed.

  08-6190 : Setting value of PM counter [process unit (K)]
  08-6191 : Setting value of PM time counter [process unit (K)]
  08-6192 : Setting value of PM counter [process unit (Y)]
  08-6193 : Setting value of PM time counter [process unit (Y)]
  08-5550 : Setting value of PM counter [process unit (M)]
  08-5551 : Setting value of PM time counter [process unit (M)]
  08-5552 : Setting value of PM counter [process unit (C)]
  08-5553 : Setting value of PM time counter [process unit (C)]
  08-5554 : Setting value of PM counter [developer material (K)]
  08-5555 : Setting value of PM time counter [developer material (K)]
  08-5556 : Setting value of PM counter [developer material (Y)]
  08-5557 : Setting value of PM time counter [developer material (Y)]
  08-5558 : Setting value of PM counter [developer material (M)]
  08-5559 : Setting value of PM time counter [developer material (M)]
  08-5560 : Setting value of PM counter [developer material (C)]
  08-5561 : Setting value of PM time counter [developer material (C)]
  08-5562 : Setting value of PM counter [parts other than the PM parts of the process unit]
  08-5563 : Setting value of PM time counter [parts other than the PM parts of the process unit]

- Counter indicating the current number of prints and driving time
  08-6194 : Current value of PM counter [process unit (K)]
  08-6195 : Current value of PM time counter [process unit (K)]

08-6196 : Current value of PM counter [process unit (Y)]
08-6197 : Current value of PM time counter [process unit (Y)]
08-5564 : Current value of PM counter [process unit (M)]
08-5565 : Current value of PM time counter [process unit (M)]
08-5566 : Current value of PM counter [process unit (C)]
08-5567 : Current value of PM time counter [process unit (C)]
08-5568 : Current value of PM counter [developer material (K)]
08-5569 : Current value of PM time counter [developer material (K)]
08-5570 : Current value of PM counter [developer material (Y)]
08-5571 : Current value of PM time counter [developer material (Y)]
08-5572 : Current value of PM counter [developer material (M)]
08-5573 : Current value of PM time counter [developer material (M)]
08-5574 : Current value of PM counter [developer material (C)]
08-5575 : Current value of PM time counter [developer material (C)]
08-5576 : Current value of PM counter [parts other than the PM parts of the process unit]
08-5577 : Current value of PM time counter [parts other than the PM parts of the process unit]

- Setting value which determines the display conditions
  08-6198 : Switching of output pages/driving counts at PM [process unit (K)]
  08-5578 : Switching of output pages/driving counts at PM [process unit (Y)]
  08-5579 : Switching of output pages/driving counts at PM [process unit (M)]
  08-5580 : Switching of output pages/driving counts at PM [process unit (C)]
  08-5581 : Switching of output pages/driving counts at PM [developer material (K)]
  08-5582 : Switching of output pages/driving counts at PM [developer material (Y)]
  08-5583 : Switching of output pages/driving counts at PM [developer material (M)]
  08-5584 : Switching of output pages/driving counts at PM [developer material (C)]
  08-5585 : Switching of output pages/driving counts at PM [parts other than the PM parts of the process unit]

7.2.3   PM Display Contents

When the counter value exceeds the setting value, the equipment notifies you of when the maintenance time has come by displaying the message "Time for periodic maintenance ****" on the control panel LCD. "****" in the message is a 4-digit hexadecimal number code. This number is allocated in the following manner, therefore the parts needing maintenance can be identified.

PM parts of the process unit (K)	: 0008
PM parts of the process unit (Y)	: 0001
PM parts of the process unit (M)	: 0002
PM parts of the process unit (C)	: 0004
Developer material (K)	: 0080
Developer material (Y)	: 0010
Developer material (M)	: 0020
Developer material (C)	: 0040
Parts other than the PM parts of the process unit	: 0100

If multiple parts have reached the maintenance time, the sum of the corresponding code values listed above is displayed in hexadecimal numbers.
For example, if the PM parts of the process units (K) and (C) and the developer materials (K) and (C) reach the maintenance time, the 4-digit hexadecimal number code will be "00CC" in hexadecimal numbers: 0008+0004+0080+0040=00CC.

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4th digit	3rd digit		2nd digit		1st digit	
None	Part (2nd transfer roller)		Developer material		Photoconductive drum	
	Hexadecimal number code	Explanation	Hexadecimal number code	Explanation	Hexadecimal number code	Explanation
Always "0"	0	No maintenance required	0	No maintenance required	0	No maintenance required
	1	Maintenance required	1	Y	1	Y
			2	M	2	M
			3	M+Y	3	M+Y
			4	C	4	C
			5	Y+C	5	Y+C
			6	C+M	6	C+M
			7	Y+M+C	7	Y+M+C
			8	K	8	K
			9	K+Y	9	K+Y
			A	K+M	A	K+M
			B	K+M+Y	B	K+M+Y
			C	K+C	C	K+C
			D	K+Y+C	D	K+Y+C
			E	K+C+M	E	K+C+M
			F	K+Y+M+C	F	K+Y+M+C

7.2.4 Counter Clearing

The counter indicating "current number of prints and driving time" used for the PM display function is reset by entering "0" in it or clearing it in the PM support mode.

Notes:
Even if "0" is entered in the PM management setting value of the setting mode (08), the corresponding counter for the PM display is not reset. Be sure to clear the counter in the PM support mode when the maintenance is finished.

The reset condition of each counter is as follows:

- 08-6194: Current value of PM counter [process unit (K)]
- 08-6195: Current value of PM time counter [process unit (K)]
  When the current value of "CLEANER/DRUM/CHARGER (K)" on the main screen or "DRUM (K)" on the sub-screen in the PM support mode is cleared, the counter is reset.
  In addition, when the cleaner unit is recognized as a new one by the old/new detection switch of "CLEANER/DRUM/CHARGER (K)", the counter is also reset.

- 08-6196: Current value of PM counter [process unit (Y)]
- 08-6197: Current value of PM time counter [process unit (Y)]
  When the current value of "CLEANER/DRUM/CHARGER (Y)" on the main screen or "DRUM (Y)" on the sub-screen in the PM support mode is cleared, the counter is reset.
  In addition, when the cleaner unit is recognized as a new one by the old/new detection switch of "CLEANER/DRUM/CHARGER (Y)", the counter is also reset.

- 08-5564: Current value of PM counter [process unit (M)]
- 08-5565: Current value of PM time counter [process unit (M)]
  When the current value of "CLEANER/DRUM/CHARGER (M)" on the main screen or "DRUM (M)" on the sub-screen in the PM support mode is cleared, the counter is reset.
  In addition, when the cleaner unit is recognized as a new one by the old/new detection switch of "CLEANER/DRUM/CHARGER (M)", the counter is also reset.

- 08-5566: Current value of PM counter [process unit (C)]
- 08-5567: Current value of PM time counter [process unit (C)]
  When the current value of "CLEANER/DRUM/CHARGER (C)" on the main screen or "DRUM (C)" on the sub-screen in the PM support mode is cleared, the counter is reset.
  In addition, when the cleaner unit is recognized as a new one by the old/new detection switch of "CLEANER/DRUM/CHARGER (C)", the counter is also reset.

- 08-5568: Current value of PM counter [developer material (K)]
- 08-5569: Current value of PM time counter [developer material (K)]
  When the current value of "DEVELOPMENT UNIT" on the main screen or "BLACK DEVELOPER (K)" on the sub-screen in the PM support mode is cleared, the counter is reset.
  In addition, when the developer unit is recognized as a new one by the K developer unit old/new detection switch, or the auto-toner sensor adjustment is performed, the counter is also reset.

- 08-5570: Current value of PM counter [developer material (Y)]
- 08-5571: Current value of PM time counter [developer material (Y)]
  When the current value of "DEVELOPMENT UNIT" on the main screen or "YELLOW DEVELOPER (Y)" on the sub-screen in the PM support mode is cleared, the counter is reset.
  In addition, when the developer unit is recognized as a new one by the Y developer unit old/new detection switch, or the auto-toner sensor adjustment is performed, the counter is also reset.

- 08-5572: Current value of PM counter [developer material (M)]
- 08-5573: Current value of PM time counter [developer material (M)]
  When the current value of "DEVELOPMENT UNIT (M)" on the main screen or "MAGENTA DEVELOPER (M)" on the sub-screen in the PM support mode is cleared, the counter is reset.

In addition, when the developer unit is recognized as a new one by the M developer unit old/new detection switch, or the auto-toner sensor adjustment is performed, the counter is also reset.

- 08-5574: Current value of PM counter [developer material (C)]
- 08-5575: Current value of PM time counter [developer material (C)]
  When the current value of "DEVELOPMENT UNIT" on the main screen or "CYAN DEVELOPER (C)" on the sub-screen in the PM support mode is cleared, the counter is reset.
  In addition, when the developer unit is recognized as a new one by the C developer unit old/new detection switch, or the auto-toner sensor adjustment is performed, the counter is also reset.

- 08-5576: Current value of PM counter [parts other than the PM parts of the process unit]
- 08-5577: Current value of PM time counter [parts other than the PM parts of the process unit]
  When the current value of "2nd TRANSFER" on the main screen or "2nd TRANSFER ROLLER" on the sub screen in the PM support mode is cleared, the counter is reset.

7.3 General Descriptions for PM Procedure

(1) Preparation
- Ask the user about the current conditions of the equipment and note them down.
- Before starting maintenance, make some sample copies and store them.
- See the replacement record and check the parts to be replaced in the PM support mode (6S) or list printing mode (9S-103).
  6S   : [6] + [START] + [POWER] ON
  9S-103   : [9] + [START] + [POWER] ON → [103] → [START]

PM SUPPORT CODE LIST	S/N : CYL000001	FIN S/N : FIN S/N-xxxxxxxx	TOTAL	: 2146
2012-04-09 13:16	TOSHIBA e-STUDIOxxxx		DF TOTAL	: 1213

UNIT	OUTPUT PAGES DEVELOP COUNTS	PM OUTPUT PAGES DEVELOP COUNTS	DRIVE COUNTS	PM DRIVE COUNTS
DRUM(K)	1957	1957	3940	170000
DRUM BLADE(K)	1957	1957	10870	170000
GRID(K)	1957	1957	10870	170000
MAIN CHARGER NEEDLE(K)	1957	1957	10870	170000
CHARGER CLEANING PAD(K)	1957	1957	10870	170000
DRUM(Y)	1077	1077	3766	170000
DRUM BLADE(Y)	1077	1077	3766	170000
GRID(Y)	1077	1077	3766	170000
MAIN CHARGER NEEDLE(Y)	1077	1077	3766	170000
CHARGER CLEANING PAD(Y)	1077	1077	3766	170000
DRUM(M)	1077	1077	9547	170000
DRUM BLADE(M)	1077	1077	9547	170000
GRID(M)	1077	1077	9547	170000
MAIN CHARGER NEEDLE(M)	1077	1077	9547	170000
CHARGER CLEANING PAD(M)	1077	1077	9547	170000
DRUM(C)	1077	1077	9547	170000
DRUM BLADE(C)	1077	1077	9547	170000
GRID(C)	1077	1077	9547	170000
MAIN CHARG	1077	1077	9547	170000
		1077	9547	170000

Fig. 7-1

- Turn OFF the power and make sure to unplug the equipment.
(2) Perform a preventive maintenance using the following checklist and illustrations. Refer to the Service Manual if necessary.

(3) Plug in the equipment after the maintenance has been finished. Then turn ON the power and make some copies to confirm that the equipment is working properly.

7.4 PM Support Mode

7.4.1 General Description

This equipment has a PM support mode which enables you to confirm the use status of each part (the number of output pages or developed pages, and drive counts) requiring periodic replacement and also the replacement record, as well as resetting counter values efficiently. This record can be printed out in the list print mode.

7.4.2 Operational flow
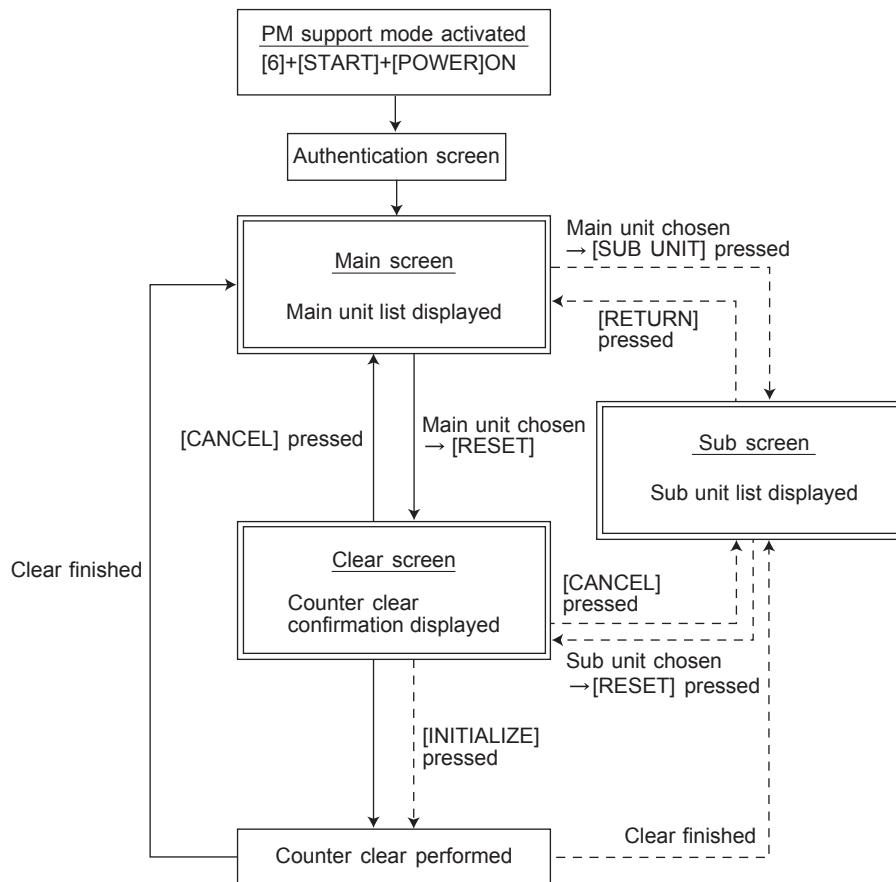
Fig. 7-2

* When the authentication screen appears, press [OK]. (Enter the password, if one has been set.)
* To finish the PM support mode, shut down the equipment by pressing and holding [ON/OFF] on the main screen for a few seconds.
* The screen goes back to the main screen when the counter clear is performed or the [CANCEL] button is pressed after moving from the main screen, while it goes back to the sub screen after moving from the sub screen.

7.4.3 Operational screen

The description of the display (including the function of each button) on the LCD screen is shown below.

1. Main screen
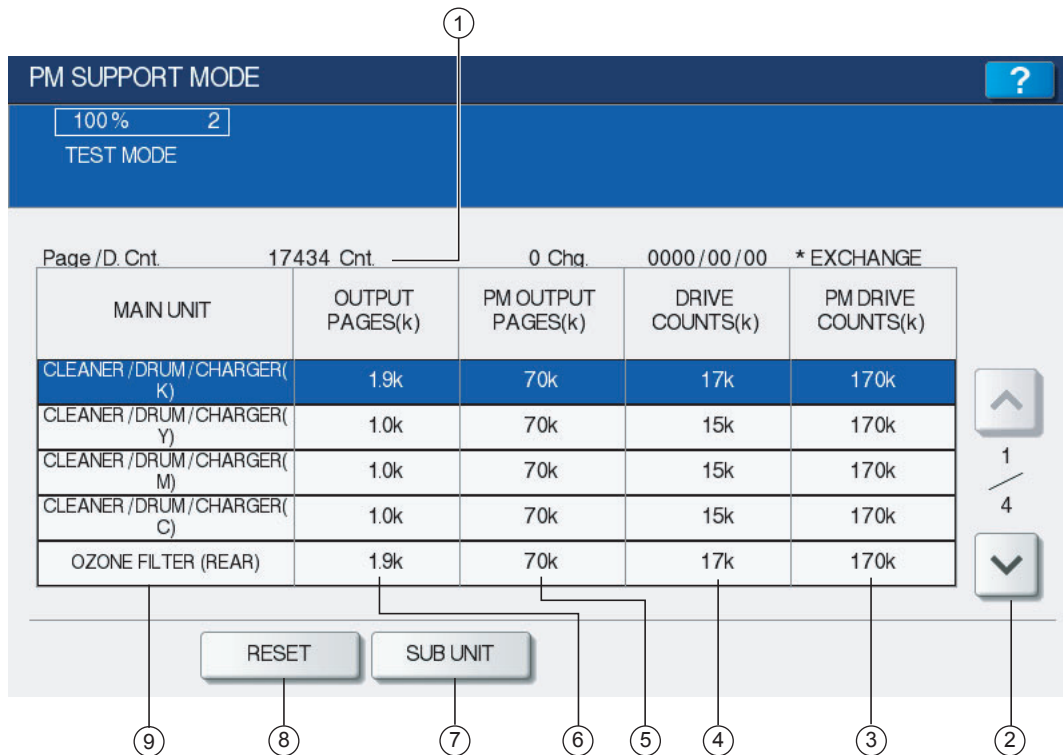
Fig. 7-3

① Displaying of the number of print / develop pages (Page/D. cnt), drive counts (Cnt.) and previous replacement date (Chg.) for a chosen unit
When the replacement date for the sub unit is different, press the [SUB UNIT] button to move to the sub screen and see each information, otherwise information is not displayed

② Moving to the next/previous page

③ Displaying of the standard number of drive counts to replace the unit parts

④ Displaying of the present drive counts
"*" is displayed next to the present number when the number of drive counts has exceeded its PM standard number.

⑤ Displaying of the present number of print / develop pages
When there are differences among the sub units (parts), "_" is displayed and "CHECK SUBUNIT" is displayed at the top
"*" is displayed next to the present number when the number of print / develop pages has exceeded its PM standard number.

⑥ Displaying of the standard number of print / develop pages to replace the unit parts

⑦ Moving to the sub screen of the selected unit

⑧ Moving to the clear screen to clear the selected unit counters ④ and ⑥, including all sub unit (parts) counters belonging to that unit When the unit is not selected, all counters are cleared.

⑨ Displaying of the main unit name

Notes:
- "—" is always displayed at the drive counts section for the reversing automatic document feeder (RADF) and feed unit.
- "—" is displayed at the numeric section for the paper source which is not installed since the paper source is different depending on the structure of options.

2. Sub screen
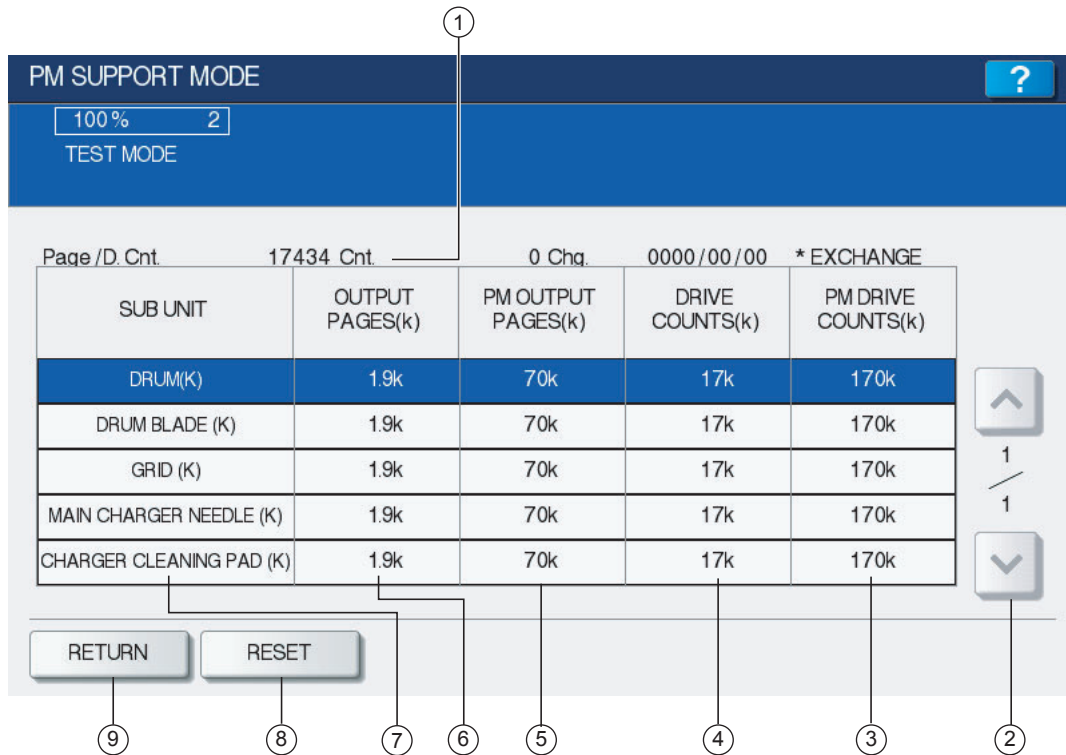
Fig. 7-4

① Displaying of the number of print / develop pages and drive counts and previous replacement date for a chosen sub unit

② Moving to the next/previous page

③ Displaying of the standard number of drive counts to replace the sub unit (parts)

④ Displaying of the present drive counts
"*" is displayed next to the present number when the number of drive counts has exceeded its PM standard number.

⑤ Displaying of the standard number of print / develop pages to replace the sub unit (parts)

⑥ Displaying of the present number of print / develop pages
"*" is displayed next to the present number when the number of print / develop pages has exceeded its PM standard number.

⑦ Displaying of the sub unit (parts) name

⑧ Moving to the clear screen to clear the selected unit (parts) counters

⑨ Back to the main screen

3. Clear screen

PM SUPPORT MODE	?

100 %   2
TEST MODE

Page / D. Cnt.   17434 Cnt.   0 Chg. 0000 / 00 / 00   * EXCHANGE

COUNTER RESET   DRUM_K

CANCEL   INITIALIZE

② ①
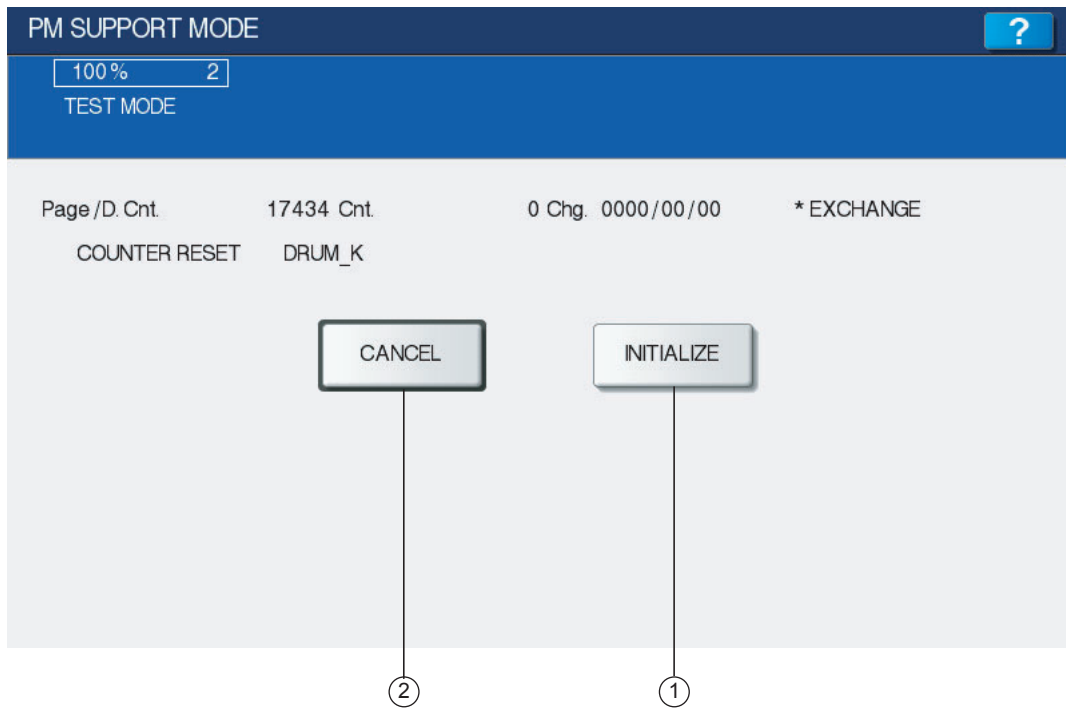
Fig. 7-5

①   When the [INITIALIZE] button is pressed, "Present number of print / develop pages" and Present driving counts" are cleared and "Previous replacement date" is updated.

②   When the [CANCEL] button is pressed, the counter is not cleared and the display returns to the main or sub screen.

7.4.4   Access tree

The relation between the main unit and the sub unit is shown below.

> **Notes:**
>   Some parts in this manual are described with different names on the LCD screen. In this case, the name in this manual is indicated in square brackets [ ].

Main screen	Sub-screen
CLEANER/DRUM/CHARGER (K) [Process unit (K)]	DRUM (K) DRUM BLADE (K) [Drum cleaning blade] GRID (K) [Main charger grid] MAIN CHARGER NEEDLE (K) [Needle electrode] CHARGER CLEANING PAD (K) [Main charger cleaner] LED GAP SPACER (K)
CLEANER/DRUM/CHARGER (Y) [Process unit (Y)]	DRUM (Y) DRUM BLADE (Y) [Drum cleaning blade] GRID (Y) [Main charger grid] MAIN CHARGER NEEDLE (Y) [Needle electrode] CHARGER CLEANING PAD (Y) [Main charger cleaner] LED GAP SPACER (Y)
CLEANER/DRUM/CHARGER (M) [Process unit (M)]	DRUM (M) DRUM BLADE (M) [Drum cleaning blade] GRID (M) [Main charger grid] MAIN CHARGER NEEDLE (M) [Needle electrode] CHARGER CLEANING PAD (M) [Main charger cleaner] LED GAP SPACER (M)
CLEANER/DRUM/CHARGER (C) [Process unit (C)]	DRUM (C) DRUM BLADE (C) [Drum cleaning blade] GRID (C) [Main charger grid] MAIN CHARGER NEEDLE (C) [Needle electrode] CHARGER CLEANING PAD (C) [Main charger cleaner] LED GAP SPACER (C)
OZONE FILTER [Ozone filter-1]	OZONE FILTER [Ozone filter-1]
DEVELOPMENT UNIT	BLACK DEVELOPER [Developer material K] YELLOW DEVELOPER [Developer material Y] MAGENTA DEVELOPER [Developer material M] CYAN DEVELOPER [Developer material C]
2nd TRANSFER	2nd TRANSFER ROLLER
1st CST. [1st drawer]	FEED ROLLER SEP PAD (1st CST.) [Separation pad]
2nd CST. [2nd drawer]	PICK UP ROLLER (2nd CST.) FEED ROLLER (2nd CST.) SEP ROLLER (2nd CST.) [Separation roller]
SFB [Bypass unit]	FEED ROLLER (SFB) SEP PAD (SFB) [Separation pad]
RADF	PICK UP ROLLER (RADF) FEED ROLLER (RADF) SEP ROLLER (RADF) [Separation roller]
LCF	PICK UP ROLLER (LCF) FEED ROLLER (LCF) SEP ROLLER (LCF) [Separation roller]
3rd CST. [PFP upper drawer]	PICK UP ROLLER (3rd CST.) FEED ROLLER (3rd CST.) SEP ROLLER (3rd CST.) [Separation roller]

Main screen	Sub-screen
4th CST. [PFP lower drawer]	PICK UP ROLLER (4th CST.) FEED ROLLER (4th CST.) SEP ROLLER (4th CST.) [Separation roller]

Notes:

When the counter value of any of the pickup roller, feed roller and separation roller in each unit is reset, the value of the feeding retry counter is also reset simultaneously. When the [RESET] button is pressed after selecting the feed unit in the Main Screen, the value of the feeding retry counter is also reset simultaneously.

The feeding retry counter:
• 1st drawer   Reset the feeding retry counter (08-6230)
• 2nd drawer   Reset the feeding retry counter (08-6231)
• PFP upper drawer Reset the feeding retry counter (08-6232)
• PFP lower drawer Reset the feeding retry counter (08-6233)
• Bypass unit   Reset the feeding retry counter (08-6234)
• LCF   Reset the feeding retry counter (08-6235)

7

7.5   Work flow of parts replacement

The life span of the parts changes depending on their general use, such as the ratio of the color/black printing or the adjustment for keeping the printing quality. Therefore, it is necessary to consider not only the number of printed/developed pages but also the drive counts when deciding the timing for parts replacement. Even if the number of print / develop pages has reached the level of replacement, for instance, the part may still be usable with its drive counts not reaching the specified drive counts. On the other hand, the part may need replacement even if the number of print / develop pages has not reached the level of replacement with its driving time exceeding the specified drive counts. The life span of some parts such as feed roller is heavily dependent on the number of output pages rather than the drive counts.

The following work flow diagram shows how to judge the timing of replacement with the number of print / develop pages.

Example 1:
When the number of print / develop pages has reached the specified level
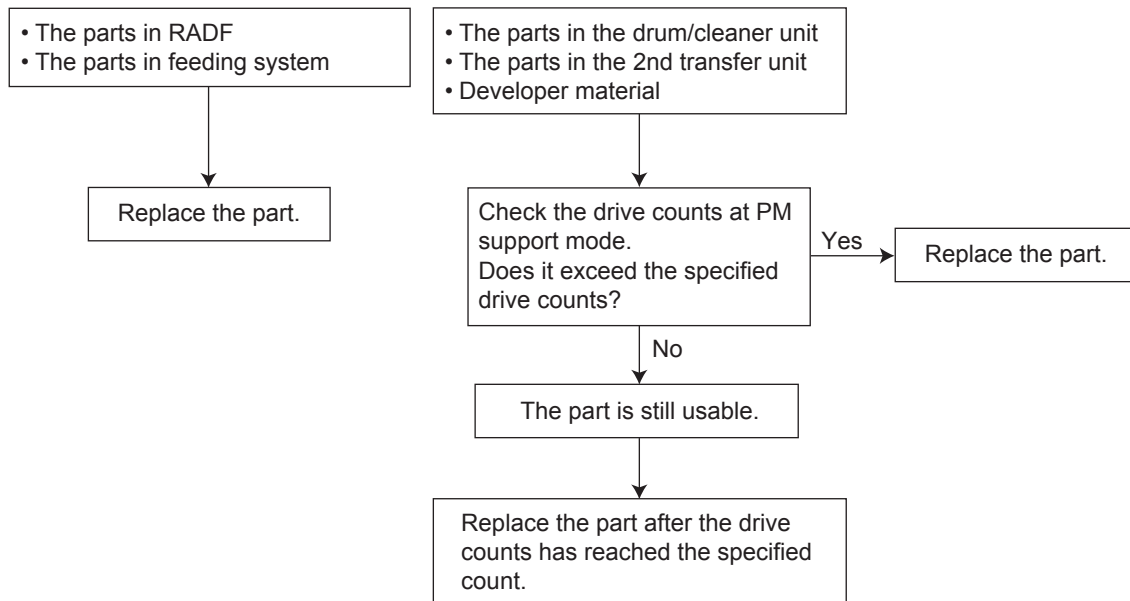
Fig. 7-6

Example 2:
When the image failure occurred before the number of print / develop pages has reached the specified level
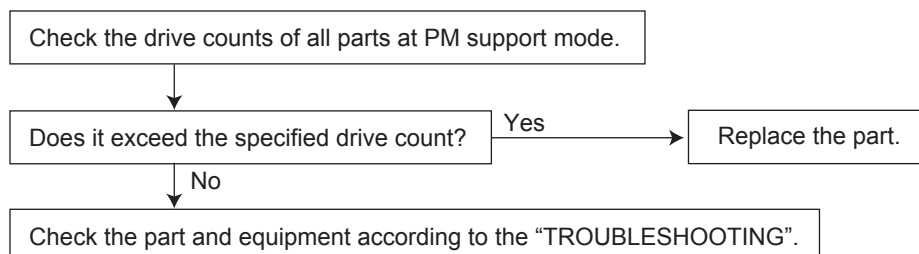
Fig. 7-7

7.6 Preventive Maintenance Checklist

Symbols/value used in the checklist

Item	Description
Cleaning	**A:** Clean with alcohol **B:** Clean with soft pad, cloth or vacuum cleaner
Lubrication/ Coating	**L:** Launa 40 **SI:** Silicon oil **W1:** White grease (Molykote EM-30L) **W2:** White grease (Molykote HP-300) **AV:** Alvania No.2 **FL:** Floil (GE-334C)
Replacement	**Value:** Replacement cycle **R1:** Replacement **R3:** Replace if deformed or damaged
Operation check	**O:** After cleaning or replacement, confirm there is no problem.

[Preventive Maintenance Checklist]

Notes:
- Perform cleaning and lubricating in the following timing. Lubricate the replacement parts according to the replacement cycle.

Model	Black	Full color
20ppm, LL20ppm	every 56,000 sheets	every 56,000 sheets
25ppm, LL25ppm	every 70,000 sheets	every 70,000 sheets

- The value in the "Replacement" field of the table below indicates the replacement number of output pages in either the black or the full color mode. If they differ according to the model, they are indicated in the order of the 20ppm, LL20ppm, 25ppm, LL25ppm.
- The replacement cycle of the parts in the feeding section equals to the number of sheets fed from each paper source.
- Be careful not to put oil on the rollers, belts and belt pulleys when lubricating.
- Parts list <P-I> represents the page item in "e-STUDIO2050C/2051C/2550C/2551C Service Parts List".

7.6.1 Feed unit
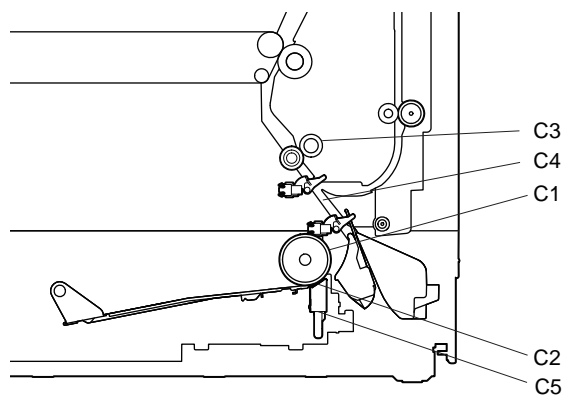
Fig. 7-8

20ppm/LL20ppm

Items to check		Preventive maintenance				Operation check	P-I
			56				
		Cleaning	Lubricatio n/Coating	Replacement			
				(x 1,000 sheets)	(x 1,000 drive counts)		
C1	Drawer feed roller			80	-		43-12
C2	Drawer separation pad			80	-		43-7
C3	Registration roller (rubber)						22-11
C4	Paper guide						13-9
C5	Drawer separation pad holder						43-7

25ppm/LL25ppm

Items to check		Preventive maintenance				Operation check	P-I
			70				
		Cleaning	Lubricatio n/Coating	Replacement			
				(x 1,000 sheets)	(x 1,000 drive counts)		
C1	Drawer feed roller			80	-		43-12
C2	Drawer separation pad			80	-		43-7
C3	Registration roller (rubber)						22-11
C4	Paper guide						13-9
C5	Drawer separation pad holder						43-7

7.6.2   Bypass feed unit

Fig. 7-9

20ppm/LL20ppm

Items to check		Preventive maintenance				Operation check	P-I
		56					
				Replacement			
		Cleaning	Lubrication/Coating	(x 1,000 sheets)	(x 1,000 drive counts)		
E1	Bypass feed roller			80	-		21-19
E2	Bypass separation pad			80	-		21-7
E3	Bypass tray						20-13
E4	Bypass separation pad holder						21-9

25ppm/LL25ppm

Items to check		Preventive maintenance				Operation check	P-I
		70					
				Replacement			
		Cleaning	Lubrication/Coating	(x 1,000 sheets)	(x 1,000 drive counts)		
E1	Bypass feed roller			80	-		21-19
E2	Bypass separation pad			80	-		21-7
E3	Bypass tray						20-13
E4	Bypass separation pad holder						21-9

7.6.3　Main charger
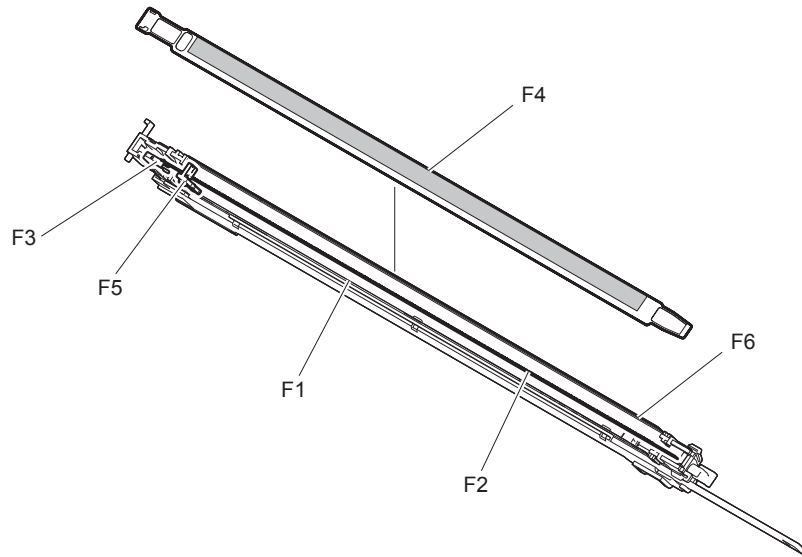
Fig. 7-10

20ppm/LL20ppm

Items to check		Preventive maintenance				Operation check	P-I
		56 (225*)					
		Cleaning	Lubricatio n/Coating	Replacement			
				(x 1,000 sheets)	(x 1,000 drive counts)		
F1	Main charger case	B					35-12
F2	Needle electrode			R1	R1	O	35-8
F3	Contact point of terminals	B					35-2, 35-4
F4	Main charger grid			R1	R1		35-6
F5	Main charger cleaner			R1	R1		35-7
F6	Main charger duct seal	B				O	35-15

*: Drive counts

25ppm/LL25ppm

Items to check		Preventive maintenance				Operation check	P-I
		70 (225*)					
		Cleaning	Lubricatio n/Coating	Replacement			
				(x 1,000 sheets)	(x 1,000 drive counts)		
F1	Main charger case	B					35-12
F2	Needle electrode			R1	R1	O	35-8
F3	Contact point of terminals	B					35-2, 35-4
F4	Main charger grid			R1	R1		35-6

Items to check		Preventive maintenance				Operation check	P-I
		70 (225*)					
		Cleaning	Lubricatio n/Coating	Replacement			
				(x 1,000 sheets)	(x 1,000 drive counts)		
F5	Main charger cleaner			R1	R1		35-7
F6	Main charger duct seal	B				O	35-15

*: Drive counts

* F1: Main charger case
   Clean the main charger case with a cloth soaked in water and squeezed tightly, and then wipe them with a dry cloth.

7

7.6.4 Drum unit, Cleaner related section
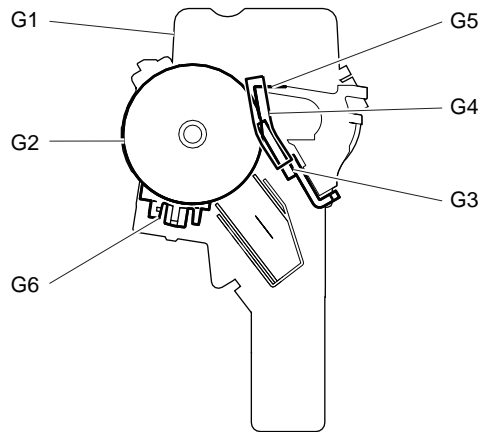
Fig. 7-11

20ppm/LL20ppm

	Items to check	Preventive maintenance				Operation check	P-I
		56 (225*)					
		Cleaning	Lubrication/Coating	Replacement			
				(x 1,000 sheets)	(x 1,000 drive counts)		
G1	Whole cleaner unit	B					-
G2	Drum			R1	R1		34-28
G3	Drum cleaning blade			R1	R1		34-35
G4	Side seal	B		R3	R3		34-6 / 34-7
G5	Recovery blade	B					34-9
G6	LED gap spacer	B		R1	R1		34-10
G7	Drum TBU drive unit						-
G8	Ozone filter						7-10

*: Drive counts

25ppm/LL25ppm

	Items to check	Preventive maintenance				Operation check	P-I
		70 (225*)					
		Cleaning	Lubrication/Coating	Replacement			
				(x 1,000 sheets)	(x 1,000 drive counts)		
G1	Whole cleaner unit	B					-
G2	Drum			R1	R1		34-28
G3	Drum cleaning blade			R1	R1		34-35
G4	Side seal	B		R3	R3		34-6 / 34-7
G5	Recovery blade	B					34-9
G6	LED gap spacer	B		R1	R1		34-10
G7	Drum TBU drive unit						-

Items to check	Preventive maintenance				Operation check	P-I
	70 (225*)					
	Cleaning	Lubrication/Coating	Replacement			
			(x 1,000 sheets)	(x 1,000 drive counts)		
G8	Ozone filter						7-10

*: Drive counts

* G2: Drum
    • Handling precautions
    If fingerprints or oil adhere to the surface of the drum, its properties may degrade, affecting the quality of the copy image. So, wear gloves to avoid touching the drum surface with your bare hands. Be sure to handle the drum carefully when installing and removing it so as not to damage its surface.

    • Do not use "patting powder" (lubricant)
    Since "patting powder" may affect the initial image if it adheres to the OPC surface, do not apply it. The friction between the drum and cleaning blade is sufficiently small without it and no problem would occur even if it is not applied.

    • Clearing the drum counter
    When the drum has been replaced with a new one, the drum counter for the new drum (K, Y, M, C) must be cleared to 0 (zero). This clearing can be performed in PM support mode.

    - Drum counter
    Drum (K): 08-6250-0, 3, 6, 7
    Drum (Y): 08-6252-0, 3, 6, 7
    Drum (M): 08-6254-0, 3, 6, 7
    Drum (C): 08-6256-0, 3, 6, 7

    • Storage location of photoconductive drums
    The drum should be stored in a dark place where the ambient temperature is between 10°C to 35°C (no condensation). Be sure to avoid places where drums may be subjected to high humidity, chemicals and/or their fumes.
    Do not place the drum in a location where it is exposed to direct sunlight or high intensity light such as near a window. Otherwise the drum will fatigue, and will not produce sufficient image density immediately after being installed in the equipment.

    • Cleaning the drum
    At periodic maintenance calls, wipe the entire surface of the drum clean using the designated cleaning cotton. Note that there is no need to clean the surface of the new drum unless there is a problem. Use sufficiently thick cleaning cotton (dry soft pad) so as not to scratch the drum surface inadvertently with your fingertips or nails. Also, remove your rings and wristwatch before starting cleaning work to prevent accidental damage to the drum.
    Do not use alcohol, selenium refresher and other organic solvents or silicon oil as they will have an adverse effect on the drum.

    • Scratches on drum surface
    If the surface is scratched in such a way that the aluminum substrate is exposed, no copy image will be produced on this area. In addition, the cleaning blade will be damaged so replacement with a new drum will be necessary.

    • Collecting used drums
    Regarding the recovery and disposal of used drums, we recommend following the relevant local regulations or rules.

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PREVENTIVE MAINTENANCE (PM)

* G3: Drum cleaning blade
    • Handling precautions
    Pay attention to the following points as the cleaning blade life is determined by the condition of its edge. Since the edge of the blade is vulnerable and can be easily damaged by factors such as the adherence of paper dust.
        - Do not allow hard objects to hit or rub against blade edge.
        - Do not rub the edge with a cloth or soft pad.
        - Do not leave oil (or fingerprints, etc.) on the edge.
        - Do not apply solvents such as paint thinner to the blade.
        - Do not allow paper fibers or dirt to contact the blade edge.
        - Do not place the blade near a heat source.

    • Cleaning procedure
    Clean the blade edge with a cloth moistened with water and squeezed lightly.
    Replace the cleaning blade with new ones if poor images are copied due to the damaged blade regardless of the number of output pages which have been made

* G4: Side seal
    When replacing the drum cleaning unit, check that there is no gap between the blade and side seal on both ends. If there is, or when the side seals put pressure to the cleaning blade, reattach the felts on the position shown in the figure (by slightly pushing them to the direction of the arrows).

Fig. 7-12

* G5: Recovery blade
    Clean the surface of the recovery blade with a soft pad or cloth, if dirt cannot be removed with a vacuum cleaner. If the edge of recovery blade is damaged, replace the blade regardless of the number of output pages.
    Notes:
    Never use water or alcohol for cleaning the transfer belt recovery blade.

7.6.5   Developer unit (K, Y, M, and C)
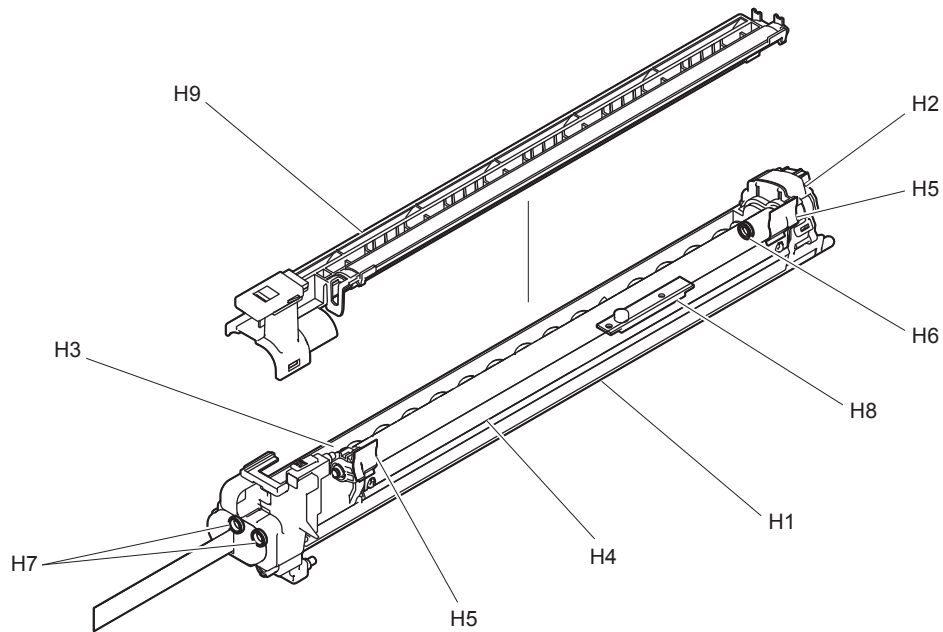
Fig. 7-13

20ppm/LL20ppm

Items to check		Preventive maintenance				Operation check	P-I
		56 (145*)					
		Cleaning	Lubrication/Coating	Replacement			
				(x 1,000 sheets)	(x 1,000 drive counts)		
H1	Whole developer unit	B					-
H2	Paper feeding/ developer drive unit		W1				-
H3	Developer material			R1	R1		-
H4	Front seal (unified with the doctor blade)	B		R3	R3		33-34
H5	Side seal (front, rear)	B		R3	R3		33-6, 33-7
H6	Oil seal (Rear side)			R3	R3		33-25
H7	Oil seal (Front side)			R3	R3		33-25
H8	Auto-toner sensor	B					33-4
H9	Developer unit upper cover	B					32-9

*: Drive counts

25ppm/LL25ppm

Items to check		Preventive maintenance				Operation check	P-I
		70 (145*)					
		Cleaning	Lubricatio n/Coating	Replacement			
				(x 1,000 sheets)	(x 1,000 drive counts)		
H1	Whole developer unit	B					-
H2	Paper feeding/ developer drive unit		W1				-
H3	Developer material			R1	R1		-
H4	Front seal (unified with the doctor blade)	B		R3	R3		33-34
H5	Side seal (front, rear)	B		R3	R3		33-6, 33-7
H6	Oil seal (Rear side)			R3	R3		33-25
H7	Oil seal (Front side)			R3	R3		33-25
H8	Auto-toner sensor	B					33-4
H9	Developer unit upper cover	B					32-9

*: Drive counts

*   H1: Developer unit, H4: Front seal (unified with the doctor blade)
    1. Cleaning
        Clean the doctor blade so as to prevent developer material from adhering to it when the drum is being replaced.
        Space the front seal from the developer sleeve and then insert a doctor blade cleaning jig into the doctor sleeve gap. Then clean the doctor blade by running the jig for 3 times to and fro along with the edge of the blade.
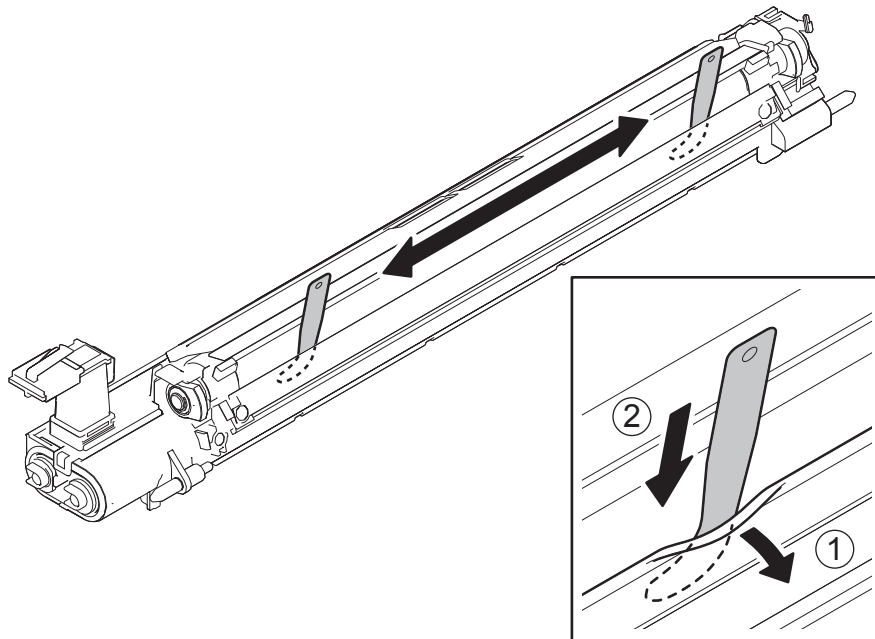
Fig. 7-14

    2. Removal of foreign matter in the developer unit
        (1) Take off the developer unit.
        (2) Space the front seal.
        (3) Insert the cleaning jig all the way in the developer unit at a position approx. 30 mm away from the white streak.

30mm
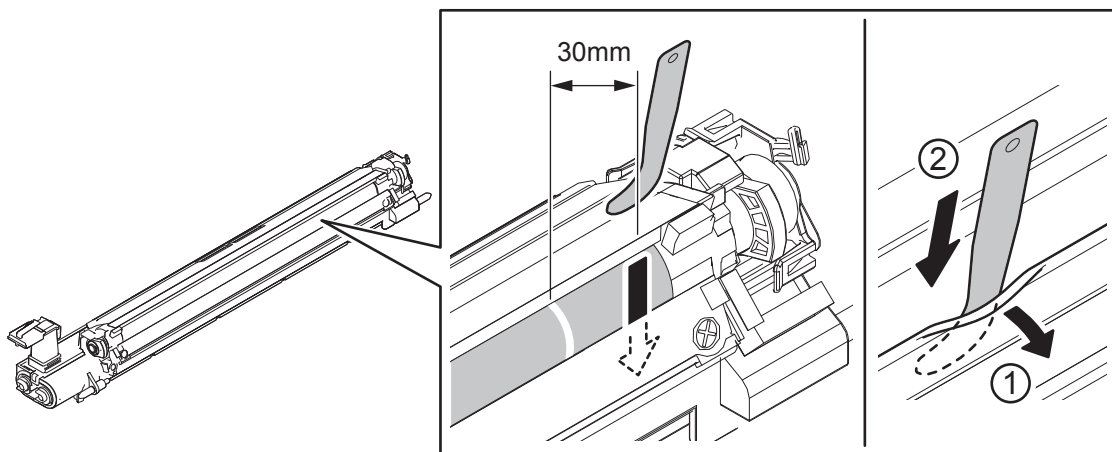
Fig. 7-15

(4) Slide the cleaning jig to where the white streak appears.
(5) Pull out the cleaning jig while manually turning the gear to rotate the developer sleeve.
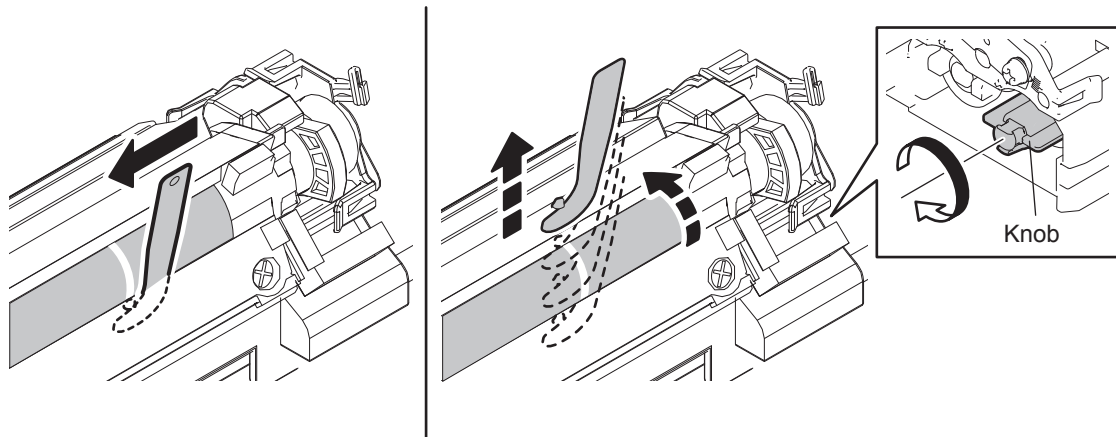
Fig. 7-16

Tip:
If foreign matter is not removed by the above procedure, take off the developer unit, discharge the developer material on to a sheet of clean paper and then remove any foreign matter found. If you cannot find any foreign matter, exchange the developer material.

3. Removal of foreign matter on the developer sleeve
   (1) Apply a sheet of paper to the developer sleeve.
   (2) Scrape off foreign matter and developer material on the developer sleeve using the jig.

Foreign matter
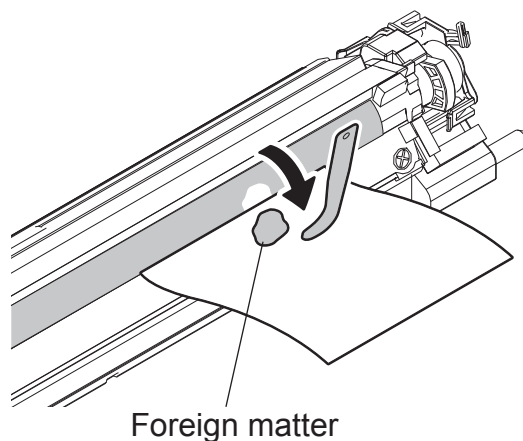
Fig. 7-17

* H3: Developer material
  After replacing the developer material, be sure to perform the auto-toner adjustment and then image quality control initialization.
  📖 P. 6-2 "6.1.2 Adjustment of the Auto-Toner Sensor"
  📖 P. 6-4 "6.1.3 Performing Image Quality Control"

* H8: Auto-toner sensor
  Clean the surface of the auto-toner sensor with a cotton swab or soft cloth with sufficient alcohol filled in.

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7.6.6   2nd transfer roller unit

Fig. 7-18

20ppm/LL20ppm

Items to check		Preventive maintenance								Operation check	P-I
		56				112					
		Cleaning	Lubrication/ Coating	Replacement		Cleaning	Lubrication/ Coating	Replacement			
				(x 1,000 sheets)	(x 1,000 drive counts)			(x 1,000 sheets)	(x 1,000 drive counts)		
L1	2nd transfer roller							R1	R1		14-28
L2	Paper clinging detection sensor										14-19
L3	2nd transfer roller paper guide										14-22

25ppm/LL25ppm

Items to check		Preventive maintenance								Operation check	P-I
		70				140					
		Cleaning	Lubrication/ Coating	Replacement		Cleaning	Lubrication/ Coating	Replacement			
				(x 1,000 sheets)	(x 1,000 drive counts)			(x 1,000 sheets)	(x 1,000 drive counts)		
L1	2nd transfer roller							R1	R1		14-28
L2	Paper clinging detection sensor										14-19
L3	2nd transfer roller paper guide										14-22

*   L2: Paper clinging detection sensor

Open the 2nd transfer unit and clean the paper clinging detection sensor with a cotton swab.

Notes:
Be sure to clean the entire surface of the sensor.

* L3: 2nd transfer roller paper guide
If toner adheres to the ribs of the 2nd transfer roller paper guide, clean it with a soft pad, cloth or electric vacuum cleaner.

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7.6.7   RADF (MR-3024)
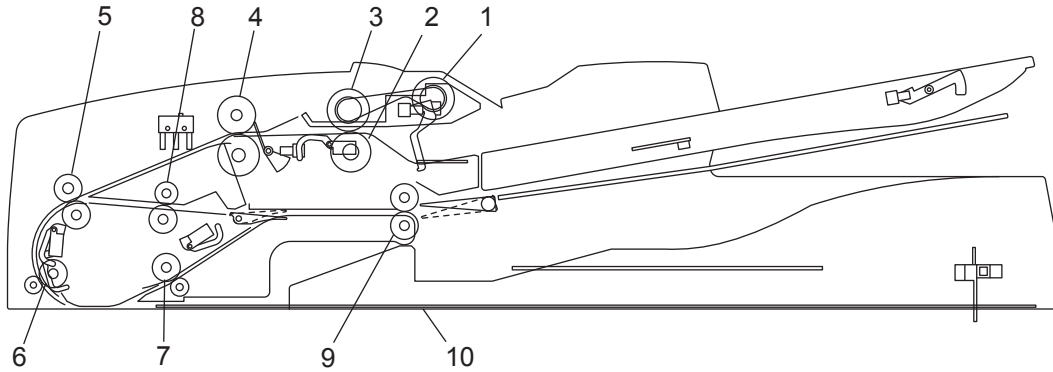
Fig. 7-19

| | Items to check | Cleaning | Lubrication/ Coating | Replacement | | Operation check | Parts list <P-I> |
				(x 1,000 sheets)	(x 1,000 drive counts)		
1	Pickup roller	A		120	-		5-27
2	Separation roller	A		120	-		4-10
3	Feed roller	A		120	-		5-27
4	Registration roller	A					4-30
5	Intermediate transfer roller	A					3-13
6	Front read roller	A					3-14
7	Rear read roller	A					3-1
8	Reverse registration roller	A					3-10
9	Exit/reverse roller	A					4-25
10	Platen sheet	B or A					1-25

7.6.8   PFP (KD-1032)
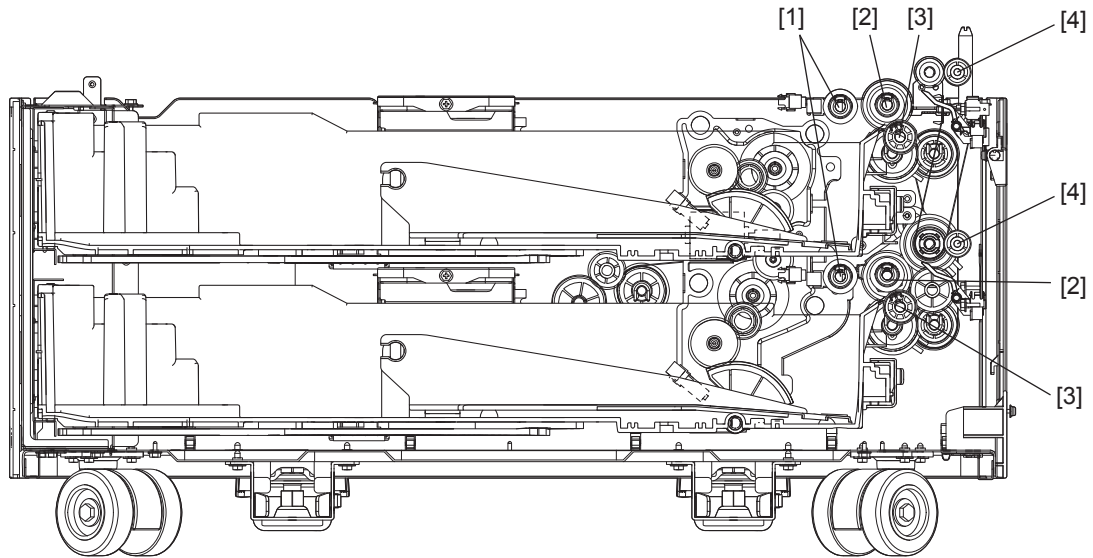
Fig. 7-20

	Items to check	Cleaning	Lubrication/ Coating	Replacement (x 1,000 sheets)	Replacement (x 1,000 drive counts)	Operation check	Parts list <P-I>
1	Pickup roller (upper/lower)	A		80 or every 2.5 years, whichever comes first			5-26
2	Feed roller (upper/lower)	A		80 or every 2.5 years, whichever comes first			5-26
3	Separation roller (upper/lower)	A		80 or every 2.5 years, whichever comes first			5-30
4	Transport roller (tooth face)	A		R3			2-35 2-40
5	Paper guide	O					4-1 4-11

7.6.9 LCF (KD-1031)
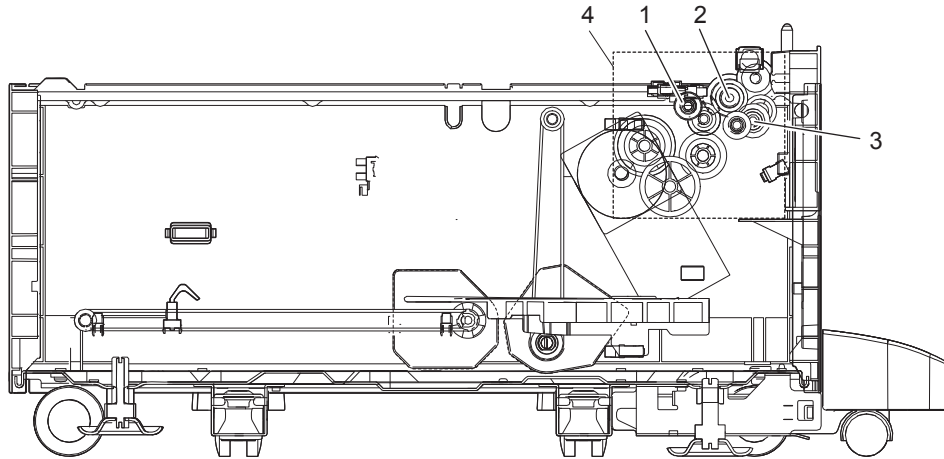
Fig. 7-21

Items to check		Cleaning	Lubrication/ Coating	Replacement		Operation check	Parts list <P-I>
				(x 1,000 sheets)	(x 1,000 drive counts)		
1	Pickup roller	A		160			4-4
2	Feed roller	A		160			4-3
3	Separation roller	A		160			5-8
4	Drive gear (tooth face)						-

7.6.10 PFU (MY-1040)
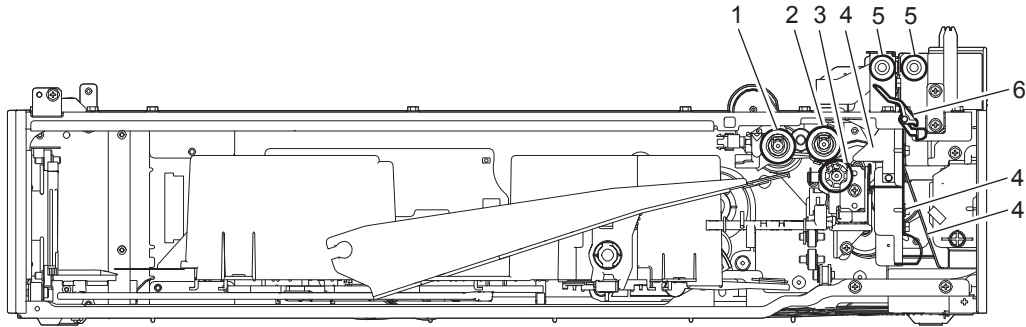
Fig. 7-22

Items to check		Cleaning	Lubrication/ Coating	Replacement		Operation check	Parts list <P-I>
				(x 1,000 sheets)	(x 1,000 drive counts)		
1	Pickup roller	A		80			5-26
2	Feed roller	A		80			5-26
3	Separation roller	A		80			5-30
4	Guide	A					4-3
5	Transport roller	A					4-23
6	Paper feed roller	A					4-1 4-11

7.6.11 JSP (MJ-5004)
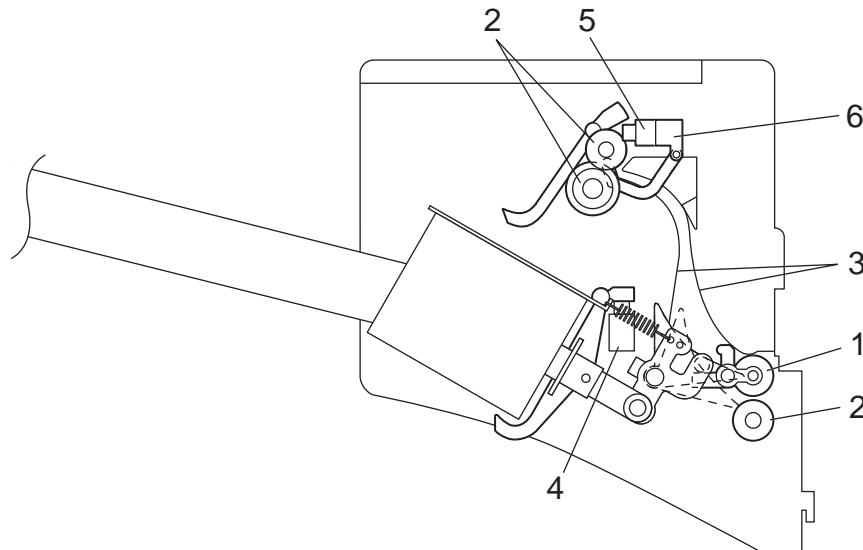
Fig. 7-23

	Items to check	Cleaning	Lubrication/ Coating	Replacement (x 1,000 sheets)	(x 1,000 drive counts)	Operation check	Parts list <P-I>
1	Idling roller	O or A					1-25 1-26 1-27 1-28 1-30
2	Other rollers	O orA					1-40 1-42 1-14
3	Paper guide	O orA					1-5 1-7
4	JSP upper stuck sensor	O				O	1-11
5	SP lower stuck sensor	O				O	1-11
6	JSP feed sensor	O				O	1-16

* 1: Idling roller
Apply each one-rice-grain amount of the white grease (Molykote EM-30L) at the point A (2 points) in Figure 7-36
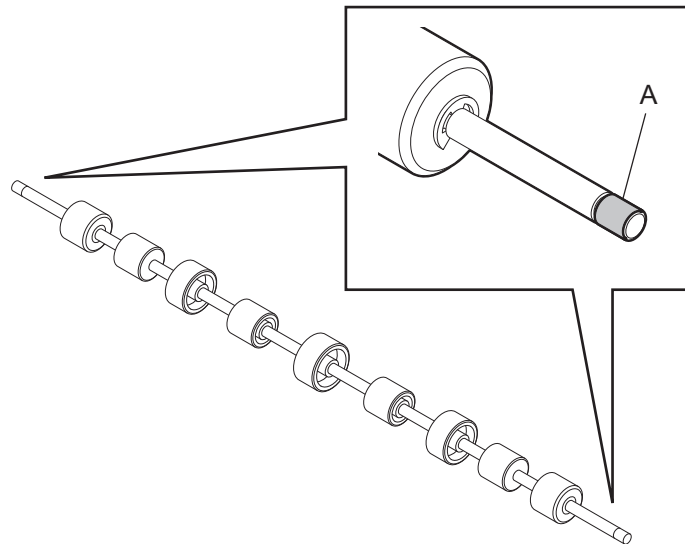
Fig. 7-24

7.7 Storage of Supplies and Replacement Parts

Precautions for storing supplies and replacement parts are shown below.

1. Toner/Developer
   Toner and developer should be stored in a place where the ambient temperature is between 10°C to 35°C (no condensation), and should also be protected against direct sunlight during transportation.

2. Photoconductive drum
   Like the toner and developer, photoconductive drum should be stored in a dark place where the ambient temperature is between 10°C to 35°C (no condensation). Be sure to avoid places where drums may be subjected to high humidity, chemicals and/or their fumes.

3. Drum cleaning blade / Transfer belt cleaning blade
   This item should be stored in a flat place where the ambient temperature is between 10°C to 35°C, and should also be protected against high humidity, chemicals and/or their fumes.

4. Transfer belt / Transfer roller / Fuser roller / Pressure roller
   Avoid places where the rollers may be subjected to high humidity, chemicals and/or their fumes.

5. Paper
   Avoid storing copy paper in places where it may be subjected to high humidity.
   After a package is opened, be sure to place and store it in a storage bag.

7

7.8 PM KIT

A PM kit is a package for each unit of replacement parts requiring PM.

KIT name	Component	P - I	Qty.
DEV-KIT-FC30K	Drum cleaning blade	5-27	1
	Main charger grid	35-6	1
	Needle electrode	35-8	1
	Main charger cleaner	35-13	2
	Developer material	103-2	1
	LED spacer (rear side)	34-11	1
	LED spacer (rear side)	34-11	1
DEV-KIT-FC30CLR	Drum cleaning blade	34-35	3
	Main charger grid	35-6	3
	Needle electrode	35-8	3
	Main charger cleaner	35-13	6
	Developer material (Y)	103-2	1
	Developer material (M)	103-2	1
	Developer material (C)	103-2	1
	LED spacer (front side)	34-11	3
	LED spacer (rear side)	34-10	3
ROL-KIT-FC30 (PFU/PFP)	Pick up roller	5-26 (PFU) 5-26 (PFP)	1
	Feed roller	5-26 (PFU) 5-26 (PFP)	1
	Separation roller	5-30 (PFU) 5-30 (PFP)	1
ROL-KIT-1026 (LCF)	Pick up roller	4-4	1
	Feed roller	4-3	1
	Separation roller	5-8	1
DF-KIT-3018 (RADF)	Pick up roller	5-27	1
	Feed roller	5-27	1
	Separation roller	4-10	1

7.9 Maintenance Part List

The parts used for the maintenance of this equipment are as follows.

No.	Item	Purpose	P-I
1	Cleaning brush	Cleaning inside of the equipment	101-2
2	Doctor blade cleaning jig	Cleaning the doctor blade	101-3
3	Wire pulley holder jig	Fixing the wire at the assembly of the carriage wire	101-4
4	Developer material nozzle	Pouring the developer material (attached to the developer bottle)	101-5
5	Doctor-sleeve gap jig	Measuring the gap between the developer sleeve and the doctor blade (gauge 0.50, 0.55, 0.60)	101-6
6	Belt tension jig	Adjusting the belt tension at the installation of the scan motor	101-7
7	Drum bag	Storing the drum	101-9
8	Download jig (K-PWA-DLM-320F)	Updating the FAX firmware	102-1
9	Download jig *1 (K-PWA-DLM-320)	Updating the FAX firmware	-
10	ROM	Installing the DLM board	102-10
11	Download jig (PWA-DWNLD-JIG2F)	Updating the system firmware	102-2
12	Download jig (PWA-DWNLD-JIG1F)	Updating the system firmware	-
13	Download jig *2 (PWA-DWNLD-JIG1)	Updating the system firmware	-
14	Download jig *2 (PWA-DWNLD-JIG2)	Updating the system firmware	-
15	ROM writer adapter (For 1881)	Writing the data of PWA-DWNLD-JIG2F	102-4
16	ROM writer adapter (For 1931)	Writing the data of PWA-DWNLD-JIG2F	102-5
17	Patting pawder	For transfer belt	101-25
18	Door-switch jig	Lock of door switch	101-1
19	Color test chart	For test print (A4/LT)	101-10
20	Color test chart	For test print (A3/LD)	101-11
21	Thermistor gap jig	Measuring the gap between the thermistor and the pressure roller	101-8
22	Thermostat gap jig	Measuring the gap between the thermostat and the fuser roller and measuring the gap between the thermostat and the pressure roller	101-8
23	Relay PC board for download jig (PWB-DWNLD-RELAY-34F)	Updating the FAX firmware (Relay PC board for K-PWA-DLM-320)	102-7
24	Relay PC board for download jig (PWB-DWNLD-RELAY-50F)	Updating the system firmware (Relay PC board for PWA-DWNLD-JIG1 and PWA-DWNLD-JIG2)	102-8
25	Harness holding jig	For installing/removing the LED unit.	101-12
26	Doctor-sleeve gap jig	Measuring the gap between the developer sleeve and the doctor blade (gauge 0.60, 0.65, 0.70)	101-27

*1: Relay PC board for download jig (PWB-DWNLD-RELAY-34F) is necessary for update.
*2: Relay PC board for download jig (PWB-DWNLD-RELAY-50F) is necessary for update.
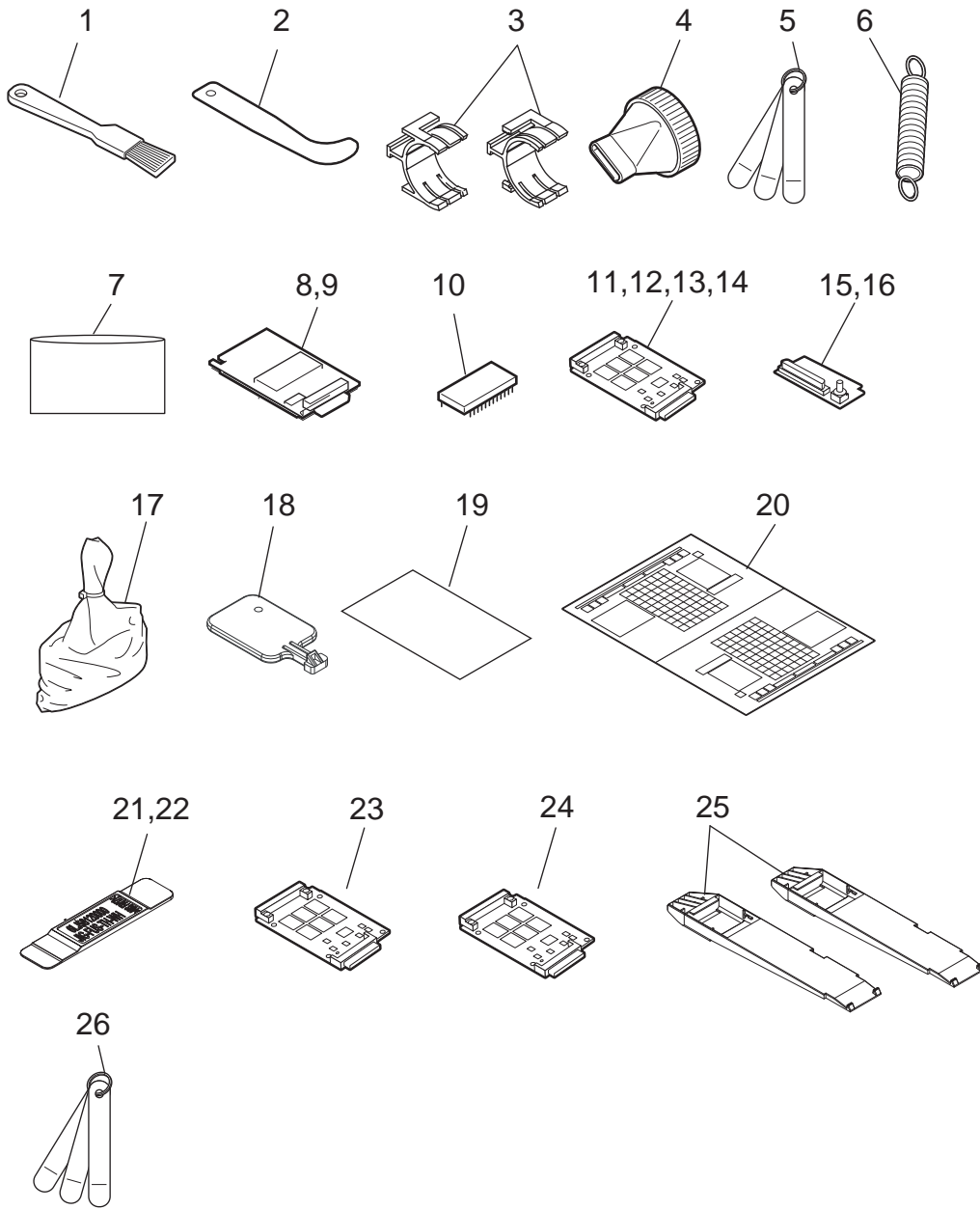
Fig. 7-25

7.10 Grease List

The parts used for the maintenance of this equipment are as follows.

Symbol	Grease name	Volume	Container	Parts list <P-I>*
L	Launa 40	100 cc	Oiler	101-21
W1	White grease (Molykote EM-30L)	100 g	Bottle	101-24
W2	White grease (Molykote HP-300)	10 g	Bottle	101-22
AV	Alvania No.2	100 g	Tube	101-23
FL	FLOIL (GE-334C)	20 g	Bottle	101-26
SI	Silicon oil	100 cc	Bottle	-

* : Part list <P-I> represents the page item in "e-STUDIO2050C/2051C/2550C/2551C Service Parts List".

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7.11 Machine Refreshing Checklist

Symbols/value used in the checklist

Item	Description
Cleaning	**A:** Clean with alcohol **B:** Clean with soft pad, cloth or vacuum cleaner
Lubrication/ Coating	**W1:** White grease (Molykote EM-30L) **W2:** White grease (Molykote HP-300)
Replacement	**Value:** Replacement cycle **R1:** Replacement **R2:** For preventive maintenance, check if the parts are damaged and replace them as required. If the parts are not replaced at the machine refreshing interval, inspect them at the subsequent PM. **R3:** Replace if deformed or damaged. If the parts are not replaced at the machine refreshing interval, inspect them at the subsequent PM. **R4:** Lubrication recommended: If the parts are not lubricated at the machine refreshing interval, inspect their lubrication status at the subsequent PM.
Operation check	**O:** After cleaning or replacement, confirm there is no problem.

[Machine Refreshing Checklist]

Notes:
- When performing machine refreshment, check the items in the preventive maintenance checklist in addition to the items in the machine refreshing checklist.
- Perform cleaning and lubricating in the following timing. Lubricate the replacement parts according to the replacement cycle.

Model	Black	Full color
20ppm, LL20ppm	every 168,000 sheets	every 168,000 sheets
25ppm, LL25ppm	every 210,000 sheets	every 210,000 sheets

- The value in the "Replacement" field of the table below indicates the replacement number of output pages in either the black or the full color mode. If they differ according to the model, they are indicated in the order of the 20ppm, LL20ppm, 25ppm, LL25ppm.
- The replacement cycle of the parts in the feeding section equals to the number of sheets fed from each paper source.
- Be careful not to put oil on the rollers, belts and belt pulleys when lubricating.
- Parts list <P-I> represents the page item in "e-STUDIO2050C/2051C/2550C/2551C Service Parts List".

Items to check		Cleaning	Lubrication/Coating	Replacement 20ppm/LL20ppm: 168,000 sheets 25ppm/LL25ppm: 210,000 sheets	Replacement 20ppm/LL20ppm: 675,000 drive counts 25ppm/LL25ppm: 675,000 drive counts	Operation check	P-I
A1	Original glass	B or A					25-2
A2	ADF original glass	B					25-3
A3	Mirror-1	B					-
A4	Mirror-2	B					-
A5	Mirror-3	B					-

Items to check		Cleaning	Lubrication/Coating	Replacement		Operation check	P-I
				20ppm/ LL20ppm: 168,000 sheets 25ppm/ LL25ppm: 210,000 sheets	20ppm/ LL20ppm: 675,000 drive counts 25ppm/ LL25ppm: 675,000 drive counts		
A6	Reflector	B					-
A7	Lens	B					10-9
A9	Automatic original detection sensor	B				O	10-12
A10	Slide sheet (front and rear)	B		R3	R3		-
B1	LED printer head	B or A					31-21
B2	Discharge LED	B or A					31-15
C3	Registration roller (rubber)	A		R3	R3		22-11
C4	Paper guide	B					13-9
C5	Drawer separation pad holder		W2	R4	R4		43-7
D1	Transport roller	A		R3	R3		41-10
D2	Paper guide	B					41-20
E3	Bypass tray	B					20-13
E4	Bypass separation pad holder		W1		R4		21-9
G7	Drum TBU drive unit		W1	R4	R4		-
G8	Ozone filter			R1	R1		7-10
H2	Paper feeding/ developer drive unit		W1	R4	R4		-
J1	Transfer belt	A		R2	R2		26-14
J2	1st transfer roller			R2	R2		27-9
J3	Cleaning unit facing roller	A		R1	R1		26-10
J4	TBU drive roller	A		R2	R2		26-27
J5	Belt clinging roller before 2nd transfer	A		R3	R3		27-2
J6	Lift roller	A		R3	R3		26-8
J7	Winding roller (K)	A		R3	R3		27-4
J8	Transfer belt cleaning blade			R1	R1		30-19
J9	Recovery blade	B		R1	R1		30-22
J10	Blade seal			R1	R1		30-20, 30-21
J11	Cleaning unit facing roller bushing			R1	R1		26-11
J12	Belt clinging roller bushing before 2nd transfer			R2	R2		27-1

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e-STUDIO2050C/2051C/2550C/2551C
PREVENTIVE MAINTENANCE (PM)

	Items to check	Cleaning	Lubrication/Coating	Replacement 20ppm/LL20ppm: 168,000 sheets / 25ppm/LL25ppm: 210,000 sheets	Replacement 20ppm/LL20ppm: 675,000 drive counts / 25ppm/LL25ppm: 675,000 drive counts	Operation check	P-I
K1	Image position aligning sensor (Rear)/Image quality sensor	A					14-6
K2	Actuator	B					14-9
K3	Image position aligning sensor (Front)	A					14-6
L2	Paper clinging detection sensor	B					14-19
L3	2nd transfer roller paper guide	B					14-22
M1	Heat roller			R1	R1		38-15
M2	Pressure roller			R1	R1		38-20
M3	Fuser roller separation finger			R1	R1		38-26
M4	Pressure roller separation finger			R1	R1		39-15
M5	Fuser unit entrance guide	A		R3	R3		37-11
M6	Thermistor	A		R3	R3		38-4
M7	Drive gear (tooth face and shaft)		W1	R4	R4		38-17
M8	Heat roller gear	A		R3	R3		40-10
M9	Exit sensor actuator	A		R3	R3		39-24
N1	Exit roller (rubber)			R3	R3		40-17
N2	Idling roller (plastic: lower side of the exit roller)		W1	R4	R4		40-5
N3	Paper exit unit lib (guide rib)	B					-
N4	Exit unit drive section		W1	R4	R4		-

Scanner
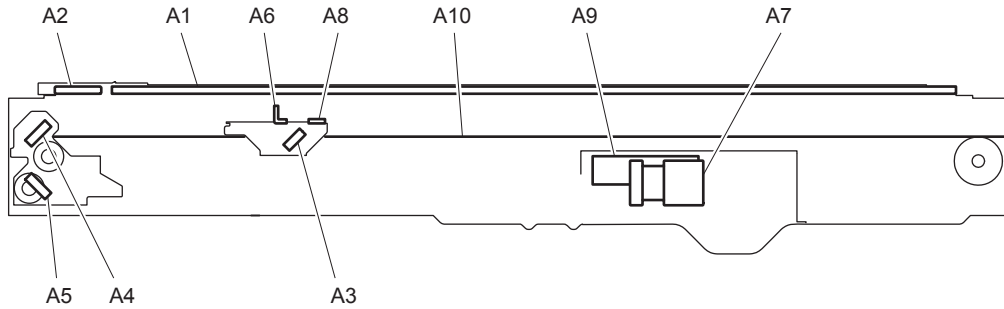
Fig. 7-26

*   A1: Original glass, A2: ADF original glass

Clean both sides of the original glass and ADF original. Make sure that there is no dust on the mirrors-1, -2, -3 and lens after cleaning. Then install the original glass and ADF original glass.

Notes:

Make sure that there is no fingerprints or oil staining on part of the original glass on where the original scale is mounted since the shading correction plate is located below the scale to be scanned.

When cleaning the glass with alcohol, do so only for the stained areas because fog may appear.

LED unit
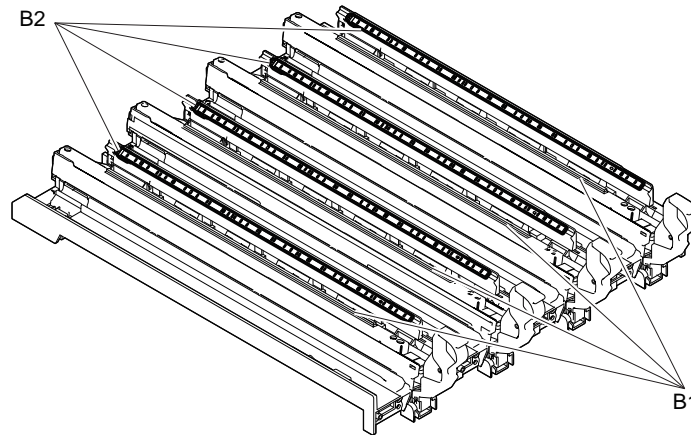
Fig. 7-27

Automatic duplexing unit
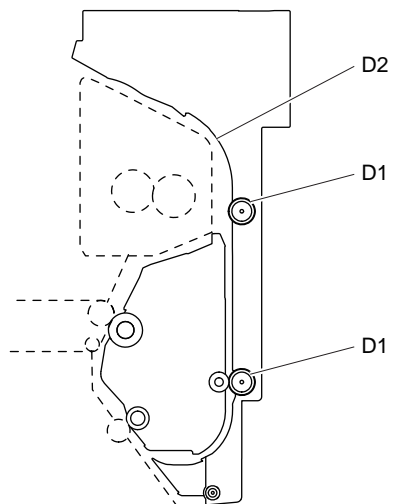
Fig. 7-28

Drum unit, Cleaner related section
*   G7: Drum TBU drive unit
Refer to chapter 📖 P. 4-97 "4.7.13 Drum TBU drive unit"
*   G8: Ozone filter
Refer to chapter 📖 P. 4-79 "4.6.29 Ozone filter"

Transfer belt unit / Transfer belt cleaning unit
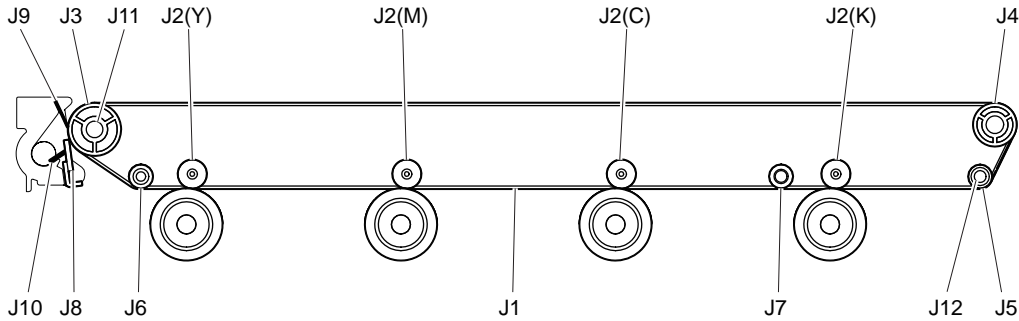
Fig. 7-29

*   J1: Transfer belt
    *   Handling precautions
        -   Do not touch the front and rear surfaces of the transfer belt surface with bare hands.
        -   Prevent oil or other foreign matter from adhering to both surfaces of the transfer belt.
        -   Do not apply external pressure that might scratch the transfer belt.
        -   When replacing the belt and transfer belt cleaning unit, apply patting powder sufficiently and evenly. Otherwise, it may reduce the cleaning efficiency.
        -   When replacing the transfer belt, clean J3, J5, J6, and J7 with a solvent such as alcohol, and then clean J4 with a dry cloth, and then attach the transfer belt.

    *   Cleaning procedure
        Fully clean up the toner and such adhering to the roller with alcohol, and then wipe it with a dry cloth until no trace remains. Take care not to have the transfer belt surface being damaged or dented. Replace the transfer belt with a new one regardless of the number of output pages, if any crack or major scar is found.

*   J3:Cleaning unit facing roller, J4: TBU drive roller, J5: Belt clinging roller before 2nd transfer, J6: Lift roller
    Fully clean up the toner and such adhering to the roller with alcohol when the transfer belt cleaning blade is replaced, since an image failure may occur if there is any dirt remaining on the roller. Also, remove dust and toner scattering adhering to the inside of the transfer belt unit in order to keep rollers clean.
*   J8: Transfer belt cleaning blade
    *   Handling precautions
        Pay attention to the following points as the cleaning blade life is determined by the condition of its edge.
        -   Do not allow hard objects to hit or rub against blade edge.
        -   Do not rub the edge with a cloth or soft pad.
        -   Do not leave oil (or fingerprints, etc.) on the edge.
        -   Do not apply solvents such as paint thinner to the blade.
        -   Do not allow paper fibers or dirt to contact the blade edge.
        -   Do not place the blade near a heat source.

    *   Cleaning procedure
        Clean the blade edge with a cloth moistened with water and squeezed lightly.

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PREVENTIVE MAINTENANCE (PM)

Image quality control unit
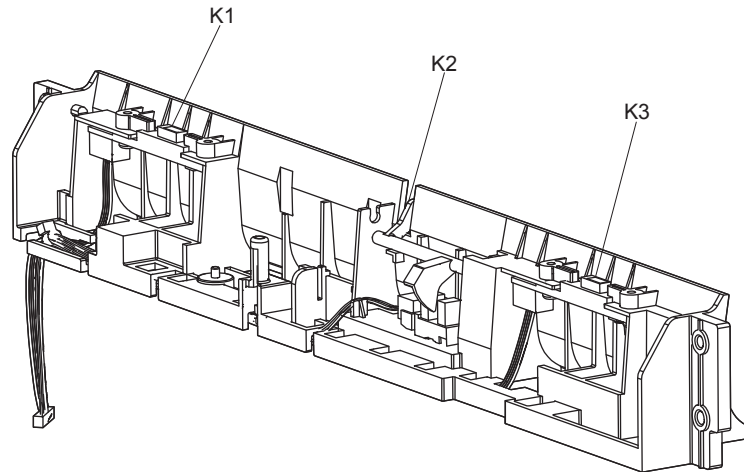
Fig. 7-30

* K2: Actuator
  If toner adheres to the actuator (paper contact section), clean it with a soft pad, cloth or electric vacuum cleaner.

2nd transfer roller unit
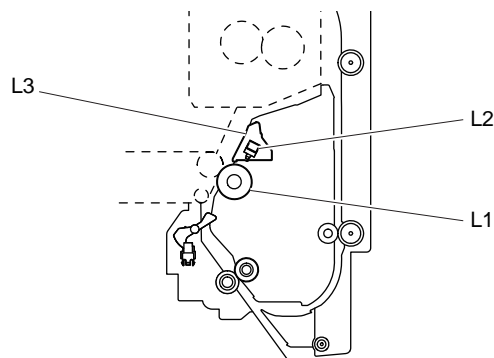
Fig. 7-31

* L2: Paper clinging detection sensor
  Open the 2nd transfer unit and clean the paper clinging detection sensor with a cotton swab.

  Notes:
  Be sure to clean the entire surface of the sensor.

* L3: 2nd transfer roller paper guide
  If toner adheres to the ribs of the 2nd transfer roller paper guide, clean it with a soft pad, cloth or electric vacuum cleaner.

Fuser unit
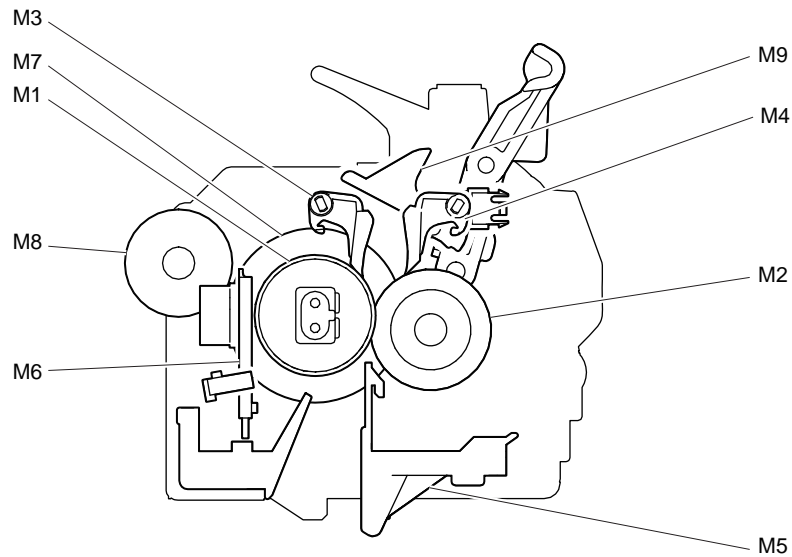
Fig. 7-32

* M1: Heat roller
  When replacing the Heat roller, apply small amount of grease on the inside of Heat roller bearings.

* M3, M4: Separation finger
  The paper jam may be caused if the tip of the finger is damaged or deformed, or a dirt image caused by the finger occurs. If there is any problem with it, replace the finger with a new one regardless of the number of output pages which have been made. Do not damage the tip of the finger during the cleaning. The finger may be damaged if the toner adhering to the tip of it is scraped off forcibly. Replace the finger if the toner is sticking to it heavily.

* M6: Thermistor
  Clean the thermistor with alcohol if the toner or dirt is sticking to it when the Heat roller is replaced.
  Do not deform or damage the thermistor during the cleaning. Replace the thermistor with a new one if it is damaged or deformed regardless of degree.
  Be sure to perform the fuser thermistor correction when it is removed or replaced.

* M9: Exit sensor actuator
  If toner has adhered, wipe it off with alcohol.

Exit unit
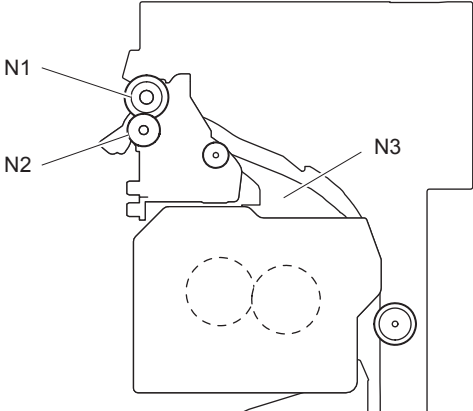
Fig. 7-33

* N2: Idling roller
   Wipe off any old grease, and then apply 0.5 to 1 rice-sized grains of white grease (Molykote HP-300) onto the inside of the roller and both end faces of the shaft hole.

7.12 Machine Refreshing Kit

A Machine Refreshing Kit is a package of replacement parts for each unit required at machine refreshment.

KIT name	Component	P-I	Qty.
FR_R-KIT-FC30	Fuser roller	38-15	1
	Pressure roller	38-20	1
	Fuser roller separation finger	38-26	5
	Pressure roller separation finger	39-15	2
TBU_R-KIT-FC30	Ozone filter	7-10	1
	Cleaning unit facing roller	26-10	1
	Cleaning unit facing roller bushing	26-11	2
	Blade seal (front)	30-20	1
	Blade seal (rear)	30-21	1
	Blade seal (back)	30-17	2
	Transfer belt cleaning blade	30-19	1

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8. ERROR CODE AND TROUBLESHOOTING

8.1 General Descriptions

This chapter explains the procedures for solving troubles occurring in the equipment.

When a trouble occurs, check if an error code is displayed on the LCD screen of the control panel first. If displayed, refer to" P. 8-4 "8.2 Error Code List"" to figure out the classification and contents of the error, and then refer to " P. 8-42 "8.3 Diagnosis and Prescription for Each Error Code"" to remove its cause.

If not displayed and the equipment does not operate properly or images are not printed properly, refer to " P. 8-245 "8.4 Other errors"" or " P. 8-249 "8.5 Troubleshooting for the Image"" to remove its cause.

Note:
If unusual odor is detected or if smoke or fire comes out of the equipment, immediately turn the power OFF.
Even in the cases other than the above, fully observe safety precautions.
If any PC board or HDD shall be replaced, refer to"9.3Precautions for Installation of GP-1070 and Disposal of HDD/SSD/Board".

8.1.1 If a problem continues even after performing all troubleshooting.

If a problem continues even after performing all troubleshooting and technical tips, report the problem to the appropriate Toshiba service center along with the following information. This information will help the service center understand your problem and take quick action to find the solution.

1. Serial Number
2. List Print
   Refer to the appropriate Service Manual / Service Handbook for the detailed procedure to obtain a List Print.
   A. Enter the value given below to obtain a List Print by CSV file.
      9S-300: All CSV files
   B. Enter the value given below to obtain a List Print by printing it out.
      9S-101: 05 code
      9S-102: 08 code
      9S-104: Pixel counter data (Toner cartridge standard)
      9S-106: Error history (1000 cases max)
      9S-108: Firmware update log (200 cases max)
      9S-110: Power on/off log (100 cases max)
3. For image-related problems, collect image samples with the problem areas and the feeding direction marked first. Then provide information about the media type and weight, and the print data / spool files for duplicating the problem.
4. For abnormal acoustic noise, describe the situation in as much detail as possible.
5. For hardware-related problems, provide photos of any broken parts, paper jams, etc.
   In case of paper jams, include the type of paper and its manufacturer.
6. For software-related problems, provide list prints, TopAccess Logs and the detailed procedure needed to duplicate the problem.
*   This is the minimum information required to report a complaint. It would be appreciated if you could obtain additional information.
*   Follow the directions of the service center if they request additional information as each issue is unique to some degree.

8.1.2   Collection of debug logs with a USB device

[1]   General description

The purpose of collecting the debug logs is to acquire the information for analyzing problems which occurred during the MFP's operation. In such a case, you can collect the debug logs by inserting a USB device into the MFP. Even if the power has to be turned OFF with the main power switch after a problem occurs, the debug logs will be saved in the MFP (up to 3 logs). If the debug logs have already been saved in the MFP, they also can be collected.

The following information is included in the USB debug logs.
Internal operation, Job history, HDD/memory usage status, etc. (Personal/Corporate information (address book) not included)

When the debug logs are collected, also do so for the following information since it may be difficult to investigate only using the debug log.
*   List print mode ([9] + [START]) [300: All CSV files]
*   Job logs below in TopAccess -> [Logs] -> [Export Logs]
    -   Print Job Log Export
    -   Fax Transmission Journal Export
    -   Fax Reception Journal Export
    -   Scan Log Export
    -   Messages Log Export
*   Problem occurrence time
    Or the time when the customer called if it is difficult to work out when it occurred.
*   Status of when you collected the debug log
    As in the example below, check the status to know if the problem occurred at the debug log collection or how the customer recovered it.
    E.g.
    -   You checked the problem and connected a USB device to the equipment.
    -   No problem occurred when an attempt to collect the debug log was made; however the customer did turn the main power switch OFF when the problem occurred, so the log can be collected.

[2]   Collection procedure

1. Note
    When collecting a log, be sure to obtain consent from the user in advance and get the dedicated script file from the service center.
2. About USB devices
    Be sure to format the USB device with FAT16/32 beforehand. (Recommend size: 2GB or more)
3. Advance preparation of collection
    Store the dedicated script file to the root directory of the USB device.
4. Procedure for collecting debug logs
    1. Insert USB device, in which the dedicated script file is stored, into the MFP while the power is ON.
    2. The LED in the MFP starts blinking after the USB device has been inserted.
    3. When the collection of the debug logs is finished, beeping is heard.
    4. After the beeping has stopped, remove the USB device.

    Notes:
    *   Do not remove the USB device while the LED in the MFP is blinking.
    *   If the LED does not start blinking after the USB device is inserted and a few minutes have passed, try the procedure from step 1 again.
    *   If there is no beeping after the LED starts blinking (about 20 minutes), try procedure from step 1 again.
    *   If the USB device is inserted when the MFP is not ready, the debug logs cannot be collected.
5. Collected debug logs
    -   When the collection of the debug logs is completed, the compressed file of the collected logs is stored in the root directory of the USB device.
        File name: XXXX.YYYYMMDDHHmmSS

(XXXX= Serial number of the equipment, YYYY= year, MM= month, DD= day, HH= hour, mm= minute, SS= second)
- After the debug logs have been collected, be sure to send them to the service center together with a report.

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8.2 Error Code List

The following error codes is displayed at the upper right of the screen when the "CLEAR PAPER" or "CALL SERVICE" symbol is blinking.

8.2.1 Jam

Error code	Classification	Contents	Troubleshooting
E010	Paper exit jam	Jam not reaching the exit sensor: The paper which has passed through the fuser unit does not reach the exit sensor.	P. 8-42
E011	Other paper jam	Transfer belt paper-clinging jam: The paper after the 2nd transfer is clinging to the transfer belt.	P. 8-58
E013	Other paper jam	The paper jam occurred between the registration pass sensor and the paper clinging detection sensor.	P. 8-60
E020	Paper exit jam	Stop jam at the exit sensor: The trailing edge of the paper does not pass the exit sensor after its leading edge has reached this sensor.	P. 8-44
E030	Other paper jam	Power-ON jam: The paper is remaining on the paper transport path when power is turned ON.	P. 8-61
E061		Incorrect paper size setting for 1st drawer: The size of paper in the 1st drawer differs from size setting of the equipment.	P. 8-62
E062		Incorrect paper size setting for 2nd drawer: The size of paper in the 2nd drawer differs from size setting of the equipment.	P. 8-62
E063		Incorrect paper size setting for PFP upper drawer: The size of paper in the 3rd drawer differs from size setting of the equipment.	P. 8-62
E064		Incorrect paper size setting for PFP lower drawer: The size of paper in the 4th drawer differs from size setting of the equipment.	P. 8-62
E065		Incorrect paper size setting for bypass tray: The size of paper in the bypass tray differs from size setting of the equipment.	P. 8-62
E090		Image data delay jam: Image data to be printed cannot be prepared.	P. 8-62
E091		Motor-ON time-out jam: The equipment does not operate normally because abnormality occurred on an interface between the SYS board and engine firmware.	P. 8-62
E0A0		Image transport ready time-out jam: Image data to be printed cannot be sent.	P. 8-63

Error code	Classification	Contents	Troubleshooting
E110	Paper misfeeding	ADU misfeeding (Paper not reaching the registration sensor): The paper which has passed through ADU does not reach the registration sensor during duplex printing.	P. 8-45
E120		Bypass misfeeding (Paper not reaching the bypass feed sensor): Paper fed from the bypass tray does not reach the bypass feed sensor.	P. 8-45
E130		1st drawer misfeeding (Paper not reaching the 1st drawer feed sensor): The paper fed from the 1st drawer does not reach the 1st drawer feed sensor.	P. 8-46
E140		2nd drawer misfeeding (Paper not reaching the 2nd drawer feed sensor): The paper fed from the 2nd drawer does not reach the 2nd drawer feed sensor.	P. 8-46
E150		PFP upper drawer misfeeding (Paper not reaching the PFP upper drawer feed sensor): The paper fed from the PFP upper drawer does not reach the PFP upper drawer feed sensor.	P. 8-47
E160		PFP lower drawer misfeeding (Paper not reaching the PFP lower drawer feed sensor): The paper fed from the PFP lower drawer does not reach the PFP lower drawer feed sensor.	P. 8-47
E190		LCF misfeeding (Paper not reaching the LCF feed sensor): The paper fed from the LCF does not reach the LCF feed sensor.	P. 8-48

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Error code	Classification	Contents	Troubleshooting
E200	Paper transport jam	1st drawer transport jam (Paper not reaching the registration sensor): The paper does not reach the registration sensor after it has passed the 1st drawer feed sensor.	P. 8-49
E210		2nd drawer transport jam (Paper not reaching the registration sensor): The paper does not reach the registration sensor after it has passed the 1st drawer feed sensor.	P. 8-49
E220		2nd drawer transport jam (Paper not reaching the 1st drawer feed sensor): The paper does not reach the 1st drawer feed sensor after it has passed the 2nd drawer feed sensor.	P. 8-50
E270		Bypass transport jam (Paper not reaching the registration sensor): Paper fed from the bypass tray and passed through the bypass feed sensor does not reach the registration sensor.	P. 8-49
E300		PFP upper drawer transport jam (Paper not reaching the registration sensor): The paper does not reach the registration sensor after it has passed the 1st drawer feed sensor.	P. 8-49
E310		PFP upper drawer transport jam (Paper not reaching the 1st drawer feed sensor): The paper does not reach the 1st drawer feed sensor after it has passed the 2nd drawer feed sensor.	P. 8-50
E320		PFP upper drawer transport jam (Paper not reaching the 2nd drawer feed sensor): The paper does not reach the 2nd drawer feed sensor after it has passed the PFP upper drawer feed sensor.	P. 8-51

Error code	Classification	Contents	Troubleshooting
E330	Paper transport jam	PFP lower drawer transport jam (Paper not reaching the registration sensor): The paper does not reach the registration sensor after it has passed the 1st drawer feed sensor.	P. 8-49
E340		PFP lower drawer transport jam (Paper not reaching the 1st drawer feed sensor): The paper does not reach the 1st drawer feed sensor after it has passed the 2nd drawer feed sensor.	P. 8-50
E350		PFP lower drawer transport jam (Paper not reaching the 2nd drawer feed sensor): The paper does not reach the 2nd drawer feed sensor after it has passed the PFP upper drawer feed sensor.	P. 8-51
E360		PFP lower drawer transport jam (Paper not reaching the PFP upper drawer feed sensor): The paper does not reach the PFP upper drawer feed sensor after it has passed the PFP lower drawer feed sensor.	P. 8-51
E3C0		LCF transport jam (Paper not reaching the registration sensor): Paper fed from the LCF and passed through the 1st drawer feed sensor does not reach the registration sensor.	P. 8-49
E3D0		LCF transport jam (Paper not reaching the 1st drawer feed sensor): Paper fed from the LCF and passed through the 2nd drawer feed sensor does not reach the 1st drawer feed sensor.	P. 8-50
E3E0		LCF transport jam (Paper not reaching the 2nd drawer feed sensor): Paper fed from the LCF and passed through the LCF feed sensor does not reach the 2nd drawer feed sensor.	P. 8-51
E400	Cover open jam	Jam access cover open jam: The jam access cover has opened during printing.	P. 8-66
E410		Front cover open jam: The front cover has opened during printing.	P. 8-66
E420		PFP side cover open jam: The PFP side cover has opened during printing.	P. 8-67
E430		ADU open jam: The ADU has opened during printing.	P. 8-67
E440		Side cover open jam: The side cover has opened during printing.	P. 8-68
E450		LCF side cover open jam: The LCF side cover has opened during printing.	P. 8-68
E480		Bridge unit open jam: The bridge unit has opened during printing.	P. 8-69
E490		Job separator cover open jam: The Job separator cover has opened during printing.	P. 8-69

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e-STUDIO2050C/2051C/2550C/2551C
ERROR CODE AND TROUBLESHOOTING

Error code	Classification	Contents	Troubleshooting
E510	Paper transport jam (ADU section)	Jam not reaching the ADU entrance sensor: The paper does not reach the ADU entrance sensor after it is switchbacked in the exit section.	P. 8-53
E520		Stop jam in the ADU: The paper does not reach the ADU exit sensor after it has passed the ADU entrance sensor.	P. 8-55
E550	Other paper jam	Paper remaining jam on the transport path: The paper is remaining on the transport path when printing is finished.	P. 8-63
E551		Paper remaining jam on the transport path (when a service call occurs)	P. 8-64
E552		Paper remaining jam on the transport path (when the cover is closed)	P. 8-64
E712	RADF jam	Jam not reaching the original registration sensor: The original fed from the original feeding tray does not reach the original registration sensor.	P. 8-70
E714		Feed signal reception jam: The feed signal is received even no original exists on the original feeding tray.	P. 8-70
E721		Jam not reaching the read sensor: The original does not reach the read sensor after it has passed the registration sensor (when scanning obverse side) or the reverse sensor (when scanning reverse side).	P. 8-71
E722		Jam not reaching the original exit/reverse sensor (during scanning): The original which passed the read sensor does not reach the original exit/reverse sensor when it is transported from the scanning section to exit section.	P. 8-71
E724		Stop jam at the original registration sensor: The trailing edge of the original does not pass the original registration sensor after its leading edge has reached this sensor.	P. 8-72
E725		Stop jam at the read sensor: The trailing edge of the original does not pass the read sensor after its leading edge has reached this sensor.	P. 8-72
E726		Transport/exit signal reception jam: RADF receives the transport/exit reception signal from the equipment when no original is at the exposure waiting position.	P. 8-73
E731		Stop jam at the original exit/reverse sensor: The trailing edge of the original does not pass the original exit/reverse sensor after its leading edge has reached this sensor.	P. 8-73
E860		RADF jam access cover open: The RADF jam access cover has opened during RADF operation.	P. 8-74
E870		RADF open jam: RADF has opened during RADF operation.	P. 8-74
E871		Cover open jam in the read ready status	P. 8-74

Error code	Classification	Contents	Troubleshooting
E910	Finisher jam (Bridge unit)	Jam at the bridge unit transport sensor 1: The paper does not reach the bridge unit transport sensor 1 after it has passed the exit sensor.	P. 8-76
E920		Stop jam at the bridge unit transport sensor 1: The trailing edge of the paper does not pass the bridge unit transport sensor 1 after its leading edge has reached the sensor.	P. 8-76
E930		Jam at the bridge unit transport sensor 2: The trailing edge of the paper does not reach the bridge unit transport sensor 2 after its leading edge has reached the bridge unit transport sensor 1.	P. 8-77
E940		Stop jam at the bridge unit transport sensor 2: The trailing edge of the paper does not pass the bridge unit transport sensor 2 after its leading edge has reached the bridge unit transport sensor 2.	P. 8-77
E950	Job separator jam	Jam not reaching the job separator transport sensor: The paper has passed through the exit sensor does not reach the job separator transport sensor.	P. 8-78
E951		Stop jam at the job separator transport sensor: The trailing edge of the paper does not pass the job separator transport sensor.	P. 8-78
E9F0	Finisher jam (Puncher unit)	Punching jam: An error occurs during the detecting of the home position of the punch motor. This occurs when an attempt is made to punch paper which has been multiply fed from the equipment and exceeds the punching capability.[MJ-1037 (when MJ-6008 is installed)]	P. 8-93

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Error code	Classification	Contents	Troubleshooting
EA10 EA20	Finisher jam (Finisher section)	1st transport motor (M8) fault/ 2nd transport motor (M4) fault [MJ-1036]	P. 8-79
EA10 EA20		Transport motor-1 (M1) fault/ Transport motor-2 (M2) fault [MJ-1037]	P. 8-79
EA25		Paper transport jam in the Finisher (after paper stack exit): Paper is detected in the finishing tray sensor after the paper stack has exited from the finishing tray. [MJ-1036]	P. 8-80
EA2A		Paper transport jam in the Finisher (Entrance path - middle path sensor) [MJ-1036]	P. 8-80
EA2B		Paper transport jam in the Finisher (Middle path sensor) [MJ-1036]	P. 8-81
EA2C		Paper transport jam in the Finisher (Entrance path - sub-path sensor) [MJ-1036]	P. 8-81
EA2D		Paper transport jam in the Finisher (Sub-path sensor) [MJ-1036]	P. 8-82
EA2E		Paper transport remaining jam in the Finisher (sub-path sensor): Paper is detected in the sub-path sensor when the power is turned ON or the cover is closed. [MJ-1036]	P. 8-83
EA31		Paper transport remaining jam in the Finisher: Paper is detected in the entrance path sensor or middle path sensor when the power is turned ON or the cover is closed. [MJ-1036]	P. 8-83
		Paper transport remaining jam in the Finisher: Paper is detected in any of the path sensors when the power is turned ON or the cover is closed. [MJ-1037]	P. 8-83
EA32		Exit paper remaining jam in the Finisher: Paper is detected in the finishing tray sensor when the power is turned ON. [MJ-1036/MJ-1037]	P. 8-84
EA40	Finisher jam (Finisher section)	Finisher cover open jam: (1) A paper jam occurs when any of the covers is opened during the transporting of paper in the Finisher (until the paper exit is completed after the B command has been received). (2) A paper jam occurs when the supplying of the voltage of 24V is stopped during the transporting of paper. [MJ-1036/MJ-1037]	P. 8-84
EA50		Stapling jam: Stapling is not performed properly. [MJ-1036/MJ-1037]	P. 8-85
EA60	(Finisher section) Finisher jam	Early arrival jam: The entrance path sensor detects the paper earlier than a specified timing. [MJ-1036]	P. 8-85

Error code	Classification	Contents	Troubleshooting
EA80	Finisher jam (Saddle Stitcher section)	Stapling in the saddle stitch staple unit is not performed properly. [MJ-1037]	P. 8-87
EA81		The detection of the home position of the saddle stitch 3rd transport roller drive motor (M10) ends abnormally. [MJ-1037]	P. 8-87
EAB0		Paper transport jam in Saddle Stitch Finisher: Paper transport jam in Saddle Stitch Finisher [MJ-1037]	P. 8-88
EAC1		The detection of the home position of the paper folding blade motor (M12) ends abnormally. [MJ-1037]	P. 8-88
EAF1		The detection of the home position of the exit roller nip adjustment motor (M4) ends abnormally. [MJ-1037]	P. 8-89
EAF2		The detection of the home position of the staple unit sliding motor (M11) ends abnormally. [MJ-1037]	P. 8-89
EAF3		Gripper arm motor home position detection error: The detection of the home position of the gripper arm ends abnormally. This error may occur if paper is jammed while being transported, so it is treated as a paper jam. [MJ-1037]	P. 8-90
ED15		Paddle home position detection error: The paddle is not at the home position. [MJ-1101/MJ-1106]	P. 8-91
EF14		Saddle paper exit jam: Outputting paper is not completed within a fixed time. [MJ-1106]	P. 8-91
EF1A		The trailing edge of paper does not reach the saddle stitch entrance path sensor (S4) after it has passed the entrance sensor on the paper transport path of the Finisher and was transported through the paper transport path of the Saddle Stitch Unit. [MJ-1037]	P. 8-92
EF1B		Paper remains at the saddle stitch positioning paper exit sensor for a longer period than specified while being transported in the pushing/folding operation. [MJ-1037]	P. 8-92
EF1C		Paper is transported in the pushing/folding operation, but does not reach the saddle stitch exit path sensor.	P. 8-91

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Error code	Classification	Contents	Troubleshooting
EAD0	Other paper jam	Print end command time-out jam: The printing has not finished normally because of an error occurring on the interface between the SYS board and the engine firmware at the end of printing.	P. 8-94
EAE0		Receiving time time-out jam: The printing has been interrupted because of the communication error between the equipment and finisher when the paper is transported from the equipment to the finisher.	P. 8-94
EB30		Ready time time-out jam: The equipment judges that the paper transport to the finisher is disabled because of the communication error between the equipment and finisher at the start of printing.	P. 8-95
EB50	Paper transport jam	Paper remaining on the transport path: The multiple feeding of preceding paper caused the misfeeding of upcoming paper.	P. 8-55
EB60		Paper remaining on the transport path: The multiple feeding of preceding paper caused the misfeeding of upcoming paper (redetection after no jam is detected at [EB50]).	P. 8-57

8.2.2 Service call

Error code	Classification	Contents	Troubleshooting
C020	Drive system related service call	Developer drive motor abnormality: The developer drive motor is not rotating normally.	P. 8-98
C040	Paper feeding system related service call	PFP motor abnormality: The PFP motor is not rotating normally. (the case that paper can be fed from any drawer except the PFP)	P. 8-98
C140		2nd drawer tray abnormality: The tray-up motor is not rotating or the 2nd drawer tray is not moving normally. (the case that paper can be fed from any drawer except the 2nd drawer)	P. 8-99
C150		PFP upper drawer tray abnormality: The PFP upper drawer tray-up motor is not rotating or the PFP upper drawer tray is not moving normally. (the case that paper can be fed from any drawer except the PFP upper drawer)	P. 8-100
C160		PFP lower drawer tray abnormality: The PFP lower drawer tray-up motor is not rotating or the PFP lower drawer tray is not moving normally. (the case that paper can be fed from any drawer except the PFP lower drawer)	P. 8-100
C180		LCF tray-up motor abnormality: The LCF tray-up motor is not rotating or the LCF tray is not moving normally. (the case that paper can be fed from any drawer except the LCF)	P. 8-101
C1A0		LCF end fence motor abnormality: The LCF end fence motor is not rotating or the LCF end fence is not moving normally. (the case that paper can be fed from any drawer except the LCF)	P. 8-102
C1B0		LCF transport motor abnormality: The LCF transport motor is not rotating normally (when paper can be fed from any drawer except the LCF).	P. 8-103
C260	Scanning system related service call	Peak detection error: Lighting of the exposure lamp (white reference) is not detected when power is turned ON.	P. 8-104
C261		Peak detection error (high-light intensity)	P. 8-105
C262		Peak detection error (communication error)	P. 8-105
C270		Carriage home position sensor not turning OFF within a specified period of time: The carriage does not shift from its home position in a specified time.	P. 8-106
C280		Carriage home position sensor not going ON within a specified time	P. 8-107
C290		Scanner fuse blowout: 24V power for the scanning system is not supplied at the scanner warming-up after power-ON.	P. 8-108

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Error code	Classification	Contents	Troubleshooting
C370	Copy process related service call	Transfer belt unit abnormality	P. 8-167
C380		Auto-toner sensor-K abnormality (upper limit)	P. 8-168
C381		Auto-toner sensor-K abnormality (lower limit)	P. 8-169
C390		Auto-toner sensor-C abnormality (upper limit)	P. 8-170
C391		Auto-toner sensor-C abnormality (lower limit)	P. 8-171
C3A0		Auto-toner sensor-M abnormality (upper limit)	P. 8-172
C3A1		Auto-toner sensor-M abnormality (lower limit)	P. 8-173
C3B0		Auto-toner sensor-Y abnormality (upper limit)	P. 8-174
C3B1		Auto-toner sensor-Y abnormality (lower limit)	P. 8-175
C3E0		Developer unit replacement (old-new) detection abnormality	P. 8-176
C3E1		Drum/cleaner/charger unit replacement (old-new) detection abnormality	P. 8-178
C411	Fuser unit related service call	Thermistor or heater lamp abnormality at power-ON: Abnormality of the thermistor is detected when power is turned ON or the temperature of the fuser roller does not rise in a specified period of time after power is turned ON.	P. 8-109
C412		Thermistor/heater lamp abnormality at power-ON: Thermistor abnormality is detected at power-ON or the fuser roller temperature does not rise within a specified period of time after power-ON.	P. 8-109
C445		Heater lamp abnormality after abnormality judgment (pre-running end temperature abnormality)	P. 8-110
C446		Heater lamp abnormality after abnormality judgment (pre-running end temperature abnormality)	P. 8-110
C447		Heater lamp abnormality after abnormality judgment (temperature abnormality at ready status)	P. 8-110
C449		Heater lamp abnormality after abnormality judgment (temperature abnormality at high temperature)	P. 8-110
C450		Heater lamp abnormality after abnormality judgment	P. 8-110
C451		Heater lamp abnormality after abnormality judgment	P. 8-110
C452		Heater lamp abnormality after abnormality judgment	P. 8-110
C4B0		Fuser unit counter abnormality	P. 8-110
C4C0		Fuser unit new/old detection fuse abnormality	P. 8-111
C4D0	Fuser unit related service call	Fuser roller thermistor abnormality	P. 8-111
C4F0		Center thermistor error correction	P. 8-112
C4F1		Side thermistor error correction	P. 8-112

Error code	Classification	Contents	Troubleshooting
C550	Optional communication related service call	RADF I/F error: Communication error has occurred between the RADF and the scanner.	P. 8-114
C560		Communication error between Engine-CPU and PFC board	P. 8-114
C551		RADF model detection error	P. 8-118
C580		Communication error between IPC board and finisher	P. 8-114
CE00		Communication error (signal transmission to the Hole Punch Unit) [MJ-1037]	P. 8-115
C5A0	Circuit related service call	EEPROM not connected (LGC board)	P. 8-119
C5A1		EEPROM data abnormality (LGC board)	P. 8-119
C8E0	Optional communication related service call	RADF communication protocol abnormality: The system has to be stopped because the control	P. 8-118
C900	Circuit related service call	Connection error between SYS board and LGC board	P. 8-119
C911		Toner cartridge IC chip access board abnormality	P. 8-120
C940		Engine-CPU abnormality	P. 8-121
C962		LGC board ID abnormality	P. 8-121
C970	Process related service call	High-voltage transformer abnormality: Leakage of the main charger is detected.	P. 8-179
C9E0	Circuit related service call	Connection error between scanner CPU and system CPU	P. 8-121

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Error code	Classification	Contents	Troubleshooting
CB00	Finisher related service call	Finisher not connected: Communication error has occurred between the equipment and finisher.	P. 8-127
CB01		Finisher communication error [MJ-1037]	P. 8-127
CB30		Movable tray shift motor abnormality: The movable tray shift motor or the movable tray does not work properly. [MJ-1036]	P. 8-128
		Movable tray shift motor abnormality: The movable tray shift motor or the movable tray does not work properly. [MJ-1037]	P. 8-129
CB31		Movable tray paper-full detection error: The actuator of the movable tray paper-full detection sensor does not move smoothly. [MJ-1037]	P. 8-130
CB40		Front alignment plate home position detection error: The detection of the home position ends abnormally because the front alignment plate has not worked properly. [MJ-1036/MJ-1037]	P. 8-131
CB50		Stapler unit home position detection error: The detection of the home position of the stapler unit ends abnormally. [MJ-1036/MJ-1037]	P. 8-132
CB51		Stapler unit sliding home position detection error: The detection of the home position of the stapler unit sliding ends abnormally. [MJ-1036/MJ-1037]	P. 8-134

Error code	Classification	Contents	Troubleshooting
CB80	Finisher related service call	Finisher control PC board (FIN) backup RAM error: An error occurs during the writing of data into the EEPROM of the Finisher. [MJ-1036/MJ-1037]	P. 8-135
		Hole punch control PC board (HP) backup RAM error: An error occurs during the writing of data into the EEPROM of the hole punch. [MJ-6008]	P. 8-136
CB84		Hole Punch Unit - Main CPU program error	P. 8-137
CB90		Paper folding blade motor (M12) abnormality[MJ-1037]	P. 8-137
CBC0		Saddle stitch alignment motor (M8) abnormality[MJ-1037]	P. 8-138
CBF0		Stacker motor (M9) abnormality[MJ-1037]	P. 8-138
CC02		Stack exit roller nip home position detection error[MJ-1036]	P. 8-139
		Exit roller nip adjustment motor (M4) abnormality[MJ-1037]	P. 8-139
CC21		Saddle stitch 3rd transport roller drive motor (M10) abnormality[MJ-1037]	P. 8-140
CC22		Saddle stich stapler home position detection error[MJ-1037]	P. 8-140
CC23		An abnormal interruption of the encoder pulse of the folding blade occurrs.	-
CC51		Punch unit sliding motor (M12) abnormality[MJ-1036]	P. 8-141
		Punch unit sliding motor (M16) abnormality[MJ-1037]	P. 8-142
CC53		Punch waste full sensors (S41 and S42) abnormality[MJ-1037]	P. 8-142
CC54		Abnormality of paper detection sensors (S24 and S25)[MJ-1036]	P. 8-143
		Abnormality of trailing edge detection sensors (S39 and S40) and horizontal registration detection sensors (S39 and S40)[MJ-1037]	P. 8-143
CC60		Punch motor abnormality [MJ-1036] Punch motor (M15) abnormality [MJ-1037]	P. 8-144 P. 8-145
CC61		Punch motor abnormality [MJ-1036]	P. 8-144
CC71		Punch firmware checksum error [MJ-1037]	P. 8-144
CC80		Front alignment motor (M2) abnormality [MJ-1036]	P. 8-146
		Front alignment motor (M6) abnormality [MJ-1037]	P. 8-146
CC91		The detection of the home position of the gripper arm ends abnormality.	P. 8-147
CC92		Movable tray upper limit detection error [MJ-1037]	P. 8-147
CC93		Knurled roller shift solenoid abnormality [MJ-1036]	P. 8-147
CC94	Finisher related service call	Fan motor abnormality[MJ-1036]	P. 8-144

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Error code	Classification	Contents	Troubleshooting
CA00	Image control related service call	color registration abnormality	P. 8-150
CE10		Image quality sensor abnormality (OFF level): The output value of this sensor is out of a specified range when sensor light source is OFF.	P. 8-157
		Image quality sensor abnormality (no pattern level): The output value of this sensor is out of a specified range when the image quality control test pattern is not formed.	P. 8-157
CE40		Image quality control test pattern abnormality: The test pattern is not formed normally.	P. 8-161
CE41		Image quality TRC control test pattern abnormality: The image quality TRC control test pattern is not printed normally.	P. 8-163
CE50		Temperature/humidity sensor abnormality: The output value of this sensor is out of a specified range.	P. 8-164
CE70		Drum drive switching abnormality: The drum switching detection sensor (S11) is not turned ON after the drum motor was rotated for a specified period of time.	P. 8-164
CE80	LED printer head related service call	LED printer head communication error	P. 8-123
CE81		Interface initialization error between LED printer head and LGC board	P. 8-125
CE90	Image control related service call	Drum thermistor abnormality: The output value of the drum thermistor is out of a specified range.	P. 8-166
CF10	Finisher related service call	Communication module writing failure.	P. 8-127
F070	Communication related service call	Communication error between System-CPU and Engine-CPU	P. 8-115
F071		Communication initialization error between System-CPU and Engine-CPU	P. 8-116
F090	Circuit related service call	SRAM abnormality on the SYS board	P. 8-122

Error code	Classification	Contents	Troubleshooting
F100_0	Other service call	HDD format error: Operation of HDD key data fails.	P. 8-180
F100_1		HDD format error: Encryption key data of either the SYS board or the SRAM board for the SYS board are damaged.	P. 8-180
F100_2		HDD format error: Encryption key data of both the SYS board and the SRAM board for the SYS board are damaged.	P. 8-182
F101_0		HDD connection error (HDD connection cannot be detected.)	P. 8-183
F101_1		Root partition mount error (HDD formatting fails.): The HDD cannot be connected (mounted) caused by damage to the areas in which the program is mainly stored.	P. 8-183
F101_2		Partition mount error: The HDD cannot be connected (mounted) caused by damage to areas other than those described in the F101_1 and F101_4 to F101_9 errors.	P. 8-183
F101_3		Partition mount error: The HDD cannot be connected (mounted) caused by damage to areas other than those described in the F101_1 and F101_4 to F101_9 errors.	P. 8-183
F101_4		Partition mount error: The HDD cannot be connected (mounted) caused by damage to the "/work" partition.	P. 8-184
F101_5		Partition mount error: The HDD cannot be connected (mounted) caused by damage to the "/registration" partition.	P. 8-185
F101_6		Partition mount error: The HDD cannot be connected (mounted) caused by damage to the "/backup" partition.	P. 8-186
F101_7		Partition mount error: The HDD cannot be connected (mounted) caused by damage to the "/imagedata" partition.	P. 8-187
F101_8		Partition mount error: The HDD cannot be connected (mounted) caused by damage to the "/storage" partition.	P. 8-188
F101_9		Partition mount error: The HDD cannot be connected (mounted) caused by damage to the "/encryption" partition.	P. 8-189
F102		HDD start error: HDD cannot become 'Ready' state.	P. 8-190
F103		HDD transfer time-out: Reading/writing cannot be performed in the specified period of time.	P. 8-190
F104		HDD data error: Abnormality is detected in the data of HDD.	P. 8-190
F105		HDD other error	P. 8-190
F106_0		ADI-HDD error: Illegal disk replacement detected (ADI-HDD Exchange to SATA-HDD)	P. 8-190
F106_1		ADI-HDD error: HDD type detection error	P. 8-191
F106_2		ADI-HDD error: ADI encryption key download operation error	P. 8-191

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Error code	Classification	Contents	Troubleshooting
F106_3	Other service call	ADI-HDD error: ADI authentication Admin Password generation error	P. 8-192
F106_4		ADI-HDD error: Authentication random number generation error	P. 8-192
F106_5		ADI-HDD error: Authentication data transmission error	P. 8-193
F106_6		ADI-HDD error: Error caused by reason other than F106_0 to 5 errors.	P. 8-193
F106_7		ADI-HDD error: Error caused by reason other than F106_0 to 5 errors.	P. 8-193
F106_8		ADI-HDD error: Error caused by reason other than F106_0 to 5 errors.	P. 8-193
F106_10		ADI-HDD error: Error caused by reason other than F106_0 to 5 errors.	P. 8-193
F106_UNDEF		ADI-HDD error: Error caused by reason other than F106_0 to 5 errors.	P. 8-193
F109_0		Key consistency error: Consistency check operation error.	P. 8-194
F109_1		Key consistency error: SRAM encryption AES key data damage.	P. 8-194
F109_2		Key consistency error: Signature Check public key damage.	P. 8-195
F109_3		Key consistency error: HDD encryption parameter damage.	P. 8-196
F109_4		Key consistency error: license data damage.	P. 8-197
F109_5		Key consistency error: Encryption key for ADI-HDD is damaged.	P. 8-198
F109_6		Key consistency error: Administrator password error for ADI-HDD authentication.	P. 8-199
F110	Communication related service call	Communication error between System-CPU and Scanner-CPU	P. 8-201
F111		Scanner response abnormality	P. 8-201
F120	Other service call	Database abnormality: Database is not operating normally.	P. 8-201
F121		Database abnormality (user information management database)	P. 8-201
F122		Database abnormality (Message/Job log management database)	P. 8-202
F124		Database abnormality: Database is not operating normally. (Language management database)	P. 8-202
F130		Invalid MAC address	P. 8-203
F131		Error due to damage to filtering setting file	P. 8-203
F140		ASIC format error: ASIC formatting fails or memory acquiring fails when software is formatted	P. 8-203
F200		Data Overwrite option (GP-1070) disabled	P. 8-204
F350	Circuit related service call	CCD board abnormality	P. 8-122
F400		SYS board cooling fan abnormality	P. 8-204

Error code	Classification	Contents	Troubleshooting
F500	Other service call	HD partition damage	P. 8-204
F510		Application start error	P. 8-205
F520		Operating system start error	P. 8-205
F521		Integrity check error	P. 8-205
F550		Encryption partition error	P. 8-205
F600		Software update error	P. 8-206
F700		Overwrite error	P. 8-206
F800		Date error	P. 8-206
F900		Machine information alignment error	P. 8-207
F902_0		Mistaken HDD installation error	P. 8-207
F902_1		System firmware / System software model information error - Invalid system firmware/ software is installed on 20/25 ppm model.	P. 8-208
F902_2		A model-unmatched SYS board is installed.	P. 8-208
F902_3		A model-unmatched SYS board is installed.	P. 8-209

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8.2.3   Error in Internet FAX / Scanning Function

1. Internet FAX related error

Error code	Classification	Troubleshooting
1C10	System access abnormality	P. 8-210
1C11	Insufficient memory	P. 8-210
1C12	Message reception error	P. 8-210
1C13	Message transmission error	P. 8-210
1C14	Invalid parameter	P. 8-210
1C15	Exceeding file capacity	P. 8-210
1C30	Directory creation failure	P. 8-210
1C31	File creation failure	P. 8-210
1C32	File deletion failure	P. 8-210
1C33	File access failure	P. 8-210
1C40	Image conversion abnormality	P. 8-210
1C60	HDD full failure during processing	P. 8-210
1C61	Address Book reading failure	P. 8-210
1C63	Terminal IP address unset	P. 8-210
1C64	Terminal mail address unset	P. 8-210
1C65	SMTP address unset	P. 8-211
1C66	Server time time-out error	P. 8-211
1C69	SMTP server connection error	P. 8-211
1C6B	Terminal mail address error	P. 8-211
1C6C	Destination mail address error	P. 8-211
1C6D	System error	P. 8-211
1C70	SMTP client OFF	P. 8-211
1C71	SMTP authentication error	P. 8-211
1C72	POP before SMTP error	P. 8-211
1CC0	Job canceling	-
1CC1	Power failure	P. 8-211

2. RFC related error

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
2500	Syntax error, command unrecognized	HOST NAME error (RFC: 500) Destination mail address error (RFC: 500) Terminal mail address error (RFC: 500)	P. 8-211
2501	Syntax error in parameters or arguments	HOST NAME error (RFC: 501) Destination mail address error (RFC: 501) Terminal mail address error (RFC: 501)	P. 8-211
2503	Bad sequence of commands	Destination mail address error (RFC: 503)	P. 8-211
2504	Command parameter not implemented	HOST NAME error (RFC: 504)	P. 8-211
2550	Mailbox unavailable	Destination mail address error (RFC: 550)	P. 8-212
2551	User not local	Destination mail address error (RFC: 551)	P. 8-211
2552	Insufficient system storage	Terminal/Destination mail address error (RFC: 552)	P. 8-212
2553	Mailbox name not allowed	Destination mail address error (RFC: 553)	P. 8-212

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3. Electronic Filing related error

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
2B11	Job status failed.	JOB status abnormality	P. 8-212
2B20	Failed to access file.	File library function error	P. 8-212
2B30	Insufficient disk space.	Insufficient disk space in /BOX partition	P. 8-212
2B31	Failed to access Electronic Filing.	Status of specified Electronic Filing or folder is undefined or being created/deleted	P. 8-212
2B50	Failed to process image.	Image library error	P. 8-212
2B51	Failed to print images from the document box	List library error	P. 8-212
2B71	Document(s) expire(s) in a few days	Documents expiring in a few days exist	-
2B80	Hard Disk space for Electronic Filing nearly full.	Hard disk space in /BOX partition is nearly full (90%).	-
2B90	Insufficient Memory.	Insufficient memory capacity	P. 8-212
2BA0	Invalid Box password specified.	Invalid Box password	P. 8-212
2BA1	Incorrect paper size / invalid color mode / invalid resolution	The specified paper size, color mode or resolution is not available.	P. 8-212
2BB0	Job canceled	Job canceling	-
2BB1	Power failure occurred	Power failure	P. 8-212
2BC0	System fatal error.	Fatal failure occurred	P. 8-212
2BD0	Power failure occurred during e-Filing restoring.	Power failure occurred during restoring of Electronic Filing	P. 8-212
2BE0	Failed to get machine parameter.	Machine parameter reading failure	P. 8-213
2BF0	Maximum number of page range is reached.	Exceeding maximum number of pages	P. 8-213
2BF1	Maximum number of document range is reached.	Exceeding maximum number of documents	P. 8-213
2BF2	Maximum number of folder range is reached.	Exceeding maximum number of folders	P. 8-213

4. Remote scanning related error

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
2A20	Failed to acquire resource	System management module resource acquiring failure	P. 8-213
2A31	WS Scan function is not available	Disabled WS Scan	P. 8-213
2A40	System fatal error	System error	P. 8-213
2A50	Job canceling	Job canceling	-
2A51	Power failure	Power failure	P. 8-213
2A60	Authentication for WS Scan failed	WS Scan user authentication failure	P. 8-213
2A70	Insufficient permission to execute RemoteScan	Remote Scan privilege check error	P. 8-213
2A71	Insufficient permission to execute WS Scan	WS Scan privilege check error	P. 8-213
2A72	Insufficient permission to access e-Filing box using scan utility.	e-Filing data access privilege check error (Scan Utility)	P. 8-213

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5. E-mail related error

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
2C10	Illegal Job status	System access abnormality	P. 8-214
2C11	Not enough memory	Insufficient memory	P. 8-214
2C12	Illegal Job status	Message reception error	P. 8-214
2C13	Illegal Job status	Message transmission error	P. 8-214
2C14	Invalid parameter specified	Invalid parameter	P. 8-214
2C15	Email size exceeded limit or maximum size	Exceeding file capacity	P. 8-214
2C20	Illegal Job status	System management module access abnormality	P. 8-214
2C21	Illegal Job status	Job control module access abnormality	P. 8-214
2C22	Illegal Job status	Job control module access abnormality	P. 8-214
2C30	Failed to create directory	Directory creation failure	P. 8-214
2C31	Failed to create file	File creation failure	P. 8-214
2C32	Failed to delete file	File deletion failure	P. 8-214
2C33	Failed to create file	File access failure	P. 8-214
2C40	Failed to convert image file format	Image conversion abnormality	P. 8-214
2C43	Encryption error. Failed to create file	Encryption error	P. 8-214
2C44	Creating the image file was not permitted.	Encryption PDF enforced mode error	P. 8-214
2C45	Failed in making meta data.	Meta data creation error (Scan to Email)	P. 8-214
2C60	Failed to process your Job. Insufficient disk space.	HDD full failure during processing	P. 8-214
2C61	Failed to read AddressBook	Address Book reading failure	P. 8-215
2C62	Not enough memory	Memory acquiring failure	P. 8-214
2C63	Invalid Domain Address	Terminal IP address unset	P. 8-215
2C64	Invalid Domain Address	Terminal mail address unset	P. 8-215
2C65	Failed to connect to SMTP server	SMTP address unset	P. 8-215
2C66	Failed to connect to SMTP server	Server time time-out error	P. 8-215
2C69	Failed to connect to SMTP server	SMTP server connection error	P. 8-215
2C6A	Failed to send E-Mail message	HOST NAME error (No RFC error)	P. 8-215
2C6B	Invalid address specified in From: field	Terminal mail address error	P. 8-215
2C6C	Invalid address specified in To: field	Destination mail address error (No RFC error)	P. 8-215
2C70	SMTP service is not available	SMTP client OFF	P. 8-215
2C71	Failed SMTP Authentication	SMTP authentication error	P. 8-215
2C72	POP Before SMTP Authentication Failed	POP before SMTP error	P. 8-215
2CC0	Job canceled	Job canceling	-
2CC1	Power failure occurred	Power failure	P. 8-215

6. File sharing related error

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
2D10	Illegal Job status	System access abnormality	P. 8-215
2D11	Not enough memory	Insufficient memory	P. 8-216
2D12	Illegal Job status	Message reception error	P. 8-216
2D13	Illegal Job status	Message transmission error	P. 8-216
2D14	Invalid parameter specified	Invalid parameter	P. 8-216
2D15	Document size exceeded limit or maximum size.	Exceeding the maximum size for file sharing	P. 8-216
2D30	Failed to create directory	Directory creation failure	P. 8-216
2D31	Failed to create file	File creation failure	P. 8-216
2D32	Failed to delete file	File deletion failure	P. 8-215
2D33	Failed to create file	File access failure	P. 8-216
2D40	Failed to convert image file format	Image conversion abnormality	P. 8-216
2D43	Encryption error. Failed to create file	Encryption error	P. 8-216
2D44	Creating the image file was not permitted.	Encryption PDF enforced mode error	P. 8-216
2D45	Failed in making meta data.	Meta data creation error (Scan to File)	P. 8-216
2D62	Failed to connect to network destination. Check destination path	File server connection error	P. 8-216
2D63	Specified network path is invalid. Check destination path	Invalid network path	P. 8-216
2D64	Logon to file server failed. Check username and password	Login failure	P. 8-216
2D65	There are too many documents in the folder. Failed in creating new document.	Exceeding documents in folder: Creating new document is failed.	P. 8-216
2D66	Failed To Process your Job. Insufficient Storage space.	Storage capacity full failure during processing	P. 8-217
2D67	FTP service is not available	FTP service not available	P. 8-217
2D68	File Sharing service is not available	File sharing service not available	P. 8-217
2D69	NetWare service is not available	NetWare service not available	P. 8-217
2DA0	Expired scan documents deleted from share folder.	Periodical deletion of scanned documents completed properly.	-
2DA1	Expired Sent Fax documents deleted from shared folder.	Periodical deletion of transmitted FAX documents completed properly.	-
2DA2	Expired Received Fax documents deleted from shared folder.	Periodical deletion of received FAX documents completed properly.	-
2DA3	Scanned documents in shared folder deleted upon user's request.	Manual deletion of scanned documents completed properly.	-

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
2DA4	Sent Fax Documents in shared folder deleted upon user's request.	Manual deletion of transmitted FAX documents completed properly.	-
2DA5	Received Fax Documents in shared folder deleted upon user's request.	Manual deletion of received FAX documents completed properly.	-
2DA6	Failed to delete file.	File deletion failure	P. 8-215
2DA7	Failed to acquire resource.	Resource acquiring failure	P. 8-216
2DC0	Job canceled	Job canceling	-
2DC1	Power failure occurred	Power failure	P. 8-217
2E10	Failed to store document(s) in USB folder.	USB storage system access abnormality	P. 8-217
2E11	Failed to store document(s) in USB folder.	Insufficient memory capacity for USB storage	P. 8-217
2E12	Failed to store document(s) in USB folder.	Message reception error in USB storage	P. 8-217
2E13	Failed to store document(s) in USB folder.	Message transmission error in USB storage	P. 8-217
2E14	Failed to store document(s) in USB folder.	Invalid parameter for USB storage	P. 8-217
2E15	Document size exceeded limit or maximum size	Exceeding the maximum size for file sharing	P. 8-217
2E30	Failed to store document(s) in USB folder.	Creation of a directory failed.	P. 8-217
2E31	Failed to store document(s) in USB folder.	File creation failure in USB storage	P. 8-217
2E32	Failed to store document(s) in USB folder.	File deletion failure in USB storage	P. 8-217
2E33	Failed to store document(s) in USB folder.	File access failure in USB storage	P. 8-217
2E40	Failed to convert image file format	Image conversion abnormality in USB storage	P. 8-218
2E43	Encryption error. Failed to create file.	Encryption failure in USB storage	P. 8-218
2E44	Creating the image file was not permitted.	Encryption PDF enforced mode error in USB storage	P. 8-218
2E45	Failed in making meta data.	Meta data creation error in USB storage (Scan to File)	P. 8-218
2E65	There are too many documents in folders. Failed in creating new document.	File creation error due to insufficient USB folder capacity	P. 8-218
2E66	Failed To Process your Job. Insufficient Storage space.	HDD full failure during USB storage	P. 8-218
2EC0	Job canceled	Job canceling	-
2EC1	Power Failure Job Aborted	Power failure in USB storage	P. 8-218

7. E-mail reception related error

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
3A10	MIME Error has been detected in the received mail.	E-mail MIME error	P. 8-219
3A20	Analyze Error has been detected in the received mail.	E-mail analysis error	P. 8-219
3A30	Whole partial mails were not reached by timeout.	Partial mail time-out error	P. 8-219
3A40	Partial Mail Error has been detected in the received mail.	Partial mail related error	P. 8-219
3A50	HDD Full Error has been occurred in this mail.	Insufficient HDD capacity error	P. 8-219
3A70	Receiving partial mail was aborted since the partial mail setting has been changed to Disable.	Warning of partial mail interruption	P. 8-219
3A80	Partial mail was received during the partial mail setting is disabled.	Partial mail reception setting OFF	P. 8-219
3B10	Format Error has been detected in the received mail.	E-mail format error	P. 8-219
3B20	Content-Type Error has been detected in the received mail.	Content-Type error	P. 8-219
3B40	Decode Error has been detected in the received mail.	E-mail decode error	P. 8-219
3C10	Tiff Analyze Error has been detected in the received mail.	TIFF analysis error	P. 8-219
3C13	Tiff Analyze Error has been detected in the received mail.		P. 8-219
3C20	Tiff Compression Error has been detected in the received mail.	TIFF compression error	P. 8-219
3C30	Tiff Resolution Error has been detected in the received mail.	TIFF resolution error	P. 8-219
3C40	Tiff Paper Size Error has been detected in the received mail.	TIFF paper size error	P. 8-219
3C50	Offramp Destination Error has been detected in the received mail.	Offramp destination error	P. 8-220
3C60	Offramp Security Error has been detected in the received mail.	Offramp security error	P. 8-220
3C70	Power Failure has been occurred in Email receiving.	Power failure error	P. 8-220
3C90	OffRamp Fax transmission disable error has been detected in the received mail.	OffRamp Fax transmission disable error	P. 8-220
3D10	SMTP Destination Error has been detected in the received mail. This mail was deleted.	Destination address error	P. 8-220
3D20	Offramp Destination limitation Error has been detected in the received mail.	Offramp destination limitation error	P. 8-220

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
3D30	Fax Board Error has been occurred in the received mail.	FAX board error	P. 8-220
3E10	POP3 Connection Error has been occurred in the received mail.	POP3 server connection error	P. 8-220
3E20	POP3 Connection Timeout Error has been occurred in the received mail.	POP3 server connection time-out error	P. 8-220
3E30	POP3 Login Error has been occurred in the received mail.	POP3 login error	P. 8-220
3E40	POP3 Login Error occurred in the received mail.	POP3 login method error	P. 8-220
3F10	File I/O Error has been occurred in this mail. The mail could not be received until File I/O is recovered.	File I/O error	P. 8-220
3F20			P. 8-220

8.2.4　Printer function error

Following codes are displayed at the end of the user name on the print job log screen.

Error code	Contents	Troubleshooting
4011	Print job cancellation - Print job (copy, list print, network print) is deleted from the print job screen.	P. 8-221
4021	Print job power failure - The power of the equipment is turned OFF during print job (copy, list print, network print).	P. 8-221
4031	HDD full during print - Large quantity image data by private print or invalid network print are saved in HDD.	P. 8-221
4041	User authentication error: The user who intended to print a document is not registered as a user.	P. 8-221
4042	Department authentication error? A department whose code is specified for a print job is not registered.	P. 8-221
4045	Problem in LDAP server connection or LDAP server authorization settings	P. 8-221
4111	Quota over error (The number of the assigned pages set by department and user management has reached 0.): The numbers of output pages have exceeded those specified with both of the department code and the user code at the same time.	P. 8-221
4112	Quota over error (The number of the assigned pages set by user management has reached 0.): The number of output pages has exceeded the one specified with the user code.	P. 8-221
4113	Quota over error (The number of the assigned pages set by department management has reached 0.): The number of output pages has exceeded the one specified with the department code.	P. 8-221
4121	Job canceling due to external counter error	P. 8-221
4211	Printing data storing limitation error: Printing with its data being stored to the HDD temporarily (Proof print, Private print, Scheduled print, etc.) cannot be performed.	P. 8-221
4212	e-Filing storing limitation error: Printing with its data being stored to the HDD (print and e-Filing, print to e-Filing, etc.) cannot be performed.	P. 8-221
4213	File storing limitation error: The file storing function is set to "disabled".	P. 8-221
4214	Fax/Internet Fax transmission limitation error: Fax / Internet Fax transmission function or Network Fax/Internet Fax function is disabled.	P. 8-221
4221	Private-print-only error: Jobs other than Private print jobs cannot be performed.	P. 8-221
4231	Hardcopy security printing error: hardcopy security printing job is performed when the function is restricted.	P. 8-221
4311	Not being authorized to perform JOB	P. 8-222
4312	Not authorized to store a file	P. 8-222
4313	No privilege for e-Filing storage: No privilege to store e-Filing data is given. (e-Filing storage permission)	P. 8-222
4314	No privilege for Fax / Internet Fax transmission: No privilege to send Fax or Internet Fax jobs is given. (Fax / Internet Fax transmission permission)	P. 8-222
4321	No privilege for print settings: No privilege to print with the specified settings is given. (Print setting permission)	P. 8-222

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Error code	Contents	Troubleshooting
4411	Image data creation failure: Data that you tried to print may be corrupted. • Network print: Data are corrupted or invalid. • Direct print: A file is corrupted or not in a supported format. • Printing was attempted in which print data have not been supported by PCL6 printer driver. [LL20ppm/LL25ppm]	P. 8-222
4412	Double-sign encoding error: A double-sign encoding error occurred because the PDF file is encrypted in a forbidden language or in a language not supported.	P. 8-222
4611	Font download failure (exceeding maximum number of registrations): A new font cannot be registered because the number of fonts registered in this equipment has reached the limit.	P. 8-222
4612	Font download failure (HDD full): A new font cannot be registered because there is not sufficient space in the font storage area of this equipment.	P. 8-222
4613	Font download failure (others): A new font cannot be registered due to other abnormality.	P. 8-222
4621	Font deletion failure: A font cannot be deleted because the specified font does not exist, the specified font is undeletable or any other abnormality occurred.	P. 8-222
4F10	Printing was not performed successfully due to other abnormalities.	P. 8-222

8.2.5 TopAccess related error/Communication error with external application

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
5010	-	Internal setting error: There is a print job, a proof print job, a private print job, a print job without a set department code, a scan job or a fax job remaining in this equipment.	P. 8-223
5012	TOSHIBA Remote monitoring system error	Authentication error: A temporary password downloaded from e-Bridge and entered in this equipment is not valid, or the permanent password set in the e-Bridge is not valid.	P. 8-223
5013	TOSHIBA Remote monitoring system error	e-Bridge communication error: Communication is attempted while the e-Bridge is enabled for some reason such as version upgrade.	P. 8-223
5014	TOSHIBA Remote monitoring system error	No SSL certificate: There is no SSL certificate or the certificate is not in a correct file format.	P. 8-223
5015	TOSHIBA Remote monitoring system error	Invalid SSL certificate: SSL certificate is not valid.	P. 8-224
5016	TOSHIBA Remote monitoring system error	Expired SSL certificate: SSL certificate is expired.	P. 8-224
5017	TOSHIBA Remote monitoring system error	Other SSL certificate related error: SSL certificate is invalid.	P. 8-224
5018	TOSHIBA Remote monitoring system error	Invalid DNS error: DNS address is invalid.	P. 8-224
5019	TOSHIBA Remote monitoring system error	Connection error: Settings for initial URL and proxy are incorrect.	P. 8-224
501A	TOSHIBA Remote monitoring system error	Proxy error: IP address or port for proxy setting is invalid.	P. 8-224
501B	TOSHIBA Remote monitoring system error	No URL (host/port) or invalid path: Initial URL is invalid.	P. 8-225
5030	TOSHIBA Remote monitoring system error	An error in the HTTP communication	P. 8-225
50FF	TOSHIBA Remote monitoring system error	A fatal error occurred in the MFP	P. 8-225
5110	Toner Not Recognized - Please Check Toner.	Toner cartridge detection error.	P. 8-225
5212	Time for Slit Glass and Main Charger Cleaning - Please Clean Slit Glass and Main Charger.	Appears when the time for main charger cleaning comes (at every output of approx. 10,000 sheets)	P. 8-226
5BD0	Power failure occurred during restore	Power supply is cut off during the restoration of database sent from TopAccess	P. 8-227
5C10	FAX Unit is not attached.	Network FAX is disabled because the FAX Unit is not attached	P. 8-227

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Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
5C11	Security error on Address Book.	The network FAX job failed because the specified address is not registered in the Address Book	P. 8-227

8.2.6   MFP access error

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
6007	Failed user login	Unsuccessful User Login to MFP: User authentication cannot be done because connection to the authentication server has failed.	P. 8-228
6008	Failed to connect on External LDAP server for Role Base Access Control	Failed to connect on External Role Base Access Control (LDAP) Server: User authentication cannot be done because connection to an external RBAC server has failed.	P. 8-228
6013	Failed to connect on the authentication server	Connection failure to the authentication server: Failed to connect to the authentication server	P. 8-228
6014	Detected the authentication server that can not be connected	Detected the authentication server that can not be connected: The authentication server that cannot be accessed is detected	P. 8-228
6032	Illegal period.	Card related error: Expired card: The card cannot be used because it has expired.	P. 8-228
6033	No entering record.	Card related error: Invalid flag data (no room-entry data): The card cannot be used because no room-entry data are recorded in it.	P. 8-229
6034	Illegal entering record.	Card related error: Invalid flag data (invalid card data): The card cannot be used because the data required for the use of the card are not correctly set.	P. 8-229
6041	Card Authentication Failed because of Card Reading Error	Card authentication: Card related error: Card data cannot be obtained correctly.	P. 8-229
6042	Card Authentication Failed because of setting Error	Card authentication: Card setting error: The self-diagnostic code required for card authentication is not set in this equipment correctly.	P. 8-229

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
6052	Failed to connect on External LDAP server for Role Base Access Control	Failed to connect on External Role Base Access Control (LDAP) Server: User authentication for print job cannot be done because connection to an external RBAC server has failed.	P. 8-229
6121	SecureErase fails	Automatic Secure Erase failure	P. 8-230
6131	SNTP server synchronization failure	Synchronization with the SNTP server failed.	P. 8-230

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8.2.7   Maintenance error

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
7101	Failed to update Copier Firmware	System firmware installation failure	P. 8-231
7103	Failed to update Copier Main ROM	Engine firmware installation failure	P. 8-231
7105	Failed to update Copier Scanner ROM	Scanner firmware installation failure	P. 8-231
7109	Failed to update Printer Driver	Printer driver upload failure	P. 8-231
710B	Failed to update Point And Print	Point and Print data upload failure	P. 8-231
710F	Failed to install Language Pack	Failed to install Language Pack Language Pack installation failure	P. 8-232
7111	Failed to install Patch	Patch installation failure	P. 8-231
7113	Failed to install Plugin	Plug-in installation failure	P. 8-231
7115	Failed to update HDD Data	HDD data installation failure	P. 8-231
7117	Failed to update Reversing Automatic Document Feeder ROM	DF firmware installation failure	P. 8-231
711D	Failed to remove License Key	License key returning failure	P. 8-232
711F	Failed to install License Key	License key installation failure	P. 8-232
71A4	Failed in consistency confirmation of cryptographic key	Cryptographic key consistency confirmation failure	P. 8-232
71AA	Invalid Error Occurd while getting Certificate from SCEP server	Invalid Error Occurd while getting Certificate from SCEP server	P. 8-233
71AB	Timeout Error Occurd while getting Certificate from SCEP server	Timeout Error Occurd while getting Certificate from SCEP server	P. 8-233
71AC	File Save Error Occurd while getting Certificate from SCEP server	File Save Error Occurd while getting Certificate from SCEP server	P. 8-233
71B0	Failed to decrypt Software Package	Software package file decryption failure	P. 8-233
71B5	Failed to update Finisher ROM	Finisher firmware installation failure	P. 8-234
71B7	Failed to update Saddle ROM	Saddle firmware installation failure	P. 8-234
71B9	Failed to update Punch ROM	Punch firmware installation failure	P. 8-234

8.2.8 Network error

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
8000	Static IPv4 duplicated address detected	IPv4 address overlaps.	P. 8-235
8011	Link Local address of IPv6 was duplicated.	Linklocal Address Conflict	P. 8-235
8012	Manual address of IPv6 was duplicated.	Manual IPv6 Address Conflict	P. 8-235
8013	Stateless address of IPv6 was duplicated.	Stateless Address Conflict	P. 8-235
8014	Stateful address of IPv6 was duplicated.	Stateful Address Conflict	P. 8-235
8022	Authentication Failure	Failed in 802.1X authentication.	P. 8-235
8023	Can not contact Authentication Server/Switch	Failed in connection to authentication server and switch.	P. 8-236
8024	Certificate verification Failure	Failed in verification of certificate.	P. 8-236
8031	No IKE proposal chosen	Ipsec error for ikev1 certification failed	P. 8-236
8032	IKE Certificate Authentication failed	Ipsec error for wrong proposal choosen	P. 8-236
8033	IKE Pre-shared key Authentication failed	Ipsec error if auth for shared key failed	P. 8-236
8034	Invalid Certificate	Ipsec error if invalid certificate uploaded	P. 8-237
8035	Certificate Type unsupported	Ipsec error if certificate not supported	P. 8-237
8036	Invalid certificate authority	Ipsec error if invalid certificate authentication	P. 8-237
8037	Certificate unavailable	Ipsec error if certificate are not avialable	P. 8-237
8038	No ISAKMP SA established	Ipsec error for SA is not present	P. 8-237
8039	Invalid Signature	Ipsec error for invalid signaturer for certificate	P. 8-238
803A	No IKEv2 proposal chosen	Ipsec error is proposal choosen is wrong	P. 8-238
803B	IKEv2 Certificate Authentication failed	Ipsec error for ikev2 certification failed	P. 8-238
803C	IKEv2 Secret key Authentication failed	Ipsec error for ikev2 if secret key auth failed	P. 8-238
803D	Falling Back to IKEv1	Ipsec error if peer dosent support IKEv2 and falling back to IKEv1	P. 8-238
803E	ISAKMP SA unusable (deleted)	Ipsec error if ISAKMP SA is not created of destroyed due to some uncertain condition	P. 8-239
803F	Crypto operation failed	Ipsec error for ikev2 if crypto operation failed	P. 8-239
8040	Invalid key information	Ipsec error for ikev2 if key info is invalid	P. 8-239
8041	CA not trusted	Ipsec error for ikev2 if CA is not trusted	P. 8-239

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Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
8042	Authentication Method mismatch	Ipsec error if auth method is not matching	P. 8-239
8043	IKE Version mismatch	Ipsec error if ike version is not matching	P. 8-240
8044	Encapsulation mode mismatch	Ipsec error for encaptulation is not matching	P. 8-240
8045	Peer IP Address mismatch	Ipsec error for peer ip mismatch	P. 8-240
8046	Local IP Address mismatch	Ipsec error for local ip mismatch	P. 8-240
8047	Local ID mismatch	Ipsec error for local id mismatch	P. 8-240
8048	Remote ID mismatch	Ipsec error for remote id mismatch	P. 8-240
8049	IPsec Remote IP mismatch	Ipsec error for remote ip mismatch	P. 8-241
804A	IKEv1/IKEv2 Timed out	Ipsec error for ike timeout	P. 8-241
804B	Invalid manual key data	Ipsec error id manual key is not valid	P. 8-241
8061	Secure Update to Primary IPv4 DDNS failed.	Secure primary DDNS update error	P. 8-241
8062	Secure Update to Secondary IPv4 DDNS failed	Secure secondary DDNS update error	P. 8-241
8063	Secure Update to Primary IPv6 DDNS failed.	Secure primary DDNS update error	P. 8-241
8064	Secure Update to Secondary IPv6 DDNS failed	Secure secondary DDNS update error	P. 8-241
8065	IPv6 Update to Primary DDNS failed.	IPv6 primary DDNS update error	P. 8-241
8066	IPv6 Update to Secondary DDNS failed.	IPv6 secondary DDNS update error	P. 8-241
8067	IPv4 Update to Primary DDNS failed.	IPv4 primary DDNS update error	P. 8-241
8068	IPv4 Update to Secondary DDNS failed.	IPv4 secondary DDNS update error	P. 8-241
8069	Invalid TSIG/SIG(0) Key file uploaded	This message is displayed when the key file for SIG(0) or TSIG is invalid	P. 8-242
8101	Wireless association with Access point failure	Wireless association with Access point failure	P. 8-242
8102	Unable to contact Access point	MFP not able to contact the Access point with the specified SSID	P. 8-242
8103	Certificate verification Failure	Wireless Certificate verification failure	P. 8-242
8121	Domain - General Failure during Authentication	Domain - General Failure during Authentication	P. 8-242
8122	Domain - Invalid Username or Password	Domain - Invalid Username or Password	P. 8-243
8123	Domain - Server not present in Network	Domain - Server not present in Network	P. 8-243
8124	Domain - User account is disabled on Server	Domain - User account is disabled on Server	P. 8-243

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
8125	Domain - User account has expired and cannot be used for logon	Domain - User account has expired and cannot be used for logon	P. 8-243
8126	Domain - User account is locked and cannot be used for logon	Domain - User account is locked and cannot be used for logon	P. 8-243
8127	Domain - Invalid logon hours for the User	Domain - Invalid logon hours for the User	P. 8-244
8128	Active Directory Domain - Clock Skew error due to difference in Time between Server and MFP	Active Directory Domain - Clock Skew error due to difference in Time between Server and MFP	P. 8-244
8129	Active Directory Domain - Kerberos Ticket has expired and cannot be used for Authentication	Active Directory Domain - Kerberos Ticket has expired and cannot be used for Authentication	P. 8-244
812A	Active Directory Domain - Verification of the Ticket has failed	Active Directory Domain - Verification of the Ticket has failed	P. 8-244
812B	Active Directory Domain-The Domain specified could not be found	Active Directory Domain-The Domain specified could not be found	P. 8-244

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8.2.9 Error history

In the setting mode (08-9703), the latest twenty groups of error data will be displayed.
Display example

EA10	99999999	2013-07-11 17:05:32	064	064	2362_1000_0000_0_X XXXXXXXXX
Error code	Total counter	YYYY-MM-DD HH:MM:SS	MMM	NNN	ABCD_EFHI_JLOP_Q _R
4 digits	8 digits	14 digits	3 digits	3 digits	23 digits

A	Paper source
	0: Not selected 1: Bypass feed 2: LCF 3: 1st drawer 4: 2nd drawer 5: PFP upper drawer 6: PFP lower drawer 7: Unused 8: Unused
B	Paper size code
	0: A5/ST 1: A5-R 2: ST-R 3: LT 4: A4 5: B5-R 6: LT-R 7: A4-R 8: OTHER/UNIV 9: B5 A: FOLIO/COMP B: LG C: B4 D: LD E: A3 F: 13"LG G: Unused H: A6-R I: Post card J: 8.5"SQ K: A3-wide L: LD wide M: 8K N: 16K-R O: 16K P: COM10 Q: DL R: Monarch S: CHO-3 T: YOU-4 U: SRA3(320x450) V: SRA3(320x460) Z: Not selected
C	Sort mode/staple mode
	0: Non-sort/Non-staple 1: Group 2: Sort 7: Front staple 8: Double staple 9: Rear staple A: Saddle stitch B: center fold
D	ADF mode
	0: Unused 1: AUTO FEED (SADF) 2: STACK FEED
E	APS/AMS mode
	0: Not selected 1: APS 2: AMS
F	Duplex mode
	0: Not selected 1: Book 2: Double-sided/Single-sided 4: Double-sided/Duplex copying 8: Single-sided/Duplex copying
G	Unused
H	Image shift
	0: Unused 1: Book 2: Left 3: Right 4: Top 5: Bottom 6: Book+Top 7: Book+Bottom 8: Left+Top 9: Left+Bottom A: Right+Top B: Right+Bottom
I	Editing
	0: Unused 1: Masking 2: Trimming 3: Mirror image 4: Unused 5: NEG/POS
J	Edge erase/Dual-page
	0: Unused 1: Edge erase 2: Dual-page 3: Edge erase & Dual-page
K	Unused
L	Function
	0: Unused 1: Copying 2: FAX/Internet FAX transmission 3: FAX/Internet FAX/E-mail reception printing 4: Unused 5: Printing/List print 6: Scan/E-mail transmission
MMM	Primary scanning reproduction ratio (Display in hexadecimal)
	(Mx256)+(Mx16)+M
NNN	Secondary scanning reproduction ratio (Display in hexadecimal)
	(Nx256)+(Nx16)+N
O	Color mode
	0: Auto color 1: Full color 2: Black 3: Unused 4: Twin color copy 5: Gray scale 6: Unused 7: Image smoothing

P	Media type
	0: Plain paper 1: Thick 1 2: Thick 2 3: Thick 3 4: Thick 4 5: Special paper 1 6: Special paper 2
	7: Recycled paper 8: Plain paper 1 9: Plain paper 2 A: Thin paper B: OHP film C: Thick 1/ reverse D: Thick 2/ reverse E: Thick 3/ reverse F: Thick 4/ reverse G: Special paper 1/ reverse
	H: Special paper 2/ reverse I: Envelope J: Tab paper K: Plain paper/ reverse L: Recycled paper/ reverse M: Thin paper/ reverse N: Special paper 3/ reverse O: Special paper 3/ reverse P: Envelope/ reverse Z: Unused
Q	RADF size mixed
	0: Unused 1: Size mixed 2: Single-size document
R	Workflow ID: 10-digit ID

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8.3 Diagnosis and Prescription for Each Error Code

8.3.1 Check item

Check item	Contents
Sensor check	• Check the sensor in the test mode. • Check that there is no dust on the sensor. • Check that the actuator is correctly operated.
Connector check	• Check that the connector is not disconnected. • Check that the pins are not deformed and do not come off. • Disconnect and reconnect the connector.
Harness check	• Check if the harnesses are open circuited.
Motor check	• Check the motor in the test mode. • Check that there is no abnormality in the driving section. • Check that there is no abnormality in the roller.
Board check	• Check if the board is short circuited or open circuited.

8.3.2 Paper transport jam (paper exit section)

[E010] Jam not reaching the exit sensor

Classification	Error content
Paper transport jam	Jam not reaching the exit sensor

Phenomenon of paper jamming	Check item	Measures
Paper jamming immediately after the removal and installation of the transfer belt unit.	Transfer belt unit	Check if the transfer belt unit is installed properly. 📖 P. 4-89 "4.7.3 Transfer belt unit (TBU)"
Paper jamming at separation finger in the Fuser Unit.	Fuser unit	Clean the separation finger. Check if the fingers or springs of the separation finger are securely attached. Replace the separation finger.
Paper separation failure at separation finger in the Fuser Unit	Fuser unit	• Paper tranceport check
	Drawer	Check that paper is not skewed in the side guides of the drawer.
	Leading edge margin	Adjust the margin with 05-4402 (Leading edge position adjustment) to "Color: 5.5 mm". Widen the margin if needed. (Specification Black: 4.2 mm / Color: 5 mm) • Use A3/LD paper • It is easy to check skew with a copy of a solid image (about 10 mm on its leading edge). Refer to 📖 P. 6-15 "[C] Secondary scanning data writing start position".
Paper jamming at separation finger in the Fuser Unit.	Fuser unit	Clean the separation finger. Check if the fingers or springs of the separation finger are securely attached. Replace the separation finger.

Phenomenon of paper jamming	Check item	Measures
The leading edge of paper has no scratches and the paper stops before being fused.	Fuser unit	Check that the pressure release screw of the pressure roller is securely tightened and pressure is properly applied.
	Transfer belt	Replace the transfer belt. Replace the transfer belt unit.
Paper folded in one side and fused during duplex printing		Check if toner adheres to the fuser entry guide. Clean it if needed.
All	Exit sensor	• Sensor check (Perform the input check: 03-[ALL]OFF/[9]/[C]) • Connector check • Harness check
	LGC board	• Board check • Connector check (CN301) • Harness check

Parts to be replaced	Remark
Separation finger of the fuser unit	
Transfer belt	
Transfer belt unit	
Exit sensor	
LGC board	

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[E020] Stop jam at the exit sensor

Classification	Error content
Paper transport jam	Stop jam at the exit sensor

Phenomenon of paper jamming	Check item	Measures
Paper jamming at separation finger in the Fuser Unit.	Fuser unit	Clean the separation finger. Check if the fingers or springs of the separation finger are securely attached. Replace the separation finger.
Paper separation failure at separation finger in the fuser unit	Fuser unit	• Paper tranceport check
	Drawer	Check that paper is not skewed in the side guides of the drawer.
	Leading edge margin	Adjust the margin with 05-4402 (Leading edge position adjustment) to "Color: 5.5 mm". (Specification Black: 4.2 mm / Color: 5 mm) • Use A3/LD paper • It is easy to check skew with a copy of a solid image (about 10 mm on its leading edge). Refer to 📖 P. 6-15 "[C] Secondary scanning data writing start position".
Scratches on the leading edge of paper		Check if toner adheres to the exit gate. Clean it if needed.
All	Self-diagnosis code	Change the setting value of 08-4542 (Switching for incorrect size jam detection) from "1" (Disabled) to "0"(Enabled).
	Exit sensor	• Sensor check (Perform the input check: 03-[ALL]OFF/[9]/[C]) • Actuator check • Connector check • Harness check
	LGC board	• Board check • Connector check (CN301) • Harness check

Parts to be replaced	Remark
Separation finger of the fuser unit	
Exit sensor	
LGC board	

8.3.3 Paper misfeeding

[E110] ADU misfeeding (paper not reaching the registration sensor)

Classification	Error content
Paper transport jam	ADU misfeeding (paper not reaching the registration sensor)

Phenomenon of paper jamming	Check item	Measures
Paper stop jam at the registration roller position	Registration guide	Check the registration guide. Replace it if needed.
All	Registration sensor	• Sensor check (Perform the input check: 03-[ALL]OFF/[9]/[A]) • Connector check (CN400, CN404) • Harness check
	CFD board	• Board check • Connector check (CN404, CN408) • Harness check
	LGC board	• Board check • Connector check (CN334, CN335) • Harness check
	ADU	Check if the connector between the ADU and equipment is connected.

Parts to be replaced	Remark
Registration sensor	
CFD board	
LGC board	
Rollers in the ADU	Clean or replace it.

[E120] Bypass misfeeding (paper not reaching the bypass feed sensor)

Classification	Error content
Paper transport jam	Bypass misfeeding (paper not reaching the feed sensor)

Check item	Measures
Bypass feed clutch	• Clutch check (Perform the output check: 03-204) • Connector check (J734, CN403) • Harness check
Feed sensor	• Sensor check (Perform the input check: 03-[ALL]OFF/[9]/[B]) • Connector check (J732, CN403) • Harness check
CFD board	• Board check • Connector check (CN404, CN408) • Harness check
LGC board	• Board check • Connector check (CN334) • Harness check

Parts to be replaced	Remark
Bypass feed clutch	
Feed sensor	
CFD board	

Parts to be replaced	Remark
LGC board	
Bypass feed roller	Replace it if it is worn out.
Bypass separation pad	Replace it if it is worn out.

[E130] 1st drawer misfeeding (paper not reaching the 1st drawer feed sensor)

Classification	Error content
Paper transport jam	1st drawer misfeeding (paper not reaching the feed sensor)

Check item	Measures
1st drawer (loaded paper amount)	When thick paper is used and if it is overloaded, reduce the amount as specified (Stack height 14 mm).
Feed sensor	• Sensor check (Perform the input check: 03-[ALL]OFF/[9]/[B]) • Connector check (CN401, J771, J746) • Harness check
CFD board	• Board check • Connector check (CN404, CN408) • Harness check
LGC board	• Board check • Connector check (CN334) • Harness check

Parts to be replaced	Remark
Feed sensor	
CFD board	
LGC board	
1st drawer feed roller	Replace it if it is worn out.
1st drawer separation pad	Replace it if it is worn out.
1st drawer pickup roller	Replace it if it is worn out.

[E140] 2nd drawer misfeeding (paper not reaching the 2nd drawer feed sensor)

Classification	Error content
Paper transport jam	2nd drawer misfeeding (paper not reaching the 2nd drawer feed sensor)

Check item	Measures
2nd drawer feed sensor	• Sensor check (Perform the input check: 03-[FAX]ON/[4]/[D]) • Connector check (J931, J940) • Harness check
2nd drawer feed clutch	• Clutch check (Perform the output check: 03-202) • Harness check • Connector check (J932, J943)
PFC board	• Board check • Connector check (CN914) • Harness check

Parts to be replaced	Remark
2nd drawer feed sensor	
PFC board	

Parts to be replaced	Remark
2nd drawer feed roller	Replace it if it is worn out.
2nd drawer separation roller	Replace it if it is worn out.
2nd drawer pickup roller	Replace it if it is worn out.

[E150] PFP upper drawer misfeeding (paper not reaching the PFP upper drawer feed sensor)

Classification	Error content
Paper transport jam	PFP upper drawer misfeeding (paper not reaching the PFP upper drawer feed sensor)

Check item	Measures
PFP upper drawer feed sensor	• Sensor check (Perform the input check: 03-[FAX]ON/[0]/[C]) • Connector check (CN247, J959, J975) • Harness check
PFP upper drawer feed clutch	• Clutch check (Perform the output check: 03-226) • Connector check (CN246, J960, J963) • Harness check
PFC board	• Board check • Connector check (CN913) • Harness check
PFP board	• Board check • Connector check (J959, CN241, CN246, CN247) • Harness check

Parts to be replaced	Remark
PFP upper drawer feed sensor	
PFP upper drawer feed clutch	
PFC board	
PFP board	
PFP upper drawer feed roller	Replace it if it is worn out.
Separation roller	Replace it if it is worn out.
Pickup roller	Replace it if it is worn out.

[E160] PFP lower drawer misfeeding (paper not reaching the PFP lower drawer feed sensor)

Classification	Error content
Paper transport jam	PFP lower drawer misfeeding (paper not reaching the PFP lower drawer feed sensor)

Check item	Measures
PFP upper drawer feed sensor	• Sensor check (Perform the input check: 03-[FAX]ON/[0]/[D]) • Connector check (CN247, J959, J976) • Harness check
PFP upper drawer feed clutch	• Clutch check (Perform the output check: 03-228) • Connector check (CN246, J960, J962) • Harness check
PFC board	• Board check • Connector check (CN913) • Harness check

Check item	Measures
PFP board	• Board check • Connector check (J959, CN241, CN246, CN247) • Harness check

Parts to be replaced	Remark
PFP lower drawer feed sensor	
PFP lower drawer feed clutch	
PFC board	
PFP board	
PFP lower drawer feed roller	Replace it if it is worn out.
Separation roller	Replace it if it is worn out.
Pickup roller	Replace it if it is worn out.

[E190] LCF misfeeding (paper not reaching the LCF feed sensor)

Classification	Error content
Paper transport jam	LCF misfeeding (paper not reaching the LCF feed sensor)

Check item	Measures
LCF feed sensor	• Sensor check (Perform the input check: 03-[COPY]ON/[9]/[F]) • Connector check (CN1, CN6, CN349) • Harness check
LCF feed clutch	• Clutch check (Perform the output check: 03-209) • Connector check (CN1, CN5, CN349) • Harness check
PFC board	• Board check • Connector check (CN910, CN913) • Harness check
LGC board	• Board check • Connector check (CN312) • Harness check
PFP board	• Board check • Connector check (CN1, CN6) • Harness check

Parts to be replaced	Remark
LCF feed sensor	
LCF feed clutch	
PFC board	
LGC board	
PFP board	
LCF feed roller	Replace it if it is worn out.
Separation roller	Replace it if it is worn out.
Pickup roller	Replace it if it is worn out.

8.3.4 Paper transport jam

[E200] 1st drawer transport jam (not reaching the registration sensor)
[E210] 2nd drawer transport jam (not reaching the registration sensor)
[E270] Bypass transport jam (not reaching the registration sensor)
[E300] PFP upper drawer transport jam (not reaching the registration sensor)
[E330] PFP lower drawer transport jam (not reaching the registration sensor)
[E3C0] LCF transport jam (not reaching the registration sensor)

Classification	Error content
Paper transport jam	1st drawer transport jam (not reaching the registration sensor) 2nd drawer transport jam (not reaching the registration sensor) Bypass transport jam (not reaching the registration sensor) PFP upper drawer transport jam (not reaching the registration sensor) PFP lower drawer transport jam (not reaching the registration sensor) LCF transport jam (not reaching the registration sensor)

Check item	Measures
Registration sensor	• Sensor check (Perform the input check: 03-[ALL]OFF/[9]/[A]) • Connector check (CN404) • Harness check
Feed clutch	• Clutch check (Perform the output check: 03-201) • Connector check (CN305, J748) • Harness check
CFD board	• Board check • Connector check (CN404, CN408) • Harness check
LGC board	• Board check • Connector check (CN334) • Harness check

Parts to be replaced	Remark
Registration sensor	
Feed clutch	
CFD board	
LGC board	
Feed roller	Replace it if it is worn out.
Separation roller, Separation pad	Replace it if it is worn out.
Pickup roller	Replace it if it is worn out.
Transport roller	Replace it if it is worn out.

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[E220] 2nd drawer transport jam (not reaching the feed sensor)
[E310] PFP upper drawer transport jam (not reaching the feed sensor)
[E340] PFP lower drawer transport jam (not reaching the feed sensor)
[E3D0] LCF transport jam (not reaching the feed sensor)

Classification	Error content
Paper transport jam	2nd drawer transport jam (not reaching the feed sensor)
	PFP upper drawer transport jam (not reaching the feed sensor)
	PFP lower drawer transport jam (not reaching the feed sensor)
	LCF transport jam (not reaching the feed sensor)

Check item	Measures
Feed sensor	• Sensor check (Perform the input check: 03-[ALL]OFF/[9]/[B]) • Connector check (CN404) • Harness check
Transport clutches (high speed)	• Clutch check (Perform the output check: 03-230) • Connector check (J932, 942) • Harness check
Transport clutches (low speed)	• Clutch check (Perform the output check: 03-233) • Connector check (J932, 941) • Harness check
CFD board	• Board check • Connector check (CN404, CN408) • Harness check
LGC board	• Board check • Connector check (CN334, CN335) • Harness check
PFC board	• Board check • Connector check (CN914) • Harness check

Parts to be replaced	Remark
1st drawer feed sensor	
Transport clutches (high speed)	
Transport clutches (low speed)	
CFD board	
LGC board	
PFC board	
Feed roller	Replace it if it is worn out.
Separation roller	Replace it if it is worn out.
Pickup roller	Replace it if it is worn out.
Transport roller	Replace it if it is worn out.

[E320] PFP upper drawer transport jam (not reaching the 2nd drawer feed sensor)
[E350] PFP lower drawer transport jam (not reaching the 2nd drawer feed sensor)
[E3E0] LCF transport jam (not reaching the 2nd drawer feed sensor)

Classification	Error content
Paper transport jam	PFP upper drawer transport jam (not reaching the 2nd drawer feed sensor) PFP lower drawer transport jam (not reaching the 2nd drawer feed sensor) LCF transport jam (not reaching the 2nd drawer feed sensor)

Check item	Measures
2nd drawer feed sensor	• Sensor check (Perform the input check: 03-[FAX]ON/[1]/[F]) • Connector check (J931, J940) • Harness check
PFC board	• Board check • Connector check (CN910, CN914) • Harness check
LGC board	• Board check • Connector check (CN312) • Harness check

Parts to be replaced	Remark
2nd drawer feed sensor	
LGC board	
PFC board	
Feed roller	Replace it if it is worn out.
Separation roller	Replace it if it is worn out.
Pickup roller	Replace it if it is worn out.
Transport roller	Replace it if it is worn out.

[E360] PFP lower drawer transport jam (not reaching the PFP upper drawer feed sensor)

Classification	Error content
Paper transport jam	PFP lower drawer transport jam (not reaching the PFP upper drawer feed sensor)

Check item	Measures
PFP upper drawer feed sensor	• Sensor check (Perform the input check: 03-[FAX]ON/[0]/[C]) • Connector check (J959, J975) • Harness check
PFP transport clutch	• Clutch check (Perform the output check: 03-225) • Connector check (CN241, CN244, CN349) • Harness check
PFC board	• Board check • Connector check (CN910, CN913) • Harness check
LGC board	• Board check • Connector check (CN312) • Harness check
PFP board	• Board check • Connector check (CN241, CN244) • Harness check

Parts to be replaced	Remark
PFP lower drawer feed sensor	
PFP transport clutches	
PFC board	
LGC board	
PFP board	
Feed roller	Replace it if it is worn out.
Separation roller	Replace it if it is worn out.
Pickup roller	Replace it if it is worn out.
PFP transport roller	Replace it if it is worn out.

[E510] ADU transport stop jam

Classification	Error content
Paper transport jam	ADU transport stop jam

[20ppm/25ppm]

Phenomenon of paper jamming	Check item	Measures
Paper falling on the inner tray	ADU	Check if the connector between the ADU and equipment is connected.
Paper jamming at the exit gate section	Drawer	Check that paper is not skewed in the side guides of the drawer. Check the setting size and paper size. Example: Check if the paper size is A4 though A3 is set.
	Fuser Unit	Check that springs are securely attached to the separation finger.
	Exit unit	Check if the toner is adhered to the exit gate, and wipe it off if necessary.
Stop in the fuser unit / scratches on the leading edge of paper	Fuser Unit	Check if the bracket or jam releasing guide of the fuser unit is deformed. Replace it if needed.
All	ADU entrance sensor	• Sensor check (Perform the input check: 03-[ALL]OFF/[9]/[G]) • Connector check (J722, CN421) • Harness check
	Exit motor	• Motor check (Perform the output check: 03-121/171) • Connector check (J721, CN421) • Harness check
	ADU motor	• Motor check (Perform the output check: 03-110/160) • Connector check (J723, CN422) • Harness check
	LGC board	• Board check • Connector check (CN335, CN337) • Harness check
	ADU board	• Board check • Connector check (CN420, CN421, CN422, J640) • Harness check

Parts to be replaced	Remark
ADU entrance sensor	
Exit motor	
ADU motor	
LGC board	
ADU board	
Rollers in the ADU	Replace it if it is worn out.
Exit roller	Replace it if it is worn out.
Pressure spring	

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[LL20ppm/LL25ppm]

Phenomenon of paper jamming	Check item	Measures
Paper falling on the inner tray	ADU	Check if the connector between the ADU and equipment is connected.
Paper jamming at the exit gate section	Drawer	Check that paper is not skewed in the side guides of the drawer. Check the setting size and paper size. Example: Check if the paper size is A4 though A3 is set.
	Fuser Unit	Check that springs are securely attached to the separation finger.
Stop in the fuser unit / scratches on the leading edge of paper	Fuser Unit	Check if the bracket or jam releasing guide of the fuser unit is deformed. Replace it if needed.
All	ADU entrance sensor	• Sensor check (Perform the input check: 03-[ALL]OFF/[9]/[G]) • Connector check (J722, CN421) • Harness check
	Exit motor	• Motor check (Perform the output check: 03-121/171) • Connector check (J721, CN421) • Harness check
	ADU motor	• Motor check (Perform the output check: 03-110/160) • Connector check (J723, CN422) • Harness check
	EXT board	• Board check • Connector check (CN422, CN423) • Harness check
	LGC board	• Board check • Connector check (CN335, CN338) • Harness check
	ADU board	• Board check • Connector check (CN420, CN421, CN422, J640) • Harness check

Parts to be replaced	Remark
ADU entrance sensor	
Exit motor	
ADU motor	
EXT board	
LGC board	
ADU board	
Rollers in the ADU	Replace it if it is worn out.
Exit roller	Replace it if it is worn out.
Pressure spring	

[E520] Stop jam in the ADU

Classification	Error content
Paper transport jam	Stop jam in the ADU

Check item	Measures
ADU entrance sensor	• Sensor check (Perform the input check: 03-[ALL]OFF/[9]/[H]) • Connector check (J721, CN421) • Harness check
LGC board	• Board check • Connector check (CN335) • Harness check
ADU board	• Board check • Connector check (J640, CN420, CN421) • Harness check
ADU motor	• Motor check (Perform the output check: 03-110/160) • Connector check (J723, CN422) • Harness check • Bracket check

Parts to be replaced	Remark
ADU entrance sensor	
ADU clutch	
LGC board	
ADU board	
Rollers in the ADU	Replace it if it is worn out.
Pressure spring	

[EB50] Paper remaining on the transport path due to multiple feeding

Classification	Error content
Paper transport jam	Paper remaining on the transport path due to multiple feeding

When the paper is fed from any of the 1st drawer, bypass feed unit or ADU:
(When the paper is fed from the 1st drawer:)

Check item	Measures
Feed sensor	• Sensor check (Perform the input check: 03-[ALL]OFF/[9]/[B]) • Connector check (J746, J771, CN401) • Harness check
CFD board	• Board check • Connector check (CN404, CN408) • Harness check
LGC board	• Board check • Connector check (CN334) • Harness check

Parts to be replaced	Remark
Feed sensor	
CFD board	
LGC board	

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Parts to be replaced	Remark
Separation roller, Separation pad	Replace it if it is worn out.

(When the paper is fed from the bypass feed unit:)

Check item	Measures
Feed sensor	• Sensor check(Perform the input check: 03-[ALL]OFF/[9]/[B]) • Connector check (J732, CN403) • Harness check
CFD board	• Board check • Connector check (CN400, CN403) • Harness check
LGC board	• Board check • Connector check (CN334) • Harness check

Parts to be replaced	Remark
1st drawer feed sensor	
CFD board	
LGC board	
Separation roller, Separation pad	Replace it if it is worn out.

(When the paper is fed from the ADU:)

Check item	Measures
ADU entrance sensor	• Sensor check (Perform the input check: 03-[ALL]OFF/[9]/[H]) • Connector check (J721, CN421) • Harness check
LGC board	• Board check • Connector check (CN334, CN335) • Harness check
ADU board	• Board check • Connector check (J640, CN420, CN421) • Harness check
Registration sensor	• Sensor check (Perform the input check: 03-[ALL]OFF/[9]/[A]) • Connector check (CN404) • Harness check
CFD board	• Board check • Connector check (CN404, CN408) • Harness check

Parts to be replaced	Remark
ADU entrance sensor	
LGC board	
ADU board	
CFD board	
Registration sensor	
Roller	Replace it if it is worn out.

When the paper is fed from any of the PFU, PFP or LCF:

Check item	Measures
PFU, PFP or LCF	• Sensor check (Perform the input check: 03-[FAX]ON/[1/[F]) • Connector check (J914, CN913) • Harness check
PFC board	• Board check • Connector check (CN910, CN913, CN914) • Harness check
LGC board	• Board check • Connector check (CN312) • Harness check

Parts to be replaced	Remark
1st/2nd drawer feed sensor	
LGC board	
PFC board	
Roller	Replace it if it is worn out.

[EB60] Paper remaining on the transport path due to multiple feeding

Classification	Error content
Paper transport jam	

Check item	Measures
Registration sensor	• Sensor check (Perform the input check: 03-[ALL]OFF/[9]/[A]) • Connector check (CN404) • Harness check
CFD board	• Board check • Connector check (CN404, CN408) • Harness check
PFC board	• Connector check (CN334) • Board check
Drive unit, Rollers	• Gear check • Roller check

Parts to be replaced	Remark
Registration sensor	
CFD board	
PFC board	
Rollers	Replace it if it is worn out.

8.3.5 Other paper jam

[E011] Paper jam caused by clinging to the transfer belt (Paper not reached the paper clinging detection sensor)

Classification	Error content
Other paper jam	Paper jam caused by clinging to the transfer belt (Paper not reached the paper clinging detection sensor)

Phenomenon of paper jamming	Check item	Measures
Paper jamming immediately after the removal and installation of the transfer belt unit.	Transfer belt unit	Check if the transfer belt unit is installed properly. 📖 P. 4-89 "4.7.3 Transfer belt unit (TBU)"
Paper stop jam at transfer belt	Drawer	Check if paper is folded at the leading edge.
No scratches on the paper leading edge	Drawer	Check if paper is folded at the leading edge. Check that paper is not skewed in the side guides of the drawer.
	Process unit	Clean the process unit or replace it.
	Paper clinging detection sensor	Clean the sensor

Phenomenon of paper jamming	Check item	Measures
All	CFD board	• Board check • Connector check (CN406, CN408) • Harness check
	LGC board	• Board check • Connector check (CN334) • Harness check
	Paper clinging detection sensor	• Sensor check (Perform the input check: 03-[ALL]OFF/[9]/[E]) • Connector check (J746, J645, CN405) • Harness check
	Check of the 2nd transfer roller connection	Check that the 2nd transfer roller shaft is securely grounded via the frame. • Check if the leaf spring is deformed. • Check if the shaft tip and the leaf spring contact properly.

	Change of the 2nd transfer bias	If the leading edge of paper clings to the 2nd transfer roller and causes paper jamming, change the 2nd transfer roller bias correction factor of the leading/trailing edge of the paper. (The larger the value, the smaller the transfer voltage of the leading/trailing edge of the paper.)
		    Codes to be changed (Initial value of the transfer bias of the leading edge of the paper: 0)
		• Color mode print (top side): 05-2938-*
		• Color mode print (back side): 05-2939-*
		• Black mode print (top side): 05-2940-*
		• Black mode print (back side): 05-2941-*
		    Sub codes:* -> Plain paper: 0, Recycled paper: 7
		Notes:
		    After these codes are changed, perform solid duplex-printing and check that there is no faint or void image on the leading/trailing edge of the paper.

Parts to be replaced	Remark
Process unit	
Registration motor	
CFD board	
LGC board	
Paper clinging detection sensor	
Registration roller	Replace it if it is worn out.

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ERROR CODE AND TROUBLESHOOTING

[E013] Jam not reaching transport sensor after paper alignment at the registration roller

Classification	Error content
Other paper jam	Jam not reaching transport sensor after paper alignment at the registration roller

Phenomenon of paper jamming	Check item	Measures
Paper stop jam at Registration roller	Drawer	Check if any damage is at the leading edge. Check if paper is folded at the leading edge.
	Drive unit, Rollers	• Drive unit check • Gear check • Roller check
	Developer unit	Replace the Developer unit.

Parts to be replaced	Remark
Rollers	
Developer unit	

[E030] Power-ON jam

Classification	Error content
Other paper jam	Power-ON jam

Check item	Measures
Sensor in the jamming area	• Sensor check (Refer to the table below) • Connector check • Harness check
LGC board	• Board check • Connector check • Harness check

Parts to be replaced	Remark
Sensor in the jamming area	Refer to the table below.
LGC board	

Relation between the jamming area and the corresponding sensors/covers.
(If a jam is occurring in the ADU, PFC, PFU, CFD, LCF or PFP, check the board in each unit.)

Jamming area	Cover	Sensor	Test Mode/Input check
Registration area	Jam access cover	Registration sensor	03-[ALL]OFF/[9]/[A]
		Paper clinging detection sensor	03-[ALL]OFF/[9]/[E]
		Registration pass sensor	03-[ALL]OFF/[9]/[F]
		Feed sensor	03-[ALL]OFF/[9]/[B]
Exit area	Fuser cover	Exit sensor	03-[ALL]OFF/[9]/[C]
ADU	ADU	ADU entrance sensor	03-[ALL]OFF/[9]/[G]
		ADU exit sensor	03-[ALL]OFF/[9]/[H]
PFU	Side cover	2nd drawer feed sensor	03-[FAX]ON/[1]/[F]
LCF	LCF side cover	LCF feed sensor	03-[COPY]ON/[9]/[F]
PFP	PFP side cover	PFP upper drawer feed sensor	03-[FAX]ON/[0]/[C]
		PFP lower drawer feed sensor	03-[FAX]ON/[0]/[D]
Bridge unit	Bridge unit	Bridge unit transport sensor-1 (Entrance sensor)	03-[ALL]OFF/[0]/[A]
		Bridge unit transport sensor-2 (Exit sensor)	03-[ALL]OFF/[0]/[B]
Finisher	Finisher door	Sensors in the finisher	-

[E061]Incorrect paper size setting for 1st drawer
[E062]Incorrect paper size setting for 2nd drawer
[E063]Incorrect paper size setting for PFP upper drawer
[E064]Incorrect paper size setting for PFP lower drawer
[E065]Incorrect paper size setting for bypass tray

   If any paper remains in the equipment or drawer, remove it. Match the paper size of the drawer setting and the one in the drawer.

* Paper size detection is performed at the first sheet of paper when the drawer is opened or closed, or when the power of the equipment is turned ON.

[E090]Image data delay jam

Classification	Error item
Other paper jam	Image data to be printed cannot be prepared.

Check item	Measures
Other	• Remove the paper remained in front of the registration sensor) • Check if the error is cleared by turning the power OFF and then back ON.
SYS board	• Connector check • Board check
LGC board	• Connector check • Board check
HDD	• Connector check • HDD check
Page memory	Check if the page memory is correctly connected to the connector on the SYS board.

Replace parts	Remarks
SYS board	
LGC board	
HDD	
Page memory	

[E091] Motor on time-out jam

Classification	Error item
Other paper jam	The equipment does not operate normally because abnormality occurred on an interface between the SYS board and engine firmware.

Check item	Measures
Other	• Check if there is any paper in the equipment. Remove it if there is. • If the error still occurs, check the following.
Power	Check if the error is cleared by turning the power OFF and then back ON.
SYS board	• Connector check • Board check
LGC board	• Connector check • Board check

Check item	Measures
HDD	• Connector check • HDD check

Replace parts	Remarks
SYS board	
LGC board	
HDD	

[E0A0] Image transport ready time-out jam

Classification	Error content
Other paper jam	Image transport ready time-out jam

Check item	Measures
LGC board	Connector check

Parts to be replaced	Remark
LGC board	

[E550] Paper remaining jam on the transport path

Classification	Error content
Other paper jam	Paper remaining on the transport path when printing is finished (caused by a multiple paper feeding)

Step	Check Item	Result	Measure	Next Step
1	Jamming transport path		Open the cover of the unit/area whose picture is flashing on the control panel and remove any paper on the transport path.	
2	Feed or transport roller possibly causing multiple feeding		Check the feed roller.	
3	Sensor in the jamming area		• Sensor check (Refer to the table below) • Harness check • Connector check	
4	LGC board		• Harness check • Connector check • Board check	
	Notes: 　　If the jam is occurring in the ADU, PFC, PFU, CFD, LCF or PFP, check the board in each unit.			

Parts to be replaced	Remark
Feed or transport roller possibly causing multiple feeding	
Sensor in the jamming area	Refer to the table below.
LGC board	

Relation between the jamming area and the corresponding sensors/covers.

Jamming area	Cover	Sensor	Test Mode/Input check
Registration area	Jam access cover	Registration sensor	03-[ALL]OFF/[9]/[A]
		Paper clinging detection sensor	03-[ALL]OFF/[9]/[E]
		Registration pass sensor	03-[ALL]OFF/[9]/[F]
		Feed sensor	03-[ALL]OFF/[9]/[B]
Exit area	Fuser cover	Exit sensor	03-[ALL]OFF/[9]/[C]
ADU	ADU	ADU entrance sensor	03-[ALL]OFF/[9]/[G]
		ADU exit sensor	03-[ALL]OFF/[9]/[H]
PFU	Side cover	2nd drawer feed sensor	03-[FAX]ON/[1]/[F]
LCF	LCF side cover	LCF feed sensor	03-[COPY]ON/[9]/[F]
PFP	PFP side cover	PFP upper drawer feed sensor	03-[FAX]ON/[0]/[C]
		PFP lower drawer feed sensor	03-[FAX]ON/[0]/[D]
Bridge unit	Bridge unit	Bridge unit transport sensor-1 (Entrance sensor)	03-[ALL]OFF/[0]/[A]
		Bridge unit transport sensor-2 (Exit sensor)	03-[ALL]OFF/[0]/[B]
Finisher	Finisher door	Sensors in the finisher	-

[E551] Paper remaining jam on the transport path (when a service call occurs)
[E552] Paper remaining jam on the transport path (when the cover is closed)

Classification	Error content
Other paper jam	Paper remaining on the transport path when printing is finished (when a service call occurs) (E551) Paper remaining on the transport path when printing is finished (when the cover is closed) (E552)

Step	Check Item	Result	Measure	Next Step
1	Jamming transport path		Open the cover of the unit/area whose picture is flashing on the control panel and remove any paper on the transport path.	
2	Sensor in the jamming area		• Sensor check (Refer to the table below) • Harness check • Connector check	
3	LGC board		• Harness check • Connector check • Board check	
	Notes: If the jam is occurring in the ADU, PFC, PFU, CFD, LCF or PFP, check the board in each unit.			

Parts to be replaced	Remark
Feed or transport roller possibly causing multiple feeding	
Sensor in the jamming area	Refer to the table below.

Parts to be replaced	Remark
LGC board	

Relation between the jamming area and the corresponding sensors/covers.

Jamming area	Cover	Sensor	Test Mode/Input check
Registration area	Jam access cover	Registration sensor	03-[ALL]OFF/[9]/[A]
		Paper clinging detection sensor	03-[ALL]OFF/[9]/[E]
		Registration pass sensor	03-[ALL]OFF/[9]/[F]
		Feed sensor	03-[ALL]OFF/[9]/[B]
Exit area	Fuser cover	Exit sensor	03-[ALL]OFF/[9]/[C]
ADU	ADU	ADU entrance sensor	03-[ALL]OFF/[9]/[G]
		ADU exit sensor	03-[ALL]OFF/[9]/[H]
PFU	Side cover	2nd drawer feed sensor	03-[FAX]ON/[1]/[F]
LCF	LCF side cover	LCF feed sensor	03-[COPY]ON/[9]/[F]
PFP	PFP side cover	PFP upper drawer feed sensor	03-[FAX]ON/[0]/[C]
		PFP lower drawer feed sensor	03-[FAX]ON/[0]/[D]
Bridge unit	Bridge unit	Bridge unit transport sensor-1 (Entrance sensor)	03-[ALL]OFF/[0]/[A]
		Bridge unit transport sensor-2 (Exit sensor)	03-[ALL]OFF/[0]/[B]
Finisher	Finisher door	Sensors in the finisher	-

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8.3.6   Cover open jam

[E400] Jam access cover open

Classification	Error content
Cover open jam	Jam access cover open

Check item	Measures
Switching regulator	• Is the voltage of 24V being supplied from the power supply unit? (Perform the input check: 03-[ALL]OFF[7]/[D]) • Connector check (CN512, CN530, CN531) • Fuse check (F201, F202, F203)
LGC board	• Board check • Connector check (CN321, CN322, CN323) • Harness check
Transfer cover switch	• Switch check (Perform the input check: 03-[ALL]OFF/[7]/[A]) • Connector check (CN338) • Harness check

Parts to be replaced	Remark
Switching regulator	
LGC board	
Transfer cover switch	

[E410] Front cover open jam

Classification	Error content
Cover open jam	Front cover open jam

Check item	Measures
Switching regulator	• Is the voltage of 24V being supplied from the power supply unit? (Perform the input check: 03-[ALL]OFF[7]/[D]) • Connector check (CN323) • Fuse check (F201, F202, F203)
LGC board	• Board check • Connector check (CN319, CN323) • Harness check

Parts to be replaced	Remark
Switching regulator	
LGC board	

[E420] PFP side cover open jam

Classification	Error content
Cover open jam	PFP side cover open jam

Check item	Measures
PFP side cover opening/ closing switch	• Is the PFP side cover opening/closing switch working? (Perform the input check: 03-[FAX]ON/[0]/[A]) • Connector check (CN247, J959, J974) • Harness check
PFP board	• Board check • Connector check (CN241, CN247) • Harness check
PFC board	• Board check • Connector check (CN913) • Harness check

Parts to be replaced	Remark
PFP side cover opening/ closing switch	
PFP board	
PFC board	

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[E430] ADU opened during printing

Classification	Error content
Cover open jam	ADU open jam

Check item	Measures
Side cover switch	• Is the switch working? (Perform the input check: 03-[FAX]ON[4]/[A]) • Connector check (CN301) • Harness check
LGC board	• Board check • Connector check (CN301) • Harness check

Parts to be replaced	Remark
Side cover switch	
LGC board	

[E440] Side cover open jam

Classification	Error content
Cover open jam	Side cover open jam

Check item	Measures
Side cover switch	• Is the switch working? (Perform the input check: 03-[FAX]ON[4]/[A]) • Connector check (CN301) • Harness check
LGC board	• Board check • Connector check (CN301) • Harness check

Parts to be replaced	Remark
Side cover switch	
LGC board	

[E450] LCF side cover open jam

Classification	Error content
Cover open jam	LCF side cover open jam

Check item	Measures
LCF side cover opening/ closing switch	• Is the switch working? (Perform the input check: 03-[COPY]ON/[9]/[A]) • Connector check (CN349, CN1, CN6) • Harness check
LCF board	• Board check • Connector check (CN1, CN6) • Harness check
PFC board	• Board check • Connector check (CN910, CN912) • Harness check

Parts to be replaced	Remark
LCF side cover opening/ closing switch	
LCF board	
PFC board	

[E480] Bridge unit open jam

Classification	Error content
Cover open jam	Bridge unit open jam

Check item	Measures
Bridge unit cover opening/ closing detection sensor	• Is the sensor working? (Perform the input check: 03-[ALL]OFF/[7]/[B]) • Connector check (J805) • Harness check
LGC board	• Board check • Connector check (CN302) • Harness check

Parts to be replaced	Remark
Bridge unit cover opening/ closing detection sensor	
LGC board	

[E490] Job separator cover has opened during printing

Classification	Error content
Cover open jam	Job separator cover open jam

Check item	Measures
Job separator cover switch	• Is the Job separator cover switch working? (Perform the input check: 03-[ALL]OFF[7]/[B]) • Connector check (CN260, CN261) • Harness check
LGC board	• Board check • Connector check (CN302) • Harness check

Parts to be replaced	Remark
Job separator cover switch	
LGC board	

8.3.7 RADF jam

[E712] Jam not reaching the original registration sensor

Classification	Error content
RADF jam	Jam not reaching the original registration sensor

Check item	Measures
Pickup roller Feed roller Separation roller	Clean them if ther are stained.
Original registration sensor	• Sensor check (Perform the input check: 03-[FAX] ON[7]/[H]) • Connector check (CN74) • Harness check
RADF board	• Board check • Connector check (CN74) • Harness check

Parts to be replaced	Remark
Original registration sensor	
RADF board	
Pickup roller	Replace it if it is worn out
Feed roller	Replace it if it is worn out.
Separation roller	Replace it if it is worn out.

[E714] Feed signal reception jam

Classification	Error content
RADF jam	Feed signal reception jam

Check item	Measures
Empty sensor	• Sensor check (Perform the input check: 03-[FAX] ON[7]/[B]) • Lever check • Connector check (J92, J96) • Harness check

Parts to be replaced	Remark
Empty sensor	

[E721] Jam not reaching the read sensor

Classification	Error content
RADF jam	Jam not reaching the read sensor

Phenomenon of paper jamming	Check item	Measures
All	Registration sensor Read roller	Clean the registration roller and the read roller if they are stained.
	Read sensor	• Sensor check (Perform the input check: 03-[FAX] ON[7]/[G]) • Connector check (J94) • Harness check
	RADF board	• Board check • Connector check (CN75) • Harness check

Parts to be replaced	Remark
Reading start guide of the RADF	
Paper guide of the RADF	
Read sensor	
RADF board	
Registration roller	Replace it if it is worn out.
Read roller	Replace it if it is worn out.

[E722] Jam not reaching the original exit/reverse sensor (during scanning)

Classification	Error content
RADF jam	Jam not reaching the original exit/reverse sensor (during scanning)

Check item	Measures
Read roller	Clean the read roller if it is stained.
Original exit/reverse sensor	• Sensor check (Perform the input check: 03-[FAX] ON[7]/[E]) • Connector check (J93) • Harness check
RADF board	• Board check • Connector check (CN75) • Harness check

Parts to be replaced	Remark
Original exit/reverse sensor	
RADF board	
Read roller	Replace it if it is worn out.

[E724] Stop jam at the registration sensor

Classification	Error content
RADF jam	Stop jam at the registration sensor

Check item	Measures
Registration roller	Clean the registration roller if it is stained.
Registration sensor	• Sensor check (Perform the input check: 03-[FAX] ON[7]/[H]) • Connector check (J86, J88) • Harness check
RADF board	• Board check • Connector check (CN74) • Harness check
Original width detection sensor-1	• Sensor check (Perform the input check: 03-[FAX] ON[8]/[F]) • Connector check (J94) • Harness check
Original width detection sensor-2	• Sensor check (Perform the input check: 03-[FAX] ON[8]/[G]) • Connector check (J94) • Harness check

Parts to be replaced	Remark
Registration sensor	
RADF board	
Registration roller	Replace it if it is worn out.

[E725] Stop jam at the read sensor

Classification	Error content
RADF jam	Stop jam at the read sensor

Check item	Measures
Read roller	Clean the read roller if it is stained.
Read sensor	• Sensor check (Perform the input check: 03-[FAX] ON[7]/[G]) • Connector check (J94) • Harness check
Original intermediate transport sensor	• Sensor check (Perform the input check: 03-[FAX] ON[7]/[F]) • Connector check (CN75, J94) • Harness check
RADF board	• Board check • Connector check (CN75) • Harness check

Parts to be replaced	Remark
Read sensor	
RADF board	
Read roller	Replace it if it is worn out.

[E726] Transport/exit signal reception jam

Classification	Error content
RADF jam	Transport/exit signal reception jam

Check item	Measures
RADF board	• Board check • Connector check • Harness check
SYS board	• Board check • Connector check • Harness check
Switching power supply	• Check if the 24V and 5V outputs of the switching power supply are normal. • Board check • Connector check • Harness check

Parts to be replaced	Remark
RADF board	
SYS board	
Switching power supply	

[E731] Stop jam at the original exit/reverse sensor

Classification	Error content
RADF jam	Stop jam at the original exit/reverse sensor

Check item	Measures
Exit roller	Clean the exit roller if it is stained.
Stop jam at the original exit/ reverse sensor	• Sensor check (Perform the input check: 03-[FAX] ON[7]/[E]) • Connector check (J93) • Harness check
RADF board	• Board check • Connector check (CN75) • Harness check

Parts to be replaced	Remark
Exit sensor	
RADF board	
Exit roller	Replace it if it is worn out.

[E860] RADF jam access cover open

Classification	Error content
RADF jam	RADF jam access cover open

Check item	Measures
RADF jam access cover sensor	• Switch check (Perform the input check: 03-[FAX] ON[7]/[C]) • Connector check (CN72) • Harness check
RADF board	• Board check • Connector check (CN72) • Harness check

Parts to be replaced	Remark
RADF jam access cover sensor	
RADF board	

[E870] RADF open jam

Classification	Error content
RADF jam	RADF open jam

Check item	Measures
RADF opening/closing sensor	• Sensor check (Perform the input check: 03-[FAX] ON[7]/[D]) • Connector check (CN75) • Harness check • Is the RADF opening/closing sensor adjusted within the specified range?
RADF board	• Board check • Connector check (CN75) • Harness check

Parts to be replaced	Remark
RADF opening/closing sensor	
RADF board	

[E871] Cover open jam in the read ready status

Classification	Error item
RADF jam	Jam caused by opening of the Original jam access cover or front cover while the RADF is waiting for the scanning start signal from the equipment.

Check item	Measures
RADF	• Close the RADF if it is opened. • Remove if there is any original before closing it.
Original jam access cover opening/ closing sensor	• Sensor check (Perform the input check: 03: [FAX]/ON/[7]/[C]) • Connector check • Harness check

Check item	Measures
RADF board	• Connector check (CN75) • Board check

Replace parts	Remarks
Original jam access cover opening/ closing sensor	
RADF board	

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8.3.8 Paper jam in bridge unit

[E910] Paper not reaching the bridge unit transport sensor-1
[E920] Paper stopping at the bridge unit transport sensor-1

Classification	Error content
Jam in bridge unit	Paper not reaching the bridge unit transport sensor-1
	Paper stopping at the bridge unit transport sensor-1

Phenomenon of paper jamming	Check item	Measures
Paper separation failure at separation guide in the fuser unit	Drawer	Check that paper is not skewed in the side guides of the drawer.
	Leading edge margin	Adjust the margin with 05-4402 (Leading edge position adjustment) to "Color: 5.5 mm". Widen the margin if needed. (Specification Black: 4.2 mm / Color: 5 mm) • Use A3/LD paper • It is easy to check skew with a copy of a solid image (about 10 mm on its leading edge). Refer to " P. 6-1 "6.1.1 Adjustment Order".
There are scratches on the leading paper edge		Replace it if needed. Check if the guide is not deformed. Replace it if needed.
All	Bridge unit exit	Check that Mylar on the bridge unit exit is not deformed. Replace it if needed. (E920)
	Finisher	Check if paper jamming occurs in the finisher.
	Bridge unit transport sensor-1 (entrance sensor)	• Sensor check (Perform the input check: 03-[ALL]OFF[0]/[A]) • Connector check (CN302, J691, J801) • Harness check
	Bridge unit gate solenoid	• Solenoid check (Perform the output check: 03-232) • Connector check (CN302, J691, J804) • Harness check
	LGC board	• Board check • Connector check (CN302) • Harness check
	Bridge unit	• Does the transport roller of the bridge unit work when the fuser motor is rotated? (Perform the output check: 03-113/163) • Check the drive system of the equipment and bridge unit. • Check if the rollers in the exit roller, the pressure spring and the bridge unit are worn out.

Parts to be replaced	Remark
Bridge unit transport sensor-1 (entrance sensor)	
LGC board	
Bridge unit gate solenoid	

[E930] Paper not reaching the bridge unit transport sensor-2
[E940] Paper stopping at the bridge unit transport sensor-2

Classification	Error content
Jam in bridge unit	Paper not reaching the bridge unit transport sensor-2
	Paper stopping at the bridge unit transport sensor-2

Check item	Measures
Bridge unit transport sensor-2 (exit sensor)	• Sensor check (Perform the input check: 03-[ALL]OFF[0]/[B]) • Connector check (CN302, J691, J802) • Harness check
LGC board	• Board check • Connector check (CN302, J691) • Harness check
Bridge unit	• Does the transport roller of the bridge unit work when the fuser motor is rotated? (Perform the output check: 03-113/163) • Check the drive system of the equipment and bridge unit. • Check if the rollers in the exit roller, the pressure spring and the bridge unit are worn out.

Parts to be replaced	Remark
Bridge unit transport sensor-2 (exit sensor)	
LGC board	

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8.3.9 Paper jam in job separator

[E950] Jam not reaching the JSP feed sensor
[E951] Stop jam at the JSP feed sensor

Classification	Error content
Job separator jam	Jam not reaching the job separator transport sensor
	Stop jam at the job separator transport sensor

Proce dure	Check item	Result	Measure	Next Step
1	Open the JSP cover. Is there any paper on the transport path?	Yes	Remove the paper.	
		No		2
2	Is the JSP feed sensor working? (Perform the input check in the test mode: 03-[ALL]OFF/[0]/[A])	Yes		3
		No	• Check if the connector of the JSP feed sensor is disconnected. • Check if either of the connectors CN260 or CN262 on the JSP board is disconnected. • Check if the connector CN397 on the LGC board is disconnected. • Check if the connector pins are disconnected and the harnesses are open circuited. • Check if the conductor patterns on the JSP board and LGC board are short circuited or open circuited. • Replace the JSP feed sensor. • Replace the JSP board. • Replace the LGC board.	
3	Replacing board		• Replace the JSP board. • Replace the LGC board.	

Parts to be replaced	Remark
JSP feed sensor	
JSP board	
LGC board	

8.3.10 Paper jam in finisher section

[EA10, EA20] 1st transport motor (M8) fault/ 2nd transport motor (M4) fault

Classification	Error content
Finisher jam (Finisher section)	Paper transport delay jam

MJ-1036

Probable cause	Checking and measures
1st transport motor (M8) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Finisher control PC board (FIN): CN22)
2nd transport motor (M4) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Finisher control PC board (FIN): CN14)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor and the connector, exchange the finisher control PC board (FIN).

[EA10, EA20] Transport motor-1 (M1) fault/ Transport motor-2 (M2) fault

Classification	Error content
Finisher jam (Finisher section)	Paper transport delay jam

MJ-1037

Probable cause	Checking and measures
Transport motor-1 (M1) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Finisher control PC board (FIN): CN13)
Transport motor-2 (M2) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Paddle home position sensor fault	Measure the voltage of the TP30 on the finisher control PC board (FIN), and check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V $\pm$ 5% when shielded. If the voltage does not fall within the above range, replace the sensor.
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor and the connector, exchange the finisher control PC board (FIN).

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[EA25] Stack exit motor (M5) abnormality

Classification	Error content
Paper jam in finisher section	Paper transport jam in the Finisher

MJ-1036

Probable cause	Checking and measures
Stack exit motor (M5) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN14)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor, sensor and connectors, exchange the finisher control PC board (FIN).

[EA2A] Paper transport jam in the Finisher (Entrance path - middle path sensor)

Classification	Error content
Paper jam in finisher section	Paper transport jam in the Finisher (Entrance path - middle path sensor)

MJ-1036

Probable cause	Checking and measures
1st transport motor (M8) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
2nd transport motor (M4) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Entrance path sensor (S19) abnormality	Measure the voltage on TP86 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Middle path sensor (S7) abnormality	Measure the voltage on TP84 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Finisher control PC board (FIN): CN6, CN14, CN22)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the sensor and the connector, replace the finisher control PC board (FIN).

[EA2B] Paper transport jam in the Finisher (Middle path sensor)

Classification	Error content
Paper jam in finisher section	Paper transport jam in the Finisher (Middle path sensor)

MJ-1036

Probable cause	Checking and measures
2nd transport motor (M4) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Entrance path sensor (S19) abnormality	Measure the voltage on TP86 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Middle path sensor (S7) abnormality	Measure the voltage on TP84 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Finisher control PC board (FIN): CN6, CN14, CN22)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the sensor and the connector, replace the finisher control PC board (FIN).

[EA2C] Paper transport jam in the Finisher (Entrance path - sub-path sensor)

Classification	Error content
Paper jam in finisher section	Paper transport jam in the Finisher (Entrance path - sub-path sensor)

MJ-1036

Probable cause	Checking and measures
1st transport motor (M8) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
2nd transport motor (M4) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Entrance path sensor (S19) abnormality	Measure the voltage on TP86 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Sub-path sensor (S8) abnormality	Measure the voltage on TP85 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.

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Probable cause	Checking and measures
Stationary tray full detection sensor (S11) abnormality	Measure the voltage on TP26 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Finisher control PC board (FIN): CN6, CN10, CN14, CN22)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the sensor and the connector, replace the finisher control PC board (FIN).

[EA2D] Paper transport jam in the Finisher (Sub-path sensor)

Classification	Error content
Paper jam in finisher section	Paper transport jam in the Finisher (Sub-path sensor)

MJ-1036

Probable cause	Checking and measures
2nd transport motor (M4) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Entrance path sensor (S19) abnormality	Measure the voltage on TP86 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Sub-path sensor (S8) abnormality	Measure the voltage on TP85 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Stationary tray full detection sensor (S11) abnormality	Measure the voltage on TP26 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Finisher control PC board (FIN): CN6, CN10, CN14, CN22)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the sensor and the connector, replace the finisher control PC board (FIN).

[EA2E, EA31] Transport jam in Finisher

Classification	Error content
Paper jam in finisher section	Paper transport remaining jam in the Finisher

MJ-1036

Probable cause	Checking and measures
Entrance path sensor (S19) abnormality	Measure the voltage on TP86 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Middle path sensor (S7) abnormality	Measure the voltage on TP84 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V ± 5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Sub-path sensor (S8) abnormality	Measure the voltage on TP85 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V ± 5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Finisher control PC board (FIN): CN6, CN22)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the sensor and the connector, exchange the finisher control PC board (FIN).

[EA31] Transport jam in Finisher

Classification	Error content
Paper jam in finisher section	Paper transport remaining jam in the Finisher:

MJ-1037

Probable cause	Checking and measures
Entrance path sensor (S1) abnormality	Measure the voltage on TP1 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Finisher control PC board (FIN): CN1)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the sensor and the connector, exchange the finisher control PC board (FIN).

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[EA32] Finishing tray paper detection error

Classification	Error content
Paper jam in finisher section	Exit paper remaining jam

MJ-1036

Probable cause	Checking and measures
Finishing tray sensor (S4) abnormality	Measure the voltage on TP14 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Finisher control PC board (FIN): CN5)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the sensor and the connector, exchange the finisher control PC board (FIN).

MJ-1037

Probable cause	Checking and measures
Finishing tray sensor (S2) abnormality	Measure the voltage on TP26 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Finisher control PC board (FIN): CN8)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the sensor and the connector, exchange the finisher control PC board (FIN).

[EA40] Cover open detection error

Classification	Error content
Paper jam in finisher section	Cover open error

MJ-1036

Probable cause	Checking and measures
Sub-path opening/closing sensor (S12) abnormality	Measure the voltage on TP12 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Front cover switch (SW1) abnormality	Measure the voltage on TP77 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when the switch is ON and within the range of 3.3V ± 5% when OFF. If the voltage does not fall within the range mentioned, replace the switch.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Finisher control PC board (FIN): CN10, CN13)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the switches, sensor and connector, exchange the finisher control PC board (FIN).

[EA50] Stapling jam

Classification	Error content
Paper jam in finisher section	Stapling jam

MJ-1036

Probable cause	Checking and measures
Staple unit stapling start position sensor (S17) abnormality	Measure the voltage on TP23 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when the sensor is ON and within the range of 3.3V ± 5% when OFF. If the voltage does not fall within the range mentioned, replace the staple unit.
Staple unit staple empty sensor (S18) abnormality	Measure the voltage on TP24 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when the sensor is ON and within the range of 3.3V ± 5% when OFF. If the voltage does not fall within the range mentioned, replace the staple unit.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN17)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the staple unit and the connectors, exchange the finisher control PC board (FIN).

[EA60] Early arrival jam

Classification	Error content
Paper jam in finisher section	Early arrival jam

MJ-1036

Probable cause	Checking and measures
Entrance path sensor (S19) abnormality	Measure the voltage on TP86 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Finisher control PC board (FIN): CN22)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the sensor and the connector, exchange the finisher control PC board (FIN).

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MJ-1037

Check item	Measures
Entrance sensor	• Sensor check • Connector check • Harness check
Finisher controller PC board	• Board check • Connector check • Harness check

Parts to be replaced	Remark
Entrance sensor	
Finisher controller PC board	

8.3.11 Paper jam in saddle stitcher section

[EA80] Stapling jam in the saddle stitch staple unit

Classification	Error item
Finisher jam (Saddle stitcher section)	Stapling jam in the saddle stitch staple unit

MJ-1037

Probable cause	Checking and measures
Saddle stitch stapler motor (M14) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the saddle stitch staple unit.
Saddle stitch staple unit clinching home position sensor (S32) abnormality	Measure the voltage on pin CN17.5 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when the sensor is ON and within the range of 5V±5% when OFF. If the voltage does not fall within the range mentioned, replace the saddle stitch staple unit.
Saddle stitch staple empty sensor (S33) abnormality	Measure the voltage on pin CN17.7 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when the sensor is ON and within the range of 5V±5% when OFF. If the voltage does not fall within the range mentioned, replace the saddle stitch staple unit.
Faulty cables and connectors	If the error still occurs after replacing the motor, sensor and connectors, replace the finisher control PC board (FIN).
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor, sensor and connectors, replace the finisher control PC board (FIN).

Parts to be replaced	Remark
Saddle stitch stapler motor (M14)	The motor is embedded in the saddle stitch staple unit.
Saddle stitch staple unit clinching home position sensor (S32)	The sensor is embedded in the saddle stitch staple unit.
Saddle stitch staple empty sensor (S33)	The sensor is embedded in the saddle stitch staple unit.
Finisher control PC board (FIN)	

[EA81] Saddle stitch 3rd transport roller drive motor (M10) home position detection error

Classification	Error item
Finisher jam (Saddle stitcher section)	Saddle stitch 3rd transport roller drive motor (M10) home position detection error

MJ-1037

Probable cause	Checking and measures
Saddle stitch 3rd transport roller drive motor (M10) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Saddle stitch 3rd transport roller home position sensor (S23) abnormality	Measure the voltage on pin CN16.3 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.

Probable cause	Checking and measures
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN6, CN16)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor, sensor and connectors, replace the finisher control PC board (FIN).

Parts to be replaced	Remark
Saddle stitch 3rd transport roller drive motor (M10)	
Saddle stitch 3rd transport roller home position sensor (S23)	
Finisher control PC board (FIN)	

[EAB0] Transport jam in Saddle Stitch Finisher

Classification	Error item
Finisher jam (Saddle stitcher section)	Transport jam in Saddle Stitch Finisher

MJ-1037

Probable cause	Checking and measures
Transport motor-2 (M2) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Saddle stitch entrance path sensor (S4) abnormality	Measure the voltage on TP2 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN13, CN1)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor, sensor and connectors, exchange the finisher control PC board (FIN).

[EAC1] Paper folding blade motor (M12) home position detection error

Classification	Error item
Finisher jam (Saddle stitcher section)	Paper folding blade motor (M12) home position detection error

MJ-1037

Probable cause	Checking and measures
Paper folding blade motor (M12) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Paper folding blade motor clock sensor (S24) abnormality	Measure the voltage on pin CN15.9 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.

Probable cause	Checking and measures
Paper folding blade home position sensor (S19) abnormality	Measure the voltage on pin CN15.3 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN11, CN15)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor, sensor and connectors, replace the finisher control PC board (FIN).

Parts to be replaced	Remark
Paper folding blade motor (M12)	
Paper folding blade motor clock sensor (S24)	
Paper folding blade home position sensor (S19)	
Finisher control PC board (FIN)	

[EAF1] Exit roller nip adjustment motor (M4) home position detection error
MJ-1037

Error	Timing of detection
Finisher jam	Exit roller nip adjustment motor (M4) home position detection error

Probable cause	Checking and measures
Exit roller nip adjustment motor (M4) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Exit roller nip home position sensor (S8) abnormality	Measure the voltage on TP31 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN2, CN9)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor, sensor and connectors, exchange the finisher control PC board (FIN).

[EAF2] Staple unit sliding motor (M11) home position detection error

Classification	Error item
Finisher jam (Saddle stitcher section)	Staple unit sliding motor (M11) home position detection errorr

MJ-1037

Probable cause	Checking and measures
Staple unit sliding motor (M11) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the staple unit.

Probable cause	Checking and measures
Edge staple unit sliding home position sensor (S14) abnormality	Measure the voltage on pin CN7.6 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Saddle stitch staple unit sliding home position sensor (S22) abnormality	Measure the voltage on pin CN7.10 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Edge staple unit improper clinching prevention sensor (S25) abnormality	Measure the voltage on pin CN10.11 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN7, CN10, C17)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor, sensor and connectors, replace the finisher control PC board (FIN).

Parts to be replaced	Remark
Staple unit sliding motor (M11)	
Edge staple unit sliding home position sensor (S14)	
Saddle stitch staple unit sliding home position sensor (S22)	
Edge staple unit improper clinching prevention sensor (S25)	
Finisher control PC board (FIN)	

[EAF3] Gripper motor (M3) abnormality

Classification	Error content
Finisher jam	Gripper arm motor home position detection error

MJ-1037

Error	Timing of detection
Gripper motor Gripper arm home position sensor	The turning OFF of the gripper arm home position sensor (S13) is not detected in the specified time when the gripper arm is exited.
	The turning ON of the gripper arm home position sensor (S13) is not detected in the specified time when the gripper arm is returned to its home position.

Probable cause	Checking and measures
Gripper motor (M3) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Gripper arm home position sensor (S13) abnormality	Measure the voltage on pin CN10.8 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.

Probable cause	Checking and measures
Gripper arm exit sensor (S26) abnormality	Measure the voltage on TP27 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	If the error still occurs after replacing the motor, sensors and connectors, exchange the finisher control PC board (FIN).
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor, sensors and connectors, exchange the finisher control PC board (FIN).

[ED15] Paddle home position detection error

Classification	Error content
Finisher jam	Paddle home position detection error

MJ-1037

Error	Timing of detection
Transport motor-2 Paddle home position sensor	The paddle home position sensor (S34) does not change from "ON" to "OFF" within the pre-specified time during paddle rotation. The paddle home position sensor (S34) does not change from "OFF" to "ON" within the pre-specified time during paddle rotation.

[EF14, EF1C] Jams in folding/exiting section
MJ-1037

Classification	Error content
Finisher jam (Saddle section)	Outputting paper is not completed within a fixed time.

Probable cause	Checking and measures
Saddle stitch finishing tray sensor (S7) abnormality	Measure the voltage on TP65 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Saddle stitch exit path sensor (S5) abnormality	Measure the voltage on TP68 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN15, CN16)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the sensors and the connectors, exchange the finisher control PC board (FIN).

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[EF1A] Paper transport jam in the saddle stitch staple unit

Classification	Error item
Finisher jam (Saddle stitcher section)	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.

MJ-1037

Probable cause	Checking and measures
Transport motor-2 (M2) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Saddle stitch entrance path sensor (S4) abnormality	Measure the voltage on pin CN1.6 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN13, CN1)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor, sensor and connectors, replace the finisher control PC board (FIN).

Parts to be replaced	Remark
Transport motor-2 (M2)	
Saddle stitch entrance path sensor (S4)	
Finisher control PC board (FIN)	

[EF1B] Saddle stitch finishing tray paper detection error

Classification	Error content
Finisher jam (Finisher section)	Paper remains at the saddle stitch positioning paper exit sensor for a longer period than specified while being transported in the pushing/folding operation.

MJ-1037

Probable cause	Checking and measures
Saddle stitch finishing tray sensor (S7) abnormality	Measure the voltage on TP65 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Finisher control PC board (FIN): CN15)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the sensor and the connector, exchange the finisher control PC board (FIN).

8.3.12 Paper jam in puncher unit

[E9F0] Punching jam

Classification	Error content
Finisher jam (Puncher unit)	Punching jam

MJ-1037 (when MJ-6008 is installed)

Error	Timing of detection
Punch motor Punch shaft home position sensor Punch shaft rotational direction sensor	The turning OFF of the punch shaft home position sensor (S35) is not detected in the specified time when the punch motor (M15) is rotated.
	The turning ON of the punch shaft home position sensor (S35) is not detected in the specified time when the punch motor (M15) is rotated.
	The punch shaft home position sensor (S35) and the punch shaft rotational direction sensor (S34) do not specify the home position or the rotational direction correspondingly during initialization, or initialization is not finished at a turning-ON point for the punch shaft home position sensor (S35).

Probable cause	Checking and measures
Punch motor (M15) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Punch shaft home position sensor (S36) abnormality	Measure the voltage on pin CN3.3 on the hole punch control PC board (HP). Then check that the measured voltage is 1V or lower when not shielded and within the range of 5V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Punch shaft rotational direction sensor (S35) abnormality	Measure the voltage on pin CN3.9 on the hole punch control PC board (HP). Then check that the measured voltage is 1V or lower when not shielded and within the range of 5V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Punch motor clock sensor (S37) abnormality	Measure the voltage on pin CN3.6 on the hole punch control PC board (HP). Then check that the measured voltage is 1V or lower when not shielded and within the range of 5V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Hole punch control PC board (HP): CN3, CN6)
Hole punch control PC board (HP) abnormality	If the error still occurs after replacing the motor, sensors and connectors, exchange the hole punch control PC board (HP).

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8.3.13 Other paper jam

[EAD0] Print end command time-out jam

Classification	Error content
Other paper jam	The printing has not finished normally because of an error occurring on the interface between the SYS board and the engine firmware at the end of printing.

Check item	Measures
Power	• Check if the error is cleared by turning the power OFF and • then back ON.
SYS board	• Connector check • Board check
LGC board	• Connector check • Board check

Parts to be replaced	Remark
SYS board	
LGC board	

[EAE0] Receiving time-out jam

Classification	Error content
Other paper jam	Receiving time-out jam

MJ-1031

Check item	Measures
Finisher	• Is the finisher working? • Check if the voltage (24V) is being supplied to the finisher. • Check if the harness connecting the I/F connector of the finisher side and PFC board is open circuited. • Connector check
PFC board	• Connector check(CN910, CN911, CN912) • Check if the harness connecting the PFC board and switching regulator is open circuited. • Check if the harness connecting the PFC board and LGC board is open circuited. • Check if the conductor pattern on the PFC board is short circuited or open circuited.
LGC board	• Connector check(CN312) • Check if the harness connecting the PFC board and LGC board is open circuited. • Check if the conductor pattern on the LGC board is short circuited or open circuited.

Parts to be replaced	Remark
LGC board	
PFC board	
Harness	

[EB30] Ready time-out jam

Classification	Error content
Other paper jam	Ready time-out jam

Check item	Measures
Finisher	Check if the connector on the equipment is disconnected from the finisher or the harnesses are open circuited. Correct if any.

Parts to be replaced	Remark
PFC board	
LGC board	

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ERROR CODE AND TROUBLESHOOTING

8.3.14 Drive system related service call

[C020] Developer drive motor abnormality

Classification	Error content
Drive system related service call	Developer drive motor abnormality: The developer drive motor is not rotating normally.

Check item	Measures
Developer unit	• Check if the developer material is caked. • Check if there is any abnormality in the row of gears on the rear side of the developer unit. • Check if the amount of developer material is proper.
Feeding/developing drive unit	• Check if there is any foreign matter between the gears. • Check if there is any damage on the gear tooth surface. • Check if there is any scratch on the caliber or the shaft of each gear. • Check if the proper amount of grease is applied to the caliber or the shaft of each gear. • Check if there is any damage to the developer drive output coupling.
Paper feeding/developer unit drive motor	• Check that the motor is rotated normally. (03-112) • Connector check • Harness check
Drum TBU drive unit	• Check if there is any foreign matter in the row of the color developer drive gears. • Check if there is any damage on the tooth surface of the color developer drive gears. • Check if there is any scratch on the caliber or the shaft of each color developer drive gear. • Check if the proper amount of grease is applied to the caliber or the shaft of each color developer drive gear. • Check if there is any damage to the developer drive output coupling.
LGC board	• Board check • Connector check (CN303) • Harness check
Registration roller	• Check if the registration rollers on both the equipment and the ADU are rotated normally. • Check if there is any damage to the roller bushing.
1st drawer feed roller	• Check if the 1st drawer feed roller is overloaded. • Check if there is any damage to the roller coupling.
Bypass unit	• Check if the bypass feed roller is overloaded. • Check if there is any damage to the row of the bypass unit gears.
PFU drive section	• Check if there is any foreign matter between the gears. • Check if there is any damage on the gear tooth surface. • Check if there is any scratch on the caliber or the shaft of each gear.
PFU transport roller	• Check if the PFU transport roller is overloaded.
PFU feed roller	• Check if the PFU feed roller is overloaded.

Parts to be replaced	Remark
Developer unit	

Parts to be replaced	Remark
Feeding/developing drive unit	
Paper feeding/developer unit drive motor	
Drum TBU drive unit	
LGC board	
Registration roller	
1st drawer feed roller	
Bypass unit	
PFU drive section	
PFU transport roller	
PFU feed roller	

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8.3.15 Paper feeding system related service call

[C040] PFP motor abnormality

Classification	Error content
Paper feeding system related service call	PFP motor abnormality

Proce dure	Check item	Result	Measure	Next Step
1	Is the PFP motor working? (Perform the output check: 03-109/159)	Yes		2
		No	• Check if the connector J952 of the PFP motor is disconnected. • Check if the connector CN245 on the PFP board is disconnected. • Check if the connector CN241 on the PFP board is • Check if the connector CN913 on the PFC board is disconnected. • Check if the connector pins are disconnected or the harnesses are open circuited. • Check if the conductor patterns on the PFP motor board, PFP board and PFC board are short circuited or open circuited.	
2	Is the LED on the PFP motor board lit without flashing?	Yes		3
		No	• Check if the connector pins are disconnected or the harnesses are open circuited. • Check if the conductor patterns on the PFP motor board, PFP board and PFC board are short circuited or open circuited.	
3	PFP board		• Check if the PLL lock signal CN945-7 pin output from the PFP board is always "L" level. • Check if the voltage supplied to the microcomputer input terminal IC5-17 pin is always "L" level.	

Parts to be replaced	Remark
PFP motor	
PFP board	
PFC board	

[C140] 2nd drawer tray abnormality

Classification	Error content
Paper feeding system related service call	2nd drawer tray abnormality

Proce dure	Check item	Result	Measure	Next Step
1	Does the tray go up? (Perform the output check: 03-243)	Yes		2
		No	• Check if the connector of the tray-up motor is disconnected (CN914, J936). • Check if the connector on the PFC board is disconnected. (CN910, CN913) • Check if the connector on the LGC board is disconnected (CN312). • Check if the connector pins are disconnected or the harnesses are open circuited. • Check if the conductor pattern on the LGC board is short circuited or open circuited.	
2	Is the tray-up sensor working? (Perform the input check: 03-[FAX]ON/ [4]/[E]	Yes		3
		No	• Check if the connector of the sensor is disconnected (CN914, J933, J944). • Check if the connector on the PFC board is disconnected. (CN910, CN913) • Check if the connector on the LGC board is disconnected (CN312). • Check if the slit reaches the sensor. • Check if the connector pins are disconnected or the harnesses are open circuited. • Check if the conductor pattern on the LGC board is short circuited or open circuited.	
3	PFC board		• Check if the conductor pattern on the PFC board is short circuited or open circuited.	
4	LGC board		• Check if the conductor pattern on the LGC board is short circuited or open circuited.	

Parts to be replaced	Remark
Tray-up motor	
PFC board	
LGC board	
Tray-up sensor	

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[C150] PFP upper drawer tray abnormality
[C160] PFP lower drawer tray abnormality

Classification	Error content
Paper feeding system related service call	PFP upper drawer tray abnormality PFP lower drawer tray abnormality

Proce dure	Check item	Result	Measure	Next Step
1	Does the tray go up? (Perform the output check: 03-278, 280)	Yes		2
		No	• Check if the connector of the tray-up motor is disconnected. • Check if any of the connectors CN241, CN242 and CN244 on the PFP board is disconnected. • Check if the connector CN913 on the PFC board is disconnected. • Check if the connector pins are disconnected or the harnesses are open circuited. • Check if the conductor patterns on the PFP board and PFC board are short circuited or open circuited.	
2	Is the tray-up sensor working? (Perform the input check: 03-[COPY]ON/[5]/[A], 03-[COPY]ON/[5]/[E])	Yes		3
		No	• Check if the connector of the sensor is disconnected. • Check if any of the connectors CN241, CN244 and CN246 on the PFP board is disconnected. • Check if the connector CN913 on the PFC board is disconnected. • Check if the slit reaches the sensor. • Check if the connector pins are disconnected or the harnesses are open circuited. • Check if the conductor patterns on the PFP board and PFC board are short circuited or open circuited.	
3	PFC board		• Check if the conductor pattern on the PFC board is short circuited or open circuited.	

Parts to be replaced	Remark
Tray-up motor	
PFP board	
PFC board	
Tray-up sensor	

[C180] LCF tray-up motor abnormality

Classification	Error content
Paper feeding system related service call	LCF tray-up motor abnormality

Proce dure	Check item	Result	Measure	Next Step
1	Does the tray move? (Perform the output check: 03-271)	Yes		2
		No	• Check if the connector of the LCF tray-up motor is disconnected. • Check if any of the connectors CN100, CN101 and CN103 on the LCF board is disconnected. • Check if the connector CN913 on the PFC board is disconnected. • Check if the connector pins are disconnected or the harnesses are open circuited. • Check if the conductor patterns on the LCF board and PFC board are short circuited or open circuited.	
2	Are the LCF tray-up sensor and LCF tray bottom sensor working? (Perform the input check: 03-[COPY]ON/[8]/[A], 03-[COPY]ON/[8]/[E])	Yes		3
		No	• Check if the connectors of the sensors are disconnected. • Check if any of the connectors CN100, CN104 and CN105 on the LCF board is disconnected. • Check if the connector CN913 on the PFC board is disconnected. • Check if the slit reaches the sensors. • Check if the connector pins are disconnected or the harnesses are open circuited. • Check if the conductor patterns on the LCF board and PFC board are short circuited or open circuited.	
3	PFC board		• Check if the conductor pattern on the PFC board is short circuited or open circuited.	

Parts to be replaced	Remark
LCF tray-up motor	
LCF board	
PFC board	
LCF tray-up sensor	
LCF tray bottom sensor	

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[C1A0] LCF end fence motor abnormality

Classification	Error content
Paper feeding system related service call	LCF end fence motor abnormality

Proce dure	Check item	Result	Measure	Next Step
1	Is the LCF end fence motor working? (Perform the output check: 03-207)	Yes		2
		No	• Check if the connector of the LCF end fence motor is disconnected. • Check if any of the connectors CN100, CN101 and CN103 on the LCF board is disconnected. • Check if the connector CN913 on the PFC board is disconnected. • Check if the connector pins are disconnected or the harnesses are open circuited. • Check if the conductor patterns on the LCF board and PFC board are short circuited or open circuited.	
2	Are the LCF end fence home/stop position sensors working? (Perform the input check: 03-[COPY]ON/[8]/[H], 03-[COPY]ON/[8]/[G])	Yes		3
		No	• Check if the connectors of the sensors are disconnected. • Check if either of the connectors CN100 or CN107 on the LCF board is disconnected. • Check if the connector CN913 on the PFC board is disconnected. • Check if the slit reaches the sensors. • Check if the connector pins are disconnected or the harnesses are open circuited. • Check if the conductor patterns on the LCF board and PFC board are short circuited or open circuited.	
3	PFC board		• Check if the conductor pattern on the PFC board is short circuited or open circuited.	

Parts to be replaced	Remark
LCF end fence motor	
LCF board	
PFC board	
LCF end fence home position sensor	
LCF end fence stop position sensor	

[C1B0] LCF transport motor abnormality

Classification	Error content
Paper feeding system related service call	The LCF transport motor is not rotating normally (when paper can be fed from any drawer except the LCF).

Proce dure	Check item	Result	Measure	Next Step
1	Is the LCF transport motor working? (Perform the output check: 03-122/172)	Yes		2
		No	• Check if the connector CN112 of the LCF transport motor is disconnected. • Check if the connector CN102 on the LCF board is disconnected. • Check if the signal line connector CN100 on the LCF board is disconnected. • Check if the power line connector CN101 on the LCF board is disconnected. • Check if the connector CN913 on the PFC board is disconnected. • Check if the connector pins are disconnected or the harnesses are open circuited. • Check if the connector pins are disconnected or the harnesses are open circuited.	
2	LCF transport motor PFC board		• Check if the connector pins are disconnected or the harnesses are open circuited. • Check if the conductor patterns on the LCF transport motor board, LCF board and PFC board are short circuited or open circuited. • Check if the PLL lock signal CN102-3 pin output from the LCF board is always "L" level. • Check if the voltage supplied to the microcomputer input terminal IC103-17 pin is always "L" level.	

Parts to be replaced	Remark
LCF transport motor	
LCF board	
PFC board	

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8.3.16 Scanning system related service call

[C260] Peak detection error

Classification	Error content
Scanning system related service call	Peak detection error

Proce dure	Check item	Result	Measure	Next Step
1	Does the exposure lamp lit? (Perform the output check: 03-267)	Yes	It is lit.	2
		No	It is not lit.	3
2	Shading correction plate		Check if there is any scratch or stain on the shading correction plate.	
	Mirror		Check if the mirror is tilted. 1. Check that the lens is reflected in the mirror looking at carriage-1 from the upper position. 2. Check that the mirror is secured at the leaf spring.	
	Carriage		1. Check if the carriage is tilted by moving it to the left stopping point. 2. Check if the wire fixing screw is loosened. 3. Check if the movement of the carriage is unstable due to disengagement of the carriage roller.	
	LED		1. Check if the LED lamp is correctly lit. 2. Check if the harness is connected properly to the LED lamp connector. 3. When the carriage is driven, check if the harness interferes with it or parts are caught in it.	
	CCD board / Lens unit		1. Check if the connector of the CCD board is connected properly. 2. Check if the CCD board is installed properly. (Check that the lens unit is not tilted or the screw is securely tighten.)	
	SYS board		1. Check if the connector of the SYS board (CN122, CN126) is connected properly. 2. Check if the mounted parts on the SYS board are damaged or abnormal. 3. Check if 10 V is output from the power supply for CCD. (CN122-1pin).	

Proce dure	Check item	Result	Measure	Next Step
3	SYS board		1. Check if the supply cable is connected properly to the connector (CN127). 2. Check if the mounted parts on the SYS board are damaged or abnormal.	
	LED		1. Check if the harness of the lamp is connected to the LED light source properly. 2. Check if the lamp is scratched or damaged. 3. Check if the LED harness comes off the board.	
	Supply harness		1. Check if wiring of the supply harness (CN127) is abnormal. 2. Check if the harness is scratched or open circuited.	

Parts to be replaced	Remark
Lens unit	
SYS board	
LED	
Supply harness	

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[C261] Peak detection error (high-light intensity)

Classification	Error content
Scanning system related service call	Peak detection error (the light source is extremely light)

Proce dure	Check item	Measure
1	LED	1. Replace the LED.
2	SYS board	1. Check if there is any abnormality in the appearance of the LED driver IC. 2. Replace the SYS board.
3	Reflector	1. Check if there is any abnormality in the appearance of the reflector, such as deformation. 2. Replace the carriage-1.

Parts to be replaced	Remark
LED	
SYS board	

[C262] Peak detection error (communication error)

Classification	Error content
Scanning system related service call	Peak detection error (communication error)

Proce dure	Check item	Measure
1	Lens unit	1. Check if the connector is properly connected all the way in the CCD board. 2. Check if there is any abnormality in the appearance of parts mounted on the CCD board. 3. Check if +5V is output to the CCD board. 4. Check if +3.3V is output from the CCD board. 5. Replace the Lens unit.
2	SYS board	1. Check if the connector is properly connected all the way in the SYS board. 2. Check if there is any abnormality in the appearance of parts mounted on the SYS board. 3. Check if +5V is output to the SYS board. 4. Replace the SYS board.
3	Harnesses	1. Check if the harness has any scratch on it or is open circuited or caught anywhere. 2. Check if there is any abnormality in the connector terminal or the contacting surface of the flat harness. 3. Replace the harness between the SYS board and the CCD board.

Parts to be replaced	Remark
Lens unit	
SYS board	
Harnesses	

[C270] Carriage home position sensor not going OFF within a specified time

Classification	Error content
Scanning system related service call	Carriage home position sensor not going OFF within a specified time

Proce dure	Check item	Result	Measure	Next Step
1	Carriage locking		Check if the carriage locking screw for packaging is attached.	2
2	Carriage home position sensor		1. Check if the harness of the carriage home position sensor is connected properly. 2. Check if the harness is caught or open circuited.	3
3	SYS board		1. Check if the connector of the SYS board (CN121, CN125, CN127) is connected properly. 2. Check if the mounted parts on the SYS board are damaged or abnormal. 3. Check if 24 V (CN127) on the SYS board is short circuited. 4. Check if 24 V is supplied to the SYS board (CN127).	4

Proce dure	Check item	Result	Measure	Next Step
4	Scan motor		1. Check if the belt tension is loosened. 2. Check if the motor fixing screw is loosened. 3. Check if the carriage wire and the timing belt come off. 4. Check if the connector is connected to the motor properly. 5. Check if the harness of the motor is caught or open circuited.	-

Parts to be replaced	Remark
Carriage home position sensor	
Carriage home position sensor harness	
SYS board	
Scan motor	
Scan motor harness	

[C280] Carriage home position sensor not going ON within a specified time

Classification	Error content
Scanning system related service call	Carriage home position sensor not going ON within a specified time

Proce dure	Check item	Result	Measure	Next Step
1	Carriage lock		Check if the carriage locking screw for packaging is attached.	2
2	Carriage home position sensor		1. Check if the harness is properly connected to the sensor. 2. Check if the harness is caught or open circuited.	3
3	SYS board		1. Check if the harness (J002/J121) of the carriage home position sensor is connected properly. 2. Check if the mounted parts on the SYS board are damaged or abnormal. 3. Check if 24 V on the SYS board is short circuited. 4. Check if 24 V is supplied to the SYS board (CN127).	4
4	Scan motor		• Check if the belt tension is loosened (if the motor screw is loosened). • Check if the wire and the belt come off. • Check if the connector (J007/J125) is connected to the motor properly. • Check if the harness of the motor is caught or open circuited.	

Parts to be replaced	Remark
Carriage home position sensor	

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Parts to be replaced	Remark
Carriage home position sensor harness	
SYS board	
Scan motor	
Scan motor harness	

[C290] Scanner fuse blowout

Classification	Error content
Scanning system related service call	The scanning system does not operate due to a blowout of the fuse in the scanning system.

Proce dure	Check item	Result	Measure	Next Step
1	Is 24V supplied to the SYS board?	Yes	Check the following because the signal for checking 24V on the SYS board is abnormal. 1. Check if 3V is input in 35 Pin of the scanner CPU (IC301). 2. Check if the mounted parts on the SYS board are damaged or abnormal. 3. Check if 24V on the SYS board is short circuited. 4. Check if 24V is supplied to the SYS board (CN127).	
		No	1. Check if the 24V supply harness is properly connected to the connector (CN127). 2. Check if 24V and SG on the SYS board are short circuited. 3. Check if the power supply is short circuited by pulling out the supply harness on the SYS board (CN127). 4. Check if the fuse on the LVPS (F204) is open circuited. 5. Check if there is no abnormality on the LVPS.	

Parts to be replaced	Remark
SYS board	
Fuse (F204)	
Supply harness	
LVPS	

8.3.17 Fuser unit related service call

[C411/C412] Thermistor / heater lamp abnormality at power-ON

Classification	Error content
Fuser unit related service call	Thermistor / heater lamp abnormality at power-ON

Procedure	Check item	Measures
1	Power voltage	Check if the power voltage is normal.(Is the voltage during the operation ±10% of the rated voltage?)
2	Thermistor	• Check if the center, side and front thermistor are installed properly. • Check if the harnesses of the center, side and front thermistor are open circuited. • Check if the connectors of the center, side and front thermistor are disconnected (J627).
3	Power supply unit and fuser unit	• Is the fuser unit installed correctly? • Check if the heater lamp is broken. • Check if the terminal of the heater lamp is attached securely. • Check if the center and side thermostat are blown • Check if the drawer connector is damaged or its connection is detected. • Check if the connectors of the power supply unit are disconnected (CN504m, CN506). • Check if the power supply unit is abnormal.
4	LGC board	• Check if the connectors CN301 and CN323 are disconnected. • Check if the conductor pattern on the LGC board is short circuited or open circuited.
5	Status counter	After repairing the matter which caused the error [C411/C412], perform the following: • Turn ON the power while [0] and [8] are pressed simultaneously • Key in "2002", then press [START]. • Change the current status counter value "1", "2" or "4" to "0", then press [OK] or [INTERRUPT] (to cancel [C411/C412]). • Turn the power OFF and then back ON. Make sure that the equipment enters the normal ready state.

Parts to be replaced	Remark
Power supply unit.	
Thermistor	
LGC board	

[C445/C446/C447/C449/C450/C451/C452] Heater lamp abnormality after abnormality judgment

Classification	Error content
Fuser unit related service call	Heater lamp abnormality after abnormality judgment

1,2,3,4. Check the thermopiles, Heater and LGC board
Check the above components following the procedures 1, 2,3 and 4 for [C411/C412].

Procedure	Check item	Measures
5	Clear the status counter	Change the current status counter value (08-2002) "5", "6", "7", "9", "19", "21", "22", "23", "24", "25", "27", "29", "38", "41", "48" or "50" to "0" for [C44X], taking the same procedure as that for [C41X]. * The status counter value is as follows in the following cases. - The error occurred during warming-up: "5" or "6" The error occurred after the equipment has become ready: "7". - The temperature detected by the center thermistor is 200°C or higher, the temperature detected by the side thermistor is 200°C or higher or the temperature detected by the front thermistor is 230°C or higher: "9", "19", "22", "23", "25", "27" or "29" - The error occurred during printing: "24" or "25". - The error occurred during energy saving: "27". - A paper jam occurred: "29".

[C4B0] IGBT overheating abnormality

Classification	Error content
Fuser unit related service call	IGBT overheating abnormality

Check item	Measure
LGC board	• Check if the conductor pattern on the board is short circuited or open circuited. • Check if SRAM is mounted.
Status counter	1. Turn the power ON while [0] and [8] are pressed simultaneously. 2. Key in "2002", then press the [START] button. 3. Reset the displayed current status counter value "3", "8", "10", "11", "12", "13", "14", "15", "16", "17", "18", "20", "21", "26", "28", "30", "31", "32", "33", "34", "35", "36", "37", "39", "40", "42", "43", "44", "45", "46", "47", "49", "51", "52", "53", "54", "55", "56", "57", "58", "59", "60", "61", "62" or "63" to "0", then press [OK] or [INTERRUPT]. 4. Turn the power OFF and then back ON. Make sure that the equipment enters the normal status.

Parts to be replaced	Remark
LGC board	

[C4C0] Fuser unit new/old detection fuse abnormality

Classification	Error content
Fuser unit related service call	Fuser unit new/old detection fuse abnormality

Check item	Measure
1. Check the fuser unit.	1. Are the connectors disconnected? 2. Are the harnesses open circuited? 3. Replace the fuser unit.
2. Check the PC board	1. Are the connectors disconnected? 2. Are the harnesses short circuited or open circuited? 3. Replace the board.

Parts to be replaced	Remark
Fuser unit.	
PC board	

[C4D0] Fuser thermistor abnormality

Classification	Error content
Fuser unit related service call	Fuser thermistor abnormality

Check item	Measure
Thermistor	• Connector check (J627) • Check if the harnesses of the center, side and front thermistor are open circuited.
LGC board	• Connector check (CN301) • Check if the conductor pattern on the LGC board is open circuited or short circuited.
Cancel the service call	After repairing the matter which caused the error [C4D0], turn the power OFF and then back ON to cancel the service call. However, the counter value will be stored until it is written over by the value of the other service call.

Parts to be replaced	Remark
Thermistor	
LGC board	

[C4F0] Center thermistor error correction

Classification	Error content
Fuser unit related service call	Center thermistor error correction

Check item	Measure
Thermistor	• Check the gap between the center thermistor and the fuser roller. 📖 P. 6-86 "6.12.1 Adjustment of the non-contact thermistor Gap" • Check that the front thermistor is installed properly. • Connector check (J627) • Check if the harnesses of the center, side and front thermistor are open circuited.
LGC board	• Connector check (CN301, CN323) • Check if the conductor pattern on the LGC board is open circuited or short circuited.
Power supply unit and fuser unit	• Is the fuser unit installed correctly? • Check if the heater lamp is broken. • Check if the terminal of the heater lamp is attached securely. • Check if the center and side thermostat are blown • Check if the drawer connector is damaged or its connection is detected. • Check if the connectors of the power supply unit are disconnected (CN504m, CN506). • Check if the power supply unit is abnormal.

Parts to be replaced	Remark
Center thermistor	
front thermistor	
LGC board	
Heater lamp	
Power supply unit	

[C4F1] Side thermistor error correction

Classification	Error content
Fuser unit related service call	Side thermistor error correction

Check item	Measure
Thermistor	• Check the gap between the side thermistor and the fuser roller. 📖 P. 6-86 "6.12.1 Adjustment of the non-contact thermistor Gap" • Check that the front thermistor is installed properly. • Connector check • Check if the harnesses of the center, side and front thermistor are open circuited.
LGC board	• Connector check (CN301) • Check if the conductor pattern on the LGC board is open circuited or short circuited.

Check item	Measure
Power supply unit and fuser unit	• Is the fuser unit installed correctly? • Check if the heater lamp is broken. • Check if the terminal of the heater lamp is attached securely. • Check if the center and side thermostat are blown • Check if the drawer connector is damaged or its connection is detected. • Check if the connectors of the power supply unit are disconnected (CN504m, CN506). • Check if the power supply unit is abnormal.

Parts to be replaced	Remark
Side thermistor	
front thermistor	
LGC board	
Heater lamp	
Power supply unit	

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8.3.18 Communication related service call

[C550] RADF I/F error

Classification	Error content
Communication related service call	RADF I/F error

Check item	Measure
RADF board	• Check if the harness connecting the RADF board and SYS board is disconnected or open circuited. • Check if the conductor pattern on the RADF board is short circuited or open circuited.
SYS board	Check if the conductor pattern on the SYS board is short circuited or open circuited.

Parts to be replaced	Remark
RADF board	
SYS board	

[C560] Communication error between Engine-CPU and PFC board

Classification	Error item
Optional communication related service call	

Check item	Measures
Harness	• Connector check • Harness check
LGC board	• Connector check (CN312) • Board check
PFC board	• Connector check (CN910, CN911) • Board check

Replace parts	Remarks
LGC board	
PFC board	

[C580] Communication error between PFC board and finisher

Classification	Error content
Communication related service call	Communication error between PFC board and finisher

Check item	Measure
Finisher	Check if the specified finisher is attached.

[CE00] Communication error (signal transmission to the Hole Punch Unit)
MJ-1037

Error	Timing of detection
Optional communication related service call	No response is received in a control line from the Hole Punch Unit in the specified time during communication determination using control lines at power-ON.
	Three consecutive transmission retries failed after a data reception error was detected.
	No response is received in a control line in the specified time after data transmission from the Finisher.
	No response is returned to a command from the Finisher after the specified time has passed.

Probable cause	Checking and measures
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Hole punch control PC board (HP): CN1, CN2)
Abnormality of the finisher control PC board (FIN) or the hole punch control PC board (HP)	If the connection of all the harnesses and connectors is normal, replace the hole punch control PC board (HP). If the error still occurs, replace the finisher control PC board (FIN).

[F070] Communication error between System-CPU and Engine-CPU

Classification	Error content
Communication related service call	Communication error between System-CPU and Engine-CPU

Check item	Measure
Error code	• Turn the power OFF and then back ON using the main power switch, and then check if the error code changes to another one. • If it changes to another one, follow the procedure for the changed error code.
Check firmware version	• Check the version of the system firmware on the SYS board. • Check the version of the engine firmware on the LGC board.
Board check	• Check if the connector CN128 on the SYS board and the connector CN336 on the LGC board are completely inserted. • Check if the connector pin between the SYS board (connector CN128) and the LGC board (connector CN336) is disconnected. • Check if the connectors CN325, CN326, CN327, CN328, CN329, CN330, CN331 and CN332 of the LED printer head are completely inserted, and the harness is disconnected or open circuited. • Check if the conductor patterns on the LGC board and SYS board are short circuited or open circuited
HRNS-LGC-DRM-210 HRNS-CFD-TRU-210 HRNS-LGC-ADUCFD-210 HRNS-LGC-DEV-210	• Connector check • Harness check

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Parts to be replaced	Remark
LGC board	
SYS board	
LED printer head	
HRNS-LGC-DRM-210 HRNS-CFD-TRU-210 HRNS-LGC-ADUCFD-210 HRNS-LGC-DEV-210	

[F071] Communication initialization error between System-CPU and Engine-CPU

Classification	Error content
Communication related service call	Communication initialization error between System-CPU and Engine-CPU

Procedure	Check item	Measures
1	LED printer head, harness	1-1. Disconnect all the harnesses (flat cable and power supply) of the LED printer heads, and then turn the power ON. Check if the error changes to another service call (CE80 etc.). (CN325, CN326, CN327, CN328, CN329, CN330, CN331, CN332) 1-2. If the error does not change to another service call such as CE80 in step 1-1, go to step 2. If the error changes to another service call, follow the steps below. 1-3. Connect the harnesses of the LED printer head to the LGC board single color at a time, and then turn the power ON to identify the LED printer head in error. Check if F071 occurs. Place the parts causing the error. Check the connectors and harnesses of the color in error. <Harness (flat cable) - LGC board> Y color: CN327 M color: CN325 C color: CN331 K color: CN329 <Harness (power supply) - LGC board> Y color: CN328 M color: CN326 C color: CN332 K color: CN330 <Harness (flat calbe) - LED printer head> Y color: CN592 M color: CN593 C color: CN594 K color: CN595 <Harness (power supply) - LED printer head> Y color: CN596 M color: CN597 C color: CN598 K color: CN599

Procedure	Check item	Measures
2	Check firmware version	• Check the version of the system firmware on the SYS board. • Check the version of the engine firmware on the LGC board.
3	Board check	• Check if the connector CN128 on the SYS board and the connector CN336 on the LGC board are completely inserted. • Check if the connector pin between the SYS board (connector CN128) and the LGC board (connector CN336) is disconnected. • Check if the connectors CN325, CN326, CN327, CN328, CN329, CN330, CN331 and CN332 of the LED printer head are completely inserted, and the harness is disconnected or open circuited. • Check if the conductor patterns on the LGC board and SYS board are short circuited or open circuited
4	HRNS-LGC-DRM-210 HRNS-CFD-TRU-210 HRNS-LGC-ADUCFD-210 HRNS-LGC-DEV-210	• Connector check • Harness check

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Parts to be replaced	Remark
LGC board	
SYS board	
LED printer head	
Harness of LED printer head (flat cable)	
Harness of LED printer head (power supply)	
HRNS-LGC-DRM-210 HRNS-CFD-TRU-210 HRNS-LGC-ADUCFD-210 HRNS-LGC-DEV-210	

8.3.19 RADF related service call

[C551] RADF model detection error

Classification	Error content
RADF related service call	Incorrect RADF installed to the equipment

Check item	Measure
RADF	• Replace the RADF with the correct one.

Parts to be replaced	Remark
RADF	

[C8E0] RADF communication protocol abnormality

Classification	Error content
Optional communication related service call	The system has to be stopped because the control abnormality occurred.

Check item	Measure
Power	Turn the power OFF and then back ON to check if the equipment operates normally.
RADF board	• Connector check • Board check

Parts to be replaced	Remark
RADF board	

8.3.20 Circuit related service call

[C5A0] EEPROM not connected (LGC board)

Classification	Contents
Circuit related service call	SRAM board data abnormality (LGC board)

Check item	Measure
EEPROM	EEPROM check
LGC board	• IC socket check (IC45) • Board check

Replacement part	Remark
EEPROM	
LGC board	

[C5A1] EEPROM data abnormality (LGC board)

Classification	Contents
Circuit related service call	SRAM board data abnormality (LGC board)

Check item	Measure
EEPROM	EEPROM check
LGC board	• IC socket check (IC45) • Board check

Replacement part	Remark
EEPROM	
LGC board	

[C900] Connection error between the SYS board and the LGC board

Classification	Contents
Circuit related service call	Connection error between SYS board and LGC board

Check item	Measure
LGC board	• Connector check (CN336) • Board check
SYS board	• Connector check (CN128) • Board check

Replacement part	Remark
LGC board	If the problem is not corrected with the replacement of the LGC board, reinstall the removed LGC board and replace the SYS board.
SYS board	

[C911] Toner cartridge IC chip access board abnormality

Classification	Contents
Toner cartridge related service call	Abnormal access between the CTRG board and LGC board (High possibility of failure except the LGC board)

Proce dure	Check item	Result	Measure	Next Step
1	Does non-genuine toner cartridge display appear when the front cover is opened and closed?	Yes	Use the genuine toner cartridge.	
		No		2
2	Toner cartridge		• Check the phenomenon by removing the toner cartridges (Y, M, C and K) and reinserting them. • Check that the CTRG board of each cartridge (Y, M, C and K) is installed properly. • Avoid touching the contact point. • Wipe the contact point with a soft cloth if it's stained.	
3	Contact point on the equipment side		Check that the spring of the contact point for each color (Y, M, C and K) is not deformed.	
4	Is the spring of the contact point returned when it is pushed lightly?	Yes		
		No	• Check that the CTIF board is installed properly. • Board check	7
	Notes: The spring of the contact point may be released if you push the toner cartridge all the way in when an abnormality occurs.			
5	LGC board		• Connector check (CN324) • Board check	
6	HRNS-LGC-TNRIC-210		• Connector check (CN324, CN440) • Harness check	
7	CTIF board for each color (Y, M, C and K)		• Check that the board is installed properly. • Board check	
8	Perform the above troubleshooting and if the C911 error is cleared, set the following self-diagnostic codes to "0" (normal). • 08-4689-0: Board information of toner cartridge(Y) • 08-4689-1: Board information of toner cartridge(M) • 08-4689-2: Board information of toner cartridge(C) • 08-4689-3: Board information of toner cartridge(K)			

Replacement part	Remark
Toner cartridge	
LGC board	
HRNS-LGC-TNRIC-210	
CTIF board	

[C940] Engine-CPU abnormality

Classification	Contents
Circuit related service call	Engine-CPU abnormality

Check item	Measure
Main power switch	Turn OFF the main power switch, then back ON.
Engine-CPU, FROM, and SDRAM	Check if the conductor pattern between the Engine-CPU, FROM is short circuited or open circuited. Check if the conductor pattern between the Engine-CPU, SDRAM is short circuited or open circuited.
LGC board	Board check

Replacement part	Remark
LGC board	

[C962] LGC board ID abnormality

Classification	Contents
Circuit related service call	LGC board ID abnormality

Check item	Measure
Error code	• Turn the power OFF and then back ON using the main power switch, and then check if the error code changes to another one. • If it changes to another one, follow the procedure for the changed error code
LGC board	• Connector check (CN336, CN309) • Board check • Check if the model of the equipment matches the color of the label on the LGC board. 📖 P. 9-4 "9.1.6 LGC board"
SYS board	• Connector check (CN128) • Board check
Harness	• Connector check • Harness check

Replacement part	Remark
LGC board	If the problem is still not corrected with the replacement of the LGC board, reinstall it and ask a specialist to repair it. (Abnormal ID)

[C9E0] Connection error between the scanner CPU and system CPU

Classification	Contents
Circuit related service call	Connection error between the scanner CPU and system CPU

Check item	Measure
SYS board	Board check

Replacement part	Remark
SYS board	

[F090] SRAM abnormality on the SYS board

Classification	Contents
Circuit related service call	SRAM abnormality on the SYS board

Check item	Measure
SRAM	Check the connection of SRAM
	1. Turn the power OFF, and start up the Setting Mode (08). 2. When "SRAM REQUIRES INITIALIZATION" is displayed on the LCD, check the destination and then press the [START] button. If the destination is not correct, key in the correct one and then press the [START] button. (SRAM is initialized.) 3. After the confirmation message is displayed, press the [INTERRUPT] button. 4. Perform the panel calibration (08-9050). 5. Enter the serial number (08-9601). Match it with the serial number on the label attached to the rear cover of the equipment. 6. Initialize the NIC information (08-9083). 7. Turn the power OFF and then start up with the Adjustment mode (05). 8. Perform "Data transfer of characteristic value of scanner" (05-3203). 9. Perform "Automatic gamma adjustment" <PPC> (05-7869). (using [4][FAX] test pattern) 10. Perform "Automatic gamma adjustment" <PRT> (05-8008). (using [70][FAX] test pattern) 11. Turn the power OFF and then back ON.
SYS board	Board check

Replacement part	Remark
SRAM on the SYS board	
SYS board	

[F350] CCD board abnormality

Classification	Contents
Circuit related service call	CCD board abnormality

Check item	Measure
CCD board	Board check
Combination of the firmware version	• Check the combination of the firmware version of the system firmware, engine firmware, and scanner firmware. • Reinstall the scanner firmware.

Replacement part	Remark
CCD board	

8.3.21 LED printer head related service call

[CE80] LED printer head communication error

Classification	Contents
LED printer head related service call	Communication error between the LGC board and the LED printer head

Step	Check Item	Result	Measure	Next Step
1	Check the value of the self-diagnosis code (08-4706) in which is displayed in the details of the LED printer head communication error. • Check each color with its corresponding self-diagnosis mode. Y: 08-4706-0 M: 08-4706-1 C: 08-4706-2 K: 08-4706-3 **Remarks:** The self-diagnosis value other than "0" (Normal) indicates that an error has occurred.		Self-diagnosis values 1, 5, 9 and 13: LED printer head unconnected error	2
			Self-diagnosis values 2, 6, 10 and 14: LED printer head mix error	4
			Self-diagnosis values 4, 8 and 12: Checksum mismatch / Gradation module error	2
			Self-diagnosis values other than the above	2
2	Is the LGC board normal? • Check the connectors used for the colors in which errors have occurred. Y: CN327 and CN328 M: CN325 and CN326 C: CN331 and CN332 K: CN329 and CN330 • Check the LGC board.	Yes		3
		No	Repair or replace it.	5

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Step	Check Item	Result	Measure	Next Step
3	Check if the harnesses between the LGC board and the LED printer head are disconnected or open circuited. • Check the connectors and the harnesses used for the colors in which errors have occurred. <Harness (FFC) at the LGC board side> Y: CN327 M: CN325 C: CN331 K: CN329 <Harness (power supply) at the LGC board side> Y: CN328 M: CN326 C: CN332 K: CN330 <Harness (FFC) at the LED printer head side> Y: CN592 M: CN593 C: CN594 K: CN595 <Harness (power supply) at the LED printer head side> Y: CN596 M: CN597 C: CN598 K: CN599	Yes No	 Repair it.	4 5
4	The LED printer head used for the colors in which errors have occurred.		Repair it.	5
5	Reset the self-diagnosis value.		Change the setting value of the LED printer head communication error details to "0" (Normal) to reset the self-diagnosis value. Y: 08-4706-0 M: 08-4706-1 C: 08-4706-2 K: 08-4706-3	

Replacement part	Remark
LGC board	
Harness (FFC)	
Harness (power supply)	
LED printer head	

[CE81] Interface initialization error between LED printer head and LGC board

Classification	Contents
LED printer head related service call	Interface initialization error between LED printer head and LGC board

Proce dure	Check item	Result	Measure	Next Step
1	Perform 08-4723 to identify the color of LED printer head in error. 0 bit: Y 1st bit: M 2nd bit: C 3rd bit: K **Remarks:** The value of each bit becomes "1" if error occurs. (e.g.) Y color: 1, M color: 2, C color 4, K color: 8, Y and K color: 9			2
2	Is the LGC board normal? - Check the connectors of the LED printer head identified in step 1. Y color: CN327, CN328 M color: CN325, CN326 C color: CN331, CN332 K color: CN329, CN330 - Check the LGC board.	Yes		3
		No	Repair or replace it.	

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Proce dure	Check item	Result	Measure	Next Step
3	Check the harnesses between the LGC board and the LED printer heads. Check the connectors and harnesses of the color in error. <Harness (flat cable) - LGC board> Y color: CN327 M color: CN325 C color: CN331 K color: CN329 <Harness (power supply) - LGC board> Y color: CN328 M color: CN326 C color: CN332 K color: CN330 <Harness (flat cable) - LED printer head> Y color: CN592 M color: CN593 C color: CN594 K color: CN595 <Harness (power supply) - LED printer head> Y color: CN596 M color: CN597 C color: CN598 K color: CN599	Yes		4
		No	Replace it.	
4	LED printer head in error		Replace it.	

Replacement part	Remark
LGC board	
Harness of LED printer head (flat cable)	
Harness of LED printer head (power supply)	
LED printer head	

8.3.22 Finisher related service call

[CB00] Finisher not connected
[CB01] Finisher communication error
[CF10] Communication module writing failure

Classification	Error content
Finisher related service call	Finisher not connected Finisher communication error

Check item	Measure
Setting of the equipment	• Check if the MJ-1036 or MJ-1037 is set as the specified finisher on the equipment (08-4548).
Finisher	• Check if the harness connecting the equipment and the finisher controller PC board is disconnected or open circuited. • Check if the conductor pattern on the finisher controller PC board is open circuited or short circuited. • Update the finisher firmware.
PFC board	• Check if the harness connecting the finisher and the PFC board on the equipment is disconnected or open circuited. • Check if the harness connecting the PFC board and the LGC board on the equipment is disconnected or open circuited. • Connector check (CN910, CN911, J754) • Check if the conductor pattern on the PFC board is open circuited or short circuited.
LGC board	• Check if the harness connecting the PFC board and the LGC board on the equipment is disconnected or open circuited. • Connector check (CN312) • Check if the conductor pattern on the LGC board is open circuited or short circuited.

Parts to be replaced	Remark
Finisher control PC board	
PFC board	
LGC board	

[CB01] Finisher communication error
MJ-1037

Error	Timing of detection
Data communication error	The communication between the equipment and the Finisher is interrupted. This error is detected by the equipment.

[CB30] Movable tray shift motor (M1) abnormality, Movable tray paper top detection error
MJ-1036

Classification	Contents
Finisher related service call	Movable tray shift motor abnormality: The movable tray shift motor is not rotating or the movable tray is not moving normally.

Error	Timing of detection
Movable tray shift motor (M1) Stack top detection solenoid (SOL1) Stack top detection sensor-1 (S1) Stack top detection sensor-2 (S2 Movable tray lower limit sensor (S14)	A locking signal is detected after the specified time *while the movable tray is moving. * A locking signal is not monitored from the start driving the motor until the specified time has passed.
	The stack top position of paper is not detected after the movable tray shift motor (M1) is driven in the specified time when the movable tray is moved up.
	The lower limit position of the stack top of paper is not detected after the movable tray shift motor (M1) has been driven in the specified time during the initial movement of the movable tray.
	The turning OFF of the movable tray lower limit sensor (S14) is not detected when the movable tray is moved from a point where this sensor is turned ON to one point where this sensor is turned OFF after the movable tray shift motor (M1) has been driven in the specified time.

Probable cause	Checking and measures
Movable tray shift motor (M1) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the moto
Movable tray lower limit sensor (S14) abnormality	Measure the voltage on TP17 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V ± 5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity among the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN4, CN10)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor, sensors and connectors, exchange the finisher control PC board (FIN).
Stack top detection solenoid (SOL1) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the solenoid.
Stack top detection sensor-1 (S1) abnormality	Measure the voltage on TP11 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V ± 5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Stack top detection sensor-2 (S2) abnormality	Measure the voltage on TP20 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V ± 5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Finisher control PC board (FIN): CN3)

Probable cause	Checking and measures
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the solenoid, sensors and connector, exchange the finisher control PC board (FIN).

[CB30] Movable tray shift motor (M5) abnormality
MJ-1037

Classification	Contents
Finisher related service call	Movable tray shift motor abnormality: The movable tray shift motor is not rotating or the movable tray is not moving normally.

Error	Timing of detection
Movable tray shift motor Movable tray shift motor clock sensor	The status of the movable tray shift motor clock sensor (S15) is not changed for the specified time when the movable tray shift motor (M5) is driven.

Probable cause	Checking and measures
Movable tray shift motor (M5) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Movable tray shift motor clock sensor (S15) abnormality	Measure the voltage on pin CN7.3 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Movable tray upper limit sensor (S16) abnormality	Measure the voltage on TP35 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Movable tray lower limit sensor (S17) abnormality	Measure the voltage on TP28 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Movable tray middle sensor (S18) abnormality	Measure the voltage on TP29 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V ± 5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity among the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN11, CN7, CN9, CN8)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor, sensors and connectors, exchange the finisher control PC board (FIN).

[CB31] Movable tray paper top detection error
MJ-1037

Classification	Contents
Finisher related service call	Movable tray paper-full detection error: The actuator of the movable tray paper-full detection sensor does not move smoothly.

Error	Timing of detection
Movable tray shift motor Stack top holding/detecting sensor Paper holding home position sensor	The stack top holding/detecting sensor (S11) and the paper holding home position sensor (S12) do not detect the position of the top of the stack of paper in the specified time when the paper holding lever is moved to the paper detection position.

Probable cause	Checking and measures
Exiting paper holding solenoid (SOL1) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the solenoid.
Paper holding home position sensor (S12) abnormality	Measure the voltage on TP13 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V $\pm$ 5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Stack top holding/detecting sensor (S11) abnormality	Measure the voltage on TP71 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V $\pm$ 5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Finisher control PC board (FIN): CN3, CN4)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the solenoid, sensors and connector, exchange the finisher control PC board (FIN).

[CB40] Front alignment motor abnormality
*   You receive a [CB40] error when the [ED13] error occurs three times in succession.
MJ-1036

Classification	Contents
Finisher related service call	Front alignment motor abnormality: The front alignment motor is not rotating or the front alignment plate is not moving normally.

Error	Timing of detection
Rear alignment motor (M3) Rear alignment plate home position sensor (S6)	The turning OFF of the rear alignment plate home position sensor (S6) is not detected when the rear alignment plate is moved from a point where this sensor is turned ON to one point where this sensor is turned OFF after the rear alignment motor (M3) has been driven at the specified number of pulse.
	The turning ON of the rear alignment plate home position sensor (S6) is not detected when the rear alignment plate is moved from a point where this sensor is turned OFF to one point where this sensor is turned ON after the rear alignment motor (M3) has been driven at the specified number of pulse.

Probable cause	Checking and measures
Rear alignment motor (M3) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Rear alignment plate home position sensor (S6) abnormality	Measure the voltage on TP16 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN5, CN12)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor, sensor and connectors, exchange the finisher control PC board (FIN).

[CB40] Rear alignment motor (M7) abnormality
*   You receive a [CB40] error when the [ED13] error occurs three times in succession.
MJ-1037

Classification	Contents
Finisher related service call	Front alignment motor abnormality: The front alignment motor is not rotating or the front alignment plate is not moving normally.

Error	Timing of detection
Rear alignment motor Rear aligning plate home position sensor	The turning OFF of the rear alignment plate home position sensor (S10) is not detected in the specified time when the rear alignment plate is moved from a point where this sensor is turned ON to one point where this sensor is turned OFF.
	The turning ON of the rear alignment plate home position sensor (S10) is not detected in the specified time when the rear alignment plate is moved from a point where this sensor is turned OFF to one point where this sensor is turned ON.

Probable cause	Checking and measures
Rear alignment motor (M7) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Rear alignment plate home position sensor (S10) abnormality	Measure the voltage on pin CN9.9 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN2, CN9)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor, sensor and connectors, exchange the finisher control PC board (FIN)

[CB50] Stapler home position error

*   You receive a [CB50] error when the [EA50] error occurs three times in succession.

Classification	Contents
Finisher related service call	Stapler home position error: The stapler home position sensor does not work.

[CB50] Staple motor (M10) abnormality
MJ-1036

Error	Timing of detection
Stapler motor (M10) Staple unit clinching home position sensor (S16)	The staple unit clinching home position sensor (S16) does not detect the opening of the staple unit after the stapler motor (M10) has been driven reversely in the specified time from the closing during the initial movement of the staple unit.
	The staple unit clinching home position sensor (S16) does not detect the opening of the staple unit in the specified time from the closing during the clinching movement of the staple unit, and also this sensor does not detect the opening by the reverse rotation of the motor after the stapler is stopped.
	The staple unit clinching home position sensor (S16) does not detect the closing of the staple unit after the specified time during the clinching movement of the staple unit.
	The staple unit clinching home position sensor (S16) does not detect the opening of the staple unit at the start of the clinching.

Probable cause	Checking and measures
Staple motor (M10) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the staple unit.
Staple unit clinching home position sensor (S16) abnormality	Measure the voltage on CN16 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when the sensor is ON and within the range of 3.3V ± 5% when OFF. If the voltage does not fall within the range mentioned, replace the staple unit.

Probable cause	Checking and measures
Staple unit improper clinching prevention sensor (S15) abnormality	Measure the voltage on TP25 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V ± 5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN16, CN17)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor, sensors, switch and connectors, exchange the finisher control PC board (FIN).

[CB50] Edge staple unit motor (M13) abnormality
MJ-1037

Error	Timing of detection
Staple unit sliding motor Edge staple unit improper clinching prevention sensor	The turning OFF of the edge staple unit improper clinching prevention sensor (S25) is not detected in the specified time when the edge staple unit is moved from a point where this sensor is turned ON to one point where this sensor is turned OFF.
	The turning ON of the edge staple unit improper clinching prevention sensor (S25) is not detected in the specified time when the edge staple unit is moved from a point where this sensor is turned OFF to one point where this sensor is turned ON.
Edge staple unit motor Edge staple unit clinching home position sensor	The turning OFF of the edge staple unit clinching home position sensor (S29) is not detected in the specified time when stapling is performed.
	The turning ON of the edge staple unit clinching home position sensor (S29) is not detected after the specified time has passed since the turning OFF of this sensor had been detected when stapling is performed, and also turning ON of this sensor is not detected in a reverse rotation after the stapler is stopped.

Probable cause	Checking and measures
Edge staple unit motor (M13) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the staple unit.
Edge staple unit clinching home position sensor (S29) abnormality	Measure the voltage on pin CN10.4 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when the sensor is ON and within the range of 5V ± 5% when OFF. If the voltage does not fall within the range mentioned, replace the staple unit.
Edge staple unit improper clinching prevention sensor (S25) abnormality	Measure the voltage on pin CN10.11 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V ± 5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.

Probable cause	Checking and measures
Edge staple unit interference switch (SW3) abnormality	Measure the voltage on pin CN18.8 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when the switch is ON and within the range of 24V $\pm$ 10% when OFF. If the voltage does not fall within the range mentioned, replace the switch. (Be sure that all covers and doors are closed before starting measurement.)
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN10, CN18, CN24)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor, sensors, switch and connectors, exchange the finisher control PC board (FIN).

[CB51] Stapler shift home position error

Classification	Contents
Finisher related service call	Stapler shift home position error: The stapler is not at the home position.

[CB51] Staple unit sliding motor (M7) abnormality
MJ-1036

Error	Timing of detection
Staple unit sliding motor (M7) Staple unit sliding home position sensor (S3)	The turning OFF of the staple unit sliding home position sensor (S3) is not detected when the staple unit is moved from a point where this sensor is turned ON to one point where this sensor is turned OFF after the staple unit sliding motor (M7) has been driven at the specified number of pulse.
	The turning ON of the staple unit sliding home position sensor (S3) is not detected when the staple unit is moved from a point where this sensor is turned OFF to one point where this sensor is turned ON after the staple unit sliding motor (M7) has been driven at the specified number of pulse.

Probable cause	Checking and measures
Staple unit sliding motor (M7) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the staple unit.
Staple unit sliding home position sensor (S3) abnormality	Measure the voltage on TP18 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V$\pm$5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN3, CN18)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the staple unit, sensors and connectors, exchange the finisher control PC board (FIN).

[CB51] Staple unit sliding motor (M11) abnormality
MJ-1037

Error	Timing of detection
Staple unit slidingEdge staple unit sliding home position sensor motor	The turning OFF of the edge staple unit sliding home position sensor (S14) is not detected in the specified time when the edge staple unit is moved from a point where this sensor is turned ON to one point where this sensor is turned OFF.
	The turning ON of the edge staple unit sliding home position sensor (S14) is not detected in the specified time when the edge staple unit is moved from a point where this sensor is turned OFF to one point where this sensor is turned ON.

Probable cause	Checking and measures
Staple unit sliding motor (M11) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the staple unit.
Edge staple unit sliding home position sensor (S14) abnormality	Measure the voltage on pin CN7.6 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V ± 5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Saddle stitch staple unit sliding home position sensor (S22) abnormality	Measure the voltage on pin CN7.10 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V ± 5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Edge staple unit improper clinching prevention sensor (S25) abnormality	Measure the voltage on pin CN10.11 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V ± 5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN7, CN10, CN17)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the staple unit, sensors and connectors, exchange the finisher control PC board (FIN).

[CB80] Finisher control PC board (FIN) backup RAM error

Classification	Contents
Finisher related service call	Backup RAM data abnormality: Abnormality of checksum value on finisher controller PC board is detected when the power is turned ON.

MJ-1036

Error	Timing of detection
EEPROM	Data readout check is performed after data writing and the result of the data readout check does not conform to the written data.
	The equipment does not enter the ready status after the specified time has passed from data writing.

Probable cause	Checking and measures
Finisher control PC board (FIN) abnormalit	Replace the finisher control PC board (FIN) as the cause is a fault in the IC of the backup RAM.

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Error	Timing of detection
Back-up memory	Data readout check is performed after data writing and the result of the data readout check does not match with the written data.
	The equipment does not enter the ready status after the specified time has passed from data writing.

Probable cause	Checking and measures
Finisher control PC board (FIN) abnormality	Replace the finisher control PC board (FIN) as the cause is a fault in the IC of the backup RAM.

[CB80] Hole punch control PC board (HP) backup RAM error

Classification	Contents
Finisher related service call	Backup RAM data abnormality: Abnormality of checksum value on finisher controller PC board is detected when the power is turned ON.

MJ-6008

Error	Timing of detection
Back-up memory	Data readout checking is performed after data writing and the result of the data readout check do not match with the written data.
	The equipment does not enter the ready status after the specified time has passed from data writing.

Probable cause	Checking and measures
Hole punch control PC board (HP) abnormality	If the behavior in the hole punch RAM check mode is not normal, replace the hole punch control PC board (HP).

[CB84] Punch unit main program error

Classification	Error item
Finisher related service call	Hole Punch Unit - Main CPU program error

Check item	Measures
Hole punch control PC board (HP)	• Is the firmware version of the PNC board (HP) latest? • Connector check • Board check

Replace parts	Remarks
Hole punch control PC board	

[CB90] Paper folding blade motor (M12) abnormality
MJ-1037

Error	Timing of detection
Paper folding blade motor Paper folding blade home position sensor	The turning OFF of the paper folding blade home position sensor (S19) is not detected in the specified time when the paper folding blade is pushing while this sensor is ON.
	Turning ON of the paper folding blade home position sensor (S19) is not detected in the specified time when the paper folding blade is returned to its home position while this sensor is OFF.
Paper folding blade motorPaper folding blade motor clock sensor	The status of the paper folding blade motor clock sensor (S24) is not changed for the specified time when the paper folding blade motor (M12) is driven.

Probable cause	Checking and measures
Paper folding blade motor (M12) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Paper folding blade motor clock sensor (S24) abnormality	Measure the voltage on TP66 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Paper folding blade home position sensor (S19) abnormality	Measure the voltage on TP64 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN11, CN15)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor, sensors and connectors, exchange the finisher control PC board (FIN).

[CBC0] Saddle stitch alignment motor (M8) abnormality
MJ-1037

Error	Timing of detection
Saddle stitch alignment motor Saddle stitch alignment plate home position sensor	The turning OFF of the saddle stitch alignment plate home position sensor (S20) is not detected in the specified time when the saddle stitch alignment plate is moved from a point where this sensor is turned ON to one point where this sensor is turned OFF.
	The turning ON of the saddle stitch alignment plate home position sensor (S20) is not detected in the specified time when the saddle stitch alignment plate is moved from a point where this sensor is turned OFF to one point where this sensor is turned ON.

Probable cause	Checking and measures
Saddle stitch alignment motor (M8) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Saddle stitch alignment plate home position sensor (S20) abnormality	Measure the voltage on pin CN16.12 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN6, CN16)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor, sensor and connectors, exchange the finisher control PC board (FIN).

[CBF0] Stacker motor (M9) abnormality
MJ-1037

Error	Timing of detection
Stacker motor Stacker home position sensor	The turning OFF of the stacker home position sensor (S21) is not detected in the specified time when the stacker is moved from a point where this sensor is turned ON to one point where this sensor is turned OFF.
	The turning ON of the stacker home position sensor (S21) is not detected in the specified time when the stacker is moved from a point where this sensor is turned OFF to one point where this sensor is turned ON.

Probable cause	Checking and measures
Stacker motor (M9) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Stacker home position sensor (S21) abnormality	Measure the voltage on pin CN16.15 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V ± 5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.

Probable cause	Checking and measures
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN6, CN16)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor, sensor and connectors, exchange the finisher control PC board (FIN).

[CC02] Stack exit roller nip home position detection error
MJ-1036

Replacement part	Measure
Stack exit roller shift motor (M6) Stack exit roller home position sensor (S13)	The stack exit roller home position sensor (S13) does not detect that the exit roller is not at the upper position after the stack exit roller motor (M6) has been driven in the specified time when the exit roller is moved down.
	The stack exit roller home position sensor (S13) does not detect that the exit roller is at the upper position after the stack exit roller shift motor (M6) has been driven in the specified time when the exit roller is moved up.

[CC02] Exit roller nip adjustment motor (M4) abnormality
MJ-1037

Error	Timing of detection
Exit roller nip adjustment motor Exit roller nip home position sensor	The exit roller nip home position sensor (S8) does not become OFF from ON in the specified time when the status in which the exit roller nip is large or small is changed to one in which the exit roller or the middle transport roller is released.
	The exit roller nip home position sensor (S8) does not become ON from OFF in the specified time when the status in which the exit roller or the middle transport roller is released is changed to one in which the exit roller nip is large or small.

Probable cause	Checking and measures
Exit roller nip adjustment motor (M4) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Exit roller nip home position sensor (S8) abnormality	Measure the voltage on TP31 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN2, CN9)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor, sensor and connectors, exchange the finisher control PC board (FIN).

[CC21] Saddle stitch 3rd transport roller drive motor (M10) abnormality
MJ-1037

Error	Timing of detection
Saddle stitch 3rd transport roller drive motor Saddle stitch 3rd transport roller home position sensor	The turning OFF of the saddle stitch 3rd transport roller home position sensor (S23) is not detected in the specified time when the saddle stitch 3rd transport roller is nipped or performing paper transport.
	The turning ON of the saddle stitch 3rd transport roller home position sensor (S23) is not detected in the specified time when the saddle stitch 3rd transport roller is released.

Probable cause	Checking and measures
Saddle stitch 3rd transport roller drive motor (M10) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Saddle stitch 3rd transport roller home position sensor (S23) abnormality	Measure the voltage on TP67 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN6, CN16)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor, sensor and connectors, exchange the finisher control PC board (FIN).

[CC22] Saddle stich stapler home position detection error
MJ-1037

Error	Timing of detection
Saddle stitch stapler motor Saddle stitch staple unit clinching home position sensor	The turning OFF of the saddle stitch staple unit clinching home position sensor (S32) is not detected in the specified time when saddle stitch stapling is performed.
	The turning ON of the saddle stitch staple unit clinching home position sensor (S32) is not detected in the specified time after the turning OFF of this sensor had been detected when saddle stitch stapling is performed, and also the turning ON of this sensor is not detected in a reverse rotation after the saddle stitch stapler is stopped.

Probable cause	Checking and measures
Saddle stitch stapler motor (M14) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the saddle stitch staple unit.
Saddle stitch staple unit clinching home position sensor (S32) abnormality	Measure the voltage on pin CN17.5 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when the sensor is ON and within the range of 5V±5% when OFF. If the voltage does not fall within the range mentioned, replace the saddle stitch staple unit.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the saddle stitch staple unit.

Probable cause	Checking and measures
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the saddle stitch staple unit and the connectors, exchange the finisher control PC board (FIN).
Saddle stitch staple empty sensor (S33) abnormality	Measure the voltage on pin CN17.7 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when the sensor is ON and within the range of 5V±5% when OFF. If the voltage does not fall within the range mentioned, replace the saddle stitch staple unit.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the saddle stitch staple unit.
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the saddle stitch staple unit and the connector, exchange the finisher control PC board (FIN).

[CC51] Punch unit sliding motor (M12) abnormality
*   You receive a [CC51] error when the [ED11] error occurs three times in succession or occurs during the initialization.
MJ-1036

Error	Timing of detection
Punch unit sliding motor (M12) Punch sliding unit home position sensor (S23)	The punch sliding unit is not slid after sliding request is sent.
	The punch sliding unit home position sensor (S23) does not detect that the unit is at its home position after the specified time when the unit is returned to the home position, or this sensor does not detect that the unit is out of its home position after the specified time when the unit is released.
	The punch sliding unit home position sensor (S23) does not detect that the unit is at its home position after the specified time when the unit is moved, or this sensor does not detect that the unit is at its home position when the unit is released.

Probable cause	Checking and measures
Punch unit sliding motor (M12) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Punch sliding unit home position sensor (S23) abnormality	Measure the voltage on TP26 on the hole punch control PC board (HP). Then check that the measured voltage is 1V or lower when not shielded and within the range of 5V ± 5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Hole punch control PC board (HP): CN3, CN5, CN6)
Hole punch control PC board (HP) abnormality	If the error still occurs after replacing the motor, sensor and connectors, exchange the hole punch control PC board (HP).

[CC51] Punch unit sliding motor (M16) abnormality

* You receive a [CC51] error when the [ED11] error occurs three times in succession or occurs during the initialization.

MJ-1037

Error	Timing of detection
Punch unit sliding motor Punch sliding unit home position sensor	The turning OFF of the punch sliding unit home position sensor (S37) is not detected when the punch unit sliding motor (M16) is driven for the specified distance while this sensor is ON.
	The turning ON of the punch sliding unit home position sensor (S37) is not detected when the punch unit sliding motor (M16) is driven for the specified distance in the same direction as the ON direction of this sensor while returning to its home position

Probable cause	Checking and measures
Punch unit sliding motor (M16) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Punch sliding unit home position sensor (S38) abnormality	Measure the voltage on pin CN5.3 on the hole punch control PC board (HP). Then check that the measured voltage is 1V or lower when not shielded and within the range of 5V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Hole punch control PC board (HP): CN5, CN7)
Hole punch control PC board (HP) abnormality	If the error still occurs after replacing the motor, sensor and connectors, exchange the hole punch control PC board (HP).

[CC53] Punch waste full sensors (S41 and S42) abnormality

MJ-1037

Error	Timing of detection
Punch waste full sensor	After the sensor output adjustment, the input value is lower than 1.2V against the output value of 2.8V, or the input value is higher than 1.5V against the output value of 0.1V.

Probable cause	Checking and measures
Punch waste full sensors (S41 and S42) abnormality	Measure the voltage on TP49 on the hole punch control PC board (HP). Then check that the measured voltage is 1V or lower when not shielded and 2.5V or higher when shielded. If the voltage does not fall within the range mentioned, replace a couple of PC boards on either the light-receiving side or the light-emitting side.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Hole punch control PC board (HP): CN5)
Hole punch control PC board (HP) abnormality	If the error still occurs after replacing the sensors and the connectors, exchange the hole punch control PC board (HP).

[CC54] Abnormality of paper detection sensors (S24 and S25)
MJ-1036

Error	Timing of detection
Paper detection sensor (S24/S25) adjustment erro	The adjustment of the paper detection sensors (S24 and S25) has been failed.。

Probable cause	Checking and measures
Paper detection sensors (S24 and S25) abnormality	Measure the voltage on pin CN6.8 on the hole punch control PC board (HP). Then check that the measured voltage is 3.0V or higher when not shielded and 1.2V or lower when shielded. If the voltage does not fall within the range mentioned, replace a couple of PC boards on either the light-receiving side or the light-emitting side.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Hole punch control PC board (HP): CN4, CN6)
Hole punch control PC board (HP) abnormality	If the error still occurs after replacing the sensors and the connectors, exchange the hole punch control PC board (HP).

[CC54] Abnormality of trailing edge detection sensors (S39 and S40) and horizontal registration detection sensors (S39 and S40)
MJ-1037

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Error	Timing of detection
Trailing edge detection sensor Horizontal registration detection sensor	After the sensor output adjustment, the input value is lower than 3.2V against the output value of 2.8V, or the input value is higher than 3.5V against the output value of 0.1V.

Probable cause	Checking and measures
Trailing edge detection sensors (S39 and S40) abnormality	Measure the voltage on TP48 on the hole punch control PC board (HP). Then check that the measured voltage is 2.5V or higher when not shielded and 1V or lower when shielded. If the voltage does not fall within the range mentioned, replace a couple of PC boards on either the light-receiving side or the light-emitting side.
Horizontal registration detection sensors (S39 and S40) abnormality (B5-R/ST-R)	Measure the voltage on TP47 on the hole punch control PC board (HP). Then check that the measured voltage is 2.5V or higher when not shielded and 1V or lower when shielded. If the voltage does not fall within the range mentioned, replace a couple of PC boards on either the light-receiving side or the light-emitting side.
Horizontal registration detection sensors (S39 and S40) abnormality (A4-R/LT-R)	Measure the voltage on TP46 on the hole punch control PC board (HP). Then check that the measured voltage is 2.5V or higher when not shielded and 1V or lower when shielded. If the voltage does not fall within the range mentioned, replace a couple of PC boards on either the light-receiving side or the light-emitting side.
Horizontal registration detection sensors (S39 and S40) abnormality (B4/LG)	Measure the voltage on TP45 on the hole punch control PC board (HP). Then check that the measured voltage is 2.5V or higher when not shielded and 1V or lower when shielded. If the voltage does not fall within the range mentioned, replace a couple of PC boards on either the light-receiving side or the light-emitting side.

Probable cause	Checking and measures
Horizontal registration detection sensors (S39 and S40) abnormality (A3/LD)	Measure the voltage on TP44 on the hole punch control PC board (HP). Then check that the measured voltage is 2.5V or higher when not shielded and 1V or lower when shielded. If the voltage does not fall within the range mentioned, replace a couple of PC boards on either the light-receiving side or the light-emitting side.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Hole punch control PC board (HP): CN4)
Hole punch control PC board (HP) abnormality	If the error still occurs after replacing the sensors and the connectors, exchange the hole punch control PC board (HP).

[CC60, CC61] Punch motor abnormality
MJ-1036

Error	Timing of detection
Punch motor (M11) Paper detection sensor (S24/S25) Punch shaft home position sensor (S26) Rear punch shaft home position sensor (S22)	The paper detection sensors (S24 and S25) do not emit light after specified time when they are selected
	The level of the light-receiving amount is not lowered after the light-emitting amount of the paper detection sensors (S24 and S25) is adjusted to the lower limit.
	Punching is not performed after punching request is sent, or the punching request is sent during the punching.
	The status of the punch shaft home position sensor (S26) or the rear punch shaft home position sensor (S22) is not changed after punching request is sent.
	A punching locking signal is detected consistently over the specified time.
	The punch shaft home position sensor (S26) or the rear punch shaft home position sensor (S22) does not detect that the shaft is not at its home position at the start of punching or punch waste full detection.

Probable cause	Checking and measures
Punch motor (M11) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Rear punch shaft home position sensor (S22) abnormality	Measure the voltage on TP25 on the hole punch control PC board (HP). Then check that the measured voltage is 1V or lower when not shielded and within the range of 5V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Punch shaft home position sensor (S26) abnormality	Measure the voltage on TP24 on the hole punch control PC board (HP). Then check that the measured voltage is 1V or lower when not shielded and within the range of 5V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Punch motor clock sensor (S20) abnormality	Measure the voltage on TP27 on the hole punch control PC board (HP). Then check that the measured voltage is 1V or lower when not shielded and within the range of 5V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.

Probable cause	Checking and measures
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Hole punch control PC board (HP): CN2, CN5, CN6)
Hole punch control PC board (HP) abnormality	If the error still occurs after replacing the motor, sensors and connectors, exchange the hole punch control PC board (HP).

[CC60] Punch motor (M15) abnormality
MJ-1037

Error	Timing of detection
Punch motor Punch shaft home position sensor Punch motor clock sensor	The status of the punch motor clock sensor (S36) is not changed for the specified time when the punch motor (M15) is driven.
	The number of input pulses of the punch motor clock sensor (S36) does not fall within the range from 70 to 100 in the OFF period of the punch shaft home position sensor (S35), or is larger than 30 in the ON period of the punch shaft home position sensor (S35).

Probable cause	Checking and measures
Punch motor (M15) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Punch shaft home position sensor (S36) abnormality	Measure the voltage on pin CN3.3 on the hole punch control PC board (HP). Then check that the measured voltage is 1V or lower when not shielded and within the range of 5V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Punch shaft rotational direction sensor (S35) abnormality	Measure the voltage on pin CN3.9 on the hole punch control PC board (HP). Then check that the measured voltage is 1V or lower when not shielded and within the range of 5V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Punch motor clock sensor (S37) abnormality	Measure the voltage on pin CN3.6 on the hole punch control PC board (HP). Then check that the measured voltage is 1V or lower when not shielded and within the range of 5V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connector. (Hole punch control PC board (HP): CN3, CN6)
Hole punch control PC board (HP) abnormality	If the error still occurs after replacing the motor, sensors and connectors, exchange the hole punch control PC board (HP).

[CC71] Punch firmware checksum error
MJ-1037

Error	Timing of detection
Flash ROM	A checksum error occurs on the flash ROM of the Hole Punch Unit. The main program of the Hole Punch Unit is damaged.

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[CC80] Front alignment motor (M2) abnormality
MJ-1036

Error	Timing of detection
Front alignment motor (M2) Front alignment plate home position sensor (S5)	The turning OFF of the front alignment plate home position sensor (S5) is not detected when the front alignment plate is moved from a point where this sensor is turned ON to one point where this sensor is turned OFF after the front alignment motor (M2) has been driven at the specified number of pulse.
	The turning ON of the front alignment plate home position sensor (S5) is not detected when the front alignment plate is moved from a point where this sensor is turned OFF to one point where this sensor is turned ON after the front alignment motor (M2) has been driven at the specified number of pulse.

Probable cause	Checking and measures
Front alignment motor (M2) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Front alignment plate home position sensor (S5) abnormality	Measure the voltage on TP15 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V $\pm$ 5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN5, CN12)
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor, sensor and connectors, exchange the finisher control PC board (FIN).

[CC80] Front alignment motor (M6) abnormality
MJ-1037

Error	Timing of detection
Front alignment motor Front aligning plate home position sensor	The turning OFF of the front alignment plate home position sensor (S9) is not detected in the specified time when the front alignment plate is moved from a point where this sensor is turned ON to one point where this sensor is turned OFF.
	The turning ON of the front alignment plate home position sensor (S9) is not detected in the specified time when the front alignment plate is moved from a point where this sensor is turned OFF to one point where this sensor is turned ON

Probable cause	Checking and measures
Front alignment motor (M6) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Front alignment plate home position sensor (S9) abnormality	Measure the voltage on pin CN8.3 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V$\pm$5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Faulty cables and connectors	Check if the electrical continuity between the connector terminals is normal. If electricity is not conducted, replace the connectors. (Finisher control PC board (FIN): CN2, CN8)

Probable cause	Checking and measures
Finisher control PC board (FIN) abnormality	If the error still occurs after replacing the motor, sensor and connectors, exchange the finisher control PC board (FIN).

[CC91] Gripper arm home position detection error
[CC92] Movable tray upper limit detection error
MJ-1037

Error	Timing of detection
Movable tray shift motor Movable tray upper limit sensor	The turning ON of the movable tray upper limit sensor (S16) is detected.

Probable cause	Checking and measures
Movable tray shift motor (M5) abnormality	Check if the electrical continuity of the coil is normal. If electricity is not conducted, replace the motor.
Movable tray shift motor clock sensor (S15) abnormality	Measure the voltage on pin CN7.3 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Movable tray upper limit sensor (S16) abnormality	Measure the voltage on TP35 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Movable tray lower limit sensor (S17) abnormality	Measure the voltage on TP28 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.
Movable tray middle sensor (S18) abnormality	Measure the voltage on TP29 on the finisher control PC board (FIN). Then check that the measured voltage is 1V or lower when not shielded and within the range of 3.3V±5% when shielded. If the voltage does not fall within the range mentioned, replace the sensor.

[CC93] Knurled roller shift solenoid abnormality
MJ-1036

Error	Timing of detection
Knurled roller shift solenoid (SOL3) 2nd transport motor (M4) Knurled roller home position sensor (S10)	The knurled roller home position sensor (S10) does not detect that the knurled roller is at the upper position after the 2nd transport motor (M4) has been driven at the specified number of pulses during the initial rising movement of the knurled roller.
	The knurled roller home position sensor (S10) does not detect that the knurled roller is not at the upper position after the 2nd transport motor (M4) has been driven at the specified number of pulses during the initial lowering movement of the knurled roller.
	The knurled roller home position sensor (S10) does not detect that the knurled roller is at the upper position when the pressurization of stack exit movement is finished.

[CC94] Fan motor abnormality

MJ-1036
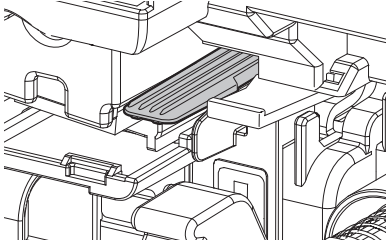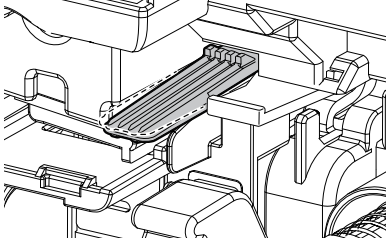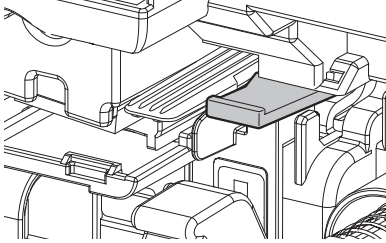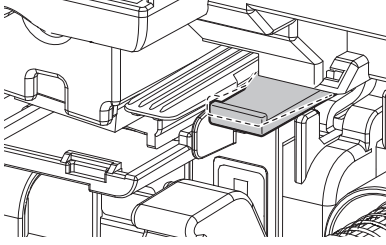
Error	Timing of detection
Fan motor (M9)	The turning ON of the fan locking signal is detected consistently after the specified time*. * A locking signal is not monitored from the start driving the motor until the specified time has passed.

8.3.23 Image control related service call

(1) Based on the procedure of [CE10], [] and [CE40] described below, check the status and take appropriate actions. And then perform the forced performing of image quality closed-loop control according to the following procedure.
1. While pressing [0] and [5] simultaneously, turn ON the power.
2. Key in [2742], and then press the [START] button. Confirm that the image quality control has finished normally.

(2) After confirming the items in (1), clear the abnormal detection counter of image quality control.
1. While pressing [0] and [8] simultaneously, turn ON the power.
2. Key in [2528], and then press the [START] button.
3. Rewrite the displayed status counter from "1" - "16" to "0", and then press the [OK] or [INTERRUPT] button.
4. Key in [2529], and then press the [START] button.
5. Rewrite the displayed status counter from "1" - "16" to "0", and then press the [OK] or [INTERRUPT] button.
6. Key in [2530], and then press the [START] button.
7. Rewrite the displayed status counter from "1" - "16" to "0", and then press the [OK] or [INTERRUPT] button.
8. Key in [2531], and then press the [START] button.
9. Rewrite the displayed status counter from "1" - "16" to "0", and then press the [OK] or [INTERRUPT] button.
10. Turn the power OFF and then back ON. Make sure that the equipment enters the normal ready state.

8

[CA00] Color registration abnormality

Classification	Contents
Image control related service call	Color registration abnormality

Step	Check Item	Result	Measure	Next Step
1	Has the developer unit been installed securely? - Installed securely - Not installed securely Has the cleaner unit been installed securely? - Installed securely - Not installed securely 	No	Press the slanted line portion of the developer unit until a click sound is heard. 	

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Step	Check Item	Result	Measure	Next Step
2	Remove the transfer belt unit. 📖 P. 4-89 "4.7.3 Transfer belt unit (TBU)"			
3	Is an image created on the transfer belt?	Yes		7
		No		4
4	Check if there is any abnormality on the hand grips and rods of the main charger cleaner. Correct if there is.			
5	Check if the drum is rotated properly by turning the coupling of the developer unit. Correct the auger and the surrounding hardware if not.			
6	LED printer head		• Check the connectors and harnesses between the LGC board (CN325, CN326, CN327, CN328, CN329, CN330, CN331, CN332, CN592, CN593, CN594, CN595, CN596, CN597, CN598, and CN599) and the LED printer head. • Check if there is any stain or scratch on the LED printer head. Clean or correct if there is.	
7	Check if there is any stain on the image quality sensor (Front) and image quality sensor (Rear).			
8	Check if the sensor shutter is working properly.			
9	< Invalidating color registration control >		• Turn the power ON while [0] and [8] are pressed simultaneously. • Key in "4546", then press the [START] button. (08-4546: Position adjustment control / Mode setting) • Set the value to "0" (not performed automatically). • Turn the power OFF.	
10	< Checking the abnormal status on color registration >		• Turn the power ON while [0] and [5] are pressed simultaneously. • Key in "4720", then press the [START] button. (05-4720: Displaying the cause of color registration detection error)	

8

Step	Check Item	Result	Measure	Next Step
11	Check the displayed value. When the error [CA00] occurs, the value between 1 and 255 is displayed. (0: Normal completion) (The statuses of total 8 sections (4 colors on the front and rear sides) are displayed.)		1: Y on the rear side detection abnormality (*1)	17
			2: Y on the front side detection abnormality (*1)	17
			3: Y on the front and rear sides detection abnormality	17
			4: M on the rear side detection abnormality (*1)	17
			8: M on the front side detection abnormality (*1)	17
			12: M on the front and rear sides detection abnormality	17
			16: C on the rear side detection abnormality (*1)	17
			32: C on the front side detection abnormality (*1)	17
			48: C on the front and rear sides detection abnormality	17
			64: K on the rear side detection abnormality (*1)	17
			85: All colors on the rear side detection abnormality	12
			128: K on the front side detection abnormality (*1)	17
			170: All colors on the front side detection abnormality	12
			192: K on the front and rear sides detection abnormality	17
			255: All colors on the front and rear sides detection abnormality	12
			Other than the above: Multiple colors detection abnormality **Remarks:** The adjustment value is the sum of (*1), which, as in the example below, specifies the cause of the detection abnormality. (E.g. 1) 05-4720 --- in case of 72 72 = 64 + 8 → K on the rear side / M on the front side detection abnormality (E.g. 2) 05-4720 --- in case of 146 146 = 128 + 18 = 128 + 16 + 2 → K on the front side / C on the rear side / Y on the front side detection abnormality	17

Step	Check Item	Result	Measure	Next Step
12	< Checking the status of the image position aligning sensor >		Check if the light emitting area of the image position aligning sensor emits LEDs and if the reflected lights on the transfer belt surface are detected by the light receiving area of the image position aligning sensor. 1. Turn the power ON while [0] and [3] are pressed simultaneously. 2. Press the [START] button. 3. Press the [FAX] button, then check how items [A] and [B] are displayed while [1] is pressed. 4. Press the [CLEAR] button. 5. Key in "125", then press the [START] button. (03-125: Sensor shutter is opened) 6. Key in "126", then press the [START] button. (03-126: Image position aligning sensor / LED ON) 7. Press the [START] button. 8. Press the [FAX] button, then check how items [A] and [B] are displayed while [1] is pressed. 9. Compare them with the statues of [A] and [B] displayed in (3). - Both [A] and [B] are changed - The image position aligning sensors on both sides are operating normally. - [A] remains same - The image position aligning sensor on the rear side is not operating normally. - [B] remains same - The image position aligning sensor on the front side is not operating normally. - Both [A] and [B] remain same - The image position aligning sensors on both sides are not operating normally. 10. Press the [CLEAR] button. 11. Key in "176", then press the [START] button. (03-176: Image position aligning sensor / LED OFF) 12. Key in "175", then press the [START] button. (03-175: Sensor shutter closed) 13. Turn the power OFF. 14. If the image position aligning sensors on both sides are operating normally, proceed to step (23). In other cases, proceed to step (22).	

Step	Check Item	Result	Measure	Next Step
13	Image position aligning sensor		• Check the connectors and harnesses between the image position aligning sensor and the LGC board (CN318). • Check if the light emitting or receiving area of the image position aligning sensor stained with toner.	
14	Are the sensor shutters of the image position aligning sensor opening or closing normally? Are they normal without any damage? 1. Take off the transfer belt unit so that the sensor unit can be seen. 2. Turn the power ON while [0] and [3] are pressed simultaneously. 3. The shutter should be opened when "125" is keyed in. It should be closed when "175" is keyed in.	Yes		15
		No		16
15	Is the light emitting area of the image position aligning sensor emitting LEDs? 1. Key in "125" to open the sensor shutter. 2. The light emitting area of the sensor should emit LEDs when "126" is keyed in.	Yes		17
		No		16
16	Image position aligning sensor		• Connector and harness check • Clean the light emitting and receiving areas of the image position aligning sensor. • If the sensor shutter is damaged, replace it. • If the sensor shutter solenoid is not operating normally, replace the solenoid.	12
17	< Checking with test pattern >		• Turn the power ON while [0] and [4] are pressed simultaneously. • Key in "286", then press the [START] button. • Press the [CLEAR] button after one sheet of test pattern has been exited. • Check if the printed image of the test pattern in each color contains difference in density on its front, center and rear sides, or if there is any image trouble in a whole image.	
18	Is the image of the test pattern printed normally without any difference in density on its front and rear sides?	Yes		21
		No		19
19	Transfer belt and the photoconductive drum		Check the contacting status of the transfer belt and the photoconductive drum.	20

Step	Check Item	Result	Measure	Next Step
20	Developer material		Check the amount of the developer material. (Check if the developer material is supplied on the developer sleeve.)	21
21	Is the image printed normally without yellow, magenta, cyan or black streaks in the secondary scanning direction?	Yes		23
		No		22
22	Check if the main charger wire corresponding to the color of the streaks is stained.			23
23	Is the image printed normally without white streaks in the secondary scanning direction?	Yes		25
		No		24
24	Check if the LED printer head is stained.			25
25	Is a certain color in the printed image turned to black solid?	Yes		27
		No		26
26			• Abnormality in the main high-voltage transformer corresponding to the color or abnormality in the LED printer head. • Switch one of 4 main high-voltage transformers which possibly contains abnormality with the one possibly normal. Then print the same test pattern. • If the color which turned into black solid changes along with the replacement of the main high-voltage transformer, this main high-voltage transformer is defined as abnormal. • If the color which turned into black solid does not change, check if the harness between the LGC board and the main high-voltage transformer is broken or if the power is sufficiently supplied to the main charger (breaking of the high-voltage harness or connection defect). If no problem is found, check the LED printer head.	27
27	If the density level is low on both front and rear sides, is the image printed normally in cases other than noted above?	Yes		29
		No		28

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Step	Check Item	Result	Measure	Next Step
28			• Check if the photoconductive drum and the transfer belt are rotating. If not, correct their mechanism. • Check if there are abnormal stain, large breaking or scratches on the transfer belt surface. • Check if the connector of the transfer transformer is disconnected. • Check if the high-voltage harnesses of the main high-voltage transformer and the transfer transformer are disconnected. • Check if the harness between the LGC board and the transfer transformer is broken. • Check if the high-voltage joints of the transfer belt unit are securely contacted or if they are not stained. • Check if the high-voltage harness is broken. • Check if the connector of the main high-voltage transformer is disconnected. • Check if the harness between the LGC board and the main high-voltage transformer is broken. • Replace the transfer transformer. • Replace the main high-voltage transformer.	17
29	< Checking with the enforced image position adjustment > Does the error [CA00] occur during the position adjustment control? 1. Turn the power ON while [0] and [5] are pressed simultaneously. 2. Key in "4719", then press the [START] button. (05-4719: Enforced position adjustment)	Yes		30
		No		10
30	< Validating the color registration control >		Check the operation and correct if necessary. Then be sure to perform the following: 1. Turn the power ON while [0] and [8] are pressed simultaneously. 2. Key in "4546", then press the [START] button. (08-4546: Position adjustment control / Mode setting) 3. Set the value to "4" (default value). 4. Turn the power OFF.	
31	<Checking the image position aligning sensor>		Clean the image position aligning sensor (S7, S8).	
32	<Checking the power supply>		Check if any of the springs for supplying power to the transfer belt unit is deformed. Replace the spring if it is deformed.	

[CE10] Image quality sensor abnormality (OFF level)

Classification	Contents
Image control related service call	Image quality sensor abnormality (OFF level): The output value of this sensor is out of a specified range when sensor light source is OFF.

Check Item	Measure
Image quality sensor	Connector check
LGC board	• Connector check (CN318) • Check the harnesses between the LGC board and the image quality sensor. • Check the harnesses between the LGC board and the switching power supply. • Check if the +12V voltage is normally output by the CN345-7pin on the LGC board.

Replacement part	Remark
Switching power supply	
Image quality sensor	
LGC board	
High-voltage transformer	

[CE20] Image quality sensor abnormality

Classification	Contents
Image control related service call	Image quality sensor abnormality (no pattern level): The output value of this sensor is out of a specified range when the image quality control test pattern is not formed.

Step	Check Item	Result	Measure	Next Step
1	• Check the image quality sensor detection value (05-2757). • Is the value of 05-2757-0 "0", and is the value of 05-2757-1 "255"?	Yes		9
		No		2
2	• Is the transfer belt or the transfer belt unit securely installed? • Are there any abnormal stains (cleaning defects), large scratches or breaking on the transfer belt surface? • Are the drum and the transfer belt rotating smoothly? • Is the transfer belt tight?	Yes		6
		No		3
3	Transfer belt unit		Check if the transfer belt unit is securely installed. Correct it if not.	4

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Step	Check Item	Result	Measure	Next Step
4	Transfer belt		Check if any toner image remains on the transfer belt surface. If any, check the installation status of the TBU cleaner unit. If there is any abnormality, correct it, and clean the transfer belt.	5
5	Drum and transfer belt		Check if the drum and the transfer belt are properly operated. (ON: 03-101 / OFF: 03-151) If the transfer belt rotates normally, check if any abnormal stains (cleaning defects), large scratches or breaking are on the surface of transfer belt by making full rotation of transfer belt. Replace the transfer belt if any. Check if the transfer belt is loose or heaving, and correct it if needed. If they are not rotating normally, check if their drive gears are damaged or if they contact the equipment. Correct it if needed.	19*
6	• Is the sensor shutter of the image quality sensor opening or closing normally? Or is it normal without any damage? • Is the sensor surface of the image quality sensor clean?	Yes		9
		No		7
7	Sensor unit		Take off the transfer belt unit so that you can see the sensor unit.	
8	Sensor shutter		• Check if the sensor shutter is opening or closing normally. (Opening: 03-125 / Closing: 03-175) If the sensor shutter is not opening or closing, check if it is damaged or there is any abnormality in the sensor shutter solenoid. * If the shutter is opened (03-125), close the shutter (03-175). • Check the connector and the harness between the sensor shutter solenoid and the LGC board. (LGC CN337-8pin, 9pin) • Slide the sensor shutter so that the sensor surface can be seen. Clean the sensor surface with a cotton swab or a soft cloth. Clean the area around the sensor (e.g.: sensor shutter) if it is stained, so that the sensor surface does not become dirty.	19*
9	Image quality sensor		Check the connectors and harnesses between the LGC board (CN318) and the image quality sensor.	*

Step	Check Item	Result	Measure	Next Step
10	• Is +12V power supply voltage normally supplied to the image quality sensor? • Is +12V voltage normally output by the CN345-7pin on the LGC board?	Yes		13
		No		11
11	Switching power supply		Check if +12V voltage is output by the switching power supply (PS-ACC CN404-7pin).	
12	LGC board		• Check if +12V voltage is output by the C33 + terminal on the LGC board. • Check if the supply harness between the switching power supply and the LGC board is open circuited, damaged or disconnected.	19*
13	Set the values of "Image quality closed-loop control / Contrast voltage (08-2486)" to "0" (Invalid).			
14	Perform "Enforced performing of image quality open-loop control (05-2740)".			
15	Output the image quality control test pattern (04-270) more than one time and the list print ([9][START]). Is the image normal?	Yes		17
		No		16
16	Abnormal image Correct the abnormal image.		Blank print, Solid print, White banding, Color banding, White spots, Poor transfer, Uneven image density, Faded image (low density), Uneven light distribution, Blotched image. * Blank print: including when one of the YMCK colors is not printed.	18
17	Replace the image quality sensor or the LGC board.			
18	Set the values of "Image quality closed-loop control / Contrast voltage (08-2486)" to "1" (Valid).			
19	Perform "Forced performing of image quality closed-loop control (05-2742)" and make sure it is completed normally. (Error [CE10], [CE20] and [] do not appear.)	Yes		21
		No		20
20	Check and correct it accordingly.			
21	Perform "Automatic gamma adjustment".			
22	Reset all of the values in the codes "Abnormality detection count (Y/M/C/K) Display/0 clearing (08-2528 to 08-2531)".			
23	High-voltage transformer		Check if the high-voltage transformer is damaged or abnormal.	

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* Go to step 13 for the second time.

[CE40] Image quality control test pattern abnormality

Classification	Contents
Image control related service call	Image quality control test pattern abnormality: The test pattern is not formed normally.

Step	Check Item	Result	Measure	Next Step
1	Check if there is any abnormality on the hand grips and rods of the main charger cleaner. Correct if there is.			
2	Check if the drum is rotated properly by turning the coupling of the cleaner unit. Correct the auger and the surrounding hardware if not.			
3	LED printer head		• Check the connectors and harnesses between the LGC board (CN325, CN326, CN327, CN328, CN329, CN330, CN331, CN332, CN592, CN593, CN594, CN595, CN596, CN597, CN598 and CN599) and theLED printer head. • Check if there is any stain or scratch on the LED printer head. Clean or correct if there is.	
4	Check if there is any stain on the image quality sensor (Rear).			
5	Check if the sensor shutter is working properly.			
6	Transfer belt		Check if the transfer belt is installed in the transfer belt unit properly. Check if the transfer belt is loose or heaving, and correct it if needed. Check if the transfer belt unit is installed in the equipment properly. Check if the transfer belt is properly operated. (ON: 03-101 / OFF: 03-151) If the transfer belt rotates normally, check if any abnormal stains (cleaning defects), large scratches or breaking are on the surface of transfer belt by making full rotation of transfer belt. Replace the transfer belt if any. If the transfer belt is not rotating normally, check if the drive gears are damaged or if it contacts the equipment or if the transfer belt cleaning unit is normal. Correct it if needed.	17*
7	Check if any of the springs for supplying power to the transfer belt unit is deformed. Replace the spring if it is deformed.			

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Step	Check Item	Result	Measure	Next Step
8	Use "Image quality control abnormal detection counter Y to K display/0 clearing (08-2528 to 2531)" to check the abnormal occurring condition for each color.			
9	Check the first pattern detection value for each color of image quality sensor detection value (05-2758-2 to 5), and identify the color of unit which causing test pattern abnormality. Identify the color of unit by check the value which exceeds "600". (Sub-code 2: Y, 3: M, 4: C, 5: K)			
10	Check if the developer unit identified in step 9 has been installed properly.		Visually check the installation status of the developer unit, and correct it if there is any abnormality.	17*
11	Set the values of "Image quality closed-loop control / Contrast voltage (08-2486)" to "0" (Invalid).			
12	Perform "Enforced performing of image quality open-loop control (05-2740)".			
13	Output several number of sheets of the image quality control test pattern (04-270) and the list print ([9][START]->101), and check the pattern of the color identified in step 9. Is the image normal?	Yes		15
		No		14
14	Abnormal image Correct the abnormal image.		Blank print, Solid print, White banding, Color banding, White spots, Poor transfer, Uneven image density, Faded image (low density), Uneven light distribution, Blotched image. * Blank print: including when one of the YMCK colors is not printed.	16
15	Replace the image quality sensor or LGC board.			
16	Set the values of "Image quality closed-loop control / Contrast voltage (08-2486)" to "1" (Valid).			
17	Perform "Forced performing of image quality closed-loop control (05-2742)." Is it completed normally?	Yes		19
		No		18
18	Check and correct it accordingly.			
19	Perform "Automatic gamma adjustment".			
20	Clear all "Image quality control abnormal detection counter Y to K display/0 clearing (08-2528 to 2531)".			

*   If you have already performed this checking cycle once, proceed to step (11).

[CE41] Image quality TRC control test pattern abnormality

Classification	Error item
Image control related service call	The image quality TRC control test pattern is not printed normally.

Step	Check item	Result	Measures	Next step
1	Change the setting of the image quality TRC control to "Disabled". Set the values of 08-2600 and 08-8103 to "0".			2
2	Output several number of sheets of the image quality control test pattern (04-270) and the list print ([9][START]->101), and check the pattern of each color. Is the image normal?	YES		3
		NO	• Check if process units and developer units are properly installed. • Check if there is any scattered toner or developer material around the LED printer head, clean it if there is any. • Correct the problem by referring to "Troubleshooting for the Image". 📖 P. 8-249 "8.5 Troubleshooting for the Image"	
3	Change the setting of the image quality TRC control to "Enabled". Set the values of 08-2600 and 08-8103 to "1".			4
4	Perform the automatic gamma adjustment. If the adjustment is normally finished, this is the end of the procedure. If the error CE41 still occurs, proceed to step 5.			
5	4.Check if the harness between the connector CN128 on the SYS board and the connector CN336 on the LGC board is disconnected or open circuited. Correct if so.			6
6	6.Check if the conductor patterns on the SYS board and the LGC board are short circuited or open circuited.			7
7	7.If no abnormality is found in steps 5 to 6 above, replace the IMG board.			8

Step	Check item	Result	Measures	Next step
8	8.Perform automatic gamma adjustment. If the adjustment is normally finished, this is the end of the procedure. If the error CE41 still occurs, proceed to step 9.			
9	Reinstall the removed SYS board and then replace the LGC board. Perform automatic gamma adjustment after the board is replaced.			

Replace parts	Remarks
LGC board	
SYS board	
High-voltage transformer	

[CE50] Temperature/humidity sensor abnormality

Classification	Contents
Image control related service call	Temperature/humidity sensor abnormality: The output value of this sensor is out of a specified range.

Check Item	Measure
Temperature/humidity sensor	Check the connectors and harnesses between the temperature/humidity sensor and LGC board (CN319).

Replacement part	Remark
Temperature/humidity sensor	
LGC board	

[CE70] Drum drive switching abnormality

Classification	Contents
Image control related service call	Drum drive switching abnormality: The drum switching detection sensor (S11) is not turned ON after the drum motor was rotated for a specified period of time.

Step	Check Item	Result	Measure	Next Step
1	Is the drum switching motor (M3) operating properly? (Perform the output check: 03-240)	Yes		7
		No		2
2	Drum switching motor (M3)		Check the connector of the motor and joint connectors	
3	Drum switching detection sensor (S11)		Sensor check	

Step	Check Item	Result	Measure	Next Step
4	LGC board		• Connector check (CN305) • Board check	
5	Is the drum TBU drive unit [1] installed properly? P. 8-166 "Fig.8-1"		Install the drum TBU drive unit [1] properly. P. 8-166 "Fig.8-1"	
6	Check that there is no friction or abnormality by pushing the protrusion [2] of the drive switching cam and the one [3] for the developer/paper feeding drive switching cam while the drum TBU drive unit [1] is removed. P. 8-166 "Fig.8-1"		• If there is any foreign matter in the unit, remove it. • If the slide area spring [4] in the unit is deformed or is not attached properly, correct it. • Apply grease (Molykote EM-30L) to the slide area of the switching cam [5]. P. 8-166 "Fig.8-2" P. 8-166 "Fig.8-3"	
7	Is the drum switching detection sensor (S11) working? (Perform the input check: 03-[ALL]OFF/[8]/[F] (Highlighted in the black mode))	Yes		10
		No		8
8	Drum switching detection sensor (S11)		• Sensor, connector, joint connector check • Check if there is any foreign matter such as grease in the detection area of the drum switching detection sensor.	
9	LGC board		• Connector check (CN305) • Board check	
10	Is the drum switching motor assembled in the drum drive unit able to be rotated smoothly by hand?	Yes		12
		No		11
11	Drum switching motor (M3)		• While reinstalling the drum switching motor, push it so that its gear will slightly move away from the engaging gear. • Check the bracket in which the drum switching motor is installed. If it is deformed, replace it.	
12	Is the drum switching guide able to be moved smoothly by hand after the drum switching motor has been removed?	Yes		14
		No		13
13	Drum switching motor (M3)		Check if the slide area (guide, plate) of the drum switching guide is deformed or any foreign matter is attached to it. (Replace it if there is.)	
14	LGC board		Board check	

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Fig.8-1

Fig.8-2

Fig.8-3

Replacement part	Remark
Drum switching motor (M3)	
Drum switching detection sensor (S11)	
LGC board	

[CE90] Drum thermistor abnormal

Classification	Contents
Image control related service call	Drum thermistor abnormality: The output value of the drum thermistor is out of a specified range.

Check Item	Measure
Drum thermistor	Connector and harness check of drum thermistor
LGC board	• Check the harnesses between the LGC board and the drawer connector for developer unit. • Connector check (CN317)

Replacement part	Remark
Drum thermistor	
LGC board	

8.3.24 Copy process related service call

[C370] Transfer belt unit abnormality

Classification	Contents
Copy process related service call	Transfer belt abnormality

Check Item	Measure
Transfer belt unit	Check if the transport belt unit is working normally.
Drum TBU drive unit	Connector check (J696, J697)
Drum TBU motor	Connector check
Drum cleaner unit	Check if the drum is overloaded.
Transfer belt cleaning unit	Check that there is no abnormality in the cleaning blade. Check if the waste toner auger is overloaded.
LGC board	Connector check (CN333)
Transfer belt	Check if it's normal
1st transfer roller status detection sensor (S12)	Sensor check
1st transfer contact/release clutch (CLT3)	Clutch check

Replacement part	Remark
Drum TBU motor	
LGC board	
1st transfer roller status detection sensor (S12)	
1st transfer contact/release clutch (CLT3)	

8

[C380] Auto-toner sensor-K abnormality (upper limit)

Classification	Contents
Copy process related service call	Auto-toner sensor-K abnormality (upper limit)

Step	Check Item	Result	Measure	Next Step
1	Developer unit		• Check if the developer unit is installed properly. • Check that the developer unit and coupling on the equipment side are properly engaged. • Check that the mixer of the developer unit is rotated. • Check if the developer material is too light visually. • Check if the amount of the developer material is too large or too small. • Remove any toner or dust on the ATC sensor connector and the drawer connector of the process cover. • Remove any toner or dust on the EPU sensor connector and the drawer connector on the equipment side.	
2	Auto toner sensor - Equipment Harness - LGC board		• Check the connectors and harnesses between the auto toner sensor and LGC board (CN311). • Remove any foreign matter such as toner in the connector of the auto toner sensor.	

Replacement part	Remark
Auto toner sensor	
Harness	
LGC board	
Developer material	
High-voltage transformer	

[C381] Auto-toner sensor-K abnormality (lower limit)

Classification	Contents
Copy process related service call	Auto-toner sensor-K abnormality (lower limit)

Step	Check Item	Result	Measure	Next Step
1	Developer unit		• Check if the developer unit is installed properly. • Check that the developer unit and coupling on the equipment side are properly engaged. • Check that the mixer of the developer unit is rotated. • Check if the amount of the developer material is too large or too small. • Remove any toner or dust on the ATC sensor connector and the drawer connector of the process cover. • Remove any toner or dust on the EPU sensor connector and the drawer connector on the equipment side.	
2	Auto toner sensor Harness LGC board		• Check the connectors and harnesses between the auto toner sensor and LGC board (CN311). • Check if there is any foreign matter such as toner in the connector of the auto toner sensor. Remove if there is and reconnect it.	

Replacement part	Remark
Auto toner sensor	
Harness	
LGC board	
Developer material	

8

[C390] Auto-toner sensor-C abnormality (upper limit)

Classification	Contents
Copy process related service call	Auto-toner sensor-C abnormality (upper limit)

Step	Check Item	Result	Measure	Next Step
1	Developer unit		• Check if the developer unit is installed properly. • Check that the developer unit and coupling on the equipment side are properly engaged. • Check that the mixer of the developer unit is rotated. • Check if the developer material is too light visually. • Check if the amount of the developer material is too large or too small. • Remove any toner or dust on the ATC sensor connector and the drawer connector of the process cover. • Remove any toner or dust on the EPU sensor connector and the drawer connector on the equipment side.	
2	Auto toner sensor Harness LGC board		• Check the connectors and harnesses between the auto toner sensor and LGC board (CN311). • Check if there is any foreign matter such as toner in the connector of the auto toner sensor. Remove if there is and reconnect it.	

Replacement part	Remark
Auto toner sensor	
Harness	
LGC board	
Developer material	
High-voltage transformer	

[C391] Auto-toner sensor-C abnormality (lower limit)

Classification	Contents
Copy process related service call	Auto-toner sensor-C abnormality (lower limit)

Step	Check Item	Result	Measure	Next Step
1	Developer unit		• Check if the developer unit is installed properly. • Check that the developer unit and coupling on the equipment side are properly engaged. • Check that the mixer of the developer unit is rotated. • Check if the amount of the developer material is too large or too small. • Remove any toner or dust on the ATC sensor connector and the drawer connector of the process cover. • Remove any toner or dust on the EPU sensor connector and the drawer connector on the equipment side.	
2	Auto toner sensor Harness LGC board		• Check the connectors and harnesses between the auto toner sensor and LGC board (CN311). • Check if there is any foreign matter such as toner in the connector of the auto toner sensor. Remove if there is and reconnect it.	

Replacement part	Remark
Auto toner sensor	
Harness	
LGC board	
Developer material	

[C3A0] Auto-toner sensor-M abnormality (upper limit)

Classification	Contents
Copy process related service call	Auto-toner sensor-M abnormality (upper limit)

Step	Check Item	Result	Measure	Next Step
1	Developer unit		• Check if the developer unit is installed properly. • Check that the developer unit and coupling on the equipment side are properly engaged. • Check that the mixer of the developer unit is rotated. • Check if the developer material is too light visually. • Check if the amount of the developer material is too large or too small. • Remove any toner or dust on the ATC sensor connector and the drawer connector of the process cover. • Remove any toner or dust on the EPU sensor connector and the drawer connector on the equipment side.	
2	Auto toner sensor Harness LGC board		• Check the connectors and harnesses between the auto toner sensor and LGC board (CN313). • Check if there is any foreign matter such as toner in the connector of the auto toner sensor. Remove if there is and reconnect it.	

Replacement part	Remark
Auto toner sensor	
Harness	
LGC board	
Developer material	
High-voltage transformer	

[C3A1] Auto-toner sensor-M abnormality (lower limit)

Classification	Contents
Copy process related service call	Auto-toner sensor-M abnormality (lower limit)

Step	Check Item	Result	Measure	Next Step
1	Developer unit		• Check if the developer unit is installed properly. • Check that the developer unit and coupling on the equipment side are properly engaged. • Check that the mixer of the developer unit is rotated. • Check if the amount of the developer material is too large or too small. • Remove any toner or dust on the ATC sensor connector and the drawer connector of the process cover. • Remove any toner or dust on the EPU sensor connector and the drawer connector on the equipment side.	
2	Auto toner sensor Harness LGC board		• Check the connectors and harnesses between the auto toner sensor and LGC board (CN313). • Check if there is any foreign matter such as toner in the connector of the auto toner sensor. Remove if there is and reconnect it.	

Replacement part	Remark
Auto toner sensor	
Harness	
LGC board	
Developer material	

[C3B0] Auto-toner sensor-Y abnormality (upper limit)

Classification	Contents
Copy process related service call	Auto-toner sensor-Y abnormality (upper limit)

Step	Check Item	Result	Measure	Next Step
1	Developer unit		• Check if the developer unit is installed properly. • Check that the developer unit and coupling on the equipment side are properly engaged. • Check that the mixer of the developer unit is rotated. • Check if the developer material is too light visually. • Check if the amount of the developer material is too large or too small. • Remove any toner or dust on the ATC sensor connector and the drawer connector of the process cover. • Remove any toner or dust on the EPU sensor connector and the drawer connector on the equipment side.	
2	Auto toner sensor Harness LGC board		• Check the connectors and harnesses between the auto toner sensor and LGC board (CN313). • Check if there is any foreign matter such as toner in the connector of the auto toner sensor. Remove if there is and reconnect it.	

Replacement part	Remark
Auto toner sensor	
Harness	
LGC board	
Developer material	
High-voltage transformer	

[C3B1] Auto-toner sensor-Y abnormality (lower limit)

Classification	Contents
Copy process related service call	Auto-toner sensor-Y abnormality (lower limit)

Step	Check Item	Result	Measure	Next Step
1	Developer unit		• Check if the developer unit is installed properly. • Check that the developer unit and coupling on the equipment side are properly engaged. • Check that the mixer of the developer unit is rotated. • Check if the amount of the developer material is too large or too small. • Remove any toner or dust on the ATC sensor connector and the drawer connector of the process cover. • Remove any toner or dust on the EPU sensor connector and the drawer connector on the equipment side.	
2	Auto toner sensor Harness LGC board		• Check the connectors and harnesses between the auto toner sensor and LGC board (CN313). • Check if there is any foreign matter such as toner in the connector of the auto toner sensor. Remove if there is and reconnect it.	

Replacement part	Remark
Auto toner sensor	
Harness	
LGC board	
Developer material	

[C3E0] Developer unit replacement (old-new) detection abnormality

Classification	Contents
Copy process related service call	Developer unit replacement (old-new) detection abnormality

Step	Check Item	Result	Measure	Next Step
1	Check if the old/new detection pusher of the developer unit is being ejected.	Yes		4
		No		2
2	Check if the harness of the old/new detection switch in the developer unit is open circuited.	Yes		3
		No	Replace the harness.	
3	Is the old/new detection switch of the developer unit normal?	Yes		4
		No	Replace the old/new detection switch.	
4	Check if the old/new detection pusher is moved to the escape position while the coupling of the developer unit is rotated by hand. (Is the driving in the old/new detection pusher section transmitted?)	Yes		3
		No	Correct the old/new detection pusher so that it is moved to the escape position. **Fig.8-4** Temporarily take off the developer unit, and then rotate the developer sleeve clockwise (in the direction of the black arrow) while pushing the old/new detection pusher (shown with the red arrow). Rotate it until the pusher is fully stored.	
5	Check that the coupling of the paper feed developer drive unit is driven properly.	Yes	Correct the engagement of the couplings in the paper feed developer drive unit and the developer unit.	9
		No		6
6	Check that the paper feeding/developer unit drive motor rotates properly. (Input check: 03-112)	Yes		9
		No		7
7	Check that the connector of the paper feeding/developer unit drive motor is connected properly.	Yes		9
		No		8
8	Check if the harness of the paper feeding/developer unit drive motor is open circuited.	Yes		9
		No	Replace the paper feeding/developer unit drive motor.	

Step	Check Item	Result	Measure	Next Step
9	Check that the coupling of the drum TBU drive unit is driven properly.	Yes	Correct the engagement of the couplings in the drum TBU drive unit and the developer unit.	
		No		10
10	Check that the connector of the LGC board (CN310) is connected properly.	Yes		11
		No	Reconnect the connector.	
11	Is the harness of the LGC board normal?	Yes		12
		No	Replace the harness.	
12	Is the LGC board normal?		Replace the LGC board.	

Replacement part	Remark
Developer unit old/new detection switches	
Paper feeding/developer unit drive motor	
LGC board	
Harness	

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[C3E1] Drum/cleaner/charger unit replacement (old-new) detection abnormality

Classification	Contents
Copy process related service call	Drum/cleaner/charger unit replacement (old-new) detection abnormality

Step	Check Item	Result	Measure	Next Step
1	Check if the old/new detection pusher of the drum cleaner unit is being ejected.	Yes		4
		No		2
2	Check if the harness of the drum old/new detection switch in the drum cleaner unit is open circuited.	Yes		3
		No	Replace the harness.	
3	Is the drum old/new detection switch of the drum cleaner unit normal?	Yes		4
		No	Replace the drum old/new detection switch.	
4	Check if the drum old/new detection pusher is moved to the escape position while the coupling of the drum cleaner unit is rotated by hand. (Is a driving in the old/new detection pusher section transmitted?)	Yes		3
		No	Correct the drum old/new detection pusher so that it is moved to the escape position.	
5	Check that the coupling of the drum TBU drive unit is driven properly.	Yes	Correct the engagement of the couplings in the drum TBU drive unit and the drum cleaner unit.	9
		No		6
6	Check that the drum TBU drive motor rotates properly. (Input check: 03-112)	Yes		9
		No		7
7	Check that the connector of the drum TBU drive motor is connected properly.	Yes		9
		No		8
8	Check if the harness of the drum TBU drive motor is open circuited.	Yes		9
		No	Replace the drum TBU drive motor.	
9	Check that the connector of the LGC board (CN310) is connected properly.	Yes		11
		No	Reconnect the connector.	
10	Is the harness of the LGC board normal?	Yes		12
		No	Replace the harness.	
11	Is the LGC board normal?		Replace the LGC board.	

Replacement part	Remark
Drum old/new detection switches	
Drum TBU motor	
LGC board	
Harness	

[C970] High-voltage transformer abnormality

Classification	Contents
Copy Process related service call	High-voltage transformer abnormality: Leakage of the main charger is detected.

Check Item	Measure
Main charger	Check if the main charger is installed securely.
Spring of high-voltage supply contact point	Check if the spring of high-voltage supply contact point is deformed.
Needle electrode	• Check if the needle electrode is broken or the main charger grid is deformed. • Check if any foreign matter is on the needle electrode or main charger grid.

8

e-STUDIO2050C/2051C/2550C/2551C
ERROR CODE AND TROUBLESHOOTING

8.3.25 Other service call

[F100_0] HDD format error (Operation failure of key data)

Classification	Contents
Other service call	HDD format error: Operation of HDD key data fails.

Check item	Measures
Setting	Reboot the equipment. If it cannot be recovered, reinstall the software in the following procedure. 1. Install the system firmware. 📖 P. 11-5 "11.1 Firmware Updating with USB Device"

[F100_1] HDD format error (HDD encryption key data damaged - one board)

Classification	Contents
Other service call	HDD format error: Encryption key data of either the SYS board or the SRAM board for the SYS board are damaged.

Check item	Measures
Encryption key status	Check the displayed message. ([3] + [C] + [POWER] → 5. Key Backup Restore)

Take appropriate countermeasures shown in the table below according to the messages displayed in "SRAM Key Status" and "FROM Key Status".

> **Remarks:**
> If the error is not cleared, reinstallation of the system firmware, system software and application is needed. ([4]+[9] → Power-ON)
> 📖 P. 11-5 "11.1 Firmware Updating with USB Device"

SRAM Key Status	FROM Key Status	Measure
OK	AccessFailed	Replace the SYS board. 📖 P. 9-21 "9.2.4 Precautions and Procedures when replacing the SYS board" (all steps)
OK	KeyNull KeyBroken	Recover the encryption key on the SYS board. 📖 P. 9-21 "9.2.4 Precautions and Procedures when replacing the SYS board" ([E]Restore encryption key)
AccessFailed	OK	Replace the SRAM board (for the SYS board). (USB backup data are not used) 📖 P. 9-25 "9.2.5 Precautions and procedure when replacing the SRAM board (for the SYS board)" (all steps)
KeyNull KeyBroken	OK	Recover the encryption key on the SRAM board. 📖 P. 9-25 "9.2.5 Precautions and procedure when replacing the SRAM board (for the SYS board)" ([H]Backup encryption key)

SRAM Key Status	FROM Key Status	Measure
Keymismatch	Keymismatch	\<The error occurs when the SYS board is replaced\> Recover the encryption key on the SYS board. 📖 P. 9-21 "9.2.4 Precautions and Procedures when replacing the SYS board" ([E]Restore encryption key) \<The error occurs except when the SYS board is replaced\> Replace the SRAM board (for the SYS board). 📖 P. 9-25 "9.2.5 Precautions and procedure when replacing the SRAM board (for the SYS board)" (all steps)

8

[F100_2] HDD format error (HDD encryption key data damaged - both boards)

Classification	Contents
Other service call	HDD format error: Encryption key data of both the SYS board and the SRAM board for the SYS board are damaged.

Check item	Measures
Encryption key status	Check the displayed message. ([3] + [C] + [POWER] → 5. Key Backup Restore)

Take appropriate countermeasures shown in the table below according to the messages displayed in "SRAM Key Status" and "FROM Key Status".

> **Remarks:**
> If the error is not cleared, reinstallation of the system firmware / system software and application is needed. ([4]+[9] → Power-ON)

SRAM Key Status	FROM Key Status	Measure
*	AccessFailed	Replace the SYS board. 📖 P. 9-21 "9.2.4 Precautions and Procedures when replacing the SYS board" (all steps) <With USB backup data: All key data recovery> 1. Recover all the data on the SRAM board. [5] + [9] + [POWER] → 2. Restore SRAM Data from USB (For details, see "12.1.4Cloning procedure [B]Restore procedure") 2. Recover the encryption key/license on the SYS board. Follow the procedures below noted in "9.2.4Precautions and Procedures when replacing the SYS board". [D] Restore ADI key (only when ADI-HDD is installed) [E] Restore encryption key [F] Restore license
AccessFailed	*	Replace the SYS board. 📖 P. 9-25 "9.2.5 Precautions and procedure when replacing the SRAM board (for the SYS board)" (for the SYS board, all steps)
KeyNull/ KeyBroken	KeyNull/ KeyBroken	<No USB backup data> 1. Reinstall the system software. 📖 P. 11-5 "11.1 Firmware Updating with USB Device" <With USB backup data: All key data recovery> 1. Recover all the data on the SRAM board. [5] + [9] + [POWER] → 2. Restore SRAM Data from USB (For details, see "12.1.4Cloning procedure [B]Restore procedure") 2. Recover the encryption key/license on the SYS board. Follow the procedures below noted in "9.2.4Precautions and Procedures when replacing the SYS board". [D] Restore ADI key (only when ADI-HDD is installed) [E] Restore encryption key [F] Restore license

* AccessFailed, KeyNull or KeyBroken

[F101_0] HDD connection error (HDD connection cannot be detected.)

[F101_1] Root partition mount error (HDD formatting fails.)

[F101_2][F101_3] Partition mount error (The HDD cannot be connected (mounted) caused by damage to areas other than those described in the F101_1 and F101_4 to F101_9 errors.)

Classification	Contents
Other service call	HDD unmounted: Connection of HDD cannot be detected. Sub-code 0: HDD connection error (HDD connection cannot be detected.) Sub-code 1: Root partition mount error (HDD formatting fails.) Sub-code 2, 3: Partition mount error (The areas other than those described in the F101_1 and F101_4 to F101_9 errors are damaged.)

Check item	Measures

HDD, SYS board, Setting	1. Turn the power of the equipment OFF and check the connection of the HDD.
	  - Connector and harness check
	  - Check if the connector pins of the HDD are bent.
	  - Check if HDD for other equipment is not installed.
	  - Check if SRAM for other equipment is not installed.
	2. If the error still occurs after step 1, perform the following.
	  - Perform [3C] - [5] (Key Backup Restore) and check that each Key Status is "OK".
	  - If not, recover the key (copy "SRAM Key Status" to "FROM Key Status" or vice versa).
	3. If the error still persists after step 2, perform the following.
	  - Perform [3C] - [3] (Format HDD), and then install "System Software (HD data)" with [49] - [4].
	Notes:
	  The following items will be deleted by performing [3C] - [3] (Format HDD).
	  • Message Log
	  • Job Log
	  • Spool Data (Print, Email reception)
	  • Template
	  If F101_1 occurs with ADI-HDD or the error persists after performing step 3, perform step 3 after performing [4]+[C]+[POWER]→1. Revert factory initial status HDD.
	4. If the error persists even after step 3, replace the HDD.
	5. If the error persists even after step 4, replace the SATA harness.
	6. If the error persists even after step 5, replace the SYS board.

Replacement part	Remark
HDD	
SATA harness	
SYS board	

[F101_4] Partition mount error (The HDD cannot be connected (mounted) caused by damage to the "/work" partition.)

Classification	Contents
Other service call	HDD unmounted: Connection of HDD cannot be detected. Sub-code 4: Partition mount error (The "/work" partition is damaged.)

Check item	Measures

HDD, SYS board, Setting	1. Turn the power of the equipment OFF and check the connection of the HDD.
	  - Connector and harness check
	  - Check if the connector pins of the HDD are bent.
	  - Check if HDD for other equipment is not installed.
	  - Check if SRAM for other equipment is not installed.
	2. If the error still occurs after step 1, perform the following.
	  - Perform [3C] - [5] (Key Backup Restore) and check that each Key Status is "OK".
	  - If not, recover the key (copy "SRAM Key Status" to "FROM Key Status" or vice versa).
	3. If the error persists after step 2, perform [5]+[C]+[POWER]→2. Recovery F/S→3. /work, and then restart the equipment.
	4. If the error persists after step 3, perform [5]+[C]+[POWER]→3. Initialize HDD→2. /work, and then restart the equipment.
	5. If the error still persists after step 4, perform the following.
	  - Perform [3C] - [3] (Format HDD), and then install "System Software (HD data)" with [49] - [4].
	Notes:
	  The following items will be deleted by performing [3C] - [3] (Format HDD).
	  • Message Log
	  • Job Log
	  • Spool Data (Print, Email reception)
	  • Template
	  If the error persists after performing step 5, perform step 5 after performing [4]+[C]+[POWER]→1. Revert factory initial status HDD.
	6. If the error persists even after step 5, replace the HDD.
	7. If the error persists even after step 6, replace the SATA harness.
	8. If the error persists even after step 7, replace the SYS board.

Replacement part	Remark
HDD	
SATA harness	
SYS board	

[F101_5] Partition mount error (The HDD cannot be connected (mounted) caused by damage to the "/registration" partition.)

Classification	Contents
Other service call	HDD unmounted: Connection of HDD cannot be detected. Sub-code 5: Partition mount error (The "/registration" partition is damaged.)

Check item	Measures

HDD, SYS board, Setting	1. Turn the power of the equipment OFF and check the connection of the HDD.
	  - Connector and harness check
	  - Check if the connector pins of the HDD are bent.
	  - Check if HDD for other equipment is not installed.
	  - Check if SRAM for other equipment is not installed.
	2. If the error still occurs after step 1, perform the following.
	  - Perform [3C] - [5] (Key Backup Restore) and check that each Key Status is "OK".
	  - If not, recover the key (copy "SRAM Key Status" to "FROM Key Status" or vice versa).
	3. If the error persists after step 2, perform [5]+[C]+[POWER]→2. Recovery F/S→4. /registration, and then restart the equipment.
	4. If the error persists after step 3, perform [5]+[C]+[POWER]→3. Initialize HDD→3. /registration, and then restart the equipment.
	5. If the error still persists after step 4, perform the following.
	  - Perform [3C] - [3] (Format HDD), and then install "System Software (HD data)" with [49] - [4].
	
	Notes:
	  The following items will be deleted by performing [3C] - [3] (Format HDD).
	  • Message Log
	  • Job Log
	  • Spool Data (Print, Email reception)
	  • Template
	  If the error persists after performing step 5, perform step 5 after performing [4]+[C]+[POWER]→1. Revert factory initial status HDD.
	6. If the error persists even after step 5, replace the HDD.
	7. If the error persists even after step 6, replace the SATA harness.
	8. If the error persists even after step 7, replace the SYS board.

Replacement part	Remark
HDD	
SATA harness	
SYS board	

[F101_6] Partition mount error (The HDD cannot be connected (mounted) caused by damage to the "/backup" partition.)

Classification	Contents
Other service call	HDD unmounted: Connection of HDD cannot be detected. Sub-code 6: Partition mount error (The "/backup" partition is damaged.)

Check item	Measures

HDD, SYS board, Setting	1. Turn the power of the equipment OFF and check the connection of the HDD.
	  - Connector and harness check
	  - Check if the connector pins of the HDD are bent.
	  - Check if HDD for other equipment is not installed.
	  - Check if SRAM for other equipment is not installed.
	2. If the error still occurs after step 1, perform the following.
	  - Perform [3C] - [5] (Key Backup Restore) and check that each Key Status is "OK".
	  - If not, recover the key (copy "SRAM Key Status" to "FROM Key Status" or vice versa).
	3. If the error persists after step 2, perform [5]+[C]+[POWER]→2. Recovery F/S→5. /backup, and then restart the equipment.
	4. If the error persists after step 3, perform [5]+[C]+[POWER]→3. Initialize HDD→4. /backup, and then restart the equipment.
	5. If the error still persists after step 4, perform the following.
	  - Perform [3C] - [3] (Format HDD), and then install "System Software (HD data)" with [49] - [4].
	
	  Notes:
	    The following items will be deleted by performing [3C] - [3] (Format HDD).
	    • Message Log
	    • Job Log
	    • Spool Data (Print, Email reception)
	    • Template
	    If the error persists after performing step 5, perform step 5 after performing [4]+[C]+[POWER]→1. Revert factory initial status HDD.
	6. If the error persists even after step 5, replace the HDD.
	7. If the error persists even after step 6, replace the SATA harness.
	8. If the error persists even after step 7, replace the SYS board.

Replacement part	Remark
HDD	
SATA harness	
SYS board	

[F101_7] Partition mount error (The HDD cannot be connected (mounted) caused by damage to the "/imagedata" partition.)

Classification	Contents
Other service call	HDD unmounted: Connection of HDD cannot be detected. Sub-code 7: Partition mount error (The "/imagedata" partition is damaged.)

Check item	Measures

HDD, SYS board, Setting	1. Turn the power of the equipment OFF and check the connection of the HDD.
	  - Connector and harness check
	  - Check if the connector pins of the HDD are bent.
	  - Check if HDD for other equipment is not installed.
	  - Check if SRAM for other equipment is not installed.
	2. If the error still occurs after step 1, perform the following.
	  - Perform [3C] - [5] (Key Backup Restore) and check that each Key Status is "OK".
	  - If not, recover the key (copy "SRAM Key Status" to "FROM Key Status" or vice versa).
	3. If the error persists after step 2, perform [5]+[C]+[POWER]→2. Recovery F/S→6. /imagedata, and then restart the equipment.
	4. If the error persists after step 3, perform [5]+[C]+[POWER]→3. Initialize HDD→5. /imagedata, and then restart the equipment.
	5. If the error still persists after step 4, perform the following.
	  - Perform [3C] - [3] (Format HDD), and then install "System Software (HD data)" with [49] - [4].
	
	Notes:
	The following items will be deleted by performing [3C] - [3] (Format HDD).
	  • Message Log
	  • Job Log
	  • Spool Data (Print, Email reception)
	  • Template
	If the error persists after performing step 5, perform step 5 after performing [4]+[C]+[POWER]→1. Revert factory initial status HDD.
	6. If the error persists even after step 5, replace the HDD.
	7. If the error persists even after step 6, replace the SATA harness.
	8. If the error persists even after step 7, replace the SYS board.

Replacement part	Remark
HDD	
SATA harness	
SYS board	

8

[F101_8] Partition mount error (The HDD cannot be connected (mounted) caused by damage to the "/storage" partition.)

Classification	Contents
Other service call	HDD unmounted: Connection of HDD cannot be detected. Sub-code 8: Partition mount error (The "/storage" partition is damaged.)

Check item	Measures
HDD, SYS board, Setting	1. Turn the power of the equipment OFF and check the connection of the HDD. 　- Connector and harness check 　- Check if the connector pins of the HDD are bent. 　- Check if HDD for other equipment is not installed. 　- Check if SRAM for other equipment is not installed. 2. If the error still occurs after step 1, perform the following. 　- Perform [3C] - [5] (Key Backup Restore) and check that each Key Status is "OK". 　- If not, recover the key (copy "SRAM Key Status" to "FROM Key Status" or vice versa). 3. If the error persists after step 2, perform [5]+[C]+[POWER]→2. Recovery F/S→7. /storage, and then restart the equipment. 4. If the error persists after step 3, perform [5]+[C]+[POWER]→3. Initialize HDD→6. /storage, and then restart the equipment. 5. If the error still persists after step 4, perform the following. 　- Perform [3C] - [3] (Format HDD), and then install "System Software (HD data)" with [49] - [4]. 　**Notes:** 　　The following items will be deleted by performing [3C] - [3] (Format HDD). 　　• Message Log 　　• Job Log 　　• Spool Data (Print, Email reception) 　　• Template 　　If the error persists after performing step 5, perform step 5 after performing [4]+[C]+[POWER]→1. Revert factory initial status HDD. 6. If the error persists even after step 5, replace the HDD. 7. If the error persists even after step 6, replace the SATA harness. 8. If the error persists even after step 7, replace the SYS board.

Replacement part	Remark
HDD	
SATA harness	
SYS board	

[F101_9] Partition mount error (The HDD cannot be connected (mounted) caused by damage to the "/encryption" partition.)

Classification	Contents
Other service call	HDD unmounted: Connection of HDD cannot be detected. Sub-code 9: Partition mount error (The "/encryption" partition is damaged.)

Check item	Measures

HDD, SYS board, Setting	1. Turn the power of the equipment OFF and check the connection of the HDD.
	  - Connector and harness check
	  - Check if the connector pins of the HDD are bent.
	  - Check if HDD for other equipment is not installed.
	  - Check if SRAM for other equipment is not installed.
	2. If the error still occurs after step 1, perform the following.
	  - Perform [3C] - [5] (Key Backup Restore) and check that each Key Status is "OK".
	  - If not, recover the key (copy "SRAM Key Status" to "FROM Key Status" or vice versa).
	3. If the error persists after step 2, perform [5]+[C]+[POWER]→2. Recovery F/S→8. /encryption, and then restart the equipment.
	4. If the error persists after step 3, perform [5]+[C]+[POWER]→3. Initialize HDD→7. /encryption, and then restart the equipment.
	5. If the error still persists after step 4, perform the following.
	  - Perform [3C] - [3] (Format HDD), and then install "System Software (HD data)" with [49] - [4].
	
	Notes:
	  The following items will be deleted by performing [3C] - [3] (Format HDD).
	  • Message Log
	  • Job Log
	  • Spool Data (Print, Email reception)
	  • Template
	  If the error persists after performing step 5, perform step 5 after performing [4]+[C]+[POWER]→1. Revert factory initial status HDD.
	6. If the error persists even after step 5, replace the HDD.
	7. If the error persists even after step 6, replace the SATA harness.
	8. If the error persists even after step 7, replace the SYS board.

Replacement part	Remark
HDD	
SATA harness	
SYS board	

[F102] HDD start error
[F103] HDD transfer time-out
[F104] HDD data error
[F105] HDD other error

Classification	Contents
Other service call	HDD start error: HDD cannot become "Ready" state. HDD transfer time-out: Reading/writing cannot be performed in the specified period of time. HDD data error: Abnormality is detected in the data of HDD. HDD other error

Check item	Measures
HDD	• Connector and harness check • Check if the connector pins of the HDD are bent. • Perform the bad sector check (08-9072). If the check result is OK, recover the data in the HDD. If the check result is failed, replace the HDD.

Replacement part	Remark
HDD	
SYS board	

[F106_0] ADI-HDD error: Illegal disk replacement detected (ADI-HDD Exchange to SATA-HDD)

Classification	Error item
Other service call	ADI-HDD error: The ADI-HDD has been replaced illegally to SATA-HDD (normal type).

Check item	Measures
Setting	Check if the HDD has been replaced with a SATA-HDD (normal type). 1. Start the equipment in the 4C mode: [4] + [C] + [POWER] 2. Check the type of the HDD shown on the top left of the control panel display "Current HDD type". 2a. In case of "SATA-HDD" (normal type), replace it with the original ADI-HDD or a new ADI-HDD. **Notes:** To replace with the original ADI-HDD, start the equipment in the normal mode and then reinstall system software only if any abnormality occurs. 2b. In case of "ADI-HDD" Check each item in the Measures field for the HDD below. If the error still occurs, reinstall the system software.
HDD	• Connector check • Harness check Follow the procedure below if no abnormality is found in the check items above. 1. Start the equipment in the 4C mode: [4] + [C] + [POWER] -> 1. Revert factory initial status HDD 2. Reinstall the system software.

[F106_1] ADI-HDD error: HDD type detection error

Classification	Error item
Other service call	ADI-HDD error: HDD type detection fails.

Check item	Measures
Setting	If the error is not recovered after rebooting the equipment or no abnormality is found on any check items for the HDD, reinstall the system software.
HDD	• Connector check • Harness check • Start the equipment in the 5C mode: [5] + [C] + [POWER] Check the file system and recover it if necessary. If the recovery fails, replace the HDD. If the equipment does not start in the 5C mode, also replace the HDD. • Check that either the ADI-HDD or SATA-HDD (normal type) is mounted. 1. Start the equipment in the 4C mode: [4] + [C] + [POWER] 2. Check the type of the HDD shown on the top left of the control panel display "Current HDD type". Normal status: ADI-HDD or SATA-HDD Abnormal status: Unknown HDD If "Unknown HDD" is displayed, reinstall the system software.

[F106_2] ADI-HDD error: ADI encryption key download operation error

Classification	Error item
Other service call	ADI-HDD error: Downloading of or consistency check for ADI-HDD encryption key fails.

Check item	Measures
Setting	Checking of ADI-HDD encryption key status 1. Start the equipment in the 3C mode: [3] + [C] + [POWER] 2. The authentication menu is displayed. Press [OK]. (Not required in the default setting) 3. Select "5. Key Backup Restore" and then press the [START] button. 4. Check the status of the ADI-HDD encryption key on the Key Backup Restore Mode menu. 5. After the operation is completed, shut down the equipment by pressing the [POWER] button. • In case both the SRAM ADIKey and FROM ADIKey status are OK Reinstall the system firmware. • In case either the SRAM ADIKey or FROM ADIKey status is other than OK Restore the ADI-HDD encryption key. • In case both of the SRAM ADIKey or FROM ADIKey status are other than OK Reinstall the system software.

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[F106_3] ADI-HDD error: ADI authentication Admin Password generation error

Classification	Error item
Other service call	ADI-HDD error: The generation of ADI authentication Admin Password fails.

Check item	Measures
Setting	Perform [3]+[C]+[POWER]-> [3.Format HDD], and then install the system software by performing [4]+[9]+[POWER]-> [4.System Software(HD data)]. **Notes:** The following items will be deleted by performing [3]+[C]+[POWER]-> [3.Format HDD]. • Message Log • Job Log • Spool Data (Print, Email reception) • Template

[F106_4] ADI-HDD error: Authentication random number generation error

Classification	Error item
Other service call	ADI-HDD error: The generation of a random number for authentication data fails.

Check item	Measures
Setting	Perform [3]+[C]+[POWER]-> [3.Format HDD], and then install the system software by performing [4]+[9]+[POWER]-> [4.System Software(HD data)]. **Notes:** The following items will be deleted by performing [3]+[C]+[POWER]-> [3.Format HDD]. • Message Log • Job Log • Spool Data (Print, Email reception) • Template

[F106_5] ADI-HDD error: Authentication data transmission error

Classification	Error item
Other service call	ADI-HDD error: The transmission of authentication data fails.

Check item	Measures
Setting	Perform [3]+[C]+[POWER]-> [3.Format HDD], and then install the system software by performing [4]+[9]+[POWER]-> [4.System Software(HD data)]. **Notes:** The following items will be deleted by performing [3]+[C]+[POWER]-> [3.Format HDD]. • Message Log • Job Log • Spool Data (Print, Email reception) • Template
	• In case this error occurred after returning SRAM data for SRAM cloning: Copy the ADI-HDD encryption key from FROM to SRAM. 1. Start the equipment in the 3C mode: [3] + [C] + [POWER] 2. The authentication menu is displayed. Press [OK]. (Not required in the default setting) 3. Select "5. Key Backup Restore" and then press the [START] button. 4. Select "6. ADIKey FROM to SRAM" and then press the [START] button. 5. After the restoring of the encryption key has completed, "Operation Complete" is displayed. 6. After the operation has completed, shut down the equipment by pressing the [POWER] button.

[F106_6]/[F106_7]/[F106_8]/[F106_10] /[F106_UNDEF] ADI-HDD error: Error caused by reason other than F106_0 to 5 errors

Classification	Error item
Other service call	ADI-HDD error: Error caused by reason other than F106_0 to 5 errors

Check item	Measures
Setting	Perform [3]+[C]+[POWER]-> [3.Format HDD], and then install the system software by performing [4]+[9]+[POWER]-> [4.System Software(HD data)]. **Notes:** The following items will be deleted by performing [3]+[C]+[POWER]-> [3.Format HDD]. • Message Log • Job Log • Spool Data (Print, Email reception) • Template

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[F109_0] Key consistency error (Consistency check operation error)

Classification	Contents
Other service call	Key consistency error - Key consistency check on each key data fails.

Check item	Measures
Setting	Reboot the equipment. If it cannot be recovered, reinstall the software in the following procedure. 1. Install the system firmware. 2. If the error cannot be solved after installing the system firmware, reinstall the system software and application program. 📖 P. 11-24 "11.2.1 System firmware / System software"([A] Update procedure)
SRAM board (for SYS board)	If the error is not cleared after the software reinstallation, replace the SRAM board. 📖 P. 9-25 "9.2.5 Precautions and procedure when replacing the SRAM board (for the SYS board)"
SYS board	If the error is not cleared after this (see above), replace the SYS board. 📖 P. 9-21 "9.2.4 Precautions and Procedures when replacing the SYS board"

Replacement part	Remark
SRAM board	
SYS board	

[F109_1] Key consistency error (SRAM encryption AES key data damage)

Classification	Contents
Other service call	Key consistency error - AES key data used for SRAM encryption are damaged.

Check item	Measures
Setting	Reboot the equipment. If it cannot be recovered, reinstall the software in the following procedure. 1. Install the system firmware. 2. If the error cannot be solved after installing the system firmware, reinstall the system software and application program. 📖 P. 11-24 "11.2.1 System firmware / System software"([A] Update procedure)

[F109_2] Key consistency error (Signature Check public key damage)

Classification	Contents
Other service call	Key consistency error - Public key data used for Integrity Check are damaged.

Check item	Measures
Setting	Reboot the equipment. If it cannot be recovered, reinstall the software in the following procedure. 1. Install the system firmware. 2. If the error cannot be solved after installing the system firmware, reinstall the system software and application program. 📖 P. 11-24 "11.2.1 System firmware / System software"([A] Update procedure)

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[F109_3] Key consistency error (HDD encryption parameter damage)

Classification	Contents
Other service call	Key consistency error - Parameter used for HDD partition encryption are damaged.

Check item	Measures
Encryption key status confirmation	Check the message displayed by [3] + [C] + [POWER] → 5. Key Backup Restore.

Take measures given in the following table according to the messages displayed in the SRAM Key Status and FROM Key Status fields.

> **Remarks:**
> If the error is not cleared, reinstallation of the system firmware, system software and application is needed. ([4]+[9] → Power-ON)

SRAM Key Status	FROM Key Status	Measure
*	AccessFailed	Replace the SYS board. 📖 P. 9-21 "9.2.4 Precautions and Procedures when replacing the SYS board" (all steps) <With USB backup data: All key data recovery> 1. Recover all the data on the SRAM board. [5] + [9] + [POWER] → 2. Restore SRAM Data from USB (For details, see "12.1.4Cloning procedure [B]Restore procedure") 2. Recover the encryption key/license on the SYS board. Follow the procedures below noted in "9.2.4Precautions and Procedures when replacing the SYS board". [D] Restore ADI key (only when ADI-HDD is installed) [E] Restore encryption key [F] Restore license
AccessFailed	*	Replace the SYS board. 📖 P. 9-25 "9.2.5 Precautions and procedure when replacing the SRAM board (for the SYS board)" (for the SYS board, all steps)
OK	KeyNull/ KeyBroken	Recover the encryption key on the SYS board. 📖 P. 9-21 "9.2.4 Precautions and Procedures when replacing the SYS board" ([E]Restore encryption key)
AccessFailed	OK	Replace the SRAM board (for the SYS board). 📖 P. 9-25 "9.2.5 Precautions and procedure when replacing the SRAM board (for the SYS board)" (all steps)
KeyNull/ KeyBroken	OK	Recover the encryption key on the SRAM board. 📖 P. 9-25 "9.2.5 Precautions and procedure when replacing the SRAM board (for the SYS board)" (for the SYS board, [H] Backup encryption key)

SRAM Key Status	FROM Key Status	Measure

KeyNull/ KeyBroken	KeyNull/ KeyBroken	\<No USB backup data\>
		1. Reinstall the system software.
		    📖 P. 11-5 "11.1 Firmware Updating with USB Device"
		\<With USB backup data: All key data recovery\>
		1. Recover all the data on the SRAM board.
		    [5] + [9] + [POWER] → 2. Restore SRAM Data from USB
		    (For details, see "12.1.4Cloning procedure [B]Restore
		    procedure")
		2. Recover the encryption key/license on the SYS board.
		    Follow the procedures below noted in "9.2.4Precautions
		    and Procedures when replacing the SYS board".
		    [D] Restore ADI key (only when ADI-HDD is installed)
		    [E] Restore encryption key
		    [F] Restore license

* AccessFailed, KeyNull or KeyBroken

[F109_4] Key consistency error (license data damage)

Classification	Contents
Other service call	Key consistency error - The license data are damaged.

Check item	Measures
Encryption key status confirmation	Check the message displayed by [3] + [C] + [POWER] → 5. Key Backup Restore.

Take measures given in the following table according to the messages displayed in the SRAM Licence Status and FROM Licence Status fields.

Remarks:
    If the error is not cleared, reinstallation of the system firmware, system software and application is needed. ([4]+[9] → Power-ON)

SRAM Licence Status	FROM Licence Status	Measure

*	AccessFailed	Replace the SYS board.
		📖 P. 9-21 "9.2.4 Precautions and Procedures when replacing the SYS board" (all steps)
		\<With USB backup data: All key data recovery\>
		1. Recover all the data on the SRAM board.
		    [5] + [9] + [POWER] → 2. Restore SRAM Data from USB
		    (For details, see "12.1.4Cloning procedure [B]Restore
		    procedure")
		2. Recover the encryption key/license on the SYS board.
		    Follow the procedures below noted in "9.2.4Precautions
		    and Procedures when replacing the SYS board".
		    [D] Restore ADI key (only when ADI-HDD is installed)
		    [E] Restore encryption key
		    [F] Restore license

AccessFailed	*	Replace the SYS board. 📖 P. 9-25 "9.2.5 Precautions and procedure when replacing the SRAM board (for the SYS board)" (all steps)

SRAM Licence Status	FROM Licence Status	Measure
KeyMismatch	KeyMismatch	\<The error occurs when the SYS board is replaced\> Recover the license on the SYS board. (Transfer the license from SYS-SRAM to SYS-FROM.) 📖 P. 9-21 "9.2.4 Precautions and Procedures when replacing the SYS board"([F]Restore license) \<The error occurs except when the SYS board is replaced\> Recover the license on the SRAM board. (Transfer the license from SYS-FROM to SYS-SRAM.) 📖 P. 9-25 "9.2.5 Precautions and procedure when replacing the SRAM board (for the SYS board)"([I]Backup license)

* AccessFailed or KeyMismatch

[F109_5] Key consistency error (encryption key for ADI-HDD is damaged)

Classification	Contents
Other service call	Key consistency error - Encryption key for ADI-HDD is damaged.

Check item	Measures
Encryption key status confirmation	Check the message displayed by [3] + [C] + [POWER] → 5. Key Backup Restore.

Take measures given in the following table according to the messages displayed in the SRAM Key Status and FROM Key Status fields.

> **Remarks:**
> If the error is not cleared, reinstallation of the system firmware, system software and application is needed. ([4]+[9] → Power-ON)

SRAM Key Status	FROM Key Status	Measure

*	AccessFailed	Replace the SYS board.
		📖 P. 9-21 "9.2.4 Precautions and Procedures when replacing the SYS board" (all steps)
		\<With USB backup data: All key data recovery\>
		1. Recover all the data on the SRAM board.
		   [5] + [9] + [POWER] → 2. Restore SRAM Data from USB (For details, see "12.1.4Cloning procedure [B]Restore procedure")
		2. Recover the encryption key/license on the SYS board. Follow the procedures below noted in "9.2.4Precautions and Procedures when replacing the SYS board".
		   [D] Restore ADI key (only when ADI-HDD is installed)
		   [E] Restore encryption key
		   [F] Restore license

AccessFailed	*	Replace the SRAM board (for the SYS board). 📖 P. 9-25 "9.2.5 Precautions and procedure when replacing the SRAM board (for the SYS board)" (all steps)
OK	KeyNull/ KeyBroken	Recover the ADI key on the SYS board. 📖 P. 9-21 "9.2.4 Precautions and Procedures when replacing the SYS board" ([D]Restore ADI key)

SRAM Key Status	FROM Key Status	Measure
KeyNull/ KeyBroken	OK	Recover the encryption key on the SRAM board. 📖 P. 9-25 "9.2.5 Precautions and procedure when replacing the SRAM board (for the SYS board)" ([G]Backup ADI key)
KeyNull/ KeyBroken	KeyNull/ KeyBroken	<No USB backup data> 1. Create the partition in the HDD/SSD, and reinstall the system software. 📖 P. 9-15 "9.2.3 Precautions and procedures when replacing the HDD/SSD"(Perform step 3 or later in "[F] Replace / Format HDD/SSD") <With USB backup data: All key data recovery> 1. Recover all the data on the SRAM board. [5] + [9] + [POWER] → 2. Restore SRAM Data from USB (For details, see "12.1.4Cloning procedure [B]Restore procedure") 2. Recover the encryption key/license on the SYS board. Follow the procedures below noted in "9.2.4Precautions and Procedures when replacing the SYS board". [D] Restore ADI key (only when ADI-HDD is installed) [E] Restore encryption key [F] Restore license
KeyMismatch	KeyMismatch	<The error occurs when the SYS board is replaced> Recover the encryption key on the SYS board. (Transfer the license from SYS-SRAM to SYS-FROM.) 📖 P. 9-21 "9.2.4 Precautions and Procedures when replacing the SYS board"([D]Restore ADI key) <The error occurs except when the SYS board is replaced> Recover the encryption key on the SRAM board. (Transfer the license from SYS-FROM to SYS-SRAM.) 📖 P. 9-25 "9.2.5 Precautions and procedure when replacing the SRAM board (for the SYS board)"([G]Backup ADI key)

* AccessFailed or KeyMismatch

[F109_6] Key consistency error (administrator password error for ADI-HDD authentication)

Classification	Contents
Other service call	Key consistency error - Administrator password error for ADI-HDD authentication.

Check item	Measures
Encryption key status confirmation	Check the message displayed by [3] + [C] + [POWER] → 5. Key Backup Restore.

Take measures given in the following table according to the messages displayed in the SRAM Key Status and FROM Key Status fields.

> **Remarks:**
> If the error is not cleared, reinstallation of the system firmware, system software and application is needed. ([4]+[9] → Power-ON)

SRAM Key Status	FROM Key Status	Measure
*	AccessFailed	Replace the SYS board. 📖 P. 9-21 "9.2.4 Precautions and Procedures when replacing the SYS board" (all steps) <With USB backup data: All key data recovery> 1. Recover all the data on the SRAM board. [5] + [9] + [POWER] → 2. Restore SRAM Data from USB (For details, see "12.1.4Cloning procedure [B]Restore procedure") 2. Recover the encryption key/license on the SYS board. Follow the procedures below noted in "9.2.4Precautions and Procedures when replacing the SYS board". [D] Restore ADI key (only when ADI-HDD is installed) [E] Restore encryption key [F] Restore license
AccessFailed	*	Replace the SRAM board (for the SYS board). 📖 P. 9-25 "9.2.5 Precautions and procedure when replacing the SRAM board (for the SYS board)" (all steps)
OK	KeyNull/ KeyBroken	Recover the ADI key on the SYS board. 📖 P. 9-21 "9.2.4 Precautions and Procedures when replacing the SYS board" ([D]Restore ADI key)
KeyNull/ KeyBroken	OK	Recover the encryption key on the SRAM board. 📖 P. 9-25 "9.2.5 Precautions and procedure when replacing the SRAM board (for the SYS board)" ([G]Backup ADI key)
KeyNull/ KeyBroken	KeyNull/ KeyBroken	<No USB backup data> 1. Create the partition in the HDD/SSD, and reinstall the system software. 📖 P. 9-15 "9.2.3 Precautions and procedures when replacing the HDD/SSD"(Perform step 3 or later in "[F] Replace / Format HDD/SSD") <With USB backup data: All key data recovery> 1. Recover all the data on the SRAM board. [5] + [9] + [POWER] → 2. Restore SRAM Data from USB (For details, see "12.1.4Cloning procedure [B]Restore procedure") 2. Recover the encryption key/license on the SYS board. Follow the procedures below noted in "9.2.4Precautions and Procedures when replacing the SYS board". [D] Restore ADI key (only when ADI-HDD is installed) [E] Restore encryption key [F] Restore license
KeyMismatch	KeyMismatch	<The error occurs when the SYS board is replaced> Recover the encryption key on the SYS board. (Transfer the license from SYS-SRAM to SYS-FROM.) 📖 P. 9-21 "9.2.4 Precautions and Procedures when replacing the SYS board"([D]Restore ADI key) <The error occurs except when the SYS board is replaced> Recover the encryption key on the SRAM board. (Transfer the license from SYS-FROM to SYS-SRAM.) 📖 P. 9-25 "9.2.5 Precautions and procedure when replacing the SRAM board (for the SYS board)"([G]Backup ADI key)

* AccessFailed or KeyMismatch

[F110] Communication error between System-CPU and Scanner-CPU
[F111] Scanner response abnormality

Classification	Error content
Communication related service call	Communication error between System-CPU and Scanner-CPU Scanner response abnormality.

Check item	Measures
Reproducibility	• Turn the power OFF and then back ON using the main power switch.
SYS board	• Check if the conductor pattern on the SYS board is short circuited or open circuited. • Check if the connector (CN123) on the SYS board is abnormally. • Check if the harness (CN123) on the SYS board is abnormally.

Parts to be replaced	Remarks
SYS board	

[F120] Database abnormality

Classification	Error item
Other service call	Database abnormality: Database is not operating normally.

Check item	Measures
Setting	1. Check that no jobs remain and rebuild the databases. ([5] + [C] + [POWER] -> 4. Initialize database -> 1. LDAP DB and 2. Log DB (Job,Msg). 2. If the error is not recovered, reinstall the system software. ([4] + [9] + [POWER] -> 4. System Software(HD data)) **Notes:** • If you rebuild the databases with a job remaining, delete it after finishing. • When "Rebuilding all databases" is performed, all data including log/user/role/group/department information and address book data are deleted. If you back up the data in advance, they will be recovered by restoring them after rebuilding the database.

[F121] Database abnormality (user information management database)

Classification	Error item
Other service call	Login after the startup fails in any starting mode because user management database is corrupted.

Check item	Measures
Setting	1. Delete the log in the following procedure:[5] + [C] + [POWER] → 4. Initialize database → 1. LDAP database (to delete user database) (Note that all user, role, group and accounting data will be deleted.) 2. If the error is not recovered, reinstall the system software. ([4] + [9] + [POWER] -> 4. System Software(HD data)) **Notes:** • If you rebuild the databases with a job remaining, delete it after finishing. • When "Rebuilding all databases" is performed, all data including log/user/role/group/department information and address book data are deleted. If you back up the data in advance, they will be recovered by restoring them after rebuilding the database.

[F122] Database abnormality (message/job log management database)

Classification	Error item
Other service call	Login after the startup fails in any starting mode because log management database is corrupted.

Check item	Measures
Setting	1. Delete the log in the following procedure: [5] + [C] + [POWER] → 4. Initialize database → 2. Log database (jobs and messages) (Note that all job and message logs will be deleted.) 2. If the error is not recovered, reinstall the system software. ([4] + [9] + [POWER] → 4. System Software(HD data)) **Notes:** • If you rebuild the databases with a job remaining, delete it after finishing. • When "Rebuilding all databases" is performed, all data including log/user/role/group/department information and address book data are deleted. If you back up the data in advance, they will be recovered by restoring them after rebuilding the database.

[F124] Language DB damage error

Classification	Error item
Other service call	Login after the startup fails in any starting mode because language management database is corrupted.

Check item	Measures
Setting	Delete the journal file: [5] + [C] + [START] → 4. Initialize DB → 3. Language DB If the recovery is still not completed, reinstall the system software and application program. P. 11-24 "11.2.1 System firmware / System software"

[F130] Invalid MAC address

Classification	Contents
Other service call	Invalid MAC address

Check item	Measures
Setting	Compare the serial number of the equipment with a number displayed with 08-9601. If they are different, enter the correct serial number at 08-9601, 08-9083.

[F131] Error due to damage to filtering setting file

Classification	Contents
Other service call	The filtering function is not working properly due to the damage to the file for the filtering setting.

Check item	Measures
Setting	1. Check the bad sector of the HDD (08-9072). If the result is "NG", replace the HDD. **Notes:** 　It may take more than 30 minutes to finish the checking. 2. Perform [3] + [C] + [POWER] → [3], and then reinstall the HDD software. **Notes:** 　User data will be deleted when [3] + [C] + [POWER] → [3] is performed.

Parts to be replaced	Remarks
HDD	

[F140] ASIC format error

Classification	Contents
Other service call	ASIC formatting fails or memory acquiring fails when software is formatted

Check item	Measures
SYS board	• Connector check • Board check
Main memory	• Check the installation • Main memory check

Replace parts	Remarks
Main memory	
SYS board	

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[F200] Data Overwrite option (GP-1070) disabled

Classification	Contents
Other service call	Data Overwrite option (GP-1070) disabled

Check item	Measures
Setting	Perform firmware installation (all firmware: OS, HDD, SYS, PFC Firmware, Engine Main Firmware, and Scanner Firmware) with the USB device. * When the function of the Data Overwrite option (GP-1070) is deleted from the equipment, the service call "F200" occurs.
	Perform 08-3840 to install the Data Overwrite Enabler (GP-1070). * If F200 occurs while High ("3") is set for the security level (08-8911), it cannot be released by installing the firmware using the USB device. Install the Data Overwrite Enabler (GP-1070) by 08-3840.

[F400] SYS board cooling fan abnormality

Classification	Contents
Circuit related service call	SYS board cooling fan abnormality

Check item	Measures
SYS board cooling fan	Check if the fan is rotating properly. If not, check if any foreign object is adhered.
SYS board	Check the connector (CN103) and relay connector.

Replacement part	Remark
SYS board	
SYS board cooling fan	

[F500] HD partition damage

Classification	Error item
Other service call	The file system is abnormal.

Check item	Measures
Setting	• Diagnose the file system with [5] + [C] + [POWER] → 1. • Check F/S, and then recover the problem partition with [5] + [C] + [POWER] → 2. Recovery F/S. • If it is not recovered, reinstall the software after the HDD format.

Replace parts	Remarks

[F510] Application start error

Classification	Error item
Other service call	The application fails to start.

Check item	Measures
Setting	1. Reboot. 2. If it has still not recovered, reinstall the system software. 3. If it still persists after step 2, perform [3] + [C] + [POWER] → 3, and then reinstall the system software. **Notes:** User data will be deleted when [3] + [C] + [POWER] → 3 is performed.

[F520] Operating system start error

Classification	Error item
Other service call	The operating system fails to start.

Check item	Measures
Setting	1. Reboot. 2. If it has still not recovered, reinstall the system software. 3. If it still persists after step 2, perform [3] + [C] + [POWER] → 3, and then reinstall the system software. **Notes:** User data will be deleted when [3] + [C] + [POWER] → 3 is performed.

[F521] Integrity check error

Classification	Error item
Other service call	The program data fails to be authenticated.

Check item	Measures
Setting	Restart the equipment. If the error is not recovered after restarting the equipment, reinstall software following the procedure below. 1. Reinstall the system software and application program. 📖 P. 9-15 "9.2.3 Precautions and procedures when replacing the HDD/SSD"

[F550] Encryption partition error

Classification	Error item
Other service call	The encryption partition fails to be read and written.

Check item	Measures
Setting	• Recover the encryption key with [3] + [C] + [POWER] → 5.

[F600] F/W update error

Classification	Error item
Other service call	The firmware fails to be updated.

Check item	Measures
Setting	1. Perform [3] + [C] + [POWER] → [1] → [START] for "Clear Error Flag in Software Installation". 2. Reinstall the firmware in error displayed on the F600 error screen.

[F700] Overwrite error

Classification	Error item
Other service call	Overwriting fails.

Check item	Measures
Setting	• If a service call occurs again after the reboot, replace the HDD.

[F800] Date error

Classification	Error item
Other service call	The year 2038 problem

Check item	Measures
Setting	Reset the date, and request the administrator to set the date and time. 1. Turn the power on while pressing the [6] and [CLEAR] button. 2. Select [2] key, and then press the [START] button. 3. Press the [START] button on the confirmation screen displayed. (The date is set to January 1st, 2011.) 4. Request the administrator to set the date and time.

[F900] Model information error

Classification	Error item
Other service call	Machine information alignment error. The machine information is damaged.

Check item	Measures
Setting	Recover the machine information by means of the following procedure. <Machine information recovery> 1. Turn the power ON while pressing [6] and the [CLEAR] button simultaneously. 2. Key in [3] to select "3. SRAM Re-Initialize Support", and then press the [START] button. 3. After the operation is completed, shut down the equipment by pressing the [ON/OFF] button. * If it is not recovered, perform the following procedure. 4. Turn the power ON while pressing [3] and the [CLEAR] button simultaneously. 5. Enter the password on the Authentication screen. If no password is set for Service, press the [OK] button without entering anything. If the High Security Mode has been set, enter "#1048#". 6. Key in [5] to select "5. Key Backup Restore", and then press the [START] button. 7. Key in [2] to select "2. Key FROM to SRAM", and then press the [START] button. 8. After the operation is completed, shut down the equipment by pressing the [ON/OFF] button.

[F902_0] Mistaken HDD installation error

Classification	Error item
Other service call	HDD is installed to the equipment which does not support HDD by mistake.

Check item	Measures
SSD	Install SSD to the equipment.

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[F902_1] System firmware / System software model information error

Classification	Error item
Other service call	Invalid system firmware/software is installed on 20/25 ppm model.

Check item	Measures
LGC board	Check if the model of the equipment matches the color of the label on the LGC board. 📖 P. 9-4 "9.1.6 LGC board"
Setting	**Notes:** 　　When the SSD is replaced with the HDD in the 20/25 ppm model, perform the following procedures after the HDD is installed. 1. Confirm the model of the equipment. 2. For the 20/25 ppm model, install the SSD or HDD. For, the LL20/LL25pm model, install the SSD. 3. Install the system firmware corresponding to the model. ([8]+[9] mode) 　📖 P. 11-33 "11.3.2 System firmware" 4. Install the system software corresponding to the model. ([4]+[9] mode → [4]) 　📖 P. 11-9 "11.1.1 System firmware / Engine firmware / Scanner firmware / System software / RADF firmware / PFC firmware / Punch firmware / Finisher firmware"

Parts to be replaced	Remark
LGC board	

[F902_2] A model-unmatched SYS board is installed.

Classification	Error item
Other service call	The SYS board for e-STUDIO2050C/2550C/2051C/2551C is installed in e-STUDIO2055C/2555C/3555C/4555C/5055C. Or the opposite combination.

Check item	Measures
SYS board	Check if the model of the equipment matches the part number of the SYS board.

Parts to be replaced	Remark
SYS board	

[F902_3] A model-unmatched SYS board is installed.

Classification	Error item
Other service call	• The SYS board for 20 ppm / 25 ppm is installed in the LL20 ppm / LL25 ppm equipment. Or the opposite combination. • The OS data for 20 ppm / 25 ppm are installed in the LL20 ppm / LL25 ppm equipment. Or the opposite combination. • Invalid system firmware/software is installed on LL20/LL25 ppm model.

Check item	Measures
SYS board	Check if the model of the equipment matches the part number of the SYS board.
Settings	Clear the error by following the procedure below and then install the appropriate firmware. 1. Turn the power ON while pressing [6] and the [CLEAR] button simultaneously. 2. Key in [4] to select "4. L-LL", and then press the [START] button. 3. After the operation is completed, shut down the equipment by pressing the [ON/OFF] button. 4. Turn the power ON while pressing [4] and [9] button simultaneously. 5. Key in [1] to select "1. SYSTEM FIRMWARE (OS Data)", and then press the [START] button. 6. Key in [4] to select "4. SYSTEM SOFTWARE (HD Data)", and then press the [START] button. 7. After the operation is completed, shut down the equipment by pressing the [ON/OFF] button.
LGC board	Check if the model of the equipment matches the color of the label on the LGC board. 📖 P. 9-4 "9.1.6 LGC board"
Setting	**Notes:** When the SSD is replaced with the HDD in the 20/25 ppm model, perform the following procedures after the HDD is installed. 1. Confirm the model of the equipment. 2. For the 20/25 ppm model, install the SSD or HDD. For, the LL20/LL25pm model, install the SSD. 3. Install the system firmware corresponding to the model. ([8]+[9] mode) 📖 P. 11-33 "11.3.2 System firmware" 4. Install the system software corresponding to the model. ([4]+[9] mode → [4]) 📖 P. 11-9 "11.1.1 System firmware / Engine firmware / Scanner firmware / System software / RADF firmware / PFC firmware / Punch firmware / Finisher firmware"

Parts to be replaced	Remark
SYS board	
LGC board	

8.3.26 Error in Internet FAX / Scanning Function

Notes:
- When formatting the HDD ([5] + [C] + [POWER] ON -> [3] -> [1]), all data in the shared folder, Electronic Filing, Address Book, template, etc. are erased. Back up these data before the initialization. Note that some of data cannot be backed up
  📖 P. 9-15 "9.2.3 Precautions and procedures when replacing the HDD/SSD"

[1] Internet FAX related error

[1C10] System access abnormality
[1C32] File deletion failure

Turn the power OFF and then back ON. Perform the job in error again.
If the error still occurs, first, check if there are no jobs existing and then perform the HDD formatting ([5] + [C] + [POWER] ON -> [3] -> [1]).

[1C11] Insufficient memory

When there are running jobs, perform the job in error again after the completion of the running jobs.
If the error still occurs, turn the power OFF and then back ON, and perform the job again.

[1C12] Message reception error
[1C13] Message transmission error

Turn the power OFF and then back ON. Perform the job in error again.

[1C14] Invalid parameter

When a template is used, form the template again.
If the error still occurs, turn the power OFF and then back ON, and perform the job again.

[1C15] Exceeding file capacity

Reset and extend the "Maximum send to E-mail/iFAX size" or reduce the number of pages and perform the job again.

[1C30] Directory creation failure
[1C31] File creation failure
[1C33] File access failure

Check if the access privilege to the storage directory is writable.
Check if the server or local disk has a sufficient space in disk capacity.

[1C40] Image conversion abnormality

Turn the power OFF and then back ON. Perform the job in error again.
Replace the main memory and perform the job again.

[1C60] HDD full failure during processing

Delete the job in progress or being set or in the HOLD/PRIVATE/PROOF/INVALID, and perform it again.
Check if the server or local disk has a sufficient space in disk capacity.

[1C61] Address Book reading failure

Turn the power OFF and then back ON. Perform the job in error again.
Reset the data in the Address Book and perform the job again.

[1C63] Terminal IP address unset

Reset the Terminal IP address.
Turn the power OFF and then back ON. Perform the job in error again.

[1C64] Terminal mail address unset

Reset the Terminal mail address.
Turn the power OFF and then back ON. Perform the job in error again.

[1C65] SMTP address unset
 Reset the SMTP address and perform the job.
 Turn the power OFF and then back ON. Perform the job in error again.

[1C66] Server time-out error
 Check if the SMTP server is operating properly.

[1C69] SMTP server connection error
 Reset the login name or password of SMTP server and perform the job again.
 Check if the SMTP server is operating properly.

[1C6B] Terminal mail address error
 Check the SMTP Authentication method.
 Check if there is an illegal character in the Terminal mail address.
 Set the correct SMTP Authentication method or delete the illegal character and reset the
 appropriate Terminal mail address, then perform the job again.

[1C6C] Destination mail address error
 Check if there is an illegal character in the Destination mail address.
 Delete the illegal character and reset the appropriate Destination mail address, then perform the job
 again.

[1C6D] System error
 Turn the power OFF and then back ON. Perform the job in error again.
 If the error still occurs, replace the SYS board.

[1C70] SMTP client OFF
 Set the SMTP valid and perform the job again.

[1C71] SMTP authentication error
 Check that SMTP authentication method, login name and password are correct, then perform
 authentication again.

[1C72] POP Before SMTP error
 Check that both the POP Before SMTP setting and POP3 setting are correct, then perform
 authentication again.

[1CC1] Power failure
 Check if the power cable is connected properly and it is inserted securely.
 Check if the power voltage is unstable.

[2]   RFC related error
**[2500] HOST NAME error (RFC: 500) / Destination mail address error (RFC: 500) / Terminal mail
address error (RFC: 500)**
**[2501] HOST NAME error (RFC: 501) / Destination mail address error (RFC: 501) / Terminal mail
address error (RFC: 501)**
 Check if the Terminal mail address and Destination mail address are correct.
 Check if the mail server is operating properly.
 Turn the power OFF and then back ON. Perform the job in error again.

[2503] Destination mail address error (RFC: 503)
[2504] HOST NAME error (RFC: 504)
[2551] Destination mail address error (RFC: 551)
 Check if the mail server is operating properly.
 Turn the power OFF and then back ON. Perform the job in error again.
 If the error still occurs, replace the SYS board.

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[2550] Destination mail address error (RFC: 550)
Check the state of the mail box in the mail server.

[2552] Terminal/Destination mail address error (RFC: 552)
Confirm the size on the mail server.
Transmit again in text mode or with lower resolution or divide the document and transmit again.
If the error still occurs, turn the power OFF and then back ON. Perform the job in error again.

[2553] Destination mail address error (RFC: 553)
Check if there is an illegal character in the mail box in the mail server.

[3]   Electronic Filing related error
[2B11] JOB status abnormality
[2B20] File library function error
[2B30] Insufficient disk space in BOX partition
[2BC0] Fatal failure occurred
Erase some data in the Electronic Filing or the shared folder and perform the job in error again (in case of [2B30]).
Ask the administrator if e-Filing has been disabled. (In case of [2CC1])
Turn the power OFF and then back ON. Perform the job in error again.
Check if there are no other running jobs and perform the HDD formatting ([5] + [C] + [POWER] ON -> [3] -> [1]).
If the recovery is still not completed, replace the SYS board.

[2B31] Status of specified Electronic Filing or folder is undefined or being created/deleted
Check if the specified Electronic Filing or folder exists.
Change the folder name to be created since the same folder name cannot be created as the file name in the specified Electronic Filing.
Delete the specified Electronic Filing or folder.
Perform the job in error again.

[2B50] Image library error
[2B90] Insufficient memory capacity
Turn the power OFF and then back ON. Perform the job in error again.
If the error still occurs, replace the main memory.
Delete the job in progress or being set or in the HOLD/PRIVATE/PROOF/INVALID, and retry the job in error.

[2B51] List library error
Check if the Function list can be printed.
If it can be printed, retry the job in error.
If it cannot, replace the main memory.
If it still cannot be printed, initialize the HDD ([5] + [C] + [POWER] ON -> [3] -> [1])

[2BA0] Invalid Box password
Check if the password is correct.
Reset the password.
When this error occurs when printing the data in the Electronic Filing, perform the printing with the administrator's password.

[2BA1]Invalid paper size/color mode/resolution.
The specified paper size, color more or resolution cannot be used. Check the setting.

[2BB1] Power failure
[2BD0] Power failure occurred during restoring of Electronic Filing
Check if the power cable is connected properly and it is inserted securely.
Check if the power voltage is unstable.

[2BE0] Machine parameter reading error

Turn the power OFF and then back ON. Perform the job in error again.

[2BF0] Exceeding maximum number of pages

Reduce the number of the pages of the job in error, and retry the job.

[2BF1] Exceeding maximum number of documents

Backup the documents in the box or folder to PC or delete them.

[2BF2] Exceeding maximum number of folders

Backup the folders in the box or folder to PC or delete them.

[4]   Remote scanning related error

[2A20] System management module resource acquiring failure

Retry the job in error.

If the error still occurs, turn the power OFF and then back ON, then retry the job in error.

[2A31] Disabled WS Scan

Check if the WS Scan function is disabled.

Or, check if the forcible encryption setting of the secure PDF is enabled.

[2A40] System error

Turn the power OFF and then back ON, then retry the job in error.

[2A51] Power failure

Check if the power cable is properly connected.

Check if the power supply voltage is inconstant.

[2A60] WS Scan user authentication failure

- When "1" (TTEC's WIA driver) is set for 08-9749 and also Windows Fax&Scan is used Check if the user name that you used to log in Windows is a name registered as a user.
- When MFP panel or EWB Scan is used Check if the login user name is a name registered as a user.

[2A70] Remote Scan privilege check error

Check if correct privilege is given to the user.

[2A71] WS Scan privilege check error

Check if correct privilege is given to the user.

[2A72] e-Filing data access privilege check error (Scan Utility)

Check if correct privilege is given to the user.

[5] E-mail related error
[2C10] System access abnormality
[2C32] File deletion failure

Turn the power OFF and then back ON. Perform the job in error again.

If the error still occurs, first, check if there are no jobs existing and then perform the HDD formatting ([5] + [C] + [POWER] ON -> [3] -> [1]).

[2C11] Insufficient memory

When there are running jobs, perform the job in error again after the completion of the running jobs.

If the error still occurs, turn the power OFF and then back ON, and perform the job again.

[2C12] Message reception error
[2C13] Message transmission error

Turn the power OFF and then back ON. Perform the job in error again.

[2C14] Invalid parameter

When a template is used, form the template again.

If the error still occurs, turn the power OFF and then back ON, and perform the job again.

[2C15] Exceeding file capacity

Reset and extend the "Maximum send to E-mail/iFAX size" or reduce the number of pages and perform the job again.

[2C20] System management module access abnormality
[2C21] Job control module access abnormality
[2C22] Job control module access abnormality

Turn the power OFF and then back ON. Perform the job in error again.

Check if there are no other running jobs and perform the HDD formatting ([5] + [C] + [POWER] ON -> [3] -> [1]).

If the recovery is still not completed, replace the SYS board.

[2C30] Directory creation failure
[2C31] File creation failure
[2C33] File access failure

Check if the access privilege to the storage directory is writable.

Check if the server or local disk has a sufficient space in disk capacity.

[2C40] Image conversion abnormality
[2C62] Memory acquiring failure

Turn the power OFF and then back ON. Perform the job in error again.

Replace the main memory and perform the job again.

[2C43] Encryption error

Turn the power OFF and then back ON. Perform the job in error again.

[2C44] Encryption PDF enforced mode error

Reset the encryption and perform the job in error again.

If an image file not encrypted is created, consult your administrators.

[2C45] Meta data creation error (Scan to Email)

Check the template settings. Perform the job in error again. If the error still occurs, turn the power OFF and then back ON, and then perform the job in error again.

[2C60] HDD full failure during processing

Delete the job in progress or being set or in the HOLD/PRIVATE/PROOF/INVALID, and perform it again.

Check if the server or local disk has a sufficient space in disk capacity.

Check that there is enough space in the server or local disk.

[2C61] Address Book reading failure
 Turn the power OFF and then back ON. Perform the job in error again.
 Reset the data in the Address Book and perform the job again.

[2C63] Terminal IP address unset
 Reset the Terminal IP address.
 Turn the power OFF and then back ON. Perform the job in error again.

[2C64] Terminal mail address unset
 Reset the Terminal mail address.
 Turn the power OFF and then back ON. Perform the job in error again.

[2C65] SMTP address unset
 Reset the SMTP address and perform the job.
 Turn the power OFF and then back ON. Perform the job in error again.

[2C66] Server time-out error
 Check if the SMTP server is operating properly.

[2C69] SMTP server connection error
 Reset the login name and password of SMTP server and perform the job again.
 Check if the SMTP server is operating properly.

[2C6A] HOST NAME error (No RFC error)
 Check if there is an illegal character in the device name.
 Delete the illegal character and reset the appropriate device name.

[2C6B] Terminal mail address error
 Check the SMTP Authentication method.
 Check if there is an illegal character in the Terminal mail address.
 Set the correct SMTP Authentication method or delete the illegal character and reset the
 appropriate Terminal mail address, then perform the job again.

[2C6C] Destination mail address error (No RFC error)
 Check if there is an illegal character in the Destination mail address.
 Delete the illegal character and reset the appropriate Destination mail address, then perform the job
 again.

[2C70] SMTP client OFF
 Set the SMTP valid and perform the job again.

[2C71] SMTP authentication error
 Check that SMTP authentication method, login name and password are correct, then perform
 authentication again.

[2C72] POP Before SMTP error
 Check that both the POP Before SMTP setting and POP3 setting are correct, then perform
 authentication again.

[2CC1] Power failure
 Check if the power cable is connected properly and it is inserted securely.
 Check if the power voltage is unstable.

[6] File sharing related error
[2D10] System access abnormality
[2D32] File deletion failure
[2DA6] File deletion failure

         e-STUDIO2050C/2051C/2550C/2551C
                                 ERROR CODE AND TROUBLESHOOTING

[2DA7] Resource acquiring failure
Delete some files in the shared folder by using Explorer because of automatic/manual file deletion failure (in case of [2DA6])
Turn the power OFF and then back ON. Perform the job in error again.
If the error still occurs, first, check if there are no jobs existing and then perform the HDD formatting ([5] + [C] + [POWER] ON -> [3] -> [1]).

[2D11] Insufficient memory
When there are running jobs, perform the job in error again after the completion of the running jobs.
If the error still occurs, turn the power OFF and then back ON, and perform the job again.

[2D12] Message reception error
[2D13] Message transmission error
Turn the power OFF and then back ON. Perform the job in error again.

[2D14] Invalid parameter
When a template is used, form the template again.
If the error still occurs, turn the power OFF and then back ON, and perform the job again.

[2D15] Exceeding the maximum size for file sharing
Divide the file in error into several files and retry. Or retry the job in a single-page format.

[2D30] Directory creation failure
[2D31] File creation failure
[2D33] File access failure
Check if the access privilege to the storage directory is writable.
Check if the server or local disk has a sufficient space in disk capacity.

[2D40] Image conversion abnormality
Turn the power OFF and then back ON. Perform the job in error again.
Replace the main memory and perform the job again.

[2D43] Encryption error
Turn the power OFF and then back ON. Perform the job in error again.

[2D44] Encryption PDF enforced mode error
Reset the encryption and perform the job in error again.
If an image file not encrypted is created, consult your administrators.

[2D45] Meta data creation error (Scan to File)
Check the template settings. Perform the job in error again. If the error still occurs, turn the power OFF and then back ON, and then perform the job in error again.

[2D62] File server connection error
Check the IP address or path of the server.
Check if the server is operating properly.

[2D63] Invalid network path
Check the network path.
If the path is correct, turn the power OFF and then back ON, and perform the job again.

[2D64] Login failure
Reset the login name and password. Perform the job.
Check if the account of the server is properly set up.

[2D65] Exceeding documents in folder: Creating new document is failed
Delete some documents in the folder.

[2D66] Storage capacity full failure during processing
Delete the job in progress or being set or in the HOLD/PRIVATE/PROOF/INVALID, and perform it again.
Check if the server or local disk has a sufficient space in disk capacity.
Check that there is enough space in the server or local disk.

[2D67] FTP service not available
Check if the setting of FTP service is valid.

[2D68] File sharing service not available
Check if the setting of SMB is valid.

[2D69] NetWare service not available
Check if the Netware setting is enabled.

[2DC1] Power failure
Check if the power cable is connected properly and it is inserted securely.
Check if the power voltage is unstable.

[2E10] USB storage system access abnormality
Turn the power OFF and then back ON. Perform the job in error again. If the error still occurs, first, check if there are no jobs existing and then perform HDD formatting ([5] + [C] + [POWER] ON -> [3] -> [1]).

[2E11] Insufficient memory capacity for USB storage
If there is a job in progress, perform the job in error again after the job in progress is finished. If the error still occurs, turn the power OFF and then back ON, and then perform the job in error again.

[2E12] Message reception error in USB storage
[2E13] Message transmission error in USB storage
Turn the power OFF and then back ON. Perform the job in error again.

[2E14] Invalid parameter for USB storage
If a template is being used, recreate the template. If the error still occurs, turn the power OFF and then back ON. Perform the job in error again.

[2E15] Exceeding maximum file capacity
Delete some files in the folder. Perform the job in error again.

[2E30] Directory creation failure in USB storage
Check if access privilege to the storage directory is writable. Check if the server or local disk has sufficient space in its disk capacity.

[2E31] File creation failure in USB storage
Check if access privilege to the storage directory is writable. Check if the server or local disk has sufficient space in its disk capacity.

[2E32] File deletion failure in USB storage
Turn the power OFF and then back ON. Perform the job in error again. If the error still occurs, first, check if there are no jobs existing and then perform HDD formatting ([5] + [C] + [POWER] ON -> [3] -> [1]).

[2E33] File access failure in USB storage
Check if access privilege to the storage directory is writable. Check if the server or local disk has sufficient space in its disk capacity.

[2E40] Image conversion abnormality in USB storage

Turn the power OFF and then back ON. Perform the job in error again. Replace the main memory and then perform the job in error again.

[2E43] Encryption failure in USB storage

Turn the power OFF and then back ON. Perform the job in error again.

[2E44] Encryption PDF enforced mode error in USB storage

Reset the encryption and perform the job in error again. To create an image file not encrypted, consult your administrator.

[2E45] Meta data creation error in USB storage (Scan to File)

Check the template settings. Perform the job in error again. If the error still occurs, turn the power OFF and then back ON, and then perform the job in error again.

[2E65] File creation error due to insufficient USB folder capacity

Delete unnecessary files in the folder.

[2E66] HDD full failure in USB storage

Delete the job in progress or being set or in the HOLD/PRIVATE/PROOF/INVALID, and perform it again.
Check if the server or local disk has a sufficient space in disk capacity.
Check that there is enough space in the USB memory.

[2EC1] Power failure in USB storage

Check if the power cable is connected properly and inserted securely. Check if the power voltage is unstable.

[7] E-mail reception related error

[3A10] E-mail MIME error
The format of the mail is not corresponding to MIME 1.0.
Request the sender to retransmit the mail in the format corresponding to MIME 1.0.

[3A20] E-mail analysis error
[3B10] E-mail format error
[3B40] E-mail decode error
These errors occur when the mail data is damaged from the transmission to the reception of the mail.
Request the sender to retransmit the mail.

[3A30] Partial mail time-out error
The partial mail is not received in a specified period of time.
Request the sender to retransmit the partial mail, or set the time-out period of the partial mail longer.

[3A40] Partial mail related error
The format of the partial mail is not corresponding to this equipment.
Request the sender to remake and retransmit the partial mail in RFC2046 format.

[3A50] Insufficient HDD capacity error
These errors occur when the HDD capacity is not sufficient for a temporary concentration of the jobs, etc.
Request the sender to retransmit after a certain period of time, or divide the mail into more than one.
Insufficient HDD capacity error also occurs when printing is disabled for no printing paper.
In this case, supply the printing paper.

[3A70] Warning of partial mail interruption
This error occurs when the partial mail reception setting becomes OFF during the partial mail reception.
Reset the partial mail reception setting ON and then request the sender to retransmit the mail.

[3A80] Partial mail reception setting OFF
Reset the partial mail reception setting ON and then request the sender to retransmit the mail.

[3B20] Content-Type error
The format of the attached file is not supported by this equipment (TIFF-FX).
Request the sender to retransmit the file in TIFF-FX.

[3C10] [3C13] TIFF analysis error
These errors occur when the mail data is damaged from the transmission to the reception of the mail, or when the format of the attached file is not supported by this equipment (TIFF-FX).
Request the sender to retransmit the mail.

[3C20] TIFF compression error
The compression method of the TIFF file is not acceptable for this equipment. (Acceptable: MH/MR/MMR/JBIG)
Request the sender to retransmit the file in the acceptable compression method.

[3C30] TIFF resolution error
The resolution of the TIFF file is not acceptable for this equipment. (Acceptable: 200 x 100, 200 x 200, 200 x 400, 400 x 400, 300 x 300 or equivalent)
Request the sender to retransmit the file in the acceptable resolution.

[3C40] TIFF paper size error
The paper size of the TIFF file is not acceptable for this equipment. (Acceptable: A4, B4, A3, B5, LT, LG, LD or ST)
Request the sender to retransmit the file in the acceptable paper size.

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ERROR CODE AND TROUBLESHOOTING

[3C50] Offramp destination error

These errors occur when the FAX number of the offramp destination is incorrect.
Request the sender to correct the FAX number of offramp destination and then retransmit the mail.

[3C60] Offramp security error

These errors occur when the FAX number of the offramp destination is not on the Address Book.
Check if the FAX number of the offramp destination is correctly entered or the number has not been changed.

[3C70] Power failure error

Check if the mail is recovered after turning ON the power again.
Request the sender to retransmit the mail if it is not recovered.

[3C90] OffRamp Fax transmission disable error

OffRamp Fax transmission disable error has been detected in the received mail.
Confirm if the Fax Send Function of MFP setting is disable or not.

[3D10] Destination address error

Check if the setting of the server or DNS is correct. Correct if any of the setting is incorrect.
When the content of the setting is correct, confirm the sender if the destination is correct.

[3D20] Offramp destination limitation error

Inform the sender that the transfer of the FAX data over 40 is not supported.

[3D30] FAX board error

This error occurs when the FAX board is not installed or the FAX board has an abnormality.
Check if the FAX board is correctly connected.

[3E10] POP3 server connection error

Check if the IP address or domain name of the POP3 server set for this equipment is correct, or check if POP3 server to be connected is operating properly.

[3E20] POP3 server connection time-out error

Check if POP3 server to be connected is operating properly.
Check if the LAN cable is correctly connected.

[3E30] POP3 login error

Check if the POP3 server login name and password set for this equipment are correct.

[3E40] POP3 Login Type error

Check that the login type (Auto, POP3 or APOP) to the POP3 server is correct.

[3F10] [3F20] File I/O error

These errors occur when the mail data is not transferred properly to the HDD.
Request the sender to retransmit the mail.
Replace the HDD if the error still occurs after retransmission.

8.3.27 Printer function error

[4011] Print job cancellation
This message appears when deleting the job on the screen.

[4021] Print job power failure
When there are running jobs, perform the job in error again after the completion of the running jobs.
If the error still occurs, turn the power OFF and then back ON, and perform the job again.

[4031] HDD full error
Delete unnecessary private print jobs and invalid department print jobs.

[4041] User authentication error
Perform the authentication or register as a user, and then perform the printing again.

[4042] Department authentication error
Check department information registered in this equipment.

[4045] Problem in LDAP server connection or LDAP server authorization settings
Confirm the administrator for the LDAP server connection or LDAP server authorization settings.

[4111] Quota over error (The number of the assigned pages set by department and user management has reached 0.)
The number of the assigned pages set by the department and the number of those assigned by user management have both reached 0. Assign the number of the pages again or perform initialization.

[4112] Quota over error (The number of the assigned pages set by user management has reached 0.)
The number of the assigned pages set by the user management has reached 0. Assign the number of the pages again or perform initialization.

[4113] Quota over error (The number of the assigned pages set by department management has reached 0.)
The number of the assigned pages set by the department management has reached 0. Assign the number of the pages again or perform initialization.

[4121] Job canceling due to external counter error
1. Drop a coin in. Perform the print job in error again.
2. Insert a key card and then perform the print job in error again, or consult your administrator.
3. Insert a key copy counter and then perform the print job in error again.
4. Reset the scheduled print job and then perform the print job in error again.

[4211] Printing data storing limitation error
Select "Normal Print", and then perform the printing again.

[4212] e-Filing storing limitation error
Select "Normal Print", and then perform the printing again.

[4213] File storing limitation error
The file storing function is set to "disabled". Check the settings of the equipment.

[4214] Fax/Internet Fax transmission limitation error
Check the settings of this equipment.

[4221] Private-print-only error
Select "Private print", and then perform the printing again.

[4231] Hardcopy security printing error
Hardcopy security printing cannot be performed because the function is restricted in the self-diagnosis mode.

[4311] Printing not permitted

Confirm the administrator for the JOB authorization.

[4312] Not authorized to store a file

The user has not been authorized to perform this operation. Ask your administrator.

[4313] No privilege for e-Filing storage
[4314] No privilege for Fax / Internet Fax transmission
[4321] No privilege for print settings

Check the privilege given, or request the administrator to add the necessary privilege.

[4411] Image data creation failure

Check if the file to be printed is broken. Perform printing again or use another printer driver.
- Network print: Perform the print job in error again, or use another printer driver (e.g.; PS3, Universal).
- Direct print: Check if the file is corrupted (e.g. checking if the file is displayed on your PC monitor), or check if the file format is supported by this equipment.

[4412] Double-sign encoding error

Printing using this function cannot be performed due to a decoding process error which occurs because the PDF file is encrypted incorrectly or encrypted in a language not supported.

[4611] Font download failure (reached the registration limit)
[4612] Font download failure (HDD full)

Delete one or more font already registered.

[4613] Font download failure (others)

Reattempt the downloading. Recreate font data and reattempt the downloading.

[4621] Font deletion failure

Check if the font to be deleted is registered (or pre-registered) in this equipment.

[4F10] System abnormality

(1) Perform the job in error again. If the error still occurs, turn the power OFF and then back ON, and perform the job again.
(2) Collect the debug log with USB device.
   📖 P. 8-2 "8.1.2 Collection of debug logs with a USB device"
(3) Initialize HDD/SSD.
   Refer to step 3 and later in "[F]Replace / Format HDD/SSD" in "9.2.3Precautions and procedures when replacing the HDD/SSD".

8.3.28 TopAccess related error/Communication error with external application

[5010] Internal setting error

Classification	Error item
Communication error with external application	There is a print job, a proof print job, a private print job, a print job without a set department code, a scan job or a fax job remaining in this equipment.

Check item	Measures
Setting	Delete the remaining jobs. Turn the power OFF and then back ON. Until the initial registration is begun, do not press any button on the control panel or start any print or fax job.

[5012] Authentication error

Classification	Error item
Communication error with external application	A temporary password downloaded from e-Bridge and entered in this equipment is not valid, or the permanent password set in the e-Bridge is not valid.

Check item	Measures
Setting	Confirm the user name and temporary password.

[5013] e-Bridge communication error

Classification	Error item
Communication error with external application	Communication is attempted while the e-Bridge is enabled for some reason such as version upgrade.

Check item	Measures
Setting	Check if the MFP is connected to the eBR2 server.

[5014] No SSL certificate

Classification	Error item
Communication error with external application	There is no SSL certificate or the certificate is not in a correct file format.

Check item	Measures
Setting	Install the correct SSL certificate.

[5015] Invalid SSL certificate

Classification	Error item
Communication error with external application	SSL certificate is not valid.

Check item	Measures
Setting	Install the correct SSL certificate.

[5016] Expired SSL certificate

Classification	Error item
Communication error with external application	SSL certificate is expired.

Check item	Measures
Setting	Set the correct time.

[5017] Other SSL certificate related error

Classification	Error item
Communication error with external application	SSL certificate is invalid.

Check item	Measures
Setting	Install the correct SSL certificate.

[5018] Invalid DNS error

Classification	Error item
Communication error with external application	DNS address is invalid.

Check item	Measures
Setting	Set the correct DNS address. If any setting is needed in DNS, consult your administrators.

[5019] Connection error

Classification	Error item
Communication error with external application	Settings for initial URL and proxy are incorrect.

Check item	Measures
Setting	Perform the correct settings for initial URL and proxy.

[501A] Proxy error

Classification	Error item
Communication error with external application	IP address or port for proxy setting is invalid.

Check item	Measures
Setting	Set the correct IP address or port for the proxy setting. If any setting is needed in proxy, consult your administrators.

[501B] No URL (host/port) or invalid path

Classification	Error item
Communication error with external application	Initial URL is invalid.

Check item	Measures
Setting	Set the correct initial URL.

[5030] HTTP communication error

Classification	Error item
Communication error with external application	An error in the HTTP communication

Check item	Measures
Setting	Check the URL for communication. Check that the valid IP address is assigned to connect to the server.

[50FF] eBR2 internal error

Classification	Error item
MFP internal error	A fatal error occurred in the MFP

Check item	Measures
Setting	Restart the MFP, and then try again.

[5110] Toner cartridge detection error

Classification	Error item
TopAccess related error	

Check item	Measures
Setting	• Check if the toner cartridge is installed properly. • Check if the toner cartridge detection sensor operates properly.

[5212] Time for cleaning of the slit glass and main charger

Classification	Error item
TopAccess related error	

Check item	Measures
Setting	• Clean the LED printer head and main charger. • If the message is not cleared after the cleaning, check if there is any detection error, breakage or poor connection of the needle electrode cleaner detection sensor.

[5BD0] Power failure during restoration

Classification	Error item
TopAccess related error	

Check item	Measures
Setting	• Check if the power cable is connected properly and is inserted securely. • Check if the power voltage is unstable. • Reattempt the restoration of the database (Address Book, templates, F-code (Mailbox) or user information).

[5C10] FAX Unit attachment error

Classification	Error item
TopAccess related error	

Check item	Measures
Setting	• Check if the FAX Unit is attached. • Check if there is any damage or abnormality on the FAX board. • Check if the connector on the FAX board is connected properly.

[5C11] Network FAX transmission error

Classification	Error item
TopAccess related error	

Check item	Measures
Setting	The address specified for the network FAX is not registered on the Address Book. Register it.

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8.3.29 MFP access error

[6007] Unsuccessful User Login to MFP

Classification	Error item
MFP access error	User authentication cannot be done because connection to the authentication server has failed.

Check item	Measures
Setting	Check if the operating status of the server and connection from an MFP have been confirmed.

[6008] Failed to connect on External Role Base Access Control (LDAP) Server

Classification	Error item
MFP access error	User authentication cannot be done because connection to an external RBAC server has failed.

Check item	Measures
Setting	Check if the operating status of the server and connection from the MFP have been confirmed.

[6013] Connection failure to the authentication server

Classification	Error item
MFP access error	Failed to connect to the authentication server

Check item	Measures
Setting	Check that the server setting is proper by accessing [TopAccess] -> [Administration] -> [Maintenance] -> [Directory Service]. When "Auto" is selected as the authentication method, this error may output to the log depending on the environment.

[6014] The authentication server that cannot be accessed is detected

Classification	Error item
MFP access error	The authentication server that cannot be accessed is detected

Check item	Measures
Setting	Check if the authentication server is down since the access to the authentication server is not available. The unavailable authentication server is accessed again if the time set in 08-8788 passes or the power of the equipment is turned OFF and back ON.

[6032] Card related error: Expired card

Classification	Error item
MFP access error	The card cannot be used because it has expired.

Check item	Measures
Setting	Use a card with a valid expiration.

[6033] Card related error: Invalid flag data (no room-entry data)

Classification	Error item
MFP access error	The card cannot be used because no room-entry data are recorded in it.

Check item	Measures
Setting	Use a correct card that has been used for entering the room.

[6034] Card related error: Invalid flag data (invalid card data)

Classification	Error item
MFP access error	The card cannot be used because the data required for the use of the card are not correctly set.

Check item	Measures
Setting	Use a valid card.

[6041] Card authentication: Card related error

Classification	Error item
MFP access error	Card data cannot be obtained correctly.

Check item	Measures
Setting	Reattempt scanning. If the error still occurs after reattempting scanning for several times, card data may be corrupted or the card reader may be out of order.

[6042] Card authentication: Card setting error

Classification	Error item
MFP access error	The self-diagnostic code required for card authentication is not set in this equipment correctly.

Check item	Measures
Setting	Set the correct self-diagnostic code.

[6052] User authentication for print job failed because connection to an external RBAC server has failed.

Classification	Error item
MFP access error	User authentication for print job cannot be done because connection to an external RBAC server has failed.

Check item	Measures
Setting	Check if the operating status of the server and connection from the MFP have been confirmed.

[6121] Automatic Secure Erase failure

Classification	Error item
MFP access error	The automatic secure erase fails.

Check item	Measures
Setting	Data overwriting failed for some reason. If the error still occurs after rebooting the equipment, start up using the following procedure:[3] + [C] + [POWER] → 3. HDD formatting → Reinstallation of software or HDD replacement

[6131] MFP fail to verify clock with Time Server

Classification	Error item
MFP access error	The MFP is not synchronized with the SNTP server.

Check item	Measures
Setting	• Check that the SNTP server is operating correctly. • Check that the path to the SNTP server is operating correctly. • Check that the settings are correct in TopAccess -> [Administrator] -> [Setup] -> [General] -> [SNTP Service].

8.3.30 Maintenance error

[7101] System firmware installation failure
[7103] Engine firmware installation failure
[7105] Scanner firmware installation failure
[7111] Patch installation failure
[7113] Plug-in installation failure
[7115] HDD data installation failure
[7117] DF firmware installation failure

Classification	Error item
Maintenance error	System firmware installation failed. ([7101]) Engine firmware installation failed. ([7103]) Scanner firmware installation failed. ([7105]) MEP firmware installation failed. ([7107]) Patch installation failed. ([7111]) Plug-in installation failed. ([7113]) HDD data installation failed. ([7115]) DF firmware installation failed. ([7117])

Check item	Measures
Setting	Software package file may have a problem or may be corrupted. Check the software package file and then reattempt the installation.

Replace parts	Remarks

[7109] Printer driver update failure

Classification	Error item
Maintenance error	Printer driver upload failed.

Check item	Measures
Setting	Printer driver file may have a problem or may be corrupted. Check the package file and then reattempt the upload.

[710B] Point and Print data installation failure

Classification	Error item
Maintenance error	Point and Print data upload failed.

Check item	Measures
Setting	Point and Print data may have a problem or may be corrupted. Check the package file and then reattempt the upload.

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[710F] Language Pack installation failure

Classification	Error item
Maintenance error	Language Pack installation failed.

Check item	Measures
Setting	Language Pack file may have a problem or may be corrupted. Check the package file and then reattempt the installation.

[711D] License key returning failure

Classification	Error item
Maintenance error	The one-time dongle license fails to be returned to USB device.

Check item	Measures
Setting	Return the license to the USB device used for installing the license. Check that the USB device is correctly installed. **Notes:** The GP-1080 IPSec Enabler cannot return to the USB device due to license problem. The GP-1070 Overwrite Enabler cannot return to the USB device in the high security (08-8911: 3).

[711F] License key installation failure

Classification	Error item
Maintenance error	The one-time dongle license fails to be installed.

Check item	Measures
Setting	Check that the USB device is correctly installed.

[71A4] Cryptographic key consistency confirmation failure

Classification	Error item
Maintenance error	Cryptographic key consistency confirmation failed.

Check item	Measures
Setting	Start up the equipment in the following procedure:[3] + [C] + [POWER] → 5. Key Backup RestoreThen overwrite the corrupted license key with a normal one.

[71AA] Unidentified error during certificate acquisition from SCEP server

Classification	Error item
Maintenance error	Unidentified error occurred during certificate acquisition from SCEP server.

Check item	Measures
Setting	Check SCEP server and the SCEP setting (automatic) on the TopAccess screen as follows: TopAccess Administration → Security → Certificate Management

[71AB] Timeout error during certificate acquisition from SCEP server

Classification	Error item
Maintenance error	Timeout error occurred during certificate acquisition from SCEP server.

Check item	Measures
Setting	Check SCEP server and the SCEP setting (automatic) on the TopAccess screen in the following procedure: TopAccess Administration → Security → Certificate Management

[71AC] File save error during certificate acquisition from SCEP server

Classification	Error item
Maintenance error	File save error occurred during certificate acquisition from SCEP server.

Check item	Measures
Setting	File saving failed for some reason. If the error still occurs after rebooting the equipment, start up using the following procedure:[3] + [C] + [POWER] → 3. HDD formatting → Reinstallation of software or HDD replacement

[71B0] Software package file decryption failure

Classification	Error item
Maintenance error	Software package file decryption failed.

Check item	Measures
Setting	Software package file may have a problem or may be corrupted. Check the software package file and then reattempt the installation.

[71B5] Finisher firmware installation failure

Classification	Error item
Maintenance error	Finisher firmware installation failure

Check item	Measures
Setting	Finisher firmware installation failed. Reinstall the firmware.

[71B7] Saddle firmware installation failure

Classification	Error item
Maintenance error	Saddle firmware installation failure

Check item	Measures
Setting	Saddle firmware installation failed. Reinstall the firmware.

[71B9] Punch firmware installation failure

Classification	Error item
Maintenance error	Punch firmware installation failure

Check item	Measures
Setting	Punch firmware installation failed. Reinstall the firmware.

8.3.31 Network error

[8000] Static IPv4 address conflict

Classification	Error item
Network error	IPv4 address overlaps.

Check item	Measures
Setting	Check if the same IP address is not used by other machine.

[8011] Linklocal Address Conflict

Classification	Error item
Network error	Linklocal Address Conflict

Check item	Measures
Setting	Check if the same IP address is not used by other machine.

[8012] Manual Address Conflict

Classification	Error item
Network error	Manual IPv6 Address Conflict

Check item	Measures
Setting	Check if the same IP address is not used by other machine.

[8013] Stateless Address Conflict

Classification	Error item
Network error	Stateless Address Conflict

Check item	Measures
Setting	Check if the same IP address is not used by other machine.

[8014] Stateful Address Conflict

Classification	Error item
Network error	Stateful Address Conflict

Check item	Measures
Setting	Check if the same IP address is not used by other machine.

[8022] Authentication Failure

Classification	Error item
Network error	Failed in 802.1X authentication.

Check item	Measures
Setting	Check the user credential.

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[8023] Can not contact Authentication Server/Switch

Classification	Error item
Network error	Failed in connection to authentication server and switch.

Check item	Measures
Setting	Check connectivity to switch or server.

[8024] Certificate verification Failure

Classification	Error item
Network error	Failed in verification of certificate.

Check item	Measures
Setting	Check if a valid certificate is installed.

[8031] IKEv1 certification failed

Classification	Error item
Network error	Ipsec error for ikev1 certification failed

Check item	Measures
Setting	Check 1. CA and user certificate in both MFP and remote peer - certificate timestamp and IPsec Certificate template should be valid. 2. CRL DP server name is mapped in MFP's host table or DNS entry. 3. Certificate against CRL.

[8032] IKEv1 wrong proposal choosen

Classification	Error item
Network error	Ipsec error for wrong proposal choosen

Check item	Measures
Setting	Check the IKEv1 IPsec proposal parameters (like encryption/ authentication algorithms, DH group, authentication methods) in MFP and peer machine.

[8033] IKEv1 shared key authentication failed

Classification	Error item
Network error	Ipsec error if auth for shared key failed

Check item	Measures
Setting	Mismatch in IKEv1 Pre Shared Key. Check the PSK in MFP and remote machine.

[8034] IKEv1 invalid certificate

Classification	Error item
Network error	Ipsec error if invalid certificate uploaded

Check item	Measures
Setting	Check the CA and User certificate in MFP and peer machine.

[8035] IKEv1 certificate not supported

Classification	Error item
Network error	Ipsec error if certificate not supported

Check item	Measures
Setting	Check the User certificate type.

[8036] IKEv1 invalid certificate authentication

Classification	Error item
Network error	Ipsec error if invalid certificate authentication

Check item	Measures
Setting	Check the CA certificate in MFP and Peer machine.

[8037] IKEv1 certificate unavialable

Classification	Error item
Network error	Ipsec error if certificate are not avialable

Check item	Measures
Setting	Certificate has been deleted from Certificate store. Re-upload the corresponding certificates.

[8038] IKEv1 no SA established

Classification	Error item
Network error	Ipsec error for SA is not present

Check item	Measures
Setting	Check the IKEv1/IPsec proposal parameters (like encryption/ authentication algorithms, DH group, authentication methods) in MFP and peer machine. Check 1. CA and user certificate in both MFP and remote peer - certificate timestamp and IPsec Certificatetem.

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[8039] IKEv1 invalid signature

Classification	Error item
Network error	Ipsec error for invalid signaturer for certificate

Check item	Measures
Setting	Mismatch in Signature payload (MAC or IV). Check the CA and user certificate in MFP and peer machine.

[803A] IKEv2 wrong proposal choosen

Classification	Error item
Network error	Ipsec error is proposal choosen is wrong

Check item	Measures
Setting	Check the IKEv2/IPsec proposal parameters (encryption/authentication algorithms, DH group, authentication methods) in MFP and peer machine.

[803B] IKEv2 Certificate failed

Classification	Error item
Network error	Ipsec error for ikev2 certification failed

Check item	Measures
Setting	Check 1. CA and user certificate in both MFP and remote peer - certificate timestamp and IPsec Certificate template should be valid. 2. CRL DP server name is mapped in MFP's host table or DNS entry. 3. Certificate against CRL.

[803C] IKEv2 secret key authentication failed

Classification	Error item
Network error	Ipsec error for ikev2 if secret key auth failed

Check item	Measures
Setting	Mismatch in IKEv2 Pre Shared Key. Check the PSK in MFP and peer machine.

[803D] IKEv2 falling back to IKEv1

Classification	Error item
Network error	Ipsec error if peer dosent support IKEv2 and falling back to IKEv1

Check item	Measures
Setting	Remote machine is not supporting IKEv2. Going back to use IKEv1.

[803E] IKEv2 ISAKMP SA unavialable

Classification	Error item
Network error	Ipsec error if ISAKMP SA is not created of destroyed due to some uncertain condition

Check item	Measures
Setting	Restart IPsec service on Peer and retry.

[803F] IKEv2 cryptographic operation failed

Classification	Error item
Network error	Ipsec error for ikev2 if crypto operation failed

Check item	Measures
Setting	If Certificates are being used, re-upload the corresponding certificates using Security Services. Restart IPsec Service on MFP.

[8040] IKEv2 invalid key information

Classification	Error item
Network error	Ipsec error for ikev2 if key info is invalid

Check item	Measures
Setting	Check IKE settings in MFP and peer.

[8041] IKEv2 CA not trusted

Classification	Error item
Network error	Ipsec error for ikev2 if CA is not trusted

Check item	Measures
Setting	Check the CA certificate in MFP and peer machine. Check the CA certificate timestamp.

[8042] IKEv2 Authentication method mismatch

Classification	Error item
Network error	Ipsec error if auth method is not matching

Check item	Measures
Setting	Mismatch in IKE authentication type. Check the Authentication type in MFP and peer.

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[8043] IPsec IKE version mismatch

Classification	Error item
Network error	Ipsec error if ike version is not matching

Check item	Measures
Setting	Mismatch in IKE version. Check the IKE version in MFP and peer.

[8044] IPsec encaptulation mismatch

Classification	Error item
Network error	Ipsec error for encaptulation is not matching

Check item	Measures
Setting	Check the IPsec mode (Transport/Tunnel) in MFP and peer.

[8045] IPsec Peer IP mismatch

Classification	Error item
Network error	Ipsec error for peer ip mismatch

Check item	Measures
Setting	Remote Traffic selector mismatch. Check the destination address/port in IPsec filter.

[8046] IPsec local IP mismatch

Classification	Error item
Network error	Ipsec error for local ip mismatch

Check item	Measures
Setting	Local traffic selector mismatch. Check the source address/port in IPsec filter.

[8047] IPsec local ID mismatch

Classification	Error item
Network error	Ipsec error for local id mismatch

Check item	Measures
Setting	Check the user certificate in MFP

[8048] IPsec Remote ID mismatch

Classification	Error item
Network error	Ipsec error for remote id mismatch

Check item	Measures
Setting	Check the user certificate in peer machine.

[8049] IPsec Remote IP mismatch

Classification	Error item
Network error	Ipsec error for remote ip mismatch

Check item	Measures
Setting	Remote traffic selector mismatch. Check the source address/port in IPsec filter.

[804A] IPsec IKE timeout

Classification	Error item
Network error	Ipsec error for ike timeout

Check item	Measures
Setting	Check the network connectivity between MFP and peer machine. Select the Flush Connections Option and retry.

[804B] IPSec invalid manual key

Classification	Error item
Network error	Ipsec error id manual key is not valid

Check item	Measures
Setting	Check the Inbound and Outbound (ESP Encryption/ Authentication and AH Authentication) keys in MFP and Remote PC.

[8061] Secure update to primary IPv4 server failed
[8062] Secure update to secondary IPv4 server failed
[8063] Secure update to primary IPv6 server failed
[8064] Secure update to secondary IPv6 server failed
[8065] IPv6 primary DDNS update error
[8066] IPv6 secondary DDNS update error
[8067] IPv4 primary DDNS update error
[8068] IPv4 secondary DDNS update error

Classification	Error item
Network error	Secure update to primary IPv4 server failed. ([8061]) Secure update to secondary IPv4 server failed. ([8062]) Secure update to primary IPv6 server failed. ([8063]) Secure update to secondary IPv6 server failed. ([8064]) IPv6 primary DDNS update error. ([8065]) IPv6 secondary DDNS update error. ([8066]) IPv4 primary DDNS update error. ([8067]) IPv4 secondary DDNS update error. ([8068])

Check item	Measures
Setting	Check if there is any problem with DNS or DDNS settings.

[8069] Invalid TSIG/SIG(0) Key file

Classification	Error item
Network error	This message is displayed when the key file for SIG(0) or TSIG is invalid.

Check item	Measures
Setting	Verify the TSIG/SIG(0) key files used.

[8101] Wireless association with Access point failure

Classification	Error item
Network error	Wireless association with Access point failure

Check item	Measures
Setting	Verify the credentials used for association with Access point.

[8102] MFP not able to contact the Access point with the specified SSID

Classification	Error item
Network error	MFP not able to contact the Access point with the specified SSID

Check item	Measures
Setting	Verify the access point name setting and mechanism used for association same as Access Point setting.

[8103] Wireless Certificate verification failure

Classification	Error item
Network error	Wireless Certificate verification failure

Check item	Measures
Setting	Verify the certificate settings used for association.

[8121] Domain - General Failure during Authentication

Classification	Error item
Network error	An unknown domain authentication error occurs when connecting to the domain controller.

Check item	Measures
Setting	Check the network settings of the equipment, and retry connecting to the domain controller.

[8122] Domain - Invalid Username or Password

Classification	Error item
Network error	The user name or password of the domain authentication is not valid and the user cannot log on.

Check item	Measures
Setting	Check if the user name or password is correctly entered. Enter them by specifying the upper and lower case letters correctly.

[8123] Domain - Server not present in Network

Classification	Error item
Network error	The server cannot be detected at domain authentication.

Check item	Measures
Setting	Check if the server fails. Check the network settings of the equipment. If name resolution is used, check the settings of the DNS and DDNS.

[8124] Domain - User account is disabled on Server

Classification	Error item
Network error	The user account is invalid at domain authentication and it cannot be used to log on.

Check item	Measures
Setting	Check if the setting of the user account in "Active Directory User and Computer" is disabled.

[8125] Domain - User account has expired and cannot be used for logon

Classification	Error item
Network error	The user account has expired at domain authentication and it cannot be used to log on.

Check item	Measures
Setting	Check if the setting of the user account in "Active Directory User and Computer" has expired.

[8126] Domain - User account is locked and cannot be used for logon

Classification	Error item
Network error	The user account is locked at domain authentication and it cannot be used to log on.

Check item	Measures
Setting	Check the setting of the account lock-out on the server.

[8127] Domain - Invalid logon hours for the User

Classification	Error item
Network error	The user log-on time is invalid at domain authentication and the user cannot log-on.

Check item	Measures
Setting	Check the log-on time setting of the user account in "Active Directory User and Computer".

[8128] Active Directory Domain - Clock Skew error due to difference in Time between Server and MFP

Classification	Error item
Network error	The difference between the time set in the equipment and that set in the server is more than five minutes at domain authentication of the Active Directory and the user cannot log on.

Check item	Measures
Setting	Match the time of the equipment and domain controller, or if an SNTP server is in the network, recommend the use of SNTP.

[8129] Active Directory Domain - Kerberos Ticket has expired and cannot be used for Authentication

Classification	Error item
Network error	A Kerberos ticket has expired at the domain authentication of the Active Directory and the user cannot log on.

Check item	Measures
Setting	Check if the Kerberos ticket on the Kerberos server has expired.

[812A] Active Directory Domain - Verification of the Ticket has failed

Classification	Error item
Network error	A Kerberos ticket authentication error of the Active Directory domain authentication occurs and the user cannot log on.

Check item	Measures
Setting	Check if the user name or password is correctly entered. If this problem still persists, contact your Window server administrator.

[812B] Active Directory Domain-The Domain specified could not be found

Classification	Error item
Network error	The Realm name for the domain authentication of the Active Directory is invalid and the user cannot log on.

Check item	Measures
Setting	Check if the Realm name of the Active Directory server of the equipment is wrong. If this problem still persists, contact your Window server administrator.

8.4 Other errors

8.4.1 Equipment operation disabled after the installation of option(s)

Check if the optional board is installed properly.

8.4.2 Wireless LAN connection disabled

The connection state and settings of the Wireless LAN can be checked with [USER FUNCTIONS] →
[ADMIN] → [WIRELESS LAN] → [SETTING CHECK].
Confirm the settings with the administrator.
• "NIC INITIALIZING" does not disappear at the time of the power being turned ON and it disappears
  after 6 minutes with the NIC initializing time-out. In this case, the connection to the Wireless LAN did
  not succeed even though "NIC INITIALIZING" disappears.
• The connection to the Wireless LAN cannot be made if the Access Point to be connected is not
  found or security settings are not correct.

8.4.3 "Invalid Department Code" is displayed

Log in to TopAccess as an administrator, select [Authentication] on the [User Management] tab, and
then check whether Department Setting is enabled or disabled.

Department Setting is enabled:
• Log in to TopAccess as an administrator, select [Authentication] on the [User Management] tab, and
  then check User Management Setting.
• Confirm the settings of 08-3805 in the setting mode.

Department Setting is disabled:
• Log in to TopAccess as an administrator, select [Authentication] on the [User Management] tab, and
  then check User Management Setting.

8.4.4 Paper folded on the leading edge

If the leading edge of B4, B5 or B5-R paper is folded when it exits, check the following items.

• Check if the rear and side guides of the drawer or the side guide of the bypass tray correspond to
  the paper size.

8.4.5 Toner cartridge unrecognized

If the toner cartridge is not recognized, check the following.

• Check that there is no access abnormality to the toner cartridge IC chip.
  📖 P. 8-120 " [C911] Toner cartridge IC chip access board abnormality"

8.4.6 Ethernet disabled in half-duplex communication

The Ethernet of this equipment does not support half-duplex communication.
When the port setting of the switch is fixed at half-duplex communication, use any of 10/100/1000
Mbps, full-duplex fixed communication mode or auto-negotiation function.
In addition, select the setting of the equipment corresponding to that of the switch.
([ADMIN] > [NETWORK] > [ETHERNET])
Check the set communication speed as follows if required:
[ADMIN] > [NETWORK] > [ETHERNET]

8.4.7 The equipment does not start after the power has been turned ON.

Fig.8-5

Check item	Measures
Power voltage	Check if the power voltage is proper for this equipment. Is the voltage for this equipment +/-10% of the rated voltage?
Power cable	Check if the harnesses are properly connected or if they are open circuited.
Switching power supply (LVPS) [3]	Check if there is any abnormality on the inlet [1] and the harness (for the inlet) [2]. Check if there is any abnormality on the main power switch [4] and the harness (for the main power switch) [5].

	Check if the fuses (F1 and F2) on the input side have not melted.
	Check if the following voltage is output normally:
	    5VS: Pins CN511-5 and -6
	    12VA: Pins CN511-9, -10 and -11

LGC board	Reconnect the connectors. Replace the harnesses. Replace the LGC board.
SYS board	Reconnect the connectors. Replace the harnesses. Replace the SYS board.

Parts to be replaced	Remark
Fuse	
Harness (for the inlet)	
Harness (for the main power switch)	
Main power switch	

Parts to be replaced	Remark
Switching power supply (LVPS)	
LGC board	
SYS board	

8.4.8 "Authentication Failed" is displayed

- Reset the service password
  Reset the service password by accessing [USER FUNCTIONS] -> [ADMIN] -> [GENERAL] -> [PASSWORD SETUP] -> [RESET SERVICE PASSWORD].

- Initialize the SRAM
  Refer to 📖 P. 9-25 "9.2.5 Precautions and procedure when replacing the SRAM board (for the SYS board)", and perform "[D] Initialize SRAM system storage area" and following steps.

- Replace the SRAM board
  Refer to 📖 P. 9-25 "9.2.5 Precautions and procedure when replacing the SRAM board (for the SYS board)", and replace the SRAM board.

8.4.9 Hard disk full error "H04" is displayed

Preform the following, referring to 📖 P. 9-15 "9.2.3 Precautions and procedures when replacing the HDD/SSD".
- Back up the user data
  (1) [A] Back up data in HDD
  (2) [B] Print out "FUNCTION LIST FOR MAINTENANCE"
  (3) [C] Print out "FUNCTION" list

- Initialize the HDD
  (4) [E] Replace / Format HDD
  Step 2 for replacing the HDD is unnecessary.

- Restore the user data
  (5) [F] Reset user's setting items and restore data/information.
  (6) [G] Reset "FUNCTION LIST FOR MAINTENANCE"
  (7) [H] Reset "FUNCTION" list

- Adjust image puality
  (8) [I] Adjust image quality

8.4.10 Error code "M00" is displayed while updating firmware

Check item	Measures
SYS board	• Connector check (CN128) • Harness check • Short circuited or open circuited check
LGC board	• Connector check (CN336, CN323) • Harness check (HRNS-LGC-DRM-210, HRNS-LGC-ADUCFD-210, HRNS-LGC-DEV-210) • Short circuited or open circuited check
CFD board	• Harness check (HRNS-CFD-TRU-210)
LVPS board	• Connector check (CN512)

Check item	Measures
LED printer head	• Connector check (CN325, CN326, CN327, CN328, CN329, CN330, CN331, CN332) • Harness check • Short circuited or open circuited check

Replace parts	Remarks
SYS board	
LGC board	
LED printer head	
Harness	HRNS-LGC-DRM-210 HRNS-CFD-TRU-210 HRNS-LGC-ADUCFD-210 HRNS-LGC-DEV-210

8.5 Troubleshooting for the Image

8.5.1 Color deviation

1) Color deviation
<Symptoms>
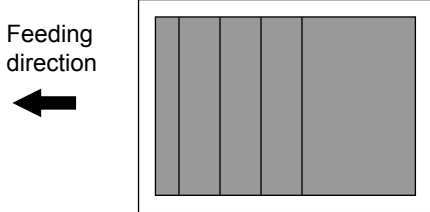
Original mode	Location	Phenomena	
All modes	Color blurred in outline of white text or illustration on a colored background	Color deviation→	 **Fig.8-6**
Text Mode Text/Photo Mode	Outline in black text on a colored background	White void→	 **Fig.8-7**
Photo Mode Map Mode	Color blurred in outline of line or text	Color deviation→	 **Fig.8-8**

Cause/Section	Step	Check Item	Measure	Remark
	1	Perform the Forced performing of color registration control adjustment (05-4719).	Has it ended normally? When CA00 occurs: → Proceed to [CA00] troubleshooting.	
	2	Test printing (A3/LD)	Output the built-in grid pattern	For the following checks
Drum rotation abnormality	3	Check the drum motor operation in the test mode (03) to see if there is any rotation abnormality of the drum.	Replace the drum TBU motor.	
	4	Check the drum TBU motor operation in the test mode (03) to see if there is any rotation abnormality of the drum.	Reconnect the connectors. Replace the harnesses. Replace the LGC board.	
Inadequate drum TBU motor rotation speed	5	Check the value set for drum TBU motor rotation speed. (Is the value significantly different from the default value?)	Reset drum TBU motor speed to 128.	
Drum coupling and coupling on the equipment side	6	Loose coupling, damage, deformation	Check if they are installed properly or replace the couplings.	

8

Cause/Section	Step	Check Item	Measure	Remark
Transfer belt	7	Deformation or damage of the transfer belt or stains on the transfer belt.	Clean or replace the transfer belt.	
	8	Are the gears on the transfer belt side loosen, damaged or deformed?	Tighten the screws if they loosen, or replace the gears.	
	9	Stain or damage of the drive roller	Clean or replace the drive roller.	
	10	Does the rib of the transfer belt overlap the collar on both edge of the drive roller?	Adjust the position of the transfer belt.	
	11	Is the belt edge damaged or stained?	Clean or replace the transfer belt.	
	12	Peeling of the cleaning blade (Large driving load)	Replace the cleaning blade.	
	13	Is the transfer belt unit installed normally? (Is the unit properly grounded?)	Check and correct the installing.	
High-voltage transformer	14	Check the connection of the high-voltage supply terminal of the 1st or 2nd transfer rollers.	Correct or replace the terminal if it is loosened or damaged.	

8.5.2　Uneven pitch and jitter image

<Symptoms>

Original mode	Location	Phenomena	
All modes	Occurs cyclically at right angles to paper feeding direction	Uneven pitch	Feeding direction ←
			Fig.8-9

Cause/Section	Step	Check Item	Measure	Remark
	1	Test printing (A3/LD)	Output the built-in halftone and grid patterns.	For the following checks
Drum	2	Are there uneven pitches of approx. 94 mm?	Replace the drum.	
	3	Is there any damage on the drum surface?	Clean or replace the drum.	
Drum drive	4	Is there any dent, damage or deformation on the gears of the drum drive unit?	Replace the gears of the drum drive unit.	
Drum rotation abnormality	5	Check the drum TBU motor operation in the test mode (03) to see if there is any rotation abnormality of the drum.	Reconnect the connectors. Replace the harnesses. Replace the LGC board. Replace the drum TBU motor.	
Developer sleeve	6	Are there uneven pitches of approx. 28 mm?	Replace the developer sleeve.	
Inadequate drum TBU motor rotation speed	7	Check the value set for drum TBU motor rotation speed. (Is the value significantly different from the default value?)	Reset drum TBU motor speed to 128.	
Drum coupling	8	Loose coupling, damage, deformation	Replace the couplings.	
Transfer belt	9	Deformation or damage of the transfer belt	Replace the transfer belt.	Check the halftone pattern. (Uneven pitch: approx. 56 mm)
	10	Stain or damage of the drive roller	Clean or replace the drive roller.	Check the halftone pattern. (Uneven pitch: approx. 56 mm)
	11	Large driving load due to the peeling of the cleaning blade	Replace the cleaning blade.	
Transfer belt drive	12	Are there uneven pitches of 0.5 mm or 0.71 mm?	Replace the TBU gears.	

Cause/Section	Step	Check Item	Measure	Remark
Feeding drive	13	Are there uneven pitches of approx 2.0 mm or 0.79 mm, 1.25 mm?	Replace the gears of the feed/transport gear unit and the first drawer transport clutches.	
	14	Is there any dent, damage or deformation on the gear of the feed/transport gear unit and the first drawer transport clutch (CLT1 or CLT2)?		
Fusing drive	15	Are there uneven pitches of approx. 94 mm?	Perform "Fine adjustment of fuser roller rotational speed" (05-4529).	
	16	Is the fuser unit properly installed in the equipment?	Check if the fuser unit is installed correctly.	
	17	Is there any dent, damage or deformation on the drive gears of the pressure roller?	Replace the drive gear of the pressure roller.	
EPU drive	18	Are there uneven pitches of approx. 0.78 mm?	Replace the developer drive unit, developer sleeve and drive gears of the mixer.	
	19	Is there any dent, damage or deformation on the developer drive unit, developer sleeve and drive gears of the mixer?		
2nd transfer roller	20	Are there uneven pitches of approx. 75 mm? Is there any deformation to the 2nd transfer roller? Since the 2nd transfer roller is always in contact with the transfer belt, the roller may creep if the power has not been turned on and the equipment left unused for a long time (1 month or more), causing an uneven pitch.	Replace the 2nd transfer roller.	This problem may occur on thick paper or the image on the back side of the paper in duplex printing.

8.5.3 Poor image density, color reproduction and gray balance

Check gray balance.   Check image density.

Check color reproduction.   Check color reproduction.
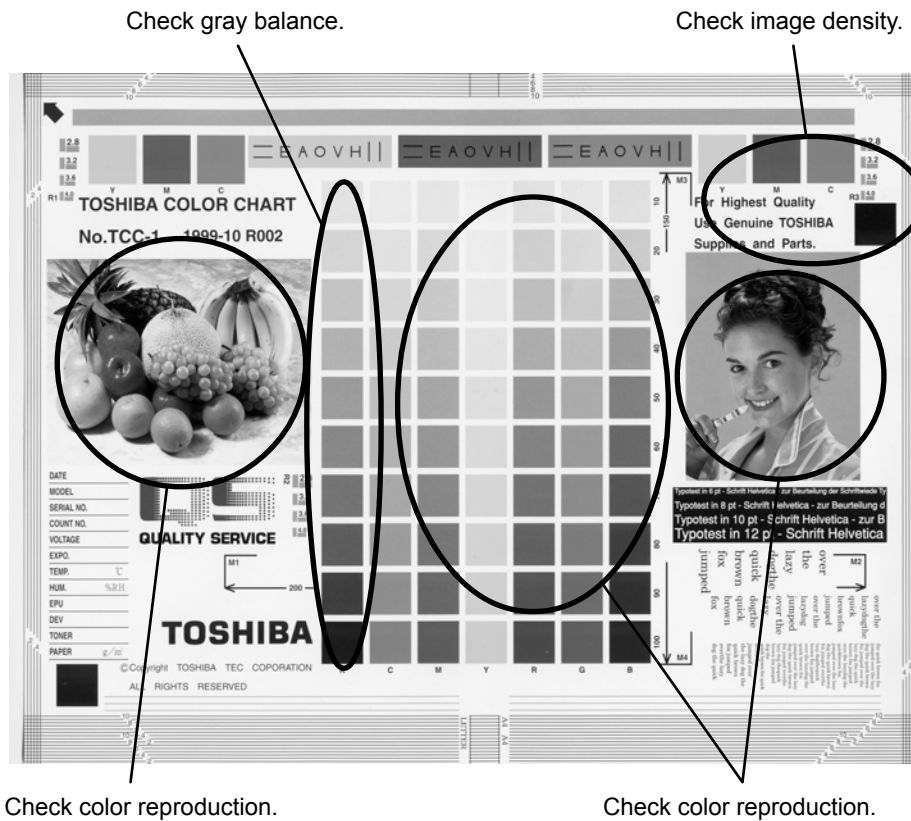
Fig.8-10

Cause/Section	Step	Check item	Measures	Remarks
Density / Color reproduction / Gray balance	1	Check the image density / color reproduction / gray balance.	Perform the enforced performing of image quality closed-loop control (05-2742) and then automatic gamma adjustment.	
Printer density	2	Check the density of printer output image.	Output the test patterns and check them. Using 04-36 for each color	See step 5 if defect occurs.
Scanner	3	Check if the original glass, mirrors or lens is dirty.	Clean it.	
Parameter adjustment value	4	Check the image processing parameters.	Adjust the color balance (color). Adjust the image density.	

Cause/Section	Step	Check item	Measures	Remarks
Printer output image abnormal	5	Is there any faded image (low density)?	Perform the troubleshooting procedures against the faded image.	
		Is there any fog in the background?	Perform the troubleshooting procedures against the background fogging.	
		Is there any blotch image?	Perform the troubleshooting procedures against the blotch image.	
		Is there any poor transfer?	Perform the troubleshooting procedures against the poor transfer.	
		Is there any poor cleaning of the transfer belt? (Check inside the equipment.)	Correct the transfer belt area.	

* If the trouble is not solved at the step 1 and the step 2 or followings (excluding the parameter adjustment) are performed, make sure to perform "Enforced performing of image quality closed-loop control" and then "Automatic gamma adjustment" after taking a measure.

8.5.4 Background fogging 1
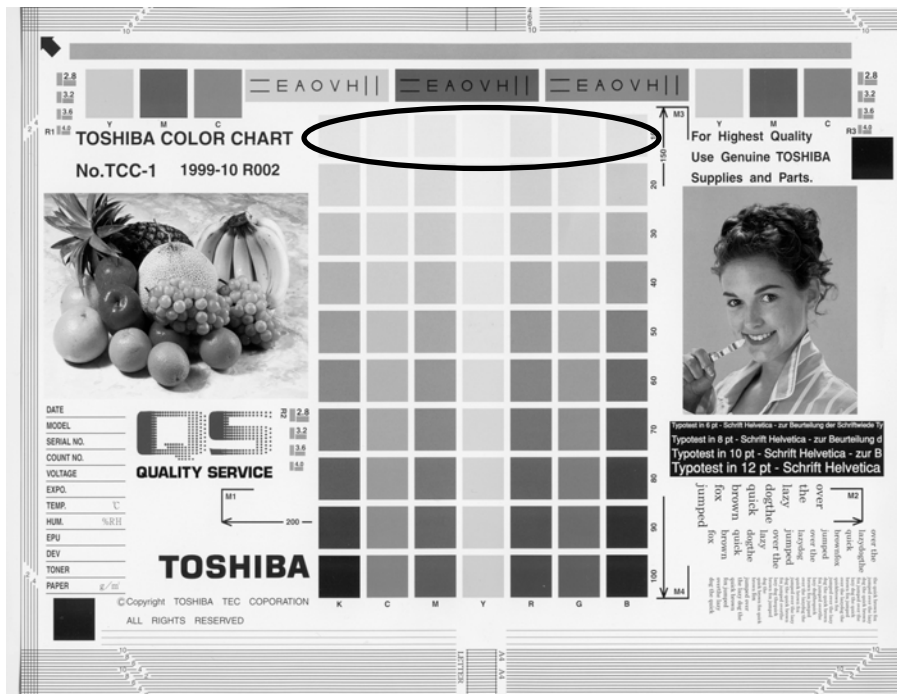
Fig.8-11

Cause/Section	Step	Check item	Measures	Remarks
Adjustment	1	Perform the shading correction.	Perform 05-3218. If an error occurs, retry it. If the error still persists, clean the original glass.	
Density reproduction	2	Check the gradation reproduction.	Perform the forced performing of image quality closed-loop control (05-2742) and then automatic gamma adjustment.	
Printer section	3	Check the printer output image.	Output the test patterns and check them. Using 04-36 for each color	See step 6 if defects occur.
Scanner	4	Check if the original glass, mirrors or lens is dirty.	Clean it.	
Parameter adjustment value	5	Check the image processing parameters.	Check the value of offsetting adjustment for background adjustment.	
	6	Adjust the image processing parameters.	While checking the above encircled image, adjust the reproduction level by the offsetting adjustment for background adjustment.	
Cover	7	Is the cover installed properly? (Is the drum exposed to the external light?)	Correct it.	

Cause/Section	Step	Check item	Measures	Remarks
Auto-toner	8	Is the auto-toner sensor normal?	Check the operation of auto-toner sensor and readjust.	
	9	Is the toner supply operating constantly?	Check the motor and circuits.	
Main charger output	10	Is the main charger output normal?	Check the circuits.	
Developer bias	11	Is the developer bias proper?	Check the circuits.	
Developer unit	12	Is the contact between the drum and developer material proper?	Check the doctor-to-sleeve gap and pole position.	
Developer material/ Toner/Drum	13	Using the specified developer material, toner and drum?	Use the specified developer material, toner and drum.	
	14	Have the developer material and drum reached their PM life?	Replace the developer material and drum.	
	15	Is the storage environment of the toner cartridge 35oC or less without dew?	Use the toner cartridge stored in the environment within specification.	
Drum cleaning blade	16	Is the drum cleaned properly?	Check the drum cleaning blade pressure.	
Transfer belt cleaning blade	17	Is the transfer belt cleaning blade in proper contact with the transfer belt?	Take off the transfer belt and check if the transfer belt cleaning blade pressure spring and pressure hook are installed properly.	
Toner dusting	18	Is the toner accumulated on the seals of the developer unit?	Remove the toner and clean the seals.	

* If the trouble is not solved at the step 1 and the step 2 or followings (excluding the parameter adjustment) are performed, make sure to perform "Enforced performing of image quality closed-loop control" and then "Automatic gamma adjustment" after taking a measure.

8.5.5 Background fogging 2 (1200 dpi printing)

<Symptoms>
The stripe pattern is printed on the whole area of paper at 1200 dpi printing, it looks like background fogging.
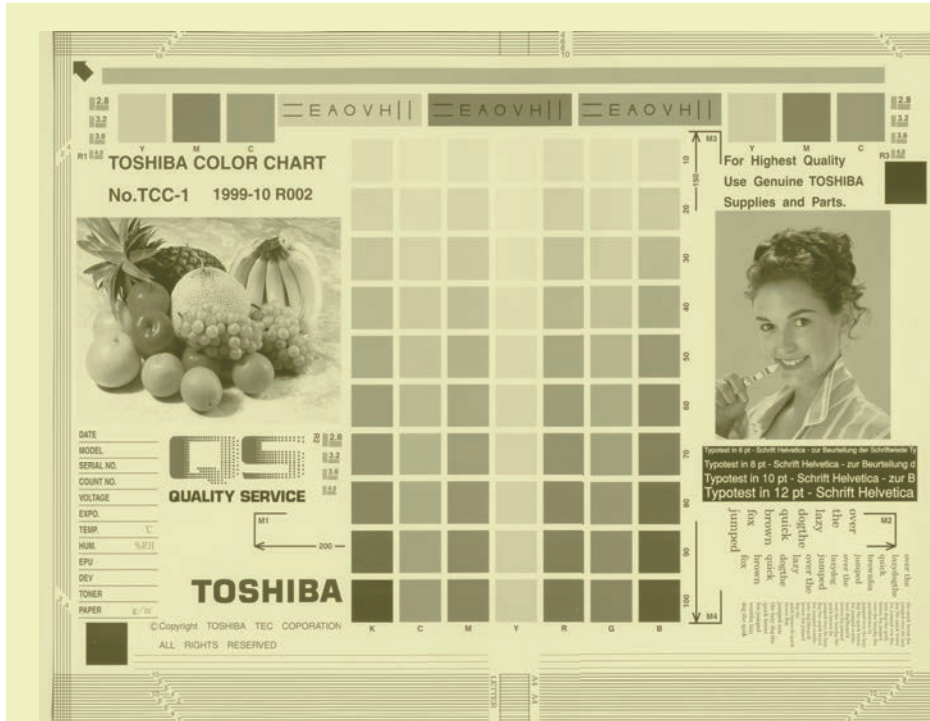
Fig.8-12

Cause/Section	Step	Check item	Measures	Remarks
Connectors which connect the LGC board and SYS board	1	Check if there is foreign matter or dust on the terminals of connectors (CN128 and CN350).	Remove the foreign matter or clean the connectors if there is dust.	
	2	Check if the connectors (CN128 and CN350) are inserted at an angle.	Insert the connectors properly.	
LGC board and SYS board	3	Check if the board is short circuited or open circuited.	Replace the LGC board or SYS board.	

8.5.6 Moire /lack of sharpness
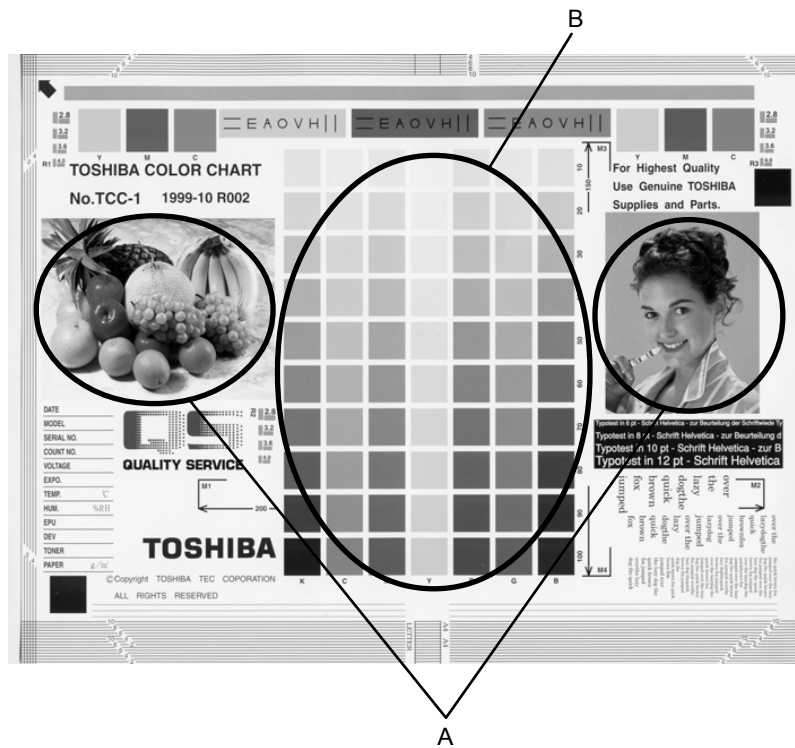
Fig.8-13

Moire

Cause/Section	Step	Check item	Measures	Remarks
Density reproduction	1	Check the gradation reproduction.	Perform the forced performing of image quality closed-loop control (05-2742) and then automatic gamma adjustment.	
Parameter adjustment value	2	Check the image processing parameters.	Check the sharpness adjustment value.	
	3	Adjust the image processing parameters.	While checking the above encircled images A and B, decrease moire by sharpness adjustment.	
Printer section	4	Check the printer output image.	Output the test patterns and check them. Using 04-36 for each color	When defects occur, perform the corresponding troubleshooting procedures.

Lack of sharpness

Cause/Section	Step	Check item	Measures	Remarks
Density reproduction	1	Check the gradation reproduction.	Perform the forced performing of image quality closed-loop control (05-2742) and then automatic gamma adjustment.	

Cause/Section	Step	Check item	Measures	Remarks
Parameter adjustment value	2	Check the image processing parameters.	Check the sharpness adjustment value.	
	3	Adjust the image processing parameters.	While checking the above encircled image A, increase sharpness by sharpness adjustment.	

* If the trouble is not solved at the step 1 and the step 2 or followings (excluding the parameter adjustment) are performed, make sure to perform "Enforced performing of image quality closed-loop control" and then "Automatic gamma adjustment" after taking a measure.

8

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ERROR CODE AND TROUBLESHOOTING
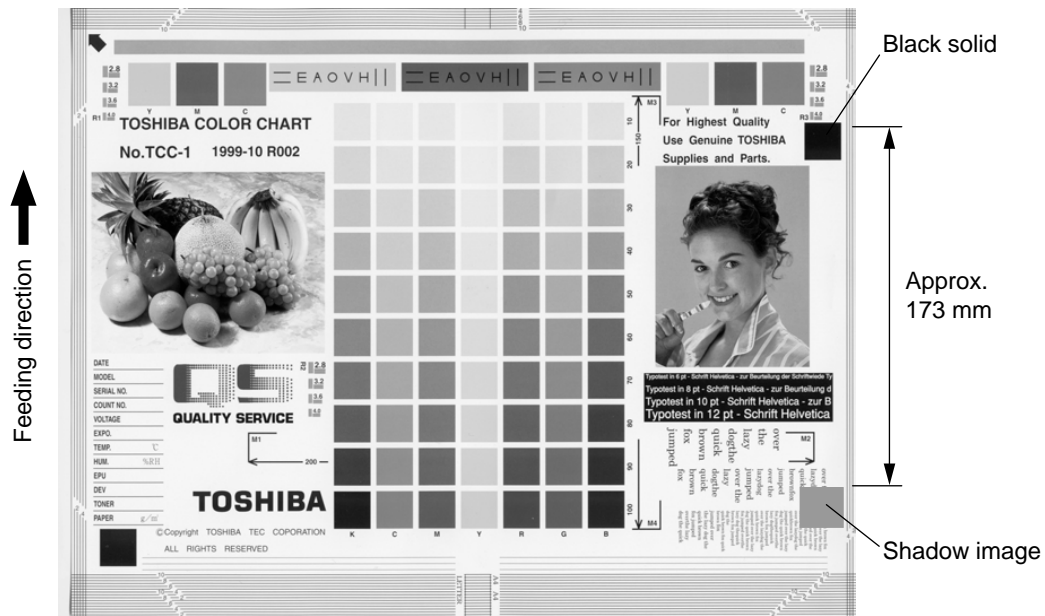
8.5.7 Toner offset

Fig.8-14

Toner offset (Shadow image appears approx. 173 mm behind the high density image.)

Cause/Section	Step	Check item	Measures	Remarks
Fuser unit	1	Is the pressure between the fuser roller and pressure roller proper?	Check the pressure removal parts and pressure mechanism.	
	2	Is there scratch on the fuser roller or pressure roller surface?	Replace the fuser roller or the pressure roller.	
	3	Has the fuser roller or pressure roller reached its PM life?	Replace the fuser roller or the pressure roller.	
	4	Is the fuser roller temperature proper?	Check and correct the control circuit.	
	5	• Is the gap of the non-contact thermistor proper? • Is there any deformation to the front thermistor? • Is the front thermistor contacted with the fuser roller?	• Adjust the gap and then perform non-contact thermistor correction. • Replace the thermistor and then perform non-contact thermistor correction. • Replace the thermistor and then perform non-contact thermistor correction.	
	6	Has non-contact thermistor correction been performed after the fuser unit or any part is replaced?	Perform non-contact thermistor correction.	
	7	Is the thermistor dirty?	Clean or replace the thermistor and then perform non-contact thermistor correction.	

Cause/Section	Step	Check item	Measures	Remarks
Paper	8	Is the paper type corresponding to its mode?	Use the proper type of paper or select the proper mode.	
	9	Using recommended paper?	Use the recommended paper.	
Developer material	10	Is the specified developer used?	Use the specified developer and toner.	
Scanner	11	Are the mirrors, original glass or lens dirty?	Clean them.	
Image quality control	12	Is the control activated?	Check the image quality control related codes.	
Density	13	Is the density too high?	Perform the forced performing of image quality closed-loop control (05-2742) and then automatic gamma adjustment.	
Printer density	11	Check the density of printer output image.	Output the test patterns and check them. using 04-36 for each color	When defects occur, perform the corresponding troubleshooting procedures.

8

e-STUDIO2050C/2051C/2550C/2551C
ERROR CODE AND TROUBLESHOOTING

8.5.8　Blurred image
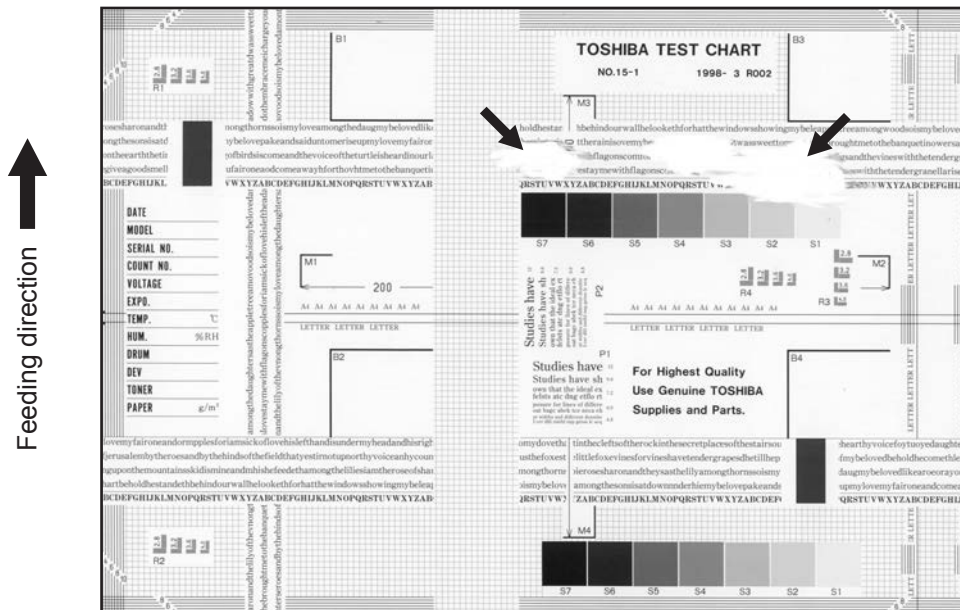
Fig.8-15

Cause/Section	Step	Check item	Measures
Scanner	1	Is the scanner bedewed?	Clean it.
Drum	2	Is the drum bedewed or dirty?	Wipe the drum with dry cloth. * Be sure never use alcohol or other organic solvents because they have bad effect on the drum.
Ozone exhaust	3	Is the ozone exhaust fan operating properly?	Check the connection of the connector.
	4	Is the ozone filter stained or damaged?	Replace it.
LED printer head	5	Is there foreign matter or dust on the LED printer head?	Clean the LED printer head.
Main charger	6	Is the charger grid dirty or deformed?	Clean or replace the charger grid.
Main charger	7	Is there foreign matter on the charger grid?	Remove foreign matter. Clean or replace the charger grid.

8.5.9 Poor fusing

Fig.8-16

Cause/Section	Step	Check item	Measures
Electric power/control abnormal	1	Is the connector in proper contact with the equipment?	Correct it.
	2	Is the heater lamp control circuit (switching power supply) working properly?	Replace the switching power supply.
	3	Are the connectors on the LGC board and joint connectors connected properly?	Reconnect them.
	4	Is the LGC board normal?	Replace the LGC board.
	5	Is the harness connected with the LGC board short circuited or open circuited?	Replace the harness.
	6	• Is the gap of the non-contact thermistor proper? • Is there any deformation to the front thermistor? • Is the front thermistor contacted with the fuser roller?	• Adjust the gap and then perform non-contact thermistor correction. • Replace the thermistor and then perform non-contact thermistor correction. • Replace the thermistor and then perform non-contact thermistor correction.
	7	Has non-contact thermistor correction been performed after the fuser unit or any part is replaced?	Perform non-contact thermistor correction.
Pressure between fuser roller and pressure roller improper	8	Are the pressure springs working properly?	Check/adjust the pressure springs.

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ERROR CODE AND TROUBLESHOOTING

Cause/Section	Step	Check item	Measures
Fuser roller temperature	9	Is the temperature of fuser roller too low?	Check/correct the setting value of fuser roller temperature. Perform non-contact thermistor correction. Check/correct the related circuit.
Developer material and toner	10	Using the specified developer material and toner?	Use the specified developer material and toner.
Paper	11	Is the paper damp?	Change the paper.
	12	Is the paper type corresponding to its mode?	Use the proper type of paper or select the proper mode.
	13	Using the recommended paper?	Use the recommended paper.

8.5.10 Blank print

Feeding direction
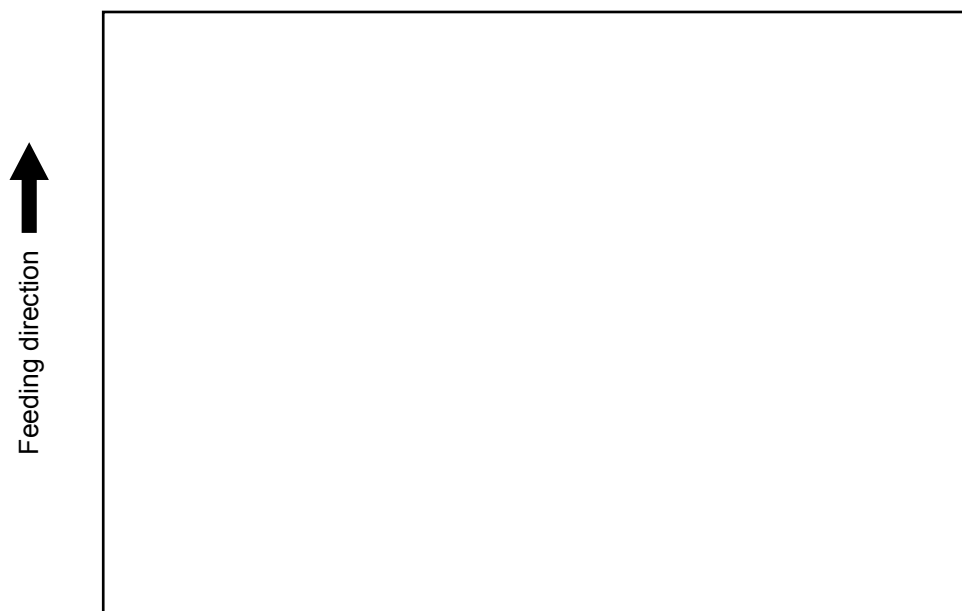
Fig.8-17

Cause/Section	Step	Check item	Measures
High-voltage transformer (1st/2nd transfer roller and developer bias)	1	Is the high-voltage transformer output defective?	Adjust the output and correct the circuit, or replace the transformer.
	2	Are the connector of the high-voltage harness securely connected? Is the harness open circuited?	Reconnect the harness securely. Replace the high-voltage harness.
Developer unit	3	Is the developer unit installed securely?	Check/correct the developer sleeve coupling engaging.
	4	Do the developer sleeve and mixer rotate?	Check/correct the developer drive system.
	5	Is the developer unit filled up with the developer material?	Check that the charger grid is not dirty. (The developer material may be reduced due to the carrier offset.)
	6	Is the developer material properly transported?	Remove foreign matter from the developer material, if any.
	7	Is there any magnetic brush phase error?	Check the developer pole position.
	8	Is the doctor sleeve gap incorrect?	Adjust the gap with the doctor-sleeve jig.
Drum	9	Is the drum rotating?	Check/correct the drum coupling engaging. Check the drum drive system.
	10	Is the drum grounded?	Check the contact of the grounding plate.

Cause/Section	Step	Check item	Measures
Transfer unit	11	Is the transfer belt in proper contact with the drum?	Check if the contact releasing lever is at releasing position. Check the installation of the transfer belt.
	12	Is the transport of the transfer belt normal?	Check the installation of the transfer belt or transport mechanism.
Harnesses for CCD, SYS and LGC boards	13	Are the connectors securely connected? Is any harness between the boards open circuited?	Reconnect the connectors securely. Replace the harness.

8.5.11　Solid print

Feeding direction
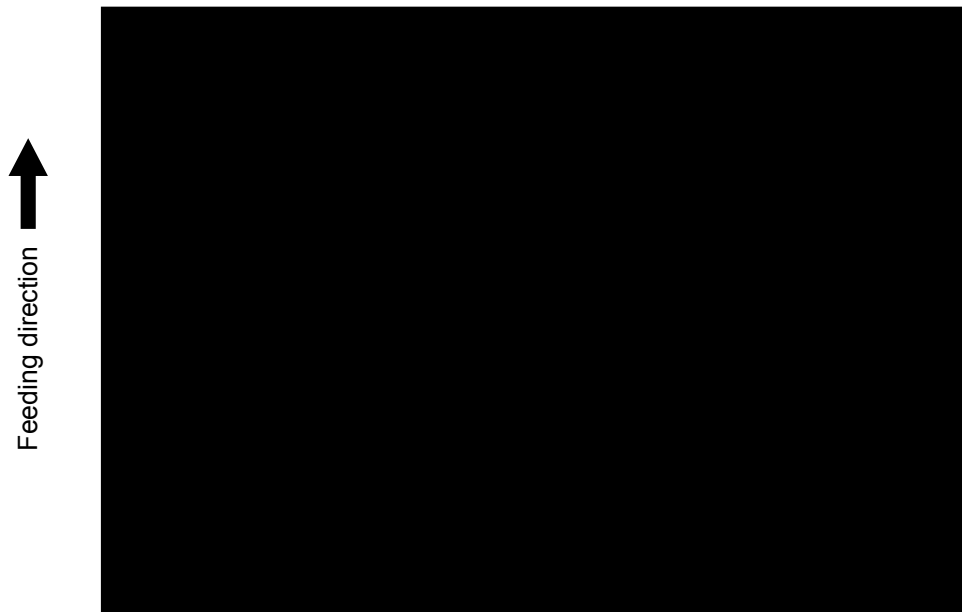
Fig.8-18

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When there is a void on the solid image

Cause/Section	Step	Check item	Measures
Exposure lamp	1	Does the exposure lamp light?	If the lamp does not work, replace it.
Harnesses for CCD, SYS and LGC boards	2	Are the connectors securely connected? Is any harness between the boards open circuited? Is the connector between the SYS and LGC boards not disconnected?	Reconnect the connectors securely. Replace the harness.
Scanner	3	Is there foreign matter in the optical path?	Remove it.
Bedewing of scanner	4	Is the scanner bedewed?	Clean the mirrors and lens. Keep the power cord plugged so that the damp heater can work.

When there is no void on the solid image

Cause/Section	Step	Check item	Measures
Main charger	1	Is the main charger securely installed?	Reinstall it securely.
	2	Does the needle electrode not come off?	Reinstall it securely.
High-voltage transformer (main charger needle electrode/grid bias)	3	Is the high-voltage transformer output defective?	Adjust the output and correct the circuit, or replace the high-voltage transformer.
	4	Are the connector of the high-voltage harness securely connected? Is the harness open circuited?	Reconnect the harness securely. Replace the high-voltage harness.

Cause/Section	Step	Check item	Measures
Bedewing of drum	5	Is the drum bedewed?	Clean the drum. Keep the power cord plugged so that the damp heater can work.

8.5.12 White banding (in feeding direction)
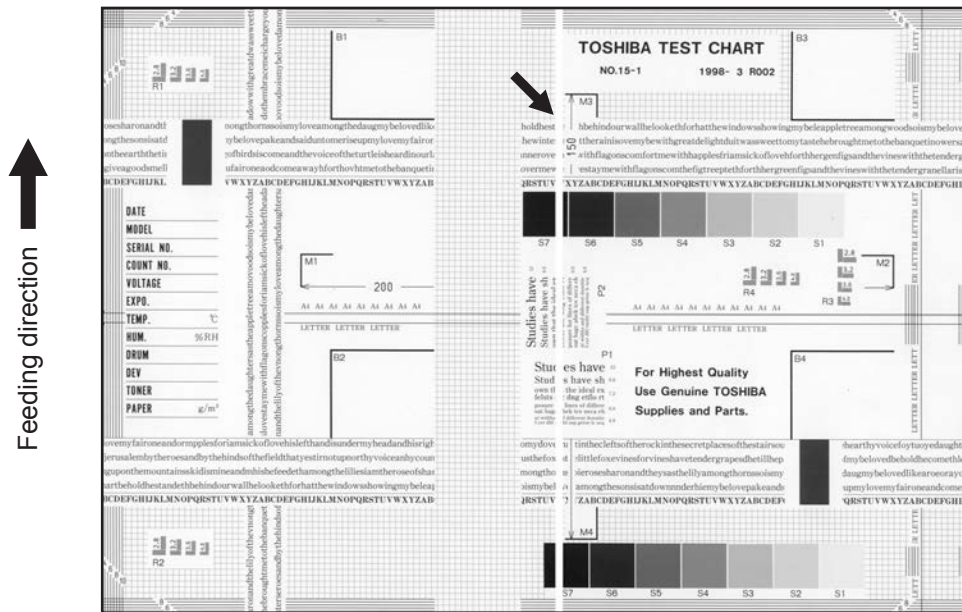
Fig.8-19

Cause/Section	Step	Check item	Measures
LED printer head	1	Is there foreign matter or dust on the LED printer head?	Clean the LED printer head.
Main charger grid	2	Is there foreign matter on the charger grid?	Remove foreign matter.
Developer unit	3	Is there foreign matter inside the doctor blade?	Remove foreign matter.
	4	Is there foreign matter on the drum seal?	Remove foreign matter.
	5	Do any paper fibers or dirt adhere to the developer unit and contact with the drum?	Remove the paper fibers or dirt.
Drum	6	Is there scratch or foreign matter on the drum surface?	Replace the drum.
Transfer unit	7	Is there scratch or foreign matter on the transfer belt surface?	Replace the transfer belt.
	8	Are the harness or foreign matters in contact with the transfer belt surface?	Correct or remove them.
	9	Is there any scratch or hole on the 1st/2nd transfer roller?	Replace the 1st/2nd transfer roller.
Transfer unit	10	Is there any foreign matter on the 2nd transfer facing roller?	Remove foreign matter or clean the roller.
Transport path	11	Does the toner image touch foreign matter after transfer, before entering the fuser unit?	Remove foreign matter.
Discharge LED	12	Has any LED of discharge LED gone out?	Replace the discharge LED.

Cause/Section	Step	Check item	Measures
Scanner	13	Is there foreign matter or dust in the optical path?	Clean the lens and mirrors.

8.5.13 White banding (at right angles to feeding direction)

Fig.8-20

Cause/Section	Step	Check item	Measures
Main charger	1	Is the terminal contact poor?	Clean or adjust the terminals.
Drum	2	Is there any abnormalities on the drum surface?	Replace the drum.
	3	Is the drum grounded?	Check the contact of the grounding plate.
Discharge LED	4	Is the discharge LED lighting properly?	Replace the discharge LED or clean terminals.
Developer unit	5	Is the developer sleeve rotating correctly? Is there any abnormalities on the sleeve surface?	Check the developer drive system, or clean the sleeve surface.
	6	Is the connection of developer bias supply terminal normal?	Correct it.
Drive systems	7	Is the drum, scanner or transfer belt jittery?	Check each drive system.
High-voltage transformer (main charger needle electrode/grid, 1st/2nd transfer roller and developer bias)	8	Is the high-voltage transformer output defective?	Check/correct any electric leakage and related circuits. If the high-voltage transformer does not work, replace it.
Main charger	9	Is the charger grid dirty or deformed?	Clean or replace the charger grid.
Main charger	10	Is there foreign matter on the charger grid?	Remove foreign matter. Clean or replace the charger grid.

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ERROR CODE AND TROUBLESHOOTING

8.5.14 Skew (slantwise copying)
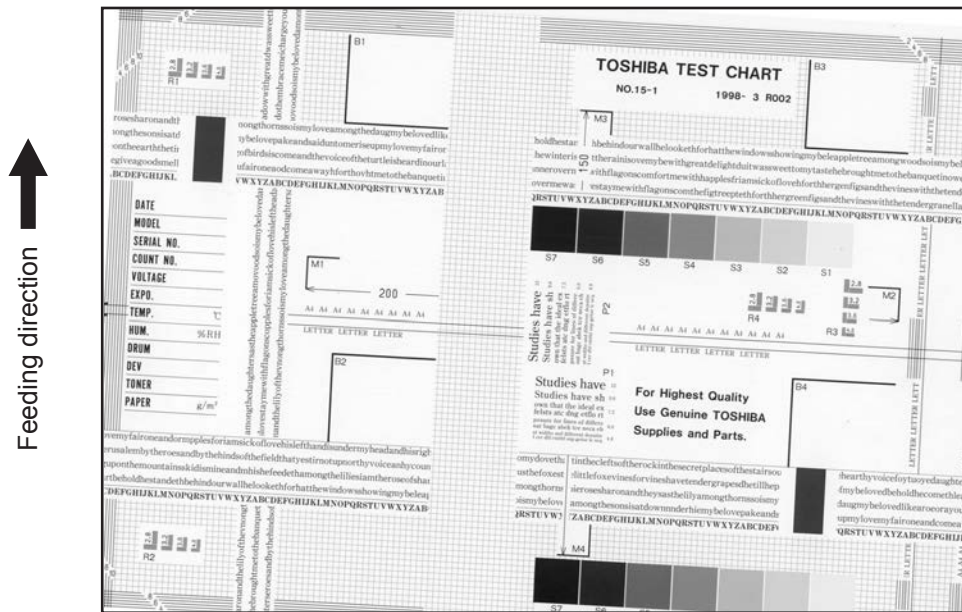
Fig.8-21

Cause/Section	Step	Check item	Measures
Drawer/LCF	1	Is the drawer or LCF properly installed?	Reinstall the drawer or LCF properly.
	2	Is too much paper loaded in the drawer or LCF?	Reload paper within the acceptable range of paper weight. <Acceptable paper weight> 1st drawer: Plain paper - 28 mm Thick paper - 14 mm 2nd, 3rd and 4th drawers: 60.5 mm LCF: 137.8 mm x 2 places
	3	Is the paper corner folded?	Change the paper direction and reinsert it.
	4	Are the drawer or LCF side guides properly set?	Adjust the side guides.
Paper feed roller	5	Is the surface of paper feed roller dirty?	Clean the roller surface with alcohol, or replace the roller.
Rollers	6	Is each roller improperly fixed to the shaft?	Check E-rings, pins and clips.
2nd transfer roller	7	Install the roller by reversing its back and front sides.	Output and check the printed image.
Aligning amount	8	Is the aligning amount proper?	Increase the aligning amount.
Registration roller	9	Is the registration roller spring removed?	Mount the spring correctly. Clean the roller if it is dirty.
Registration guide	10	Is the registration guide improperly installed?	Correct it.
2nd transfer front guide	11	Is the 2nd transfer front guide installed properly?	Correct it.

Cause/Section	Step	Check item	Measures
RADF	12	Is the RADF installed and adjusted properly?	Reinstall and readjust it.
Transfer unit	13	Is the transfer belt unit installed properly?	Correct it.

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ERROR CODE AND TROUBLESHOOTING

8.5.15 Color banding (in feeding direction)
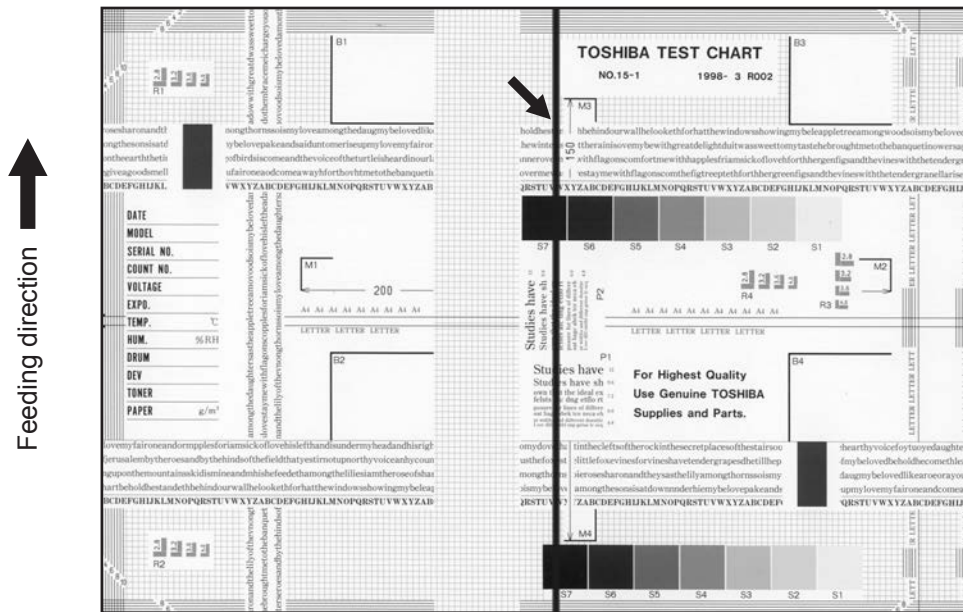
Fig.8-22

Cause/Section	Step	Check item	Measures
Scanner	1	Is there foreign matter in the optical path?	Clean the slit, lens and mirrors.
	2	Is there dust or stain on the shading correction plate or ADF original glass?	Clean it.
Main charger	3	Is there foreign matter on the charger grid?	Remove foreign matter.
	4	Is the charger grid dirty or deformed?	Clean or replace the charger grid.
	5	Is there foreign matter on the main charger?	Remove foreign matter.
	6	Is the needle electrode dirty or deformed?	Clean or replace the needle electrode.
	7	Is there foreign matter inside the charger case?	Remove foreign matter.
	8	Is the inner surface of charger case dirty?	Clean inside.
Drum cleaner	9	Is there any foreign matter on the drum cleaning blade edge?	Clean or replace the drum cleaning blade.
	10	Is toner recovery defective?	Clean the toner recovery auger section.

Cause/Section	Step	Check item	Measures
Transfer unit	11	Are the harness or foreign matters in contact with the transfer belt surface?	Correct or remove them.
	12	Is there paper dust on the edge of transfer belt cleaning blade?	Clean or replace the transfer belt cleaning blade.
	13	Is the transfer belt cleaning blade in proper contact with the transfer belt?	Take off the transfer belt and check if the transfer belt cleaning blade pressure spring and the pressure hook are installed properly.
Fuser unit	14	a. Is there dirt or scratches on the fuser roller and pressure roller surface? b. Is the thermistor dirty?	a. Clean or replace them. b. Clean the thermistor.
Drum	15	Are there scratches on the drum surface?	Replace the drum.
LED printer head	16	Is there foreign matter or dust on the LED printer head?	Clean the LED printer head.

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8.5.16 Color banding (at right angles to feeding direction)
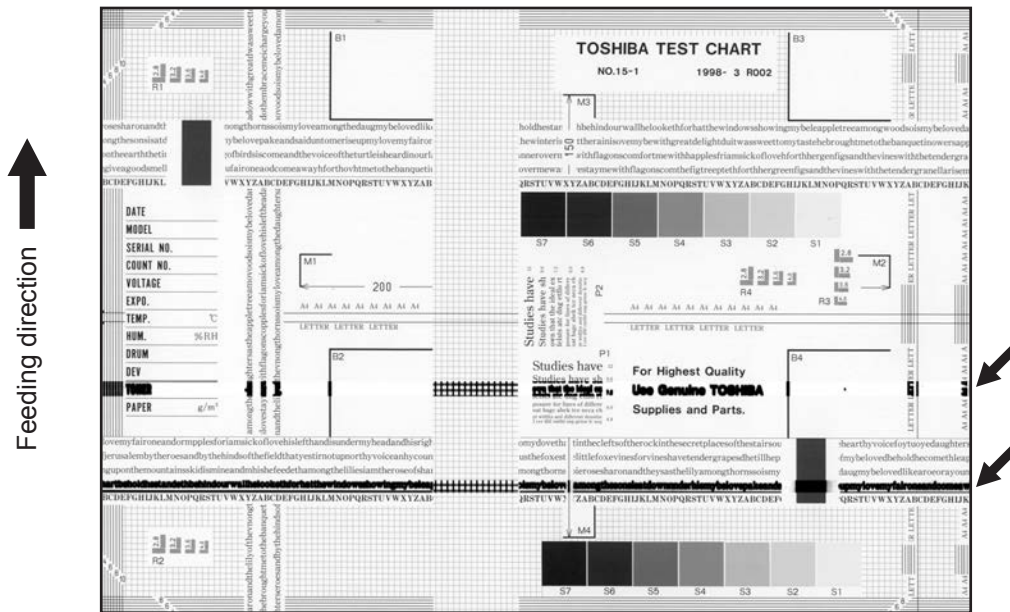
Fig.8-23

Cause/Section	Step	Check item	Measures
Main charger	1	Is the needle electrode dirty or deformed?	Clean or replace the needle electrode.
Fuser unit	2	Is the fuser roller or pressure roller dirty?	Clean them.
High-voltage transformer (main charger needle electrode/grid and transfer roller bias)	3	Is the high-voltage transformer output defective?	Check the circuit and replace the high-voltage transformer if not working.
	4	Is each joint of high-voltage output loosened? (Check if any electric leakage is causing noise.)	Reconnect each joint.
Drum	5	Is there deep scratch on the drum surface?	Replace the drum, especially if the scratch has reached the aluminum base.
	6	Are there fine scratches on the drum surface (drum pitting)?	Check and correct the contact of cleaning blade and recovery blade.
	7	Is the drum grounded?	Check the contact of the grounding plate.
2nd transfer roller	8	Is the 2nd transfer roller rotating normally?	Clean the roller area or replace the roller.
Scanner	9	Is there foreign matter on the carriage rail?	Remove foreign matter.
Main charger	10	Is the charger grid dirty or deformed?	Clean or replace the charger grid.
Main charger	11	Is there foreign matter on the charger grid?	Remove foreign matter. Clean or replace the charger grid.

8.5.17 White spots
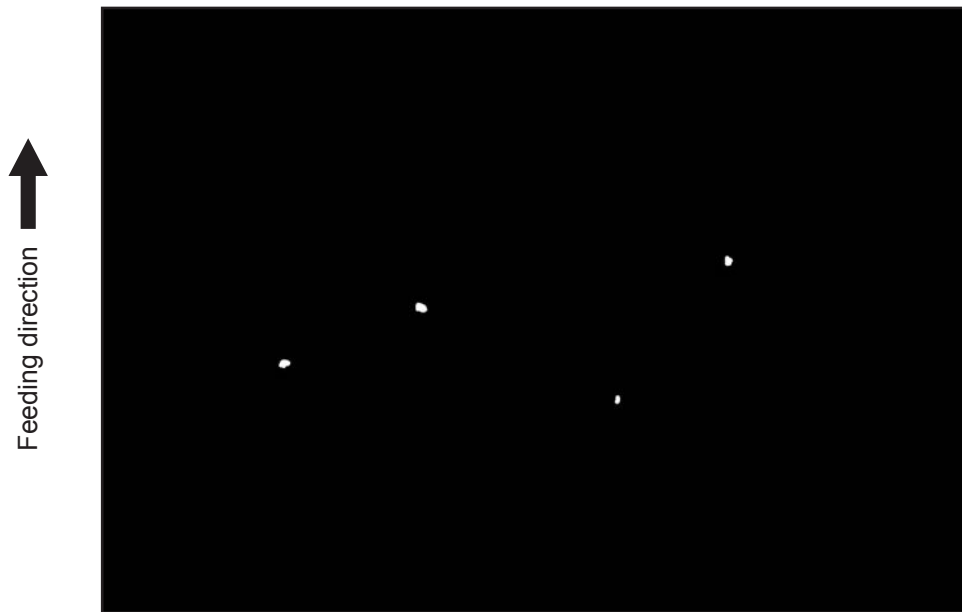
Fig.8-24

Cause/Section	Step	Check item	Measures
Developer unit/Toner cartridge	1	Is the toner density of developer material proper?	Check and correct the auto-toner sensor and toner supply operation. Check if the amount of toner is sufficient in the toner cartridge.
	2	Is the doctor-sleeve gap proper?	Adjust the gap.
Developer material/ Toner/Drum	3	Using the specified developer material, toner and drum?	Use the specified developer material, toner and drum.
	4	Have the developer material and drum reached their PM life?	Replace the developer material and drum.
	5	Is the storage environment of the toner cartridge 35oC or less without dew?	Use the toner cartridge stored in the environment within specification.
	6	Is there any dent on the surface of the drum?	Replace the drum.
	7	Is there any film forming on the drum?	Clean or replace the drum.
	8	Is the drum bedewed?	Wipe the drum surface with a piece of dry cloth.
Transfer unit	9	Is there foreign matter on the transfer belt surface?	Remove foreign matter.
	10	Is there foreign matter on the transfer belt 2nd transfer facing roller?	Clean the transfer belt unit.
Main charger	11	Is there foreign matter on the charger?	Remove it.
	12	Is the needle electrode dirty or deformed?	Clean or replace the needle electrode.

Cause/Section	Step	Check item	Measures
High-voltage transformer (main charger needle electrode/grid, developer 1st/ 2nd transfer roller bias)	13	Is the high-voltage transformer output defective?	Adjust the output.
Paper	14	Is the paper type corresponding to its mode?	Use the proper type of paper or select the proper mode.

8.5.18　Poor transfer
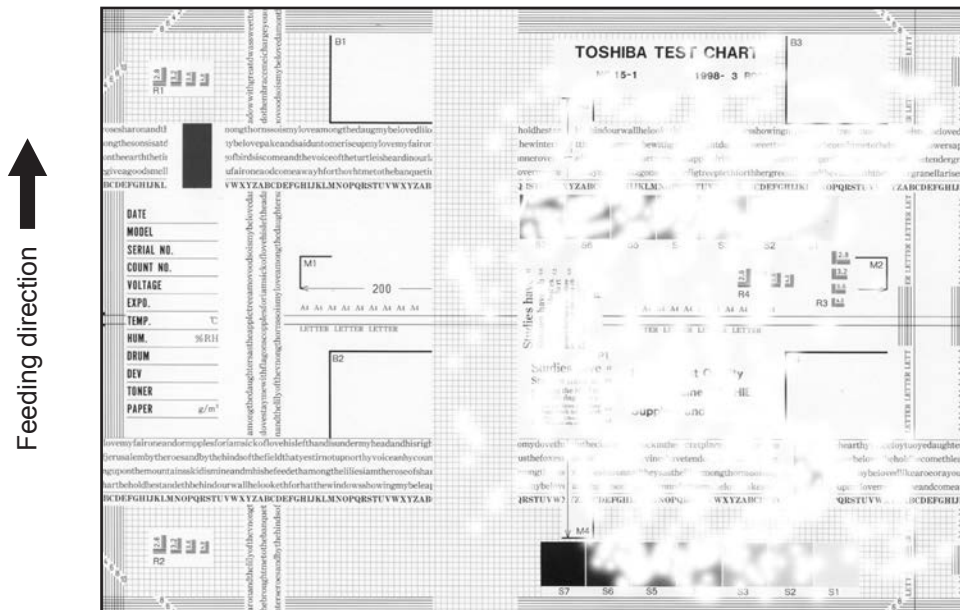
Fig.8-25

Cause/Section	Step	Check item	Measures
Transfer unit	1	Is the transfer belt or 1st/2nd transfer rollers dirty?	Clean it.
	2	Is the transfer belt in proper contact with the drum?	Correct it.
	3	Is the 2nd transfer roller in proper contact with the transfer belt?	Correct it.
	4	Is there any deformation or abnormalities on the transfer belt?	Replace the belt.
	5	Is the 2nd transfer facing roller dirty?	Clean the roller and replace the cleaning pad.
Paper	6	Is the high-voltage fed to the 2nd transfer roller correctly?	If any contact failure occurs in the feeding area (e.g. the conductive bushing and spring come off), correct it.
	7	Is paper in the drawer or LCF curled?	Reinsert paper with reverse side up or change paper.
	8	Is paper in the drawer or LCF damp?	Change paper. *　Avoid storing paper in damp place.
Registration roller	9	Is the registration roller malfunctioning?	Clean the roller, remount the spring, or replace defective motor-related parts.
Aligning amount	10	Is the aligning amount proper?	Decrease the aligning amount

Cause/Section	Step	Check item	Measures
High-voltage transformer (1st/2nd transfer roller bias)	11	Is the high-voltage transformer output defective?	Check the circuit and adjust the transformer output.
	12	Are the high-voltage harness and terminals in proper contact?	Correct them if loosened.

8.5.19 Uneven image density 1 (in feeding direction)

Fig.8-26

Cause/Section	Step	Check item	Measures
Main charger	1	Is the main charger dirty?	Clean it or replace the needle electrode.
Transfer unit	2	Is the transfer belt or 1st/2nd transfer rollers dirty?	Clean the belt.
	3	Is the transfer belt in proper contact with the drum?	Correct it.
	4	Is 2nd transfer roller in proper contact with the transfer belt? (Is the roller tilted?)	Open and close the jam access cover. Check if there is any abnormality in the movement of the 2nd transfer roller pressure mechanism.
	5	Is there any abnormalities or deformation on the transfer belt?	Replace the transfer belt.
LED printer head	6	Is there foreign matter or dust on the LED printer head?	Clean the LED printer head
Discharge LED	7	Is the discharge LED dirty?	Clean it.
	8	Has any LED of discharge LED gone out?	Replace it.
Developer unit	9	Is the magnetic brush in proper contact with the drum?	Adjust the doctor-sleeve gap.
	10	Is the developer unit pressure spring applying properly?	Check the pressure spring.
	11	Is the transport of developer material poor?	Remove foreign matter if any.
Scanner section	12	a. Is the platen cover or RADF open? b. Is the original glass, mirrors, or lens dirty?	a. Close the platen cover or RADF. b. Clean them.

Cause/Section	Step	Check item	Measures
Dram cleaner unit	13	Is there any abnormalities or deformation on the gap spacer?	Replace the gap spacer.

8.5.20 Uneven image density 1 (at right angles to feeding direction)
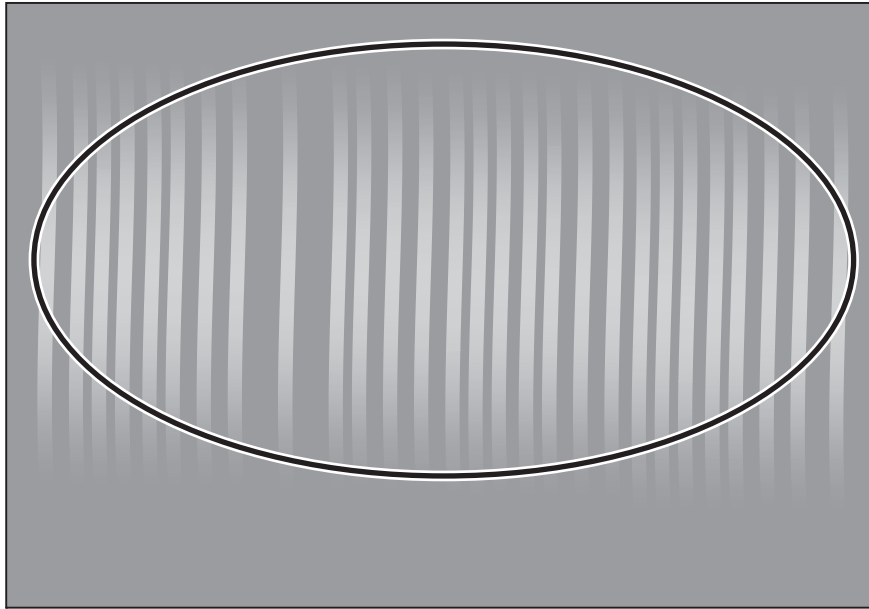
Fig.8-27

Cause/Section	Step	Check item	Measures
Developer unit	1	Is the magnetic brush in proper contact with the drum?	Adjust the doctor sleeve gap.

8.5.21 Uneven image density 2

Feeding direction
Fig.8-28

Feeding direction
Fig.8-29

Cause/Section	Step	Check item	Measures
Developer unit	1	Is the layer of the developer material on the developer sleeve where the density is uneven thin or lacking?	• Remove the foreign matter in the developer unit.See "2. Removal of foreign matter in the developer unit" in 📖 P. 7-21 "7.6.5 Developer unit (K, Y, M, and C)". • Clean the developer unit.See "1. Cleaning" in 📖 P. 7-21 "7.6.5 Developer unit (K, Y, M, and C)".
	2	Does uneven image density occur again?	See work flow diagram in 📖 P. 7-12 "7.5 Work flow of parts replacement".

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8.5.22 Faded image (low density)
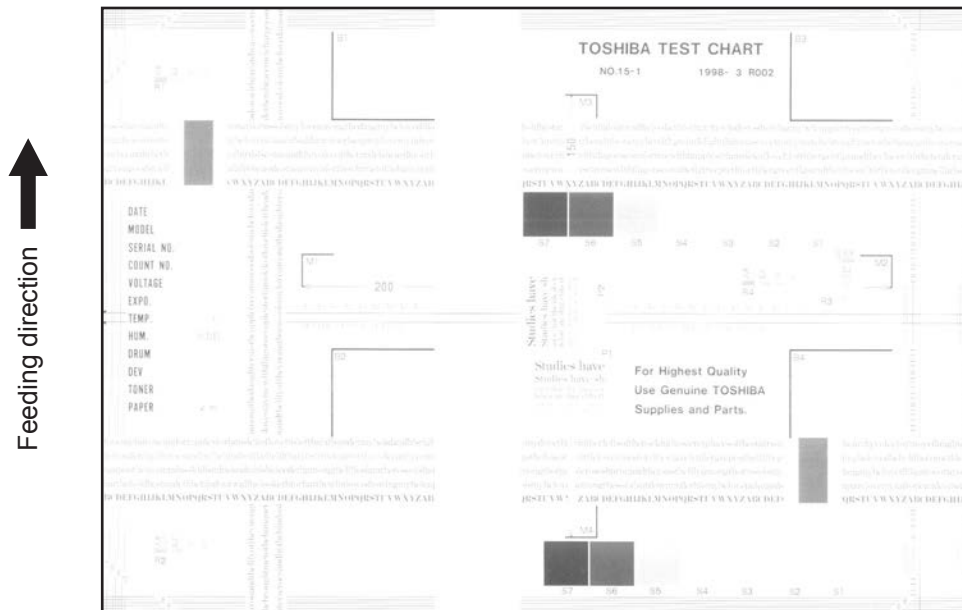
Fig.8-30

Cause/Section	Step	Check item	Measures
Toner empty Auto-toner circuit	1	Is the "ADD TONER" symbol blinking?	Replace the toner cartridge.
	2	Is there enough toner in the cartridge?	Check the auto-toner circuit function.
	3	Is the toner density of developer material too low?	
Toner motor	4	Is the toner motor malfunctioning?	Check the motor drive circuit.
Toner cartridge	5	Are there any abnormalities in the toner cartridge?	Replace the toner cartridge.
Developer material	6	Has the developer material reached its PM life?	Replace developer material.
Developer unit	7	Is the magnetic brush in proper contact with the drum?	Check the developer unit installation. Check the doctor-sleeve gap and pole position.
Main charger	8	Is the main charger dirty?	Clean it or replace the needle electrode.
Drum	9	Is there film forming on the drum surface?	Clean or replace the drum.
	10	Has the drum reached its PM life?	Replace the drum.
Transfer unit	11	Has the transfer belt, 1st or 2nd transfer roller reached its PM life?	Replace the transfer belt, 1st or 2nd transfer roller.
High-voltage transformer (developer bias)	12	Is the high-voltage transformer output settings improper?	Adjust the high-voltage transformer output.
	13	Are the connector of the high-voltage harness securely connected? Is the harness open circuited?	Reconnect the harness securely. Replace the high-voltage harness.

8.5.23　Image dislocation in feeding direction
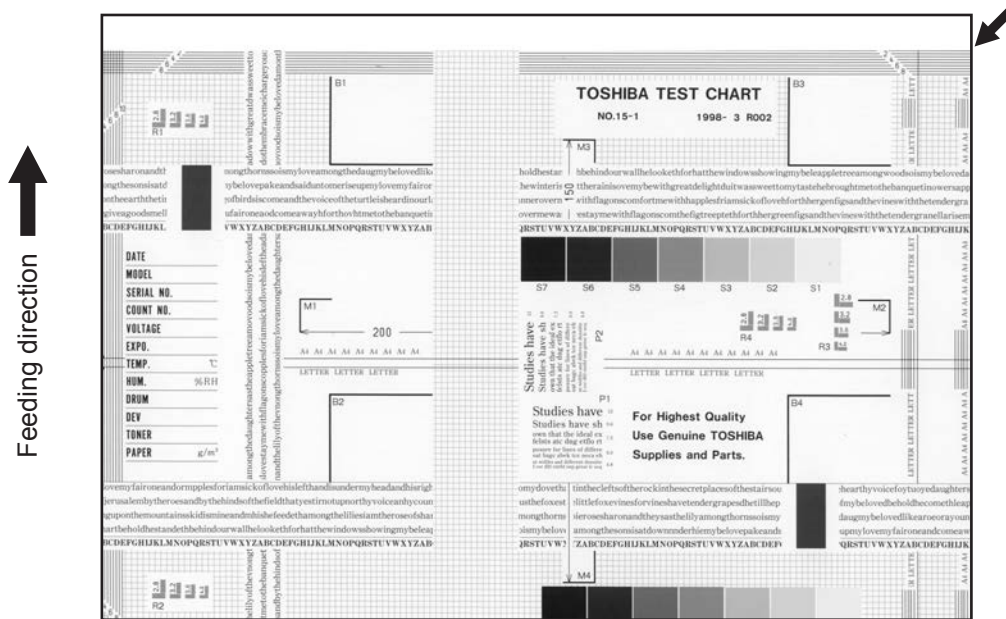
Fig.8-31

Cause/Section	Step	Check item	Measures
Adjustment error of scanner or printer section	1	Is same dislocation on every copy?	Adjust the scanner/printer using the Adjustment Mode.
Registration roller	2	Is the registration roller dirty, or is the spring removed?	Clean the roller with alcohol. Reinstall the spring.
	3	Is the registration motor malfunctioning?	Adjust or replace the gears, etc. if they are not engaged properly.
	4	Is the registration clutch operating normally? (Is the timing of operation delaying?)	Replace the registration clutch.
Paper feed clutch	5	Is the paper feed clutch malfunctioning?	Check the circuit or the clutch and replace them if necessary.
Aligning amount	6	Is the aligning amount proper?	Decrease the aligning amount.
Paper pushing amount	7	Is the paper pushing amount proper?	Decrease the paper pushing amount.
Each roller	8	Are the roller and shaft not fixed securely?	Check the E-ring, pin and clip.
	9	Is the roller surface dirty?	Clean the roller surface with alcohol or replace it.
Registration guide	10	Is the registration guide improperly installed?	Reinstall the guide.

8.5.24 Image jittering
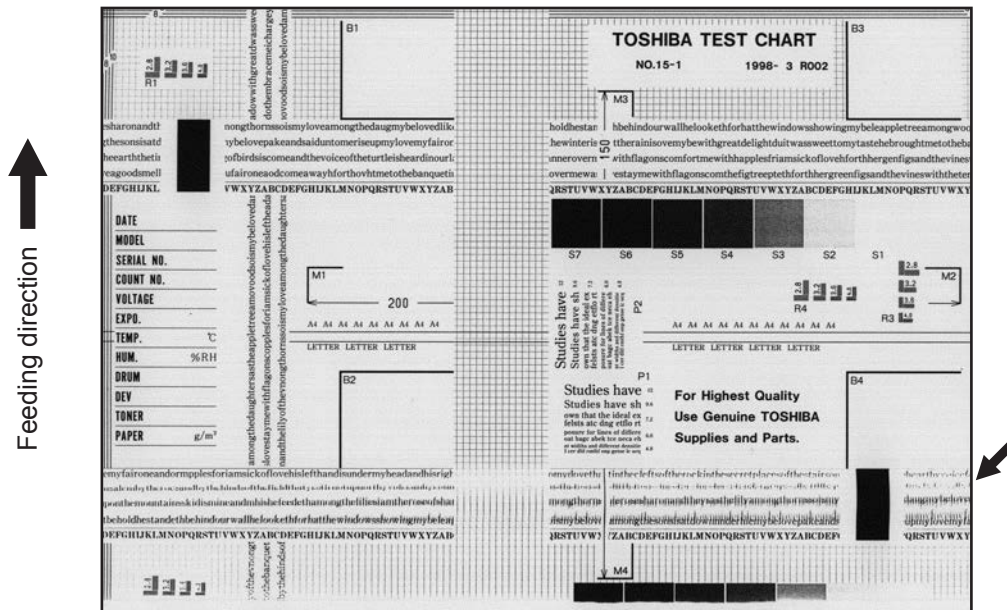
Fig.8-32

Cause/Section	Step	Check item	Measures
-	1	Is the toner image on the drum proper?	If proper, perform step 1 to 3; otherwise perform step 4 and after.
Registration roller	2	Is the registration roller rotating normally?	Check the registration roller section and its springs.
Transfer unit	3	Is the transfer belt or 2nd transfer roller operating normally?	Check the drive system and replace the transfer belt or 2nd transfer roller if necessary.
Fuser unit	4	Are the fuser roller and pressure roller rotation proper? Is the fuser belt transportation proper?	Check the drive system. Replace the fuser roller and pressure roller if necessary.
Drum	5	Is there large scratch on the drum?	Replace the drum.
Scanner	6	Is the slide sheet defective?	Replace it.
	7	Are there any abnormalities on the carriage feet?	Replace the feet.
	8	Is the tension of timing belt inappropriate?	Correct the tension.
	9	Is the carriage drive system malfunctioning?	Check the carriage drive system.
	10	Are any mirrors loosely installed?	Install them properly.
Drum drive system	11	Is the drum drive system malfunctioning?	Check the drum drive system. Clean or replace the belts, pulleys, bushings if they have dirt or scratches.

8.5.25 Poor cleaning

Notes:

Poor cleaning may occur in feeding direction.
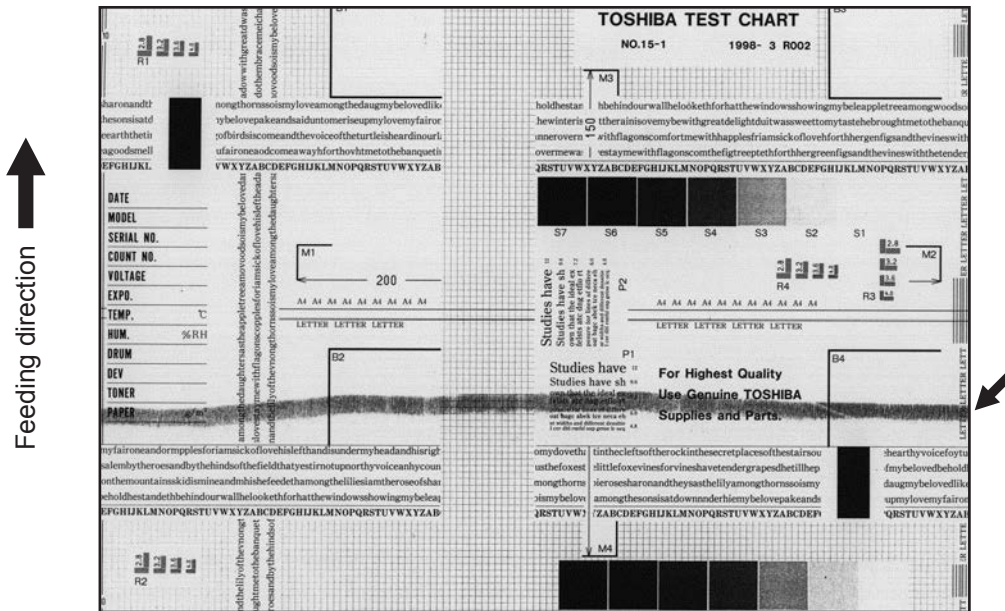
Fig.8-33

Cause/Section	Step	Check item	Measures
Developer material	1	Is the specified developer material used?	Use the specified developer material and toner.
Drum cleaner	2	Is there dust on the drum cleaning blade edge?	Clean or replace it.
	3	Is the drum cleaning blade peeled?	Replace the blade.
Transfer belt cleaner	4	Is there paper dust on the edge of transfer belt cleaning blade?	Clean or replace it.
	5	Is the transfer belt cleaning blade peeled?	Replace the blade.
	6	Is the transfer belt cleaning blade in proper contact with the transfer belt?	Take off the transfer belt and check if the transfer belt cleaning blade pressure spring and the pressure hook are installed properly.
Toner recovery auger	7	Is the toner recovery defective?	Clean the toner recovery auger. Check the cleaning blade pressure.

Cause/Section	Step	Check item	Measures
Fuser unit	8	Is there any bubble-like defect on the fuser roller (approx. 94 mm pitch on the image)?	Replace the fuser roller. Check and modify the heater lamp control circuit. Perform non-contact thermistor correction.
	9	Have the fuser roller and pressure roller reached their PM life?	Replace them. Perform non-contact thermistor correction.
	10	Is the pressure between the fuser roller and pressure roller proper?	Check and adjust the pressure mechanism.
	11	Is the temperature of fuser roller proper?	Check/correct the setting value of fuser roller temperature. Clean or replace the thermistors. Perform non-contact thermistor correction. Check and correct the circuit.

8.5.26 Uneven light distribution
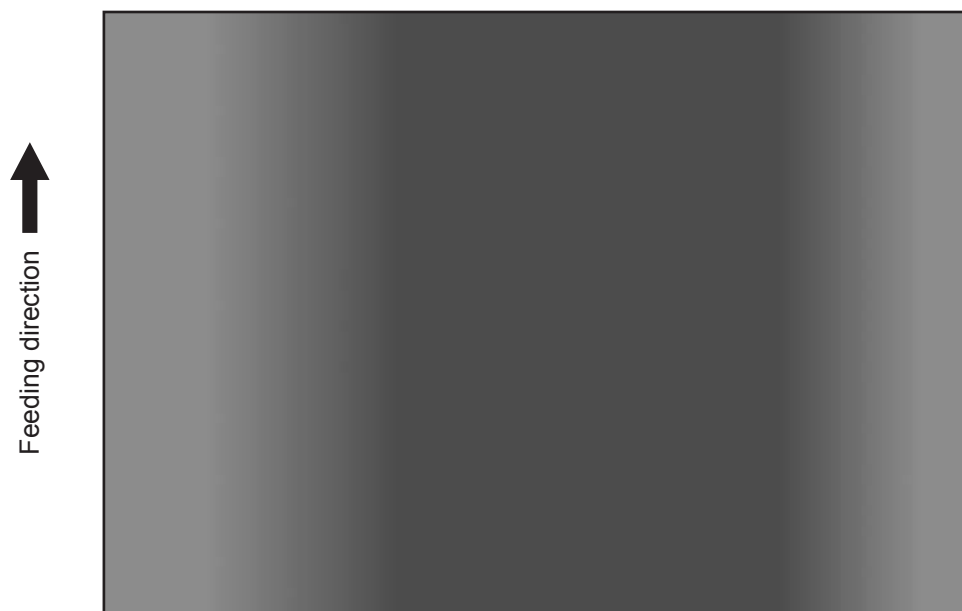
Fig.8-34

Cause/Section	Step	Check item	Measures
Original glass	1	Is the original glass dirty?	Clean the glass.
Main charger	2	Are the needle electrode, grid and case dirty?	Clean or replace them.
Discharge LED	3	Is the discharge LED dirty?	Clean it.
Scanner exposure lamp	4	Are the reflector, exposure lamp, mirrors, lens, etc. dirty?	Clean them.
	5	Is the exposure lamp tilted?	Adjust the installed position of the lamp.
	6	Is the lamp discolored or degraded?	Replace it.

8.5.27 Blotched image
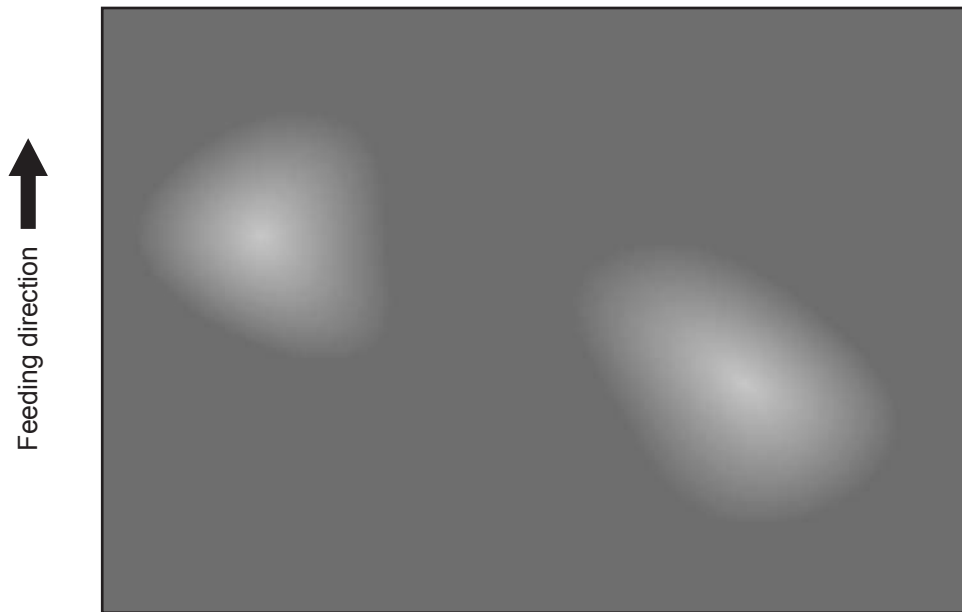
Fig.8-35

Cause/Section	Step	Check item	Measures
Paper	1	Is the paper type corresponding to its mode?	Check the paper type and mode.
	2	Is paper too dry?	Change paper.
Transfer unit	3	Is the transfer belt in proper contact with the drum?	Contact and release the transfer belt unit several times with the TBU lifting lever. Check that the 1st transfer roller is rotated smoothly upward and downward.
	4	Is the 2nd transfer roller in proper contact with the transfer belt?	Open and close the jam access cover. Check if there is any abnormality in the movement of the 2nd transfer roller pressure mechanism.
	5	Are there any abnormalities on the transfer belt?	Clean or replace the transfer belt.
High-voltage transformer (1st/2nd transfer roller bias)	6	Is the high-voltage transformer output abnormal?	Adjust the output. Replace the transformer, if necessary.

8.5.28 Stain on the paper back side

Printing side of 1st page

The edge of image cut off.

Back side of 2nd page
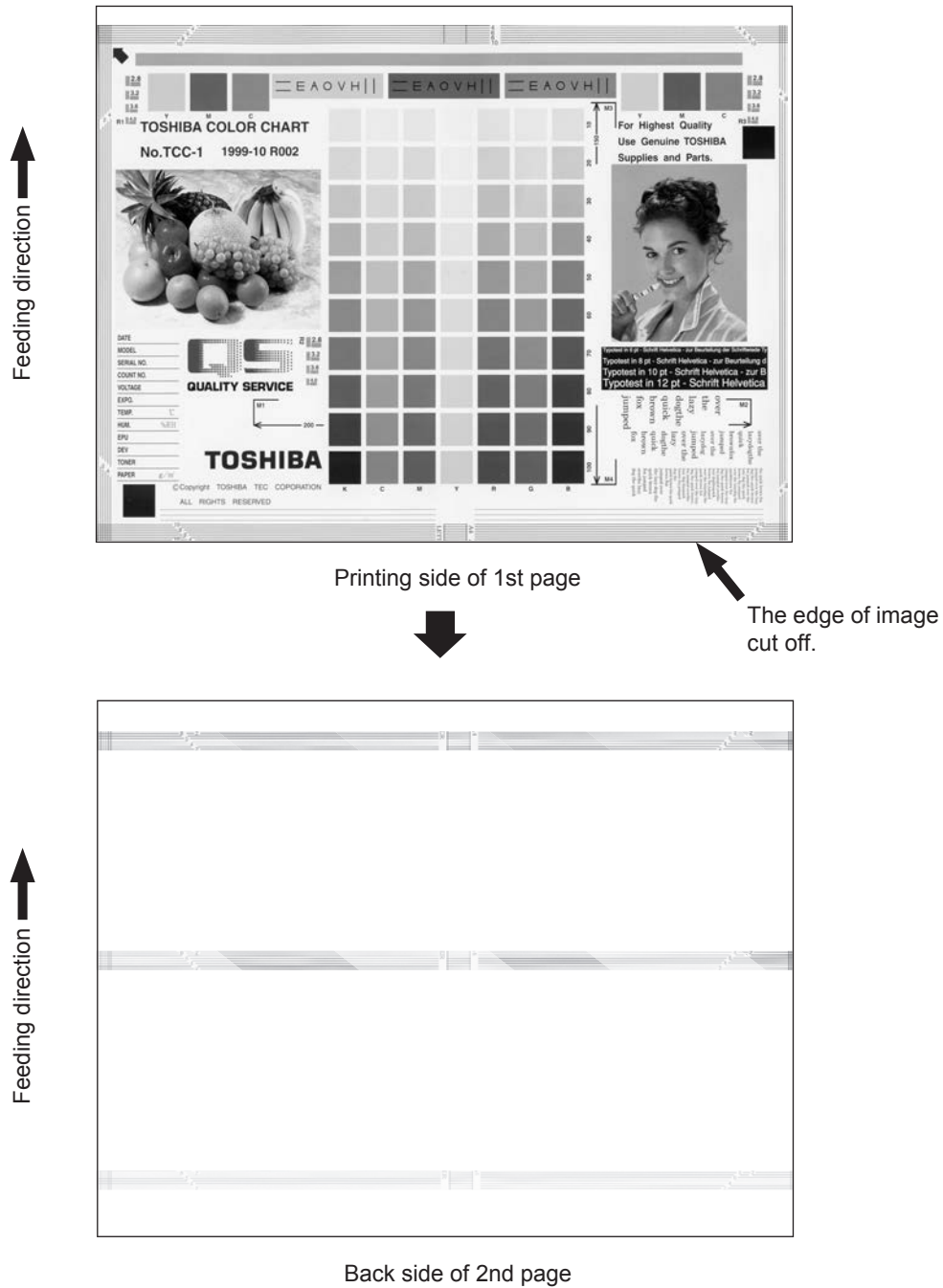
Fig.8-36

Cause/Section	Step	Check item	Measures
Image adjustment/ setting	1	Is the margin adjustment of image correct?	Adjust the margin.
	2	Is the margin adjustment of image correct when the paper size is not selected in bypass feeding?	Adjust the margin.
	3	Is the margin adjustment of image at duplexing correct?	Adjust the margin. (05-4064)
	4	Is the image location in primary/ secondary scanning direction correct?	Adjust the location.
	5	Is the reproduction ratio of image in primary/secondary scanning direction correct?	Adjust the reproduction ratio.
	6	Is the tab setting correct?	Correct the setting.
Paper feeding /Transport area	7	Does the size of paper in the drawer or LCF correspond to the setting?	Use the appropriate paper size or correct the size setting.
	8	Is the width between the slides in the drawer correct (too wide)?	Correct the position of the slides.
	9	Is the width between the slides of the bypass tray correct (too wide)?	Correct the width.
	10	Is the paper aligning amount sufficient?	Adjust the aligning amount.
	11	Are the feed roller and transport roller dirty or worn out?	Clean or replace the rollers.
	12	Does the paper mode correspond to the paper type?	Use the appropriate paper type or paper mode.
	13	Using the recommended paper?	Use the recommended paper.
Transfer unit	14	Is there any stain caused by a poor cleaning, etc. on the transfer belt?	Clean the transfer belt.
	15	Is the transfer belt cleaning blade in proper contact with the transfer belt?	Take off the transfer belt and check if the transfer belt cleaning blade pressure spring and the pressure hook are installed properly.
	16	Is the 2nd transfer roller rotating properly?	Clean the area around the roller. Otherwise replace the roller.
	17	Is there any foreign matter or stain on the 2nd transfer roller?	Clean or replace the roller.
	18	Has the 2nd transfer roller reached to its PM life?	Replace the 2nd transfer roller.
Fuser unit	19	Are the fuser belt and pressure roller dirty?	Clean the fuser belt and pressure roller.
	20	Is the separation finger dirty?	Clean the separation finger.
	21	Is the rib of transport guide dirty?	Clean the rib.

8.5.29 White void in the halftone

Feeding direction

Fig.8-37

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Cause/Section	Step	Check item	Measures
Fuser unit	1	Installed position of the fuser unit	Loosen the 2 screws [2] on the fuser unit guide rail (front) [1]. Remove 1 screw [3]. Change its position to the adjustment hole [4] and move the fuser unit guide rail (front) [2] up or down. (Fig.8-38)
	2	The installation position of the fuser unit paper entrance guide	Following are the adjustment procedure of the fuser unit paper entrance guide.(Fig.8-36) (1) Take off the fuser unit and remove its front and rear side covers from it. (2) Remove the 2 screws of the paper entrance guide [1], and then secure them to the holes next to the original ones. (3) Vertically move the paper entrance guide to the upper direction of the figure so that it is separated by approx. 0.5 mm from the fuser roller. (4) In the condition of step (3), check whether white void occurs or not. (5) If white void still persists, move the paper entrance guide by 0.1 to 0.2 mm to upward or downward. **Notes:** 1. Be careful not to move the paper entrance guide too much, for this could cause paper wrinkling. 2. If paper wrinkling does occur, return the position of the paper entrance guide to the condition of step (3).
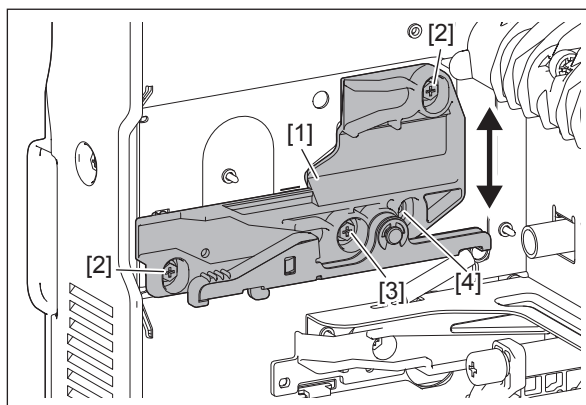
Fig.8-38

Fig.8-39

8.5.30 Paper wrinkle

There are 2 locations where the paper wrinkle occurs: before the fusing stage and in the fuser unit
See below to determine the case.
   Smooth out the wrinkled paper. When there is no image in the wrinkled area
           →See (1) "Paper wrinkle before fusing".
   Smooth out the wrinkled paper. When there is a copied image in the wrinkled area
           →See (2) "Paper wrinkle in the fuser unit".

(1) Paper wrinkle before fusing

   <u>Is paper properly set?</u>
   | NO →   Set paper properly.
   ↓
   YES

   <u>Is there any abnormality such as scratch or wear on the transport roller?</u>
   | YES   Replace the transport roller.
   ↓   →
   NO

   <u>Is flexible paper such as recycled paper used?</u>
   | YES   Switch to the recycled paper mode.
   | →   (Select "RECYCLED PAPER" in MEDIA TYPE.)
   ↓   If the paper wrinkle still appears, proceed to NO.
   NO
   1. Increase the adjustment value for the paper alignment.
       (📖 P. 6-8 "6.1.6 Paper alignment at the registration roller")
   2. Increase the transport motor speed. (Adjust it at the code 05-4532.)

(2) Paper wrinkle in the fuser unit

   <u>Is the paper properly set?</u>
   | NO →   Set the paper properly.
   ↓
   YES

   <u>Has the paper absorbed moisture?</u>
   | YES →   Use paper that has not absorbed moisture.
   ↓
   NO

   <u>Is flexible paper such as recycled paper used?</u>
   | YES →   Switch to the recycled paper mode.
   | (Select "RECYCLED PAPER" in MEDIA TYPE.)
   ↓   If the paper wrinkle still appears, proceed to NO.
   NO
   1. Adjust the installed position of the fuser unit up or down
       and check if the paper wrinkle disappears. (📖 P. 8-295 "8.5.29 White void in the halftone")
   2. Adjust the inlet guide[1] of the fuser unit and check if the paper wrinkle disappears. (Fig.8-40)

Fig.8-40

8.5.31   Staining at the leading/trailing edge

Staining may occur at the leading/trailing edge of the paper.
If a large amount of printing is carried out, staining may be seen as streaks as shown below.

Example: Leading edge of paper

Feeding direction   Streaks
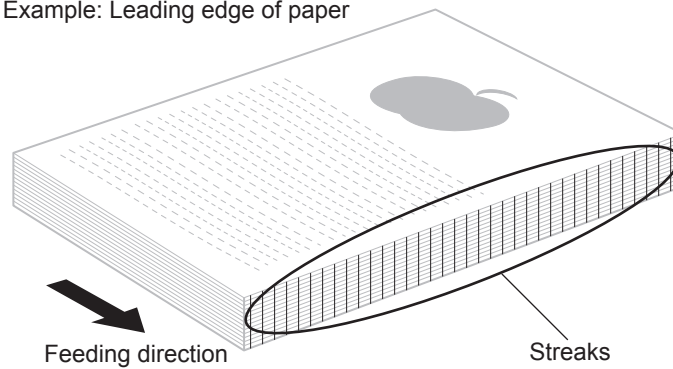
Fig.8-41

Cause/Section	Step	Check item	Measures
2nd transfer unit	1	Is there any toner adhering to the ribs of the transfer guide?	Clean the ribs of the transfer guide.
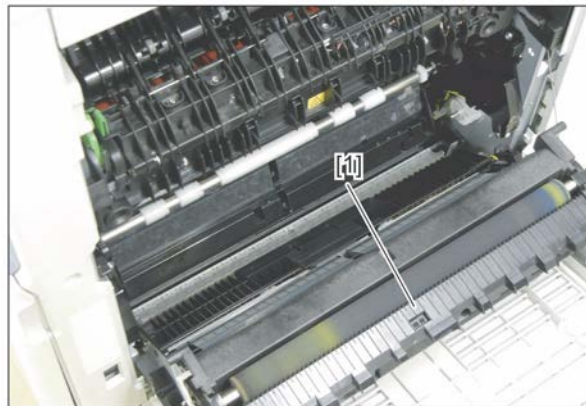
Fig.8-42

Notes:
    Clean them with a soft pad, cloth or electric vacuum cleaner.

8.5.32 Faint image

Density is extremely low or there is a white void.
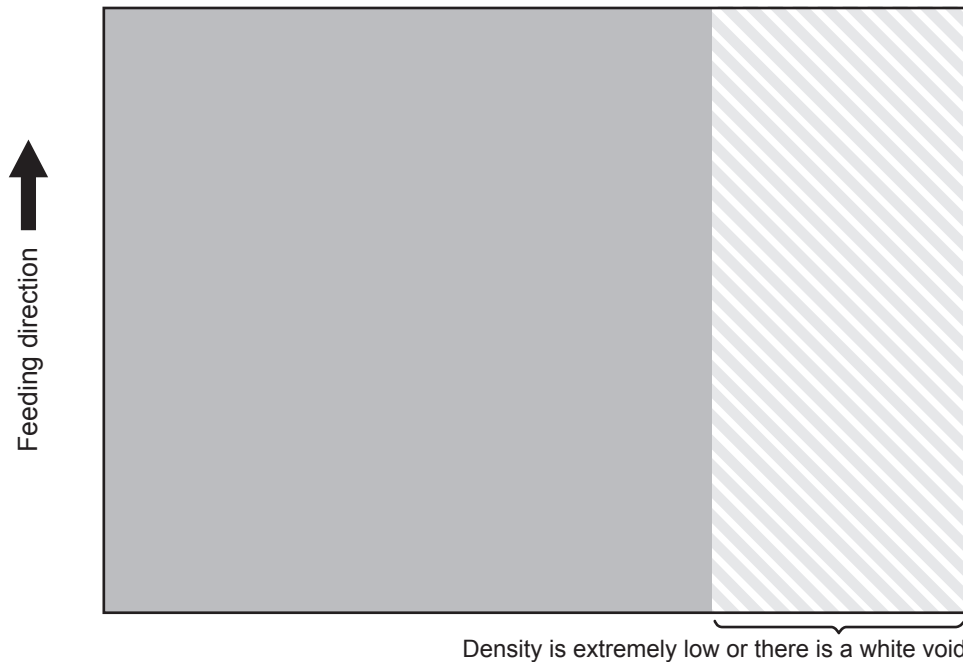
Fig.8-43

* Checking is easier with a halftone (Y) test chart.

Cause/Section	Step	Check item	Measures
Transfer belt unit (TBU)	1	Are the drum and the transfer belt contacted?	Contact and release the transfer belt unit several times with the TBU lifting lever. Check that the 1st transfer roller is rotated smoothly upward and downward.
Process unit (EPU)	3	Is the contact between the drum and developer material proper?	Check the doctor-to-sleeve gap and pole position.
LED printer head	4	Is there foreign matter or dust on the LED printer head?	Clean the LED printer head.
	5	Is the problem resolved if you replace the LED printer head?	Replace the LED printer head.
Transfer unit (TRU)	6	Is 2nd transfer roller in proper contact with the transfer belt? (Is the roller tilted?)	Open and close the jam access cover. Check if there is any abnormality in the movement of the 2nd transfer roller pressure mechanism.

8.5.33 Toner scattering

Fig.8-44

Cause/Section	Step	Check Item	Measure	Remark
2nd transfer output	1	<Thick paper> Is toner scattered on the image on the back side of the paper in duplex printing when it is fed from the bypass tray?	Select [BACK] for the paper type setting and then copy the back side of the paper.	
	2	<Plain paper> Is toner scattered on the image on the back side of the paper in duplex printing when it is fed from the bypass tray?	Perform automatic duplex copying with the Automatic Duplexing Unit (ADU).	This problem may occur when the paper is dry under a low humidity environment.If plain paper is used, [BACK] and bypass feeding cannot be selected together. In this case, use the ADU or select [RECYCLED PAPER].
			If the ADU is not available, select [RECYCLED PAPER] for the paper type setting and then copy the back side of the paper.	
			If the problem is not resolved, adjust the transfer output for recycled paper and then copy the back side of the paper by selecting [RECYCLED PAPER].	

Remarks:
- To select a paper type, refer to the Copying Guide.
- To set 2nd transfer output, refer to the Imaging Manual [1.3].

- The larger the setting value is, the higher the transfer voltage becomes and the less toner scattering occurs.

Paper type			[05] code	Sub code	Recommended setting value	Acceptable values	Default
Full color	Front side	Recycled paper	05-2934	7	6~8	0~10	5
Full color	Front side	Recycled paper	05-2934	7	6~8	0~10	5

8

8.5.34　Feathered image

Feeding direction

Fig.8-45

Cause/Section	Step	Check Item	Measure
Developer unit	1	Pole position adjustment plate	Adjust the pole position adjustment plate. (Fig.8-46) 1. Record or mark the scale position [2] indicated by the pole position adjustment plate [1]. 2. Remove 1 screw [3] and take off the pole position adjustment plate [1]. 3. Cut out the pin [4] fixing the pole position adjustment plate. 4. Turn the pole position adjustment plate [1] counterclockwise (in the direction of the black arrow) by 3 scales.
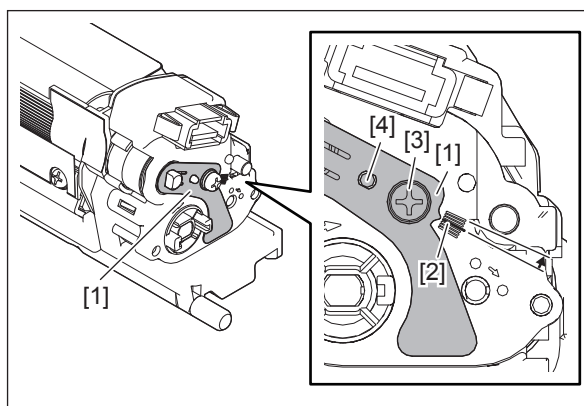
Fig.8-46

Notes:

- Check the image after the pole position is adjusted.

8

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ERROR CODE AND TROUBLESHOOTING

8.5.35 Image Skewing on Paper Trailing Edge

When a grid pattern is output, follow the procedure below if the image on the paper trailing edge is skewed by 1.0 mm or more.

[A] The rear side in the secondary scanning direction is longer than the front side. (Front < Rear)

Front side

Rear side

Feeding direction

Fig.8-47

Cause/Section	Step	Check Item	Measure
Fuser unit	1	Fuser unit guide rail	Adjust the fuser unit guide rail(Fig.8-48) 1. Take off the fuser unit. 2. Loosen the 2 fixing screws [2] of the front guide rail [1] in the fuser unit. 3. Remove 1 screw [3] and attach it to the screw hole for adjustment [4]. 4. Move the guide rail upward by 1 mm. 　* Moving it by 1 mm changes the screw in the trailing edge by 0.65 mm. 　* There is a 1-mm scale [5]. 5. Tighten the 2 fixing screws [2] of the front guide rail [1] in the fuser unit. 6. Install the fuser unit. 　* Check that the image on the paper trailing edge is skewed by 1 mm or less after the adjustment.
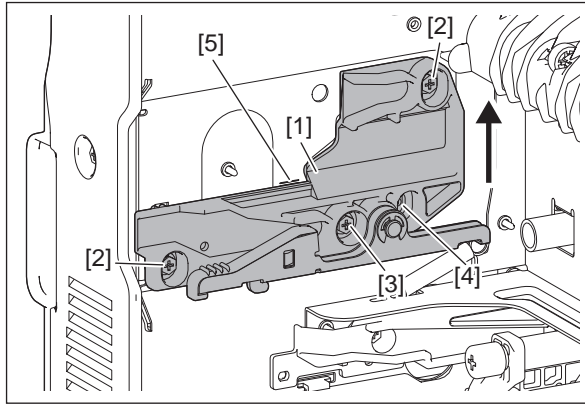
Fig.8-48

[B] The front side in the secondary scanning direction is longer than the rear side. (Front > Rear)

Front side

Rear side

Feeding direction

Fig.8-49

Cause/Section	Step	Check Item	Measure
Fuser unit	1	Fuser unit guide rail	Adjust the fuser unit guide rail(Fig.8-50)
			1. Take off the fuser unit.
			2. Loosen the 2 fixing screws [2] of the front guide rail [1] in the fuser unit.
			3. Remove 1 screw [3] and attach it to the screw hole for adjustment [4].
			4. Move the guide rail downward by 1 mm. * Moving it by 1 mm changes the screw in the trailing edge by 0.65 mm. * There is a 1-mm scale [5].
			5. Tighten the 2 fixing screws [2] of the front guide rail [1] in the fuser unit.
			6. Install the fuser unit. * Check that the image on the paper trailing edge is skewed by 1 mm or less after the adjustment.
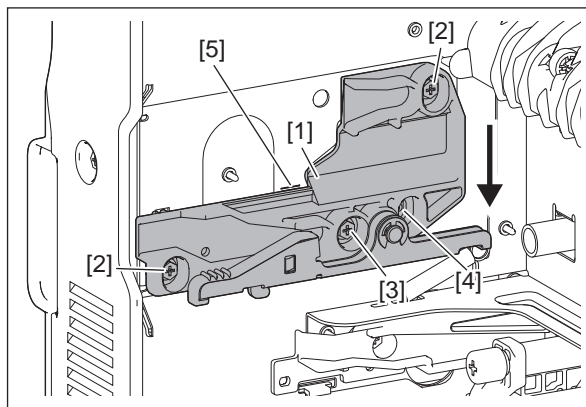
Fig.8-50

9. REPLACEMENT OF PC BOARDS/HDD

9.1 Removal and Installation of PC Boards/HDD

Notes:
When the PC board/HDD is replaced, refer to the respective Notes and Cautions of "Replacement of PC boards and HDD" in 📖 P. 9-11 "9.2 Precautions, Procedures and Settings for Replacing PC Boards and HDD/SSD".

9.1.1 SYS Board cover

(1) Take off the rear cover.
    📖 P. 4-5 "4.1.13 Rear cover"
(2) Take off the right rear cover.
    📖 P. 4-4 "4.1.9 Right rear cover"
(3) Remove 2 screw[1] and loosen 4 screws[2].

Fig. 9-1

(4) Slide the SYS board cover[1] to take it off.
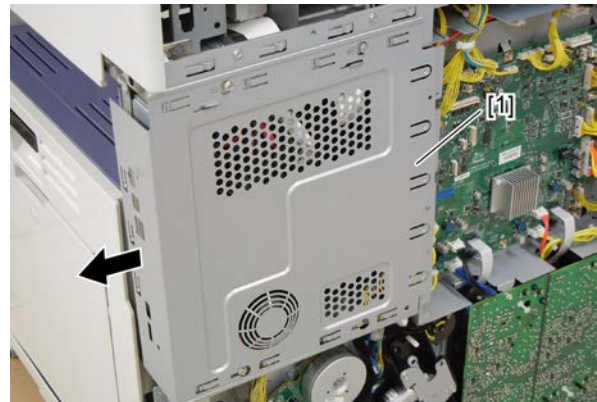
Fig. 9-2

9.1.2　SYS board

(1) Take off the SYS board cover.
 📖 P. 9-1 "9.1.1 SYS Board cover"
(2) Unplug all connectors and the USB terminal.
   Notes:
     When connecting the connector to the SYS board, pay attention to the orientation of the connector.
(3) Remove the SYS board cooling fan.
 📖 P. 4-80 "4.6.31 SYS board cooling fan (F1)"
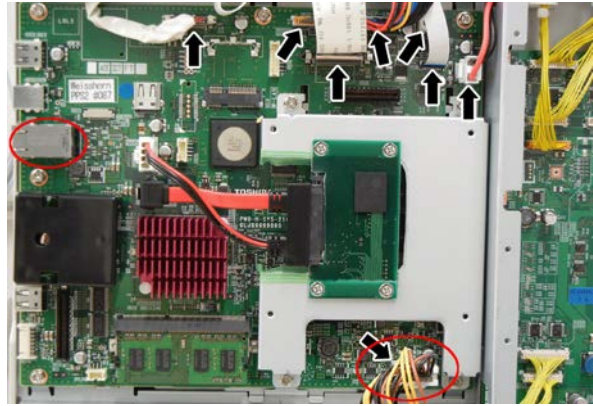
Fig. 9-3

(4) Unplug 2 connectors of SSD, then remove 9 screws, and then take off the SYS board.
   Notes:
     When removing the SYS board, hold the LAN connector and the lower right connector on the board.
     Do not hold the heat sink, memory or SRAM board, as doing so causes load on the SYS board.
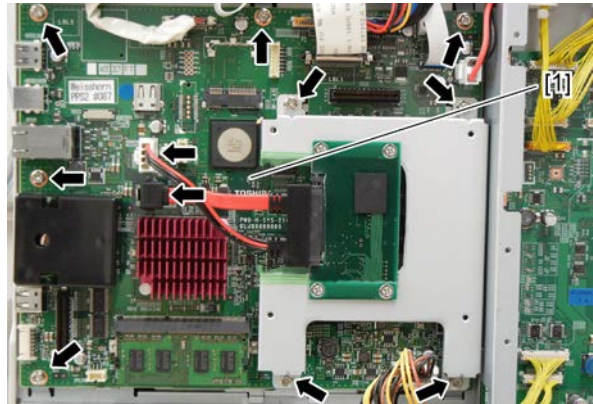
Fig. 9-4

9.1.3　Solid State Drive (SSD)

(1) Take off the SYS board cover.
 📖 P. 9-1 "9.1.1 SYS Board cover"
(2) Remove the harness[1] connected to the SSD.

Fig. 9-5

(3) Take off the SSD board[1].
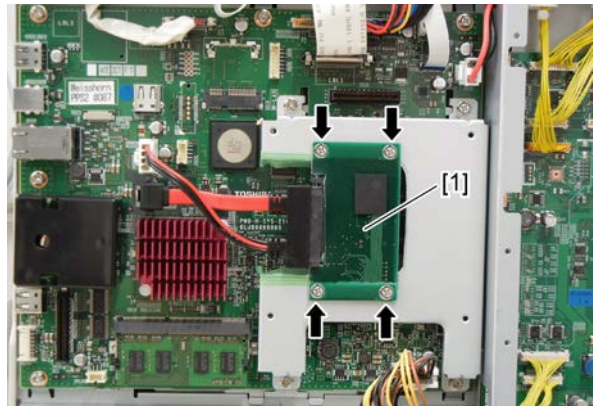
Fig. 9-6

9.1.4   Hard disk (HDD)

(1) Take off the rear cover.
     📖 P. 4-5 "4.1.13 Rear cover"
(2) Take off the SYS board cover.
     📖 P. 9-1 "9.1.1 SYS Board cover"
(3) Remove 4 screws.
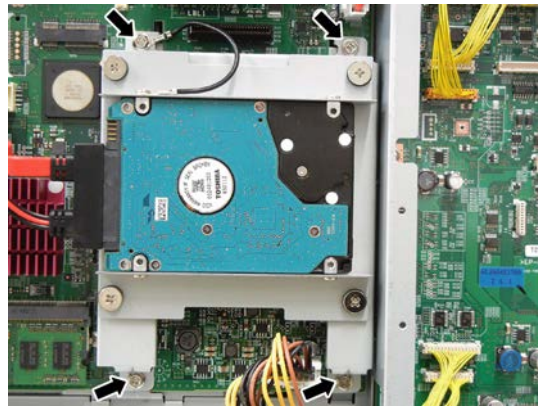
Fig. 9-7

(4) Disconnect the connector[1] and take off the
     HDD unit[2].

Fig. 9-8

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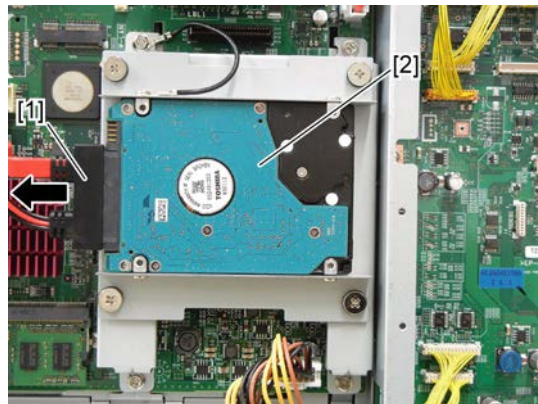
(5) Remove 4 screws and take off the hard disk [1] and ground wire[2].
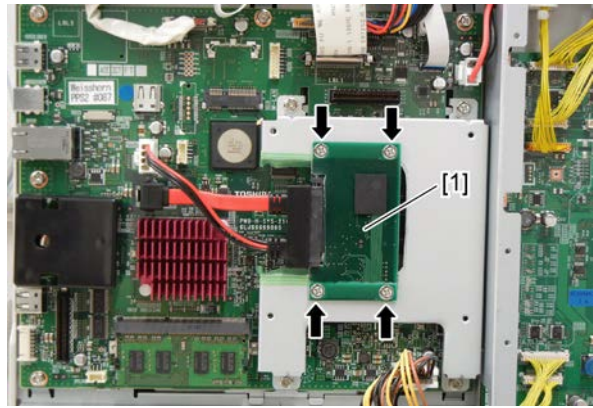
Fig. 9-9

9.1.5 PFC cover

(1) Remove 1 screw and take off theTake off the PFC cover [1].
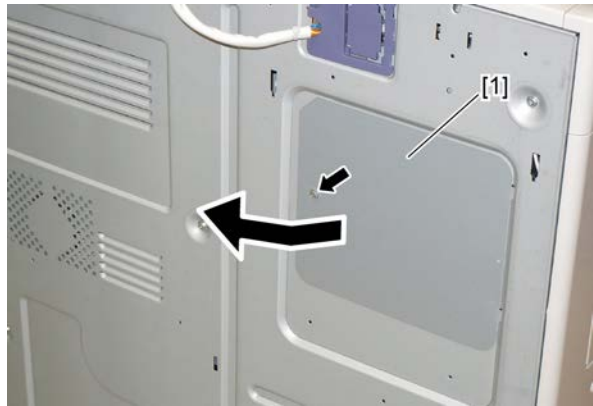
Fig. 9-10

9.1.6 LGC board

(1) Take off the rear cover.
   📖 P. 4-5 "4.1.13 Rear cover"
(2) Disconnect all connectors.

Fig. 9-11

(3) Remove 8 screws and slide the LGC board[1] to take it off.
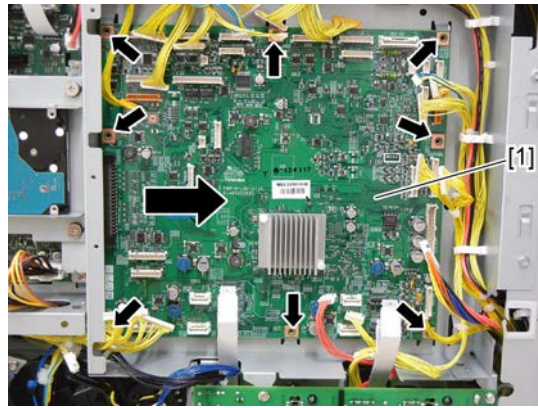
Fig. 9-12

Notes:
Check if the model of the equipment matches the color of the label on the LGC board.
<Color of label>
- 20 ppm: White
- 25 ppm: Yellow
- LL20 ppm: Pink
- LL25 ppm: Blue

Label

Fig. 9-13

9
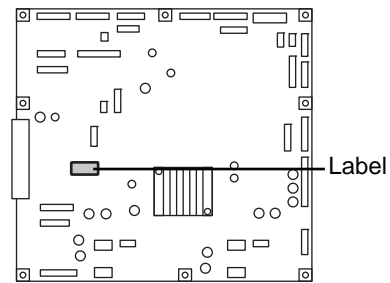
9.1.7   Switching regulator

(1) Take off the left cover.
   📖 P. 4-1 "4.1.2 Left cover"
(2) Remove 2 screws and slide the switching regulator slightly toward you.

Fig. 9-14

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(3) Disconnect 10 connectors, and slide the switching regulator [1] to the front side and take it off.
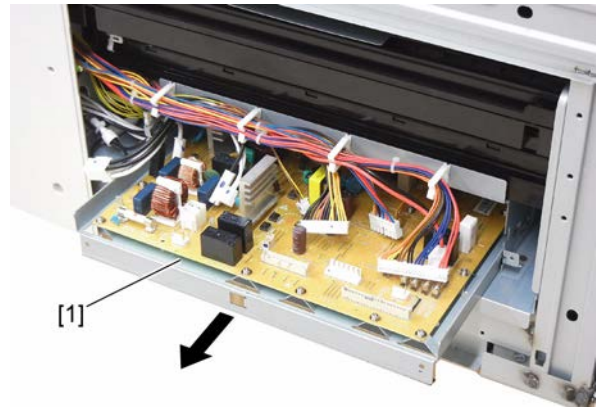
Fig. 9-15

(4) Remove 15 screws and take off the switching regulator board [1].
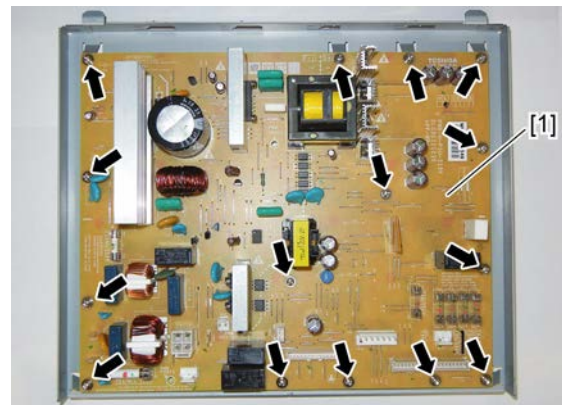
Fig. 9-16

9.1.8 High-voltage transformer (HVT)

(1) Take off the rear cover.
   📖 P. 4-5 "4.1.12 Rear top cover"
(2) Disconnect 2 connectors.

Fig. 9-17

(3) Remove 5 screws.
(4) Release 4 locking supports[1] and take off the high-voltage transformer.

Notes:
When installing, match the frame with the concave portion of the high-voltage transformer, and then push it until the supports [1] are locked.
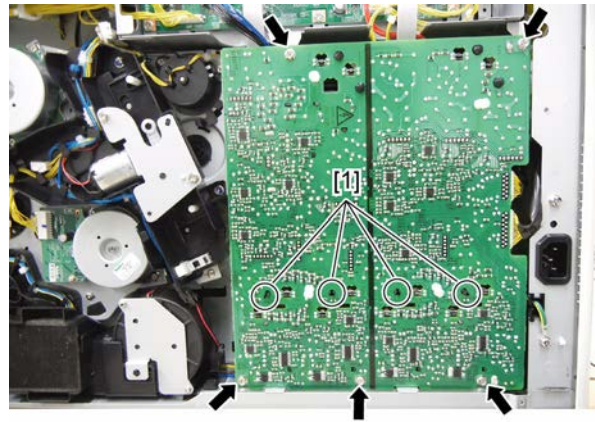
Fig. 9-18

Notes:
When installing the high-voltage transformer, make sure the feed springs contact the plastic (locator) pins as shown in the figure.

9
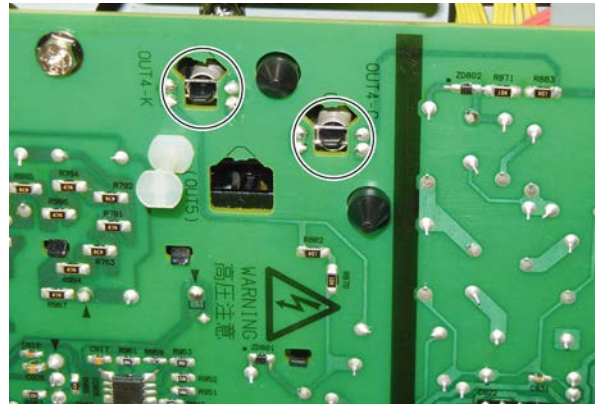
9.1.9   CFD board

(1) Take off the rear cover.
      P. 4-5 "4.1.13 Rear cover"
(2) Take off the right rear cover.
      P. 4-4 "4.1.9 Right rear cover"
(3) Disconnect 4 connectors from the CFD board.

Fig. 9-19

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(4) Disconnect 2 connectors[1], remove 3 screws and take off the CFD board.
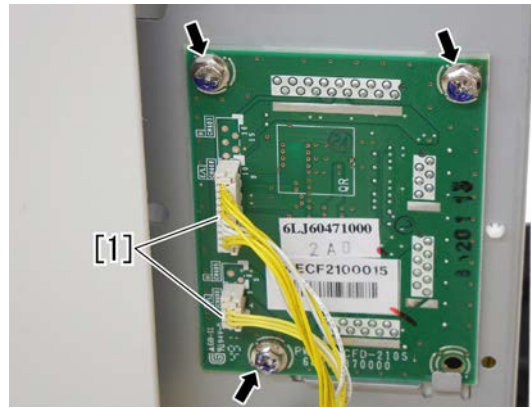
Fig. 9-20

9.1.10 SRAM board <for SYS board>

(1) Take off the SYS board cover.
    📖 P. 9-1 "9.1.1 SYS Board cover"
(2) Release 2 latches and take off the SRAM board for the SYS board[1] with the case.
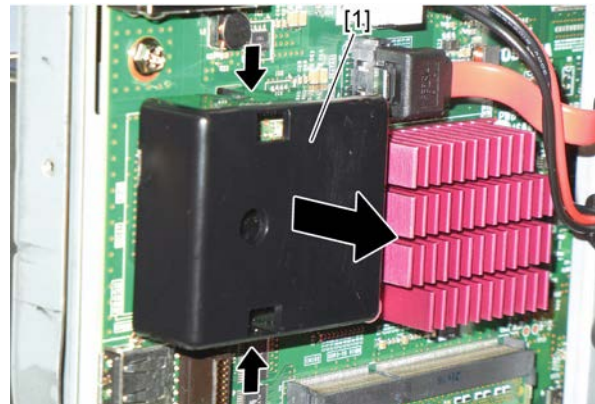
Fig. 9-21

(3) Release 2 latches[1] and take off the SRAM board for SYS board[2] from the case.
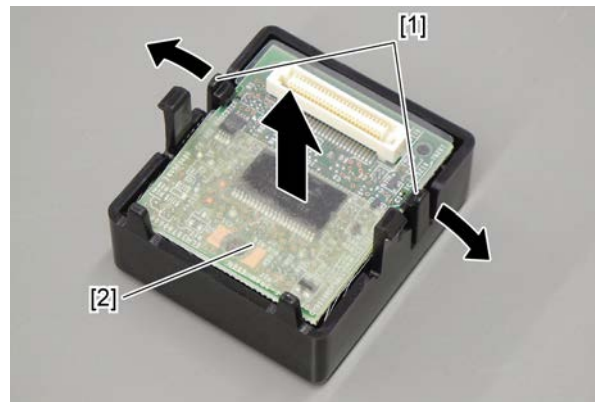
Fig. 9-22

9.1.11 EEPROM <for LGC board>

(1) Take off the rear cover.
   📖 P. 4-5 "4.1.13 Rear cover"
(2) Remove the EEPROM[1] from the LGC board.

   Notes:
   Be careful not to damage the EEPROM when replacing the EEPROM.
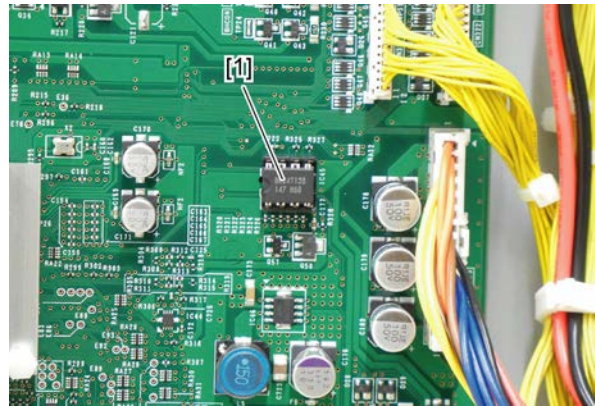
Fig. 9-23

9.1.12 CTIF board

(1) Take off the left cover.
   📖 P. 4-1 "4.1.2 Left cover"
(2) Take off the receiving tray.
   📖 P. 4-2 "4.1.3 Receiving tray"
(3) Take off the toner cartridges.
(4) Release latch and take off five toner cartridge rails[1].

Fig. 9-24

Fig. 9-25

9
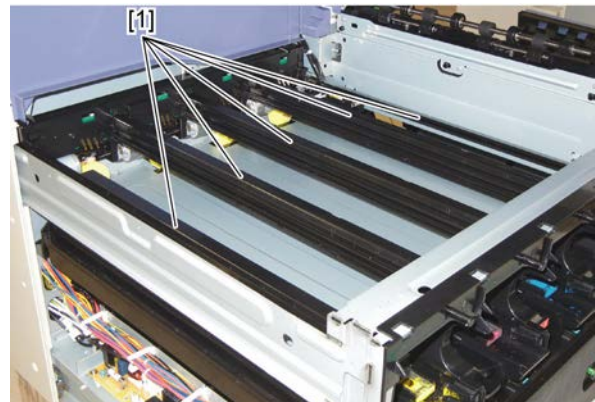
(5) Remove 2 screws, release two latshes and take off the toner motor assembly[1]..
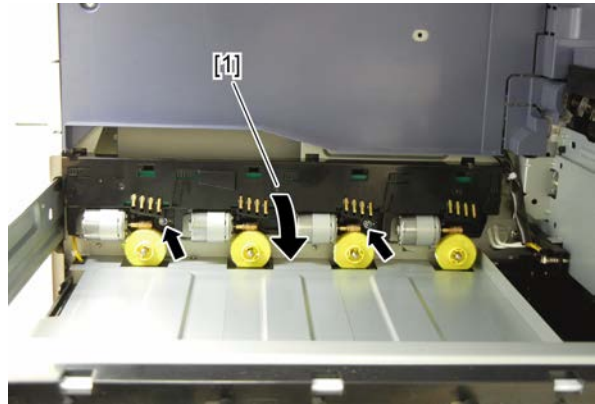
Fig. 9-26

Fig. 9-27

(6) Disconnect 5 connectors, release four latshes and take off the CTIF board.
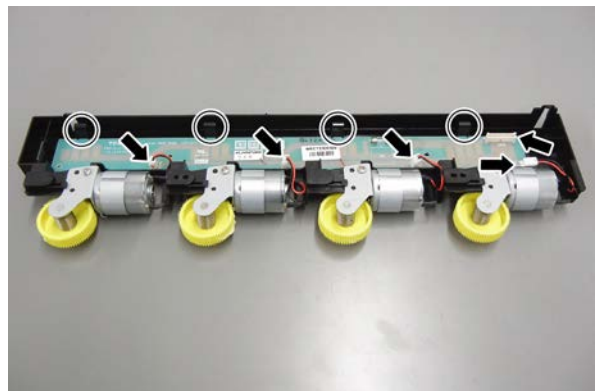
Fig. 9-28

9.2 Precautions, Procedures and Settings for Replacing PC Boards and HDD/SSD

9.2.1 Precautions when replacing PC boards

- The ID for each equipment is registered on the LGC board, the SYS board and Lens unit. So, if their replacement is required, be sure to replace only one board at a time. Do not replace the SYS board and the SRAM board (for the SYS board) together.

- If both the LGC board and SYS board require replacement, replace them in the following procedure.
    1. First, replace one of the board to be replaced.
    2. Turn the power ON and confirm that "READY" is displayed.
    3. Turn the power OFF.
    4. Replace another board that requires replacement.

- When replacing the LGC board, remove the EEPROM on the old board, and then attach it to the new board.

- When the HDD/SSD requires replacement, see "⌨ P. 9-15 "9.2.3 Precautions and procedures when replacing the HDD/SSD"".

- When the SYS board requires replacement, see ⌨ P. 9-21 "9.2.4 Precautions and Procedures when replacing the SYS board" .

- When the Lens unit requires replacement, see "⌨ P. 9-38 "9.2.7 Procedures and settings when replacing the Lens unit"".

- When SRAM board requires replacement, see "⌨ P. 9-25 "9.2.5 Precautions and procedure when replacing the SRAM board (for the SYS board)".

9

e-STUDIO2050C/2051C/2550C/2551C
REPLACEMENT OF PC BOARDS/HDD

9.2.2　HDD/SSD fault diagnosis

This code displays the HDD/SSD operation history, which is recorded in the HDD/SSD, on the control panel. HDD/SSD failure can be diagnosed or predicted with the information displayed.

1. Display
   The following screen is displayed with setting code 08-9065. You can also refer to the same information by pressing the [ON/OFF] button while pressing [5] and [C] simultaneously and then selecting "5. SMART Info".
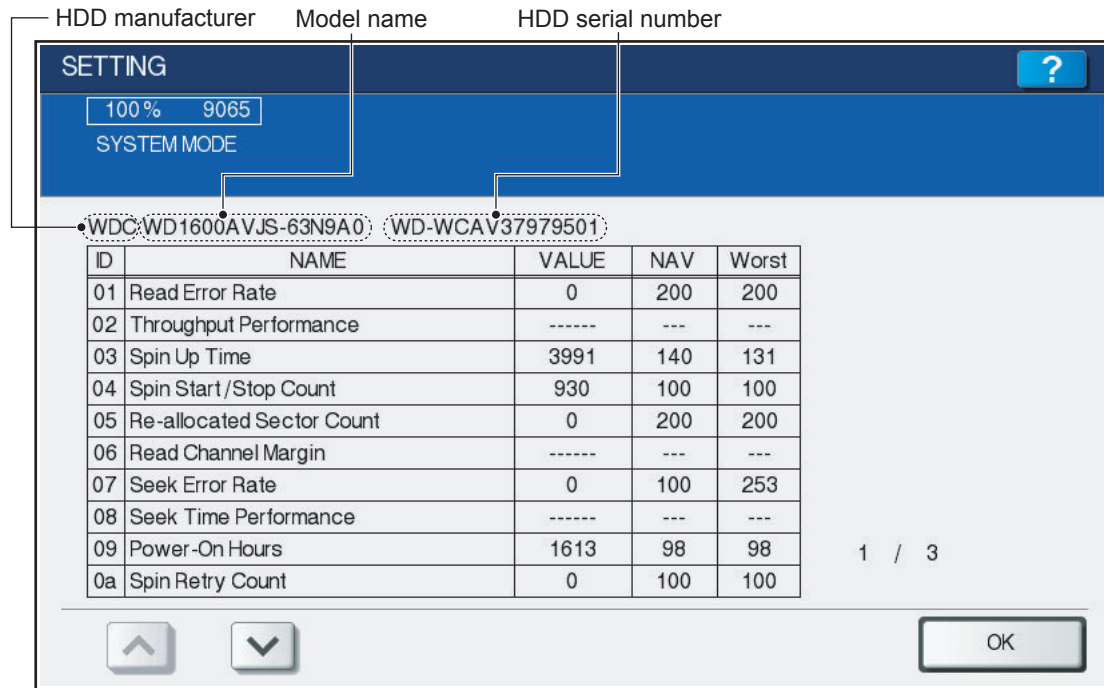
Fig. 9-29

- Items supported differ depending on the HDD/SSD manufacturer.
- "---" is displayed on the VALUE, NAV and Worst columns if items are not supported.

2. Usage
   The combination of the values of ID=05 and c5 is used to diagnose whether or not the HDD/SSD has a physical failure when HDD/SSD failure is suspected (service call F100 - F109 or F120 - F124 occurred).

Result		Description	Diagnosis
ID	VALUE		
05	0	Low possibility of physical failure	HDD/SSD replacement is not required.
c5	0		
05	From 1 to 999	Defective sector has been reassigned and HDD is recovered.	HDD/SSD replacement is not required.
c5	0		
05	Any value	High possibility of defective sector existence. (There will be a possibility of physical failure depending on the use of HDD.)	HDD/SSD replacement is recommended.
c5	1 or more		
05	Either one is at least 1000.	High possibility of physical failure	HDD/SSD replacement is recommended.
c5			

Result		Description	Diagnosis
ID	VALUE		
05	All values are displayed as "-------".	High possibility of physical failure (A HDD/SSD connector, harness or SYS board may be one of the causes.)	HDD/SSD replacement is recommended.
c5			

3. ID=05 and c5

ID	Name	Description	Remarks
05	Re-allocated Sector Count	The number of sectors reassigned	This value tends to increase at HDD/SSD failure.
c5	Current Pending Sector Count	The number of candidate sectors to be reassigned	This value tends to increase at HDD/SSD failure.

4. Description of each ID

ID	Name	Meaning
01	Read Error Rate	This attribute is a measure of the read error rate.
02	Throughput Performance	This attribute is a measure of the throughput performance.
03	Spin Up Time	This attribute is a measure of how quickly the drive is able to spin up from a spun down condition.
04	Spin Start/Stop Count	This attribute is a measure of the total number of spin ups from a spun down condition.
05	Re-allocated Sector Count	This attribute is a measure of the total number of reallocated sectors.
07	Seek Error Rate	This is a measure of the seek error rate.
08	Seek Time Performance	This attribute is a measure of a drive's seek performance during normal online operations.
09	Power-On Hours	This attribute is a measure of the total time (hours or minutes depending on disk manufacturer) the drive has been on.
0a	Spin Retry Count	This attribute is a measure of the total number of spin retries.
0c	Power Cycle Count	This attribute is a measure of the number of times the drive has been turned on.
c0	Power off Retract Count	This attribute is a measure of the total number of emergency unloads.
c1	Load Cycle Count	This attribute is a measure of the total number of load/unloads.
c2	Temperature	This attribute is a measure of the temperature in the HDD/SSD.
c3	ECC On the Fly Count	This attribute is a measure of the total number of the ECC On the Fly.
c4	Reallocation Event Count	This attribute is a measure of the total number of the reallocation events.
c5	Current Pending Sector Count	This attribute is a measure of the total number of candidate sectors to be reallocated.
c6	Off-Line Scan Uncorrectable Sector Count	This attribute is a measure of the total number of uncorrectable sectors found during the off-line scan.

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REPLACEMENT OF PC BOARDS/HDD

ID	Name	Meaning
c7	Ultra DMA CRC Error Count (Rate)	This attribute is a measure of the total number of errors found in data transfer in the Ultra-DMA mode.
c8	Write Error Rate	This attribute is a measure of the write error rate.

Notes:

"Over-range" is displayed if the number of digits acquired from the HDD/SSD exceeds the maximum digits which can be displayed on the control panel; however, this does not indicate an error.

9.2.3　Precautions and procedures when replacing the HDD/SSD

Notes:
- Replacing ADI-HDD with SATA-HDD/SSD is not possible. When replacing ADI-HDD, replace it with another ADI-HDD.
- When the HDD/SSD is replaced, it is necessary to back up the data in the HDD/SSD before replacing and to recover them after replacing.
- To maintain the security, ask users to perform the backup/restore for users' data/information in the HDD/SSD. The service technician can perform them only when users permit it.
- Some data in the HDD cannot be backed up and can be kept only on the paper.
- Do not replace the HDD/SSD and the SRAM board (for the SYS board) together.
- When the HDD is replaced, do not perform SRAM data formatting (Clear SRAM) before the normal start-up.
- When the HDD is replaced, do not restore the back-up file before the normal start-up.

A procedure for replacing the HDD/SSD is shown below.

```
                    ┌───────────────────────────────────────────┐
                    │                   Start                    │
                    └───────────────────────────────────────────┘
                                        │
                    ┌───────────────────────────────────────────┐
                    │         [A] Back up data in HDD/SSD        │
                    └───────────────────────────────────────────┘
                                        │
                    ┌───────────────────────────────────────────┐
                    │  [B] Print out "FUNCTION LIST FOR MAINTENANCE" │
                    └───────────────────────────────────────────┘
                                        │
                    ┌───────────────────────────────────────────┐
                    │       [C] Print out "FUNCTION" list         │
                    └───────────────────────────────────────────┘
                                        │
                    ┌───────────────────────────────────────────┐
                    │             [D] Return License             │
                    └───────────────────────────────────────────┘
                                        │
                    ┌───────────────────────────────────────────┐
                    │             [E] Erase HDD/SSD              │
                    └───────────────────────────────────────────┘
                                        │
                    ┌───────────────────────────────────────────┐
                    │         [F] Replace/Format HDD/SSD         │
                    └───────────────────────────────────────────┘
                                        │
                    ┌───────────────────────────────────────────┐
                    │ [G] Reset user's setting item and restore data/information │
                    └───────────────────────────────────────────┘
                                        │
                    ┌───────────────────────────────────────────┐
                    │  [H] Reset "FUNCTION LIST FOR MAINTENANCE"  │
                    └───────────────────────────────────────────┘
                                        │
                    ┌───────────────────────────────────────────┐
                    │         [I] Reset "FUNCTION" list           │
                    └───────────────────────────────────────────┘
                                        │
                    ┌───────────────────────────────────────────┐
                    │   [J] Batch setting for disconnecting HDD   │
                    └───────────────────────────────────────────┘
                                        │
                    ┌───────────────────────────────────────────┐
                    │           [K] Adjust image quality          │
                    └───────────────────────────────────────────┘
                                        │
                    ┌───────────────────────────────────────────┐
                    │            Setting completed                │
                    └───────────────────────────────────────────┘
```

Fig. 9-30

9
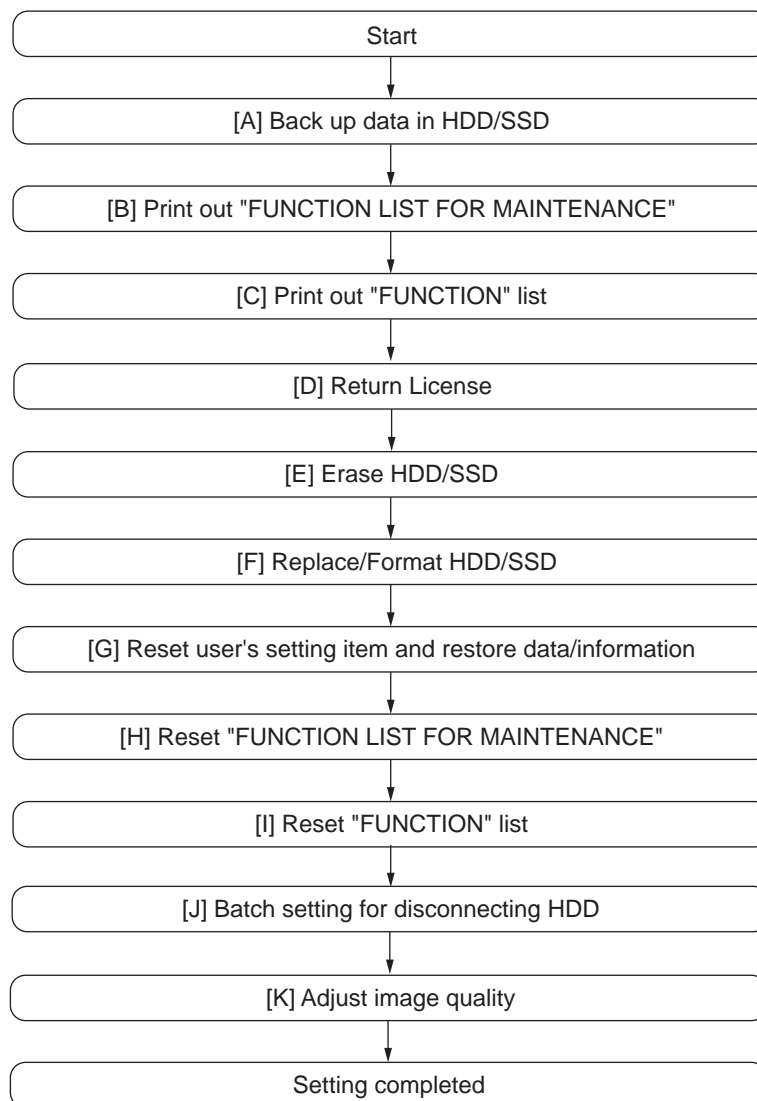
[A] Back up in HDD/SSD

Ask the user (machine administrator) to back up the data in the HDD/SSD. Refer to the table below for the type of data, availability and method of backup.

Type of data in HDD	Availability	Backup method
Image data in the e-Filing	HDD: Available SSD: Not available	Archive them in the "e-Filing" of TopAccess. As for the backup in Box data, all data (selectable by the box) can be backed up / restored in one go by using "e-Filing Backup/Restore Utility".
F-code information, Template registration information, Address book data	Available	Back them up in the "Administrator" menu of TopAccess.
Department management data	Available	Export them in "Administrator" menu of TopAccess.
Log data (Print, Scan, FAX (Transmission/Reception)	Available	Export them in the "Administrator" menu of TopAccess. (Import cannot be performed.)
Data in the shared folder (Scanned data, Saved data of copy / FAX transmission)	HDD: Available SSD: Not avalable	Copy them to the client computer via the network. (The data which have been copied to the client computer cannot be copied to the shared folder.)
Print waiting data (Copying data and FAX reception data that are waiting to be printed due to the paper run-out and jam, etc.)	Not available	Finish printing them after supplying paper or releasing the jam, etc. (The data cannot be left.)
Print job (Private print data, Schedule print data)	Not available	If any jobs are left, print them. (The data cannot be backed up.)
FAX saved data (Confidential / Bulletin board data)	Not available	Print them. (The data cannot be backed up.)
Registration data for FAX transmission (Delayed transmission / Recovery transmission)	Not available	Print them. (The data cannot be backed up.)

[B] Print out "FUNCTION LIST FOR MAINTENANCE"

(1)   Enter the Service Mode. "5.2Service UI"

(2)   Select "FAX LIST PRINT MODE" and then press [NEXT].

(3)   Select "Function list for Maintenance" and then press [PRINT].

[C]　Print out "FUNCTION" list

(1)　Press the [USER FUNCTIONS] button.

(2)　Press the [ADMIN] button, enter the password, and then press the [ENTER] button.

Notes:
Explain the procedure to the user (machine administrator) and ask him/her to enter his/her password.

(3)　Press the [LIST/REPORT] button and then the [LIST] button.

(4)　Press the [FUNCTION] button. The "FUNCTION LIST FOR MAINTENANCE" is printed out.

[D]　Return License

Notes:
When installing the Data Overwrite Enabler (GP-1070) and security mode is setting to High Security. Set the security mode levlel to "1" (Low level)., then restart the equipment .

When replacing the SATA-HDD to SSD, follow the steps below. To confirm the type of device, start up the equipment in the 4C mode.

(1)　Start up with the Setting Mode (08).

(2)　Enter the password, and then press the [OK] button.
(If the password is not set for Service, press the [ENTER] button without entering anything.)

(3)　Key in [3840], and then press the [START] button.

(4)　Select the license to be returned, and then press the [REMOVE] button.

(5)　Install the one-time dongle, which you used for uploading the selected license, in the equipment, and then press the [OK] button.

(6)　The Remove screen is displayed, then press the [YES] button. If this screen is not displayed, check whether the one-time dongle is installed in the equipment properly.

(7)　After 10 to 40 seconds passes, the screen for notifying the success of performance is displayed. Then press the [OK] button. If this screen is not displayed or the screen for notifying the failure of performance is displayed, quit this operation by pressing the [NO]/[CLOSE] button. Then, check whether the one-time dongle, which you used for uploading the selected license, is installed in the equipment.

(8)　Check that the returned license is not displayed on the screen.

Remarks:
If there are any other licenses to be returned, repeat from step (4).
If there is no more licenses to be returned, press the [CLOSE] button, and then turn the power OFF.

[E]　Erase HDD/SSD

In case of the ADI-HDD:

(1)　Turn the power ON while pressing [4] and the [CLEAR] button simultaneously.

(2)　Key in [1] to select "1: Revert factory install status HDD." and then press the [START] button.

(3)　Turn the power OFF.

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Incase of SATA-HDD/SSD:
  (1) Turn the power ON while pressing [3] and the [CLEAR] button simultaneously.

  (2) Key in [6] to select "6: Erase HDD Security." and then press the [START] button.

  (3) Select "1. LOW", "2. MEDIUM", "3. HIGH" and "4. SIMPLE".

  (4) Turn the power OFF.

[F] Replace / Format HDD/SSD
  (1) Confirm that the power is turned OFF.

  (2) Replace the HDD/SSD.
       (Refer to 📖 P. 9-3 "9.1.4 Hard disk (HDD)".)

  (3) Create the partitions on the HDD.
       1.Turn the power ON while pressing [3] and [CLEAR] button simultaneously.
       2.When "Firmware Assist Mode" appears on the LCD, key in [3] to select "3: Format HDD" and
       then press the [START] button.
       3.When "Operation Complete" is displayed on the LCD, creating of the partitions is completed.

  (4) Turn the power OFF.

  (5) Format the service tech password.
       1. Turn the power ON while pressing [3] and the [CLEAR] button simultaneously.
       2. When "Firmware Assist Mode" appears on the LCD, key in [8] to select "8. Clear Service Tech
       Password" and then press the [START] button.
       3. When "Reset Complete" is displayed on the LCD, formatting of the service tech password is
       completed.

  (6) Turn the power OFF.

  (7) Update the system software using the USB media.
       See "11.1Firmware Updating with USB Device" for details.

  (8) Turn the power OFF.

  (9) When the Fax Unit (GD-1320) is installed, perform "Fax Set Up" (1*-100) and "Clearing the
       image data" (1*-102). Then turn the power OFF.

  (10) Start up with the Setting mode (08).

  (11) Perform the panel calibration (08-9050).
       1.Touch the center of "+" mark displayed on the upper left of the LCD.
       2.Touch the center of "+" mark displayed on the upper right of the LCD.
       3.Touch the center of "+" mark displayed on the lower left of the LCD.
       4.Touch the center of "+" mark displayed on the lower right of the LCD.

  (12) Check the system software version (08-8952).
       Confirm the version displayed on the LCD, and then press the [OK] button.

  (13) Initialization of NIC information (08-9083).

  (14) Turn the power OFF.

[G] Reset user's setting items and restore data/information

Ask the user (machine administrator) to reset the user's setting items and to restore data or information. Refer to the following for the reset and restore:

Items to reset/restore	Method
Printer driver	Upload them in the "Administrator" menu of TopAccess.
F-code information, Template registering information, Address book data	Restore them in the "Administrator" menu of TopAccess
Department management data	Import them in the "Administrator" menu of TopAccess.
Image data in the Electronic Filing	Upload them in the "e-Filing" of TopAccess.

- When the SSL is enabled, perform the setting of the following items again with "Self-signed certificate" of TopAccess.
  - Country Name
  - State or Province Name
  - Locality Name
  - Organization Name
  - Organizational Unit Name
  - Common Name
  - Email Address
- When wireless LAN is used, perform the setting again on the LCD panel. (only when security with a certificate is used) Also, upload the following certificate file with "Install Certificate for Wireless LAN" of TopAccess.
  - CA certificate
  - User certificate

[H] Reset "FUNCTION LIST FOR MAINTENANCE"

(1) Print out the "FUNCTION LIST FOR MAINTENANCE" list after the formatting. For how to print it out, refer to [B]Print out "FUNCTION LIST FOR MAINTENANCE".

(2) While pressing [1] and [3] simultaneously, turn the power ON. (Fax Function Mode)

(3) Compare the lists which were printed before and after the formatting to check the setting items having the different setting values. Set the value which was set before the formatting.

(4) Turn the power OFF.

[I] Reset "FUNCTION" list

Reset the fax function by referring to the "function list" that was printed out in [C]Print out "FUNCTION" list.

(1) Press the [USER FUNCTIONS] button.

(2) Press the [ADMIN] button, enter the password, and then press the [ENTER] button.
  Notes:
    Explain the user (machine administrator) about the next operation and ask him/her to enter his/her password.

(3) Press the [FAX] button and then the [TERMINAL ID] button to set each item.

(4) Press the [INITIAL SETUP] button to set each item.

[J] Batch setting for disconnecting HDD

When SATA-HDD is changed to SSD, follow the steps below.

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(1) Start up with the Setting mode (08).

(2) Perform the batch setting for disconnecting HDD (08-8760)

(3) Turn the power OFF.

[K] Adjust image quality

(1) Start up with the Adjustment mode (05).

(2) Enter the password, and then press the [OK] button.
(If the password is not set for Service, press the [ENTER] button without entering anything.)

(3) Perform "Automatic gamma adjustment" <PPC> (05-7869).
📖 P. 6-27 "6.2.1 Automatic gamma adjustment"

(4) Perform "Automatic gamma adjustment" <PRT> (05-8008, 05-8009).
📖 P. 6-50 "6.3.1 Automatic gamma adjustment"

(5) Turn the power OFF.

9.2.4 Precautions and Procedures when replacing the SYS board

A procedure for SYS board replacement is shown below.

```
┌─────────────────────────────────────────────────┐
│                     Start                         │
└─────────────────────────────────────────────────┘
                        │
┌─────────────────────────────────────────────────┐
│               [A] Return License                 │
└─────────────────────────────────────────────────┘
                        │
┌─────────────────────────────────────────────────┐
│             [B] Replace the SYS board            │
└─────────────────────────────────────────────────┘
                        │
┌─────────────────────────────────────────────────┐
│               [C] Restore ADI key                │
└─────────────────────────────────────────────────┘
                        │
┌─────────────────────────────────────────────────┐
│           [D] Restore encryption key             │
└─────────────────────────────────────────────────┘
                        │
┌─────────────────────────────────────────────────┐
│               [E] Restore license                │
└─────────────────────────────────────────────────┘
                        │
┌─────────────────────────────────────────────────┐
│           [F] Update firmware version            │
└─────────────────────────────────────────────────┘
                        │
┌─────────────────────────────────────────────────┐
│ [G] Data transfer of characteristic value of scanner │
└─────────────────────────────────────────────────┘
                        │
┌─────────────────────────────────────────────────┐
│               [H] Reinstall license              │
└─────────────────────────────────────────────────┘
                        │
┌─────────────────────────────────────────────────┐
│            [I] Check firmware versions           │
└─────────────────────────────────────────────────┘
                        │
┌─────────────────────────────────────────────────┐
│                Setting completed                  │
└─────────────────────────────────────────────────┘
```
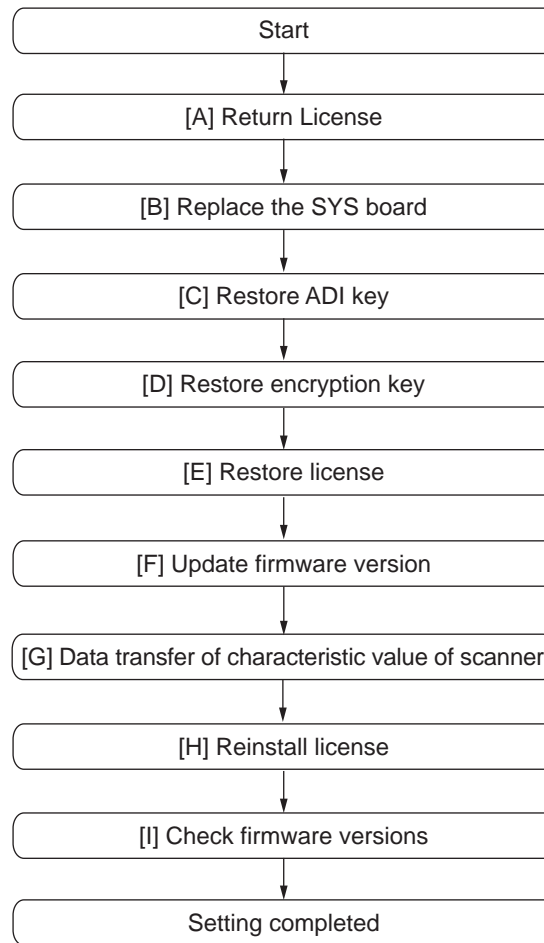
Fig. 9-31

[A] Return License

Notes:
- If the Setting Mode (08) is not started up, "[A]Return License" can be omitted. In that case, reinstall the license with "[1]Re-registration when the board is replaced" if it is cleared since "[E] Reinstallation of License" cannot be performed.
- When installing the Data Overwrite Enabler (GP-1070) and security mode is setting High Security, set the security mode levlel to "1" (Low level). Then restart the equipment.

(1) Start up with the Setting Mode (08).

(2) Enter the password, and then press the [OK] button.
(If the password is not set for Service, press the [ENTER] button without entering anything.)

(3) Key in [3840], and then press the [ENTER] button.

(4) Select the license to be returned, and then press the [REMOVE] button.

(5) Install the one-time dongle, which you used for uploading the selected license, in the equipment, and then press the [OK] button.

(6) The Remove screen is displayed, then press the [YES] button. If this screen is not displayed, check whether the one-time dongle is installed in the equipment properly.

(7) After 10 to 40 seconds passes, the screen for notifying the success of performance is displayed. Then press the [OK] button. If this screen is not displayed or the screen for notifying the failure of performance is displayed, quit this operation by pressing the [NO]/[CLOSE] button. Then, check whether the one-time dongle, which you used for uploading the selected license, is installed in the equipment.

(8) Check that the returned license is not displayed on the screen.

Remarks:
If there are any other licenses to be returned, repeat from step (4).
If there is no more licenses to be returned, press the [CLOSE] button, and then turn the power OFF.

[B] Replace the SYS board

Notes:
Before replacing the SYS board, perform the following procedure.
📖 P. 9-11 "9.2.1 Precautions when replacing PC boards"

(1) Confirm that the power is turned OFF.

(2) Replace the SYS board.

(3) Install main memory (DIMM) to the new SYS board (from the old SYS board).

(4) Install SRAM board to the new SYS board (from the old SYS board).

(5) Install HDD/SSD to the new SYS board (from the old SYS board).

[C] Update firmware version

(1) Update the version of system firmware using the download jig.
📖 P. 11-30 "11.3 Firmware Updating with PWA-DWNLD-JIG2F"

(2) Update the version of scanner firmware with the USB media.
📖 P. 11-5 "11.1 Firmware Updating with USB Device"

[D] Restore ADI key

If the ADI-HDD is installed, follow the steps below. To confirm the type of device, start up the equipment in the 4C mode.

(1) Turn the power ON while pressing [3] and the [CLEAR] button simultaneously.

(2) Enter the password, and then press the [OK] button. (If the password is not set for Service, press the [OK] button without entering anything.)

(3) Key in [5] to select "5. Key Backup Restore", and then press the [START] button.

(4) Key in [5] to select "5.ADI Key SRAM to FROM", and then press the [START] button.

(5) Wait until the restoring of the encryption key is completed. "Operation Complete" is displayed.

(6) Turn the power OFF.

[E]　Restore encryption key
(1)　Turn the power ON while pressing [3] and the [CLEAR] button simultaneously.

(2)　Enter the password, and then press the [OK] button. (If the password is not set for Service, press the [OK] button without entering anything.)

(3)　Key in [5] to select "5. Key Backup Restore", and then press the [START] button.

(4)　Key in [1] to select "1. Key SRAM to FROM", and then press the [START] button.

(5)　Wait until the restoring of the encryption key is completed. "Operation Complete" is displayed.

(6)　Restart the equipment after the restoring is completed. If you want to perform the restoring of the license, do not restart the equipment but perform from (4) in "[H] Restore license".

[F]　Restore license
(1)　Turn the power ON while pressing [3] and the [CLEAR] button simultaneously.

(2)　Enter the password, and then press the [OK] button. (If the password is not set for Service, press the [OK] button without entering anything.)

(3)　Key in [5] to select "5. Key Backup Restore", and then press the [START] button.

(4)　Key in [3] to select "3. License SRAM to FROM", and then press the [START] button.

(5)　Wait until the restoring of the license is completed. "Operation Complete" is displayed.

(6)　After the restoring is completed, check that "OK" is indicated in "SRAM License STATUS" and "FROM License Status". Then, restart the equipment.

(7)　If "4. License FROM to SRAM" is performed by mistake, carry out the following procedure.
　　　 P. 9-39 "[1] Re-registration when the board is replaced"

[G]　Data transfer of characteristic value of scanner
(1)　Start up with the Adjustment mode (05).

(2)　Enter the password, and then press the [OK] button. (If the password is not set for Service, press the [OK] button without entering anything.)

(3)　Perform "Data transfer of characteristic value of scanner (05-3203)

(4)　Turn the power OFF.

[H]　Reinstall license
If the license was returned in "[A]Return License", reinstall it with the following procedure.

(1)　Turn the power ON while pressing [0] and [8] simultaneously.

(2)　Enter the password, and then press the [OK] button.
　　　(If the password is not set for Service, press the [ENTER] button without entering anything.)

(3)　Key in [3840], and then press the [START] button.

(4)　Press the [INSTALL] button.

(5)　Install the one-time dongle in the equipment (the one which you used for returning the selected license before replacing the equipment). Then press the [OK] button.

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(6)   Select the license to be installed, and then press the [INSTALL] button.

(7)   The screen for notifying that the installation will be started is displayed. Then press the [YES] button.

(8)   After 10 to 40 seconds have passed, the screen for notifying the success of the performance is displayed. Then press the [OK] button. If the screen for notifying a failure of the performance is displayed, quit this operation by pressing the [NO] button. Then check that the one-time dongle is installed properly in the equipment.

(9)   Check that the installed license is displayed on the license list.
    Remarks:
    If there are any other licenses to be installed, repeat from step (4). If there are no other licenses to be installed, press the [CLOSE] button, and then turn the power OFF.

[I]   Check firmware versions
- System firmware version (08-9930)
- Scanner firmware version (08-9902)

    Notes:
    If the security mode is changed from High Security to Low Security in the step "[A] Return License", set the value of 08-8911 to "3" (High Security).

9.2.5 Precautions and procedure when replacing the SRAM board (for the SYS board)

Notes:
- Do not replace the HDD and the SRAM board (for the SYS board) together.
- Be careful not to damage the board when replacing the SRAM board.
- When the SRAM board is replaced, do not perform HDD partition creation (Format HDD) before the normal start-up.

A procedure for replacing the SRAM board is shown below.

When disposing of the SRAM board, perform the items in 🕮 P. 9-41 "9.3.4 Precautions when disposing of the SRAM board (for SYS board)".
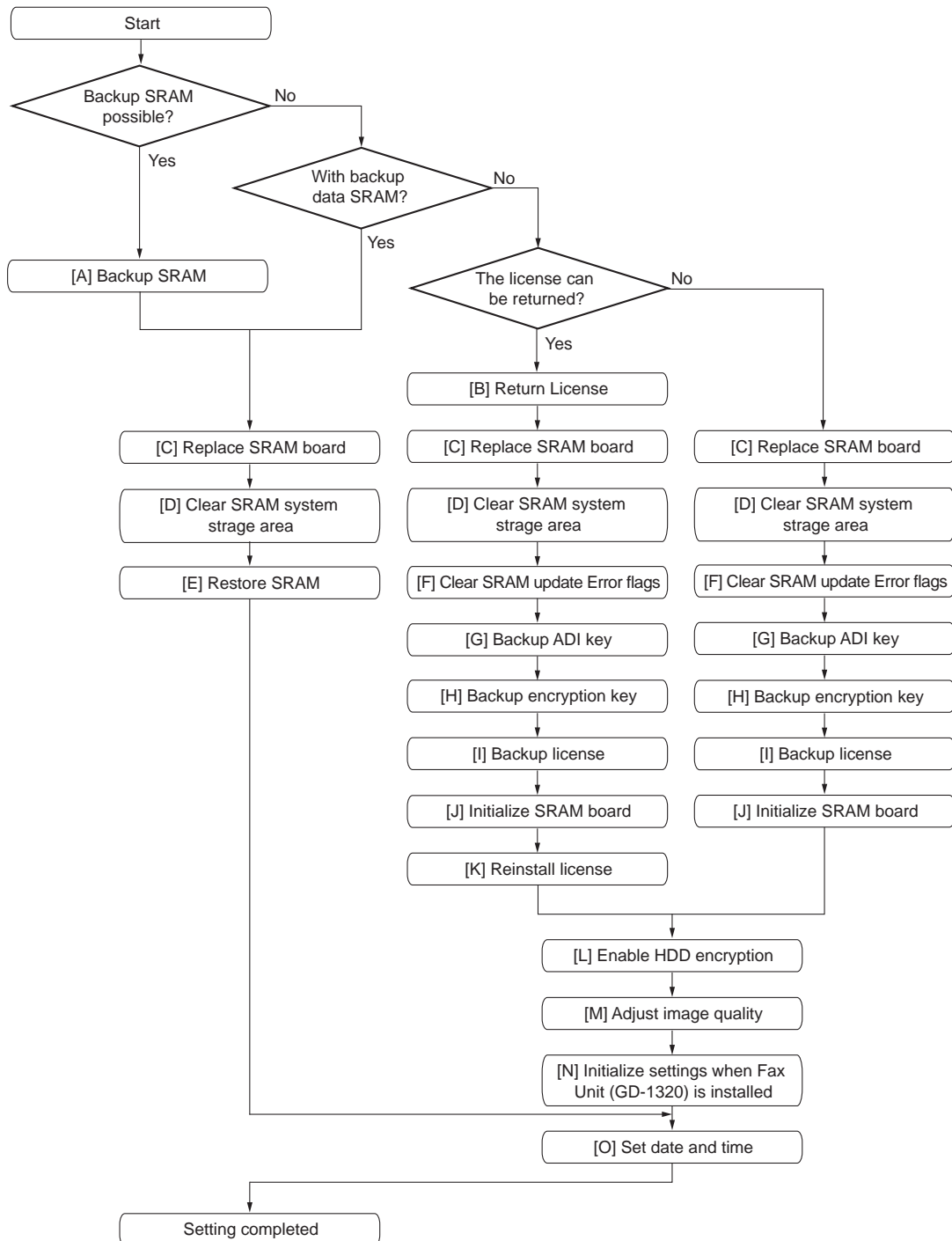
Fig. 9-32

Notes:

"[G] Backup ADI key" is required only for the equipment in which the ADI-HDD has been installed. Other procedures are the same as those for installing the SATA-HDD.

[A] Backup SRAM

Notes:

If "[A] Backup SRAM" fails, proceed to "[B]Return License".
If "[A] Backup SRAM" succeeds, proceed to "[C]Replace SRAM board".

(1) Turn the power ON while pressing [6] and the [CLEAR] button simultaneously.

(2) When "SRAM Clear Mode" appears on the LCD, key in [0] to select "0. Set Serial Number" and then press the [START] button.

(3) Key in the serial number on the label attached to the rear cover of the equipment, and then press the [OK] button.

(4) "Serial Number Setting completed" is displayed.

(5) Turn the power OFF.

(6) Install the USB media in the equipment, and then turn the power ON while pressing [5] and [9] buttons simultaneously.

(7) Key in [1] to select "1. Backup SRAM Data to USB", and then press the [START] button.

(8) Enter a password (max. 15 characters) to be set for the backup data.

(9) Restart the equipment after the backup is completed.

(10) Turn the power OFF.

[B] Return License

Notes:

When installing the Data Overwrite Enabler (GP-1070) and security mode is setting High Security, set the security mode levlel to "1" (Low level). Then restart the equipment.

(1) Start up with the Setting Mode (08).

(2) Enter the password, and then press the [OK] button.
(If the password is not set for Service, press the [ENTER] button without entering anything.)

(3) Key in [3840], and then press the [ENTER] button.

(4) Select the license to be returned, and then press the [REMOVE] button.

(5) Install the one-time dongle, which you used for uploading the selected license, in the equipment, and then press the [OK] button.

(6) The Remove screen is displayed, then press the [YES] button. If this screen is not displayed, check whether the one-time dongle is installed in the equipment properly.

(7) After 10 to 40 seconds passes, the screen for notifying the success of performance is displayed. Then press the [OK] button. If this screen is not displayed or the screen for notifying the failure of performance is displayed, quit this operation by pressing the [NO]/[CLOSE] button. Then, check whether the one-time dongle, which you used for uploading the selected license, is installed in the equipment.

(8) Check that the returned license is not displayed on the screen.

Remarks:
If there are any other licenses to be returned, repeat from step (4).
If there is no more licenses to be returned, press the [CLOSE] button, and then turn the power OFF.

[C] Replace SRAM board
(1) Confirm that the power is turned OFF.

(2) Take off the Fax Unit (GD-1320) if it is installed.

(3) Replace the SRAM board (for the SYS board).
🔖 P. 9-8 "9.1.10 SRAM board <for SYS board>"

[D] Clear SRAM system storage area
(1) Turn the power ON while pressing [6] and [CLEAR] simultaneously.

(2) When "SRAM Clear Mode" appears on the LCD, key in [1] to select "1. Clear SRAM" and then press the [START] button.

(3) When "SRAM Format Completed" is displayed on the LCD, initializing is completed.

(4) Turn the power OFF.

[E] Restore SRAM
If there is SRAM backup data, perform the following steps.
(1) Turn the power ON while pressing [6] and the [CLEAR] button simultaneously.

(2) When "SRAM Clear Mode" appears on the LCD, key in [0] to select "0. Set Serial Number" and then press the [START] button.

(3) Key in the serial number on the label attached to the rear cover of the equipment, and then press the [OK] button.

(4) "Serial Number Setting completed" is displayed.

(5) Turn the power OFF.

(6) Install the USB media in the equipment, and then turn the power ON while pressing [5] and [9] simultaneously.

(7) Key in [2] to select "2. Restore SRAM Data from USB" and then press the [START] button.

(8) Enter the password set for the backup data.

(9) Enter the serial number of the backup file.

(10) Turn the power OFF after the restoring of SRAM is completed.
Remarks:
When the restoration is completed successfully, do not perform "[F] Clear SRAM update error flags" or later procedures.
End this procedure here and finish replacing the SRAM board (for SYS board).

(11) Reinstall the GD-1320 Fax Unit if used.

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[F] Clear SRAM update Error flags

(1) Turn the power ON while pressing [3] and the [CLEAR] button simultaneously.

(2) Enter the password, and then press the [OK] button. (If the password is not set for Service, press the [ENTER] button without entering anything.)

(3) After "Firmware Assist Mode" is displayed on the LCD, check that "1: Clear Error Flag in Software Installation." is marked and press the [START] button.
If not, key in [1] and then press the [START] button.

(4) When "Operation Complete" is displayed on the LCD, clearing the flag is completed.

(5) Turn the power OFF.

[G] Backup ADI key

If the ADI-HDD is installed, follow the steps below. To confirm the type of device, start up the equipment in the 4C mode.

(1) Turn the power ON while pressing [3] and the [CLEAR] button simultaneously.

(2) Enter the password, and then press the [OK] button. (If the password is not set for Service, press the [OK] button without entering anything.)

(3) Key in [5] to select "5. Key Backup Restore", and then press the [START] button.

(4) Key in [6] to select "6. ADIKey FROM to SRAM", and then press the [START] button.

(5) Wait until the backup of the ADI key is completed. "Operation Complete" is displayed.

(6) Restart the equipment after the backup is completed.
If you want to perform the backup of the license, do not restart the equipment but perform from (4) in "[H] Backup encryption key".

[H] Backup encryption key

(1) Turn the power ON while pressing [3] and the [CLEAR] button simultaneously.

(2) Enter the password, and then press the [OK] button. (If the password is not set for Service, press the [ENTER] button without entering anything.)

(3) Key in [5] to select "5. Key Backup Restore", and then press the [START] button.

(4) Key in [2] to select "2. Key FROM to SRAM", and then press the [START] button.

(5) Wait until the backup of the encryption key is completed. "Operation Complete" is displayed.

(6) Restart the equipment after the backup is completed. If you want to perform the backup of the license, do not restart the equipment but perform from (4) in "[I] Backup license".

(7) Turn the power OFF.

[I] Backup license

  Notes:
  If "3. License SRAM to FROM" is performed by mistake, carry out the following procedure.
  📖 P. 9-39 "[1] Re-registration when the board is replaced"

(1) Turn the power ON while pressing [3] and the [CLEAR] button simultaneously.

(2) Enter the password, and then press the [OK] button. (If the password is not set for Service, press the [ENTER] button without entering anything.)

(3) Key in [5] to select "5. Key Backup Restore", and then press the [START] button.

(4) Key in [4] to select "4. License FROM to SRAM", and then press the [START] button.

(5) Wait until the backup of the license is completed. "Operation Complete" is displayed.

(6) Restart the equipment after the backup is completed.

(7) Turn the power OFF.

[J]   Initialize SRAM board
(1) Start up with the Setting Mode (08).

(2) Initialize the SRAM error.
     1.When "SRAM REQUIRES INITIALIZATION" is displayed on the LCD, check the destination and then press the [START] button.
     If the destination is not correct, key in the correct one and then press the [START] button.
     2.After the confirmation message is displayed, press the [INTERRUPT] button.

(3) Perform the panel calibration (08-9050).
     1.Touch the center of "+" mark displayed on the upper left of the LCD.
     2.Touch the center of "+" mark displayed on the upper right of the LCD.
     3.Touch the center of "+" mark displayed on the lower left of the LCD.
     4.Touch the center of "+" mark displayed on the lower right of the LCD.

(4) Perform the initialization at the software version upgrade (08-9030).

(5) Initialize the NIC information (08-9083).

(6) Enter the serial number (08-9601).
     Key in the serial number on the label attached to the rear cover of the equipment, and then press the [OK] button.

(7) Turn the power off.

[K]   Reinstall license
If the license was returned in "[B]Return License", reinstall it with the following procedure.

(1) Turn the power ON while pressing [0] and [8] simultaneously.

(2) Enter the password, and then press the [OK] button.
     (If the password is not set for Service, press the [ENTER] button without entering anything.)

(3) Key in [3840], and then press the [START] button.

(4) Press the [INSTALL] button.

(5) Install the one-time dongle in the equipment (the one which you used for returning the selected license before replacing the equipment). Then press the [OK] button.

(6) Select the license to be installed, and then press the [INSTALL] button.

(7) The screen for notifying that the installation will be started is displayed. Then press the [YES] button.

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(8) After 10 to 40 seconds have passed, the screen for notifying the success of the performance is displayed. Then press the [OK] button. If the screen for notifying a failure of the performance is displayed, quit this operation by pressing the [NO] button. Then check that the one-time dongle is installed properly in the equipment.

(9) Check that the installed license is displayed on the license list.
   Remarks:
   - If there are any other licenses to be installed, repeat from step (4).
   - If there are no other licenses to be installed, press the [CLOSE] button, and then turn the power OFF.

[L] Enable HDD/SSD encryption

If the HDD/SSD encryption function is used, follow the procedure below.

(1) Start up with the Setting mode (08).

(2) Enter the password, and then press the [OK] button.
   (If the password is not set for Service, press the [ENTER] button without entering anything.)

(3) Enable the encryption function.

   - For high security mode
     Set the value of 08-8911 to "3".
   Notes:
   If the SSD is installed, this setting cannot be used.

   - For enabling HDD/SSD encryption only
     Set the value of 08-8911 to "1", and then set the value of 08-9379 to "1" (Security priority) or "2" (Performance priority).

(4) Turn the power OFF.

[M] Adjust image quality

(1) Start up with the Adjustment mode (05).

(2) Enter the password, and then press the [OK] button.
   (If the password is not set for Service, press the [ENTER] button without entering anything.)

(3) Perform "Data transfer of characteristic value of scanner" (05-3203).

(4) Perform "Automatic gamma adjustment" <PPC> (05-7869).
   📖 P. 6-27 "6.2.1 Automatic gamma adjustment"

(5) Perform "Automatic gamma adjustment" <PRT> (05-8008/8009).
   📖 P. 6-50 "6.3.1 Automatic gamma adjustment"

(6) Turn the power OFF.

[N] Initialize settings when FAX Unit (GD-1320) is installed

(1) Reinstall the FAX Unit (GD-1320).

(2) Start up with the Setting mode (08).

(3) Enter the password, and then press the [OK] button.
   (If the password is not set for Service, press the [ENTER] button without entering anything.)

(4)　Set the destination of FAX (08-9001).

(5)　Turn the power OFF.

(6)　Start up with the FAX Clearing Mode (1*).

(7)　Perform the FAX Set Up (1*-100).

(8)　Turn the power OFF and then back ON.

(9)　Set the dial type according to these buttons: [USER FUNCTIONS] -> [ADMIN] -> [FAX] -> [INITIAL SETUP]

[O] Set date and time
Set the date and time according to these buttons.
[USER FUNCTIONS] → [ADMIN] → [GENERAL] → [CLOCK] → [DATE/TIME]

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9.2.6 Procedures and settings when replacing EEPROM (for LGC board)

Notes:
   Be careful not to damage the EEPROM when replacing the EEPROM.

A procedure for replacing the SRAM board is shown below.
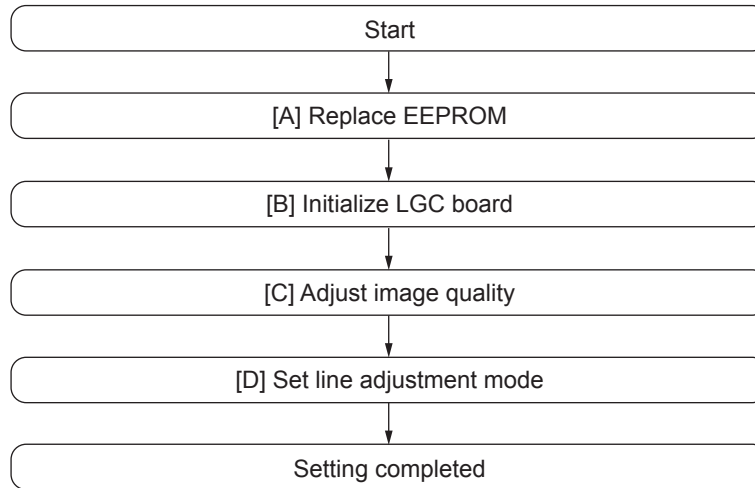
```
          ┌─────────────────────────────────┐
          │              Start              │
          └─────────────────────────────────┘
                           │
          ┌─────────────────────────────────┐
          │       [A] Replace EEPROM        │
          └─────────────────────────────────┘
                           │
          ┌─────────────────────────────────┐
          │      [B] Initialize LGC board   │
          └─────────────────────────────────┘
                           │
          ┌─────────────────────────────────┐
          │     [C] Adjust image quality    │
          └─────────────────────────────────┘
                           │
          ┌─────────────────────────────────┐
          │    [D] Set line adjustment mode │
          └─────────────────────────────────┘
                           │
          ┌─────────────────────────────────┐
          │        Setting completed        │
          └─────────────────────────────────┘
```
Fig. 9-33

[A]   Replace SRAM board

(1)   Confirm that the power is turned OFF.

(2)   Replace the EEPROM (for the LGC board).
      📖 P. 9-9 "9.1.11 EEPROM <for LGC board>"

[B] Initialize LGC board

(1) Open the front cover, and check the destination printed on the white tape stuck on the equipment.

(2) Start up with the Setting Mode (08).

(3) Enter the password, and then press the [OK] button.
(If the password is not set for Service, press the [ENTER] button without entering anything.)

(4) Perform "Destination display at SRAM initialization" (08-9060).

(5) Check whether the displayed destination (see the below figure) of the SRAM board (for the SYS board) is the same as the one in step (1).
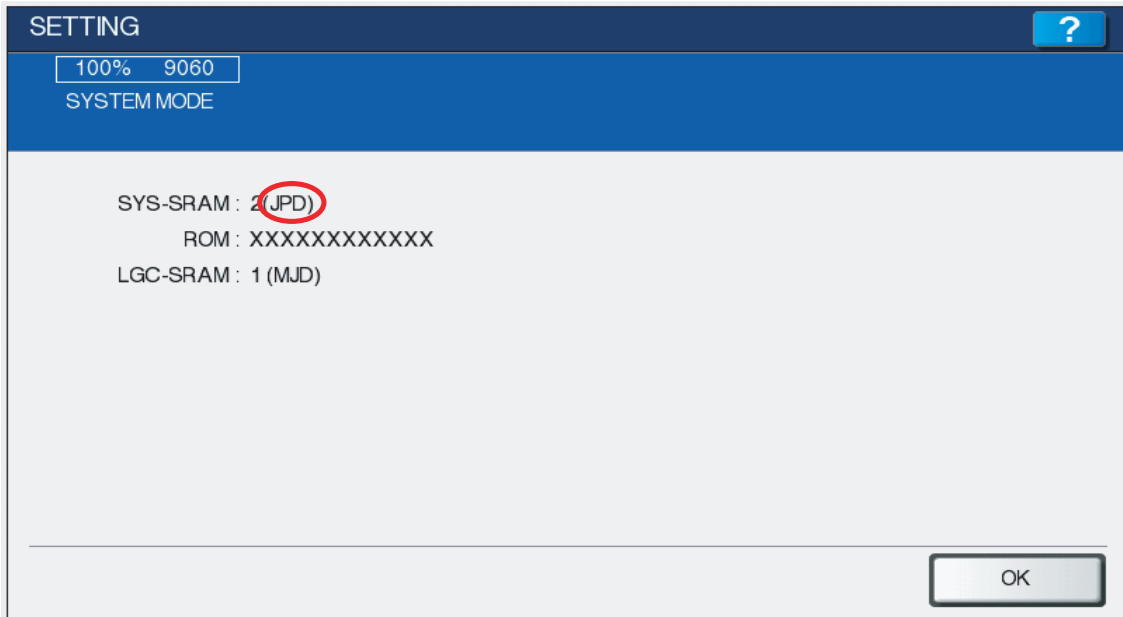
Fig. 9-34

Remarks:
If the destinations are different, initialize the SRAM board (for the SYS board) with reference to the following procedure.
 P. 9-25 "9.2.5 Precautions and procedure when replacing the SRAM board (for the SYS board)"

(6) Perform "Printer all clear" (08-9090).

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(7) Press the [INITIALIZE] button to perform the initialization of the SRAM board (for the LGC board).
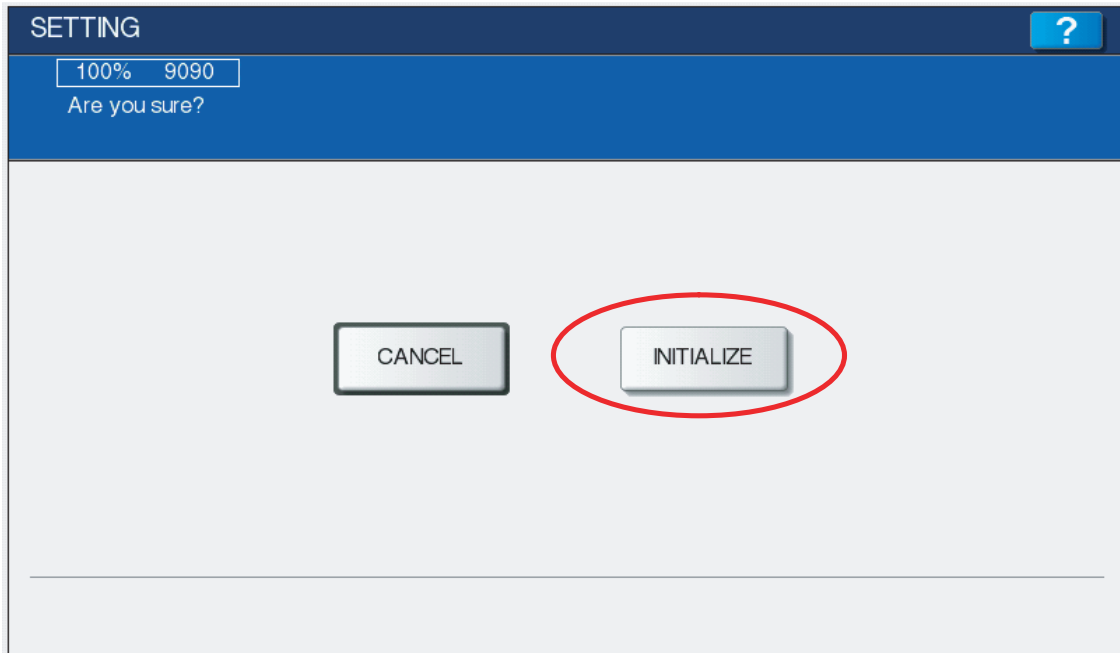
Fig. 9-35

(8) Perform "Destination display at SRAM initialization" (08-9060), and check whether the same destinations are displayed for the SYS board and the LGC board.
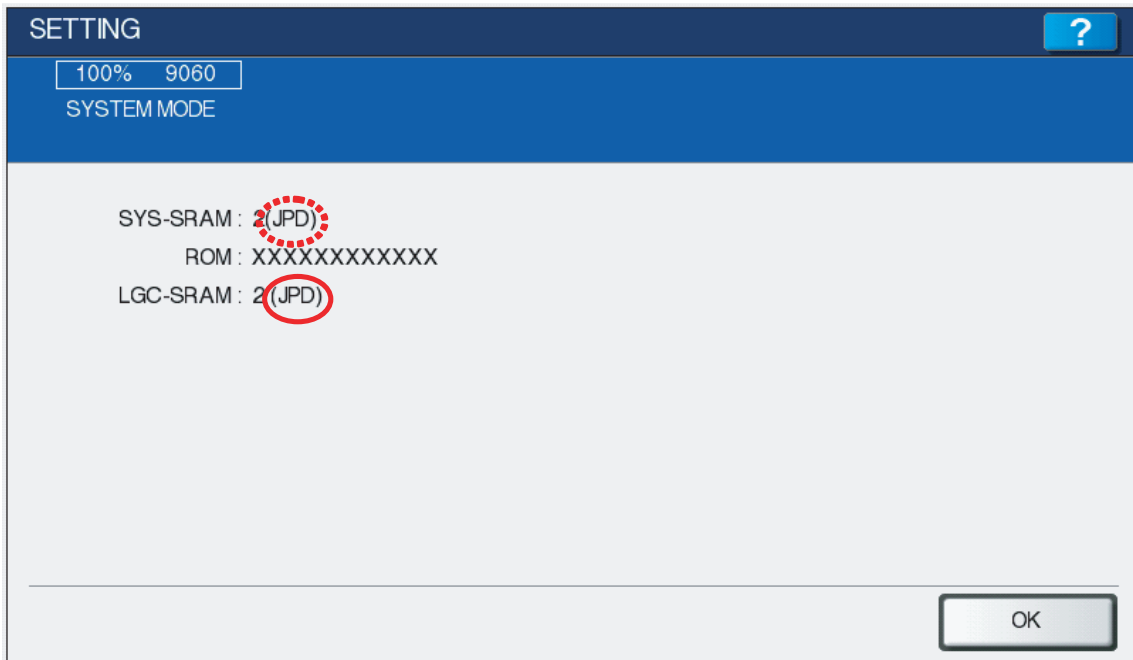
Fig. 9-36

Remarks:

If an error occurs during the initialization of the LGC board and the initialization fails, error messages are displayed on the touch panel. The error messages and the corresponding troubleshooting methods are shown below.

Error message	Troubleshooting
UNDEFINED MODEL	Since the LGC board probably has a problem, replace it with a new one by following the procedure below. 📖 P. 9-4 "9.1.6 LGC board"
UNDEFINED VERSION	Recheck the destination of the SRAM board (for the SYS board). Since the SRAM board (for the SYS board) probably has a problem, replace it with a new one by following the procedure below. 📖 P. 9-8 "9.1.10 SRAM board <for SYS board>"
VERIFY ERROR	Check whether the EEPROM (for the LGC board) is connected properly.

[C] Adjust image quality

(1) Write down the adjustment values of the following (05) code attached to the rear side of the front cover.

	L (0)	H (0)
05/2627		
05/2628		
05/2629		
05/2630		

(2) Start up with the Adjustment mode (05).

(3) Enter the password, and then press the [OK] button.
(If the password is not set for Service, press the [ENTER] button without entering anything.)

(4) Enter all the adjustment values written down in step (1).

(5) Reset the auto toner sensor.
1. Turn the power OFF.
2. Replace the developer materials for four colors (YMCK).
3. Perform automatic adjustment of auto-toner sensor. Start up with the Adjustment mode (05), enter [2400] and press the [START] button.

Notes:
- You can reset the auto-toner sensor by directly entering the adjustment values for (05) 2405-0 to 3 with the Adjustment mode data list, which has been printed during normal operation of equipment such as when it is setup, when preventive maintenance (PM) is performed or when developer material is replaced, etc.
- If you perform automatic adjustment (05-2400) of the auto-toner sensor without replacing the developer materials for four colors (YMCK), image quality is not guaranteed.

(6) Perform the "Forced performing of image quality closed-loop control (05-2742)".

(7) Perform the enforced position adjustment (05-4719).

(8) Perform printer related adjustment and scanner related adjustment.
📕 P. 6-12 "6.1.7 Image dimensional adjustment at the printing section"
📕 P. 6-18 "6.1.8 Image dimensional adjustment at the scanning section"

(9) Perform "Automatic gamma adjustment" <PPC> (05-7869).
📕 P. 6-27 "6.2.1 Automatic gamma adjustment"

(10) Perform "Automatic gamma adjustment" <PRT> (05-8008/8009).
📕 P. 6-50 "6.3.1 Automatic gamma adjustment"

Notes:
Usually, it is only necessary to perform automatic gamma adjustment for [Plain paper]; however if other paper is used, perform automatic gamma adjustment per paper type.

[D] Set line adjustment mode

(1) Turn the power OFF.

(2) Start up with the Setting Mode (08).

(3) Enter the password, and then press the [OK] button.
(If the password is not set for Service, press the [ENTER] button without entering anything.)

(4) Set "Line adjustment mode" to "0: For factory shipment" (08-9010).

Notes:
Be sure to change the setting of "Line adjustment mode" (08-9010) to "0: For factory shipment".
Since "1: For line" is set for "Line adjustment mode" in [B] Initialize LGC board in EEPROM (for
LGC board) supplied as a service part, number of prints is not counted unless it is changed.

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9.2.7 Procedures and settings when replacing the Lens unit

When replacing the lens unit, follow the procedure below.

(1) Confirm that the power is turned OFF.

(2) Replace the lens unit.
    📖 P. 4-12 "4.3.4 Lens unit/CCD driving PC board"

(3) Start up with the Adjustment Mode (05).

(4) Enter the password, and then press the [OK] button. (If the password is not set for Service, press the [OK] button without entering anything.)

(5) Perform "Data transfer of characteristic value of scanner / SYS board -> Lens unit (05-3209)".

(6) Perform "Shading correction plate Automatic dust detection adjustment (05-3218)".

(7) Turn the power OFF.

9.2.8 Firmware confirmation after the PC board/HDD replacement

After replacing the PC board/HDD, check the firmware version in the setting mode (08) and confirm if the firmware combination is correct.

Firmware	Code	Remarks
Updating System software (HDD program data)	08-8952	HD data external version
	08-9900	System software version
Updating System firmware (OS data)	08-9930	System firmware version
Updating Engine firmware	08-9901	Engine firmware version
Updating Scanner firmware	08-9902	Scanner firmware version
Updating RADF firmware	08-9903	RADF firmware version
Updating Finisher firmware	08-9904	Finisher firmware version
	08-9944	Punch firmware version
Updating FAX firmware	08-9905	FAX firmware version

9.2.9 License re-registration using the one-time dongle

[1] Re-registration when the board is replaced
The license registered using the one-time dongle can be re-registered only in the same equipment. When the SYS board or SRAM board (for SYS board) is replaced, follow the procedures for re-registration given below.

(1) Start up with the Setting Mode (08).

(2) Enter the password, and then press the [OK] button.
 (If the password is not set for Service, press the [ENTER] button without entering anything.)

(3) Key in [3840], and then press the [START] button.

(4) Press the [INSTALL] button.

(5) Install the one-time dongle in the equipment (the one which you used for registering the selected license), and then press the [OK] button.

(6) Select the license to be installed, and then press the [INSTALL] button.

(7) The screen for notifying that the installation will be started is displayed. Then press the [YES] button.

(8) After 10 to 40 seconds have passed, the screen for notifying the success of the performance is displayed. Then press the [OK] button. If the screen for notifying a failure of the performance is displayed, quit this operation by pressing the [CLOSE] button. Then check that the one-time dongle, which you used for uploading the selected license, is installed in the equipment.

(9) Check that the installed license is displayed on the license list.

Remarks:
If there are any other licenses to be returned, repeat from step (4). If there are no other licenses to be returned, press the [CLOSE] button, and then turn the power OFF.

Notes:
This procedure is available only with the one-time dongle used for the previous registration, since the model information registered in it is utilized. Use the same one-time dongle and the equipment when registering the license.

[2] Re-registration when the equipment is replaced due to malfunction
When the equipment has to be replaced due to a malfunction, return the license registered in the equipment to the one-time dongle and register it to the new equipment following the procedure below.

Notes:
The license of the IPSec Enabler (GP-1080) cannot be reinstalled. The one-time dongle to be used is the one for the previous registration of the license. The license is deleted from the equipment and is stored in the one-time dongle.
Do not perform the deletion of PDFA Converter since it is deleted without any return to the one-time dongle.

(1) Start up with the Setting Mode (08).

(2) Enter the password, and then press the [OK] button.
(If the password is not set for Service, press the [ENTER] button without entering anything.)

(3) Key in [3840], and then press the [START] button.

(4) Select the license to be returned, and then press the [REMOVE] button.

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(5) Install the one-time dongle in the equipment (the one which you used for uploading the selected license), and then press the [OK] button.

(6) The Remove screen is displayed. Then press the [YES] button.
If this screen is not displayed, check that the one-time dongle is installed in the equipment properly.

(7) After 10 to 40 seconds have passed, the screen for notifying the success of the performance is displayed. Then press the [OK] button.
If the screen for notifying a failure of the performance is displayed, quit this operation by pressing the [CLOSE] button. Then check that the one-time dongle, which you used for uploading the selected license, is installed in the equipment.

(8) Check that the returned license is not displayed on the screen.
   Remarks:
   If there are any other licenses to be returned, repeat from step (4).
   If there are no other licenses to be returned, press the [CLOSE] button, and then turn the power OFF.

(9) Replace the equipment.

(10) Turn the power ON while pressing [0] and [8] simultaneously.

(11) Enter the password, and then press the [OK] button.
(If the password is not set for Service, press the [ENTER] button without entering anything.)

(12) Key in [3840], and then press the [START] button.

(13) Press the [INSTALL] button.

(14) Install the one-time dongle in the equipment (the one which you used for returning the selected license before replacing the equipment). Then press the [OK] button.

(15) Select the license to be installed, and then press the [INSTALL] button.

(16) The screen for notifying that the installation will be started is displayed. Then press the [YES] button.

(17) After 10 to 40 seconds have passed, the screen for notifying the success of the performance is displayed. Then press the [OK] button. If the screen for notifying a failure of the performance is displayed, quit this operation by pressing the [NO] button. Then check that the one-time dongle is installed properly in the equipment.

(18) Check that the installed license is displayed on the license list.
   Remarks:
   If there are any other licenses to be installed, repeat from step (13). If there are no other licenses to be installed, press the [CLOSE] button, and then turn the power OFF.

9.3 Precautions for Installation of GP-1070 and Disposal of HDD/SSD/Board

9.3.1 Precautions for Installation of GP-1070

When installing the Data Overwrite Enabler (GP-1070), perform the following setting:

3C->6. Erase HDD Securely : HDD securely erasing

This setting is the overwriting method complying with DoD 5220.22-M.
    1 : LOW: This is the normal overwriting method. (This setting is used normally.)
    2 : MEDIUM: This overwriting method is more secure than LOW. The erasing time is between LOW and HIGH.
    3 : HIGH:This is the most secure overwriting method. It takes the longest time to erase data
    4 :SIMPLE : This is the simple overwriting method. It takes the shortest time to erase data.

9.3.2 Precautions when disposing of HDD/SSD

[1] When disposing of ADI-HDD
When disposing of ADI-HDD, perform the following setting:

4C->1. Revert factory initial status HDD

[2] When disposing of SATA-HDD/SSD
When disposing of SATA-HDD/SSD, perform the following setting:

3C->6. Erase HDD Securely (HDD securely erasing)

This setting is the overwriting method complying with DoD 5220.22-M.
    1 : LOW: This is the normal overwriting method. (This setting is used normally.)
    2 : MEDIUM: This overwriting method is more secure than LOW. The erasing time is between LOW and HIGH.
    3 : HIGH:This is the most secure overwriting method. It takes the longest time to erase data
    4 :SIMPLE : This is the simple overwriting method. It takes the shortest time to erase data.

9.3.3 Precautions when disposing of the SYS board

When disposing of the SYS board, data clearing is not required since important data, such as user information, etc. are stored in the SRAM board.

9.3.4 Precautions when disposing of the SRAM board (for SYS board)

When disposing of the SRAM board (for SYS board), perform 3C ->7:Erase SRAM Securely (SRAM securely erasing) for security reasons.
   Notes:
      If this is performed, the equipment cannot be started up.

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10. REMOTE SERVICE

There are following functions as Remote Service.
1. Auto Supply Order
   Automatically orders the toner and used waste toner box by FAX or E-mail.
2. Service Notification
   Notifies the status of the equipment to the service technician by E-mail or FAX.

10.1 Auto Supply Order

10.1.1 Outline

Automatically orders the toner and used waste toner box.
 (1) Placing an Order
   There are two ways to place an order.

   • FAX
     Installation of the FAX board is required.
     If the FAX board has not been installed, it is regarded as OFF setting.
   • E-mail (E-mail body + TIFF image)

 (2) Order Intervals
   The Auto Supply Order is sent as indicated in the following steps.
   • Toner cartridge
     1. Toner empty occurs.
     2. The toner cartridge is replaced.
     3. The toner empty counter is incremented when the total number of prints or the pixel counter value exceeds the threshold set in the following self-diagnostic code.

Items	08 code	Contents
Toner empty determination counter	6506	Selects the counter to determine toner empty. 0: Output pages 1:Pixel counter
Threshold setting for toner empty determination (output pages)	6507	Sets the number of output pages to determine toner empty. This setting is valid when "0" is set at 08-6506.
Threshold setting for toner empty determination (pixel counter)	6508	Sets the number of the pixel counter value to determine toner empty. This setting is valid when "1" is set at 08-6506.

   e.g.) When "0" is set for 08-6506 and "50" is set for 08-6507
   The toner empty counter is incremented when 50 sheets are printed after the toner cartridge has been replaced.
     4. When the accumulated number of toner empty times reaches the set condition, an order is placed automatically.

   • Waste toner box
     When the number of the waste toner full detection times reaches the set condition, an order is placed automatically.
     The order condition for the toner cartridge and the waste toner box can be set individually.

 (3) If Order Failure Occurs
   If some problems occur and the order cannot be placed after registering an order as a job, refer to the standard countermeasure for the FAX/E-mail transmission failure.

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10.1.2 Setting Item

To enable Auto Supply Order, the following settings are required.

Notes:

When selecting E-mail to place an order, it is required that sending and receiving E-mails are available. Confirm the details to the administrator.

(1) Self-diagnosis (08) Setting

As the default setting, the Auto Supply Order setting screen is not displayed on the touch panel. To display it, switching the Valid/Invalid setting (08-9783) is required.

    0: Valid (FAX/Internet FAX)
    1: Valid (FAX/Internet FAX/HTTP)*
    2: Invalid (Default)

When changing the setting value from "2" (default) to "0", the Auto Supply Order setting screen is displayed. (* HTTP has not been supported yet.)

(2) Touch Panel Setting

Each item is set from the Auto Supply Order screen on the touch panel.

Entering the password and customer information is required because the setting is made from the ADMIN screen. Setting it with the administrator is a must.

- Basic setting
  [ADMIN] > [SERVICE] > [SUPPLY ORDER SETUP] > [ORDER INFORMATION]

AUTO SUPPLY ORDER	Ordered by: [FAX], [MAIL], [HTTP] (*1)
FAX NUMBER	FAX number of supplier (*2)
E-MAIL	E-mail address of supplier (*3)
CUSTOMER	Customer information
NAME	
TEL NUMBER	
E-MAIL	
ADDRESS	
SUPPLIER	Supplier information
NAME	
ADDRESS	
SERVICE TECNICIAN	Service technician information
NUMBER	
NAME	
TEL NUMBER	
E-MAIL	

*1 HTTP has not been supported yet.
*2 Even when "FAX" is selected, the order is not placed without entering the FAX number.
*3 Even when "MAIL" is selected, the order is not placed without entering the E-mail address.

- Detailed setting for the order
  [ADMIN] > [SERVICE] > [SUPPLY ORDER SETUP] > [TONER ORDERING]

***** TONER ORDER	Order information (TONER /USED TONER CONTAINER)
PART NUMBER	Part number to be ordered
CONDITIOIN	The number of conditions (*)
QUANTITY	The quantity to be ordered

AUTO ORDER	ON/OFF setting of order for each part

  * The order is placed when the number of replacement reaches the number specified for the CONDITION.
 • FAX number of this equipment (common information)
  [ADMIN] > [FAX] > [TERMINAL ID]

ID NAME	ID name of this equipment
FAX NUMBER	FAX number of this equipment

 • E-mail information of this equipment (common information)
  [ADMIN] > [E-MAIL]

FROM ADDRESS	E-mail address of this equipment (*)
FROM NAME	E-mail username of this equipment

  * When sending an E-mail, validity of the address is checked. If the address is invalid, it is not sent.

(3) Output of setting list of the Auto Supply Order.

 1. Enter the Service UI Mode. 📖 P. 5-5 "5.2 Service UI"

 2. Select "FAX LIST PRINT MODE" and then press [NEXT].

 3. Select "SUPPLY ORDER LIST" and then press [PRINT].

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10.1.3 Setting procedure

(1)   Start up the self-diagnosis setting mode 08-9783, and then change the setting value to "0".

(2)   Turn the power OFF, and then ON.

(3)   Press the [USER FUNCTIONS] button to enter the user function screen.

(4)   Press the [ADMIN] button.
      When the Administrator Password has been set, ADMINISTRATOR PASSWORD screen is
      displayed.
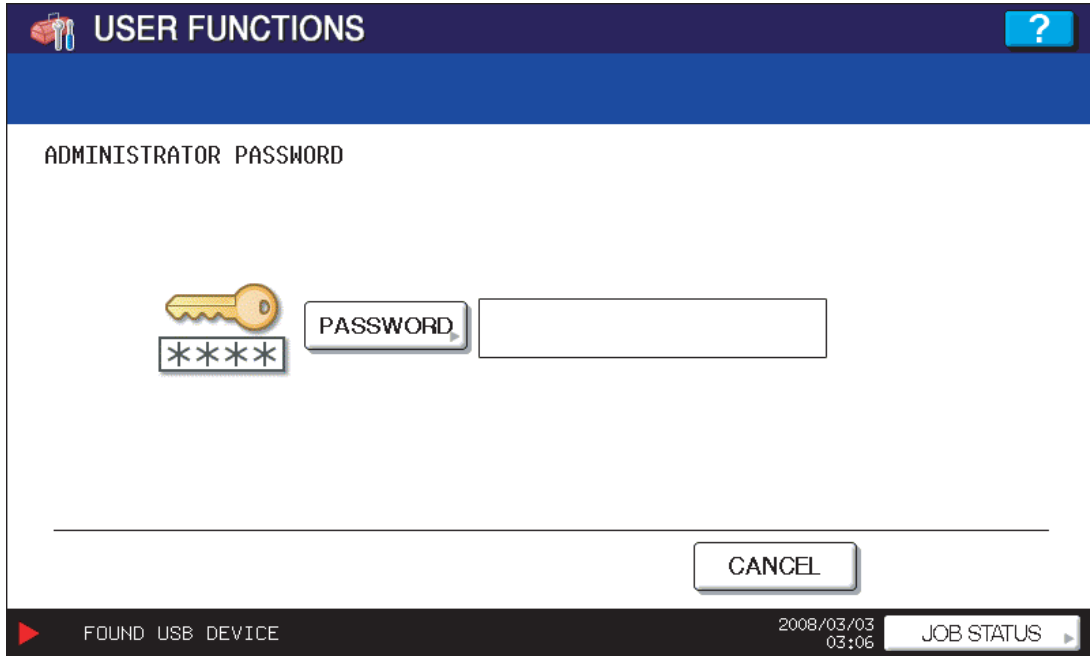
Fig.10-1

(5)   Press the [PASSWORD] button and the screen is switched to a full keyboard. Then key in the
      Administrator Password and press the [OK] button.
      *   Confirm the password to the administrator.
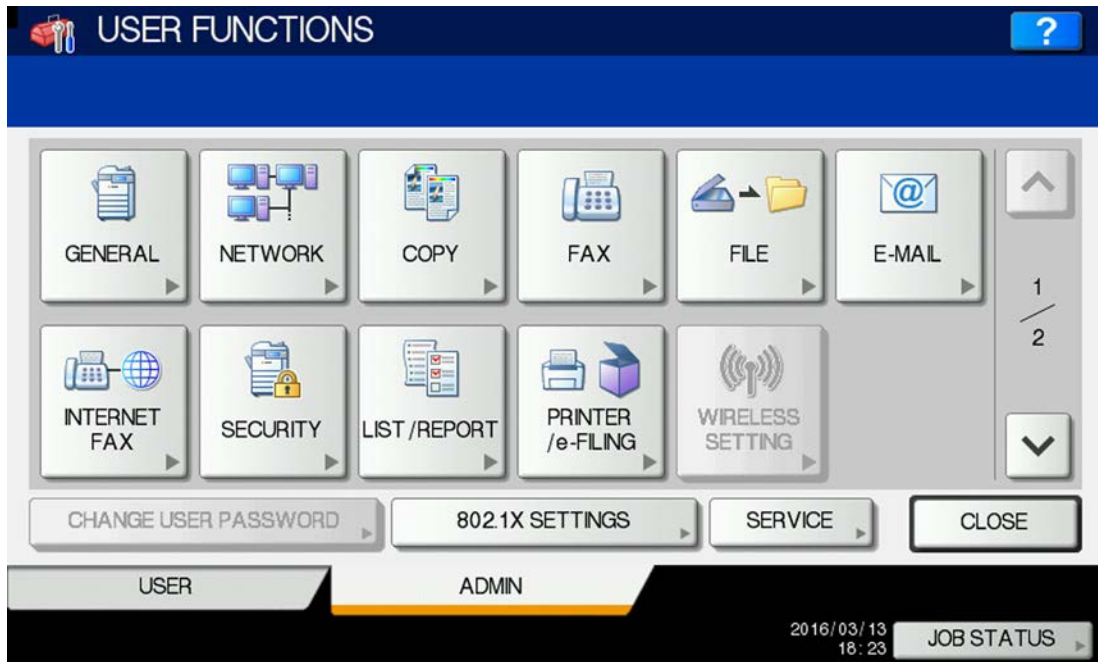
Fig.10-2

(6) Press the [SERVICE] button in the ADMIN screen.

(7) The SERVICE screen is displayed.
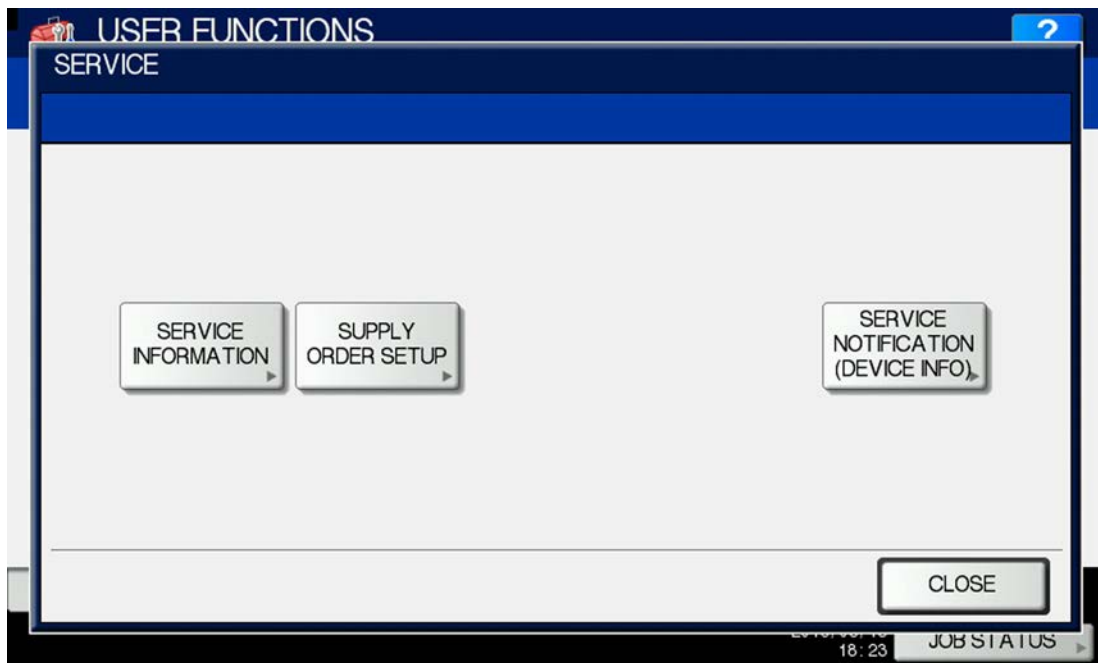
Fig.10-3

(8) Press the [SUPPLY ORDER SETUP] button.

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                                                                    REMOTE SERVICE
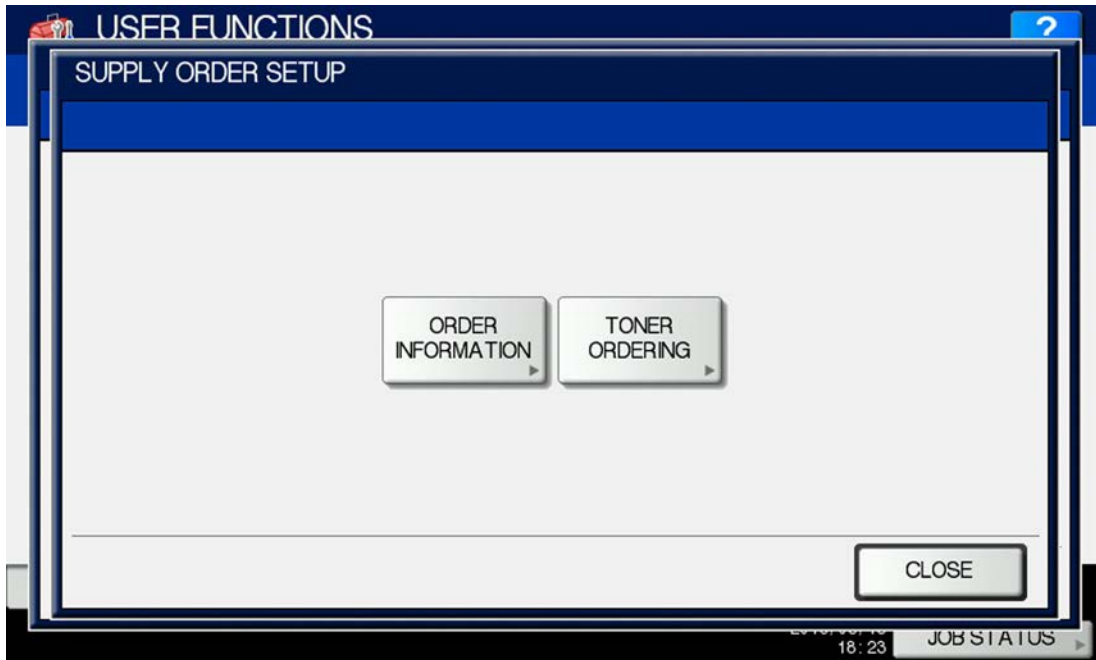
Fig.10-4

(9) Press the [ORDER INFORMATION] button.

(10) The ORDER INFORMATION screen is displayed.
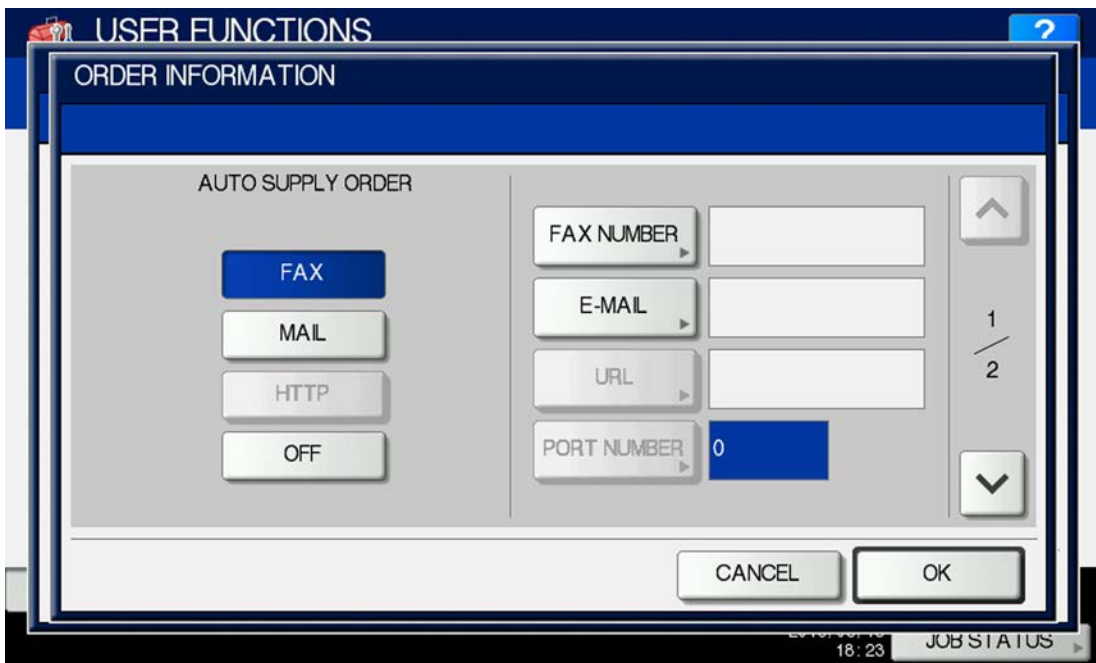
Fig.10-5

(11) Press the buttons on the screen of ORDER INFORMATION to set the required item.

[FAX]/[MAIL]/   Select the [FAX] or the [MAIL] button for the transmitting way of order.
[OFF]   (HTTP has not been supported yet.)
                     [OFF]: Turn off the AUTO SUPPLY ORDER function.

	[FAX NUMBER]	Input the FAX number of supplier.
		(To transmit by FAX, the order cannot be placed automatically if you do not input the number.)
	[E-MAIL]	Input the E-mail address of supplier.
		(To transmit by E-mail, the order cannot be placed automatically if you do not input the address.)

(12) Press the scroll button.
   (Press the [OK] button to register, and then the screen returns to the (7) SERVICE screen.
   Press the [CANCEL] button to cancel this register, and then the screen returns to the (7)
   SERVICE screen.)

(13) The SUPPLIER screen is displayed.

Fig.10-6

(14) Press the buttons of the screen of SUPPLIER to set the required item.

   [NAME]   Input the name of supplier.
   [ADDRESS]   Input the address of supplier.

(15) Press the [OK] button.

(16) The SERVICE screen is displayed.

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REMOTE SERVICE
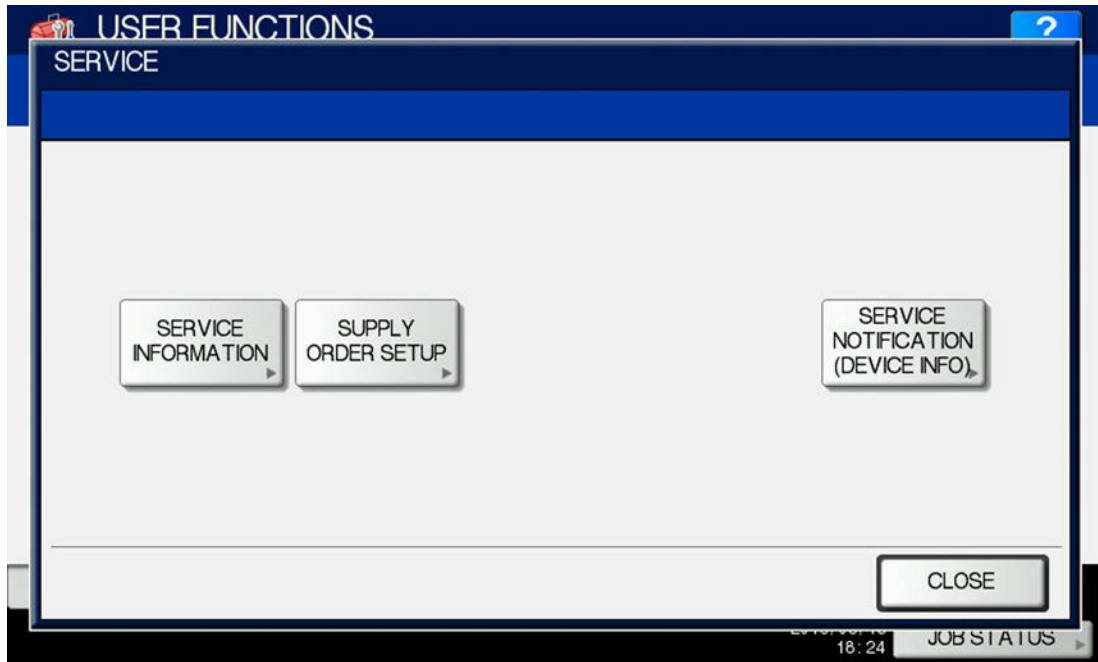
Fig.10-7

(17) Press the [SERVICE INFORMATION] button.

(18) The CUSTOMER/SERVICE TECHNICIAN screen is displayed.
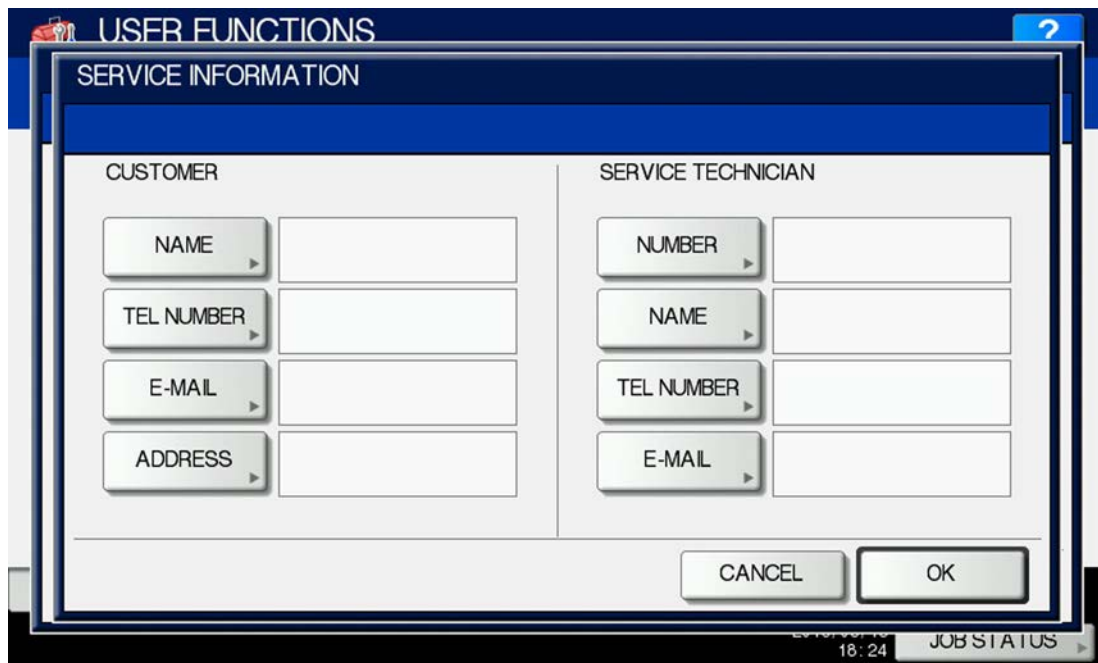
Fig.10-8

(19) Press the buttons of the screen of CUSTOMER/SERVICE TECHNICIAN to set the required item.
CUSTOMER

[NAME]   Input the name of customer.
[TEL NUMBER]   Input the telephone number of customer.
[E-MAIL]   Input the E-mail address of customer.

[ADDRESS]   Input the address of customer.

SERVICE TECHNICIAN

[NUMBER]   Input the number of SERVICE TECHNICIAN.
[NAME]   Input the name of SERVICE TECHNICIAN.
[TEL NUMBER]   Input the telephone number of SERVICE
                   TECHNICIAN.
[E-MAIL]   Input the E-mail address of SERVICE TECHNICIAN.

(20) Press the [OK] button to register and complete the order information setting.

(21) The SERVICE screen is returned.
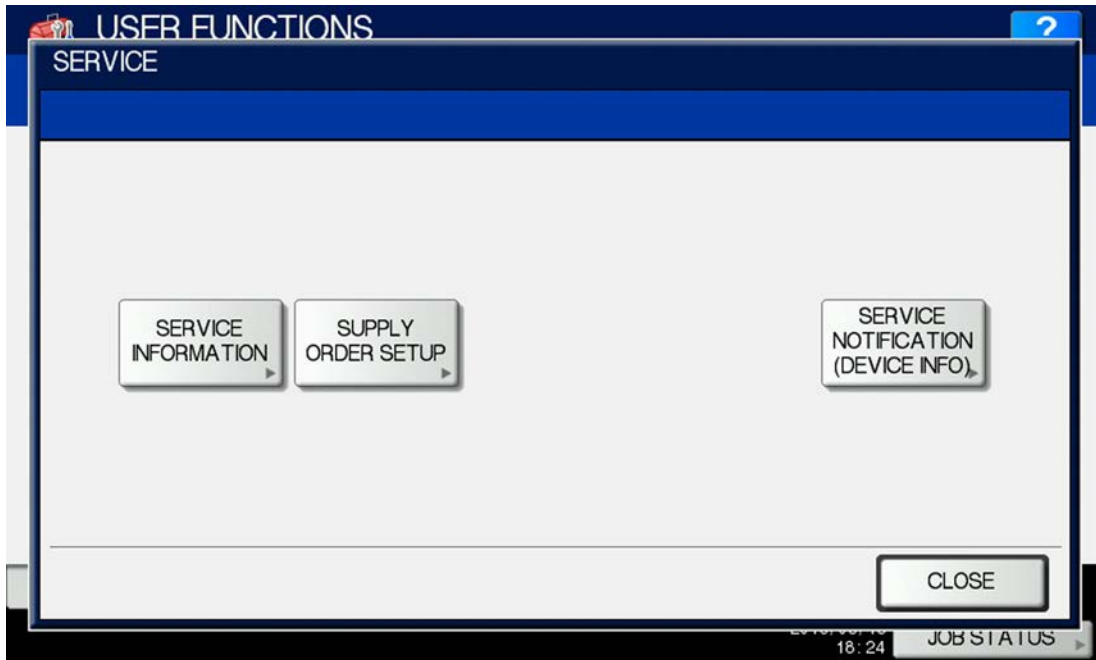
Fig.10-9

(22) Press the [SUPPLY ORDER SETUP] button.

Fig.10-10

(23) Press the [TONER ORDERING] button.

(24) The TONER ORDERING screen is displayed.
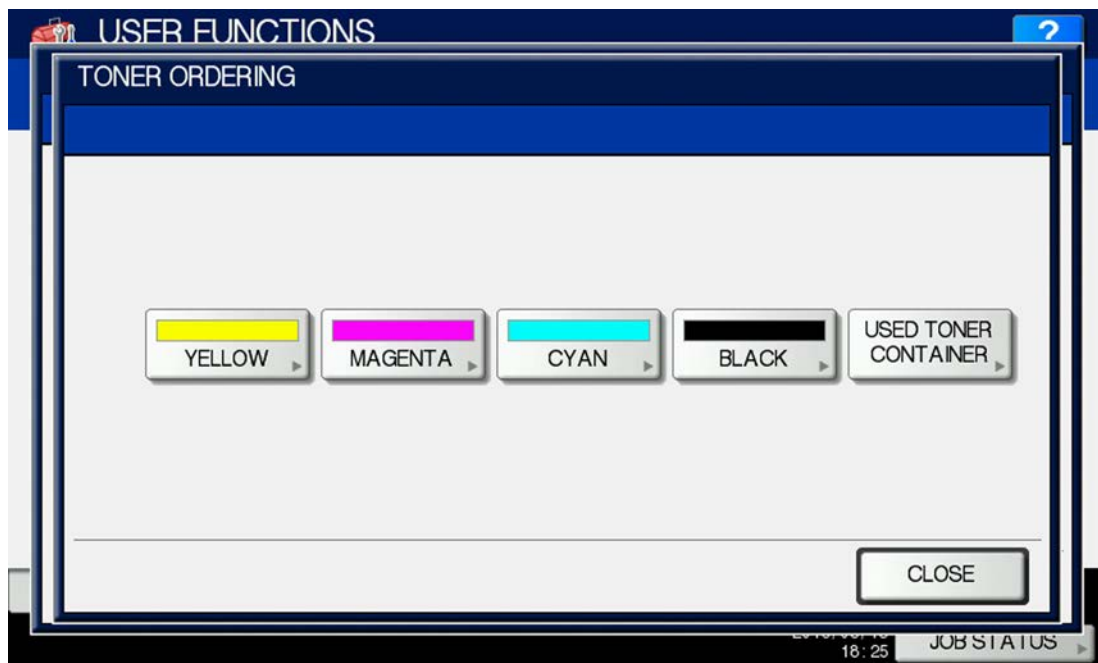
Fig.10-11

(25) Select the part to be ordered. (Press the [YELLOW(Y)] button.)
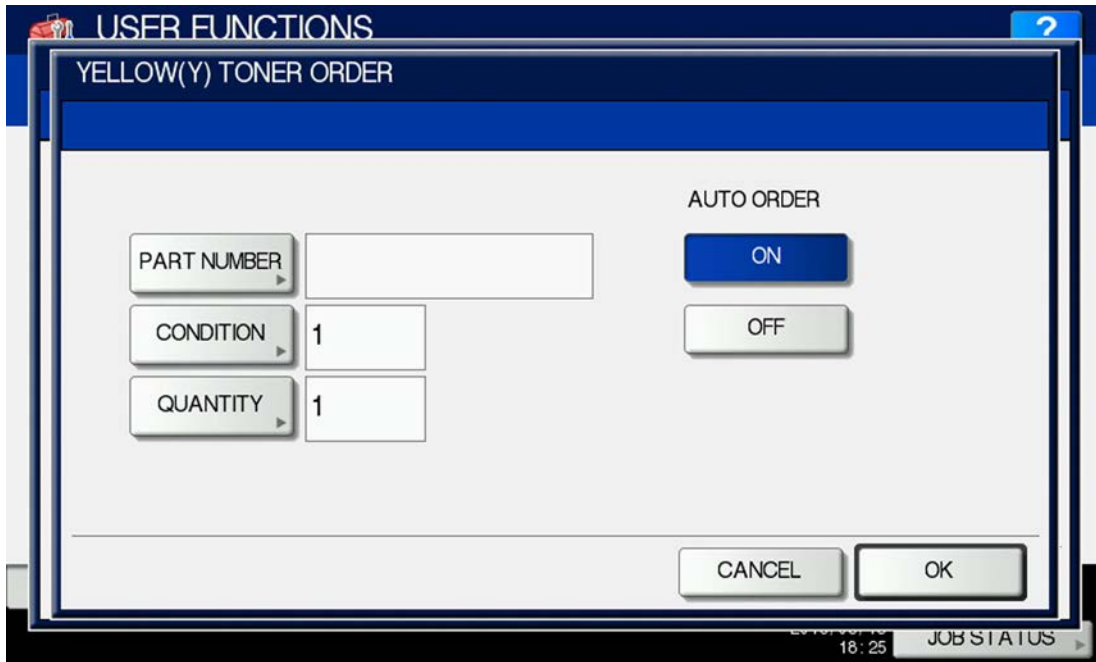
Fig.10-12

(26) Input the order information of TONER.

    [PART NUMBER]   Toner number
    [CONDITION]   The order is placed when the accumulated number of toner empty times reaches the value set in here.
    [QUANTITY]   Quantity to be ordered

    AUTO ORDER

    [ON]/[OFF]   Allows you to select whether each part to be ordered is placed automatically or not.

(27) Press the [OK] button to register the setting of toner order.

(28) The TONER ORDERING screen is displayed.
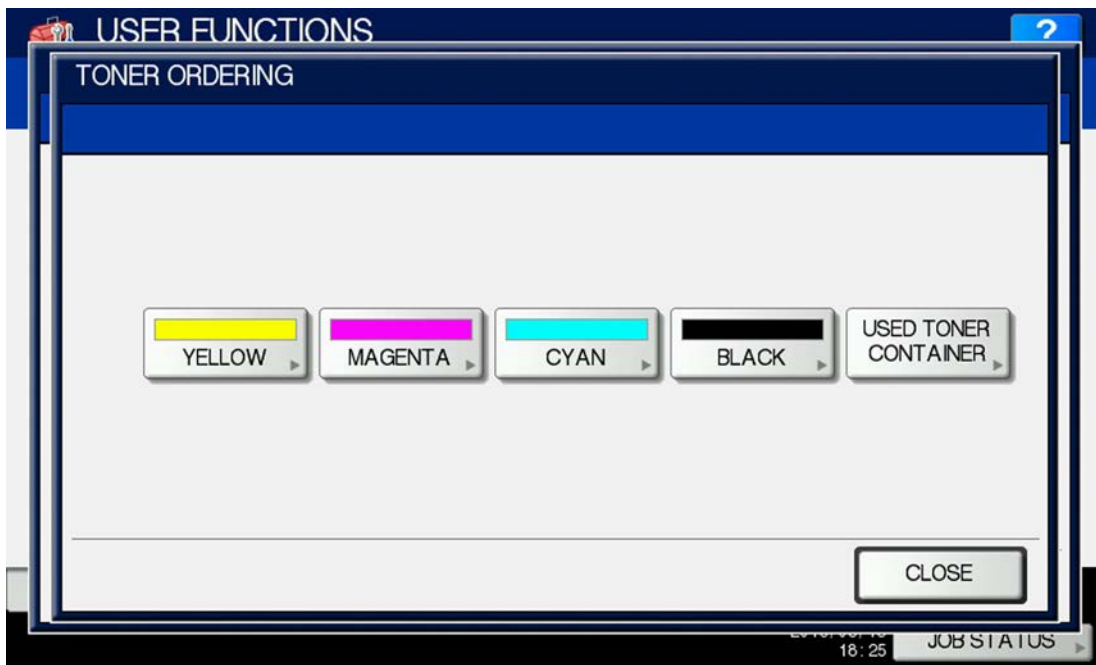
Fig.10-13

(29) Press the [MAGENTA(M)] / [CYAN(C)] / [BLACK(K)] / [USED TONER CONTAINER] button, and then input the order information in the same way.
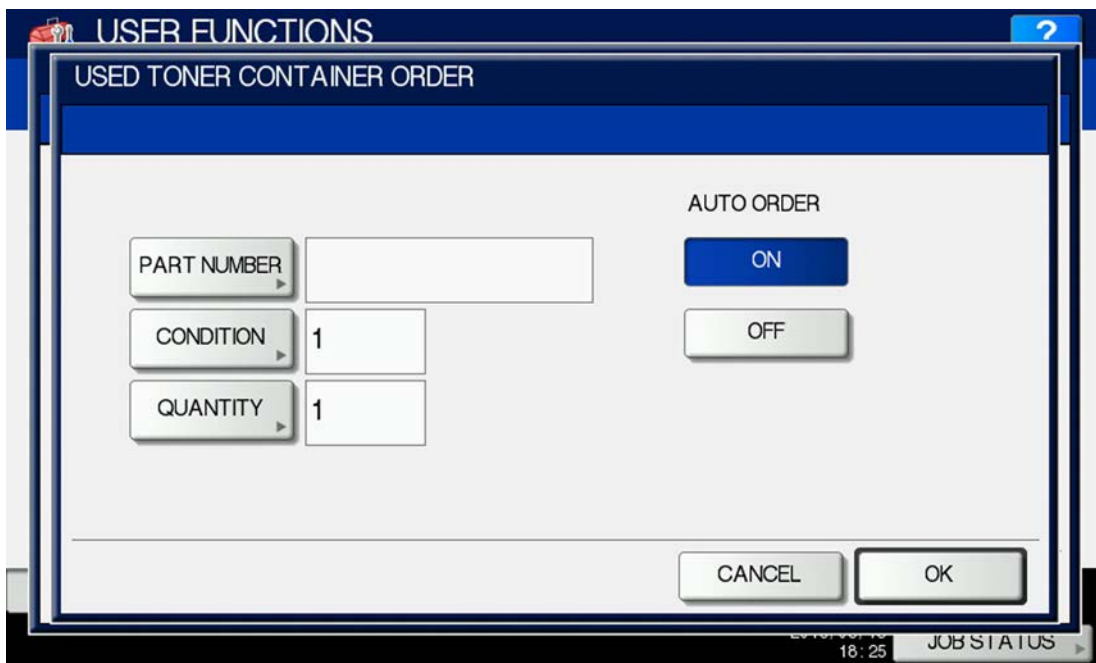
Fig.10-14

(30) Press the [OK] button to register the order information.

Notes:
Auto Supply Order setting is also available from the following setting mode (08).

Items	08 code	Contents
The transmitting way of order [FAX]/[MAIL] /[OFF]	9750	0: Ordered by FAX 1: Ordered by E-mail 2: Ordered by HTTP 3: OFF
SUPPLIER [FAX NUMBER]	9751	Maximum 32 digits
SUPPLIER [E-MAIL]	9752	Maximum 192 letters
CUSTOMER [NAME]	9756	Maximum 50 letters
CUSTOMER [TEL NUMBER]	9757	Maximum 32 digits
CUSTOMER [E-MAIL]	9758	Maximum 192 letters
CUSTOMER [ADDRESS]	9759	Maximum 100 letters
SUPPLIER [NAME]	9764	Maximum 50 letters
SUPPLIER [ADDRESS]	9765	Maximum 100 letters
SERVICE TECHNICIAN [NUMBER]	9760	Maximum 5 digits
SERVICE TECHNICIAN [NAME]	9761	Maximum 50 letters
SERVICE TECHNICIAN [TEL NUMBER]	9762	Maximum 32 digits
SERVICE TECHNICIAN [E-MAIL]	9763	Maximum 192 letters
Remarks [DESCRIPTION]	9766	Maximum 128 letters
RESULT PRINTING [OFF] / [ALWAYS] / [ON ERROR]	9782	0: OFF 1: Always 2: ON Error
YELLOW(Y) TONER [PART NUMBER]	9773	Maximum 20 digits
YELLOW(Y) TONER [CONDITION]	9775	1-99
YELLOW(Y) TONER [QUANTITY]	9774	1-99
MAGENTA(M) TONER [PART NUMBER]	9770	Maximum 20 digits
MAGENTA(M) TONER [CONDITION]	9772	1-99
MAGENTA(M) TONER [QUANTITY]	9771	1-99
CYAN(C) TONER [PART NUMBER]	9767	Maximum 20 digits
CYAN(C) TONER [CONDITION]	9769	1-99
CYAN(C) TONER [QUANTITY]	9768	1-99

10

Items	08 code	Contents
BLACK(K) TONER [PART NUMBER]	9776	Maximum 20 digits
BLACK(K) TONER [CONDITION]	9778	1-99
BLACK(K) TONER [QUANTITY]	9777	1-99
USED TONER CONTAINER [PART NUMBER]	9779	Maximum 20 digits
USED TONER CONTAINER [CONDITION]	9781	1-99
USED TONER CONTAINER [QUANTITY]	9780	1-99

(31) The SERVICE screen is returned.

(32) Press the [ON] or [OFF] button in "Service Notification (Device Info).
When the [OFF]
button is pressed, all functions related Service Notification (Device Info) become ineffective.
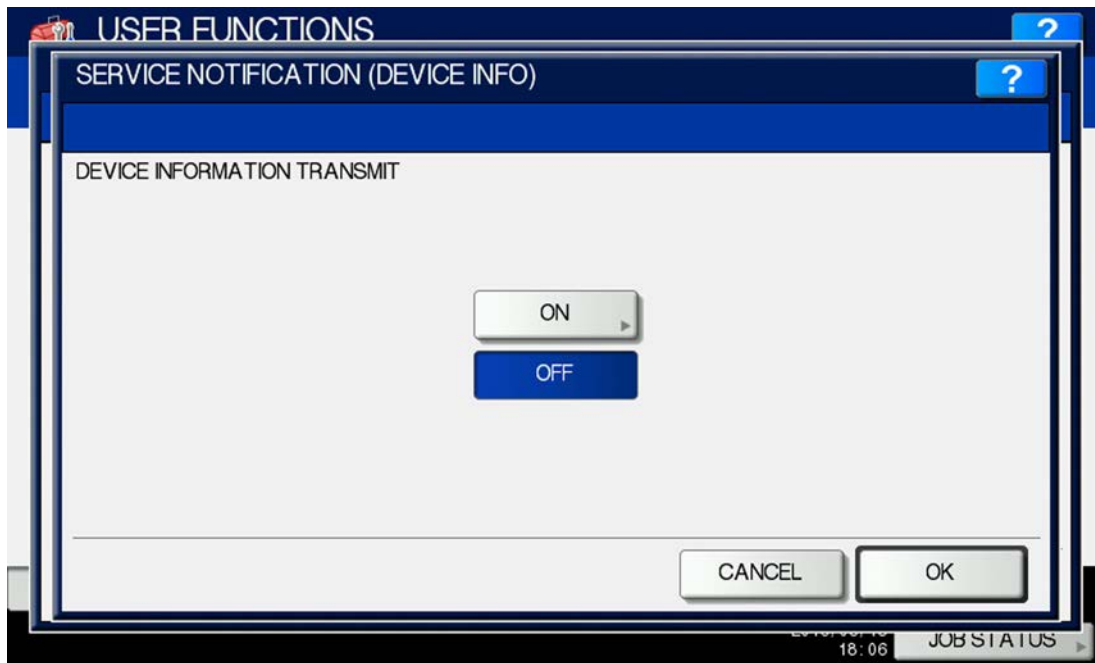
Fig.10-15

(33) When Service Notification (Device Info) is set to ON, the screen to set the notification date is displayed.
Then set the notification date with the following procedure.
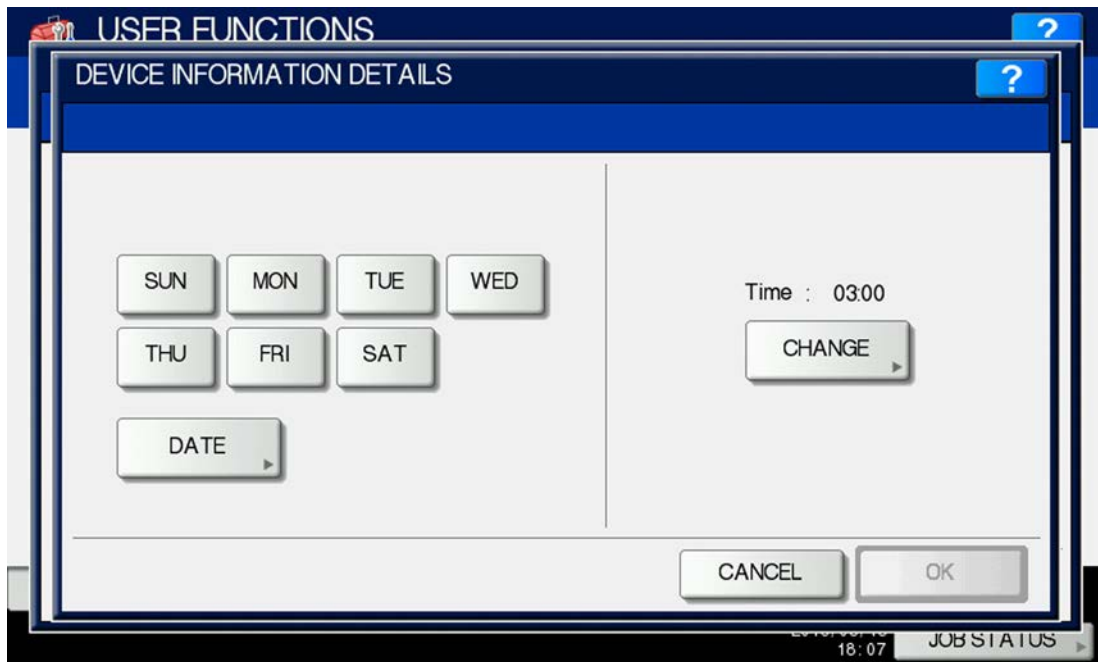
Fig.10-16

Set the date and time of the Total Counter.
The following 3 items can be specified for the date setting, and more than one day of the week also can be selected.
- Day of the week (More than one day can be selected.)
- Notify Date 1
- Notify Date 2

- **Day of the week ([SUN] to [SAT] buttons)**
  Pressing the buttons ([Sunday] to [Saturday]) of the desired day makes transmission on every specified day. More than one day can be selected.
- * This does not affect the settings of "Notify Date 1" and "Notify Date 2".

- **Notify Date 1 and Notify Date 2 ([DATE] button)**
  Pressing the [DATE] button sets up to 2 dates on which you wand to send data.
- * This is not affected by the specified day of the week.

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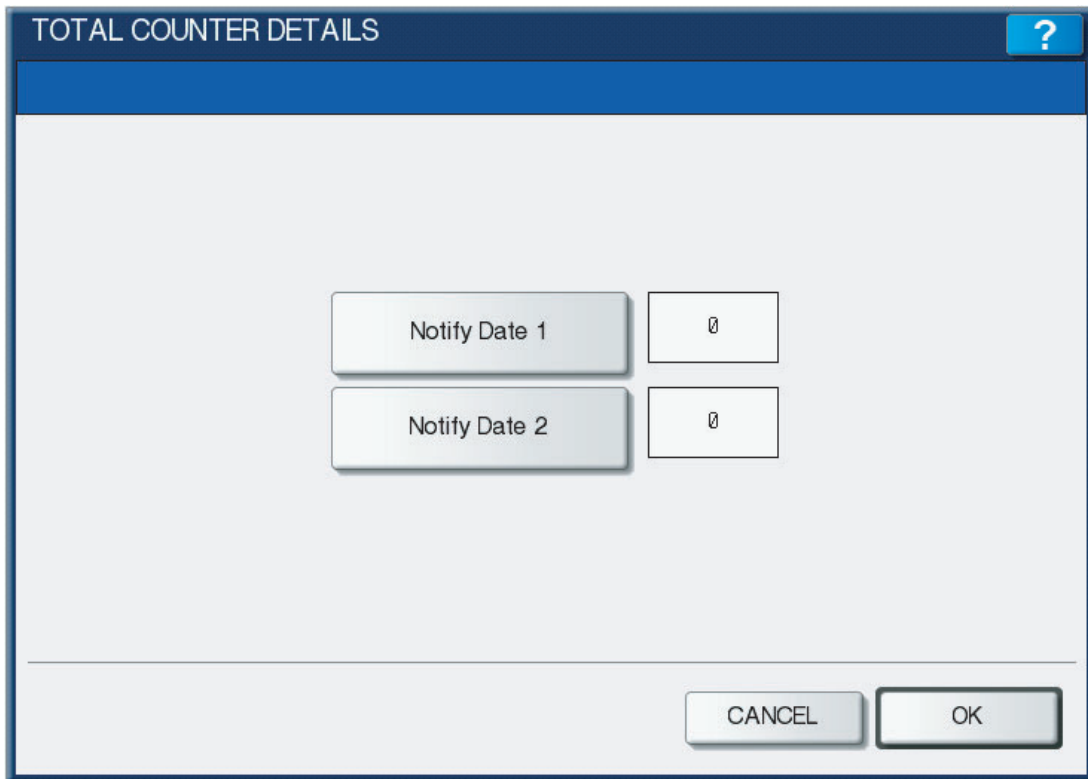
Fig.10-17

Key in the date (acceptable values: 0-31) in "Notify Date 1" or "Notify Date 2" and press the [OK] button.

* **Time setting ([CHANGE] button)**
  Pressing the [CHANGE] button sets the time at which you wand to send data.
  This is the time when data are sent with "Day of the week", "Notify Date 1" and "Notify Date 2".
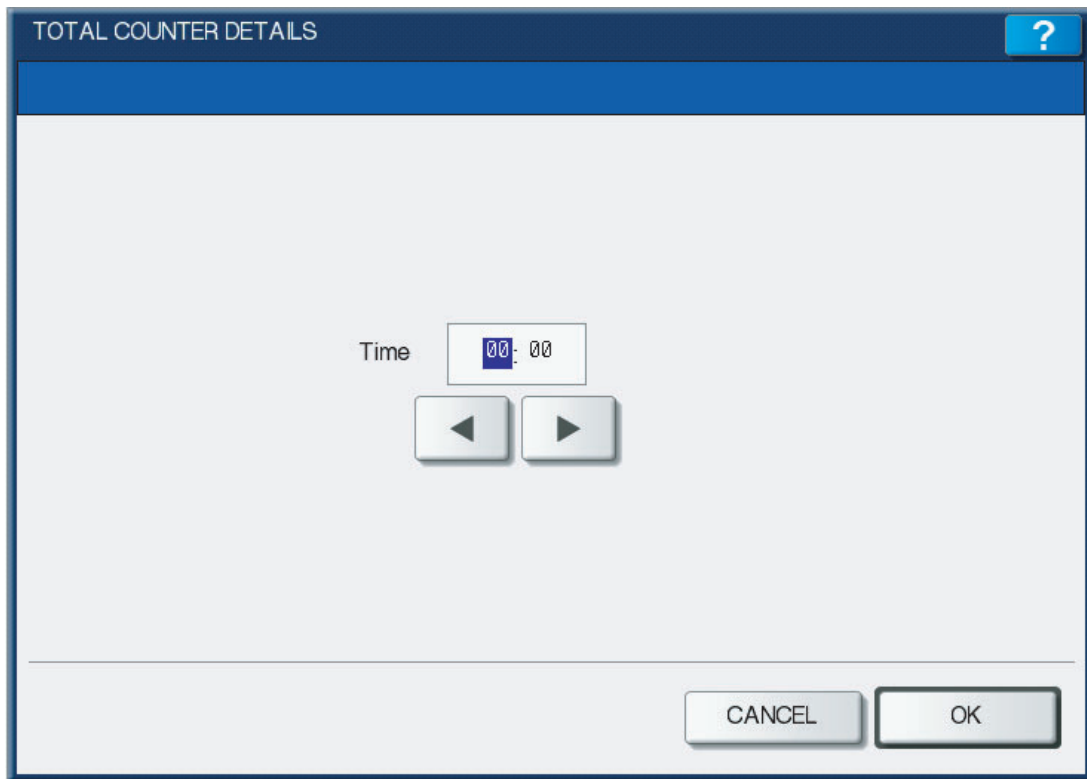
Fig.10-18

Key in the time (acceptable values: 00:00-23:59) in "Time".
Key in the time in the hour column of "Time", press the scroll button, key in the time in the minute column of "Time".
After all the settings are completed, press the [OK] button.

(34) Press the [CLOSE] button. The setting completes.

10

e-STUDIO2050C/2051C/2550C/2551C
REMOTE SERVICE

10.1.4　Order Sheet Format

The sample of order sheet is as follows.
  (1)   FAX (This format is the same as that of TIFF image attached E-mail.)
        *1 Part not to be ordered is not output. (Less space between the lines)

```
DATE & TIME                      :99-99-'99 99:99
CUSTOMER NUMBER                  :XXX
CUSTOMER NAME                    :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CUSTOMER ADDRESS                 :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CUSTOMER TEL NUMBER              :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CUSTOMER E-MAIL ADDRESS          :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SERVICE TECHNICIAN TEL NUMBER    :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SERVICE TECHNICIAN E-MAIL        :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SUPPLIER NAME                    :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SUPPLIER ADDRESS                 :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

                                 PART NUMBER        QUANTITY
TONER CARTRIDGE
    CYAN                         : XXXXXXXXXXXX         99
    MAGENTA                      : XXXXXXXXXXXX         99
    YELLOW                       : XXXXXXXXXXXX         99   (*1)
    BLACK                        : XXXXXXXXXXXX         99
USED TONER CONTAINER             : XXXXXXXXXXXX         99

DESCRIPTION AREA    .............................................
...............................................................

DEVICE DESCRIPTION               :XXXXXXXXXXXXXXXXXXXXXXX
SERIAL NUMBER                    :XXXXXXXXXXXXXXXXXXXXXXX
DEVICE FAX NUMBER                :XXXXXXXXXXXXXXXXXXXXXXX
DEVICE E-MAIL ADDRESS            :XXXXXXXXXXXXXXXXXXXXXXX

                 TOTAL        BLACK        TWIN COLOR    FULL COLOR
PRINT COUNTER    999999999    999999999    999999999     999999999
SCAN COUNTER     999999999    999999999    999999999     999999999

TONER INFORMATION
    YELLOW REMAINING QUANTITY (%)       :  0000059
    MAGENTA REMAINING QUANTITY (%)      :  0000060
    CYAN REMAINING QUANTITY (%)         :  0000061
    BLACK REMAINING QUANTITY (%)        :  0000062
```

Fig.10-19

DESCRIPTION AREA:	Remarks
DEVICE DESCRIPTION:	Model name
SERIAL NUMBER:	Serial number
DEVICE FAX NUMBER:	Fax number
DEVICE E-MAIL ADDRESS:	E-mail address

(2) E-MAIL (TIFF image attached with the E-mail is the same format with that of the FAX order sheet.)
SUBJECT: SUPPLY ORDER REQUEST
*1 Part not to be ordered is not output. (Less space between the lines)

```
Date&Time: '12-04-14 00:17
Customer Number: a1 MachineName: TOSHIBA e-STUDIOxxxx
SerialNumber: 1234567890
Device FAX Number: 456
Device Email: aaa@linux.nam1.local
OrderInformation:
CYAN PartNumber: CYAN-01 Quantity: 15          ⎫
MAGENTA PartNumber: MAGENTA-02 Quantity: 16    ⎬ (*1)
BLACK PartNumber: BLACK-04 Quantity: 18        ⎭
CounterInformation:
PrintCounter(Small) FullColor: 0 TwinColor: 0 Black: 150
PrintCounter(Large) FullColor: 0 TwinColor: 0 Black: 0
ScanCounter FullColor: 0 TwinColor: 0 Black: 7
```

Fig.10-20

Date&Time:	Order date and time
Customer Number:	Customer number
MachineName:	Model name (MFP model name)
SerialNumber:	Serial number
Device FAX Number:	Fax number
Device Email:	E-mail address
OrderInformation:	Order information
CYAN PartNumber:	Cyan toner cartridge part number
MAGENTA PartNumber:	Magenta toner cartridge part number
BLACK PartNumber:	Black toner cartridge part number
Quantity:	Order quantity
CounterInformation:	Counter information

PrintCounter (Small) FullColor: 0 TwinColor: 0 Black:
        Print count (Small size) for Full color, Twin color and Black

PrintCounter (Large) FullColor: 0 TwinColor: 0 Black:
        Print count (Large size) for Full color, Twin color and Black

ScanCounter FullColor: 0 TwinColor: 0 Black: Scan count
        Scan count for Full color, Twin color and Black

(3) Result list
*1 Part not to be ordered is not output. (Less space between the lines)

```
                          ORDER XXXXXXXX
      DATE & TIME          :99-99-'99 99:99
      CUSTOMER NUMBER      :XXX
      CUSTOMER NAME        :XXXXXXXXXXXXXXXXXXXXXXXXXXXX
      CUSTOMER ADDRESS     :XXXXXXXXXXXXXXXXXXXXXXXXXXXX
      CUSTOMER TEL NUMBER  :XXXXXXXXXXXXXXXXXXXXXXXXXXXX
      CUSTOMER E-MAIL ADDRESS :XXXXXXXXXXXXXXXXXXXXXXXXXXXX
      SERVICE TECHNICIAN
      TEL NUMBER           :XXXXXXXXXXXXXXXXXXXXXXXXXXXX
      SERVICE TECHNICIAN E-MAIL :XXXXXXXXXXXXXXXXXXXXXXXXXXXX
      SUPPLIER NAME        :XXXXXXXXXXXXXXXXXXXXXXXXXXXX
      SUPPLIER ADDRESS     :XXXXXXXXXXXXXXXXXXXXXXXXXXXX

                          PART NUMBER        QUANTITY
      TONER CARTRIDGE
        CYAN              : XXXXXXXXXXX          99 ⎫
        MAGENTA           : XXXXXXXXXXX          99 ⎪
        YELLOW            : XXXXXXXXXXX          99 ⎬ (*1)
        BLACK             : XXXXXXXXXXX          99 ⎪
        USED TONER CONTAINER : XXXXXXXXXXX       99 ⎭

      DESCRIPTION AREA  ...........................
      ......................................

      DEVICE DESCRIPTION   :XXXXXXXXXXXXXXXXXXXXXX
      SERIAL NUMBER        :XXXXXXXXXXXXXXXXXXXXXX
      DEVICE FAX NUMBER    :XXXXXXXXXXXXXXXXXXXXXX
      DEVICE E-MAIL ADDRESS :XXXXXXXXXXXXXXXXXXXXXX

                   TOTAL       BLACK       TWIN COLOR   FULL COLOR
      PRINT COUNTER 999999999  999999999   999999999    999999999
      SCAN COUNTER  999999999  999999999   999999999    999999999

      TONER INFORMATION

        YELLOW REMAINING QUANTITY (%)    : 00000059
        MAGENTA REMAINING QUANTITY (%)   : 00000059
        CYAN REMAINING QUANTITY (%)      : 00000059
        BLACK REMAINING QUANTITY (%)     : 00000059
```

Fig.10-21

ORDER SUCCESSFUL/FAILURE:	Automatic supply ordering: transmission success or failure
DATE & TIME:	Order date and time
CUSTOMER NUMBER:	Customer number
CUSTOMER NAME:	Customer name
CUSTOMER ADDRESS:	Customer address
CUSTOMER TEL NUMBER:	Customer telephone number
CUSTOMER E-MAIL ADDRESS:	Customer E-mail address
SERVICE TECHNICIAN TEL NUMBER:	Service technician telephone number
SERVICE TECHNICIAN E-MAIL:	Service technician E-mail address
SUPPLIER NAME:	Supplier name
SUPPLIER ADDRESS:	Supplier address
PART NUMBER:	Order part number

QUANTITY: Order quantity

TONER CARTRIDGE: Toner cartridge

CYAN: Cyan

MAGENTA: Magenta

YELLOW: Yellow

BLACK: Black

QUANTITY:	Order quantity
TONER CARTRIDGE:	Toner cartridge
	CYAN: Cyan
	MAGENTA: Magenta
	YELLOW: Yellow
	BLACK: Black
USED TONER CONTAINER:	Used toner container (waste toner box)
DESCRIPTION AREA:	Remarks
DEVICE DESCRIPTION:	Model name (MFP model name)
SERIAL NUMBER:	Serial number
DEVICE FAX NUMBER:	Fax number
DEVICE E-MAIL ADDRESS:	E-mail address
PRINT COUNTER:	Print count
SCAN COUNTER:	Scan count
TOTAL:	Total
BLACK:	Black
TWIN COLOR:	Twin color
FULL COLOPY:	Full color
YELLOW REMAINING QUANTITY (%)	Toner remaining quantity (Yellow)
MAGENTA REMAINING QUANTITY (%)	Toner remaining quantity (Magenta)
CYAN REMAINING QUANTITY (%)	Toner remaining quantity (Cyan)
BKACKREMAINING QUANTITY (%)	Toner remaining quantity (Black)

10

10.2 Service Notification

10.2.1 Outline

This function automatically notifies the status of the equipment to the service technician by E-mail or FAX. The following three are the items to be notified.

- Total counter notification
  When this function is effective, it notifies each counter information periodically (on the set date and time every month).

- Service call notification (E-mail only)
  When this function is effective, it notifies the corresponding error code and such at a service call error.

- PM counter notification
  When this function is effective, it notifies that the PM timing has come when the present PM count has reached to its setting value, or the present PM driving count has reached to its setting value.

- Toner near empty notification
  When this function is effective, it notifies each counter information and toner cartridge information if toner near empty occurs.

10.2.2 Setting

Notes:
When using this function, it is required that sending and receiving E-mails or FAXes are available. Confirm the details to the administrator.

[1] Preparation
The screen to set this function is not displayed at the default setting.
Set this screen to be displayed with the following code (08).

08-9604 Setting of notification display
0: Invalid (Default)
1: Valid

[2]   Setting procedure

(1)   Press the [USER FUNCTIONS] button and select the [ADMIN] button. Then enter the password and press the [OK] button.
Confirm the password to the administrator.
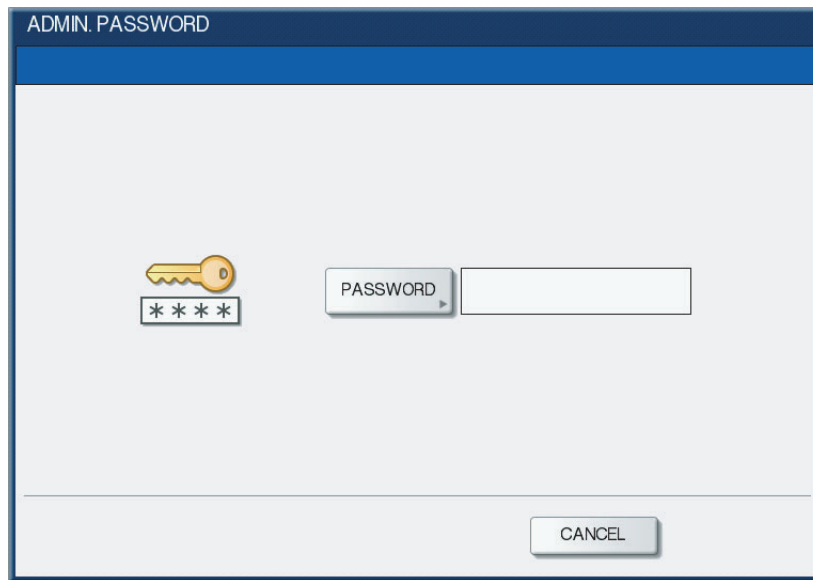
Fig.10-22

(2)   Press the [SERVICE] button.

Fig.10-23

e-STUDIO2050C/2051C/2550C/2551C
REMOTE SERVICE
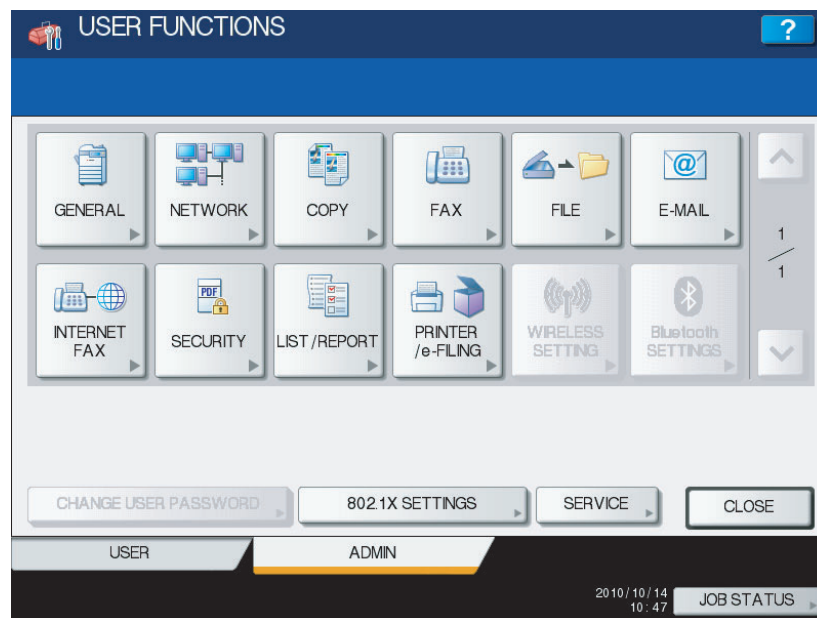
(3)   Press the [SERVICE NOTIFICATION] button.
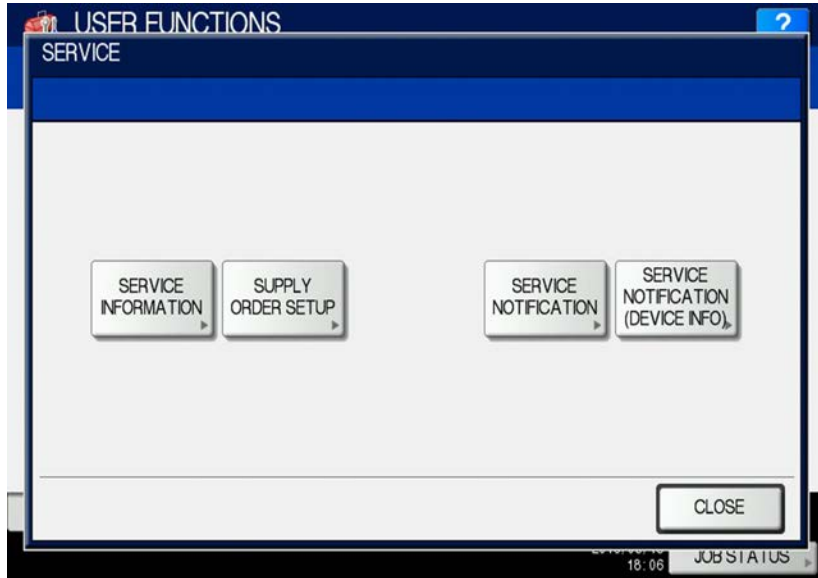
Fig.10-24

(4)   Press the [E-MAIL] or [FAX] button in "SERVICE NOTIFICATION".
When the [OFF] button is pressed, all functions related Service Notification become ineffective.
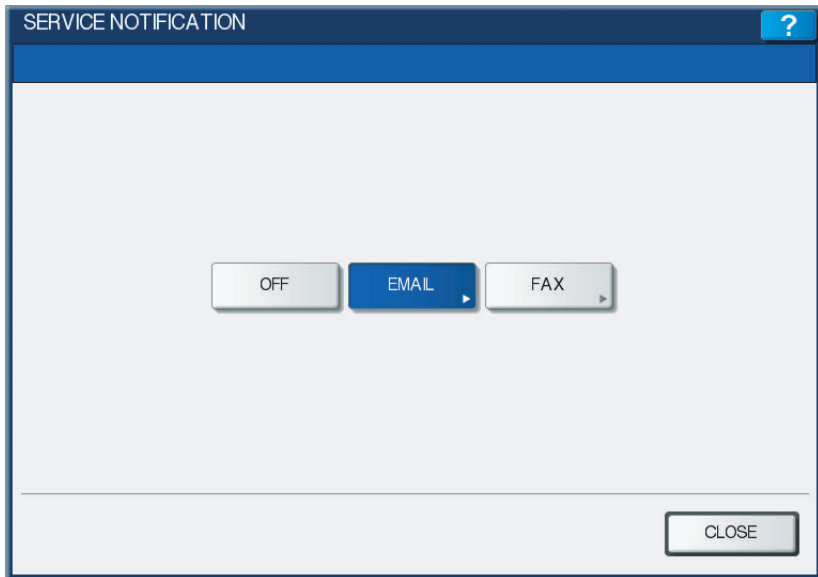
Fig.10-25

(5)   Enter the E-mail address or FAX number of the destination.
When pressing the [E-MAIL] button, the screen is switched to a full keyboard. Then enter the E-mail addresses and press the [OK] button. (Maximum 3 addresses can be set.)
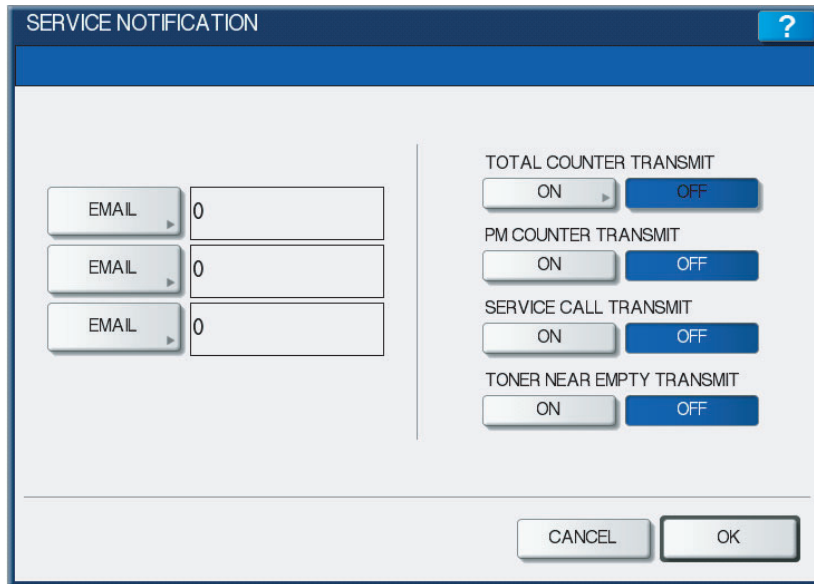
Fig.10-26

Press the [FAX NUMBER] button, key in the FAX number and then press the [OK] button.

Fig.10-27

e-STUDIO2050C/2051C/2550C/2551C
REMOTE SERVICE
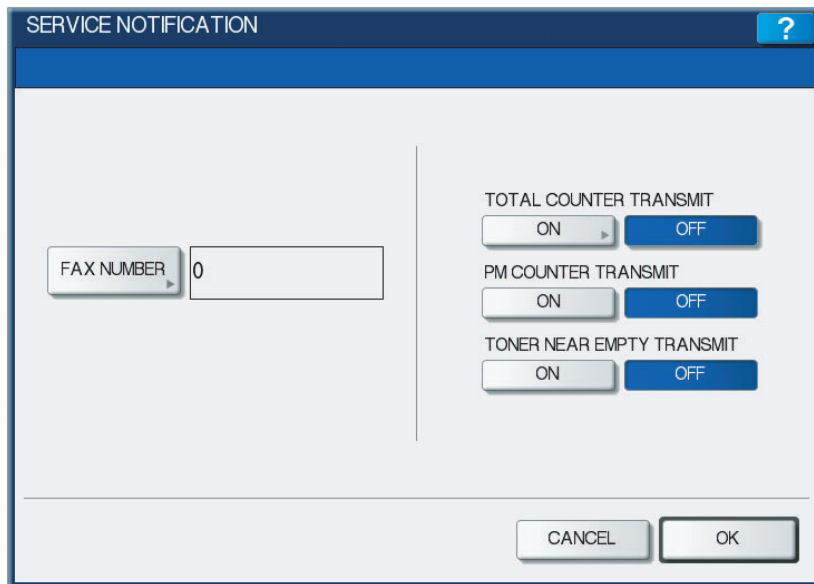
(6) Press the [ON] button to notify or the [OFF] button not to notify each item for E-mail and FAX. When Total Count Transmit is set to ON, the screen to set the notification date is displayed. Then set the notification date with the following procedure.
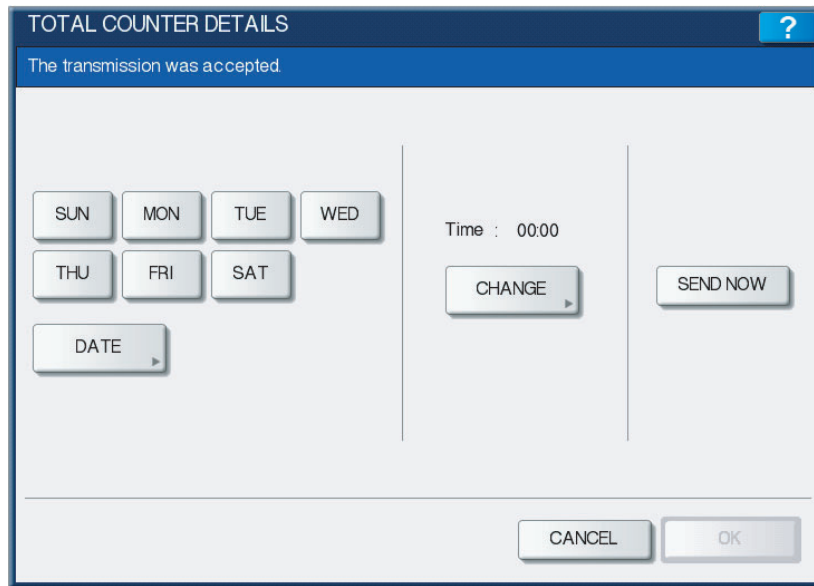
Fig.10-28

Set the date and time of the Total Counter.
The following 3 items can be specified for the date setting, and more than one day of the week also can be selected.
- Day of the week (More than one day can be selected.)
- Notify Date 1
- Notify Date 2

You can send the Total Counter immediately without the above settings by pressing the [SEND NOW] button.
- **Day of the week ([SUN] to [SAT] buttons)**
  Pressing the buttons ([Sunday] to [Saturday]) of the desired day makes transmission on every specified day. More than one day can be selected.
- * This does not affect the settings of "Notify Date 1" and "Notify Date 2".

- **Notify Date 1 and Notify Date 2 ([DATE] button)**
  Pressing the [DATE] button sets up to 2 dates on which you wand to send data.
- * This is not affected by the specified day of the week.
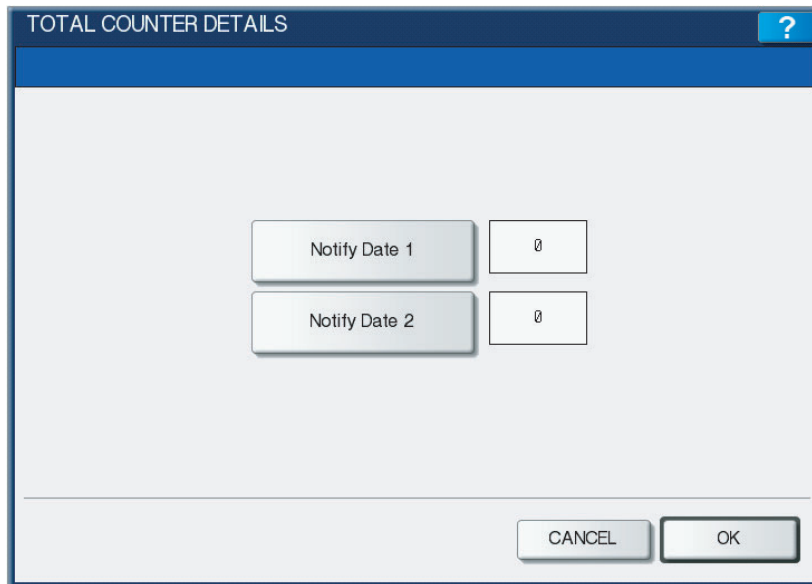
Fig.10-29

Key in the date (acceptable values: 0-31) in "Notify Date 1" or "Notify Date 2" and press the [OK] button.

- **Time setting ([CHANGE] button)**
  Pressing the [CHANGE] button sets the time at which you wand to send data.
  This is the time when data are sent with "Day of the week", "Notify Date 1" and "Notify Date 2".
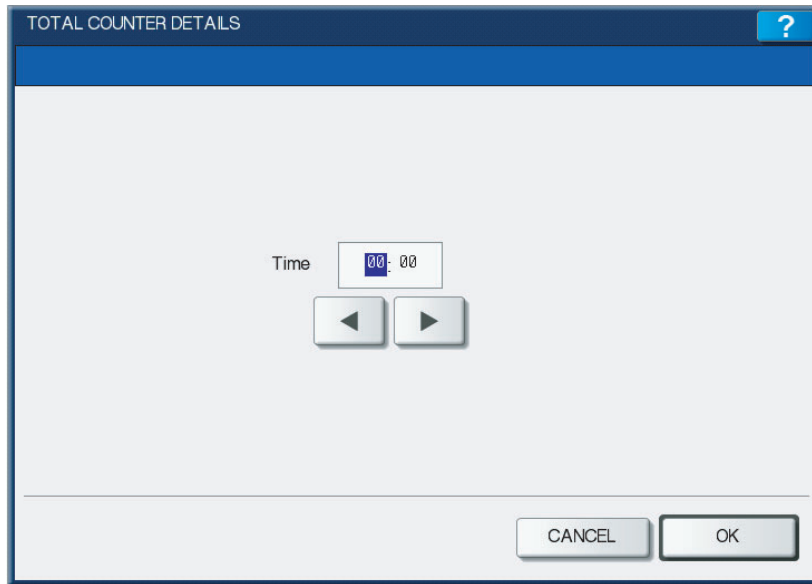
Fig.10-30

Key in the time (acceptable values: 00:00-23:59) in "Time".
Key in the time in the hour column of "Time", press the scroll button, key in the time in the minute column of "Time".
After all the settings are completed, press the [OK] button. The display returns to the screen in step (5).

(7)   Press the [OK] button. The setting completes.

Notes:
Service Notification setting is also available from the following setting mode (08).

Items	08 code	Contents
Service Notification setting	9793	0: OFF (Invalid) 1:E-mail 2:FAX
E-mail address 1	9794	Maximum 192 letters
E-mail address 2	9607	Maximum 192 letters
E-mail address 3	9608	Maximum 192 letters
FAX number	9784	Maximum 32 digits
Total Counter Transmit setting	9795	0: OFF (Invalid) 1: ON (Valid)
Total counter transmission date setting	9796	0 to 31
Total counter transmission date setting(2)	9880	0 to 31
Day of total counter data transmission	9881	1 byte 00000000(0)-01111111(127) From the 2nd bit - Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday
Total counter transmission interval setting (Hour/Hour/Minute/Minute)	9606	00:00-23:59
Service Call Transmit setting	9605	0: OFF (Invalid) 1: ON (Valid)
PM Counter Transmit setting	9797	0: OFF (Invalid) 1: ON (Valid)

10.2.3 Items to be notified

The items to be notified are shown below.
1. Total Counter Transmit / PM Counter Transmit by E-mail
   Subject: Counter Notification
   (In case of the PM Counter Transmit, it is shown as "Periodical Maintenance Notification".)

```
①     Date            : 04/26/2012 12:34
②     Machine Model   : TOSHIBA e-STUDIOxxxx
③     SerialNumber    : 1234567890
④     Total Counter   : 00004787
⑤     Supplier:
         Name          : SUPPLIER_NAME
         Tel Number    : 1122334455
         E-Mail        : Supplier_emailaddress@cccc.xxx
         Address       : SUPPLIER_ADDRESS
⑥     Customer:
         Name          : CUSTOMER_NAME
         Tel Number    : 1234567890
         E-Mail        : customer_emailaddress@dddd.xxx
         Address       : CUSTOMER_ADDRESS
⑦     Service Technician:
         Number        : svc12
         Name          : SERVICE_TECHNICIAN_NAME
         Tel Number    : 0987654321
         E-Mail        : svc@toshibatec.co.jp
      ChargeCounterFormat:
⑧        LargeSizeChargeCount            1
⑨        LargeSizeChargePaperDefinition  1

      PMCounterFormat:
⑩        LargeSizePMCount                1
⑪        LargeSizePMPaperDefinition  0
      Charge Counter:
                            Large      Small
         <Print Counter>
         Full Color -----------------------------------
⑫          Copy          00000000  00000000
⑬          Print         00000000  00000000
         Twin Color -----------------------------------
⑭          Copy          00000000  00000000
         Black -----------------------------------
⑮          Copy          00000000  00000000
⑯          Print         00000000  00000000
⑰          List          00000000  00000000
⑱          FAX           00000000  00000000

         <Scan Counter>
         Full Color -----------------------------------
⑲          Copy Scan     00000000  00000000
⑳          Net Scan      00000000  00000000
         Twin Color -----------------------------------
㉑          Copy Scan     00000000  00000000
         Black -----------------------------------
㉒          Copy Scan     00000000  00000000
㉓          FAX Scan      00000000  00000000
㉔          Net Scan      00000000  00000000

         <FAX Counter>
㉕       Transmit        00000000  00000000
㉖       Receive         00000000  00000000
```

Fig.10-31

10

```
Periodical Maintenance Counter:

                        Pages       Drive Counts
       ----------------------------------------------------
       K-EPU
          Setting       00000000    00000000
          Current       00000000    00000000
       Y-EPU
          Setting       00000000    00000000
          Current       00000000    00000000
       M-EPU
          Setting       00000000    00000000
          Current       00000000    00000000
       C-EPU
          Setting       00000000    00000000
          Current       00000000    00000000
       ----------------------------------------------------
       K-EPU
          Setting       00000000    00000000
          Current       00000000    00000000
       Y-EPU
          Setting       00000000    00000000
          Current       00000000    00000000
       M-EPU
          Setting       00000000    00000000
          Current       00000000    00000000
       C-EPU
          Setting       00000000    00000000
          Current       00000000    00000000
       ----------------------------------------------------
       Others
          Setting       00000000    00000000
          Current       00000000    00000000


       Printer Error History:
       Date         Time      ErrorCode   Counter
       ----------------------------------------------------
       04/13/2008   16:44     F110        00000000
       04/12/2008   22:28     F110        00000000
       04/12/2008   22:23     F110        00000000    (*1)
       03/15/2008   22:23     F110        00000000
       02/25/2008   11:12     F110        00000000

       Toner Information

       Toner              Remaining Quantity (%)
       ----------------------------------------------------
       Yellow             00000000
       Magenta            00000000
       Cyam               00000000
       Black              00000000
```

Fig.10-32

① Date

② Machine model name

③ Serial number

④ Total counter value

⑤ Supplier information

⑥ Customer information

⑦ Service technician information

⑧ Count setting of large-sized paper (Fee charging system counter)

⑨ Definition setting of large-sized paper (Fee charging system counter)

⑩ Count setting of large-sized paper (PM)

⑪ Definition setting of large-sized paper (PM)

⑫ Number of output pages in the Copier Function (FULL COLOR)

⑬ Number of output pages in the Printer Function (FULL COLOR)

⑭ Number of output pages in the Copier Function (TWIN COLOR)

⑮ Number of output pages in the Copier Function (BLACK)

⑯ Number of output pages in the Printer Function (BLACK)

⑰ Number of output pages at the List Print Mode (BLACK)

⑱ Number of output pages in the FAX Function (BLACK)

⑲ Number of scanning pages in the Copier Function (FULL COLOR)

⑳ Number of scanning pages in the Network Scanning Function (FULL COLOR)

㉑ Number of scanning pages in the Copier Function (TWIN COLOR)

㉒ Number of scanning pages in the Copier Function (BLACK)

㉓ Number of scanning pages in the FAX Function (BLACK)

㉔ Number of scanning pages in the Network Scanning Function (BLACK)

㉕ Number of transmitted pages in the FAX Function (BLACK)

㉖ Number of received pages in the FAX Function (BLACK)

㉗ PM count setting value / PM driving count setting value [EPU (K)]

㉘ PM count present value / PM driving count present value [EPU (K)]

㉙ PM count setting value / PM driving count setting value [EPU (Y)]

㉚ PM count present value / PM driving count present value [EPU (Y)]

㉛ PM count setting value / PM driving count setting value [EPU (M)]

㉜ PM count present value / PM driving count present value [EPU (M)]

㉝ PM count setting value / PM driving count setting value [EPU (C)]

㉞ PM count present value / PM driving count present value [EPU (C)]

㉟ PM count setting value / PM driving count setting value [Developer material (K)]

㊱ PM count present value / PM driving count present value [Developer material (K)]

㊲ PM count setting value / PM driving count setting value [Developer material (Y)]

㊳ PM count present value / PM driving count present value [Developer material (Y)]

㊴ PM count setting value / PM driving count setting value [Developer material (M)]

㊵ PM count present value / PM driving count present value [Developer material (M)]

㊶ PM count setting value / PM driving count setting value [Developer material (C)]

㊷ PM count present value / PM driving count present value [Developer material (C)]

㊸ PM count setting value / PM driving count setting value [Other parts]

㊹ PM count present value / PM driving count present value [Other parts]

㊺ History error

*1 The latest 20 errors are displayed.

10

e-STUDIO2050C/2051C/2550C/2551C
REMOTE SERVICE

46 Toner remaining quantity (Yellow)

47 Toner remaining quantity (Magenta)

48 Toner remaining quantity (Cyan)

49 Toner remaining quantity (Black)

2. Total Counter Transmit / PM Counter Transmit by FAX
  *1 In case of the PM Counter Transmit, the title is replaced to "PERIODICAL MAINTENANCE NOTIFICATION".

Sheet 1

```
               COUNTER NOTIFICATION (*1)

①——DATE                              : 12/04/14 13:47
②——MACHINE MODEL                     : TOSHIBA e-STUDIOxxxx
③——SERIAL NUMBER                     : 1234567890
④——TOTAL COUNTER                     : 00004787

    ┌CUSTOMER NAME                    : CUSTOMER_NAME
    │CUSTOMER ADDRESS                 : CUSTOMER_ADDRESS
⑤——│CUSTOMER TEL NUMBER              : 1234567890
    └CUSTOMER E-MAIL ADDRESS          : customer_emailaddress@dddd.xxx
    ┌SERVICE TECHNICIAN NUMBER        : svc12
    │SERVICE TECHNICIAN NAME          : SERVICE_TECHNICIAN_NAME
⑥——│SERVICE TECHNICIAN TEL NUMBER    : 0987654321
    └SERVICE TECHNICIAN E-MAIL        : svc@toshibatec.co.jp
    ┌SUPPLIER NAME                    : SUPPLIER_NAME
    │SUPPLIER ADDRESS                 : SUPPLIER_ADDRESS
⑦——│SUPPLIER FAX NUMBER              : 5544332211
    └SUPPLIER E-MAIL                  : supplier_emailaddress@ccccc.xxx
```

Fig.10-33

Sheet 2

COUNTER NOTIFICATION (*1)

CHARGE COUNTER FORMAT   PM COUNTER FORMAT

⑧ —— LARGE SIZE CHARGE COUNT   : 1 ┌─ LARGE SIZE PM COUNT   : 1
⑨ —— LARGE SIZE CHARGE PAPER DEFINITION : 1 ┌─ LARGE SIZE PM PAPER DEFINITION : 0

CHARGE COUNTER   ⑩⑪

PRINT COUNTER   SCAN COUNTER
　FULL COLOR   LARGE   SMALL   FULL COLOR   LARGE   SMALL
⑫ —— COPY   00000000   00000000   ⑳ —— COPY SCAN   00000000   00000000
⑬ —— PRINT   00000000   00000000   ㉑ —— NET SCAN   00000000   00000000
　TWIN COLOR   LARGE   SMALL   TWIN COLOR   LARGE   SMALL
⑭ —— COPY   00000000   00000000   ㉒ —— COPY SCAN   00000000   00000000
⑮ —— PRINT   00000000   00000000
　BLACK   LARGE   SMALL   BLACK   LARGE   SMALL
⑯ —— COPY   00000000   00000000   ㉓ —— COPY SCAN   00000000   00000000
⑰ —— PRINT   00000000   00000000   ㉔ —— FAX SCAN   00000000   00000000
⑱ —— LIST   00000000   00000000   ㉕ —— NET SCAN   00000000   00000000
⑲ —— FAX   00000000   00000000

FAX COUNTER
　 LARGE   SMALL
㉖ —— TRANSMIT   00000000   00000000
㉗ —— RECEIVE   00000000   00000000

PERIODICAL MAINTENANCE COUNTER

㉘ —— SETTING VALUE (K-EPU PAGES)   : 00000000   SETTING VALUE (K-DEV DRIVE COUNTS)   : 00000000 —— ㊻
㉙ —— CURRENT VALUE (K-EPU PAGES)   : 00000000   CURRENT VALUE (K-DEV DRIVE COUNTS)   : 00000000 —— ㊼
㉚ —— SETTING VALUE (K-EPU DRIVE COUNTS) : 00000000   SETTING VALUE (Y-DEV PAGES)   : 00000000 —— ㊽
㉛ —— CURRENT VALUE (K-EPU DRIVE COUNTS) : 00000000   CURRENT VALUE (Y-DEV PAGES)   : 00000000 —— ㊾
㉜ —— SETTING VALUE (Y-EPU PAGES)   : 00000000   SETTING VALUE (Y-DEV DRIVE COUNTS)   : 00000000 —— ㊿
㉝ —— CURRENT VALUE (Y-EPU PAGES)   : 00000000   CURRENT VALUE (Y-DEV DRIVE COUNTS)   : 00000000 —— 51
㉞ —— SETTING VALUE (Y-EPU DRIVE COUNTS) : 00000000   SETTING VALUE (M-DEV PAGES)   : 00000000 —— 52
㉟ —— CURRENT VALUE (Y-EPU DRIVE COUNTS) : 00000000   CURRENT VALUE (M-DEV PAGES)   : 00000000 —— 53
㊱ —— SETTING VALUE (M-EPU PAGES)   : 00000000   SETTING VALUE (M-DEV DRIVE COUNTS)   : 00000000 —— 54
㊲ —— CURRENT VALUE (M-EPU PAGES)   : 00000000   CURRENT VALUE (M-DEV DRIVE COUNTS)   : 00000000 —— 55
㊳ —— SETTING VALUE (M-EPU DRIVE COUNTS) : 00000000   SETTING VALUE (C-DEV PAGES)   : 00000000 —— 56
㊴ —— CURRENT VALUE (M-EPU DRIVE COUNTS) : 00000000   CURRENT VALUE (C-DEV PAGES)   : 00000000 —— 57
㊵ —— SETTING VALUE (C-EPU PAGES)   : 00000000   SETTING VALUE (C-DEV DRIVE COUNTS)   : 00000000 —— 58
㊶ —— CURRENT VALUE (C-EPU PAGES)   : 00000000   CURRENT VALUE (C-DEV DRIVE COUNTS)   : 00000000 —— 59
㊷ —— SETTING VALUE (C-EPU DRIVE COUNTS) : 00000000   SETTING VALUE (OTHERS PAGES)   : 00000000 —— 60
㊸ —— CURRENT VALUE (C-EPU DRIVE COUNTS) : 00000000   CURRENT VALUE (OTHERS PAGES)   : 00000000 —— 61
㊹ —— SETTING VALUE (K-DEV PAGES)   : 00000000   SETTING VALUE (OTHERS DRIVE COUNTS) : 00000000 —— 62
㊺ —— CURRENT VALUE (K-DEV PAGES)   : 00000000   CURRENT VALUE (OTHERS DRIVE COUNTS) : 00000000 —— 63

Fig.10-34

Sheet 3

```
                    COUNTER NOTIFICATION (*1)

64 ── PRINTER ERROR HISTORY

       DATE     TIME   ERROR CODE   COUNTER        DATE     TIME   ERROR CODE   COUNTER
       08/04/13 16:44  F110         00000000       08/04/13 16:44  F110         00000000  ┐
       08/04/12 22:28  F110         00000000       08/04/13 16:44  F110         00000000  │
       08/04/12 22:23  F110         00000000       08/04/13 16:44  F110         00000000  ├─ (*2)
       08/03/15 22:23  F110         00000000       08/04/13 16:44  F110         00000000  │
       08/02/25 11:12  F110         00000000       08/04/13 16:44  F110         00000000  ┘

       TONER INFORMATION

65 ──  YELLOW REMAINING QUANTITY (%)              :  00000059
66 ──  MAGENTA REMAINING QUANTITY (%)             :  00000059
67 ──  CYAN REMAINING QUANTITY (%)                :  00000059
68 ──  BLACK REMAINING QUANTITY (%)               :  00000059
```

Fig.10-35

① Date

② Machine model name

③ Serial number

④ Total counter value

⑤ Customer information

⑥ Service technician information

⑦ Supplier information

⑧ Count setting of large-sized paper (Fee charging system counter)

⑨ Definition setting of large-sized paper (Fee charging system counter)

⑩ Count setting of large-sized paper (PM)

⑪ Definition setting of large-sized paper (PM)

⑫ Number of output pages in the Copier Function (FULL COLOR)

⑬ Number of output pages in the Printer Function (FULL COLOR)

⑭ Number of output pages in the Copier Function (TWIN COLOR)

⑮ Number of output pages in the Printer Function (TWIN COLOR)

⑯ Number of output pages in the Copier Function (BLACK)

⑰ Number of output pages in the Printer Function (BLACK)

⑱ Number of output pages at the List Print Mode (BLACK)

⑲ Number of output pages in the FAX Function (BLACK)

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REMOTE SERVICE

20. Number of scanning pages in the Copier Function (FULL COLOR)

21. Number of scanning pages in the Network Scanning Function (FULL COLOR)

22. Number of scanning pages in the Copier Function (TWIN COLOR)

23. Number of scanning pages in the Copier Function (BLACK)

24. Number of scanning pages in the FAX Function (BLACK)

25. Number of scanning pages in the Network Scanning Function (BLACK)

26. Number of transmitted pages in the FAX Function (BLACK)

27. Number of received pages in the FAX Function (BLACK)

28. PM count setting value [EPU (K)]

29. PM count present value [EPU (K)]

30. PM driving count setting value [EPU (K)]

31. PM driving count present value [EPU (K)]

32. PM count setting value [EPU (Y)]

33. PM count present value [EPU (Y)]

34. PM driving count setting value [EPU (Y)]

35. PM driving count present value [EPU (Y)]

36. PM count setting value [EPU (M)]

37. PM count present value [EPU (M)]

38. PM driving count setting value [EPU (M)]

39. PM driving count present value [EPU (M)]

40. PM count setting value [EPU (C)]

41. PM count present value [EPU (C)]

42. PM driving count setting value [EPU (C)]

43. PM driving count present value [EPU (C)]

44. PM count setting value [Developer material (K)]

45. PM driving count present value [Developer material (K)]

46. PM driving count setting value [Developer material (K)]

47. PM driving count present value [Developer material (K)]

48. PM count setting value [Developer material (Y)]

49. PM driving count present value [Developer material (Y)]

50. PM driving count setting value [Developer material (Y)]

51. PM driving count present value [Developer material (Y)]

52. PM count setting value [Developer material (M)]

53 PM driving count present value [Developer material (M)]

54 PM driving count setting value [Developer material (M)]

55 PM driving count present value [Developer material (M)]

56 PM count setting value [Developer material (C)]

57 PM driving count present value [Developer material (C)]

58 PM driving count setting value [Developer material (C)]

59 PM driving count present value [Developer material (C)]

60 PM count setting value (Other parts)

61 PM driving count present value (Other parts)

62 PM driving count setting value (Other parts)

63 PM driving count present value (Other parts)

64 History of error

   *2 The latest 20 errors are displayed.

65 Toner remaining quantity (Yellow)

66 Toner remaining quantity (Magenta)

67 Toner remaining quantity (Cyan)

68 Toner remaining quantity (Black)

10

3. Toner near-empty notification by e-mail
Subject: Toner Near-Empty Notification

```
1 ——— Date          : 04/26/2012 12:34
2 ——— Machine Model : TOSHIBA e-STUDIOxxxx
3 ——— SerialNumber  : 1234567890
4 ——— Total Counter : 00004787
5 ——— Supplier:
           Name       : SUPPLIER_NAME
           Fax Number : 1122334455
           E-Mail     : Supplier_emailaddress@cccc.xxx
           Address    : SUPPLIER_ADDRESS
6 ——— Customer:
           Name       : CUSTOMER_NAME
           Tel Number : 1234567890
           E-Mail     : customer_emailaddress@dddd.xxx
           Address    : CUSTOMER_ADDRESS
7 ——— Service Technician:
           Number     : svc12
           Name       : SERVICE_TECHNICIAN_NAME
           Tel Number : 0987654321
           E-Mail     : svc@toshibatec.co.jp
       ChargeCounterFormat:
8 ———      LargeSizeChargeCount            1
9 ———      LargeSizeChargePaperDefinition  1

       PMCounterFormat:
10 ——      LargeSizePMCount                1
11 ——      LargeSizePMPaperDefinition  0
       Charge Counter:
                              Large      Small
           <Print Counter>
           Black ------------------------------------------
12 ——      Copy           00000000  00000000
13 ——      Print          00000000  00000000
14 ——      List           00000000  00000000
15 ——      FAX            00000000  00000000

           <Scan Counter>
           Full Color --------------------------------------
16 ——      Net Scan       00000000  00000000
           Black ------------------------------------------
17 ——      Copy Scan      00000000  00000000
18 ——      FAX Scan       00000000  00000000
19 ——      Net Scan       00000000  00000000

           <FAX Counter>
20 ——  Transmit           00000000  00000000
21 ——  Receive            00000000  00000000
```

Fig.10-36

```
Periodical Maintenance Counter:

                          Pages      Drive Counts
       ----------------------------------------------------
       K-EPU
22 ──────── Setting      00000000   00000000
23 ──────── Current      00000000   00000000
       ----------------------------------------------------
       K-EPU
24 ──────── Setting      00000000   00000000
25 ──────── Current      00000000   00000000
       ----------------------------------------------------
       Others
26 ──────── Setting      00000000   00000000
27 ──────── Current      00000000   00000000


28 ──────── Printer Error History:
       Date        Time      ErrorCode   Counter
       ----------------------------------------------------
       04/13/2008   16:44     F110       00000000  ┐
       04/12/2008   22:28     F110       00000000  │
       04/12/2008   22:23     F110       00000000  ├ (*1)
       03/15/2008   22:23     F110       00000000  │
       02/25/2008   11:12     F110       00000000  ┘

       Toner Information:

        Toner
       ----------------------------------------------------
29 ──────── Yellow                      00000000
30 ──────── Magenta                     00000000
31 ──────── Cyan                        00000000
32 ──────── Black                       00000000
```

Fig.10-37

10

1. Date
2. Machine model name
3. Serial number
4. Total counter value
5. Supplier information
6. Customer information
7. Service technician information
8. Count setting of large-sized paper (Fee charging system counter)
9. Definition setting of large-sized paper (Fee charging system counter)
10. Count setting of large-sized paper (PM)
11. Definition setting of large-sized paper (PM)
12. Number of output pages in the Copier Function (BLACK)
13. Number of output pages in the Printer Function (BLACK)
14. Number of output pages at the List Print Mode (BLACK)
15. Number of output pages in the FAX Function (BLACK)
16. Number of scanning pages in the Network Scanning Function (Full color)
17. Number of scanning pages in the Copier Function (BLACK)
18. Number of scanning pages in the FAX Function (BLACK)
19. Number of scanning pages in the Network Scanning Function (BLACK)
20. Number of transmitted pages in the FAX Function (BLACK)

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REMOTE SERVICE

21. Number of received pages in the FAX Function (BLACK)
22. PM count setting value / PM driving count setting value [EPU (K)]
23. PM count present value / PM driving count present value [EPU (K)]
24. PM count setting value / PM driving count setting value [Developer material (K)]
25. PM count present value / PM driving count present value [Developer material (K)]
26. PM count setting value / PM driving count setting value [Other parts]
27. PM count present value / PM driving count present value [Other parts]
28. History error
29. Toner remaining quantity (Yellow)
30. Toner remaining quantity (Magenta)
31. Toner remaining quantity (Cyan)
32. Toner remaining quantity (Black)

4. Toner near-empty notification by FAX

Sheet 1

```
TONER NEAR-EMPTY NOTIFICATION (*1)

1 ──── DATE                              : 12/04/14 13:47
2 ──── MACHINE MODEL                     : TOSHIBA e-STUDIOxxxx
3 ──── SERIAL NUMBER                     : 1234567890
4 ──── TOTAL COUNTER                     : 00004787

       ┌ CUSTOMER NAME                   : CUSTOMER_NAME
       │ CUSTOMER ADDRESS                : CUSTOMER_ADDRESS
5 ─────┤ CUSTOMER TEL NUMBER             : 1234567890
       └ CUSTOMER E-MAIL ADDRESS         : customer_emailaddress@dddd.xxx
       ┌ SERVICE TECHNICIAN NUMBER       : svc12
       │ SERVICE TECHNICIAN NAME         : SERVICE_TECHNICIAN_NAME
6 ─────┤ SERVICE TECHNICIAN TEL NUMBER   : 0987654321
       └ SERVICE TECHNICIAN E-MAIL       : svc@toshibatec.co.jp
       ┌ SUPPLIER NAME                   : SUPPLIER_NAME
       │ SUPPLIER ADDRESS                : SUPPLIER_ADDRESS
7 ─────┤ SUPPLIER FAX NUMBER             : 5544332211
       └ SUPPLIER E-MAIL                 : supplier_emailaddress@ccccc.xxx
```

Fig.10-38

Sheet 2

```
          COUNTER NOTIFICATION (*1)

       CHARGE COUNTER FORMAT                         PM COUNTER FORMAT

 8 ───── LARGE SIZE CHARGE COUNT          : 1  ┌ LARGE SIZE PM COUNT              : 1
 9 ───── LARGE SIZE CHARGE PAPER DEFINITION : 1  ┌ LARGE SIZE PM PAPER DEFINITION   : 0

       CHARGE COUNTER                               10 11

       PRINT COUNTER                          SCAN COUNTER
          BLACK        LARGE      SMALL          FULL COLOR     LARGE       SMALL
12 ─────── COPY      00000000   00000000   16 ─── NET SCAN    00000000    00000000
13 ─────── PRINT     00000000   00000000          BLACK        LARGE       SMALL
14 ─────── LIST      00000000   00000000   17 ─── COPY SCAN   00000000    00000000
15 ─────── FAX       00000000   00000000   18 ─── FAX SCAN    00000000    00000000
                                           19 ─── NET SCAN    00000000    00000000
       FAX COUNTER
                     LARGE      SMALL
20 ─────── TRANSMIT  00000000   00000000
21 ─────── RECEIVE   00000000   00000000


       PERIODICAL MAINTENANCE COUNTER

22 ──── SETTING  VALUE  (K-EPU PAGES)         : 00000000   SETTING  VALUE  (K-DEV DRIVE COUNTS) : 00000000 ─── 28
23 ──── CURRENT VALUE  (K-EPU PAGES)          : 00000000   CURRENT VALUE  (K-DEV DRIVE COUNTS)  : 00000000 ─── 29
24 ──── SETTING  VALUE  (K-EPU DRIVE COUNTS)  : 00000000   SETTING  VALUE  (OTHERS PAGES)       : 00000000 ─── 30
25 ──── CURRENT VALUE  (K-EPU DRIVE COUNTS)   : 00000000   CURRENT VALUE  (OTHERS PAGES)        : 00000000 ─── 31
26 ──── SETTING  VALUE  (K-DEV PAGES)         : 00000000   SETTING  VALUE  (OTHERS DRIVE COUNTS): 00000000 ─── 32
27 ──── CURRENT VALUE  (K-DEV PAGES)          : 00000000   CURRENT VALUE  (OTHERS DRIVE COUNTS) : 00000000 ─── 33

34 ──── PRINTER ERROR HISTORY

       DATE      TIME    ERROR CODE   COUNTER      DATE      TIME    ERROR CODE   COUNTER ┐
       08/04/13  16:44   F110         00000000     08/04/13  16:44   F110         00000000 │
       08/04/12  22:28   F110         00000000     08/04/13  16:44   F110         00000000 │
       08/04/12  22:23   F110         00000000     08/04/13  16:44   F110         00000000 ├─ (*2)
       08/03/15  22:23   F110         00000000     08/04/13  16:44   F110         00000000 │
       08/02/25  11:12   F110         00000000     08/04/13  16:44   F110         00000000 ┘
```

Fig.10-39

Sheet 3

```
                    COUNTER NOTIFICATION (*1)

35 ——— Toner Cartridge Information:

36 ———     Toner Near-Empty Counter
37 ———         Setting                    00000000
38 ———         Current                    00000000
39 ———         Color code                 1


40 ———     Point Of Destination           0
              Used History
                  Developer Counter          00000056
                  Developer Driving Time     00000057
                  Drum Driving Time          00000058

          Toner Information

41 ———     Yellow Remaining Quantity (%)   : 00000059
42 ———     Magenta Remaining Quantity (%)  : 00000060
43 ———     Cyan Remaining Quantity (%)     : 00000061
44 ———     Black Remaining Quantity (%)    : 00000062
```

Fig.10-40

1. Date
2. Machine model name
3. Serial number
4. Total counter value
5. Customer information
6. Service technician information
7. Supplier information
8. Count setting of large-sized paper (Fee charging system counter)
9. Definition setting of large-sized paper (Fee charging system counter)
10. Count setting of large-sized paper (PM)
11. Definition setting of large-sized paper (PM)
12. Number of output pages in the Copier Function (BLACK)
13. Number of output pages in the Printer Function (BLACK)
14. Number of output pages at the List Print Mode (BLACK)
15. Number of output pages in the FAX Function (BLACK)
16. Number of scanning pages in the Network Scanning Function (Full color)
17. Number of scanning pages in the Copier Function (BLACK)
18. Number of scanning pages in the FAX Function (BLACK)
19. Number of scanning pages in the Network Scanning Function (BLACK)
20. Number of transmitted pages in the FAX Function (BLACK)
21. Number of received pages in the FAX Function (BLACK)
22. PM count setting value [EPU (K)]
23. PM count present value [EPU (K)]
24. PM driving count setting value [EPU (K)]
25. PM driving count present value [EPU (K)]
26. PM count setting value [Developer material (K)]

10

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REMOTE SERVICE

27. PM driving count present value [Developer material (K)]
28. PM driving count setting value [Developer material (K)]
29. PM driving count present value [Developer material (K)]
30. PM count setting value (Other parts)
31. PM driving count present value (Other parts)
32. PM driving count setting value (Other parts)
33. PM driving count present value (Other parts)
34. History of error
35. Toner cartridge information
36. Toner near-empty counter
37. Setting value of toner cartridge rotation time counter
38. Current value of toner cartridge rotation time counter
39. Color of toner cartridge
    1: Black
    2: Yellow
    3: Magenta
    4: Cyan
40. Destination setting of toner cartridge
    *2 The latest 20 errors are displayed.
41. Toner remaining quantity (Yellow)
42. Toner remaining quantity (Magenta)
43. Toner remaining quantity (Cyan)
44. Toner remaining quantity (Black)

5. Service Call Transmit
Subject: Service Call Notification

① Date: 04/14/2012 13:47
   Machine Name: e-STUDIOxxxx   SerialNumber:1234567890
                          ②   ③
④ Function: Printer
⑤ Severity: Error
⑥ ErrorCode: XXXX
⑦ Message:
   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

⑧ Supplier:
   Name   : SUPPLIER_NAME
   Tel Number : 1122334455
   E-Mail   : supplier_emailaddress@cccc.xxx
   Address   : SUPPLIER_ADDRESS

⑨ Customer:
   Name   : CUSTOMER_NAME
   Tel Number : 1234567890
   E-Mail   : customer_emailaddress@dddd.xxx
   Address   : CUSTOMER_ADDRESS

⑩ Service Technician:
   Number   : svc12
   Name   : SERVICE_TECHNICIAN_NAME
   Tel Number : 0987654321
   E-Mail   : svc@toshibatec.co.jp

⑪ Printer Error History:

   Date   Time   ErrorCode   Counter

   04/13/2012   16:44   F110
   04/12/2012   22:28   F110
   04/12/2012   22:23   F110   (*1)
   03/15/2012   22:23   F110
   02/25/2012   11:12   F110

   Toner Information

   Toner   Remaining Quantity(%)
   ----
⑫ Yellow   00000000
⑬ Magenta   00000000
⑭ Cyan   00000000
⑮ Black   00000000

Fig.10-41

e-STUDIO2050C/2051C/2550C/2551C
REMOTE SERVICE

10

① Date (When an error occurs)

② Machine model name

③ Serial number

④ Function: Fixed at "Printer"

⑤ Severity: Fixed at "Error"

⑥ Error code

⑦ Error message: The content of error is displayed.

⑧ Supplier information

⑨ Customer information

⑩ Service technician information

⑪ History of error

*1 The latest 20 errors are displayed.

⑫ Toner remaining quantity (Yellow)

⑬ Toner remaining quantity (Magenta)

⑭ Toner remaining quantity (Cyan)

⑮ Toner remaining quantity (Black)

11. FIRMWARE UPDATING

When you want to update the firmware to the latest one or the equipment becomes inoperable due to some defect in the firmware, updating can be performed as follows.

Equipment

Firmware	Updating method
System firmware	USB device
	Download jig (PWA-DWNLD-JIG2F)
Engine firmware	USB device
Scanner firmware	
System software	

Options

Model name	Firmware	Updating method
PFC firmware (PFC board) (GH-1080)	PFC firmware	USB device
Reversing Automatic Document Feeder (RADF) (MR-3024)	RADF firmware	USB device
Finisher (MJ-1036)	Finisher firmware	USB device
Finisher (MJ-1037)	Finisher firmware	USB device
Hole Punch Unit (MJ-6008)	Hole punch unit firmware	USB device
FAX Unit (GD-1320)	FAX firmware	Download jig (K-PWA-DLM-320F)

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A. System firmware/
Engine firmware/
Scanner firmware /
System software/
RADF firmware /
PFC firmware /
Punch firmware /
Finisher firmware

USB media
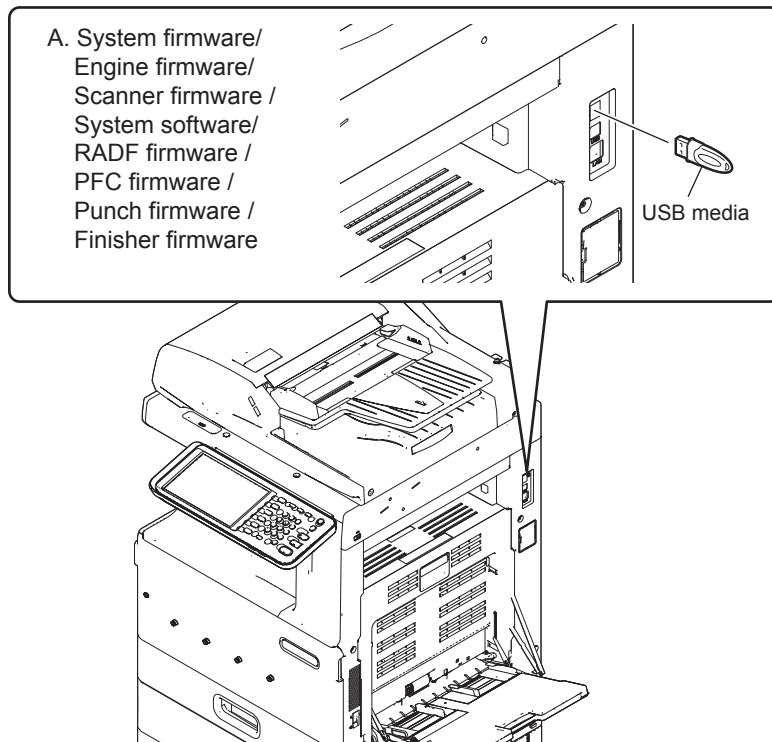
Fig.11-1

A	System firmware / Engine firmware / Scanner firmware / System software / RADF firmware / PFC firmware / Punch firmware / Finisher firmware	P. 11-9

B. System firmware

PWA-DWNLD-JIG2F
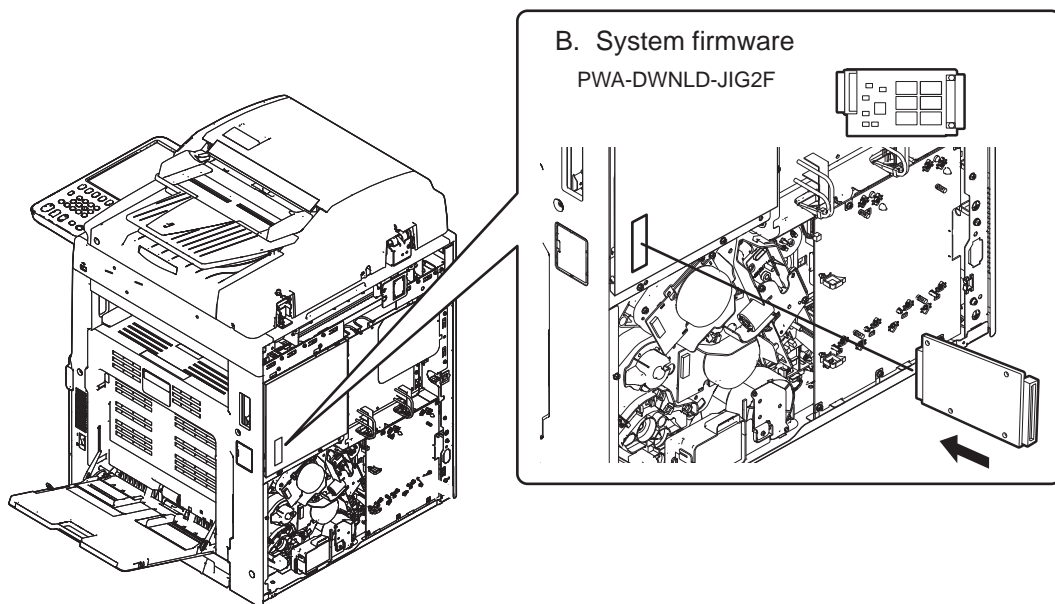
Fig.11-2

B	System firmware	P. 11-33

C. FAX firmware (GD-1320)

K-PWA-DLM-320
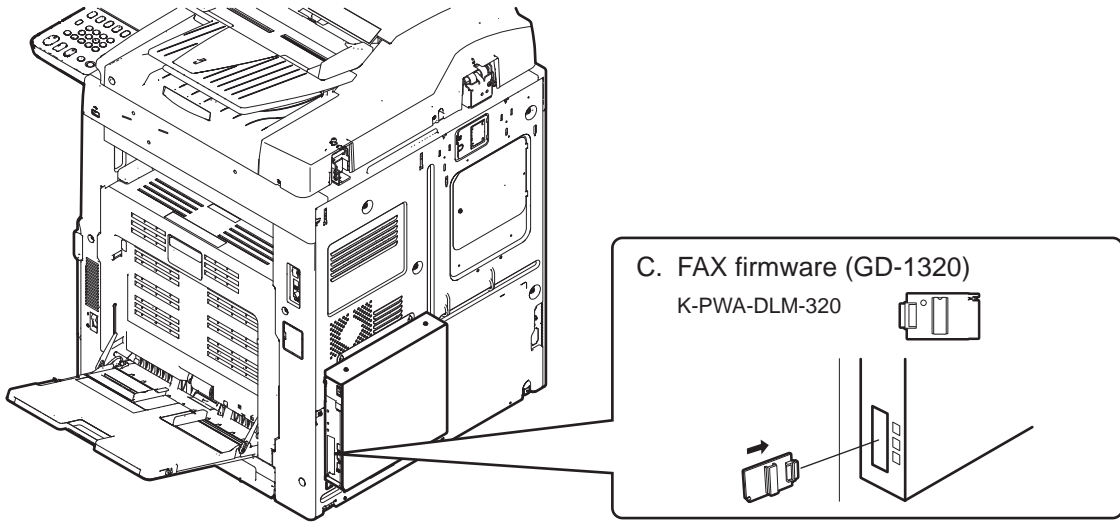
Fig.11-3

C	FAX firmware (GD-1320)	P. 11-36

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Notes:
- Written firmware varies depending on the kinds of the boards provided as service parts. For updating, only the minimum firmware is installed on the system control PC board, logic PC board, and scanning section control PC board. No firmware is installed on the FAX board. The latest version of the firmware at the time of delivery is written on the RADF control PC board and finisher control PC board.
  When any of above boards is replaced with a new one in the field, check the other firmware version used and then update with a corresponding suitable version.
- The system firmware is not installed on the SSD provided as a service part. When the hard disk is replaced with a new one, check the other firmware version used and then write a corresponding suitable version.
- "Can't fetch Ver." is displayed in the Installed Version field when the version of the installed firmware cannot be acquired properly. If a normal power on is not performed after the firmware is updated and the [ON/OFF] button is pressed while simultaneously holding down the [4] and [9] buttons, "Can't fetch Ver." may be displayed on the control panel for some firmwares. A normal power on must be performed.

11.1 Firmware Updating with USB Device

To update firmware, store update programs and firmware data files in the USB device.
The update program is "signature.XX.sig", and it needs to be stored in the USB device. It is necessary for updating firmware except that of the System firmware.
For the data file for each firmware, refer to the following tables.

Notes:
    When performing the update, use the latest program.

Firmware type and data file name for updating

Equipment

Firmware	Stored	Data file name	Display
System firmware	System control PC board (SYS board)	<20ppm/25ppm: When only SSD is mounted.> T210SF0Wxxxx.tar <20ppm/25ppm: When HDD is mounted.> T210SF0Wxxxx.tar <LL20ppm/LL25ppm> T230SF0Wxxxx.tar * xxxx is version.	SYSTEM FIRMWARE (OS Data)
Engine firmware	Logic PC board (LGC board)	T210MWW.xxx * xxx is version.	ENGINE FIRMWARE
Scanner firmware	System control PC board (SYS board)	T210SLGWW.xxx * xxx is version.	SCANNER FIRMWARE
System software	SSD / HDD	<20ppm/25ppm: When only SSD is mounted.> T210HD0Wxxxx.tar <20ppm/25ppm: When HDD is mounted.> T569HD0Wxxxx.tar <LL20ppm/LL25ppm)> T230HD0Wxxxx.tar * xxxx is version.	SYSTEM SOFTWARE (HD Data)

Option

Firmware	Stored	Data file name	Display
RADF firmware	DLG board (MR-3024)	H546DFWW.0xxx * xxx is version.	RADF FIRMWARE
PFC firmware	PFC board (GH-1080)	T210FWW.xxx * xxx is version.	PFC FIRMWARE
Punch firmware (MJ-6008)	Punch control PC board (HP)	PUN6008T.xxx * xxx is version.	PUNCH FIRMWARE
Finisher firmware (MJ-1036)	Finisher control PC board	FIN1036T.xxx * xxx is version.	FINISHER FIRMWARE
Finisher firmware (MJ-1037)	Finisher control PC board	FIN1037T.xxx * xxx is version.	FINISHER FIRMWARE

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Store the data file for updating in the model specific folder. This configuration is an example. The number of files differs depending on the installed option.

20ppm/25ppm, SSD only

Model specific folder name	2050C_5050C

```
USB media
   │
   └── 2050C_5050C
          ├── T210SF0Wxxxx.tar
          ├── T210MWW.xxx
          ├── T210SLGWW.xxx
          ├── T210HD0Wxxxx.tar
          ├── H546DFWW.0xxx
          ├── T210FWW.xxx
          ├── PUN6008T.xxx
          ├── FIN1036T.xxx (When MJ-1036 is connected.)
          └── signarture.L.sig
```
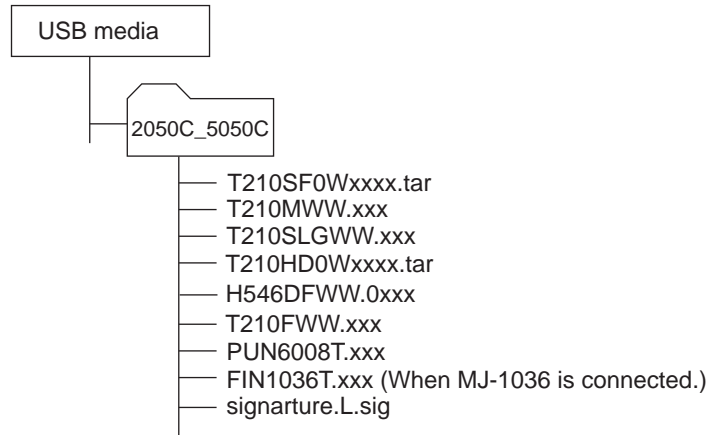
Fig.11-4

20ppm/25ppm, When HDD is mounted

Model specific folder name	2050C_5050C

```
USB media
   │
   └── 2050C_5050C
          ├── T210SF0Wxxxx.tar
          ├── T210MWW.xxx
          ├── T210SLGWW.xxx
          ├── T569HD0Wxxxx.tar
          ├── H546DFWW.0xxx
          ├── T210FWW.xxx
          ├── PUN6008T.xxx
          ├── FIN1036.xxx (When MJ-1036 is connected.)
          └── signarture.LH.sig
```

Fig.11-5

LL20ppm/LL25ppm

Model specific folder name	2050C_5050C

USB media
└ 2050C_5050C
    ├── T230SF0Wxxxx.tar
    ├── T210MWW.xxx
    ├── T210SLGWW.xxx
    ├── T230HD0Wxxxx.tar
    ├── H546DFWW.0xxx
    ├── T210FWW.xxx
    └── signarture.LL.sig

Fig.11-6

e-STUDIO2050C/2051C/2550C/2551C
FIRMWARE UPDATING

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Notes:
- Since the date and time set in the equipment are recorded in the firmware update log, make sure that they are correct before updating the firmware.
- Never change the model specific folder name, since it is used for identifying the data file when the data files used for updating multiple models are stored in the USB device.

Important:
- Only the USB devices which meet the following conditions should be used for updating. Be careful since updating with any device other than the above is never guaranteed.
    - A combination USB device with a flash memory (to be connected directly to the USB port) and its capacity is 4GB or more.
    - Operation of the USB device used for updating has been confirmed at the input check of this equipment (Test mode 03). (📖 P. 5-8 "5.3 Input check (Test mode 03)")
    - USB devices which comply with the following standards regulated by USB-IF (USB Implementers Forum)
      Class number: 8 (=08h) (Mass-storage class)
      Sub-class number: 6 (=06h) (SCSI transfer command set)
      Protocol number: 80 (=50h) (Bulk-Only)
  * Most common USB devices comply with the specification above and can be used for updating. However, the operation in all the Multi Functional Digital Color Systems and Multi Functional Digital Systems is not necessarily guaranteed since the most of these devices are developed based on use in a PC environment (Windows or Macintosh). Therefore, check thoroughly that the device is operational in the equipment for which the updating will be performed when purchasing it.
- The USB devices complying with USB2.0 can be used for updating.
- Do not update the firmware by any storage device other than a flash memory (such as a USB connection type memory card reader, CD/DVD drive or hard disk), since it is never guaranteed.
- It is possible to store the model specific update program and the data file for updating directly in the root directory when you store the updating data file for one specific model in the USB device. However, if the model specific folder for the same model as that of the data file stored in the root directory already exists, this will have priority.

11.1.1 System firmware / Engine firmware / Scanner firmware / System software / RADF firmware / PFC firmware / Punch firmware / Finisher firmware

Important:
*   The file system of USB device should be formatted in the FAT or FAT32 format. Be careful since the devices formatted in NTFS or other format will not be able to be operated. The file system can be confirmed on the device properties in applications such as Explorer of Windows.
*   Never shut down the equipment during the update. Firmware data and the following option data (if installed) could be damaged and may not be able to be operated properly.
    -   Data Overwrite Enabler (GP-1070)
    -   Meta Scan Enabler (GS-1010)
    -   External Interface Enabler (GS-1020)
    -   IPSec Enabler (GP-1080)
    -   Hardcopy Security kit (GP-1190A)

[A] Update procedure

(1) Connect the USB device to the PC and write the model specific folder in which the data file is stored.
    Store the data file for updating in the model specific folder.

(2) Press the [ON/OFF] button to shut down the equipment.

(3) Connect the USB device [1] to the USB port [2] on the right upper cover.

Fig.11-7

(4) Press the [ON/OFF] button while simultaneously holding down the [4] and [9] buttons.
Data in the USB device are checked and the checking status is displayed on the screen.

(5) Enter the password, and then press the [OK] button.
(If the password is not set for Service, press the [OK] button without entering anything.)

```
Enter Password
┌──────────────────────────────┐
│                              │
└──────────────────────────────┘

 !   "   #   $   %   &   '   (   )   =   ~   |   `   {   }

 *   <   >   ?   _   .   ^   @   +   [   ]   ;   :   /   1

 Q   W   E   R   T   Y   U   I   O   P   2   3

 A   S   D   F   G   H   J   K   L   4   5   6

 Z   X   C   V   B   N   M   ,   .   7   8   9

        Caps          Space          Backspace

             Ok              Reset
```
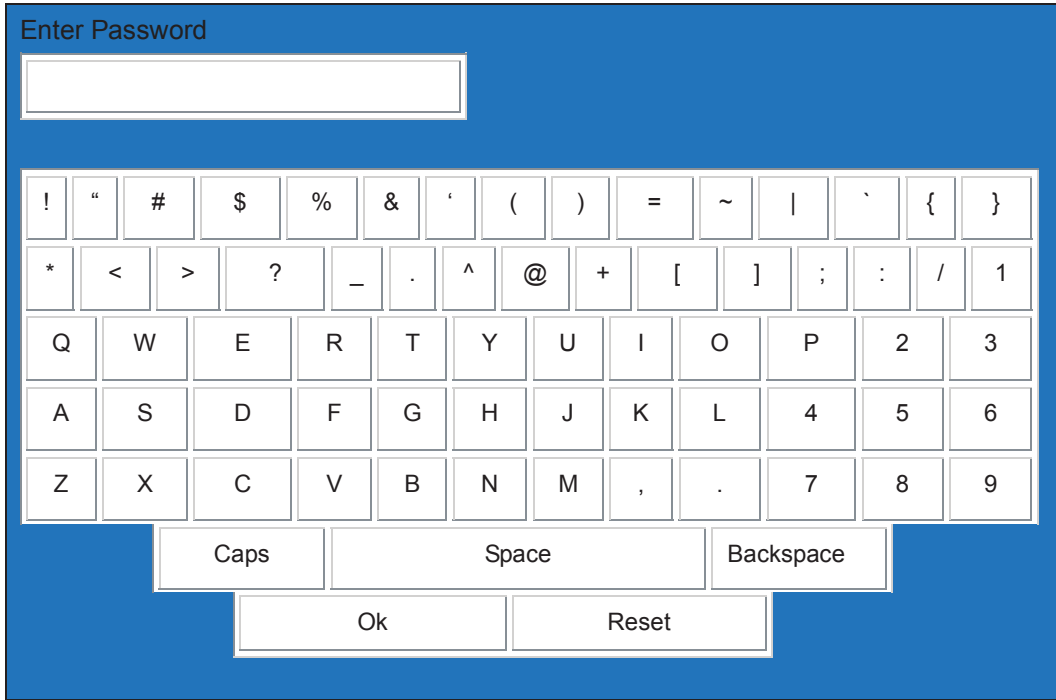
Fig.11-8

The screen for selecting items to be updated is displayed after approx. 3 minutes.
On this screen, the current firmware version of this equipment and the firmware version of data to be updated are displayed.

```
Firmware Update Mode            System Firmware Version: x.x.x.x
                                Update Mode         : USB Update

Update Status                   Updater Version     Installed Version

  1. SYSTEM FIRMWARE(OS Data)   xxxxxxxxxxxx        xxxxxxxxxxxx
  2. ENGINE FIRMWARE            xxxxxxx.xxx         xxxxxxx.xxx
  3. SCANNER FIRMWARE           xxxxxxxxxxxx        xxxxxxxxxxxx
  4. SYSTEM SOFTWARE(HD Data)   xxxxxxxxxxxx        xxxxxxxxxxxx
       * FILE SYSTEM SOFTWARE   xxxxxxxxxxxx        xxxxxxxxxxxx
       * APPLICATION SOFTWARE   xxxxxxxxxxxx        xxxxxxxxxxxx
  5. RADF FIRMWARE              xxxxxxxx.xxx        xxxxxxxx.xxx
  6. PFC FIRMWARE
  7. PUNCH FIRMWARE
  8. SADDLE FIRMWARE
  9. FINISHER FIRMWARE
```

Fig.11-9

Notes:
- The display of items on this screen varies depending on the types of data written on the USB device. Each item is displayed only when each data file is written on the USB device in the following conditions.

Item	Condition
1. SYSTEM FIRMWARE (OS Data)	<20ppm/25ppm: When only SSD is mounted.> T210SF0Wxxxx.tar is written. <20ppm/25ppm: When HDD is mounted.> T210SF0Wxxxx.tar is written. <LL20ppm/LL25ppm> T230SF0Wxxxx.tar is written. (xxxx is version.)
2. ENGINE FIRMWARE	T210MWW.xxx is written. (xxx is version.)
3. SCANNER FIRMWARE	T210SLGWW.xxx is written. (xxx is version.)
4. SYSTEM SOFTWARE (HD Data)	<20ppm/25ppm: When only SSD is mounted.> T210HD0Wxxxx.tar is written. <20ppm/25ppm: When HDD is mounted.> T569HD0Wxxxx.tar is written. <LL20ppm/LL25ppm> T230HD0Wxxxx.tar is written. (xxxx is version.)
5. RADF FIRMWARE	H546DFWW.0xxx is written. (When MR-3024 is connected) * xxx is version.
6. PFC FIRMWARE	T210FWW.xxx is written. (When GH-1080 is connected) * xxx is version.
7. PUNCH FIRMWARE	PUN6008T.xxx is written. (When MJ-6008 is connected.) * xxx is version.
8. SADDLE FIRMWARE	This item is unused.
9. FINISHER FIRMWARE	FIN1036T.xxx is written. (When MJ-1036 is connected.) FIN1037T.xxx is written. (When MJ-1037 is connected.) * xxx is version.

- If the USB device is not recognized properly, "USB device Not detected" message is displayed. In this case, disconnect the USB device and connect again within 3 minutes, or shut down the equipment and connect the device properly. Then repeat the procedure from (4).
- If any of the error messages below is displayed, confirm if the data file in the USB device is correct. Then repeat the procedure from (4).

Error number	Error message	Cause
01	Error Loadmodule	Module loading failed.
02	Machine Model Get Error	Model information was not downloaded.
03	Copy Data with valid signature in USB Storage	Checking of data file failed.
04	Other models ROMDATA TXXXXXXXX * The version name comes at "xxxx.xxx.x".	Master data of other model are stored.
05	Copy Signature File in USB Storage	Data files are not stored in the USB device.

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FIRMWARE UPDATING

Error number	Error message	Cause
06	Patch and Normal package in one folder of USB Storage	When both the system and patch update packages are in the USB device

(6)   Select the item with the digital keys.
"*" is displayed next to the selected item. Display or delete the "*" by pressing the number of the item.

Item	Remarks
1. SYSTEM FIRMWARE(OS Data)	Updating System firmware
2. ENGINE FIRMWARE	Updating Engine firmware
3. SCANNER FIRMWARE	Updating Scanner firmware
4. SYSTEM SOFTWARE (HD Data)	Updating System software
5. RADF FIRMWARE	Updating RADF firmware
6. PFC FIRMWARE	Updating PFC firmware
7. PUNCH FIRMWARE	Updating Punch firmware
8. SADDLE FIRMWARE	Updating Saddle firmware (Not used)
9. FINISHER FIRMWARE	Updating Finisher firmware

(7)   Press the [START] button.
Updating starts and the processing status is displayed on the LCD screen.

Status display during update	Status display when update is completed
SYSTEM FIRMWARE(OS Data) update in progress	SYSTEM FIRMWARE(OS Data) Completed
ENGINE FIRMWARE update in progress	ENGINE FIRMWARE Completed
SCANNER FIRMWARE update in progress	SCANNER FIRMWARE Completed
SYSTEM SOFTWARE (HD Data) update in progress	SYSTEM SOFTWARE (HD Data) Completed
RADF FIRMWARE update in progress	RADF FIRMWARE Completed
PFC FIRMWARE update in progress	PFC FIRMWARE Completed
PUNCH FIRMWARE update in progress	PUNCH FIRMWARE Completed
FINISHER FIRMWARE update in progress	FINISHER FIRMWARE Completed

(8)   "Update successfully completed Restart the MFP" is displayed at the bottom of the LCD screen after the updating is completed properly.

```
 Firmware Update Mode                System Firmware Version: x.x.x.x
                                      Update Mode            : USB Update

 Update Status

  *1.  SYSTEM FIRMWARE(OS Data)             Completed
  *2.  ENGINE FIRMWARE                      Completed
  *3.  SCANNER FIRMWARE                     Completed
  *4.  SYSTEM SOFTWARE(HD Data)             Completed
         * FILE SYSTEM SOFTWARE            Completed
         * APPLICATION SOFTWARE            Completed
  *5.  RADF FIRMWARE                        Completed
  *6.  PFC FIRMWARE                         Completed
  *7.  PUNCH FIRMWARE                       Completed
  *8.  SADDLE FIRMWARE                      Completed
  *9.  FINISHER FIRMWARE                    Completed


 ⎛ Update successfully completed ⎞
 ⎝ Restart the MFP               ⎠
```

Fig.11-10

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FIRMWARE UPDATING

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Notes:
- "Update Failed." is displayed at the bottom of the LCD screen when the updating is not completed properly. "Failed" appears next to the failed item on the status display. Even though an update fails, do not turn the power OFF until other updates are finished. If "Update Failed" appears at the bottom of the screen, turn OFF the power and then check the following items. After confirming and clearing the problems, restart updating from the beginning.
  - Does the USB device meet the conditions to be used for updating?
  - Is the data file written properly on the USB device?
  - Is the USB device installed properly?
  - Do the USB device and equipment operate properly?
- The integrity check system is automatically operated before firmware updating when the SSD or HDD (GE-1220) is installed. During this operation, "Verifying Signature..." and "Progress: **%" are displayed on the control panel. When the check is completed properly, no message for notifying the success will appear and the firmware updating will start. If it fails, "Invalid Signature" and "Copy Data with >valid signature in USB" will be shown. In that case, firmware updating cannot be performed, so turn the power OFF and disconnect the USB device. Check that there is no abnormality in the firmware data, and reperform the update.
- When an system firmware (OS Data) update error or system software (HD Data) update error occurs, "Update Failed" or "Failed" appears on the screen and the error number appears next to the message.
  For details of each error, refer to the following tables.

System firmware update Error	
Error number	**Error content**
O01	FROM writing failed
O02	FROM verification error
O03	File operation error
O04	SRAM flag set error
O05	Electronic key data backup error
O06	Device error

System software update Error	
Error number	**Error content**
H01	File creation error
H02	File decompression error (Out of free disk space on the HDD/SSD at file extraction)
H03	Partition mount error
H04	Hard disk full error
H00	Other errors

- When an Engine firmware update error, Scanner firmware update error, RADF firmware update error, Punch firmware update error, Finisher firmware update error or PFC firmware update error occurs, "Update Failed" or "Failed" appears on the screen and the error number and error message appear next to the message. For details of each error, refer to the following tables.

Engine firmware update Error		
Error number	Error message	Error content
M01	Time out (When the download is requested)	Communication timeout (When the download is requested)
M02	Time out (When the download is written)	Communication timeout (When the download is written)
M03	Time out (When the download is finished)	Communication timeout (When the download is finished)
M04	Reception failed (When the download is requested)	Downloading request was denied. (When the download is requested)
M05	Deletion error (When the download is written)	Deletion error (When the download is written)
M06	Writing error (When the download is written)	Writing error (When the download is written)
M07	Checksum error (When the download is finished)	Checksum error (When the download is finished)
M08	Reception status code abnormality (When the download is requested)	Reception status code abnormality (When the download is requested)
M09	Reception status code abnormality (When the download is written)	Reception status code abnormality (When the download is written)
M10	Reception status code abnormality (When the download is finished)	Reception status code abnormality (When the download is finished)
M00	Other error	Other error

Scanner firmware update Error		
Error number	Error message	Error content
S01	Time out (When the download is requested)	Communication timeout (When the download is requested)
S02	Time out (When the download is written)	Communication timeout (When the download is written)
S03	Time out (When the download is finished)	Communication timeout (When the download is finished)
S05	Deletion error (When the download is written)	Deletion error (When the download is written)
S06	Writing error (When the download is written)	Writing error (When the download is written)
S08	Reception status code abnormality (When the download is requested)	Reception status code abnormality (When the download is requested)
S09	Reception status code abnormality (When the download is written)	Reception status code abnormality (When the download is written)
S10	Reception status code abnormality (When the download is finished)	Reception status code abnormality (When the download is finished)
S00	Other error	Other error

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RADF firmware update Error		
Error number	Error message	Error content
R01	Time out (When the download is requested)	Communication timeout (When the download is requested)
R02	Time out (When the download is written)	Communication timeout (When the download is written)
R03	Time out (When the download is finished)	Communication timeout (When the download is finished)
R05	Deletion error (When the download is written)	Deletion error (When the download is written)
R06	Writing error (When the download is written)	Writing error (When the download is written)
R08	Reception status code abnormality (When the download is requested)	Reception status code abnormality (When the download is requested)
R09	Reception status code abnormality (When the download is written)	Reception status code abnormality (When the download is written)
R10	Reception status code abnormality (When the download is finished)	Reception status code abnormality (When the download is finished)
R21	RADF Uninstallation	RADF not installed
R23	RADF Firmware model mismatch	RADF ROM for different model data connected
R00	Other error	Other error

PFC firmware update Error		
Error number	Error message	Error content
F01	Time out (When the download is requested)	Communication timeout (When the download is requested)
F02	Time out (When the download is written)	Communication timeout (When the download is written)
F03	Time out (When the download is finished)	Communication timeout (When the download is finished)
F04	Reception failed (When the download is requested)	Downloading request was denied. (When the download is requested)
F05	Deletion error (When the download is written)	Deletion error (When the download is written)
F06	Writing error (When the download is written)	Writing error (When the download is written)
F07	Checksum error (When the download is finished)	Checksum error (When the download is finished)
F08	Reception status code abnormality (When the download is requested)	Reception status code abnormality (When the download is requested)
F09	Reception status code abnormality (When the download is written)	Reception status code abnormality (When the download is written)
F10	Reception status code abnormality (When the download is finished)	Reception status code abnormality (When the download is finished)
F00	Other error	Other error

Punch firmware update Error		
Error number	Error message	Error content
U01	Time out (When the download is requested)	Communication timeout (When the download is requested)

Punch firmware update Error		
Error number	**Error message**	**Error content**
U02	Time out (When the download is written)	Communication timeout (When the download is written)
U03	Time out (When the download is finished)	Communication timeout (When the download is finished)
U04	Reception failed (When the download is requested)	Downloading request was denied. (When the download is requested)
U05	Deletion error (When the download is written)	Deletion error (When the download is written)
U06	Writing error (When the download is written)	Writing error (When the download is written)
U07	Checksum error (When the download is finished)	Checksum error (When the download is finished)
U08	Reception status code abnormality (When the download is requested)	Reception status code abnormality (When the download is requested)
U09	Reception status code abnormality (When the download is written)	Reception status code abnormality (When the download is written)
U10	Reception status code abnormality (When the download is finished)	Reception status code abnormality (When the download is finished)
U00	Other error	Other error

Finisher firmware update Error		
Error number	**Error message**	**Error content**
F01	Time out (When the download is requested)	Communication timeout (When the download is requested)
F02	Time out (When the download is written)	Communication timeout (When the download is written)
F03	Time out (When the download is finished)	Communication timeout (When the download is finished)
F04	Reception failed (When the download is requested)	Downloading request was denied. (When the download is requested)
F05	Deletion error (When the download is written)	Deletion error (When the download is written)
F06	Writing error (When the download is written)	Writing error (When the download is written)
F07	Checksum error (When the download is finished)	Checksum error (When the download is finished)
F08	Reception status code abnormality (When the download is requested)	Reception status code abnormality (When the download is requested)
F09	Reception status code abnormality (When the download is written)	Reception status code abnormality (When the download is written)
F10	Reception status code abnormality (When the download is finished)	Reception status code abnormality (When the download is finished)
F00	Other error	Other error

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(9)　Press the [ON/OFF] button to shut down the equipment, and then remove the USB device.

(10)　Perform the initialization of the updating data.
- Press the [ON/OFF] button while simultaneously holding down the [0] and [8] buttons.
- Key in "9030", and then press the [START] button.
- Press the [INITIALIZE] button.

[B]　Confirmation of the updated data

After the updating is completed, check each data version in the Setting Mode (08) to confirm that the data were overwritten properly.

[C]   Adjustment

Perform the adjustment of the equipment.

- Performing Image Quality Control (05-2742):
- Adjustment of Color Registration Control (05-4719):
- Automatic gamma adjustment <PPC> (05-7869) (using [4][FAX] test pattern):
- Automatic gamma adjustment < PRT > (05-8008) (using [70][FAX] test pattern):
- Automatic gamma adjustment <PRT> (05-8009) (using [230][FAX] test pattern):

[D] Display during the update

Update is performed in parallel as shown in the transition diagram below.

```
                        ┌──────────────────────────────┐
                        │  Item Selection Screen for Update │
                        └──────────────────────────────┘

 ─[System firmware]─   ─[Engine firmware]─   [Scanner firmware]   [System software]   [RADF firmware]   [Punch firmware]   ─[PFC firmware]─
 ┌──────────┐   ┌──────────┐   ┌──────────┐   ┌──────────┐   ┌──────────┐   ┌──────────┐   ┌──────────┐
 │1. SYSTEM │   │2. ENGINE │   │3.SCANNER │   │4. SYSTEM │   │5. RADF   │   │7. PUNCH  │   │6. PFC    │
 │FIRMWARE  │   │FIRMWARE  │   │FIRMWARE  │   │SOFTWARE  │   │FIRMWARE  │   │FIRMWARE  │   │FIRMWARE  │
 │(OS Data) │   │          │   │          │   │(HD Data) │   │          │   │          │   │          │
 └──────────┘   └──────────┘   └──────────┘   └──────────┘   └──────────┘   └──────────┘   └──────────┘

                                                                          ─[Saddle firmware]─
                                                                          ┌──────────┐
                                                                          │8. SADDLE │
                                                                          │FIRMWARE  │
                                                                          └──────────┘

                                                                          ─[Finisher firmware]─
                                                                          ┌──────────┐
                                                                          │9. FINISHER│
                                                                          │FIRMWARE  │
                                                                          └──────────┘

                        ┌──────────────────────────────┐
                        │       Update Completed        │
                        └──────────────────────────────┘
```

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FIRMWARE UPDATING

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During the update, "Update in progress" is displayed on the right of each item. After it is completed, "Completed" is displayed there. Example screens of the system firmware update are as follows, and these are the same for other firmware.

```
Firmware Update Mode                System Firmware Version: x.x.x.x
                                    Update Mode            : USB Update

Update Status

 *1. SYSTEM FIRMWARE(OS Data)       ╭─────────────────╮
  2. ENGINE FIRMWARE                │ Update in progress │
  3. SCANNER FIRMWARE               ╰─────────────────╯
  4. SYSTEM SOFTWARE(HD Data)
      * FILE SYSTEM SOFTWARE
      * APPLICATION SOFTWARE
  5. RADF FIRMWARE
  6. PFC FIRMWARE
  7. PUNCH FIRMWARE
  8. SADDLE FIRMWARE
  9. FINISHER FIRMWARE

OS Update Status
     Updating FROM...(xx%)
```

```
Firmware Update Mode                System Firmware Version: x.x.x.x
                                    Update Mode            : USB Update

Update Status

 *1. SYSTEM FIRMWARE(OS Data)       ╭──────────╮
  2. ENGINE FIRMWARE                │ Completed │
  3. SCANNER FIRMWARE               ╰──────────╯
  4. SYSTEM SOFTWARE(HD Data)
      * FILE SYSTEM SOFTWARE
      * APPLICATION SOFTWARE
  5. RADF FIRMWARE
  6. PFC FIRMWARE
  7. PUNCH FIRMWARE
  8. SADDLE FIRMWARE
  9. FINISHER FIRMWARE

Update successfully completed
Restart the MFP
```

Fig.11-11

11.2 Patch Updating with USB Device

System firmware and System software can be updated in a shorter time than normal update using the data file for the patch update.

Notes:
    When performing the update, use the latest program.

Firmware type and data file name for patch updating
Equipment

Firmware	Stored	Data file name	Display
System firmware	System control PC board (SYS board)	<20ppm/25ppm: When only SSD is mounted.> T210SFPWxxxx.tar <20ppm/25ppm: When HDD is mounted.> T569SFPWxxxx.tar <LL20ppm/LL25ppm> T230SFPWxxxx.tar * xxxx is version.	SYSTEM FIRMWARE(OS Data)
System software	SSD / HDD	<20ppm/25ppm: When only SSD is mounted.> T210HDPWxxxx.tar <20ppm/25ppm: When HDD is mounted.> T569HDPWxxxx.tar <LL20ppm/LL25ppm)> T230HDPWxxxx.tar * xxxx is version.	SYSTEM SOFTWARE (HD Data)

Store the data file for patch updating in the model specific folder.
20ppm/25ppm, SSD only

Model specific folder name	2050C_5050C

```
USB media
     │
     └── 2050C_5050C
              ├── T210SFPWxxxx.tar
              ├── T210HDPWxxxx.tar
              └── signarture.L.sig
```
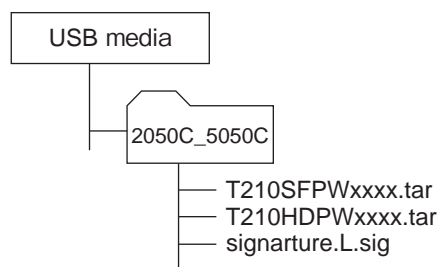
Fig.11-12

20ppm/25ppm, HDD is mounted

Model specific folder name	2050C_5050C

```
┌─────────────┐
│  USB media  │
└─────────────┘
       │
     ┌─────────────┐
  ───│ 2050C_5050C │
     └─────────────┘
           ├── T210SFPWxxxx.tar
           ├── T569HDPWxxxx.tar
           └── signarture.LH.sig
```
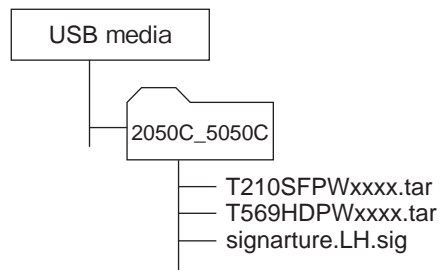
Fig.11-13

LL20ppm/LL25ppm

Model specific folder name	2050C_5050C

```
┌─────────────┐
│  USB media  │
└─────────────┘
       │
     ┌─────────────┐
  ───│ 2050C_5050C │
     └─────────────┘
           ├── T230SFPWxxxx.tar
           ├── T230HDPWxxxx.tar
           └── signarture.LL.sig
```
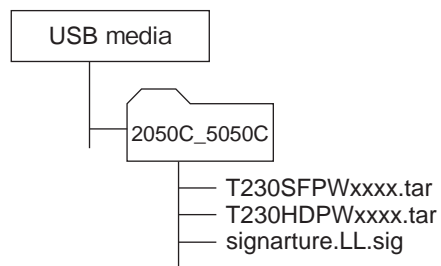
Fig.11-14

Notes:
- Since the date and time set in the equipment are recorded in the firmware update log, make sure that they are correct before updating the firmware.
- Never change the model specific folder name, since it is used for identifying the data file when the data files used for updating multiple models are stored in the USB device.

Important:
- Only the USB devices which meet the following conditions should be used for updating. Be careful since updating with any device other than the above is never guaranteed.
  - A combination USB device with a flash memory (to be connected directly to the USB port) and its capacity is 1GB or more.
  - Operation of the USB device used for updating has been confirmed at the input check of this equipment (Test mode 03). (📖 P. 5-8 "5.3 Input check (Test mode 03)")
  - USB devices which comply with the following standards regulated by USB-IF (USB Implementers Forum)
    Class number: 8 (=08h) (Mass-storage class)
    Sub-class number: 6 (=06h) (SCSI transfer command set)
    Protocol number: 80 (=50h) (Bulk-Only)
  - * Most common USB devices comply with the specification above and can be used for updating. However, the operation in all the Multi Functional Digital Color Systems and Multi Functional Digital Systems is not necessarily guaranteed since the most of these devices are developed based on use in a PC environment (Windows or Macintosh). Therefore, check thoroughly that the device is operational in the equipment for which the updating will be performed when purchasing it.
- The USB devices complying with USB2.0 can be used for updating.
- Do not update the firmware by any storage device other than a flash memory (such as a USB connection type memory card reader, CD/DVD drive or hard disk), since it is never guaranteed.
- It is possible to store the model specific update program and the data file for updating directly in the root directory when you store the updating data file for one specific model in the USB device. However, if the model specific folder for the same model as that of the data file stored in the root directory already exists, this will have priority.

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11.2.1 System firmware / System software

Important:

- The file system of USB device should be formatted in the FAT or FAT32 format. Be careful since the devices formatted in NTFS or other format will not be able to be operated. The file system can be confirmed on the device properties in applications such as Explorer of Windows.
- Never shut down the equipment during the update. Firmware data and the following option data (if installed) could be damaged and may not be able to be operated properly.
  - Data Overwrite Enabler (GP-1070)
  - Meta Scan Enabler (GS-1010)
  - External Interface Enabler (GS-1020)
  - IPSec Enabler (GP-1080)
  - Hardcopy Security kit (GP-1190A)

[A] Update procedure

(1) Connect the USB device to the PC and write the model specific folder in which the data file is stored.
Store the data file for updating in the model specific folder.

(2) Press the [ON/OFF] button on the control panel to shut down the equipment.

(3) Connect the USB device [1] to the USB port [2] on the right upper cover.

Fig.11-15

(4) Press the [ON/OFF] button while simultaneously holding down the [4] and [9] buttons.
Data in the USB device are checked and the checking status is displayed on the screen.

(5) Enter the password, and then press the [OK] button.
(If the password is not set for Service, press the [OK] button without entering anything.)

Enter Password

```
┌─────────────────────────────────────────────────────┐
│                                                       │
└─────────────────────────────────────────────────────┘
```

!	"	#	$	%	&	'	(	)	=	~	|	`	{	}
*	<	>	?	_	.	^	@	+	[	]	;	:	/	1
Q	W	E	R	T	Y	U	I	O	P			2	3	
A	S	D	F	G	H	J	K	L			4	5	6	
Z	X	C	V	B	N	M	,	.			7	8	9	

Caps	Space	Backspace

Ok	Reset
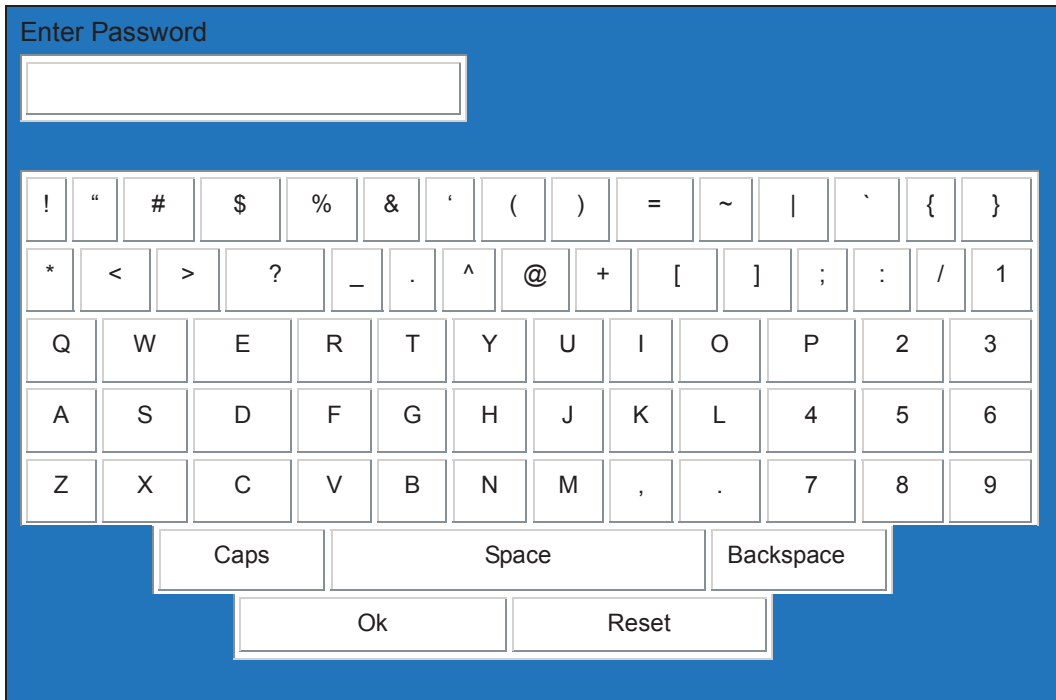
Fig.11-16

The screen for selecting items to be updated is displayed after approx. 3 minutes.
On this screen, the current firmware version of this equipment and the firmware version of data to be updated are displayed.

```
┌─────────────────────────────────────────────────────────────────┐
│  Firmware Update Mode          System Firmware Version: x.x.x.x   │
│                                Update Mode           : USB Update │
│                                                                   │
│  Update Status                 Updater Version      Installed Version │
│                                                                   │
│    1. SYSTEM FIRMWARE(OS Data)   T210SFPWxxxx.tar    T210SFPWxxxx.tar │
│    2. SYSTEM SOFTWARE(HD Data)   T210HDPWxxxx.tar    T210HDPWxxxx.tar │
│                                                                   │
│                                                                   │
│                                                                   │
│                                                                   │
│                                                                   │
└─────────────────────────────────────────────────────────────────┘
```

Fig.11-17

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Notes:
- The display of items on this screen varies depending on the types of data written on the USB device. Each item is displayed only when each data file is written on the USB device in the following conditions.

Item	Condition
1. SYSTEM FIRMWARE(OS Data)	<20ppm/25ppm: When only SSD is mounted.> T210SFPWxxxx.tar is written. <20ppm/25ppm: When HDD is mounted.> T569SFPWxxxx.tar is written. <LL20ppm/LL25ppm> T230SFPWxxxx.tar is written. (xxxx is version.)
2. SYSTEM SOFTWARE (HD Data)	<20ppm/25ppm: When only SSD is mounted.> T210HDPWxxxx.tar is written. <20ppm/25ppm: When HDD is mounted.> T569HDPWxxxx.tar is written. <LL20ppm/LL25ppm> T230HDPWxxxx.tar is written. (xxxx is version.)

- If the USB device is not recognized properly, "USB device Not detected" message is displayed. In this case, disconnect the USB device and connect again within 3 minutes, or shut down the equipment and connect the device properly. Then repeat the procedure from (4).
- If any of the error messages below is displayed, confirm if the data file in the USB device is correct. Then repeat the procedure from (4).

Error number	Error message	Cause
01	Error Loadmodule	Module loading failed.
02	Machine Model Get Error	Model information was not downloaded.
03	Copy Data with valid signature in USB Storage	Checking of data file failed.
04	Other models ROMDATA TXXXXXXXX * The version name comes at "xxxx.xxx.x".	System software of other model are stored.
05	Copy Signature File in USB Storage	Data files are not stored in the USB device.
06	Patch and Normal package in one folder of USB Storage	When both the system and patch update packages are in the USB device

(6) Select the item with the digital keys.
"*" is displayed next to the selected item. Display or delete the "*" by pressing the number of the item.

Item	Remarks
1. SYSTEM FIRMWARE(OS Data)	Updating System firmware (OS Data).
2. SYSTEM SOFTWARE (HD Data)	Updating System software (HD Data).

(7) Press the [START] button.
Updating starts and the processing status is displayed on the LCD screen.
The follow screen shows the display when selecting "1. SYSTEM FIRMWARE (OS Data)" in the
update selection menu. "Update in progress" is displayed on the right side of the selected item,
and then "Verifying Signature..." appears.

```
Firmware Update Mode              System Firmware Version : x.x.x.x
                                  Update Mode             : USB Update

Update Status

 *1. SYSTEM FIRMWARE(OS Data)      ┌──────────────────┐
  2. SYSTEM SOFTWARE(HD Data)      │ Update in progress │
                                   └──────────────────┘





Progress : xx%
```



```
Firmware Update Mode              System Firmware Version : x.x.x.x
                                  Update Mode             : USB Update

Update Status

 *1. SYSTEM FIRMWARE(OS Data)      ┌──────────────────┐
  2. SYSTEM SOFTWARE(HD Data)      │ Verfying Signature... │
                                   └──────────────────┘





Progress : xx%
```

Fig.11-18

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(8) "Patch Update Successful Restart the MFP" is displayed at the bottom of the LCD screen after the updating is completed properly.

```
┌─────────────────────────────────────────────────────────────────┐
│  Firmware Update Mode              System Firmware Version: x.x.x.x │
│                                    Update Mode          : USB Update │
│  Update Status                                                     │
│                                                                    │
│  *1. SYSTEM FIRMWARE(OS Data)         Completed                   │
│   2. SYSTEM SOFTWARE(HD Data)                                     │
│                                                                    │
│                                                                    │
│                                                                    │
│                                                                    │
│   ┌──────────────────────────┐                                    │
│   │ Patch Update Successful  │                                    │
│   │ Restart the MFP          │                                    │
│   └──────────────────────────┘                                    │
└─────────────────────────────────────────────────────────────────┘
```

Fig.11-19

Notes:

- "Update Failed." is displayed at the bottom of the LCD screen when the updating is not completed properly. "Failed" appears next to the failed item on the status display. Even though an update fails, do not turn the power OFF until other updates are finished. If "Update Failed" appears at the bottom of the screen, turn OFF the power and then check the following items. After confirming and clearing the problems, restart updating from the beginning.
  - Does the USB device meet the conditions to be used for updating?
  - Is the data file written properly on the USB device?
  - Is the USB device installed properly?
  - Do the USB device and equipment operate properly?
- When an System firmware (OS Data) update error or System software (HD Data) update error occurs, "Update Failed" or "Failed" appears on the screen and the error number appears next to the message.
  For details of each error, refer to the following tables.

System firmware (OS Data) update Error	
Error number	**Error content**
O01	FROM writing failed
O02	FROM verification error
O03	File operation error
O04	SRAM flag set error
O05	Electronic key data backup error
O06	Device error

System software (HD Data) update Error	
Error number	**Error content**
H01	File creation error
H02	File decompression error
H03	Partition mount error
H00	Other errors

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(9) Press the [ON/OFF] button to shut down the equipment, and then remove the USB device.

[B] Confirmation of the updated data

After the updating is completed, check each data version in the Setting Mode (08) to confirm that the data were overwritten properly.

📖 P. 11-38 "11.5 Confirmation of the updated data"

11.3 Firmware Updating with PWA-DWNLD-JIG2F

The data to be overwritten by this update are as follows.
Update the ROM data written on system control PC board according to the need such as the case of replacing the system control PC board.

Equipment

Firmware	Stored
System firmware	System control PC board (SYS board)

PWA-DWNLD-JIG2F (48MB)
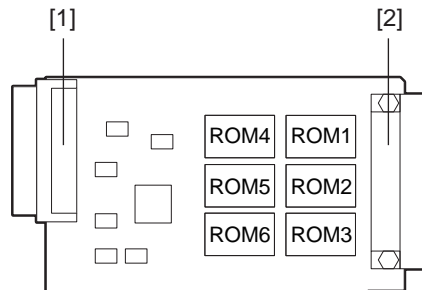
Fig.11-20

[1] Connector (for SYS board connection)
[2] Connector (for ROM writer adapter connection)

Important:

The download jig (PWA-DWNLD-JIG2F) is the jig in which the Flash ROM is mounted on the board directly. Therefore, ROM writer adapter (PWA-DL-ADP-350) is required to write the data to these Flash ROMs. Refer to the following to write the data.

Remarks: Useable jigs

Download jigs for this equipment are as follows:

No	Type of jig	ROM capacity	Remarks
1	PWA-DWNLD-JIG1F	16MB	
2	PWA-DWNLD-JIG2F	48MB	
3	PWA-DWNLD-JIG1	16MB	Requires a relay board
4	PWA-DWNLD-JIG2	48MB	Requires a relay board

*Jigs No. 3 and 4 above can be used if a relay board is installed together even though the shape of their connectors differ.
* Relay board: PWA-DWNLD-RELAY-50F

11.3.1   Writing the data to the download jig (PWA-DWNLD-JIG2F)

The download jig (PWA-DWNLD-JIG2F) is that in which the Flash ROM is mounted on the board directly. The ROM writer adapter (PWA-DL-ADP-350) is required to write data to these Flash ROMs. Connect the download jig with the ROM writer via ROM writer adapter to write data. For the procedure to write data, refer to the downloading procedure, instruction manual of each ROM writer, or other sources.
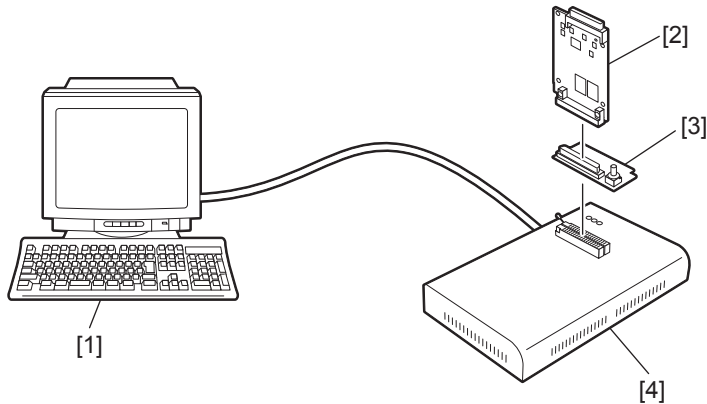
Fig.11-21

[1] PC
[2] Download jig (PWA-DWNLD-JIG2F)
[3] ROM writer adapter (PWA-DL-ADP-350)
[4] ROM writer

Notes:
There are two types of the ROM writer adapter. Use the proper one according to the ROM writer to be used. Applicable type of the adapter for the ROM writer can be confirmed by the model name indicated on the board. Confirm that the adapter is available for the ROM writer to be used before connecting them. If an unapplied adapter is connected, the application of the ROM writer judges it as an error and writing the data cannot be implemented. Applicable combinations of the ROM writer and adapter are as follows.

ROM writer	ROM writer adapter
Minato Electronics MODEL 1881XP/ 1881UXP (or equivalent)	PWA-DL-ADP-350-1881 (model 1881)
Minato Electronics MODEL 1893/1895/ 1931/1940 (or equivalent)	PWA-DL-ADP-350-1931-LV640 (model 1931)
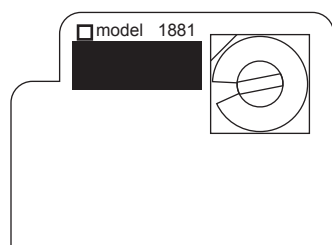
[PWA-DL-ADP-350-1881]

Fig.11-22
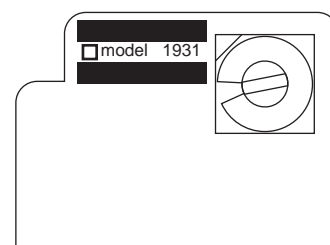
[PWA-DL-ADP-350-1931-LV640]

Fig.11-23

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[A] Precautions when writing the System firmware data

- Set the writing voltage (VID) to 3.3 V.
  When an error appears while the data are being written to the download jig, set the writing voltage (VID) to 12 V and then write them.
- When writing the data, set the address from 0 to 3FFFFF. The data may not be written correctly if it is not set.
- Load the data file into the buffer by means of the following settings.

Auto Format Detected	Binary
From File	Normal
To Buffer	Normal
From File Address	0
To Buffer Address	0
Buffer Size	800100
Clear Buffer Before Loading the file	Clear buffer with blank state

[A-1] System firmware

System firmware		
Rotary Switch	File Name	Flash ROM
1	weiss_jig_1.bin	ROM1
2	weiss_jig_2.bin	ROM2
3	N/A	ROM3
4	N/A	ROM4
5	N/A	ROM5
6	N/A	ROM6

Notes:

Be sure not to confuse different ROM Versions since the file name is identical although the ROM version is different.

11.3.2 System firmware

The system firmware can be updated individually by using PWA-DWNLD-JIG2F.

Important:
- Be sure to shut down the equipment before installing and removing the download jig.
- Do not shut down the equipment during the update. The data could be damaged and not be able to be operated properly.

[A] Update procedure

(1) Write the ROM data to be updated to the download jig (PWA-DWNLD-JIG2F).

(2) Press the [ON/OFF] button to shut down the equipment.

(3) Take off the rear cover.
📖 P. 4-5 "4.1.13 Rear cover"

(4) Take off the SYS board cover.
📖 P. 9-1 "9.1.1 SYS Board cover"

(5) Connect the download jig with the jig connector (CN104) on the SYS board.

(6) Turn the power ON by pressing the [ON/OFF] button while simultaneously holding down the [8] and [9] keys.

(7) Press the [Firmware Update] button, then press the [1] key to select "1.SYSTEM FIRMWARE(OS Data)".

(8) Confirm the item to be updated.
"=>" is displayed next to the selected item. Display or delete the "=>" by pressing the number of the item.

(9) Press the [START] button. Updating starts and the processing status is displayed on the LCD screen.

(10) "Update successfully completed." is displayed on the LCD screen after the updating is completed properly. Turn the power OFF by pressing the [ON/OFF] button.

Notes:
"Update Failed." is displayed at the bottom of the LCD screen when the updating is not completed properly. "Failed" appears next to the failed item on the status display. In this case, shut down the equipment and check the following items. Then clear the problems and restart updating from the beginning.
- Is the download jig connected properly?
- Is the updating data written to the download jig properly?
- Do the download jig and the equipment operate properly?

(11) Turn the power OFF using the main power switch, remove the download jig, and then install the SYS board cover and rear cover.

(12) Turn the power ON using the main power switch while holding down the [3] and [C] keys simultaneously.

(13) Press the [5] key to select " 5. Key Backup Restore", then press the [START] button.

(14) Restore the key and license data by following the steps below.
- Restore the key data by pressing the [1] key to select "1. Key SRAM to FROM", then press the [START] button.

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- If the state of "FROM Licence Status" is "KeyMismatch", restore the license data by pressing the [3] key to select "3. License SRAM to FROM ", then press the [START] button.
- If ADI-HDD is installed, restore the encryption key data by pressing the [5] key to select "5. ADIKey SRAM to FROM", then press the [START] button.

(15) Press the [ON/OFF] button to shut down the equipment.

(16) Initialize the updated data by following the steps below.
- Turn the power ON by pressing the [ON/OFF] button while holding down the [0] and [8] keys simultaneously.
- Key in "9030", and then press the [START] button.
- Press the [INITIALIZE] button.

[B] Confirmation of the updated data

After the updating is completed, check each data version in the Setting Mode (08) to confirm that the data was overwritten properly.

📖 P. 11-38 "11.5 Confirmation of the updated data"

11.4 Firmware Updating with K-PWA-DLM-320F

The firmware of the option (FAX ROM) can be updated individually by using K-PWA-DLM-320F. Update the ROM data written on each board according to the need such as the case of replacing the board.

Options

Model name	Firmware	Stored
FAX Unit (GD-1320)	FAX firmware	FAX board

K-PWA-DLM-320F
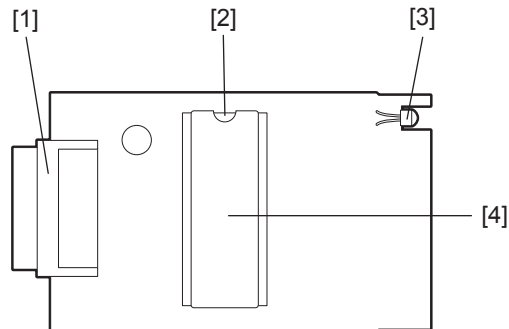
Fig.11-24

[1] Connector
[2] Mark for ROM installation direction
[3] LED
[4] ROM

Important:
Pay attention to the direction of the ROM.

Remarks: Useable jigs
Download jigs for this equipment are as follows:

No	Type of jig	Remarks
1	K-PWA-DLM-320F	
2	K-PWA-DLM-320	Requires a relay board

*Jig No. 2 above can be used if a relay board is installed together even though the shape of its connector differs.
* Relay board: PWA-DWNLD-RELAY-34F

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11.4.1 FAX unit firmware (GD-1320)

Important:
- Before updating the FAX firmware, make sure to print out the current Function list for maintenance, Function list (ADMIN), Address book list and Group number information. In case the updating is failed and the registered information of the users is lost for some reason, re-register the user information referring to the lists and recover it.
- Confirm the following items before turning OFF the power of the equipment. Turning OFF the power may clear the data below.
  - Confirm that the "MEMORY RX" LED is OFF and there are no memory reception data.
  - Press the [JOB STATUS] button to display the screen and then confirm that there are no memory transmission data.
  - Print the "Mailbox/Relay box report" and then confirm that there are no F code data.

[A] Update Procedure

(1) Install the ROM to the download jig (K-PWA-DLM-320F).
Make sure the direction is correct.

(2) Press the [ON/OFF] button to shut down the equipment.

(3) Remove the cover plate [1].
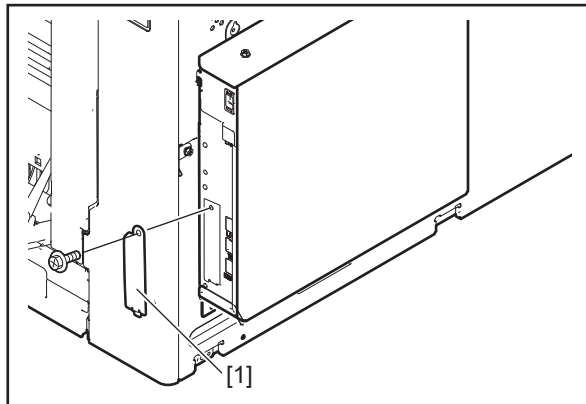
Fig.11-25

(4) Connect the download jig [1] with the jig connector [2] on the FAX board.
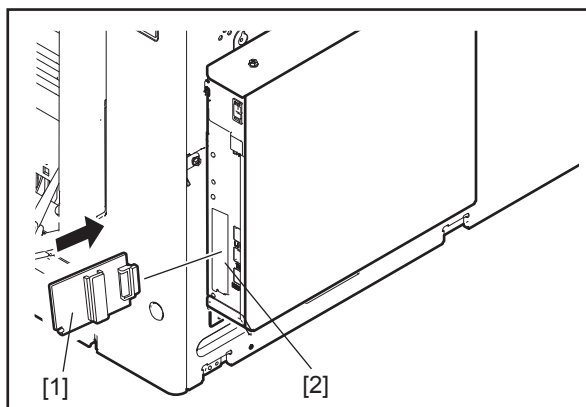
Fig.11-26

(5)　Press the [ON/OFF] button while simultaneously holding down the [0] and [8] buttons.
Updating starts automatically and the LED on the download jig lights.

(6)　After the update is completed properly, the LED on the download jig blinks.
The LED starts blinking approx. 30 sec. after the update starts. It is assumed that the update has failed if it does not start blinking even though 1 min. has passed. In this case, shut down the equipment and check the following items. Then clear the problems and restart updating from the beginning.
- Is the download jig connected properly?
- Is the ROM installed to the download jig properly?
- Is the updating data written on the ROM of the download jig properly?
- Do the download jig and the equipment operate properly?

(7)　Turn the power OFF using the main power switch on the right-hand surface of the equipment, remove the download jig, and then install the cover plate.

(8)　In the FAX Clearing Mode, perform the "FAX Set Up".
- Confirm the destination setting is correct in the Setting Mode (08).
  08-9000: Destination setting of the equipment
  08-9001: Destination setting of the FAX machine
- Turn ON the power while [1] button and [*] button are pressed simultaneously.
- Key in "100".
- Press the [START] button.

Notes:
If the equipment does not work properly after the operation (8), follow the procedure below and then perform the "Clearing the image data" in the FAX Clearing Mode to erase the image data in the memory.
- Confirm the destination setting is correct in the Setting Mode (08).
  08-9000: Destination setting of the equipment
  08-9001: Destination setting of the FAX machine
- Turn ON the power while [1] button and [*] button are pressed simultaneously.
- Key in "102".
- Press the [START] button.

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[B]　Confirmation of the updated data

After the updating is completed, check each data version in Setting Mode (08) to confirm that the data were overwritten properly.
📖 P. 11-38 "11.5 Confirmation of the updated data"

11.5 Confirmation of the updated data

After the updating is completed, check each data version in Setting Mode (08) to confirm that the data were overwritten properly.

Firmware	Code	Remarks
Updating System firmware	08-9930	System firmware version
Updating Engine firmware	08-9901	Engine firmware version
Updating Scanner firmware	08-9902	Scanner firmware version
Updating System software	08-8952	HD data external version
	08-9900	System software version
Updating PFC firmware	08-9940	PFC firmware version
Updating RADF firmware	08-9903	RADF firmware version
Updating Finisher firmware	08-9904	Finisher firmware version
	08-9944	Punch firmware version
Updating FAX firmware	08-9905	FAX firmware version

11.6 When Firmware Updating Fails

When the equipment was shut down during firmware updating or it could not be started after updating for some reason, perform firmware updating again following the procedure below.

11.6.1 Procedure

(1) Update "System firmware" of the system control PC board (SYS board) using the download jig (PWA-DWNLD-JIG2F).
Updating with the USB device becomes possible only after the "System firmware" has been updated.
See the updating procedure below for details.
📖 P. 11-30 "11.3 Firmware Updating with PWA-DWNLD-JIG2F"

(2) Update "System firmware", "Engine firmware", "Scanner firmware", "System software", RADF firmware", "Punch firmware", and "Finisher firmware" using the USB device.
See the updating procedure below for details.
📖 P. 11-5 "11.1 Firmware Updating with USB Device"

Important:

If the equipment cannot be started even when the above update has been performed, check that there is no damage to the "SYS board", or "LGC board". Replace them if necessary.

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FIRMWARE UPDATING

11.6.2　Flow chart for correcting USB update failure

[A]　When the update of the System firmware failed

```
                    ┌─────────────────────┐
                    │   USB update failed  │
                    └──────────┬──────────┘
                               │
                               ▼
                          ◇ Failed twice ◇──── NO ──►┌──────────────────────────────┐
                          ◇ or more?     ◇           │ Update USB.                  │
                               │                      │------------------------------│
                              YES                     │ 📖 " 11.1 Firmware Updating  │
                               │                      │    with USB media            │
                               ▼                      └──────────────────────────────┘
                    ┌──────────────────────────┐
                    │ Update download jig.      │
                    │---------------------------│
                    │ 📖 " 11.3.2 System        │
                    │    firmware "             │
                    └──────────┬───────────────┘
                               │
                               ▼
                          ◇ Update       ◇──── NO ──────────────────────┐
                          ◇ succeeded?   ◇                               │
                               │                                          │
                              YES                                         ▼
                               │                                   ◇ Failed twice ◇── NO ►
                               ▼                                   ◇ or more?     ◇
                    ┌──────────────────────────┐                        │
                    │ Check system firmware     │                       YES
                    │ version. (08-9930)        │                        │
                    │---------------------------│                        ▼
                    │ 📖 " 11.5 Confirmation of │             ┌──────────────────────┐
                    │    the updated data "     │             │ Replace SYS board.   │
                    └──────────┬───────────────┘             └──────────┬───────────┘
                               │                                          │
                               ▼                                          ▼
                    ◇ Is system firmware ◇── NO ──┐          ┌──────────────────────────────┐
                    ◇ version correct?   ◇         │          │ Update USB.                  │
                               │                   │          │------------------------------│
                              YES                  │          │ 📖 " 11.1 Firmware Updating  │
                               │                   │          │    with USB media            │
                               ▼                   │          └──────────────────────────────┘
                    ┌──────────────────────┐       │
                    │  Update completed     │       │
                    └──────────────────────┘       │
```

[B]   When the update of system software failed
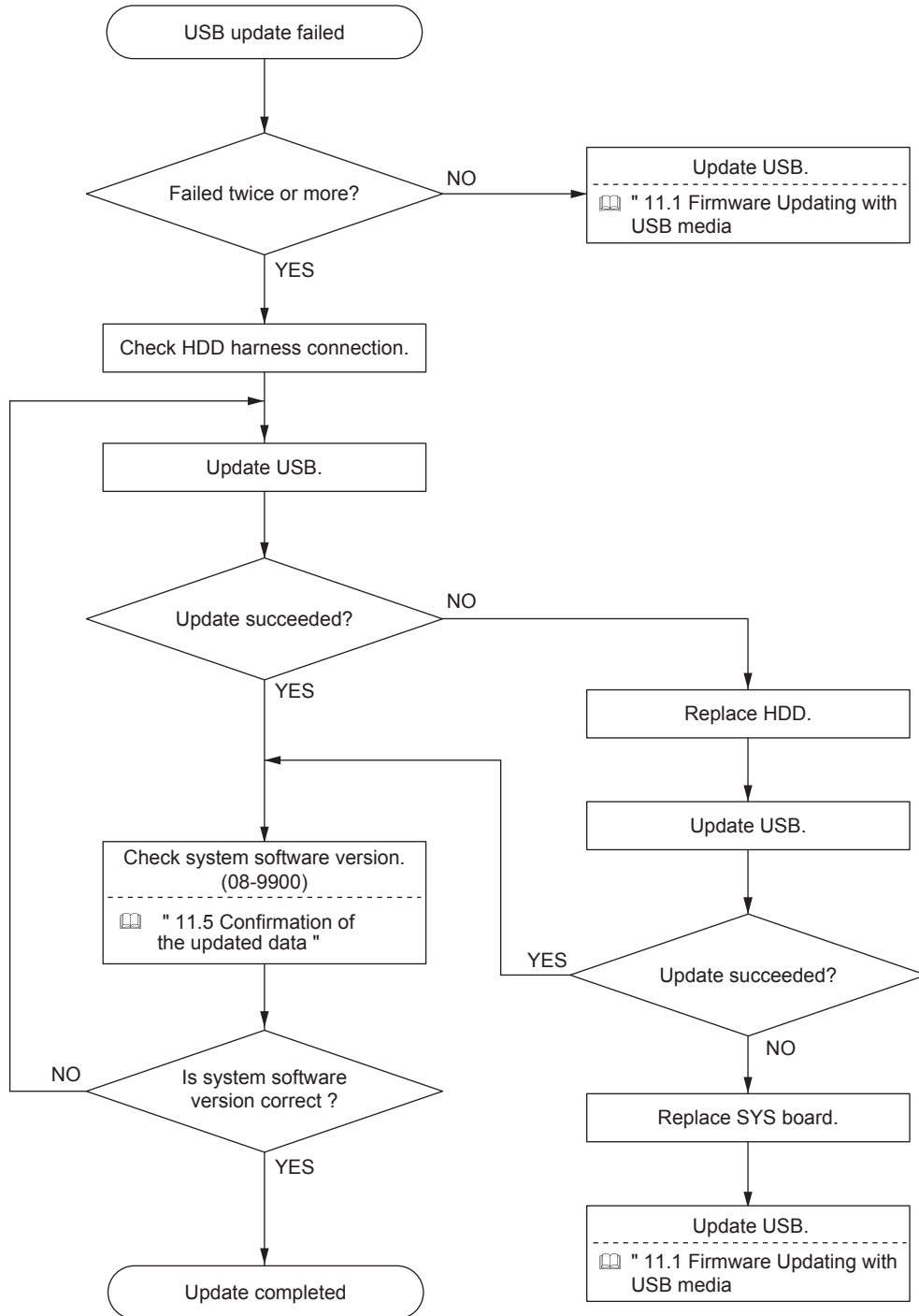
[C]   When the update of Engine firmware / Scanner firmware / PFC firmware / RADF firmware failed
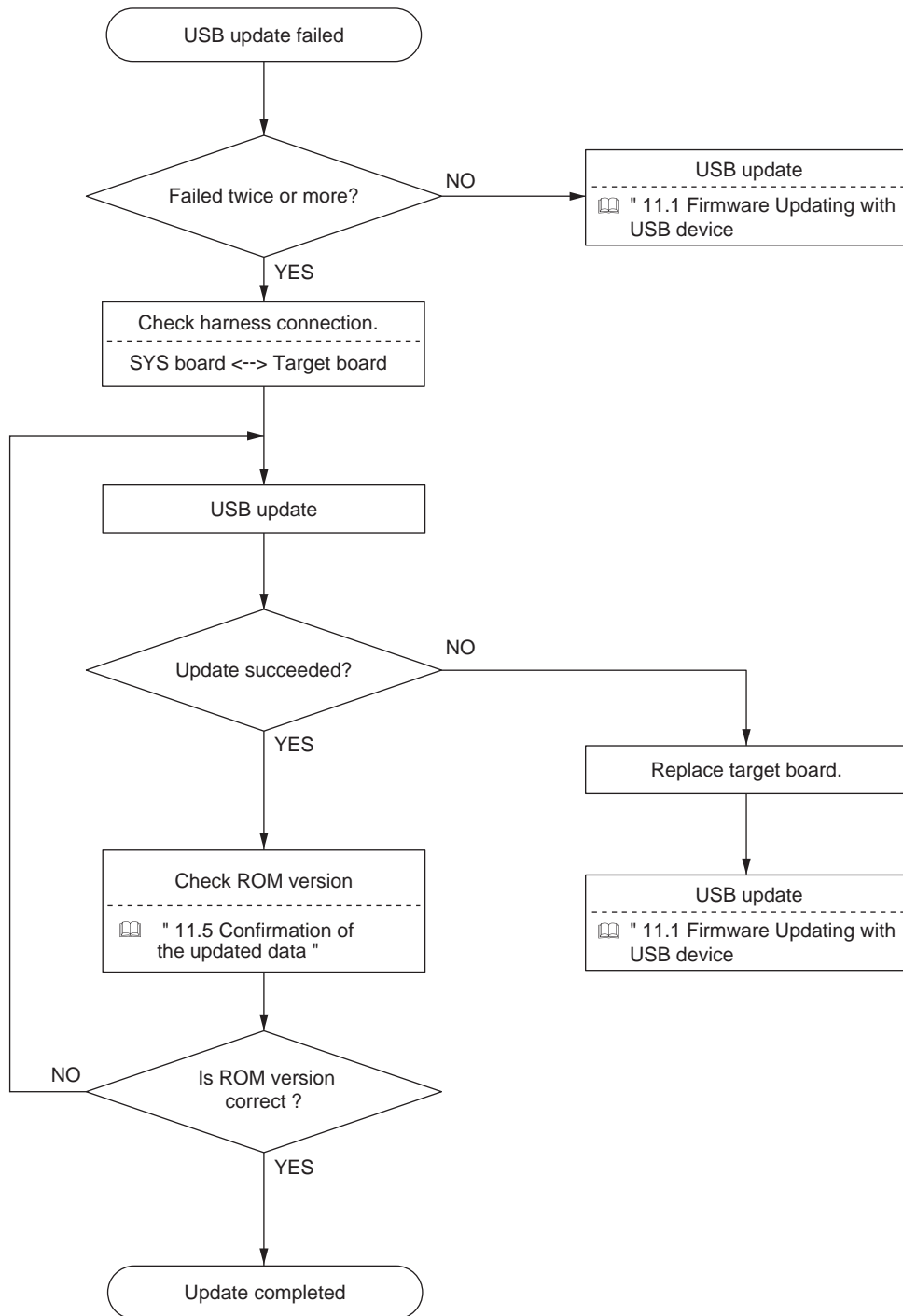
12. BACKUP FUNCTION

12.1 Data Cloning

12.1.1 General description

Data cloning is a function that backs up user data, setting data and SRAM data into a USB media and also restores these data into the equipment.
This function backs up or restores the data of the same equipment (same serial number), and is performed in the following cases.
   - When the SYS board and the SRAM board are mistakenly replaced at the same time
   - When the SRAM board is replaced

> **Notes:**
> The SYS board and SRAM board should never be replaced together.

12.1.2 Precautions

- In 20ppm/25ppm, pay attention to the following items since data files for cloning differ depending on whether an HDD is installed or not.
  - A data file, backed up with equipment in which an HDD has been installed, cannot be restored in one in which there is no HDD.
  - A data file, backed up with equipment in which an HDD has not been installed, cannot be restored in one which has an HDD.
- When the ADI-HDD (option) is initialized or replaced, back up the SRAM data afterwards.
- It is assumed that data cloning is to be performed when equipment is installed or options are installed. If the address book has been registered, do not perform restore. Registered / set data are lost.
- The USB media for the data cloning must meet the following conditions. A data cloning operation with any devices other than the following will not be guaranteed.
  - A combination USB media with a flash memory (to be connected directly to the USB port) and its capacity is 1GB or more.
  - A device compliant with the following specifications established by USB-IF (USB Implementers Forum)
    Class number: 8 (=08h)   (Mass storage class)
    Sub-Class number: 6 (=06h)   (SCSI transfer command set)
    Protocol number: 80 (=50h)   (Bulk-only)
    The USB media should be formatted in the FAT or FAT32. (Correct operation cannot be guaranteed if it is formatted in NTFS/exFAT.)
  - Most of the common USB medias are compliant with the above specifications and are therefore applicable to this data cloning. However, most of these devices were originally developed to be used in an environment for PCs (e.g. Windows or Macintosh) and thus operations exclusively with this equipment have not been fully guaranteed. Therefore, the user must thoroughly check in advance whether there will be any problem in operating with this equipment when adopting one of these devices.
- The USB medias compliant with both USB 1.1 and USB 2.0 can be used for this data cloning.
- Data cloning with any storage devices other than a flash memory (e.g. USB-connectable memory card reader, CD/DVD drive, hard disk) will never be guaranteed. Therefore never use them for this operation.
- Be sure to unplug the LAN cable and Fax line before data are backed up / restored. Also, do not use the RADF and open the cover, drawer, etc. during the data cloning.
- Data can be backed up / restored only for the same model and version. If the version is different, update the firmware and back up / restore data in the same version.
- Restore data to equipment which has the same options as when the data are backed up.
- Delete the backed up data in the USB media after the data cloning.

12.1.3 Backup files

The following files are saved in the root directory of the USB media by backing up.

Filename	Remark
Modelname_MFPSerialNo_yyyy-MM-dd_hh-mm	E.g.: When backup was performed at 13:59 on October 1st, 2010. <20ppm/25ppm : When only SSD is mounted.> T210_CUK911379_2010-10-01_13-59 <20ppm/25ppm : When HDD is mounted.> T569_CUK911379_2010-10-01_13-59 <LL20ppm/LL25ppm> T230_CUK911379_2010-10-01_13-59

12.1.4 Cloning procedure

[A] Backup procedure

(1) Press the [ON/OFF] button to shut down the equipment.

(2) Connect the USB media [1] to the USB port [2] on the right upper cover.
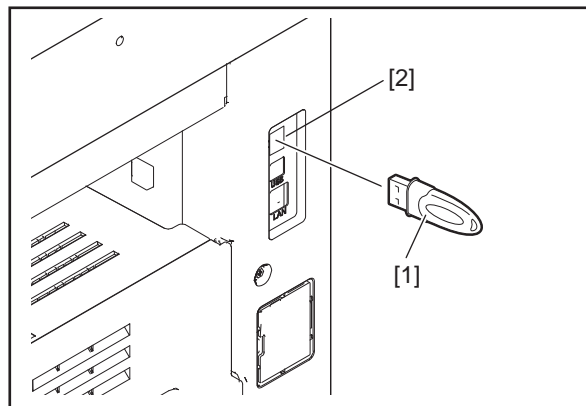
Fig.12-1

Notes:
Backing up cannot be performed with multiple USB media [1] connected at the same time.

(3) Turn the power ON while pressing [6] and the [CLEAR] button simultaneously.

(4) When "SRAM Clear Mode" appears on the LCD, key in [0] to select "0. Set Serial Number" and then press the [START] button.

(5) Key in the serial number on the label attached to the rear cover of the equipment, and then press the [OK] button.

(6) "Serial Number Setting completed" is displayed.

(7) Turn the power OFF.

(8) Turn the power ON while pressing the [5] and [9] buttons simultaneously.

(9) Enter the password, and then press the [OK] button.
(If the password is not set for Service, press the [ENTER] button without entering anything.)

(10) Select "1. Backup SRAM Data to USB", and then press the [START] button.

(11) Enter a password (max. 15 characters) set for the backup data.

(12) "Backup Successfully done Restore the MFP" is displayed on the LCD screen when the backup has been properly completed.

(13) Press the [ON/OFF] button to shut down the equipment.

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BACKUP FUNCTION

[B] Restore procedure

(1) Press the [ON/OFF] button to shut down the equipment.

(2) Connect the USB media [1] to the USB port [2] on the right upper cover.
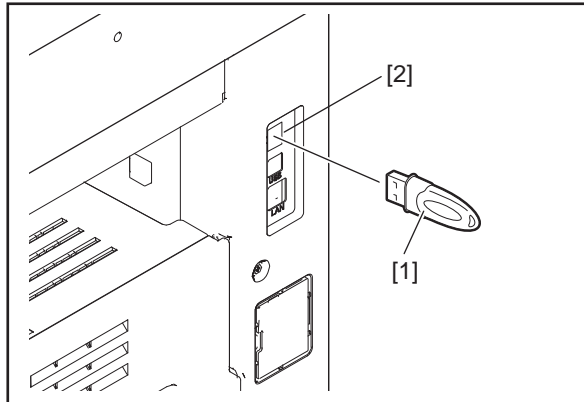
Fig.12-2

Notes:
    Backing up cannot be performed with multiple USB media [1] connected at the same time.

(3) Turn the power ON while pressing the [5] and [9] buttons simultaneously.

(4) If "3" is set for 08-8911, enter the password.

(5) Select "2. Restore SRAM Data from USB", and then press the [START] button.

(6) Enter the password (max. 15 characters) which has been set in (6) of "[A] Backup procedure".

(7) Enter the serial number for the backup file.

(8) "Restore successfully done Restart the MFP" is displayed on the LCD screen when the restoring has been properly completed.

(9) Press the [ON/OFF] button to shut down the equipment.

Notes:
- When the back-up file is restored, do not perform HDD partition creation (Format HDD) before the normal start-up.
- To perform cloning with the SRAM data backed up before the ADI-HDD is initialized or replaced, follow the procedure below after the restoration is finished.
  1. Turn the power ON while pressing [3] and the [CLEAR] button simultaneously.
  2. Enter the password, and then press the [OK] button.
     (If no password is set for Service, press the [OK] button without entering anything.)
  3. Key in [5] to select "5. Key Backup Restore", and then press the [START] button.
  4. Key in [6] to select "6. ADIKey FROM to SRAM", and then press the [START] button.
  5. Wait until the restoring of the encryption key is completed. "Operation Complete" is displayed.
  6. Then turn the power OFF.

[C] Confirmation of the error

"Backup Failed" or "Restore Failed" is displayed on the lower left part of the LCD screen when the data have not been properly backed up or restored.
Moreover, details of an error are displayed under the above message.
(The following is an example screen when "USB device not detected" is displayed.)

```
┌─────────────────────────────────────────────────────────────────┐
│ SRAM Data Cloning Mode            Firmware Version : x. x. x. x    │
│                                   Update Mode      : 59 Mode       │
├─────────────────────────────────────────────────────────────────┤
│ Select number (1-2) and press START key                          │
│                                                                   │
│    → 1: Backup SRAM Data from USB                                 │
│      2: Restore SRAM Data from USB                                │
│                                                                   │
│                                                                   │
│                                                                   │
│                                                                   │
├─────────────────────────────────────────────────────────────────┤
│                                                                   │
│                                                                   │
│  Backup Failed                                                    │
│  USB device not detected                                          │
│                                                                   │
└─────────────────────────────────────────────────────────────────┘
```

Fig.12-3

In this case, turn the power OFF and then check the following items. After confirming and solving the problem, back up / restore the data again from the beginning.
- Does the USB media meet the conditions being used for this cloning?
- Is the updated program file written on the USB media properly?
- Is the USB media installed properly?
- Is the USB media or the equipment damaged?

Backup	
Display content	**Error content**
USB device not detected	The USB media has not been installed.
SRAM Device Not Connected	The SRAM board (for the SYS board) has not been installed.
Backup not created	Creation of the Backup file of data of the SRAM board (for the SYS board) has been failed.
Encryption Failed	An encryption of the backup file has been failed.
password Not Appended to Backup	Addition of the encryption password has been failed.
MFP Serial Number Not Set	Acquisition of the MFP Serial No. has been failed.

Restore	
Display content	**Error content**
USB device not detected	The USB media has not been installed.
SRAM Device Not Connected	The SRAM board (for the SYS board) has not been installed.
Invalid Backup File	The SYS board has not been recognized.
No Backup File Exists	Backup file has not existed in the USB media.
Invalid password	An incorrect password has been entered.
Decryption Failed	Decoding of the backup file has been failed.

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BACKUP FUNCTION

Restore	
Display content	**Error content**
Invalid MFP Serial Number: xxxxxxxxx	An incorrect MFP Serial No. has been entered.
MFP Serial Number Not Set	Acquisition of the MFP Serial No. has been failed.
Backup File Corrupted	A backup file has been damaged.

12.2 AES Data Encryption Function Setting

12.2.1 General description

Data encryption is a function that encrypts data in the HDD or SSD to enhance the security.
Note that this function may affect the equipment performance.

12.2.2 Precautions

When the data encryption function is set enabled, data currently stored in the HDD or SSD will not be retrieved. Therefore when data encryption function needs to be enabled after the installation of the equipment, it is necessary to back up the data in the HDD or SSD before setting this function and then recover them after the setting.

- To ensure security, ask the user (machine administrator) to back up or restore the user's data and information in the HDD or SSD. A service technician can back up or restore them only when the user (machine administrator) permits it.
- Some data in the HDD or SSD cannot be backed up and can be left only on printouts.

When the data encryption function is enabled, the following items are restricted.
- 08-9112 (Auto Shut Off Mode timer setting (Sleep Mode)) is automatically set to "20: Not used".
- 08-9113 (Screen setting for automatic energy saver/automatic power OFF) is automatically set to "0: OFF".
- When the [ENERGY SAVER] button is pressed on the control panel, the equipment does not enter the sleep mode.
- Since the energy saver mode cannot be set using the control panel, set it in TopAccess. However, the setting of "Sleep/Auto Shut Off" cannot be changed in TopAccess and "Disable" is displayed.

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12.2.3 Setting procedure

A procedure for setting the data encryption function is shown below.

```
                        ┌──────────────────────────────────────────┐
                        │                  Start                    │
                        └──────────────────────────────────────────┘
                                           │
                        ┌──────────────────────────────────────────┐
                        │        [A] Back up data in HDD or SSD      │
                        └──────────────────────────────────────────┘
                                           │
                        ┌──────────────────────────────────────────┐
                        │   [B] Print out "FUNCTION  FOR MAINTENANCE" │
                        └──────────────────────────────────────────┘
                                           │
                        ┌──────────────────────────────────────────┐
                        │        [C] Print out "FUNCTION" list       │
                        └──────────────────────────────────────────┘
                                           │
                        ┌──────────────────────────────────────────┐
                        │            [D] Erase HDD or SSD            │
                        └──────────────────────────────────────────┘
                                           │
                        ┌──────────────────────────────────────────┐
                        │ [E] Reset user's setting item and restore data/information │
                        └──────────────────────────────────────────┘
                                           │
                        ┌──────────────────────────────────────────┐
                        │  [F] Reset "FUNCTION LIST FOR MAINTENANCE" │
                        └──────────────────────────────────────────┘
                                           │
                        ┌──────────────────────────────────────────┐
                        │          [G] Reset "FUNCTION" list         │
                        └──────────────────────────────────────────┘
                                           │
                        ┌──────────────────────────────────────────┐
                        │ [H] Check actuation of data encryption function setting │
                        └──────────────────────────────────────────┘
                                           │
                        ┌──────────────────────────────────────────┐
                        │             Setting completed             │
                        └──────────────────────────────────────────┘
```
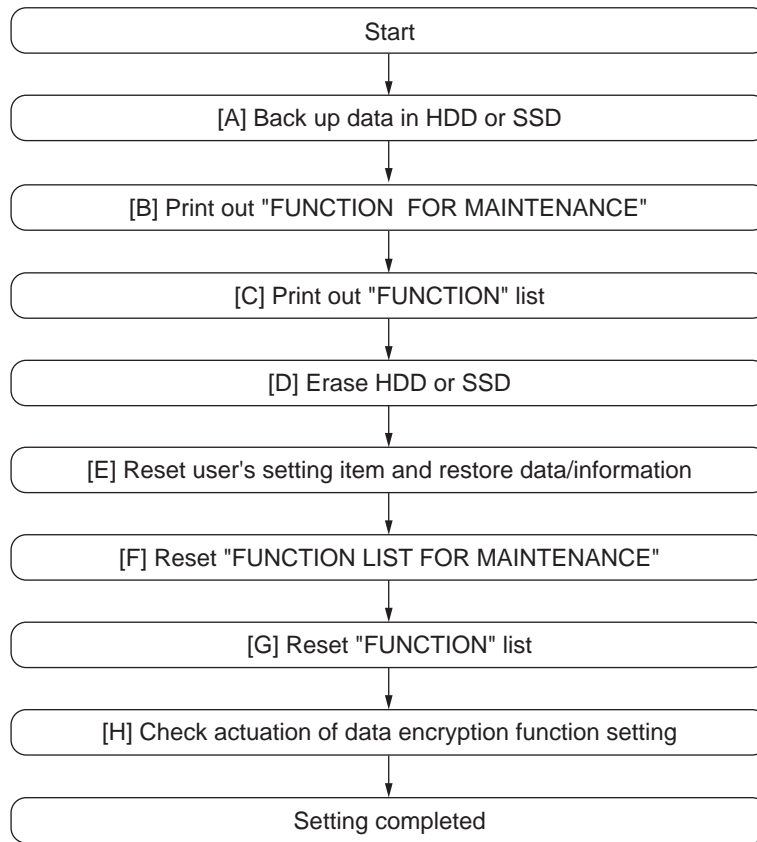
Fig.12-4

[A] Back up in HDD or SSD

Ask the user (machine administrator) to back up the data in the HDD or SSD. Refer to the table below for the type of data, availability and method of backup.

Type of data in HDD or SSD	Availability	Backup method
Image data in the e-Filing	SSD: Not available HDD: Available	Archive them in the "e-Filing" of TopAccess. As for the backup in Box data, all data (selectable by the box) can be backed up / restored in one go by using "e-Filing Backup/Restore Utility".
F-code information, Template registration information, Address book data	Available	Export them up in the "Administrator" menu of TopAccess.
Department management data	Available	Export them in "Administrator" menu of TopAccess.
Log data (Print, Scan, FAX (Transmission/Reception) / Message Log	Available	Export them in the "Log" menu of TopAccess. (Import cannot be performed.)
Data in the shared folder (Scanned data, Saved data of copy / FAX transmission)	SSD: Not available HDD: Available	Copy them to the client computer via the network. (The data which have been copied to the client computer cannot be copied to the shared folder.)
Role information	Available	Export role information on the TopAccess menus. [User Management] tab > [Export]
Print waiting data (Copying data and FAX reception data that are waiting to be printed due to the paper run-out and jam, etc.)	Not available	Finish printing them after the paper supply and the jam release, etc. (The data cannot be kept.)
Print job (Private print data, Schedule print data)	Not available	If any jobs are left, print them. (The data cannot be backed up.)
FAX saved data (Confidential / Bulletin board data)	Not available	Print them. (The data cannot be backed up.)
Registration data for FAX transmission (Delayed transmission / Recovery transmission)	Not available	Print them. (The data cannot be backed up.)

[B] Print out "FUNCTION LIST FOR MAINTENANCE"

 (1)   Enter the Service UI Mode. 📖 P. 5-5 "5.2 Service UI"

 (2)   Select "FAX LIST PRINT MODE" and then press [NEXT].

 (3)   Select "Function list for Maintenance" and then press [PRINT].

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[C] Print out "FUNCTION" list

(1) Press the [USER FUNCTIONS] button.

(2) Press the [ADMIN] button, enter the password, and then press the [ENTER] button.

(3) Press the [LIST/REPORT] button and then the [LIST] button.

(4) Press the [FUNCTION] button. The "FUNCTION" list is printed out.

Notes:
Explain the procedure to the user (machine administrator) and ask him/her to enter his/her password.

[D] Enable data encryption function

Perform the setting of the data encryption function in the code 08-9379. The setting values are shown below.

    0: Encryption disabled
    1: Encryption enabled (Security priority)
    2: Encryption enabled (Performance priority)

Security priority: All user data are encrypted.

Performance priority: Encryption data are generated only in a copying or a printing process temporarily. All user data except files which are deleted in a corresponding process are encrypted.

[E] Reset user's setting items and restore data/information

Ask the user (machine administrator) to reset the user's setting items and to restore data or information. Refer to the following for the reset and restore:

Items to reset/restore	Method
Printer driver	Upload them in the "Administrator" menu of TopAccess.
F-code information, Template registering information, Address book data	Restore them in the "Administrator" menu of TopAccess.
Department management data	Import them in the "Administrator" menu of TopAccess.
Image data in the e-Filing	Restore them in the "e-Filing" of the TopAccess.
Role information	Import role information on the TopAccess menus. [User Management] tab > [User Confirm/Create/Modify] > [Role Information]

Notes:
• When the SSL is enabled, perform the setting of the following items again with "Create self-certificate" of TopAccess.

    - Country Name
    - State or Province Name
    - Locality Name
    - Organization Name
    - Organizational Unit Name
    - Common Name
    - Email Address

• When wireless LAN is used, perform the setting again on the LCD panel. (only when security with a certificate is used) Also, upload the following certificate file with "Install Certificate for Wireless LAN" of TopAccess.

    - CA certificate
    - User certificate

[F] Reset "FUNCTION LIST FOR MAINTENANCE"

(1) Print out the "FUNCTION LIST FOR MAINTENANCE" list after the formatting.

(2) While pressing [1] and [3] simultaneously, turn the power ON. (Function Mode)

(3) Compare the lists which were printed before and after the formatting to check the setting items
having the different setting values. Set the value which was set before the formatting
Turn the power OFF.

(4) Turn the power OFF.

[G] Reset "FUNCTION" list

Reset the fax function by referring to the "function list" that was printed out in 📖 P. 12-10 "[C] Print out "FUNCTION" list".

(1) Press the [USER FUNCTIONS] button.

(2) Press the [ADMIN] button, enter the password, and then press the [ENTER] button.

(3) Press the [FAX] button and then the [TERMINAL ID] button to set each item.

(4) Press the [INITIAL SETUP] button to set each item.
   Notes:
   Explain to the user (machine administrator) about the next operation and ask him/her to enter
   his/her password.

[H] Check actuation of data encryption function setting

Check if the data encryption function is in operation.
Press the [COUNTER] button on the control panel. If a key-shaped icon is displayed at the top right of
the screen, the data encryption function is in operation.
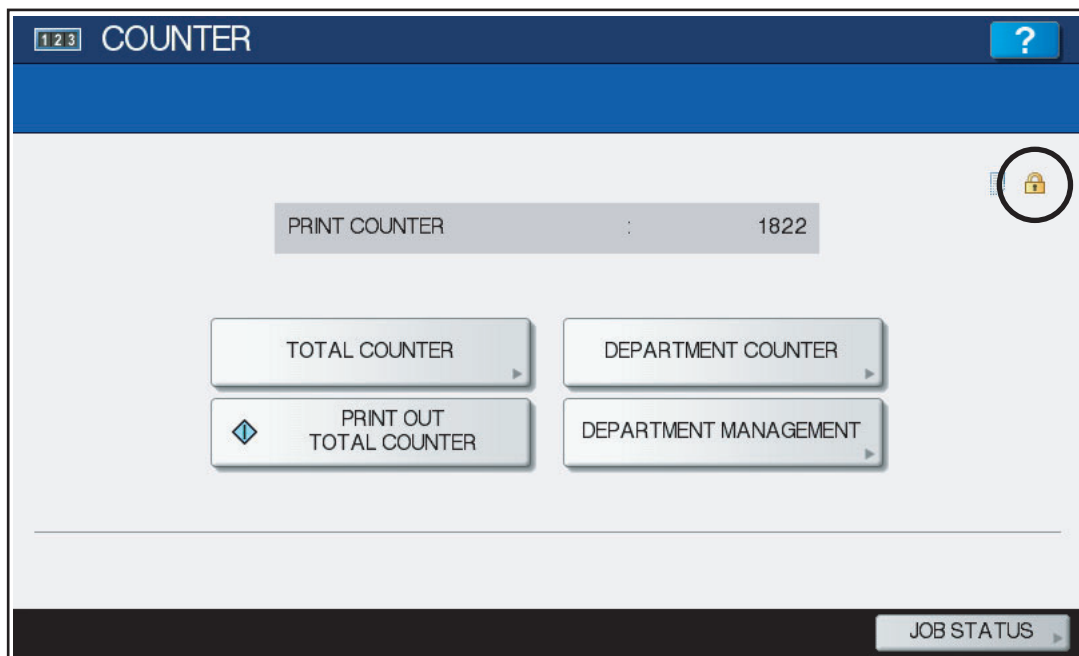
Fig.12-5

12.2.4 Procedure for disabling data encryption function

The basic procedure is the same as the one for enabling this function. To disable it, set "0 (Invalid)" in the code 08-9379 at step 📖 P. 12-10 "[D] Enable data encryption function".

12.2.5 Procedure for discarding HDD when data encryption function is enabled

Set the data encryption function disabled following the procedure shown in 📖 P. 12-12 "12.2.4 Procedure for disabling data encryption function". Then perform the code 3C->6 : Erase HDD Securely (HDD securely erasing) to completely erase the data in the HDD.

12.3 High Security Mode

12.3.1 General description

The High Security Mode is a security mode complying with the IEEE2600.1 Security Standards Requirement. To have the equipment enter this mode, follow the procedure and the precautions below.

12.3.2 Prior confirmation

- Confirm that the administrator for the equipment is authorized and ask him/her to observe the installation.

- To have the equipment enter the High Security Mode, make sure that the HDD (opiton) is mounted.

- To have the equipment enter the High Security Mode, the Data Overwrite Enabler GP-1070 (optional) is required. Confirm that this option is installed in advance. Follow the Unpacking Instructions to install it.

- To avoid physical security problems, such as hardware removal or inappropriate disassembly at the installation site, take all necessary measures, such as checking who enters and leaves the site.

- Confirm that no received fax data or print jobs in progress exist. If there are any, be sure to print them all out before entering the High Security Mode.

- The HDD is initialized in the High Security Mode. Be sure first to back up user data such as documents, Address Book, templates or fax settings using the export function or the backup/restore utility of the TopAccess. Refer to items noted in 📖 P. 12-7 "12.2 AES Data Encryption Function Setting".

- Make a note of the settings on the Administration tab page of the TopAccess in advance.

- Compatibility of cloning data is lost between the High Security Mode and the normal mode; therefore, cloning data cannot be imported.

Downloaded from	Downloaded to	Compatibility of cloning data
Normal mode	Normal mode	Yes
Normal mode	High Security Mode	No
High Security Mode	Normal mode	No
High Security Mode	High Security Mode	Yes

12.3.3 Procedure for entering the High Security Mode

(1) Set the value of the code 08-8911 (Security mode level setting) to "3" (High). Then restart the equipment.

(2) A key-shaped icon appears at the bottom of the touch panel, indicating that it is now in the High Security Mode.

(3) Press [COUNTER] button on the control panel. If a key-shaped icon, indicating that the HDD data are being encrypted, a paper-shaped icon indicating that the Data Overwrite Enabler is operating normally and the version name of the installed system ROM (SYS V1.0) are displayed on the top right of the counter menu, this means the mode is operating normally.

(4) Reset the user data backed up in advance.

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12.3.4   Precautions

• In the High Security Mode, an integrity check system is operated at every restart. If F521 (integrity check error) is displayed, take the necessary measures following the troubleshooting procedure.

• When a self-diagnostic mode is started in the High Security Mode, an authentication screen appears. Enter the default user name and password as follows:
  Default user name: service
  Default password: #1048#

• If a password change screen appears, reset the password according to the rules below.
  - It must not include the user name.
  - It must be a combination of letters of the alphabet and numbers.
  - It must be 6 characters or more. (Maximum 64 characters)
  - The same character must not be repeated 4 times within the new password.
  - The old and the new passwords must not be the same.

• In the High Security Mode, restrictions are set to the following self-diagnostic codes:

Code	Contents
08-8910	The setting value is changed to "2". "0" is not settable.
08-8911	The setting value is changed to "3".
08-8924	The setting value is changed to "1". Values other than "1" are not settable.
08-9110	"0" is not settable.
08-9193	If "0" is set for the value, the setting will not comply with IEEE2600.1 Security Standards Requirement.
08-9379	The setting value is changed to "1".
08-9819	The setting value is changed to "1". If "0" is set for the value, the setting will not comply with IEEE2600.1 Security Standards Requirement.

• In the above case, the password is not reset. The password setting can be changed with the code 08-8919.

• The HDD is initialized (and the saved user data are deleted) when the equipment returns to the normal mode from the High Security Mode. Be sure to back up user data before having it do so.

• After the equipment enters the High Security Mode, ask the administrator for the equipment to select [FULL] and perform the Integrity check manually.

13. EXTERNAL COUNTERS

13.1 Outline

This specification describes the interface between external counters, such as Coin Controller and Key Counter.

13.2 Signal

Notes:
- Use 24V supplied from the main equipment as power for the output signals (KCTRON) from the transistor.
- Do not connect inductive loads to CTRON, such as a mechanical counter or a relay coil.

13.2.1 Pin Layout

1. Connector on the LGC board: CN358 (JST-made B20B-CZHK-B-1(LF)(SN)(V)) (Card Controller / Coin Controller)

Pin No.	I/O	Signal name	Function	Voltage level	Remarks	GQ-1260
1	GND	SG	Signal Ground	0V		-
2	In	CTRCNT	Copy permission Signal 1	L=0V, H=DC3.3V		-
3	Power	+24V	24V line	DC24V+10%, -5%		-
4	Out	KCTRON	Mechanical Counter On Signal	Open Collector	L: ON	-
5	Power	+24V	24V line	DC24V+10%, -5%		-
6	Out	CTRON	Total Counter On Signal	Open Collector	L: ON	In use
7	In	CTRCNT	Copy permission Signal 1	L=0V, H=DC3.3V	L: Allowed	In use
8	Out	MCRUN	Ready to Copy Signal	Open Collector	L: Operating	In use
9	Out	EXTCTR	Exit Sensor On Signal	Open Collector	L: Operating	In use
10	GND	PG	Power ground	0V		In use
11	Out	BKCTR	Black mode Counter Signal	Open Collector	L: Operating	-
12	Out	MNCTR	Mono color mode Counter Signal	Open Collector	L: Operating	-
13	Out	FLCTR	Full color mode Counter On Signal	Open Collector	L: Operating	-
14	GND	SG	Signal Ground	0V		-
15	Out	SIZE3	Paper size Signal 3	Open Collector	L: Operating	-
16	Out	SIZE2	Paper size Signal 2	Open Collector	L: Operating	-
17	Out	SIZE1	Paper size Signal 1	Open Collector	L: Operating	-
18	Out	SIZE0	Paper size Signal 0	Open Collector	L: Operating	-
19	Power	+5V (Sleep)	5V line	DC5.1V	At the sleep mode: OFF	In use

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Pin No.	I/O	Signal name	Function	Voltage level	Remarks	GQ-1260
20	-	N.C.	-	-		-

2. Connector on the SYS board: CN127 (JST-made B7B-PH-SM4) (Coin Controller)

Pin No.	I/O	Signal name	Function	Voltage level	Remarks	GQ-1260
1	Out	LARGE / SMALL	Paper size Signal	Open Collector	L: Large size	In use
2	Out	FULL COLOR	Full color mode Signal	Open Collector	L: Full color	In use
3	Out	TWN/ MON COLOR	Twin color / Mono color Mode Signal	Open Collector	L: Twin colors	In use
4	Out	B/W	Black mode Signal	Open Collector	L: Black	In use
5	Power	N.C. (5VA)	5V line	DC5.0V	At the sleep mode:ON	-
6	GND	GND	Signal Ground	-		In use
7	-	N.C.	-	-		-

13.2.2   Details of the signals

1. CTRON signal (output signals)
   These signals are synchronized with electronic counter of the equipment and they become "Low" when one sheet of paper is counted up. They are the signals for coin controller, and output from the LGC board.
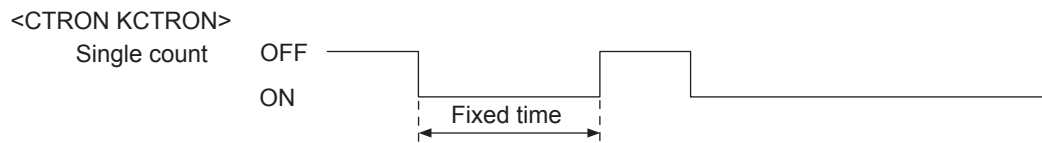
Fig.13-1

2. CTRCNT signal (input signals)
   The CTRCNT signal enables to accept copies when the coin controller is connected, and copies can be accepted with "Low". In case of "High", "Set Key Counter" appears and copies cannot be made.

3. MCRUN signal (output signal)
   The MCRUN signal is changed to "Low" during copying. It becomes "Low" at 30 ms or more before the CTRON signal is turned ON, and "High" at 50 ms or more after the EXTCTR signal goes OFF. However, if copying is interrupted due to forced toner supply or similar, this signal is "High" until copying is made possible again. This is the signal for the coin controller.
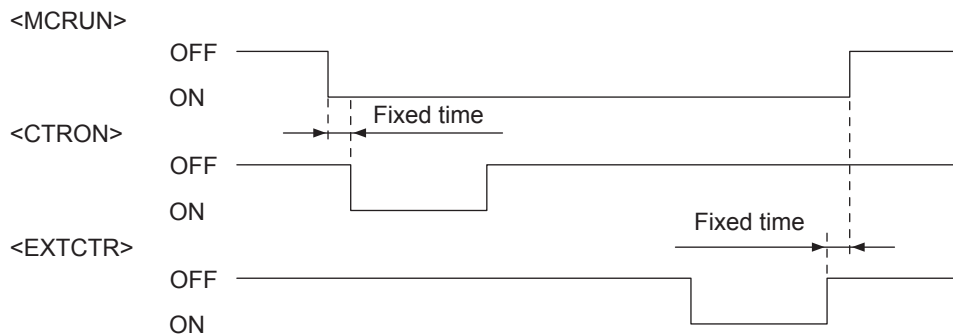
Fig.13-2

4. EXTCTR signal (output signal)
   The EXTCTR signal is synchronized with "Exit sensor ON" and becomes "Low" (ON) for 200 ms.
   The coin controller counts the number of times with this signal.
   This is the signal only for the coin controller.
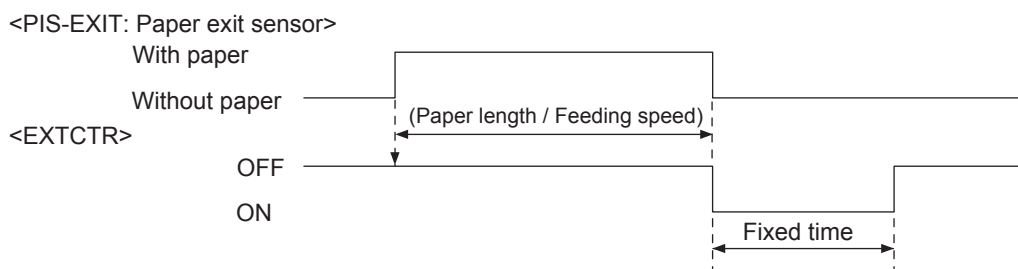
Fig.13-3

5. BKCTR signal, MNCTR signal, FLCTR signal (output signals)
   These signals become "Low" (ON) synchronizing with the CTRON signal according to the copying mode used. The pulse width corresponds to the fixed time. Though the CTRON signal is set to "Double count", they are not outputted synchronizing with the second count signal.

6. SIZE3, SIZE2, SIZE1 and SIZE0 signals (output signals)
   These 4 signals are outputted in the combination of 4 sizes for the paper to be copied.
   They are the signals for the coin controller, and are outputted from the LGC board.

7. LARGE/SMALL signal (output signal)
   When large size paper (A3 / A3 wide / LD) is selected or paper size is not specified with the manual feeding, it outputs "Low" in real time. In other cases, it outputs "High". The setting change for large size paper is performed with F/W.
   This is the signal only for the coin controller.

8. FULL COLOR signal (output signal)
   If the full color mode is selected, it outputs "Low" in real time. In other cases, it outputs "High". By default, it outputs "Low" since it is set as full color mode.
   This is the signal only for the coin controller.

9. TWN / MON COLOR signal (output signal)
   If the twin color or mono color mode is selected, it outputs "Low" in real time. In other cases, it outputs "High". This is the signal only for the coin controller.

10. B/W signal (output signal)
    If the black mode is selected, it outputs "Low" in real time. In other cases, it outputs "High". This is the signal only for the coin controller.

11. KCTRON signal (output signal)
    These signals are synchronized with the electronic counter of the equipment and they become "Low" when the counter is turned ON. They are the signals for driving a mechanical counter, and output from the LGC board.
    They can drive inductive loads, such as a solenoid, using 24V supplied from the equipment. The interval between when they are turned ON and when this happens next must be at least 100 ms. "Single count" or "Double count" can be switched according to the paper size by setting "1" or "2" for 08-6010.

13.3 Notices

13.3.1 Setting code

Each signal will be enabled by configuring the setting code "08-9016" (Counter installed externally).

08-9016
0: No external counter (Default)
1: Coin controller
2: Card controller (For Japan only)
3: Mechanical counter
5: Coin controller supporting ACS

13.3.2 Setting value change and restrictions when using the Card Controller

1. Setting value
   - 08-9016 (Counter installed externally): Set to "2" (Card controller).
   - 08-9017 (Setting for counter installed externally): It should be charged precisely according to the usage.
     Example: To charge only when copies are made, set to "1".
   - 08-6011 (Definition setting of large sized paper): Set to "0" if only A3 and LD are regarded as large size. Set to "1" if B4, LG, FOLIO and COMP are done so as well.

13.3.3 Setting value change and restrictions when using the coin controller

1. Setting value
   - 08-9016 (Counter installed externally): Set to "1" (Coin controller). The coin controller supporting ACS (Auto Color Selection) can be connected by setting to "5" (Coin controller supporting ACS/mixed-size). However, operation is not guaranteed unless the specification for the ACS timing is met.
   - 08-9017 (Setting for counter installed externally): It should be charged precisely according to the usage.
     Example: To charge only when copies are made, set to "1".
   - 08-6011 (Definition setting of large sized paper): Set to "0" if only A3 and LD are regarded as large size. Set to "1" if B4, LG, FOLIO and COMP are done so as well.

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13.3.4 Installation of External Counter

It is not allowed to install more than one external counter (Card Controller and Coin Controller) at the same time.

13.3.5 Setting value

The Key Counter used for current models is not supported in this equipment, but the circuit for driving the counter has been mounted. The mechanical counter can be used by setting as below, however the harness for connecting it has not been provided as an option.

1. Setting value
   - 08-9016 (Counter installed externally): Set to "3" (Mechanical counter).
   - 08-9017 (Setting for counter installed externally): It should be charged precisely according to the usage.
     Example: To charge only when copies are made, set to "1".
   - 08-6011 (Definition setting of large sized paper): Set to "0" if only A3 and LD are regarded as large size. Set to "1" if B4, LG, FOLIO and COMP are done so as well.

14. WIRE HARNESS CONNECTION

14.1 AC Wire Harness
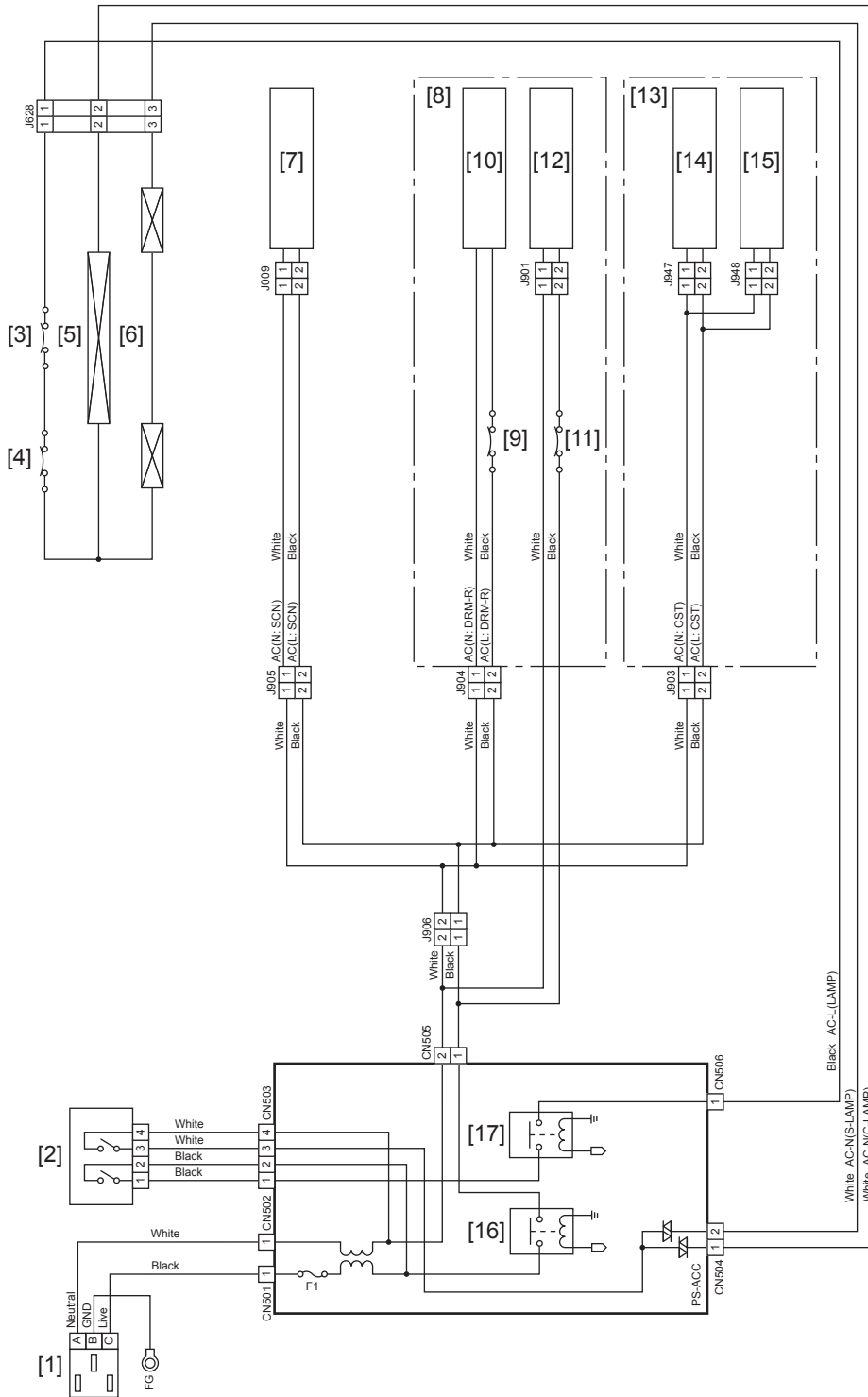
Fig.14-1

[1]	Inlet (AC IN)	[10]	Drum damp heater (Right)
[2]	Main power switch	[11]	Thermostat (Left)
[3]	Center thermostat	[12]	Drum damp heater (Left)
[4]	Side thermostat	[13]	Drawer damp heater
[5]	Center heater lamp	[14]	Drawer damp heater (PFU)
[6]	Side heater lamp	[15]	Drawer damp heater (PFP/LCF)
[7]	Scanner damp heater	[16]	Relay 1
[8]	Drum damp heater	[17]	Relay 2
[9]	Thermostat (Right)		

14.2.1 DC Wire Harness

14.2.2 Electric Parts Layout

[A] Scanner unit, control panel

M1, S23, S21, S22, EXP, S25, S24, CCD, KEY, TCP, DSP

[B] Toner cartridge, waste toner box

CTIF, M8, CTRG, M11, CTRG, M10, CTRG, M9, CTRG, S9, M7

[C] Developer unit

M6, CLT3, M3, S12, SW10, SW9, S11, SW14, SW13, S3, S4, SW12, SW11, SW16, SW15, S1, S2, THM4

[D] Data writing

LED4, LED3, LED2, LED1, S10, ERS-K, ERS-C, ERS-M, ERS-Y

[E] Fuser unit

M5, M4, THM2, THM1, THMO1, THMO2, THM3, S13, LAMP1, LAMP2

[F] Image quality control

S8, SOL1, S6, S7

[G] Paper feeding unit

CLT1, M2, SW8, SW6, SW7, CLT2, S18, S19, S20, S5

[H] Automatic duplexing unit, bypass feed unit

ADU, CLT4, M12, S14, S15, S17, S16

[I] PC board, power supply

SSD, SYS, F3, SW4, SRAM, Main Memory, CFD, LGC, EEPROM, PS, HVT, INLET, F1, F2

[J] Cover switch, damp heater

DH1, SW5, SW3, SW2, SW1, THMO4, DH3, DH2, THMO3

Motors and fans

Symbol	Name	Figure	Wire harness location
M1	SCAN-MOT Scan motor	[A]	2-B / 3-B
M2	FEED/DEV-MOT Paper feeding/developer unit drive motor	[G]	6-A 6-B
M3	DRM-SW-MOT Mono/color switching motor	[C]	6-B
M4	FUS-MOT Fuser motor	[E]	6-C 6-D
M5	EXIT-MOT Exit motor	[E]	6-D
M6	DRM/TBU-MOT Drum/TBU motor	[C]	6-E
M7	USD-TNR-MOT Waste toner paddle motor	[B]	8-D
M8	TNR-MOT-Y Toner motor-Y	[B]	8-F
M9	TNR-MOT-M Toner motor-M	[B]	8-F
M10	TNR-MOT-C Toner motor-C	[B]	8-F
M11	TNR-MOT-K Toner motor-K	[B]	8-G
M12	ADU-MOT ADU motor	[H]	5-C
F1	SYS-FAN-MOT SYS/HDD cooling fan	[I]	2-D
F2	OZN-FAN-MOT Ozone exhaust fan	[I]	8-D
F3	PS-FAN-MOT-1 Ozone suctioning fan	[I]	8-E

Sensors and Switches

Symbol	Name	Figure	Wire harness location
S1	ATTNR-SNR-K Auto-toner sensor-K	[C]	8-B
S2	ATTNR-SNR-C Auto-toner sensor-C	[C]	8-B
S3	ATTNR-SNR-M Auto-toner sensor-M	[C]	8-A
S4	ATTNR-SNR-Y Auto-toner sensor-Y	[C]	8-A
S5	CST1-EMP-SNR 1st drawer empty sensor	[G]	5-C
S6	RGST-PASS-SNR Registration pass sensor	[F]	8-C
S7	IMG-POS-SNR-F Image quality sensor (Front)	[F]	8-C 8-D
S8	IMG-POS-SNR-R Image quality sensor (Rear) / Image position aligning sensor	[F]	8-D
S9	USD-TNR-LCK-SNR Waste toner paddle rotation detection sensor	[B]	8-D
S10	TEMP/HUM-SNR Temperature/humidity sensor	[D]	8-D
S11	DRM-SW-SNR Drum switching detection sensor	[C]	6-B
S12	1ST-TRNS-SW-SNR 1st transfer roller status detection sensor	[C]	6-E
S13	EXIT-SNR Exit sensor	[E]	6-F
S14	ADU-U-SNR ADU entrance sensor	[H]	5-D
S15	ADU-L-SNR ADU exit sensor	[H]	5-D
S16	SFB-FEED-SNR Bypass feed sensor	[H]	5-B
S17	PWA-F-SFB Paper width detection PC board (SFB board)	[H]	4-B / 5-B
S18	CLNG-SNR Paper clinging detection sensor	[G]	5-A
S19	RGST-SNR Registration sensor	[G]	5-A 5-B
S20	TRANS-SNR Feed sensor	[G]	5-A
S21	PLTN1-SNR Platen sensor-1	[A]	2-C / 3-C
S22	PLTN2-SNR Platen sensor-2	[A]	2-B / 3-B
S23	HOME-SNR Carriage home position sensor	[A]	2-B / 3-B
S24	APS1 Automatic original detection sensor-1	[A]	2-B / 3-B
S25	APS2 Automatic original detection sensor-2	[A]	2-B / 3-B
SW1	FRT-COV-SW Front cover switch	[J]	8-D
SW2	F-COV-INTLCK-SW Front cover interlock switch	[J]	4-E
SW3	S-COV-INTLCK-SW Side cover interlock switch	[J]	4-E
SW4	MAIN-SW Main power switch	[I]	AC Wire Harness
SW5	SIDE-COV-SW Side cover switch	[J]	6-F
SW6	CST-SIZE1-SW 1st drawer size detection switch-1	[G]	5-C
SW7	CST-SIZE2-SW 1st drawer size detection switch-2	[G]	5-B 5-C
SW8	CST1-SW 1st drawer detection switch	[G]	5-C
SW9	Y-DRUM-SW Y drum old/new detection switch	[C]	8-B
SW10	M-DRUM-SW M drum old/new detection switch	[C]	8-B
SW11	C-DRUM-SW C drum old/new detection switch	[C]	8-B
SW12	K-DRUM-SW K drum old/new detection switch	[C]	8-B
SW13	Y-DEV-SW Y developer unit old/new detection switch	[C]	8-C
SW14	M-DEV-SW M developer unit old/new detection switch	[C]	8-C
SW15	C-DEV-SW C developer unit old/new detection switch	[C]	8-B
SW16	K-DEV-SW K developer unit old/new detection switch	[C]	8-B

Electromagnetic spring clutches

Symbol	Name	Figure	Wire harness location
CLT1	RGST-CLT Registration clutch	[G]	6-B
CLT2	FEED-CLT Feed clutch	[G]	6-B
CLT3	1ST-TRNS-CLT 1st transfer contact/release clutch	[C]	6-E
CLT4	SFB-FEED-CLT Bypass feed clutch	[H]	5-B

Solenoids

Symbol	Name	Figure	Wire harness location
SOL1	SNR-SHUT-SOL Sensor shutter solenoid	[F]	8-D

PC boards

Symbol	Name	Figure	Wire harness location
CCD	PWA-F-CCD CCD driving PC board (CCD board)	[A]	
DSP	PWA-F-DSP Display PC board (DSP board)	[A]	2-F
KEY	PWA-F-KEY Key PC board (KEY board)	[A]	2-F
CTIF	PWA-F-CTIF Toner cartridge interface PC board (CTIF board)	[B]	8-F
CTRG	PWA-F-CTRG Toner cartridge PC board (CTRG board)	[B]	8-F 8-G
ADU	PWA-F-ADU ADU control PC board (ADU board)	[H]	5-C
SFB	PWA-F-SFB Paper width detection PC board (SFB board)		4-B
CFD	PWA-F-CFD Feed control PC board (CFD board)	[I]	5-A
SYS	PWA-F-SYS System control PC board (SYS board)	[I]	2-A
LGC	PWA-F-LGC Logic PC board (LGC board)	[I]	6-D
SRAM	PWA-F-SRAM SRAM board	[I]	1-E

Lamps and heaters

Symbol	Name	Figure	Wire harness location
EXP	LP-EXPO Exposure lamp	[A]	
LED1	LP-LED-Y LED print head-Y	[D]	7-B 7-C
LED2	LP-LED-M LED print head-M	[D]	7-C 7-D
LED3	LP-LED-M LED print head-M	[D]	7-D 7-E
LED4	LP-LED-K LED print head-K	[D]	7-E 7-F
ERS-Y	LP-ERS-Y Discharge LED-Y	[D]	8-C
ERS-M	LP-ERS-M Discharge LED-M	[D]	8-C
ERS-C	LP-ERS-C Discharge LED-C	[D]	8-C
ERS-K	LP-ERS-K Discharge LED-K	[D]	8-C
LAMP1	LP-HTR-C Center heater lamp	[E]	AC Wire Harness
LAMP2	LP-HTR-S Side heater lamp	[E]	AC Wire Harness
DH1	SCN-DH-L Scanner damp heater	[J]	AC Wire Harness
DH2	DRM-DH-L Drum damp heater (Left)	[J]	AC Wire Harness
DH3	DRM-DH-R Drum damp heater (Right)	[J]	AC Wire Harness

Thermistors and thermostats

Symbol	Name	Figure	Wire harness location
THM1	THMS-FR-C Fuser roller center thermistor	[E]	6-F
THM2	THMS-FR-S Fuser roller side thermistor	[E]	6-F
THM3	THMS-FR-E Fuser roller edge thermistor	[E]	6-F
THM4	THMS-DRM Drum thermistor	[C]	8-C
THMO1	THERMO-FR-C Fuser roller center thermostat	[E]	AC Wire harness
THMO2	THERMO-FR-S Fuser roller rear thermostat	[E]	AC Wire harness
THMO3	THERMO-SCN-DH Scanner damp heater thermostat		AC Wire harness
THMO4	THERMO-DRM-DH-L Drum damp heater thermostat (Left)		AC Wire harness
THMO5	THERMO-DRM-DH-R Drum damp heater thermostat (Right)		AC Wire harness

Others

Symbol	Name	Figure	Wire harness location
TCP	TCP Touch panel	[A]	2-E
EEPROM	EEPROM Electrically Erasable Programmable Read Only Memory	[I]	
SSD	SSD Solid State Drive	[I]	2-D/3-D
Main memory	Main memoryl	[I]	
PS	PS-ACC Switching regulator	[I]	4-D
HVT	PS-HVT High-voltage transformer	[I]	8-E

Input check (Test mode 03)

Items to be checked and the condition of the equipment when the buttons [A] to [H] are highlighted are listed on the following pages.

[FAX] button: OFF/[COPY] button: OFF/[SCAN] button: OFF
("100%" is displayed.)

Digital key	Button	Items to check	Contents	
			Highlighted display e.g. A	Normal display e.g. A
[1]	A	Drawer 1 paper width detection sensor 3	OFF	ON
	B	Drawer 1 paper width detection sensor 2	OFF	ON
	C	Drawer 1 paper width detection sensor 1	OFF	ON
	D	Drawer 1 paper width detection sensor 0	OFF	ON
	E	Drawer 1 paper length detection sensor 3	OFF	ON
	F	Drawer 1 paper length detection sensor 2	OFF	ON
	G	Drawer 1 paper length detection sensor 1	OFF	ON
	H	Drawer 1 paper length detection sensor 0	OFF	ON
[2]	A	Bypass feed paper size detection sensor 3	OFF	ON
	B	Bypass feed paper size detection sensor 2	OFF	ON
	C	Bypass feed paper size detection sensor 1	OFF	ON
	D	Bypass feed paper size detection sensor 0	OFF	ON
	E	Bypass feed paper existence sensor	No paper	Paper present
	F	-	-	-
	G	-	-	-
	H	-	-	-
[3]	A	Option connection detection signal B (Refer to table2)	H	L
	B	Option connection detection signal A (Refer to table2)	H	L
	C	PFC connection detection	Not connected	Connected
	D	Finisher connection detection	Not connected	Connected
	E	Fuser unit connection detection	Connected	Not connected
	F	ADU unit connection detection	Not connected	Connected
	G	-	-	-
	H	-	-	-
[4]	A	New/Old drum detection (K)	Old	New
	B	New/Old drum detection (C)	Old	New
	C	New/Old drum detection (M)	Old	New
	D	New/Old drum detection (Y)	Old	New
	E	New/Old developer unit detection (K)	Old	New
	F	New/Old developer unit detection (C)	Old	New
	G	New/Old developer unit detection (M)	Old	New
	H	New/Old developer unit detection (Y)	Old	New
[5]	A	Drum transfer motor	Stop/Non-regular rotation	Normal rotation
	B	Fuser transfer motor	Stop/Non-regular rotation	Normal rotation
	C	Development transport motor	Stop/Non-regular rotation	Normal rotation
	D	Waste toner box full detection sensor	Shielded	Transmissive
	E	-	-	-
	F	-	-	-
	G	-	-	-
	H	-	-	-

[6]	A	-	-	-
	B	Fusing abnormality	Normal	Abnormal
	C	-	-	-
	D	-	-	-
	E	-	-	-
	F	-	-	-
	G	-	-	-
	H	-	-	-
[7]	A	ADU/transfer cover opening/closing	Open	Closed
	B	JSP cover open detection (JSP is connected)/ Bridge unit cover open detection (Bridge unit is connected)	Open	Closed
	C	Front cover opening/closing switch	Open	Closed
	D	Cover open detection switch	Normal	Open/Blowout of 24V fuse
	E	SYS power supply	Power off/Not connected	Power on
	F	-	-	-
	G	PFC status detection	Power off/Not connected/Firmware abnormality	Normal
	H	-	-	-
[8]	A	Developer unit connection detection (K)	Not connected	Connected
	B	Developer unit connection detection (C)	Not connected	Connected
	C	Developer unit connection detection (M)	Not connected	Connected
	D	Developer unit connection detection (Y)	Not connected	Connected
	E	High-voltage leak detection	Normal	Occurrence of charging leak
	F	1st transfer contact/non-contact sensor	Black drive	Color drive
	G	BK/C drive connection position sensor	Color drive	Black drive
	H	-	-	-
[9]	A	Registration sensor	Paper present	No paper
	B	Feed sensor1	Paper present	No paper
	C	Exit sensor	No paper	Paper present
	D	-	-	-
	E	Paper clinging detection sensor	No paper	Paper present
	F	Registration transit sensor	Paper present	No paper
	G	ADU entrance sensor	Paper present	No paper
	H	ADU exit sensor	Paper present	No paper
[0]	A	JSP transport sensor (When JSP is connected)/Bridge unit transport sensor1 (When bridge unit is connected)	Paper present	No paper
	B	Bridge unit transport sensor (Exit)	Paper present	No paper
	C	JSP lower ejection tray full sensor (When JSP is connected)/RLY ejection full sensor (When bridge unit is connected)	Full	Not full
	D	JSP upper ejection tray full sensor	Full	Not full
	E	-	-	-
	F	Drawer 1 opening/closing detection switch	Open	Closed
	G	Drawer 1 paper empty sensor	No paper	Paper present
	H	-	-	-

[FAX] button: ON/[COPY] button: OFF/[SCAN] button OFF
("F%" is displayed.)

Digital key	Button	Items to check	Contents	
			Highlighted display e.g. **A**	Normal display e.g. A
[1]	A	Position adjustment sensor (Rear)	Toner present	Toner not present
	B	Position adjustment sensor (Front)	Toner present	Toner not present
	C	-	-	-
	D	-	-	-
	E	-	-	-
	F	-	-	-
	G	-	-	-
	H	-	-	-
[2]	A	New/Old detection of fuser unit	Old	New
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	-	-	-
	F	-	-	-
	G	-	-	-
	H	-	-	-
[3]	A	-	-	-
	B	PFU connection detection	Not connected	Connected
	C	LCF connection detection	Not connected	Connected
	D	PFP connection detection	Not connected	Connected
	E	-	-	-
	F	-	-	-
	G	Cover open detection (PFC side)	Closed	Open
	H	-	-	-
[4]	A	Paper feeding jam releasing cover opening/closing switch	Open	Closed
	B	-	-	-
	C	-	-	-
	D	Feed sensor2	No paper	No paper
	E	Drawer 2 tray-up sensor	Tray at upper limit position	Other than upper limit position
	F	Drawer 2 opening/closing detection	Open	Closed
	G	Drawer 2 paper empty	No paper	Paper present
	H	Drawer 2 paper nearly empty	Shielded	Transmissive
[5]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	-	-	-
	F	RADF connection	Connected	Not connected
	G	Platen sensor	Platen cove opened	Platen cover closed
	H	Carriage home position sensor	Home position	Other than home position

[6]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	APS sensor (APS1)(*1)	No original	Original present
	E	APS sensor (APS2)(*1)	No original	Original present
	F	-	-	-
	G	-	-	-
	H	-	-	-
[7]	A	RADF tray sensor	Original present	No original
	B	RADF empty sensor	Original present	No original
	C	RADF jam access cover sensor	Cover opened	Cover closed
	D	RADF open/close sensor	RADF opened	RADF closed
	E	RADF exit sensor	Original present	No original
	F	RADF intermediate sensor	Original present	No original
	G	RADF read sensor	Original present	No original
	H	RADF registration sensor	Original present	No original
[8]	A	RADF original tray width sensor (TWID0S) (Refer to table3)	OFF(H)	ON(L)
	B	RADF original tray width sensor (TWID1S) (Refer to table3)	OFF(H)	ON(L)
	C	RADF original tray width sensor (TWID2S) (Refer to table3)	OFF(H)	ON(L)
	D	-	-	-
	E	RADF original length sensor	Original present	No original
	F	RADF original width sensor 1	Original present	No original
	G	RADF original width sensor 2	Original present	No original
	H	-	-	-
[9]	A	Drawer 2 paper width detection sensor 3	OFF	ON
	B	Drawer 2 paper width detection sensor 2	OFF	ON
	C	Drawer 2 paper width detection sensor 1	OFF	ON
	D	Drawer 2 paper width detection sensor 0	OFF	ON
	E	Drawer 2 paper length detection sensor 3	OFF	ON
	F	Drawer 2 paper length detection sensor 2	OFF	ON
	G	Drawer 2 paper length detection sensor 1	OFF	ON
	H	Drawer 2 paper length detection sensor 0	OFF	ON
[0]	A	Paper feeding jam releasing cover opening/closing switch	Open	Closed
	B	-	-	-
	C	PFP transport sensor (Upper)	No paper	Paper present
	D	PFP transport sensor (Lower)	No paper	Paper present
	E	-	-	-
	F	-	-	-
	G	-	-	-
	H	PFP motor	Accelerating/Decelerating/Stopped	Normal rotation

[FAX] button: OFF/[COPY] button: ON/[SCAN] button OFF
("C%" is displayed.)

Digital key	Button	Items to check	Contents	
			Highlighted display e.g. [A]	Normal display e.g. [A]
[1]	-	Temperature/humidity sensor (displays temperature inside of the equipment)	-	Temperature [°C]
[2]	-	Temperature/humidity sensor (displays humidity inside of the equipment)	-	Humidity [%RH]
[3]	-	Drum thermistor temperature	-	Temperature [°C]
[4]	-	-	-	-
[5]	A	PFP upper drawer tray-up sensor	Tray at upper limit position	Other than upper limit position
	B	PFP upper drawer detection sensor	Open	Closed
	C	PFP upper drawer paper empty sensor	No paper	Paper present
	D	PFP upper drawer paper nearly empty	Shielded	Transmissive
	E	PFP lower drawer tray-up sensor	Tray at upper limit position	Other than upper limit position
	F	PFP lower drawer detection sensor	Open	Closed
	G	PFP lower drawer paper empty sensor	No paper	Paper present
	H	PFP lower drawer paper nearly empty	Shielded	Transmissive
[6]	A	PFP upper drawer paper width detection sensor 3	OFF	ON
	B	PFP upper drawer paper width detection sensor 2	OFF	ON
	C	PFP upper drawer paper width detection sensor 1	OFF	ON
	D	PFP upper drawer paper width detection sensor 0	OFF	ON
	E	PFP upper drawer paper length detection sensor 3	OFF	ON
	F	PFP upper drawer paper length detection sensor 2	OFF	ON
	G	PFP upper drawer paper length detection sensor 1	OFF	ON
	H	PFP upper drawer paper length detection sensor 0	OFF	ON

[7]	A	PFP lower drawer paper width detection sensor 3	OFF	ON
	B	PFP lower drawer paper width detection sensor 2	OFF	ON
	C	PFP lower drawer paper width detection sensor 1	OFF	ON
	D	PFP lower drawer paper width detection sensor 0	OFF	ON
	E	PFP lower drawer paper length detection sensor 3	OFF	ON
	F	PFP lower drawer paper length detection sensor 2	OFF	ON
	G	PFP lower drawer paper length detection sensor 1	OFF	ON
	H	PFP lower drawer paper length detection sensor 0	OFF	ON
[8]	A	LCF tray-up sensor	Tray at upper limit position	Other than upper limit position
	B	LCF tray detection sensor (feeding side)	Open	Closed
	C	LCF empty sensor (feeding side)	Paper present	No paper
	D	LCF nearly empty sensor (feeding side)	Nearly empty	Normal
	E	LCF tray bottom sensor	Tray at bottom position	Other than bottom position
	F	-	-	-
	G	LCF end fence stop position sensor	Position after tray transport	Other than position after tray transport
	H	LCF end fence home position sensor	Home position	Other than home position
[9]	A	LCF jam releasing cover opening/closing detection	Closed	Open
	B	LCF tray detection (standby side)	Open	Closed
	C	Empty sensor at LCF standby side	No paper	Paper present
	D	-	-	-
	E	LCF standby side paper misload detection	Properly loaded	Paper misload
	F	LCF transport sensor	No paper	Paper present
	G	-	-	-
	H	LCF motor	Accelerating/Decelerating/Stopped	Normal rotation
[0]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	Security enabler	Connectable	Not connectable
	E	Judgement for acceptable USB storage device (*2)	Acceptable	Not acceptable
	F	-	-	-
	G	-	-	-
	H	-	-	-

*1
- 20/25ppm only.
*2
- Be sure to install the USB storage device to the equipment and check if the device can be used with this code.
- Be sure to turn OFF the write protection (the function to prevent data from erasure by the accidental recording or deleting) of the USB storage device before performing the check, otherwise this code cannot be used.
- It may take some time (2 sec. to 10 sec.) before this check is completed depending on the USB storage device.

Table 1. Relation between the status of the bypass paper width sensor and paper size (width)

Bypass paper width sensor				Paper width size
3	2	1	0	
0	1	1	1	A3/LD
1	0	1	1	A4-R/LT-R
1	1	0	1	A5-R/ST-R
1	1	1	0	Card size
0	0	1	1	B4-R/LG
1	0	0	1	B5-R

Table 2. Option connection detection signal

	A	B
Bridge unit is connected	L	L
JSP is connected	L	H
No option is connected	H	H
SIO read-in NG	H	L

Table 3. Relation between the status of the original tray width sensor and paper size (width)

Original tray width sensor			Paper width size (LT series)	Paper width size (A4 series)
TWID2S	TWID1S	TWID0S		
H	H	L	-	B5-R
H	L	H	ST-R	A5-R
H	L	L	LD / LT	A3 / A4
L	H	L	8.5x8.5 / LT-R / KLG / 13"LG	A4-R / FOLIO
L	L	L	COMPUTER	B4 / B5

H (= high level): Open L (= low level): Short

Output check (test mode 03)

Code	Function	Procedure
101	Drum motor ON * Operational without process unit Y/M/C/K	1
102	Waste toner agitating motor ON	1
108	Registration clutch ON	1
109	PFP motor ON	1
110	ADU motor ON	1
112	Developer unit motor K ON * Operational without process unit Y/M/C/K	1
113	Fuser motor ON	1
114	Developer unit motor ON + Drum motor ON (Normal speed) * Remove the transfer belt before execution.	1
115	ADU motor ON (transport speed)	1
116	Exit motor (reversal rotation) ON (transport speed)	1
118	LED head ON	1
120	Exit motor (normal rotation) ON	1
121	Exit motor (reversal rotation) ON	1
122	LCF motor ON	1
125	Sensor shutter ON (open)	1
126	Image position aligning sensor (front/rear) LED ON	1
151	Code No.101 function OFF	1
152	Code No.102 function OFF	
158	Code No.108 function OFF	1
159	Code No.109 function OFF	1
160	Code No.110 function OFF	1
162	Code No.112 function OFF	1
163	Code No.113 function OFF	1
164	Code No.114 function OFF	1
165	Code No.115 function OFF	1
166	Code No.116 function OFF	1
168	Code No.118 function OFF	1
170	Code No.120 function OFF	1
171	Code No.121 function OFF	1
172	Code No.122 function OFF	1
175	Code No.125 function OFF	1
176	Code No.126 function OFF	1
201	1st drawer feed clutch ON/OFF	3
202	2nd drawer feed clutch ON/OFF	3
204	Bypass feed clutch ON/OFF	3
206	LCF pickup solenoid ON/OFF	3
207	LCF end fence reciprocating movement	2
209	LCF feed clutch ON/OFF	3
218	Key copy counter count up	2
225	PFP transport clutch ON/OFF	3
226	PFP upper drawer feed clutch ON/OFF	3
228	PFP lower drawer feed clutch ON/OFF	3
230	Middle roller (lower) transport speed drive clutch ON/OFF	3
232	Bridge unit gate solenoid ON/OFF JSP gate solenoid ON/OFF	3
233	Middle roller (lower) process speed drive clutch ON/OFF	3
235	Discharge LED (K) ON/OFF * Do not let it radiate to the photoconductive drum for a long time.	3
236	Discharge LED (Y/M/C) ON/OFF * Do not let it radiate to the photoconductive drum for a long time.	3

240	Drum switching motor (switches position in the black/color mode)	2
241	Transfer belt contact/release clutch (switchover of contact/release) and drum development drive switching motor (switchover of position for black/color) * Operational with drum TBU motor ON	2
243	2nd drawer tray-up motor ON (tray up)	2
248	Developer bias (K) [DC] ON/OFF * Operational without process unit K	3
252	Main charger (K) ON/OFF * Operational without process unit K	3
253	Main charger (Y/M/C) ON/OFF * Operational without process unit Y/M/C	3
254	Developer bias (Y) [DC] ON/OFF * Operational without process unit Y	3
255	Developer bias (M) [DC] ON/OFF * Operational without process unit M	3
256	Developer bias (C) [DC] ON/OFF * Operational without process unit C	3
261	Scan motor ON (Automatically stops at limit position)	2
264	Scanner fan motor high speed rotation/stop	3
265	Scanner fan motor low speed rotation/stop	3
267	Scanner exposure lamp ON/OFF	3
271	LCF tray-up motor UP/DOWN	2
278	PFP upper drawer tray-up motor ON (tray up)	2
280	PFP lower drawer tray-up motor ON (tray up)	2
281	RADF feed motor ON/OFF (normal rotation)	3
282	RADF feed motor ON/OFF (reverse rotation)	3
283	RADF read motor ON/OFF	3
284	RADF exit/reverse motor ON/OFF (normal rotation)	3
285	RADF exit/reverse motor ON/OFF (reverse rotation)	3
294	Reverse/exit solenoid ON/OFF	3
295	Power OFF mode	4
297	RADF fan motor ON/OFF	3
301	Modem test 2100Hz	2
302	Modem test 14.4KBPS(V17)	2
303	Modem test 9.6KBPS(V29)	2
304	Modem test 4.8KBPS(V27)	2
305	Modem test 300BPS	2
306	Modem test 1850Hz	2
307	Modem test 1650Hz	2
308	Modem test 1100Hz	2
309	Modem test 462Hz	2
310	Modem test 1300Hz	2
311	Modem test 33.6KBPS(V.34)	2
312	Modem test 28.8KBPS(V.34)	2
313	Modem test 24.0KBPS(V.34)	2
314	Modem test 16.8KBPS(V.34)	2
315	Dial test 10PPS	5
316	Dial test 20PPS	5
317	Dial test PB	5
318	Modem test 12.0KBPS(V.17)	2
319	Modem test 7.2KBPS(V.29)	2
320	Modem test 2.4KBPS(V.27ter)	2
321	FAX image memory test	2
322	CML relay ON	2
410	Toner motor (K) ON/OFF * Operational without toner cartridge K	3

411	Toner motor (C) ON/OFF * Operational without toner cartridge C	3
412	Toner motor (M) ON/OFF * Operational without toner cartridge M	3
413	Toner motor (Y) ON/OFF * Operational without toner cartridge Y	3
443	Ozone exhaust fan (low speed) ON/OFF	3
444	Ozone exhaust fan (high speed) ON/OFF	3
461	Finisher packing position shift * Available when MJ-1036/1037 is connected only * Not supported with LL20/25 ppm model	2

Test print mode (test mode 04)

Code	Types of test pattern	Remarks	Remarks	Output from
33	Overall halftone for printer (Image)		5	SYS
36	Printer secondary scanning direction 32 gradation steps (Image)		2	SYS
204	Grid pattern	Pattern width: 1 dot, Pitch: 10 mm	2	LGC
205	Grid pattern	Pattern width: 2 dot, Pitch: 10 mm	2	LGC
245	Halftone (3 pixels)		2	LGC
270	Image quality control test pattern	For checking the image quality control	2	LGC
286	LED dot missing check pattern		1	LGC

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Process	Developm ent	Auto adj. for dev. material supply and ATS		2400		Adjustment for All (Y,M,C,K)	-	0-255	M	The value starts changing approx. 3 minutes after this adjustment is started. The value is automatically set during this adjustment (approx. 2 minutes). (As the value increases, the sensor output increases correspondingly.)	5	Yes
05	Adjustmen t mode	Process	Developm ent	Auto adj. for dev. material supply and ATS		2401		Adjustment for Y	-	0-255	M	The value starts changing approx. 3 minutes after this adjustment is started. The value is automatically set during this adjustment (approx. 2 minutes). (As the value increases, the sensor output increases correspondingly.)	5	Yes
05	Adjustmen t mode	Process	Developm ent	Auto adj. for dev. material supply and ATS		2402		Adjustment for M	-	0-255	M	The value starts changing approx. 3 minutes after this adjustment is started. The value is automatically set during this adjustment (approx. 2 minutes). (As the value increases, the sensor output increases correspondingly.)	5	Yes
05	Adjustmen t mode	Process	Developm ent	Auto adj. for dev. material supply and ATS		2403		Adjustment for C	-	0-255	M	The value starts changing approx. 3 minutes after this adjustment is started. The value is automatically set during this adjustment (approx. 2 minutes). (As the value increases, the sensor output increases correspondingly.)	5	Yes
05	Adjustmen t mode	Process	Developm ent	Auto adj. for dev. material supply and ATS		2404		Adjustment for K	-	0-255	M	The value starts changing approx. 3 minutes after this adjustment is started. The value is automatically set during this adjustment (approx. 2 minutes). (As the value increases, the sensor output increases correspondingly.)	5	Yes
05	Adjustmen t mode	Process	Developm ent	Adjustment of auto-toner initial adjustment reference setting value (YMCK)		2405	0	Adjustment of (YMCK) Y	120	0-255	M		4	Yes
05	Adjustmen t mode	Process	Developm ent	Adjustment of auto-toner initial adjustment reference setting value (YMCK)		2405	1	Adjustment of (YMCK) M	120	0-255	M		4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustment mode	Process	Development	Adjustment of auto-toner initial adjustment reference setting value (YMCK)		2405	2	Adjustment of (YMCK) C	120	0-255	M		4	Yes
05	Adjustment mode	Process	Development	Adjustment of auto-toner initial adjustment reference setting value (YMCK)		2405	3	Adjustment of (YMCK) K	120	0-255	M		4	Yes
05	Adjustment mode	Process	Development	Initialization of auto-toner		2406		Automatic adjustment (Y, M, C)	-	0-255	M	The value starts changing approx. 3 minutes after this adjustment is started. The value is automatically set during this adjustment (approx. 2 minutes). (As the value increases, the sensor output increases correspondingly.)	5	Yes
05	Adjustment mode	Process	Development	Developer bias DC(-) calibration voltage	Y	2627	0	Lower limit	200	0-1000	M	(Unit: V)	4	Yes
05	Adjustment mode	Process	Development	Developer bias DC(-) calibration voltage	Y	2627	1	Upper limit	900	0-1000	M	(Unit: V)	4	Yes
05	Adjustment mode	Process	Development	Developer bias DC(-) calibration voltage	M	2628	0	Lower limit	200	0-1000	M	(Unit: V)	4	Yes
05	Adjustment mode	Process	Development	Developer bias DC(-) calibration voltage	M	2628	1	Upper limit	900	0-1000	M	(Unit: V)	4	Yes
05	Adjustment mode	Process	Development	Developer bias DC(-) calibration voltage	C	2629	0	Lower limit	200	0-1000	M	(Unit: V)	4	Yes
05	Adjustment mode	Process	Development	Developer bias DC(-) calibration voltage	C	2629	1	Upper limit	900	0-1000	M	(Unit: V)	4	Yes
05	Adjustment mode	Process	Development	Developer bias DC(-) calibration voltage	K	2630	0	Lower limit	200	0-1000	M	(Unit: V)	4	Yes
05	Adjustment mode	Process	Development	Developer bias DC(-) calibration voltage	K	2630	1	Upper limit	900	0-1000	M	(Unit: V)	4	Yes
05	Adjustment mode	Process	Image control	Target value of 1st pattern (high density control)		2662	0	Y	295	100-450	M	Sets the target value of 1st pattern (high density) control for image control.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Process	Image control	Target value of 1st pattern (high density control)		2662	1	M	307	100-450	M	Sets the target value of 1st pattern (high density) control for image control.	4	
05	Adjustmen t mode	Process	Image control	Target value of 1st pattern (high density control)		2662	2	C	315	100-450	M	Sets the target value of 1st pattern (high density) control for image control.	4	
05	Adjustmen t mode	Process	Image control	Target value of 1st pattern (high density control)		2662	3	K	314	100-450	M	Sets the target value of 1st pattern (high density) control for image control.	4	
05	Adjustmen t mode	Process	Image control	Image quality closed-loop control contrast voltage correction/Full mode maximum number of time corrected		2670	0	Y	5	0-16	M	Sets the maximum correction number of time of the contrast voltage in the closed-loop control full mode.	4	
05	Adjustmen t mode	Process	Image control	Image quality closed-loop control contrast voltage correction/Full mode maximum number of time corrected		2670	1	M	5	0-16	M	Sets the maximum correction number of time of the contrast voltage in the closed-loop control full mode.	4	
05	Adjustmen t mode	Process	Image control	Image quality closed-loop control contrast voltage correction/Full mode maximum number of time corrected		2670	2	C	5	0-16	M	Sets the maximum correction number of time of the contrast voltage in the closed-loop control full mode.	4	
05	Adjustmen t mode	Process	Image control	Image quality closed-loop control contrast voltage correction/Full mode maximum number of time corrected		2670	3	K	5	0-16	M	Sets the maximum correction number of time of the contrast voltage in the closed-loop control full mode.	4	
05	Adjustmen t mode	Process	Image control	Output value display of image quality sensor		2729		When the light source is OFF	0	0-1023	M	Displays the output value of image quality sensor when the sensor light source is OFF.	2	
05	Adjustmen t mode	Process	Image control	Output value display of image quality sensor		2730		Transfer belt surface	0	0-1023	M	Displays the output value of image quality sensor (when there is no test pattern) on the transfer belt.	2	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Process	Image control	Output value display of image quality sensor		2731	0	1st pattern (Y)	0	0-1023	M	Displays the output value of image quality sensor when the 1st pattern (high-density test pattern) is output. The larger the value, the smaller the toner amount adhered becomes.	10	Yes
05	Adjustmen t mode	Process	Image control	Output value display of image quality sensor		2731	1	1st pattern (M)	0	0-1023	M	Displays the output value of image quality sensor when the 1st pattern (high-density test pattern) is output. The larger the value, the smaller the toner amount adhered becomes.	10	Yes
05	Adjustmen t mode	Process	Image control	Output value display of image quality sensor		2731	2	1st pattern (C)	0	0-1023	M	Displays the output value of image quality sensor when the 1st pattern (high-density test pattern) is output. The larger the value, the smaller the toner amount adhered becomes.	10	Yes
05	Adjustmen t mode	Process	Image control	Output value display of image quality sensor		2731	3	1st pattern (K)	0	0-1023	M	Displays the output value of image quality sensor when the 1st pattern (high-density test pattern) is output. The larger the value, the smaller the toner amount adhered becomes.	10	Yes
05	Adjustmen t mode	Process	Image control	Output value display of image quality sensor		2732	0	2nd pattern (Y)	0	0-1023	M	Displays the output value of image quality sensor when the 2nd pattern (low-density test pattern) is output. The larger the value, the smaller the toner amount adhered becomes.	10	Yes
05	Adjustmen t mode	Process	Image control	Output value display of image quality sensor		2732	1	2nd pattern (M)	0	0-1023	M	Displays the output value of image quality sensor when the 2nd pattern (low-density test pattern) is output. The larger the value, the smaller the toner amount adhered becomes.	10	Yes
05	Adjustmen t mode	Process	Image control	Output value display of image quality sensor		2732	2	2nd pattern (C)	0	0-1023	M	Displays the output value of image quality sensor when the 2nd pattern (low-density test pattern) is output. The larger the value, the smaller the toner amount adhered becomes.	10	Yes
05	Adjustmen t mode	Process	Image control	Output value display of image quality sensor		2732	3	2nd pattern (K)	0	0-1023	M	Displays the output value of image quality sensor when the 2nd pattern (low-density test pattern) is output. The larger the value, the smaller the toner amount adhered becomes.	10	Yes
05	Adjustmen t mode	Process	Image control			2734		Light amount adjustment result of image quality sensor	0	0-255	M	The LED light amount adjustment value of this sensor is the reference value to set the reflected light from the belt surface.	2	
05	Adjustmen t mode	Process	Image control			2737		Relative humidity display during latest closed-loop control	0	0-100	M	Displays the relative humidity at the latest performing of the closed-loop control.(Unit: %)	2	
05	Adjustmen t mode	Process	Image control	Image quality closed-loop control		2738		Enforced performing in the short color mode	-	-	M	Performs the image quality closed-loop control in the short color mode.	6	Yes
05	Adjustmen t mode	Process	Image control	Image quality closed-loop control		2739		Enforced performing in the short black mode	-	-	M	Performs the image quality closed-loop control in the short black mode.	6	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Process	Image control			2740		Enforced performing of image quality open-loop control	-	-	-	Performs the image quality open-loop control.	6	Yes
05	Adjustmen t mode	Process	Image control	Image quality closed-loop control		2742		Enforced performing of image quality control	-	-	M	Performs the image quality control.	6	Yes
05	Adjustmen t mode	Process	Image control			2745		Enforced performing of TRC control	-	-	M	Performs the image quality TRC control.	6	Yes
05	Adjustmen t mode	Process	Image control	Image quality sensor detection value		2756		At the occurrence of CE10	0	0-999	M	Only "0" can be entered.	1	
05	Adjustmen t mode	Process	Image control	Image quality sensor detection value	At the occurrence of CE20	2757	0	Detection value on the belt	0	0-999	M	Only "0" can be entered. (Unit: bit)	4	
05	Adjustmen t mode	Process	Image control	Image quality sensor detection value	At the occurrence of CE20	2757	1	Light intensity adjustment bit value	0	0-999	M	Only "0" can be entered. (Unit: bit)	4	
05	Adjustmen t mode	Process	Image control	Image quality sensor detection value	At the occurrence of CE40	2758	0	Detection value on the belt	0	0-999	M	Only "0" can be entered. (Unit: bit)	4	
05	Adjustmen t mode	Process	Image control	Image quality sensor detection value	At the occurrence of CE40	2758	1	Light intensity adjustment bit value	0	0-999	M	Only "0" can be entered. (Unit: bit)	4	
05	Adjustmen t mode	Process	Image control	Image quality sensor detection value	At the occurrence of CE40	2758	2	First pattern Y detection value	0	0-999	M	Only "0" can be entered. (Unit: bit)	4	
05	Adjustmen t mode	Process	Image control	Image quality sensor detection value	At the occurrence of CE40	2758	3	First pattern M detection value	0	0-999	M	Only "0" can be entered. (Unit: bit)	4	
05	Adjustmen t mode	Process	Image control	Image quality sensor detection value	At the occurrence of CE40	2758	4	First pattern C detection value	0	0-999	M	Only "0" can be entered. (Unit: bit)	4	
05	Adjustmen t mode	Process	Image control	Image quality sensor detection value	At the occurrence of CE40	2758	5	First pattern K detection value	0	0-999	M	Only "0" can be entered. (Unit: bit)	4	
05	Adjustmen t mode	Process	Image control	Image quality sensor detection value	At the occurrence of CE40	2758	6	Second pattern Y detection value	0	0-999	M	Only "0" can be entered. (Unit: bit)	4	
05	Adjustmen t mode	Process	Image control	Image quality sensor detection value	At the occurrence of CE40	2758	7	Second pattern M detection value	0	0-999	M	Only "0" can be entered. (Unit: bit)	4	
05	Adjustmen t mode	Process	Image control	Image quality sensor detection value	At the occurrence of CE40	2758	8	Second pattern C detection value	0	0-999	M	Only "0" can be entered. (Unit: bit)	4	
05	Adjustmen t mode	Process	Image control	Image quality sensor detection value	At the occurrence of CE40	2758	9	Second pattern K detection value	0	0-999	M	Only "0" can be entered. (Unit: bit)	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Process	Transfer			2761		Temperature/humidity sensor temperature display	23	0-100	M	Displays the temperature value set at the image quality open-loop control transfer correction.	2	
05	Adjustmen t mode	Process	Transfer			2762		Temperature/humidity sensor humidity display	50	0-100	M	Displays the humidity value set at the image quality open-loop control transfer correction.	2	
05	Adjustmen t mode	Process	Charger			2763		Drum thermistor temperature display 1	23	0-100	M	(Unit: ºC)	2	
05	Adjustmen t mode	Process	Transfer	1st transfer output offset		2905	0	Y normal speed	5	0-10	M	Sets the offset amount of the 1st transfer output. Offsetting level 0: 0.75 1: 0.80 2: 0.85 3: 0.90 4: 0.95 5: 1.00 6: 1.05 7: 1.10 8: 1.15 9: 1.20 10: 1.25	4	
05	Adjustmen t mode	Process	Transfer	1st transfer output offset		2905	1	M normal speed	5	0-10	M	Sets the offset amount of the 1st transfer output. Offsetting level 0: 0.75 1: 0.80 2: 0.85 3: 0.90 4: 0.95 5: 1.00 6: 1.05 7: 1.10 8: 1.15 9: 1.20 10: 1.25	4	
05	Adjustmen t mode	Process	Transfer	1st transfer output offset		2905	2	C normal speed	5	0-10	M	Sets the offset amount of the 1st transfer output. Offsetting level 0: 0.75 1: 0.80 2: 0.85 3: 0.90 4: 0.95 5: 1.00 6: 1.05 7: 1.10 8: 1.15 9: 1.20 10: 1.25	4	
05	Adjustmen t mode	Process	Transfer	1st transfer output offset		2905	3	K normal speed	5	0-10	M	Sets the offset amount of the 1st transfer output. Offsetting level 0: 0.75 1: 0.80 2: 0.85 3: 0.90 4: 0.95 5: 1.00 6: 1.05 7: 1.10 8: 1.15 9: 1.20 10: 1.25	4	
05	Adjustmen t mode	Process	Transfer	1st transfer output offset		2905	5	BK Normal speed	5	0-10	M	Sets the offset amount of the 1st transfer output. Offsetting level 0: 0.75 1: 0.80 2: 0.85 3: 0.90 4: 0.95 5: 1.00 6: 1.05 7: 1.10 8: 1.15 9: 1.20 10: 1.25	4	
05	Adjustmen t mode	Process	Transfer	1st transfer output offset		2905	6	Y decelerating	5	0-10	M	Sets the offset amount of the 1st transfer output. Offsetting level 0: 0.75 1: 0.80 2: 0.85 3: 0.90 4: 0.95 5: 1.00 6: 1.05 7: 1.10 8: 1.15 9: 1.20 10: 1.25	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Process	Transfer	1st transfer output offset		2905	7	M decelerating	5	0-10	M	Sets the offset amount of the 1st transfer output. Offsetting level 0: 0.75 1: 0.80 2: 0.85 3: 0.90 4: 0.95 5: 1.00 6: 1.05 7: 1.10 8: 1.15 9: 1.20 10: 1.25	4	
05	Adjustmen t mode	Process	Transfer	1st transfer output offset		2905	8	C decelerating	5	0-10	M	Sets the offset amount of the 1st transfer output. Offsetting level 0: 0.75 1: 0.80 2: 0.85 3: 0.90 4: 0.95 5: 1.00 6: 1.05 7: 1.10 8: 1.15 9: 1.20 10: 1.25	4	
05	Adjustmen t mode	Process	Transfer	1st transfer output offset		2905	9	K decelerating	5	0-10	M	Sets the offset amount of the 1st transfer output. Offsetting level 0: 0.75 1: 0.80 2: 0.85 3: 0.90 4: 0.95 5: 1.00 6: 1.05 7: 1.10 8: 1.15 9: 1.20 10: 1.25	4	
05	Adjustmen t mode	Process	Transfer	1st transfer output offset		2905	11	BK decelerating	5	0-10	M	Sets the offset amount of the 1st transfer output. Offsetting level 0: 0.75 1: 0.80 2: 0.85 3: 0.90 4: 0.95 5: 1.00 6: 1.05 7: 1.10 8: 1.15 9: 1.20 10: 1.25	4	
05	Adjustmen t mode	Process	Transfer	Bias offset in the color mode (Front side)		2934	0	Plain paper	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the color mode (Front side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustmen t mode	Process	Transfer	Bias offset in the color mode (Front side)		2934	1	Thick paper 1	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the color mode (Front side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustmen t mode	Process	Transfer	Bias offset in the color mode (Front side)		2934	2	Thick paper 2	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the color mode (Front side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Process	Transfer	Bias offset in the color mode (Front side)		2934	4	Overhead transparencies	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the color mode (Front side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustmen t mode	Process	Transfer	Bias offset in the color mode (Front side)		2934	5	Special paper 1	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the color mode (Front side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustmen t mode	Process	Transfer	Bias offset in the color mode (Front side)		2934	6	Special paper 2	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the color mode (Front side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustmen t mode	Process	Transfer	Bias offset in the color mode (Front side)		2934	7	Recycled paper	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the color mode (Front side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustmen t mode	Process	Transfer	Bias offset in the color mode (Front side)		2934	10	Envelope	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the color mode (Front side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustmen t mode	Process	Transfer	Bias offset in the color mode (Back side)		2935	0	Plain paper	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the color mode (Back side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Process	Transfer	Bias offset in the color mode (Back side)		2935	1	Thick paper 1	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the color mode (Back side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustmen t mode	Process	Transfer	Bias offset in the color mode (Back side)		2935	2	Thick paper 2	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the color mode (Back side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustmen t mode	Process	Transfer	Bias offset in the color mode (Back side)		2935	5	Special paper 1	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the color mode (Back side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustmen t mode	Process	Transfer	Bias offset in the color mode (Back side)		2935	6	Special paper 2	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the color mode (Back side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustmen t mode	Process	Transfer	Bias offset in the color mode (Back side)		2935	7	Recycled paper	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the color mode (Back side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustmen t mode	Process	Transfer	Bias offset in the color mode (Back side)		2935	10	Envelope	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the color mode (Back side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Process	Transfer	Bias offset in the black mode (Front side)		2936	0	Plain paper	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the black mode (Front side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustmen t mode	Process	Transfer	Bias offset in the black mode (Front side)		2936	1	Thick paper 1	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the black mode (Front side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustmen t mode	Process	Transfer	Bias offset in the black mode (Front side)		2936	2	Thick paper 2	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the black mode (Front side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustmen t mode	Process	Transfer	Bias offset in the black mode (Front side)		2936	4	Overhead transparencies	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the black mode (Front side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustmen t mode	Process	Transfer	Bias offset in the black mode (Front side)		2936	5	Special paper 1	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the black mode (Front side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustmen t mode	Process	Transfer	Bias offset in the black mode (Front side)		2936	6	Special paper 2	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the black mode (Front side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Process	Transfer	Bias offset in the black mode (Front side)		2936	7	Recycled paper	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the black mode (Front side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustmen t mode	Process	Transfer	Bias offset in the black mode (Front side)		2936	10	Envelope	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the black mode (Front side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustmen t mode	Process	Transfer	Bias offset in the black mode (Back side)		2937	0	Plain paper	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the black mode (Back side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustmen t mode	Process	Transfer	Bias offset in the black mode (Back side)		2937	1	Thick paper 1	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the black mode (Back side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustmen t mode	Process	Transfer	Bias offset in the black mode (Back side)		2937	2	Thick paper 2	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the black mode (Back side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustmen t mode	Process	Transfer	Bias offset in the black mode (Back side)		2937	5	Special paper 1	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the black mode (Back side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustment mode	Process	Transfer	Bias offset in the black mode (Back side)		2937	6	Special paper 2	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the black mode (Back side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustment mode	Process	Transfer	Bias offset in the black mode (Back side)		2937	7	Recycled paper	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the black mode (Back side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustment mode	Process	Transfer	Bias offset in the black mode (Back side)		2937	10	Envelope	5	0-10	M	Sets the bias offset amount of the 2nd transfer bias in the black mode (Back side). Offsetting level 0: 0 1: 0.2 2: 0.4 3: 0.6 4: 0.8 5: 1.0 6: 1.2 7: 1.4 8: 1.6 9: 1.8 10: 2.0	4	
05	Adjustment mode	Process	Transfer	2nd transfer leading edge bias correction factor (Front side in the color mode)		2938	0	Plain paper	0	0-16	M	Corrects the 2nd transfer leading edge bias (Front side in the color mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustment mode	Process	Transfer	2nd transfer leading edge bias correction factor (Front side in the color mode)		2938	1	Thick paper 1	0	0-16	M	Corrects the 2nd transfer leading edge bias (Front side in the color mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustment mode	Process	Transfer	2nd transfer leading edge bias correction factor (Front side in the color mode)		2938	2	Thick paper 2	0	0-16	M	Corrects the 2nd transfer leading edge bias (Front side in the color mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Front side in the color mode)		2938	4	Overhead transparencies	0	0-16	M	Corrects the 2nd transfer leading edge bias (Front side in the color mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Front side in the color mode)		2938	5	Special paper 1	0	0-16	M	Corrects the 2nd transfer leading edge bias (Front side in the color mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Front side in the color mode)		2938	6	Special paper 2	0	0-16	M	Corrects the 2nd transfer leading edge bias (Front side in the color mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Front side in the color mode)		2938	7	Recycled paper	0	0-16	M	Corrects the 2nd transfer leading edge bias (Front side in the color mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Front side in the color mode)		2938	10	Envelope	0	0-16	M	Corrects the 2nd transfer leading edge bias (Front side in the color mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Back side in the color mode)		2939	0	Plain paper	0	0-16	M	Corrects the 2nd transfer leading edge bias (Back side in the color mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Back side in the color mode)		2939	1	Thick paper 1	0	0-16	M	Corrects the 2nd transfer leading edge bias (Back side in the color mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Back side in the color mode)		2939	2	Thick paper 2	0	0-16	M	Corrects the 2nd transfer leading edge bias (Back side in the color mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Back side in the color mode)		2939	5	Special paper 1	0	0-16	M	Corrects the 2nd transfer leading edge bias (Back side in the color mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Back side in the color mode)		2939	6	Special paper 2	0	0-16	M	Corrects the 2nd transfer leading edge bias (Back side in the color mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Back side in the color mode)		2939	7	Recycled paper	0	0-16	M	Corrects the 2nd transfer leading edge bias (Back side in the color mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Back side in the color mode)		2939	10	Envelope	0	0-16	M	Corrects the 2nd transfer leading edge bias (Back side in the color mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Front side in the black mode)		2940	0	Plain paper	0	0-16	M	Corrects the 2nd transfer leading edge bias (Front side in the black mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Front side in the black mode)		2940	1	Thick paper 1	0	0-16	M	Corrects the 2nd transfer leading edge bias (Front side in the black mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Front side in the black mode)		2940	2	Thick paper 2	0	0-16	M	Corrects the 2nd transfer leading edge bias (Front side in the black mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Front side in the black mode)		2940	4	Overhead transparencies	0	0-16	M	Corrects the 2nd transfer leading edge bias (Front side in the black mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Front side in the black mode)		2940	5	Special paper 1	0	0-16	M	Corrects the 2nd transfer leading edge bias (Front side in the black mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Front side in the black mode)		2940	6	Special paper 2	0	0-16	M	Corrects the 2nd transfer leading edge bias (Front side in the black mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Front side in the black mode)		2940	7	Recycled paper	0	0-16	M	Corrects the 2nd transfer leading edge bias (Front side in the black mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Front side in the black mode)		2940	10	Envelope	0	0-16	M	Corrects the 2nd transfer leading edge bias (Front side in the black mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Back side in the black mode)		2941	0	Plain paper	0	0-16	M	Corrects the 2nd transfer leading edge bias (Back side in the black mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Back side in the black mode)		2941	1	Thick paper 1	0	0-16	M	Corrects the 2nd transfer leading edge bias (Back side in the black mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Back side in the black mode)		2941	2	Thick paper 2	0	0-16	M	Corrects the 2nd transfer leading edge bias (Back side in the black mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Back side in the black mode)		2941	5	Special paper 1	0	0-16	M	Corrects the 2nd transfer leading edge bias (Back side in the black mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Back side in the black mode)		2941	6	Special paper 2	0	0-16	M	Corrects the 2nd transfer leading edge bias (Back side in the black mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Back side in the black mode)		2941	7	Recycled paper	0	0-16	M	Corrects the 2nd transfer leading edge bias (Back side in the black mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustmen t mode	Process	Transfer	2nd transfer leading edge bias correction factor (Back side in the black mode)		2941	10	Envelope	0	0-16	M	Corrects the 2nd transfer leading edge bias (Back side in the black mode). Offsetting level 0: 1.00 1: 0.95 2: 0.90 3: 0.85 4: 0.80 5: 0.75 6: 0.70 7: 0.65 8: 0.60 9: 0.55 10: 0.50 11: 0.45 12: 0.40 13: 0.35 14: 0.30 15: 0.25 16: 0.20	4	
05	Adjustmen t mode	Process	Transfer	Number of time of cleaning at printing end		2961	0	Normal speed / High speed	0	0-7	M	0: Once 1: Twice 2: 3 times 3: 5 times 4: 7 times 5: 10 times 6: 12 times 7: 15 times	4	
05	Adjustmen t mode	Process	Transfer	Number of time of cleaning at printing end		2961	1	Decelerating	0	0-7	M	0: Once 1: Twice 2: 3 times 3: 5 times 4: 7 times 5: 10 times 6: 12 times 7: 15 times	4	
05	Adjustmen t mode	Process	Transfer	Number of time of cleaning at jam recovery / bypass non-standard printing / tab paper printing.		2962	0	Normal speed / High speed	5	0-7	M	0: Once 1: Twice 2: 3 times 3: 5 times 4: 7 times 5: 10 times 6: 12 times 7: 15 times	4	
05	Adjustmen t mode	Process	Transfer	Number of time of cleaning at jam recovery / bypass non-standard printing / tab paper printing.		2962	1	Decelerating	5	0-7	M	0: Once 1: Twice 2: 3 times 3: 5 times 4: 7 times 5: 10 times 6: 12 times 7: 15 times	4	
05	Adjustmen t mode	Process	Transfer	Number of time of cleaning at image quality control end		2963		Normal speed	0	0-7	M	0: Once 1: Twice 2: 3 times 3: 5 times 4: 7 times 5: 10 times 6: 12 times 7: 15 times	1	
05	Adjustmen t mode	Process	Transfer	Setting value of 2nd transfer restraining current 2		2964	0	Normal speed	4	-50-25	M	(Unit: µA)	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Process	Transfer	Setting value of 2nd transfer restraining current 2		2964	1	Decelerating	4	-50-25	M	(Unit: µA)	4	
05	Adjustmen t mode	Process	Transfer	Enforced toner supply / Number of time of cleaning at the end of fusing-wait period		2966	0	Normal speed / High speed	2	0-7	M	0: Once 1: Twice 2: 3 times 3: 5 times 4: 7 times 5: 10 times 6: 12 times 7: 15 times	4	
05	Adjustmen t mode	Process	Transfer	Enforced toner supply / Number of time of cleaning at the end of fusing-wait period		2966	1	Decelerating	2	0-7	M	0: Once 1: Twice 2: 3 times 3: 5 times 4: 7 times 5: 10 times 6: 12 times 7: 15 times	4	
05	Adjustmen t mode	Scanner	Scanner			3009		Log table switching for RADF copying (color)	2	0-4	SYS	0: Same log table as the one used at copying with original glass 1: Background reproduction - Light 2 2: Background reproduction - Light 1 3: Background reproduction - Dark 1 4: Background reproduction - Dark 2	1	
05	Adjustmen t mode	Scanner	Scanner	Image location adjustment		3030		Primary scanning direction	113	0-255	SYS	When the value increases by "1", the image shifts by approx. 0.0423 mm toward the front side of the paper.	1	Yes
05	Adjustmen t mode	Scanner	Scanner	Image location adjustment		3031		Secondary scanning direction	130	67-189	SYS	When the value increases by "1", the image shifts by approx. 0.08192 mm toward the trailing edge of the paper. *If the value of 05-3031 is changed, the values of 05-3046 and 05-3047 are also changed. However, the value of 05-3031 is not changed even if the values of 05-3046 and 05-3047 are changed. When the value of 05-3031 is changed, confirm the values of 05-3046 and 05-3047. When adjusting 05-3031, 05-3046, and 05-3047, adjust 05-3031 first, then adjust 05-3046 and 05-3047.	1	Yes
05	Adjustmen t mode	Scanner	Scanner	Reproduction ratio adjustment		3032		Adj. secondary scan.direction	128	0-255	SYS	When the value increases by "1", the reproduction ratio in the secondary scanning direction (vertical to paper feeding direction) increases by approx. 0.017%.	1	Yes
05	Adjustmen t mode	Scanner	Scanner			3033		Distortion mode	-	-	-	Moves carriages to the adjustment position.	6	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Scanner	Scanner	Shading position adjustment		3034		Original glass	117	71-186	SYS	0.08192mm/step	1	
05	Adjustmen t mode	Scanner	Scanner	Shading position adjustment		3035		RADF	133	71-186	SYS	0.08333 mm/step	1	
05	Adjustmen t mode	Scanner	RADF	Adjustment of RADF paper alignment		3040		Single sided original	12	0-30	SYS	When the value increases by "1", the aligning amount increases by approx. 0.4 mm.	1	
05	Adjustmen t mode	Scanner	RADF	Adjustment of RADF paper alignment		3041		Double sided original	12	0-30	SYS	When the value increases by "1", the aligning amount increases by approx. 0.5 mm.	1	
05	Adjustmen t mode	Scanner	RADF			3042		Fine adjustment of transport speed	50	0-100	SYS	When the value increases by "1", the reproduction ratio of the secondary scanning direction on original (fed from the RADF) increases by approx. 0.1%.	1	Yes
05	Adjustmen t mode	Scanner	RADF			3043		Sideways deviation adjustment	128	0-255	SYS	When the value increases by "1", the image of original fed from the RADF shifts toward the rear side of paper by approx. 0.0423 mm.	1	Yes
05	Adjustmen t mode	Scanner	RADF	Leading edge position adjustment		3044		Front side	50	0-100	SYS	When the value increases by "1", the copied image of original fed from the RADF shifts toward the trailing edge of paper by approx. 0.2 mm.	1	Yes
05	Adjustmen t mode	Scanner	RADF	Leading edge position adjustment		3045		Back side	50	0-100	SYS	When the value increases by "1", the copied image of original fed from the RADF shifts toward the trailing edge of paper by approx. 0.2 mm.	1	Yes
05	Adjustmen t mode	Scanner	Scanner	Carriage position adjustment during scanning from RADF		3046		Carriage position adjustment during scanning from RADF (black)	128	0-255	SYS	When the value increases by "1", the carriage position shifts by approx. 0.1 mm toward the exit side when using the RADF. *When adjusting 05-3031, 05-3046, and 05-3047, adjust 05-3031 first, then adjust 05-3046 and 05-3047.	1	
05	Adjustmen t mode	Scanner	Scanner	Carriage position adjustment during scanning from RADF		3047		Carriage position adjustment during scanning from RADF (color)	128	0-255	SYS	When the value increases by "1", the carriage position shifts by approx. 0.1 mm toward the exit side when using the RADF. *When adjusting 05-3031, 05-3046, and 05-3047, adjust 05-3031 first, then adjust 05-3046 and 05-3047.	1	
05	Adjustmen t mode	Scanner	Scanner	Data transfer of characteristic value		3203		CCD board -> SYS board	-	-	SYS	Transfers the characteristic values of the scanner (shading correction factor / RGB color correction / reproduction ratio color deviation correction / shading position correction factor / reproduction ratio correction value in primary scanning direction) from the EEPROM of the CCD board to the SRAM of the SYS board.	6	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Scanner	Scanner	Data transfer of characteristic value		3209		SYS board -> CCD board	-	-	SYS	Transfers the characteristic values of the scanner (shading correction factor / RGB color correction / reproduction ratio color deviation correction / shading position correction factor / reproduction ratio correction value in primary scanning direction) from the SRAM of the SYS board to the EEPROM of the CCD board.	6	
05	Adjustmen t mode	Scanner	Scanner			3218		Automatic dust detection adjustment for shading correction plate	-	-	-	Performs adjustment for shading correction plate by automatically detecting dust. If dust is detected, shading correction is performed by avoiding the dust.	6	
05	Adjustmen t mode	Scanner	Scanner	Size detection of original		3233		Position adjustment in the primary scanning direction	Refer to content	0-255	SYS	Adjusts the detection range for size of original. <Default value> 20/25ppm: NAD/TWD/CND: 128 Others: 58 LL20/25ppm: 128	1	
05	Adjustmen t mode	Scanner	Scanner	Size detection of original		3234		Waiting position adjustment of carriage	200	0-255	SYS	Adjusts the position where the carriage stops at the size detection of the original. Default value: 100 (10 mm from leading edge of original) Maximum value: 255 (25.5 mm from leading edge of original) Minimum value: 0 (0 mm from leading edge of original)	1	
05	Adjustmen t mode	Scanner	Scanner	Size detection of original		3236		Adjustment of lamp lighting time	128	0-255	SYS	Adjusts the lighting time of the lamp at the size detection of the original. Maximum value: 255 (Minimum time + 2040ms) Minimum value: 0 (Minimum time)	1	
05	Adjustmen t mode	Scanner	Scanner	Size detection of original		3237		Starting time adjustment of lamp lighting	64	0-255	SYS	Adjusts the starting time of lamp lighting when the detection accuracy of dark originals is poor. Maximum value: 255 (Minimum time + 2040 ms) Minimum value: 0 (Minimum time)	1	
05	Adjustmen t mode	Scanner	RADF			3350		Trailing edge adjustment of scanning	50	0-100	SYS	When the value increases by "1", the trailing edge of scanned original becomes longer by 0.3 mm at RADF copying. When the value decreases by "1", the trailing edge of scanned original becomes shorter by 0.3 mm at RADF copying. * This code is effective when the value of 08-3075 is "1" (Allowed).	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Image	Adj. of primary scan. writing start		4006		ALL	Refer to content	0-255	M	When the value increases by "1", the writing start position shifts to the front side by approx. 0.0423 mm. <Default value> NAD: 116 JPD: 126 Others: 128	1	Yes
05	Adjustmen t mode	Printer	Drive system	Fine adjustment of ADU motor rotational speed		4016	0	Transport speed: Normal speed	133	0-255	M	0.1%/step	4	
05	Adjustmen t mode	Printer	Drive system	Fine adjustment of ADU motor rotational speed		4016	4	Transport speed: Decelerating	128	0-255	M	0.1%/step	4	
05	Adjustmen t mode	Printer	Drive system	Fine adjustment of ADU motor rotational speed		4016	8	Transport speed1	128	0-255	M	0.1%/step	4	
05	Adjustmen t mode	Printer	Drive system	Fine adjustment of ADU motor rotational speed		4016	9	Transport speed2	128	0-255	M	0.1%/step	4	
05	Adjustmen t mode	Printer	Drive system	Fine adjustment of ADU motor rotational speed		4016	10	Transport speed3	128	0-255	M	0.1%/step	4	
05	Adjustmen t mode	Printer	Drive system	Fine adjustment of ADU motor rotational speed		4016	11	Transport speed4	128	0-255	M	0.1%/step	4	
05	Adjustmen t mode	Printer	Image	Adjustment of drawer sideways deviation		4018	0	1st drawer	128	0-255	M	When the value increases by "1", the image shifts toward the front side by 0.0423 mm.	4	
05	Adjustmen t mode	Printer	Image	Adjustment of drawer sideways deviation		4018	1	2nd drawer	128	0-255	M	When the value increases by "1", the image shifts toward the front side by 0.0423 mm.	4	
05	Adjustmen t mode	Printer	Image	Adjustment of drawer sideways deviation		4018	2	PFP upper drawer	128	0-255	M	When the value increases by "1", the image shifts toward the front side by 0.0423 mm.	4	
05	Adjustmen t mode	Printer	Image	Adjustment of drawer sideways deviation		4018	3	PFP lower drawer	128	0-255	M	When the value increases by "1", the image shifts toward the front side by 0.0423 mm.	4	
05	Adjustmen t mode	Printer	Image	Adjustment of drawer sideways deviation		4018	4	LCF	128	0-255	M	When the value increases by "1", the image shifts toward the front side by 0.0423 mm.	4	
05	Adjustmen t mode	Printer	Image	Adjustment of drawer sideways deviation		4018	5	Bypass feeding	Refer to content	0-255	M	When the value increases by "1", the image shifts toward the front side by 0.0423 mm. <Default value> JPD/NAD: 163 Others: 165	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Image	Adj. of primary scan. writing start	Duplex feeding	4019	0	Long size	Refer to content	0-255	M	When the value increases by "1", the image shifts toward the front side by 0.0423 mm. <Default value> JPD: 118 NAD: 123 Others: 116	4	Yes
05	Adjustmen t mode	Printer	Image	Adj. of primary scan. writing start	Duplex feeding	4019	1	Short size	Refer to content	0-255	M	When the value increases by "1", the image shifts toward the front side by 0.0423 mm. <Default value> JPD: 118 NAD: 123 Others: 116	4	Yes
05	Adjustmen t mode	Printer	Image	Adj. of primary scan. writing start	Duplex feeding	4019	2	Middle size	128	0-255	M	When the value increases by "1", the image shifts toward the front side by 0.0423 mm.	4	Yes
05	Adjustmen t mode	Printer	Image	Margin adjustment	PPC	4050		Top margin adjustment	0	0-255	M	When the value increases by "1", the blank area becomes wider by approx. 0.0423 mm.	1	Yes
05	Adjustmen t mode	Printer	Image	Margin adjustment	PPC	4052		Right margin adjustment	Refer to content	0-255	M	When the value increases by "1", the blank area becomes wider by approx. 0.0423 mm. <Default value> NAD: 10 Others: 0	1	Yes
05	Adjustmen t mode	Printer	Image	Margin adjustment	PPC	4053		Bottom margin adjustment	0	0-255	M	When the value increases by "1", the blank area becomes wider by approx. 0.0423 mm.	1	Yes
05	Adjustmen t mode	Printer	Image	Margin adjustment	PRT	4054		Top margin adjustment (blank area at the leading edge of the paper)	24	0-255	M	When the value increases by "1", the blank area becomes wider by approx. 0.0423 mm.	1	
05	Adjustmen t mode	Printer	Image	Margin adjustment	PRT	4056		Right margin adjustment (blank area at the right of the paper along the paper feeding direction)	0	0-255	M	When the value increases by "1", the blank area becomes wider by approx. 0.0423 mm.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Image	Margin adjustment	PRT	4057		Bottom margin adjustment (blank area at the trailing edge of the paper)	0	0-255	M	When the value increases by "1", the blank area becomes wider by approx. 0.0423 mm.	1	
05	Adjustmen t mode	Printer	Image	Leading edge position adjustment	Normal speed	4058		1st drawer	50	0-100	M	When the value increases by "1", the image shifts toward the trailing edge of the paper by approx. 0.1 mm.	1	Yes
05	Adjustmen t mode	Printer	Image	Leading edge position adjustment	Normal speed	4059		2nd drawer	50	0-100	M	When the value increases by "1", the image shifts toward the trailing edge of the paper by approx. 0.1 mm.	1	Yes
05	Adjustmen t mode	Printer	Image	Leading edge position adjustment	Normal speed	4060		PFP upper drawer	50	0-100	M	When the value increases by "1", the image shifts toward the trailing edge of the paper by approx. 0.1 mm.	1	Yes
05	Adjustmen t mode	Printer	Image	Leading edge position adjustment	Normal speed	4061		Bypass feeding	Refer to content	0-100	M	When the value increases by "1", the image shifts toward the trailing edge of the paper by approx. 0.1 mm. <Default value> NAD: 54 Others: 55	1	Yes
05	Adjustmen t mode	Printer	Image	Leading edge position adjustment	Normal speed	4062		Duplex feeding	Refer to content	0-100	M	When the value increases by "1", the image shifts toward the trailing edge of the paper by approx. 0.1 mm. <Default value> JPD: 52 NAD: 56 Others: 55	1	Yes
05	Adjustmen t mode	Printer	Image	Bottom margin adjustment (blank area at the trailing edge of the paper)	Reverse side at duplexing	4064	0	Plain paper (Black)	24	0-255	M	When the value increases, the blank area becomes wider.	4	
05	Adjustmen t mode	Printer	Image	Right margin adjustment (blank area at the right of the paper along the paper feeding direction)	Reverse side at duplexing	4064	1	Plain paper (Black)	18	0-255	M	When the value increases, the blank area becomes wider.	4	
05	Adjustmen t mode	Printer	Image	Bottom margin adjustment (blank area at the trailing edge of the paper)	Reverse side at duplexing	4064	2	Plain paper (Color)	24	0-255	M	When the value increases, the blank area becomes wider.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Image	Right margin adjustment (blank area at the right of the paper along the paper feeding direction)	Reverse side at duplexing	4064	3	Plain paper (Color)	18	0-255	M	When the value increases, the blank area becomes wider.	4	
05	Adjustmen t mode	Printer	Image	Bottom margin adjustment (blank area at the trailing edge of the paper)/Reverse side at duplexing (color)	Reverse side at duplexing	4064	4	Thick paper1	18	0-255	M	When the value increases, the blank area becomes wider.	4	
05	Adjustmen t mode	Printer	Image	Right margin adjustment (blank area at the right of the paper along the paper feeding direction)	Reverse side at duplexing	4064	5	Thick paper1	12	0-255	M	When the value increases, the blank area becomes wider.	4	
05	Adjustmen t mode	Printer	Image	Leading edge position adjustment (Decelerated)		4065		Reference for adjustment	Refer to content	0-200	M	When the value increases by "1", the image shifts toward the trailing edge of the paper by approx. 0.1 mm. <Default value> NAD: 97 Others: 106	1	
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	1st drawer	4100	0	Plain paper; Long size	34	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	1st drawer	4100	1	Plain paper; Middle size	37	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	1st drawer	4100	2	Plain paper; Short size1	34	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	1st drawer	4100	3	Plain paper; :Short size2	34	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	1st drawer	4100	4	Plain paper; :Short size3	34	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	2nd drawer	4101	0	Plain paper; Long size	32	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	2nd drawer	4101	1	Plain paper; Middle size	32	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	2nd drawer	4101	2	Plain paper; Short size1	19	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	2nd drawer	4101	3	Plain paper; :Short size2	19	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	2nd drawer	4101	4	Plain paper; :Short size3	19	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4103	0	Plain paper; Long size	37	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4103	1	Plain paper; Middle size	37	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4103	2	Plain paper; Short size1	37	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4103	3	Plain paper; :Short size2	37	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4103	4	Plain paper; :Short size3	37	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4104	0	Thick paper1 ;Long size	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4104	1	Thick paper1 ;Middle size	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4104	2	Thick paper1 ;Short size1	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes

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05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4104	3	Thick paper1 ;Short size2	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4104	4	Thick paper1 ;Short size3	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4105	0	Thick paper2 ;Long size	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4105	1	Thick paper2 ;Middle size	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4105	2	Thick paper2 ;Short size1	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4105	3	Thick paper2 ;Short size2	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4105	4	Thick paper2 ;Short size3	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4106	0	Thick paper3 ;Long size	39	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4106	1	Thick paper3 ;Middle size	39	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4106	2	Thick paper3 ;Short size1	39	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4106	3	Thick paper3 ;Short size2	39	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4106	4	Thick paper3 ;Short size3	39	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4107	0	OHP film ;Long size	30	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4107	1	OHP film ;Middle size	30	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4107	2	OHP film ;Short size1	30	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4107	3	OHP film ;Short size2	30	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4107	4	OHP film ;Short size3	30	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	PFP upper drawer	4108	0	Plain paper; Long size	34	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	PFP upper drawer	4108	1	Plain paper; Middle size	30	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	PFP upper drawer	4108	2	Plain paper; Short size1	24	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	PFP upper drawer	4108	3	Plain paper; :Short size2	24	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	PFP upper drawer	4108	4	Plain paper; :Short size3	24	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	PFP lower drawer	4109	0	Plain paper; Long size	34	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	PFP lower drawer	4109	1	Plain paper; Middle size	30	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	PFP lower drawer	4109	2	Plain paper; Short size1	24	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	PFP lower drawer	4109	3	Plain paper; :Short size2	24	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	PFP lower drawer	4109	4	Plain paper; :Short size3	24	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	ADU	4110	0	Plain paper; Long size	36	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.6 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	ADU	4110	1	Plain paper; Middle size	36	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.6 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	ADU	4110	2	Plain paper; Short size1	36	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.6 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	ADU	4110	3	Plain paper; :Short size2	36	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.6 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	ADU	4110	4	Plain paper; :Short size3	36	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.6 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	LCF	4111		Plain paper	24	0-63	M	When the value increases by "1", the aligning amount increases as follows: 0.5 mm <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	1	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Adjustment of paper pushing amount at bypass feeding		4112	0	Plain paper/Recycled paper	30	0-63	M	When the value increases by "1", the paper pushing amount at bypass feeding increases by approx. 0.9 mm.	4	
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Adjustment of paper pushing amount at bypass feeding		4112	1	Thick paper/Special paper/Transparencies	20	0-63	M	When the value increases by "1", the paper pushing amount at bypass feeding increases by approx. 0.6 mm.	4	
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Adjustment of paper pushing amount/1st drawer		4113	0	Plain paper/Recycled paper	10	0-63	M	When the value increases by "1", the paper pushing amount at feeding from 1st drawer increases by approx. 0.9 mm.	4	
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Adjustment of paper pushing amount/1st drawer		4113	1	Thick paper/Special paper	20	0-63	M	When the value increases by "1", the paper pushing amount at feeding from 1st drawer increases by approx. 0.6 mm.	4	
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	1st drawer	4115	0	Thick paper1 ;Long size	39	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	1st drawer	4115	1	Thick paper1 ;Middle size	39	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	1st drawer	4115	2	Thick paper1 ;Short size1	39	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	1st drawer	4115	3	Thick paper1 ;Short size2	39	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	1st drawer	4115	4	Thick paper1 ;Short size3	39	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	2nd drawer	4116	0	Thick paper1 ;Long size	32	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	2nd drawer	4116	1	Thick paper1 ;Middle size	32	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	2nd drawer	4116	2	Thick paper1 ;Short size1	19	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	2nd drawer	4116	3	Thick paper1 ;Short size2	19	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	2nd drawer	4116	4	Thick paper1 ;Short size3	19	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	PFP upper drawer	4117	0	Thick paper1 ;Long size	34	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	PFP upper drawer	4117	1	Thick paper1 ;Middle size	30	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	PFP upper drawer	4117	2	Thick paper1 ;Short size1	24	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	PFP upper drawer	4117	3	Thick paper1 ;Short size2	24	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	PFP upper drawer	4117	4	Thick paper1 ;Short size3	24	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	PFP lower drawer	4118	0	Thick paper1 ;Long size	34	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	PFP lower drawer	4118	1	Thick paper1 ;Middle size	30	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustment mode	Printer	Feeding system/Paper transport	Paper aligning amount adjustment	PFP lower drawer	4118	2	Thick paper1 ;Short size1	24	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustment mode	Printer	Feeding system/Paper transport	Paper aligning amount adjustment	PFP lower drawer	4118	3	Thick paper1 ;Short size2	24	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustment mode	Printer	Feeding system/Paper transport	Paper aligning amount adjustment	PFP lower drawer	4118	4	Thick paper1 ;Short size3	24	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustment mode	Printer	Feeding system/Paper transport	Paper aligning amount adjustment	ADU	4120	0	Thick paper/Special paper; Long size	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	ADU	4120	1	Thick paper/Special paper; Middle size	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	ADU	4120	2	Thick paper/Special paper; Short size1	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	ADU	4120	3	Thick paper/Special paper; Short size2	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	ADU	4120	4	Thick paper/Special paper; Short size3	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4128	0	Special paper1 ;Long size	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4128	1	Special paper1 ;Middle size	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4128	2	Special paper1 ;Short size1	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4128	3	Special paper1 ;Short size2	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4128	4	Special paper1 ;Short size3	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4129	0	Special paper2 ;Long size	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4129	1	Special paper2 ;Middle size	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4129	2	Special paper2 ;Short size1	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4129	3	Special paper2 ;Short size2	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment	Bypass feeding	4129	4	Special paper2 ;Short size3	27	0-63	M	When the value increases by "1", the aligning amount increases by approx. 0.6 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size 1: 205 mm to 219 mm Short size 2: 160 mm to 204 mm Short size 3: 159 mm or shorter	4	Yes
05	Adjustmen t mode	Printer	Image	Leading edge position adjustment	Normal speed	4402		Common items	Refer to content s	0-200	M	When the value increases by "1", the image shifts toward the trailing edge of the paper by approx. 0.1 mm. <Default value> JPD: 130 NAD: 123 Others: 132	1	Yes
05	Adjustmen t mode	Printer	Drive	Fine adj. of drum/transfer belt motor speed		4526	0	Transport speed: Normal speed	Refer to content	0-255	M	When the value increases, the motor speed becomes faster. (0.1%/step) <Default value> JPD: 134 NAD: 128 Others: 133	4	
05	Adjustmen t mode	Printer	Drive	Fine adj. of transfer belt motor speed		4526	4	Transport speed: Decelerating	128	0-255	M	When the value increases, the motor speed becomes faster. (0.1%/step)	4	
05	Adjustmen t mode	Printer	Drive	Fine adjustment of fuser roller rotational speed		4529	0	Transport speed: Normal speed	131	0-255	M	0.1%/step	4	
05	Adjustmen t mode	Printer	Drive	Fine adjustment of fuser roller rotational speed	PRT (Long size)	4529	3	Transport speed: Normal speed	128	0-255	M	0.1%/step	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Drive	Fine adjustment of fuser roller rotational speed		4529	4	Transport speed: Decelerating	128	0-255	M	0.1%/step	4	
05	Adjustmen t mode	Printer	Drive	Fine adjustment of fuser roller rotational speed	PRT (Long size)	4529	7	Transport speed: Decelerating	128	0-255	M	0.1%/step	4	
05	Adjustmen t mode	Printer	Drive	Fine adjustment of feed/transport motor rotational speed		4532	0	Transport speed: Normal speed	126	0-255	M	0.1%/step	4	
05	Adjustmen t mode	Printer	Drive	Fine adjustment of feed/transport motor rotational speed	PRT (Long size)	4532	3	Transport speed: Normal speed	128	0-255	M	0.1%/step	4	
05	Adjustmen t mode	Printer	Drive	Fine adjustment of feed/transport motor rotational speed		4532	4	Transport speed: Decelerating	129	0-255	M	0.1%/step	4	
05	Adjustmen t mode	Printer	Drive	Fine adjustment of feed/transport motor rotational speed	PRT (Long size)	4532	7	Transport speed: Decelerating	128	0-255	M	0.1%/step	4	
05	Adjustmen t mode	Printer	Drive	Fine adjustment of exit motor rotational speed		4535	0	Transport speed: Normal speed	105	0-255	M	When the value increases, the motor speed becomes faster. (0.1%/step)	4	
05	Adjustmen t mode	Printer	Drive	Fine adjustment of exit motor rotational speed	PRT (Long size)	4535	3	Transport speed: Normal speed	128	0-255	M	When the value increases, the motor speed becomes faster. (0.1%/step)	4	
05	Adjustmen t mode	Printer	Drive	Fine adjustment of exit motor rotational speed		4535	4	Transport speed: Decelerating	128	0-255	M	When the value increases, the motor speed becomes faster. (0.1%/step)	4	
05	Adjustmen t mode	Printer	Drive	Fine adjustment of exit motor rotational speed	PRT (Long size)	4535	7	Transport speed: Decelerating	128	0-255	M	When the value increases, the motor speed becomes faster. (0.1%/step)	4	
05	Adjustmen t mode	Printer	Drive	Fine adjustment of exit motor rotational speed		4535	8	Transport speed1	128	0-255	M	When the value increases, the motor speed becomes faster. (0.1%/step)	4	
05	Adjustmen t mode	Printer	Drive	Fine adjustment of exit motor rotational speed		4535	9	Transport speed2	128	0-255	M	When the value increases, the motor speed becomes faster. (0.1%/step)	4	
05	Adjustmen t mode	Printer	Drive	Fine adjustment of exit motor rotational speed		4535	10	Transport speed3	128	0-255	M	When the value increases, the motor speed becomes faster. (0.1%/step)	4	
05	Adjustmen t mode	Printer	Drive	Fine adjustment of exit motor rotational speed		4535	11	Transport speed4	128	0-255	M	When the value increases, the motor speed becomes faster. (0.1%/step)	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Drive	Fine adjustment of exit motor rotational speed		4535	12	Transport speed: Normal speed (Transport in ADU)	128	0-255	M	When the value increases, the motor speed becomes faster. (0.1%/step)	4	
05	Adjustmen t mode	Printer	Drive	Fine adjustment of exit motor rotational speed	PRT (Long size)	4535	15	Transport speed: Normal speed (Transport in ADU)	128	0-255	M	When the value increases, the motor speed becomes faster. (0.1%/step)	4	
05	Adjustmen t mode	Printer	Drive	Fine adjustment of exit motor rotational speed		4535	16	Transport speed: Decelerating (Transport in ADU)	128	0-255	M	When the value increases, the motor speed becomes faster. (0.1%/step)	4	
05	Adjustmen t mode	Printer	Drive	Fine adjustment of exit motor rotational speed	PRT (Long size)	4535	19	Transport speed: Decelerating (Transport in ADU)	128	0-255	M	When the value increases, the motor speed becomes faster. (0.1%/step)	4	
05	Adjustmen t mode	Printer	Image	Leading edge position adjustment	Normal speed	4560		PFP lower drawer	50	0-100	M	When the value increases by "1", the image shifts toward the trailing edge of the paper by approx. 0.1 mm.	1	Yes
05	Adjustmen t mode	Printer	Image	Leading edge position adjustment	Normal speed	4561		T-LCF	50	0-100	M	When the value increases by "1", the image shifts toward the trailing edge of the paper by approx. 0.1 mm.	1	Yes
05	Adjustmen t mode	Printer	Image	Auxiliary adjustment value of leading edge position adjustment	1st drawer	4562	0	Thick paper 1	56	0-100	M	When the value increases by "1", the image shifts toward the trailing edge of the paper by approx. 0.1 mm.	4	
05	Adjustmen t mode	Printer	Image	Auxiliary adjustment value of leading edge position adjustment	2nd drawer	4563	0	Thick paper 1	56	0-100	M	When the value increases by "1", the image shifts toward the trailing edge of the paper by approx. 0.1 mm.	4	
05	Adjustmen t mode	Printer	Image	Auxiliary adjustment value of leading edge position adjustment	PFP upper drawer	4564	0	Thick paper 1	56	0-100	M	When the value increases by "1", the image shifts toward the trailing edge of the paper by approx. 0.1 mm.	4	
05	Adjustmen t mode	Printer	Image	Auxiliary adjustment value of leading edge position adjustment	PFP lower drawer	4565	0	Thick paper 1	56	0-100	M	When the value increases by "1", the image shifts toward the trailing edge of the paper by approx. 0.1 mm.	4	
05	Adjustmen t mode	Printer	Image	Leading edge position adjustment (Decelerated)	Bypass feeding	4567	0	Thick paper 1	59	0-100	M	When the value increases by "1", the image shifts toward the trailing edge of the paper by approx. 0.1 mm.	4	
05	Adjustmen t mode	Printer	Image	Leading edge position adjustment (Decelerated)	Bypass feeding	4567	1	Thick paper 2	64	0-100	M	When the value increases by "1", the image shifts toward the trailing edge of the paper by approx. 0.1 mm.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Image	Leading edge position adjustment (Decelerated)	Bypass feeding	4567	2	Thick paper 3	64	0-100	M	When the value increases by "1", the image shifts toward the trailing edge of the paper by approx. 0.1 mm.	4	
05	Adjustmen t mode	Printer	Image	Leading edge position adjustment (Decelerated)	Bypass feeding	4567	3	OHP film	56	0-100	M	When the value increases by "1", the image shifts toward the trailing edge of the paper by approx. 0.1 mm.	4	
05	Adjustmen t mode	Printer	Image	Leading edge position adjustment (Decelerated)	Bypass feeding	4567	4	Special paper 1	64	0-100	M	When the value increases by "1", the image shifts toward the trailing edge of the paper by approx. 0.1 mm.	4	
05	Adjustmen t mode	Printer	Image	Leading edge position adjustment (Decelerated)	Bypass feeding	4567	5	Special paper 2	64	0-100	M	When the value increases by "1", the image shifts toward the trailing edge of the paper by approx. 0.1 mm.	4	
05	Adjustmen t mode	Printer	Image	Auxiliary adjustment value of leading edge position adjustment	ADU	4568	0	Thick paper 1	56	0-100	M	When the value increases by "1", the image shifts toward the trailing edge of the paper by approx. 0.1 mm.	4	
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Paper aligning amount adjustment		4579		Using icons	-	-	M	Press the button on the LCD.	4	Yes
05	Adjustmen t mode	Printer	Image control			4719		Forced color registration control	-	-	M	Forcibly performs the color registration control adjustment in order to eliminate the color deviation of Y, M, C and K colors.	6	Yes
05	Adjustmen t mode	Printer	Image control			4720		Displaying parameters for color regist.	-	0-255	M	Checks the cause of a "CA00" error when it occurs.	2	Yes
05	Adjustmen t mode	Printer	Image	Image void correction code	PPC (black)	4731	0	Top margin	29	0-48	M	(0.4mm/10step)	4	
05	Adjustmen t mode	Printer	Image	Image void correction code	PPC (color)	4731	1	Top margin	48	0-48	M	(0.4mm/10step)	4	
05	Adjustmen t mode	Printer	Image	Image void correction code	PRT (black)	4731	2	Top margin	29	0-48	M	(0.4mm/10step)	4	
05	Adjustmen t mode	Printer	Image	Image void correction code	PRT (color)	4731	3	Top margin	29	0-48	M	(0.4mm/10step)	4	
05	Adjustmen t mode	Printer	Image	Image void correction code	PPC (black)	4731	4	Bottom margin	24	0-48	M	(0.4mm/10step)	4	
05	Adjustmen t mode	Printer	Image	Image void correction code	PPC (color)	4731	5	Bottom margin	24	0-48	M	(0.4mm/10step)	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Image	Image void correction code	PRT (black)	4731	6	Bottom margin	0	0-48	M	(0.4mm/10step)	4	
05	Adjustmen t mode	Printer	Image	Image void correction code	PRT (color)	4731	7	Bottom margin	0	0-48	M	(0.4mm/10step)	4	
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Setting method of drawer size		4800	0	1st drawer	Refer to content s	0-2	SYS	0: Manual 1: Automatic (mm) 2: Automatic (inch) <Default value> NAD: 2 Others: 1	4	
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Setting method of drawer size		4800	1	2nd drawer	Refer to content s	0-2	SYS	0: Manual 1: Automatic (mm) 2: Automatic (inch) <Default value> NAD: 2 Others: 1	4	
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Setting method of drawer size		4800	2	3rd drawer	Refer to content s	0-2	SYS	0: Manual 1: Automatic (mm) 2: Automatic (inch) <Default value> NAD: 2 Others: 1	4	
05	Adjustmen t mode	Printer	Feeding system/Pa per transport	Setting method of drawer size		4800	3	4th drawer	Refer to content s	0-2	SYS	0: Manual 1: Automatic (mm) 2: Automatic (inch) <Default value> NAD: 2 Others: 1	4	
05	Adjustmen t mode	Printer	Aligning adjustment	Batch conversion	Plain paper	4808	0	Drawer	0	-20-20	M	0.5 mm/step	4	
05	Adjustmen t mode	Printer	Aligning adjustment	Batch conversion	Plain paper	4808	1	Bypass feeding	0	-20-20	M	0.5 mm/step	4	
05	Adjustmen t mode	Printer	Aligning adjustment	Batch conversion	Plain paper	4808	2	ADU	0	-20-20	M	0.5 mm/step	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Aligning adjustment	Batch conversion	Thick paper 1	4809	0	Drawer	0	-20-20	M	0.6 mm/step	4	
05	Adjustmen t mode	Printer	Aligning adjustment	Batch conversion	Thick paper 1	4809	1	Bypass feeding	0	-20-20	M	0.6 mm/step	4	
05	Adjustmen t mode	Printer	Aligning adjustment	Batch conversion	Thick paper 1	4809	2	ADU	0	-20-20	M	0.6 mm/step	4	
05	Adjustmen t mode	Printer	Aligning adjustment	Batch conversion	Thick paper 2	4810	0	Drawer	0	-20-20	M	0.6 mm/step	4	
05	Adjustmen t mode	Printer	Aligning adjustment	Batch conversion	Thick paper 2	4810	1	Bypass feeding	0	-20-20	M	0.6 mm/step	4	
05	Adjustmen t mode	Printer	Aligning adjustment	Batch conversion	Thick paper 2	4810	2	ADU	0	-20-20	M	0.6 mm/step	4	
05	Adjustmen t mode	Printer	Aligning adjustment	Batch conversion	Thick paper 3	4811	0	Drawer	0	-20-20	M	0.6 mm/step	4	
05	Adjustmen t mode	Printer	Aligning adjustment	Batch conversion	Thick paper 3	4811	1	Bypass feeding	0	-20-20	M	0.6 mm/step	4	
05	Adjustmen t mode	Printer	Aligning adjustment	Batch conversion	Thick paper 3	4811	2	ADU	0	-20-20	M	0.6 mm/step	4	
05	Adjustmen t mode	Printer	Finisher	Saddle stitch	Adjustment of stapling position	4820	0	LD/A3	0	-17-17	M	0.2mm/step * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Printer	Finisher	Saddle stitch	Adjustment of stapling position	4820	1	LG/B4/8K/A4-R/LT-R/16K-R	0	-17-17	M	0.2mm/step * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Printer	Finisher	Saddle stitch	Adjustment of paper folding position	4821	0	LD/A3	0	-17-17	M	0.2mm/step * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Printer	Finisher	Saddle stitch	Adjustment of paper folding position	4821	1	LG/B4/8K/A4-R/LT-R/16K-R	0	-17-17	M	0.2mm/step * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Printer	Finisher	Alignment position adjustment		4822	0	Front	0	-17-17	M	0.2mm/step * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Printer	Finisher	Alignment position adjustment		4822	1	Rear	0	-17-17	M	0.2mm/step * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Printer	Finisher	Stapling position adjustment		4823	0	Rear – One place	0	-25-25	M	0.2mm/step * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Printer	Finisher	Stapling position adjustment		4823	1	Rear – One place (R-series size)	0	-17-25	M	0.2mm/step * This code is not supported by LL20/25ppm model.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Printer	Finisher	Stapling position adjustment		4823	2	Front – One place	0	-25-25	M	0.2mm/step * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Printer	Finisher	Stapling position adjustment		4823	3	Front – One place (R-series size)	0	-25-17	M	0.2mm/step * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Printer	Finisher	Stapling position adjustment		4823	4	Center – 2 places	0	-17-17	M	0.2mm/step * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Printer	Finisher	Stapling position adjustment		4823	5	Center – 2 places (Pitch)	0	-15-12	M	0.2mm/step * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Printer	Finisher			4824		Adjustment of hole punch center position	0	-15-15	M	0.2mm/step * This code is not supported by LL20/25ppm model.	1	Yes
05	Adjustmen t mode	Printer	Finisher			4825		Adjustment of hole punch position	0	-20-12	M	0.2mm/step * This code is not supported by LL20/25ppm model.	1	Yes
05	Adjustmen t mode	Printer	Finisher	Saddle stitch		4826		Adjustment of alignment position	0	-15-15	M	0.2mm/step * This code is not supported by LL20/25ppm model.	1	Yes
05	Adjustmen t mode	Printer	Finisher			4827		Adjustment of ejection position of gripper	0	-15-15	M	0.2mm/step * This code is not supported by LL20/25ppm model.	1	Yes
05	Adjustmen t mode	Printer	Image	Amount of void at the trailing edge		4831		Non-standard paper by bypass feeding	100	0-200	M	Adjusts the amount of void at the trailing edge of non-standard paper by bypass feeding. When the value is too small, stain may appear on the back side of paper. 0.1mm/step.	1	Yes
05	Adjustmen t mode	Printer	Aligning adjustment	ADU	Small-sized paper	4832	0	Plain paper/Recycled paper	0	0-50	M	0.6mm/step	4	
05	Adjustmen t mode	Printer	Aligning adjustment	ADU	Small-sized paper	4832	1	Thick paper/Special paper	0	0-50	M	0.6mm/step	4	
05	Adjustmen t mode	Printer				4833		Recovery from toner empty/waste toner full	-	-	M	Perform this code to recover from toner empty/waste toner full.	6	
05	Adjustmen t mode	Process	Fuser			5990		Enforced performing of noncontact thermistor correction	-	-	M	Sets the amount of correction for the difference of detected temperature caused by the gap between the noncontact thermistor and heat roller. Perform this code when the fuser unit or fuser unit related parts are replaced. However, performing this code is not necessary if the new or old detection control is enabled.	6	
05	Adjustmen t mode	Image Processing	Reproducti on ratio adjustment	Primary scanning direction		7000		PPC	128	0-255	SYS	When the value increases by "1", the reproduction ratio in the primary scanning direction increases by approx. 0.1%.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustment mode	Image Processing	Reproduction ratio adjustment	Primary scanning direction		7001		PRT/FAX	128	128-255	SYS	When the value increases by "1", the reproduction ratio in the primary scanning direction increases by approx. 0.1%.	1	
05	Adjustment mode	Image Processing	Background offset adjustment	PPC/SCN(black)		7025		ADF	128	0-255	SYS	The larger the adjustment value, the darker the background becomes. The smaller the adjustment value, the lighter the background becomes.	1	Yes
05	Adjustment mode	Image Processing	Background offset adjustment	PPC/SCN(color)		7026		ADF	128	0-255	SYS	The larger the adjustment value, the darker the background becomes. The smaller the adjustment value, the lighter the background becomes.	1	Yes
05	Adjustment mode	Image Processing	Sharpness adjustment	PPC(black)		7056		Text/Photo	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	Yes
05	Adjustment mode	Image Processing	Sharpness adjustment	PPC(black)		7057		Text	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	Yes
05	Adjustment mode	Image Processing	Sharpness adjustment	PPC(black)		7058		Photo	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	Yes
05	Adjustment mode	Image Processing	Sharpness adjustment	PPC(black)		7061		Gray scale	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	Yes
05	Adjustment mode	Image Processing	Smudged/faint text adjustment	PPC(black)		7097		Text/Photo	2	0-4	SYS	0: Faint text is suppressed most. 4: Smudged text is suppressed most.	1	Yes
05	Adjustment mode	Image Processing	Smudged/faint text adjustment	PPC(black)		7098		Text	2	0-4	SYS	0: Faint text is suppressed most. 4: Smudged text is suppressed most.	1	Yes
05	Adjustment mode	Image Processing	Background adjustment	PPC(black)		7100		Text/Photo	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes.	1	Yes
05	Adjustment mode	Image Processing	Background adjustment	PPC(black)		7101		Text	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes.	1	Yes
05	Adjustment mode	Image Processing	Background adjustment	PPC(black)		7102		Photo	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes.	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PPC(black)		7105		Gray scale	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PPC(black)		7106		User custom	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(black)	Manual adjustment/Center value	7114		Text/Photo	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(black)	Manual adjustment/Center value	7115		Text	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(black)	Manual adjustment/Center value	7116		Photo	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(black)	Automatic density adjustment	7123		Text/Photo	128	0-255	SYS	The larger the value, the darker the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(black)	Automatic density adjustment	7124		Text	128	0-255	SYS	The larger the value, the darker the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(black)	Automatic density adjustment	7125		Photo	128	0-255	SYS	The larger the value, the darker the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(black)	Manual adjustment/Center value	7134		User custom	128	0-255	SYS	The larger the value, the darker the image of the center value becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(black)	Automatic density adjustment	7137		User custom	128	0-255	SYS	The larger the value, the darker the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(black)	Manual adjustment/Center value	7138		Gray scale	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(black)	Automatic density adjustment	7141		Gray scale	128	0-255	SYS	The larger the value, the darker the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	ADF noise reduction	PPC(black)		7150		User custom	100	0-200	SYS	When the value decreases, the effect of reducing streaks (set with 08-7617) becomes larger. When the value increases, the effect of reducing streaks (set with 08-7617) becomes smaller. When the value is too small, text might be blurry. When "0" is set, this function is disabled.	1	
05	Adjustmen t mode	Image Processing	ADF noise reduction	PPC(black)		7151		Text/Photo	100	0-200	SYS	When the value decreases, the effect of reducing streaks (set with 08-7617) becomes larger. When the value increases, the effect of reducing streaks (set with 08-7617) becomes smaller. When the value is too small, text might be blurry. When "0" is set, this function is disabled.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	ADF noise reduction	PPC(black)		7152		Text	100	0-200	SYS	When the value decreases, the effect of reducing streaks (set with 08-7617) becomes larger. When the value increases, the effect of reducing streaks (set with 08-7617) becomes smaller. When the value is too small, text might be blurry. When "0" is set, this function is disabled.	1	
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PPC(black)	Text/Photo	7190	0	Low density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PPC(black)	Text/Photo	7190	1	Medium density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PPC(black)	Text/Photo	7190	2	High density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PPC(black)	Text	7191	0	Low density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PPC(black)	Text	7191	1	Medium density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PPC(black)	Text	7191	2	High density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PPC(black)	Photo	7192	0	Low density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PPC(black)	Photo	7192	1	Medium density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PPC(black)	Photo	7192	2	High density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	LED emission level adjustment	PPC(black)		7212	1	Emission level 1/4	63	0-255	SYS	The smaller the value, the lower the emission level becomes and the smaller the dots are reproduced.	4	Yes
05	Adjustmen t mode	Image Processing	LED emission level adjustment	PPC(black)		7212	2	Emission level 2/4	127	0-255	SYS	The smaller the value, the lower the emission level becomes and the smaller the dots are reproduced.	4	Yes
05	Adjustmen t mode	Image Processing	LED emission level adjustment	PPC(black)		7212	3	Emission level 3/4	191	0-255	SYS	The smaller the value, the lower the emission level becomes and the smaller the dots are reproduced.	4	Yes
05	Adjustmen t mode	Image Processing	LED emission level adjustment	PPC(black)		7212	4	Emission level 4/4	240	0-255	SYS	The smaller the value, the lower the emission level becomes and the smaller the dots are reproduced.	4	Yes
05	Adjustmen t mode	Image Processing	LED emission level adjustment	PPC(black)		7212	0	Emission level 0/4	0	0-255	SYS	The smaller the value, the lower the emission level becomes and the smaller the dots are reproduced.	4	Yes
05	Adjustmen t mode	Image Processing	Range correction adjustment	PPC(black)	Black/Manual density adjustment	7237		User custom	1	0-1	SYS	0: Background peak - Fixed 1: Background peak - Varied	1	
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PPC(black)		7249		User custom	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	
05	Adjustmen t mode	Image Processing	Smudged/f aint text adjustment	PPC(black)		7252		User custom	2	0-4	SYS	0: Faint text is suppressed most. 4: Smudged text is suppressed most.	1	
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PPC(black)	User custom	7276	0	Low density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustment mode	Image Processing	Gamma balance adjustment	PPC(black)	User custom	7276	1	Medium density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	
05	Adjustment mode	Image Processing	Gamma balance adjustment	PPC(black)	User custom	7276	2	High density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	
05	Adjustment mode	Image Processing	Range correction adjustment	PPC(black)	Black/Manual density adjustment	7286		Text/Photo	1	0-1	SYS	0: Background peak - Fixed 1: Background peak - Varied	1	
05	Adjustment mode	Image Processing	Range correction adjustment	PPC(black)	Black/Manual density adjustment	7287		Text	1	0-1	SYS	0: Background peak - Fixed 1: Background peak - Varied	1	
05	Adjustment mode	Image Processing	Upper limit value in toner saving mode	PRT(black/1200dpi)		7302		PS	176	0-255	SYS	The smaller the value, the lighter the printed image becomes. * This code is not supported by LL20/25ppm model.	1	Yes
05	Adjustment mode	Image Processing	Upper limit value in toner saving mode	PRT(black/600dpi)		7307	0	PS	176	0-255	SYS	The smaller the value, the lighter the printed image becomes.	4	Yes
05	Adjustment mode	Image Processing	Upper limit value in toner saving mode	PRT(black/600dpi)		7307	1	PCL	176	0-255	SYS	The smaller the value, the lighter the printed image becomes.	4	Yes
05	Adjustment mode	Image Processing	Upper limit value in toner saving mode	PRT(black/600dpi)		7307	2	XPS	176	0-255	SYS	The smaller the value, the lighter the printed image becomes.	4	Yes
05	Adjustment mode	Image Processing	Gamma balance adjustment	PRT(black)	PS/Smooth/1200dpi	7309	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustment mode	Image Processing	Gamma balance adjustment	PRT(black)	PS/Smooth/1200dpi	7309	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PRT(black)	PS/Smooth/1200dpi	7309	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PRT(black)	PS/Detail/1200dpi	7310	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PRT(black)	PS/Detail/1200dpi	7310	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PRT(black)	PS/Detail/1200dpi	7310	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PRT(black)	PS/Smooth/600dpi	7315	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PRT(black)	PS/Smooth/600dpi	7315	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PRT(black)	PS/Smooth/600dpi	7315	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PRT(black)	PS/Detail/600dpi	7316	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PRT(black)	PS/Detail/600dpi	7316	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PRT(black)	PS/Detail/600dpi	7316	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PRT(black)	PCL/Smooth/600dpi	7317	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PRT(black)	PCL/Smooth/600dpi	7317	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PRT(black)	PCL/Smooth/600dpi	7317	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PRT(black)	PCL/Detail/600dpi	7318	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PRT(black)	PCL/Detail/600dpi	7318	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PRT(black)	PCL/Detail/600dpi	7318	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PRT(black)	XPS/Smooth/600dpi	7319	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PRT(black)	XPS/Smooth/600dpi	7319	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PRT(black)	XPS/Smooth/600dpi	7319	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PRT(black)	XPS/Detail/600dpi	7320	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PRT(black)	XPS/Detail/600dpi	7320	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PRT(black)	XPS/Detail/600dpi	7320	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Fine line enhancem ent switchover	PRT(black)		7322	0	PS	1	0-1	SYS	0: OFF 1: ON * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Fine line enhancem ent switchover	PRT(black)		7322	1	PCL	1	0-1	SYS	0: OFF 1: ON	4	Yes
05	Adjustmen t mode	Image Processing	Fine line enhancem ent switchover	PRT(black)		7322	2	XPS	1	0-1	SYS	0: OFF 1: ON * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	LED emission level adjustment	PRT(black)		7330	0	Emission level 0/4	0	0-255	SYS	The smaller the value, the lower the emission level becomes and the smaller the dots are reproduced.	4	Yes
05	Adjustmen t mode	Image Processing	LED emission level adjustment	PRT(black)		7330	1	Emission level 1/4	63	0-255	SYS	The smaller the value, the lower the emission level becomes and the smaller the dots are reproduced.	4	Yes
05	Adjustmen t mode	Image Processing	LED emission level adjustment	PRT(black)		7330	2	Emission level 2/4	127	0-255	SYS	The smaller the value, the lower the emission level becomes and the smaller the dots are reproduced.	4	Yes
05	Adjustmen t mode	Image Processing	LED emission level adjustment	PRT(black)		7330	3	Emission level 3/4	191	0-255	SYS	The smaller the value, the lower the emission level becomes and the smaller the dots are reproduced.	4	Yes
05	Adjustmen t mode	Image Processing	LED emission level adjustment	PRT(black)		7330	4	Emission level 4/4	255	0-255	SYS	The smaller the value, the lower the emission level becomes and the smaller the dots are reproduced.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Smudged/f aint text adjustment	PRT(black)		7340		PS	0	0-8	SYS	The larger the value, the darker the small text and fine lines become and the more faint text is suppressed. * This code is not supported by LL20/25ppm model.	1	Yes
05	Adjustmen t mode	Image Processing	Smudged/f aint text adjustment	PRT(black)		7341		PCL	0	0-8	SYS	The larger the value, the darker the small text and fine lines become and the more faint text is suppressed.	1	Yes
05	Adjustmen t mode	Image Processing	Smudged/f aint text adjustment	PRT(black)		7342		XPS	0	0-8	SYS	The larger the value, the darker the small text and fine lines become and the more faint text is suppressed. * This code is not supported by LL20/25ppm model.	1	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	PS/Text	7360	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	PS/Text	7360	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	PS/Text	7360	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	PS/Graphics	7361	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	PS/Graphics	7361	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	PS/Graphics	7361	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	PS/Image	7362	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	PS/Image	7362	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	PS/Image	7362	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	PCL/Text	7363	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	PCL/Text	7363	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	PCL/Text	7363	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	PCL/Graphics	7364	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	PCL/Graphics	7364	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	PCL/Graphics	7364	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	PCL/Image	7365	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	PCL/Image	7365	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	PCL/Image	7365	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	XPS/Text	7366	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	XPS/Text	7366	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	XPS/Text	7366	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	XPS/Graphics	7367	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	XPS/Graphics	7367	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	XPS/Graphics	7367	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	XPS/Image	7368	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	XPS/Image	7368	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	Monochrome/600dpi/ Auto	XPS/Image	7368	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	ADF noise reduction	SCN(black)		7400		User custom	100	0-200	SYS	When the value decreases, the effect of reducing streaks (set with 08-8300) becomes larger. When the value increases, the effect of reducing streaks (set with 08-8300) becomes smaller. When the value is too small, text might be blurry. When "0" is set, this function is disabled.	1	
05	Adjustmen t mode	Image Processing	ADF noise reduction	SCN(black)		7401		Text/Photo	100	0-200	SYS	When the value decreases, the effect of reducing streaks (set with 08-8300) becomes larger. When the value increases, the effect of reducing streaks (set with 08-8300) becomes smaller. When the value is too small, text might be blurry. When "0" is set, this function is disabled.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	ADF noise reduction	SCN(black)		7402		Text	100	0-200	SYS	When the value decreases, the effect of reducing streaks (set with 08-8300) becomes larger. When the value increases, the effect of reducing streaks (set with 08-8300) becomes smaller. When the value is too small, text might be blurry. When "0" is set, this function is disabled.	1	
05	Adjustmen t mode	Image Processing	ADF noise reduction	SCN(black)		7403		Photo	100	0-200	SYS	When the value decreases, the effect of reducing streaks (set with 08-8300) becomes larger. When the value increases, the effect of reducing streaks (set with 08-8300) becomes smaller. When the value is too small, text might be blurry. When "0" is set, this function is disabled.	1	
05	Adjustmen t mode	Image Processing	ADF noise reduction	SCN(black)		7404		Gray scale	100	0-200	SYS	When the value decreases, the effect of reducing streaks (set with 08-8300) becomes larger. When the value increases, the effect of reducing streaks (set with 08-8300) becomes smaller. When the value is too small, text might be blurry. When "0" is set, this function is disabled.	1	
05	Adjustmen t mode	Image Processing	Sharpness adjustment	SCN(black)		7430		Text/Photo	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	SCN(black)		7431		Text	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	SCN(black)		7432		Photo	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	SCN(black)		7433		Gray scale	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	SCN(black)		7436		Text/Photo	128	0-255	SYS	The smaller the value, the lighter the background becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	SCN(black)		7437		Text	128	0-255	SYS	The smaller the value, the lighter the background becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	SCN(black)		7438		Photo	128	0-255	SYS	The smaller the value, the lighter the background becomes.	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	SCN(black)		7439		Gray scale	128	0-255	SYS	The smaller the value, the lighter the background becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	SCN(black)		7441		User custom	128	0-255	SYS	The smaller the value, the lighter the background becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	SCN(black)	Manual adjustment/Center value	7444		Text/Photo	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	SCN(black)	Manual adjustment/Center value	7445		Text	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	SCN(black)	Manual adjustment/Center value	7446		Photo	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	SCN(black)	Manual adjustment/Center value	7447		Gray scale	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	SCN(black)	Automatic density adjustment	7456		Text/Photo	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	SCN(black)	Automatic density adjustment	7457		Text	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	SCN(black)	Automatic density adjustment	7458		Photo	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	SCN(black)	Automatic density adjustment	7459		Gray scale	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	SCN(black)		7470		User custom	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	
05	Adjustmen t mode	Image Processing	Density adjustment	SCN(black)	Manual adjustment/Center value	7475		User custom	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	
05	Adjustmen t mode	Image Processing	Density adjustment	SCN(black)	Automatic density adjustment	7478		User custom	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	SCN(black)	User custom	7480	0	Low density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	SCN(black)	User custom	7480	1	Medium density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	SCN(black)	User custom	7480	2	High density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	SCN(black)	Text/Photo	7485	0	Low density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	SCN(black)	Text/Photo	7485	1	Medium density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	SCN(black)	Text/Photo	7485	2	High density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	SCN(black)	Text	7486	0	Low density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	SCN(black)	Text	7486	1	Medium density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	SCN(black)	Text	7486	2	High density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	SCN(black)	Photo	7487	0	Low density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	SCN(black)	Photo	7487	1	Medium density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	SCN(black)	Photo	7487	2	High density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	SCN(black)	Gray scale	7488	0	Low density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	SCN(black)	Gray scale	7488	1	Medium density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	SCN(black)	Gray scale	7488	2	High density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	
05	Adjustmen t mode	Image Processing	Image	NW scanning		7489		Amount of surrounding void	0	0-255	SYS	When the value increases, the blank area around the scanned image becomes wider. (e.g.: In network scanning with 600 dpi, if the setting value is "1", the blank area increases by 1 dot.)	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	FAX(black)	Manual adjustment/Center value	7533		Text/Photo	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	
05	Adjustmen t mode	Image Processing	Density adjustment	FAX(black)	Manual adjustment/Center value	7534		Text	128	0-255	SYS	The larger the value, the lighter the image at the center value becomes.	1	
05	Adjustmen t mode	Image Processing	Density adjustment	FAX(black)	Manual adjustment/Center value	7535		Photo	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	
05	Adjustmen t mode	Image Processing	Density adjustment	FAX(black)	Automatic density adjustment	7542		Text/Photo	128	0-255	SYS	The larger the value, the darker the image becomes.	1	
05	Adjustmen t mode	Image Processing	Density adjustment	FAX(black)	Automatic density adjustment	7543		Photo	128	0-255	SYS	The larger the value, the darker the image becomes.	1	
05	Adjustmen t mode	Image Processing	LED emission level adjustment	FAX(black)		7594	0	Emission level 0/4	0	0-255	SYS	The smaller the value, the lower the emission level becomes and the smaller the dots are reproduced.	4	Yes
05	Adjustmen t mode	Image Processing	LED emission level adjustment	FAX(black)		7594	1	Emission level 1/4	63	0-255	SYS	The smaller the value, the lower the emission level becomes and the smaller the dots are reproduced.	4	Yes
05	Adjustmen t mode	Image Processing	LED emission level adjustment	FAX(black)		7594	2	Emission level 2/4	127	0-255	SYS	The smaller the value, the lower the emission level becomes and the smaller the dots are reproduced.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	LED emission level adjustment	FAX(black)		7594	3	Emission level 3/4	191	0-255	SYS	The smaller the value, the lower the emission level becomes and the smaller the dots are reproduced.	4	Yes
05	Adjustmen t mode	Image Processing	LED emission level adjustment	FAX(black)		7594	4	Emission level 4/4	255	0-255	SYS	The smaller the value, the lower the emission level becomes and the smaller the dots are reproduced.	4	Yes
05	Adjustmen t mode	Image Processing	Blank page judgment threshold adjustment			7618		PPC/SCN	128	0-255	SYS	The larger the value, the more the original tends to be judged as a blank page.	1	Yes
05	Adjustmen t mode	Image Processing	ACS judgment threshold			7630		PPC/SCN	70	0-255	SYS	The larger the value, the more the original tends to be judged as black even in the auto color mode. The smaller value, the more it tends to be judged as color.	1	Yes
05	Adjustmen t mode	Image Processing	Black area adj. in twin color copy mode	PPC(color)	Selected 2colors	7641	0	High density	128	0-255	SYS	The larger the value, the larger the area recognized as black in the original becomes. The smaller the value, the larger the area recognized as colors other than black becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Black area adj. in twin color copy mode	PPC(color)	Selected 2colors	7641	1	Medium density	128	0-255	SYS	The larger the value, the larger the area recognized as black in the original becomes. The smaller the value, the larger the area recognized as colors other than black becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Black area adj. in twin color copy mode	PPC(color)	Selected 2colors	7641	2	Low density	128	0-255	SYS	The larger the value, the larger the area recognized as black in the original becomes. The smaller the value, the larger the area recognized as colors other than black becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Black area adj. in twin color copy mode	PPC(color)	Black and red	7642	0	High density	128	0-255	SYS	The larger the value, the larger the area recognized as red in the original becomes. The smaller the value, the larger the area recognized as colors other than red becomes.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Black area adj. in twin color copy mode	PPC(color)	Black and red	7642	1	Medium density	128	0-255	SYS	The larger the value, the larger the area recognized as red in the original becomes. The smaller the value, the larger the area recognized as colors other than red becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Black area adj. in twin color copy mode	PPC(color)	Black and red	7642	2	Low density	128	0-255	SYS	The larger the value, the larger the area recognized as red in the original becomes. The smaller the value, the larger the area recognized as colors other than red becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Magenta	7644	0	Y	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Magenta	7644	1	M	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Magenta	7644	2	C	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Magenta	7644	3	K	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Yellow	7645	0	Y	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Yellow	7645	1	M	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Yellow	7645	2	C	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Yellow	7645	3	K	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color	Yellow green	7646	0	Y	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color	Yellow green	7646	1	M	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color	Yellow green	7646	2	C	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color	Yellow green	7646	3	K	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Cyan	7647	0	Y	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Cyan	7647	1	M	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Cyan	7647	2	C	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Cyan	7647	3	K	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color	Pink	7648	0	Y	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color	Pink	7648	1	M	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color	Pink	7648	2	C	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color	Pink	7648	3	K	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Red	7649	0	Y	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Red	7649	1	M	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Red	7649	2	C	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Red	7649	3	K	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color	Orange	7650	0	Y	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color	Orange	7650	1	M	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color	Orange	7650	2	C	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color	Orange	7650	3	K	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Green	7651	0	Y	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Green	7651	1	M	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Green	7651	2	C	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Green	7651	3	K	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Blue	7652	0	Y	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Blue	7652	1	M	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Blue	7652	2	C	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color / twin color	Blue	7652	3	K	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying / twin color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color	Purple	7653	0	Y	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color	Purple	7653	1	M	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color	Purple	7653	2	C	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Copy color adjustment	Mono color	Purple	7653	3	K	128	0-255	SYS	Performs the density adjustment for the specified color during mono color copying. The larger the value, the darker the density. The smaller the value, the lighter the density.	4	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PPC(color)		7656		Text/Photo	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PPC(color)		7657		Text	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PPC(color)		7658		Photo	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PPC(color)		7659		Photo (developing paper)	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PPC(color)		7660		Map	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes.	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PPC(color)		7661		User custom	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PPC(color)		7662		Red seal color	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes.	1	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Text/Photo	7665	0	Red	128	0-255	SYS	The larger the value, the darker the yellow becomes. The smaller the value, the darker the magenta becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Text/Photo	7665	1	Yellow	128	0-255	SYS	The larger the value, the darker the green becomes. The smaller the value, the darker the red becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Text/Photo	7665	2	Green	128	0-255	SYS	The larger the value, the darker the cyan becomes. The smaller the value, the darker the yellow becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Text/Photo	7665	3	Cyan	128	0-255	SYS	The larger the value, the darker the blue becomes. The smaller the value, the darker the green becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Text/Photo	7665	4	Blue	128	0-255	SYS	The larger the value, the darker the magenta becomes. The smaller the value, the darker the cyan becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Text/Photo	7665	5	Magenta	128	0-255	SYS	The larger the value, the darker the red becomes. The smaller the value, the darker the blue becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Text	7666	0	Red	128	0-255	SYS	The larger the value, the darker the yellow becomes. The smaller the value, the darker the magenta becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Text	7666	1	Yellow	128	0-255	SYS	The larger the value, the darker the green becomes. The smaller the value, the darker the red becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Text	7666	2	Green	128	0-255	SYS	The larger the value, the darker the cyan becomes. The smaller the value, the darker the yellow becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Text	7666	3	Cyan	128	0-255	SYS	The larger the value, the darker the blue becomes. The smaller the value, the darker the green becomes.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Text	7666	4	Blue	128	0-255	SYS	The larger the value, the darker the magenta becomes. The smaller the value, the darker the cyan becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Text	7666	5	Magenta	128	0-255	SYS	The larger the value, the darker the red becomes. The smaller the value, the darker the blue becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Photo	7667	0	Red	128	0-255	SYS	The larger the value, the darker the yellow becomes. The smaller the value, the darker the magenta becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Photo	7667	1	Yellow	128	0-255	SYS	The larger the value, the darker the green becomes. The smaller the value, the darker the red becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Photo	7667	2	Green	128	0-255	SYS	The larger the value, the darker the cyan becomes. The smaller the value, the darker the yellow becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Photo	7667	3	Cyan	128	0-255	SYS	The larger the value, the darker the blue becomes. The smaller the value, the darker the green becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Photo	7667	4	Blue	128	0-255	SYS	The larger the value, the darker the magenta becomes. The smaller the value, the darker the cyan becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Photo	7667	5	Magenta	128	0-255	SYS	The larger the value, the darker the red becomes. The smaller the value, the darker the blue becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Photo (developing paper)	7668	0	Red	128	0-255	SYS	The larger the value, the darker the yellow becomes. The smaller the value, the darker the magenta becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Photo (developing paper)	7668	1	Yellow	128	0-255	SYS	The larger the value, the darker the green becomes. The smaller the value, the darker the red becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Photo (developing paper)	7668	2	Green	128	0-255	SYS	The larger the value, the darker the cyan becomes. The smaller the value, the darker the yellow becomes.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustment mode	Image Processing	Fine adjustment of hue	PPC(color)	Photo (developing paper)	7668	3	Cyan	128	0-255	SYS	The larger the value, the darker the blue becomes. The smaller the value, the darker the green becomes.	4	
05	Adjustment mode	Image Processing	Fine adjustment of hue	PPC(color)	Photo (developing paper)	7668	4	Blue	128	0-255	SYS	The larger the value, the darker the magenta becomes. The smaller the value, the darker the cyan becomes.	4	
05	Adjustment mode	Image Processing	Fine adjustment of hue	PPC(color)	Photo (developing paper)	7668	5	Magenta	128	0-255	SYS	The larger the value, the darker the red becomes. The smaller the value, the darker the blue becomes.	4	
05	Adjustment mode	Image Processing	Fine adjustment of hue	PPC(color)	Map	7669	0	Red	128	0-255	SYS	The larger the value, the darker the yellow becomes. The smaller the value, the darker the magenta becomes.	4	
05	Adjustment mode	Image Processing	Fine adjustment of hue	PPC(color)	Map	7669	1	Yellow	128	0-255	SYS	The larger the value, the darker the green becomes. The smaller the value, the darker the red becomes.	4	
05	Adjustment mode	Image Processing	Fine adjustment of hue	PPC(color)	Map	7669	2	Green	128	0-255	SYS	The larger the value, the darker the cyan becomes. The smaller the value, the darker the yellow becomes.	4	
05	Adjustment mode	Image Processing	Fine adjustment of hue	PPC(color)	Map	7669	3	Cyan	128	0-255	SYS	The larger the value, the darker the blue becomes. The smaller the value, the darker the green becomes.	4	
05	Adjustment mode	Image Processing	Fine adjustment of hue	PPC(color)	Map	7669	4	Blue	128	0-255	SYS	The larger the value, the darker the magenta becomes. The smaller the value, the darker the cyan becomes.	4	
05	Adjustment mode	Image Processing	Fine adjustment of hue	PPC(color)	Map	7669	5	Magenta	128	0-255	SYS	The larger the value, the darker the red becomes. The smaller the value, the darker the blue becomes.	4	
05	Adjustment mode	Image Processing	Fine adjustment of hue	PPC(color)	User custom	7670	0	Red	128	0-255	SYS	The larger the value, the darker the yellow becomes. The smaller the value, the darker the magenta becomes.	4	
05	Adjustment mode	Image Processing	Fine adjustment of hue	PPC(color)	User custom	7670	1	Yellow	128	0-255	SYS	The larger the value, the darker the green becomes. The smaller the value, the darker the red becomes.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	User custom	7670	2	Green	128	0-255	SYS	The larger the value, the darker the cyan becomes. The smaller the value, the darker the yellow becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	User custom	7670	3	Cyan	128	0-255	SYS	The larger the value, the darker the blue becomes. The smaller the value, the darker the green becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	User custom	7670	4	Blue	128	0-255	SYS	The larger the value, the darker the magenta becomes. The smaller the value, the darker the cyan becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	User custom	7670	5	Magenta	128	0-255	SYS	The larger the value, the darker the red becomes. The smaller the value, the darker the blue becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Red seal color	7671	0	Red	128	0-255	SYS	The larger the value, the darker the yellow becomes. The smaller the value, the darker the magenta becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Red seal color	7671	1	Yellow	128	0-255	SYS	The larger the value, the darker the green becomes. The smaller the value, the darker the red becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Red seal color	7671	2	Green	128	0-255	SYS	The larger the value, the darker the cyan becomes. The smaller the value, the darker the yellow becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Red seal color	7671	3	Cyan	128	0-255	SYS	The larger the value, the darker the blue becomes. The smaller the value, the darker the green becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Red seal color	7671	4	Blue	128	0-255	SYS	The larger the value, the darker the magenta becomes. The smaller the value, the darker the cyan becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of hue	PPC(color)	Red seal color	7671	5	Magenta	128	0-255	SYS	The larger the value, the darker the red becomes. The smaller the value, the darker the blue becomes.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Text/Photo	7675	0	Red	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Text/Photo	7675	1	Yellow	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Text/Photo	7675	2	Green	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Text/Photo	7675	3	Cyan	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Text/Photo	7675	4	Blue	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Text/Photo	7675	5	Magenta	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Text	7676	0	Red	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Text	7676	1	Yellow	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Text	7676	2	Green	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Text	7676	3	Cyan	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Text	7676	4	Blue	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Text	7676	5	Magenta	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Photo	7677	0	Red	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Photo	7677	1	Yellow	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Photo	7677	2	Green	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Photo	7677	3	Cyan	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Photo	7677	4	Blue	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Photo	7677	5	Magenta	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Photo (developing paper)	7678	0	Red	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Photo (developing paper)	7678	1	Yellow	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Photo (developing paper)	7678	2	Green	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Photo (developing paper)	7678	3	Cyan	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Photo (developing paper)	7678	4	Blue	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Photo (developing paper)	7678	5	Magenta	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Map	7679	0	Red	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Map	7679	1	Yellow	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Map	7679	2	Green	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Map	7679	3	Cyan	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Map	7679	4	Blue	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Map	7679	5	Magenta	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	User custom	7680	0	Red	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	User custom	7680	1	Yellow	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	User custom	7680	2	Green	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	User custom	7680	3	Cyan	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	User custom	7680	4	Blue	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	User custom	7680	5	Magenta	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Red seal color	7681	0	Red	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Red seal color	7681	1	Yellow	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Red seal color	7681	2	Green	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Red seal color	7681	3	Cyan	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Red seal color	7681	4	Blue	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Fine adjustment of saturation	PPC(color)	Red seal color	7681	5	Magenta	128	0-255	SYS	Input the larger value to increase the saturation, and input the smaller value to decrease the saturation.	4	
05	Adjustmen t mode	Image Processing	Color reproducti on selection	PPC(color)		7690		User custom	0	0-4	SYS	0: Text/Photo, printed photo, text, map 1: Photo (developing paper) 2: Reproduction of red seal color 3, 4: Text/Photo, printed photo, text, map	1	
05	Adjustmen t mode	Image Processing	Color reproducti on selection	PPC(color)		7691		Reproduction of red seal color	2	0-4	SYS	0: Text/Photo, printed photo, text, map 1: Photo (developing paper) 2: Reproduction of red seal color 3, 4: Text/Photo, printed photo, text, map	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	ADF noise reduction	PPC(color)	User custom	7693		Enable/Disable setting	1	0-1	SYS	0: Disabled 1: Enabled This code is enabled only when the value of 08-7614 is "1"(Text/Photo).	1	
05	Adjustmen t mode	Image Processing	ADF noise reduction	PPC(color)	Text/Photo	7694		Enable/Disable setting	1	0-1	SYS	0: Disabled 1: Enabled	1	
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PPC(color)	Mono color	7707		Text/Photo	128	0-255	SYS	The larger the value, the lighter the background becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PPC(color)	Mono color	7708		Text	128	0-255	SYS	The larger the value, the lighter the background becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PPC(color)	Mono color	7709		Printed image	128	0-255	SYS	The larger the value, the lighter the background becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PPC(color)	Twin color	7710		Text/Photo	128	0-255	SYS	The larger the value, the lighter the background becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PPC(color)	Twin color	7711		Text	128	0-255	SYS	The larger the value, the lighter the background becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PPC(color)	Twin color	7712		Printed image	128	0-255	SYS	The larger the value, the lighter the background becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(color)	Manual adjustment/Center value	7713		Text/Photo	128	0-255	SYS	The larger the value, the darker the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(color)	Manual adjustment/Center value	7714		Text	128	0-255	SYS	The larger the value, the darker the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(color)	Manual adjustment/Center value	7715		Printed image	128	0-255	SYS	The larger the value, the darker the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(color)	Manual adjustment/Center value	7716		Photo (developing paper)	128	0-255	SYS	The larger the value, the darker the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(color)	Manual adjustment/Center value	7717		Map	128	0-255	SYS	The larger the value, the darker the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(color)	Manual adjustment/Center value	7718		User custom	128	0-255	SYS	The larger the value, the darker the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(color)	Manual adjustment/Center value	7719		Red seal color	128	0-255	SYS	The larger the value, the darker the image becomes.	1	
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(color)	Automatic density adjustment	7720		Text/Photo	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(color)	Automatic density adjustment	7721		Text	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(color)	Automatic density adjustment	7722		Printed image	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(color)	Automatic density adjustment	7723		Photo (developing paper)	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(color)	Automatic density adjustment	7724		Map	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(color)	Automatic density adjustment	7725		User custom	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	PPC(color)	Automatic density adjustment	7726		Red seal color	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	
05	Adjustmen t mode	Image Processing	Density adjustment	Mono color	Manual adjustment/Center value	7727		Text/Photo	128	0-255	SYS	The larger the value, the darker the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	Mono color	Manual adjustment/Center value	7728		Text	128	0-255	SYS	The larger the value, the darker the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	Mono color	Manual adjustment/Center value	7729		Printed image	128	0-255	SYS	The larger the value, the darker the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	Mono color	Automatic density adjustment	7730		Text/Photo	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	Mono color	Automatic density adjustment	7731		Text	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	Mono color	Automatic density adjustment	7732		Printed image	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	Twin color	Manual adjustment/Center value	7733		Text/Photo	128	0-255	SYS	The larger the value, the darker the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	Twin color	Manual adjustment/Center value	7734		Text	128	0-255	SYS	The larger the value, the darker the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	Twin color	Manual adjustment/Center value	7735		Printed image	128	0-255	SYS	The larger the value, the darker the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	Twin color	Automatic density adjustment	7736		Text/Photo	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	Twin color	Automatic density adjustment	7737		Text	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Density adjustment	Twin color	Automatic density adjustment	7738		Printed image	128	0-255	SYS	The larger the value, the darker the image at the center value becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PPC(color)	Full color	7794		Red seal color	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PPC(color)	Full color	7795		User custom	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PPC(color)	Full color	7796		Text/Photo	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PPC(color)	Full color	7797		Text	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PPC(color)	Full color	7798		Printed image	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PPC(color)	Full color	7799		Photo (developing paper)	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PPC(color)	Full color	7800		Map	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PPC(color)	Mono color	7801		Text/Photo	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PPC(color)	Mono color	7802		Text	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PPC(color)	Mono color	7803		Printed image	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PPC(color)	Twin color	7804		Text/Photo	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PPC(color)	Twin color	7805		Text	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PPC(color)	Twin color	7806		Printed image	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	Yes
05	Adjustmen t mode	Image Processing	Black header density level adjustment	PPC(color)		7811		Text/Photo	0	0-8	SYS	The larger the value, the darker the header becomes. The smaller the value, the lighter the header becomes	1	Yes
05	Adjustmen t mode	Image Processing	Black header density level adjustment	PPC(color)		7812		Text	0	0-8	SYS	The larger the value, the darker the header becomes. The smaller the value, the lighter the header becomes	1	Yes
05	Adjustmen t mode	Image Processing	Black header density level adjustment	PPC(color)		7816		User custom	0	0-8	SYS	The larger the value, the darker the header becomes. The smaller the value, the lighter the header becomes	1	Yes
05	Adjustmen t mode	Image Processing	Black header density level adjustment	PPC(color)		7817		Red seal color	0	0-8	SYS	The larger the value, the darker the header becomes. The smaller the value, the lighter the header becomes	1	
05	Adjustmen t mode	Image Processing	Text/Photo reproducti on level adjustment	PPC(color)		7840		Text/Photo	0	0-9	SYS	1 to 4: Photo-oriented 0, 5: Default 6 to 9: Text-oriented * Text is blurred if the value is to small. Noise increases in the photo area if the value is to large.	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Text/Photo reproducti on level adjustment	PPC(color)		7841		User custom	0	0-9	SYS	1 to 4: Photo-oriented 0, 5: Default 6 to 9: Text-oriented * Text is blurred if the value is to small. Noise increases in the photo area if the value is to large.	1	Yes
05	Adjustmen t mode	Image Processing	Text/Photo reproducti on level adjustment	PPC(color)		7842		Red seal color	0	0-9	SYS	1 to 4: Photo-oriented 0, 5: Default 6 to 9: Text-oriented * Text is blurred if the value is to small. Noise increases in the photo area if the value is to large.	1	
05	Adjustmen t mode	Image Processing	Marker color adjustment			7850	0	PPC(color) "Y"	3	0-6	SYS	The color of the one-touch adjustment "Marker" can be adjusted.	4	Yes
05	Adjustmen t mode	Image Processing	Marker color adjustment			7850	1	PPC(color) "M"	3	0-6	SYS	The color of the one-touch adjustment "Marker" can be adjusted.	4	Yes
05	Adjustmen t mode	Image Processing	Marker color adjustment			7850	2	PPC(color) "C"	3	0-6	SYS	The color of the one-touch adjustment "Marker" can be adjusted.	4	Yes
05	Adjustmen t mode	Image Processing	Marker color adjustment			7850	3	PPC(color) "R"	3	0-6	SYS	The color of the one-touch adjustment "Marker" can be adjusted.	4	Yes
05	Adjustmen t mode	Image Processing	Marker color adjustment			7850	4	PPC(color) "G"	3	0-6	SYS	The color of the one-touch adjustment "Marker" can be adjusted.	4	Yes
05	Adjustmen t mode	Image Processing	Marker color adjustment			7850	5	PPC(color) "B"	3	0-6	SYS	The color of the one-touch adjustment "Marker" can be adjusted.	4	Yes
05	Adjustmen t mode	Image Processing	Automatic gamma adjustment	PPC(color)	Color/Black	7869		All media types	-	-	SYS	When color deviation is found in gradation reproduction, the gradation reproduction of 4 colors can be corrected with the automatic gamma adjustment. The result of the correction above will be applied to all media types.	7	Yes
05	Adjustmen t mode	Image Processing	Automatic gamma adjustment	PPC(color)	Color/Black	7871	0	Plain paper	-	-	SYS	When color deviation is found in gradation reproduction, the gradation reproduction of 4 colors can be corrected with the automatic gamma adjustment. The result of the correction above will be applied for each media type.	7	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Automatic gamma adjustment	PPC(color)	Color/Black	7871	2	Recycled paper	-	-	SYS	When color deviation is found in gradation reproduction, the gradation reproduction of 4 colors can be corrected with the automatic gamma adjustment. The result of the correction above will be applied for each media type.	7	Yes
05	Adjustmen t mode	Image Processing	Automatic gamma adjustment	PPC(color)	Color/Black	7871	3	Thick paper1	-	-	SYS	When color deviation is found in gradation reproduction, the gradation reproduction of 4 colors can be corrected with the automatic gamma adjustment. The result of the correction above will be applied for each media type.	7	Yes
05	Adjustmen t mode	Image Processing	Automatic gamma adjustment	PPC(color)	Color/Black	7871	4	Thick paper2	-	-	SYS	When color deviation is found in gradation reproduction, the gradation reproduction of 4 colors can be corrected with the automatic gamma adjustment. The result of the correction above will be applied for each media type.	7	Yes
05	Adjustmen t mode	Image Processing	Automatic gamma adjustment	PPC(color)	Color/Black	7871	7	Special paper1	-	-	SYS	When color deviation is found in gradation reproduction, the gradation reproduction of 4 colors can be corrected with the automatic gamma adjustment. The result of the correction above will be applied to all media types.	7	Yes
05	Adjustmen t mode	Image Processing	Automatic gamma adjustment	PPC(color)	Color/Black	7871	8	Special paper2	-	-	SYS	When color deviation is found in gradation reproduction, the gradation reproduction of 4 colors can be corrected with the automatic gamma adjustment. The result of the correction above will be applied for each media type.	7	Yes
05	Adjustmen t mode	Image Processing	Maximum text density adjustment	PPC(color)		7889		Y	5	0-10	SYS	The larger the value, the darker the text becomes.	1	
05	Adjustmen t mode	Image Processing	Maximum text density adjustment	PPC(color)		7890		M	5	0-10	SYS	The larger the value, the darker the text becomes.	1	
05	Adjustmen t mode	Image Processing	Maximum text density adjustment	PPC(color)		7891		C	5	0-10	SYS	The larger the value, the darker the text becomes.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Maximum text density adjustment	PPC(color)		7892		K	5	0-10	SYS	The larger the value, the darker the text becomes.	1	
05	Adjustmen t mode	Image Processing	Maximum toner density adjustment	PPC(color)		7901		Envelope	255	0-255	SYS	The smaller the value, the less toner is adhered to the high-density section of the image.	1	
05	Adjustmen t mode	Image Processing	Maximum toner density adjustment	PPC(color)		7902		Plain paper	255	0-255	SYS	The smaller the value, the less toner is adhered to the high-density section of the image.	1	
05	Adjustmen t mode	Image Processing	Maximum toner density adjustment	PPC(color)		7904		Recycled paper	255	0-255	SYS	The smaller the value, the less toner is adhered to the high-density section of the image.	1	
05	Adjustmen t mode	Image Processing	Maximum toner density adjustment	PPC(color)		7905		Thick paper1	255	0-255	SYS	The smaller the value, the less toner is adhered to the high-density section of the image.	1	
05	Adjustmen t mode	Image Processing	Maximum toner density adjustment	PPC(color)		7906		Thick paper2	255	0-255	SYS	The smaller the value, the less toner is adhered to the high-density section of the image.	1	
05	Adjustmen t mode	Image Processing	Maximum toner density adjustment	PPC(color)		7909		Special paper1	255	0-255	SYS	The smaller the value, the less toner is adhered to the high-density section of the image.	1	
05	Adjustmen t mode	Image Processing	Maximum toner density adjustment	PPC(color)		7910		Special paper2	255	0-255	SYS	The smaller the value, the less toner is adhered to the high-density section of the image.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Procedure	Service UI
05	Adjustment mode	Image Processing	Maximum toner density adjustment	PPC(color)		7911		OHP film	240	0-255	SYS	The smaller the value, the less toner is adhered to the high-density section of the image.	1	
05	Adjustment mode	Image Processing	Maximum toner density threshold setting	PPC(color)		7913	0	Plain paper	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	
05	Adjustment mode	Image Processing	Maximum toner density threshold setting	PPC(color)		7913	2	Recycled paper	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	
05	Adjustment mode	Image Processing	Maximum toner density threshold setting	PPC(color)		7913	3	Thick paper 1	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	
05	Adjustment mode	Image Processing	Maximum toner density threshold setting	PPC(color)		7913	4	Thick paper 2	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	
05	Adjustment mode	Image Processing	Maximum toner density threshold setting	PPC(color)		7913	7	Special paper 1	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	
05	Adjustment mode	Image Processing	Maximum toner density threshold setting	PPC(color)		7913	8	Special paper 2	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Maximum toner density threshold setting	PPC(color)		7913	11	Envelope	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	
05	Adjustmen t mode	Image Processing	Maximum toner density threshold setting	PPC(color)		7913	12	OHP film	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PPC(black)	Gray scale	7956	0	Low density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PPC(black)	Gray scale	7956	1	Medium density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Gamma balance adjustment	PPC(black)	Gray scale	7956	2	High density	128	0-255	SYS	The larger the value, the darker the image of the area surrounding the target area becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "Y"	Text/Photo	7960	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "Y"	Text/Photo	7960	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "Y"	Text/Photo	7960	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "Y"	Text	7961	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "Y"	Text	7961	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "Y"	Text	7961	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "Y"	Printed image	7962	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "Y"	Printed image	7962	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "Y"	Printed image	7962	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "Y"	Photo (developing paper)	7963	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "Y"	Photo (developing paper)	7963	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "Y"	Photo (developing paper)	7963	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "Y"	Map	7964	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "Y"	Map	7964	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "Y"	Map	7964	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "M"	Text/Photo	7965	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "M"	Text/Photo	7965	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "M"	Text/Photo	7965	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "M"	Text	7966	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "M"	Text	7966	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "M"	Text	7966	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "M"	Printed image	7967	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "M"	Printed image	7967	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "M"	Printed image	7967	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "M"	Photo (developing paper)	7968	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "M"	Photo (developing paper)	7968	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "M"	Photo (developing paper)	7968	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "M"	Map	7969	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "M"	Map	7969	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "M"	Map	7969	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "C"	Text/Photo	7970	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "C"	Text/Photo	7970	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "C"	Text/Photo	7970	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "C"	Text	7971	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "C"	Text	7971	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "C"	Text	7971	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "C"	Printed image	7972	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "C"	Printed image	7972	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "C"	Printed image	7972	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "C"	Photo (developing paper)	7973	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "C"	Photo (developing paper)	7973	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "C"	Photo (developing paper)	7973	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "C"	Map	7974	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "C"	Map	7974	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "C"	Map	7974	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "K"	Text/Photo	7975	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "K"	Text/Photo	7975	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "K"	Text/Photo	7975	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "K"	Text	7976	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "K"	Text	7976	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "K"	Text	7976	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "K"	Printed image	7977	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "K"	Printed image	7977	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "K"	Printed image	7977	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "K"	Photo (developing paper)	7978	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "K"	Photo (developing paper)	7978	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "K"	Photo (developing paper)	7978	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "K"	Map	7979	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "K"	Map	7979	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "K"	Map	7979	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "Y"	User custom	7980	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "Y"	User custom	7980	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "Y"	User custom	7980	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "M"	User custom	7981	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "M"	User custom	7981	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "M"	User custom	7981	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "C"	User custom	7982	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "C"	User custom	7982	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "C"	User custom	7982	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "K"	User custom	7983	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "K"	User custom	7983	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "K"	User custom	7983	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "Y"	Red seal color	7984	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "Y"	Red seal color	7984	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "Y"	Red seal color	7984	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "M"	Red seal color	7985	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "M"	Red seal color	7985	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "M"	Red seal color	7985	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "C"	Red seal color	7986	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "C"	Red seal color	7986	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "C"	Red seal color	7986	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "K"	Red seal color	7987	0	Low density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "K"	Red seal color	7987	1	Medium density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	
05	Adjustmen t mode	Image Processing	Color balance adjustment	PPC(color) "K"	Red seal color	7987	2	High density	128	0-255	SYS	The target color, mode and density area become darker as the value increases.	4	
05	Adjustmen t mode	Image Processing	Automatic gamma adjustment	PRT(color)	600dpi	8004	0	Plain paper	-	-	SYS	When color deviation is found in gradation reproduction, the gradation reproduction of 4 colors can be corrected with the automatic gamma adjustment. The result of the correction above will be applied for each media type.	7	Yes
05	Adjustmen t mode	Image Processing	Automatic gamma adjustment	PRT(color)	600dpi	8004	2	Recycled paper	-	-	SYS	When color deviation is found in gradation reproduction, the gradation reproduction of 4 colors can be corrected with the automatic gamma adjustment. The result of the correction above will be applied for each media type.	7	Yes
05	Adjustmen t mode	Image Processing	Automatic gamma adjustment	PRT(color)	600dpi	8004	3	Thick paper1	-	-	SYS	When color deviation is found in gradation reproduction, the gradation reproduction of 4 colors can be corrected with the automatic gamma adjustment. The result of the correction above will be applied for each media type.	7	Yes
05	Adjustmen t mode	Image Processing	Automatic gamma adjustment	PRT(color)	600dpi	8004	4	Thick paper2	-	-	SYS	When color deviation is found in gradation reproduction, the gradation reproduction of 4 colors can be corrected with the automatic gamma adjustment. The result of the correction above will be applied for each media type.	7	Yes
05	Adjustmen t mode	Image Processing	Automatic gamma adjustment	PRT(color)	600dpi	8004	7	Special paper1	-	-	SYS	When color deviation is found in gradation reproduction, the gradation reproduction of 4 colors can be corrected with the automatic gamma adjustment. The result of the correction above will be applied for each media type.	7	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Automatic gamma adjustment	PRT(color)	600dpi	8004	8	Special paper2	-	-	SYS	When color deviation is found in gradation reproduction, the gradation reproduction of 4 colors can be corrected with the automatic gamma adjustment. The result of the correction above will be applied for each media type.	7	Yes
05	Adjustmen t mode	Image Processing	Automatic gamma adjustment	PRT(color)	1200dpi	8005	0	Plain paper	-	-	SYS	When color deviation is found in gradation reproduction, the gradation reproduction of 4 colors can be corrected with the automatic gamma adjustment. The result of the correction above will be applied for each media type. * This code is not supported by LL20/25ppm model.	7	Yes
05	Adjustmen t mode	Image Processing	Automatic gamma adjustment	PRT(color)	1200dpi	8005	2	Recycled paper	-	-	SYS	When color deviation is found in gradation reproduction, the gradation reproduction of 4 colors can be corrected with the automatic gamma adjustment. The result of the correction above will be applied for each media type. * This code is not supported by LL20/25ppm model.	7	Yes
05	Adjustmen t mode	Image Processing	Automatic gamma adjustment	PRT(color)	1200dpi	8005	3	Thick paper1	-	-	SYS	When color deviation is found in gradation reproduction, the gradation reproduction of 4 colors can be corrected with the automatic gamma adjustment. The result of the correction above will be applied for each media type. * This code is not supported by LL20/25ppm model.	7	Yes
05	Adjustmen t mode	Image Processing	Automatic gamma adjustment	PRT(color)	1200dpi	8005	4	Thick paper2	-	-	SYS	When color deviation is found in gradation reproduction, the gradation reproduction of 4 colors can be corrected with the automatic gamma adjustment. The result of the correction above will be applied for each media type. * This code is not supported by LL20/25ppm model.	7	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Automatic gamma adjustment	PRT(color)	1200dpi	8005	7	Special paper1	-	-	SYS	When color deviation is found in gradation reproduction, the gradation reproduction of 4 colors can be corrected with the automatic gamma adjustment. The result of the correction above will be applied for each media type. * This code is not supported by LL20/25ppm model.	7	Yes
05	Adjustmen t mode	Image Processing	Automatic gamma adjustment	PRT(color)	1200dpi	8005	8	Special paper2	-	-	SYS	When color deviation is found in gradation reproduction, the gradation reproduction of 4 colors can be corrected with the automatic gamma adjustment. The result of the correction above will be applied for each media type. * This code is not supported by LL20/25ppm model.	7	Yes
05	Adjustmen t mode	Image Processing	Automatic gamma adjustment	PRT(color)	600dpi	8008		All media types	-	-	SYS	When color deviation is found in gradation reproduction, the gradation reproduction of 4 colors can be corrected with the automatic gamma adjustment. The result of the correction above will be applied to all media types.	7	Yes
05	Adjustmen t mode	Image Processing	Automatic gamma adjustment	PRT(color)	1200dpi	8009		All media types	-	-	SYS	When color deviation is found in gradation reproduction, the gradation reproduction of 4 colors can be corrected with the automatic gamma adjustment. The result of the correction above will be applied to all media types. * This code is not supported by LL20/25ppm model.	7	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PRT(color)	Smooth/Color/600dpi	8010	0	PS	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PRT(color)	Smooth/Color/600dpi	8010	1	PCL	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PRT(color)	Smooth/Color/600dpi	8010	2	XPS	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes. * This code is not supported by LL20/25ppm model.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PRT(color)	Smooth/Twin color/600dpi	8011	0	PS	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PRT(color)	Smooth/Twin color/600dpi	8011	1	PCL	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PRT(color)	Smooth/Twin color/600dpi	8011	2	XPS	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PRT(black)	Smooth/Monocolor/60 0dpi	8012	0	PS	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PRT(black)	Smooth/Monocolor/60 0dpi	8012	1	PCL	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PRT(black)	Smooth/Monocolor/60 0dpi	8012	2	XPS	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PRT(color)	Detail/Color/600dpi	8013	0	PS	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PRT(color)	Detail/Color/600dpi	8013	1	PCL	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PRT(color)	Detail/Color/600dpi	8013	2	XPS	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes. * This code is not supported by LL20/25ppm model.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PRT(color)	Detail/Twin color/600dpi	8014	0	PS	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PRT(color)	Detail/Twin color/600dpi	8014	1	PCL	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PRT(color)	Detail/Twin color/600dpi	8014	2	XPS	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PRT(black)	Detail/Monocolor/600 dpi	8015	0	PS	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PRT(black)	Detail/Monocolor/600 dpi	8015	1	PCL	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PRT(black)	Detail/Monocolor/600 dpi	8015	2	XPS	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PRT(color)		8016		Smooth/Color/1200 dpi	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes. * This code is not supported by LL20/25ppm model.	1	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PRT(color)		8017		Detail/Color/1200 dpi	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes. * This code is not supported by LL20/25ppm model.	1	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PRT(black)		8018		Smooth/Black/1200 dpi	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes. * This code is not supported by LL20/25ppm model.	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	PRT(black)		8019		Detail/Black/1200 dpi	128	0-255	SYS	The larger the value, the darker the background becomes. The smaller the value, the lighter the background becomes. * This code is not supported by LL20/25ppm model.	1	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "K"		8023	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "K"		8023	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "K"		8023	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "C"	Y	8024	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "C"	Y	8024	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "C"	Y	8024	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "C"	M	8025	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "C"	M	8025	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "C"	M	8025	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "C"	C	8026	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "C"	C	8026	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "C"	C	8026	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "M"	Y	8027	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "M"	Y	8027	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "M"	Y	8027	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "M"	M	8028	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "M"	M	8028	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "M"	M	8028	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "M"	C	8029	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "M"	C	8029	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "M"	C	8029	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Y"	Y	8030	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Y"	Y	8030	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Y"	Y	8030	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Y"	M	8031	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Y"	M	8031	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Y"	M	8031	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Y"	C	8032	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Y"	C	8032	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Y"	C	8032	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Red"	Y	8033	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Red"	Y	8033	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Red"	Y	8033	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Red"	M	8034	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Red"	M	8034	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Red"	M	8034	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Red"	C	8035	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Red"	C	8035	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Red"	C	8035	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Green"	Y	8036	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Green"	Y	8036	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Green"	Y	8036	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Green"	M	8037	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Green"	M	8037	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Green"	M	8037	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Green"	C	8038	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Green"	C	8038	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Green"	C	8038	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Blue"	Y	8039	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Blue"	Y	8039	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Blue"	Y	8039	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Blue"	M	8040	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Blue"	M	8040	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Blue"	M	8040	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustment mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Blue"	C	8041	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustment mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Blue"	C	8041	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustment mode	Image Processing	Color balance adjustment	2 color printing/PRT(color) "Blue"	C	8041	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustment mode	Image Processing	Color balance adjustment	PRT(color) "Y"	XPS/Smooth/600dpi	8042	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustment mode	Image Processing	Color balance adjustment	PRT(color) "Y"	XPS/Smooth/600dpi	8042	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustment mode	Image Processing	Color balance adjustment	PRT(color) "Y"	XPS/Smooth/600dpi	8042	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustment mode	Image Processing	Color balance adjustment	PRT(color) "M"	XPS/Smooth/600dpi	8043	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustment mode	Image Processing	Color balance adjustment	PRT(color) "M"	XPS/Smooth/600dpi	8043	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustment mode	Image Processing	Color balance adjustment	PRT(color) "M"	XPS/Smooth/600dpi	8043	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustment mode	Image Processing	Color balance adjustment	PRT(color) "C"	XPS/Smooth/600dpi	8044	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustment mode	Image Processing	Color balance adjustment	PRT(color) "C"	XPS/Smooth/600dpi	8044	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "C"	XPS/Smooth/600dpi	8044	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "K"	XPS/Smooth/600dpi	8045	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "K"	XPS/Smooth/600dpi	8045	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "K"	XPS/Smooth/600dpi	8045	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "Y"	XPS/Detail/600dpi	8046	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "Y"	XPS/Detail/600dpi	8046	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "Y"	XPS/Detail/600dpi	8046	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "M"	XPS/Detail/600dpi	8047	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "M"	XPS/Detail/600dpi	8047	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "M"	XPS/Detail/600dpi	8047	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "C"	XPS/Detail/600dpi	8048	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "C"	XPS/Detail/600dpi	8048	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "C"	XPS/Detail/600dpi	8048	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "K"	XPS/Detail/600dpi	8049	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "K"	XPS/Detail/600dpi	8049	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "K"	XPS/Detail/600dpi	8049	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "Y"	PS/Smooth/600dpi	8050	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "Y"	PS/Smooth/600dpi	8050	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "Y"	PS/Smooth/600dpi	8050	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "M"	PS/Smooth/600dpi	8051	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "M"	PS/Smooth/600dpi	8051	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "M"	PS/Smooth/600dpi	8051	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "C"	PS/Smooth/600dpi	8052	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "C"	PS/Smooth/600dpi	8052	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "C"	PS/Smooth/600dpi	8052	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "K"	PS/Smooth/600dpi	8053	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "K"	PS/Smooth/600dpi	8053	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "K"	PS/Smooth/600dpi	8053	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "Y"	PS/Detail/600dpi	8054	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "Y"	PS/Detail/600dpi	8054	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "Y"	PS/Detail/600dpi	8054	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "M"	PS/Detail/600dpi	8055	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "M"	PS/Detail/600dpi	8055	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "M"	PS/Detail/600dpi	8055	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "C"	PS/Detail/600dpi	8056	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "C"	PS/Detail/600dpi	8056	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "C"	PS/Detail/600dpi	8056	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "K"	PS/Detail/600dpi	8057	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "K"	PS/Detail/600dpi	8057	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "K"	PS/Detail/600dpi	8057	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "Y"	PCL/Smooth/600dpi	8058	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "Y"	PCL/Smooth/600dpi	8058	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "Y"	PCL/Smooth/600dpi	8058	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "M"	PCL/Smooth/600dpi	8059	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustment mode	Image Processing	Color balance adjustment	PRT(color) "M"	PCL/Smooth/600dpi	8059	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustment mode	Image Processing	Color balance adjustment	PRT(color) "M"	PCL/Smooth/600dpi	8059	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustment mode	Image Processing	Color balance adjustment	PRT(color) "C"	PCL/Smooth/600dpi	8060	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustment mode	Image Processing	Color balance adjustment	PRT(color) "C"	PCL/Smooth/600dpi	8060	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustment mode	Image Processing	Color balance adjustment	PRT(color) "C"	PCL/Smooth/600dpi	8060	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustment mode	Image Processing	Color balance adjustment	PRT(color) "K"	PCL/Smooth/600dpi	8061	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustment mode	Image Processing	Color balance adjustment	PRT(color) "K"	PCL/Smooth/600dpi	8061	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustment mode	Image Processing	Color balance adjustment	PRT(color) "K"	PCL/Smooth/600dpi	8061	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustment mode	Image Processing	Color balance adjustment	PRT(color) "Y"	PCL/Detail/600dpi	8062	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustment mode	Image Processing	Color balance adjustment	PRT(color) "Y"	PCL/Detail/600dpi	8062	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustment mode	Image Processing	Color balance adjustment	PRT(color) "Y"	PCL/Detail/600dpi	8062	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "M"	PCL/Detail/600dpi	8063	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "M"	PCL/Detail/600dpi	8063	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "M"	PCL/Detail/600dpi	8063	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "C"	PCL/Detail/600dpi	8064	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "C"	PCL/Detail/600dpi	8064	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "C"	PCL/Detail/600dpi	8064	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "K"	PCL/Detail/600dpi	8065	0	Low density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "K"	PCL/Detail/600dpi	8065	1	Medium density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color) "K"	PCL/Detail/600dpi	8065	2	High density	128	0-255	SYS	The larger the value, the darker only the target color becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	NW PRT (color)		8066		Switchover of adjustment mode	1	0-1	SYS	Switches the image processing method for the density of solid images at color balance adjustment for network printing. 0: Adjusts color balance with the solid image density fixed 1: Adjusts color balance with the solid image density varied	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/600 dpi)	Detail	8070	0	Plain paper	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/600 dpi)	Detail	8070	2	Recycled paper	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/600 dpi)	Detail	8070	3	Thick paper1	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/600 dpi)	Detail	8070	4	Thick paper2	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/600 dpi)	Detail	8070	7	Special paper1	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/600 dpi)	Detail	8070	8	Special paper2	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustment mode	Image Processing	Maximum toner density threshold adj.	PRT(color/600 dpi)	Detail	8070	11	Envelope	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	Yes
05	Adjustment mode	Image Processing	Maximum toner density threshold adj.	PRT(color/600 dpi)	Detail	8070	12	OHP film	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	Yes
05	Adjustment mode	Image Processing	Maximum toner density threshold adj.	PRT(color/600 dpi)	Smooth	8071	0	Plain paper	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	Yes
05	Adjustment mode	Image Processing	Maximum toner density threshold adj.	PRT(color/600 dpi)	Smooth	8071	2	Recycled paper	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	Yes
05	Adjustment mode	Image Processing	Maximum toner density threshold adj.	PRT(color/600 dpi)	Smooth	8071	3	Thick paper1	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	Yes
05	Adjustment mode	Image Processing	Maximum toner density threshold adj.	PRT(color/600 dpi)	Smooth	8071	4	Thick paper2	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/600 dpi)	Smooth	8071	7	Special paper1	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/600 dpi)	Smooth	8071	8	Special paper2	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/600 dpi)	Smooth	8071	11	Envelope	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/600 dpi)	Smooth	8071	12	OHP film	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/1200 dpi)	Detail	8089	0	Plain paper	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes. * This code is not supported by LL20/25ppm model.	4	
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/1200 dpi)	Detail	8089	2	Recycled paper	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes. * This code is not supported by LL20/25ppm model.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/1200 dpi)	Detail	8089	3	Thick paper1	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes. * This code is not supported by LL20/25ppm model.	4	
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/1200 dpi)	Detail	8089	4	Thick paper2	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes. * This code is not supported by LL20/25ppm model.	4	
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/1200 dpi)	Detail	8089	7	Special paper1	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes. * This code is not supported by LL20/25ppm model.	4	
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/1200 dpi)	Detail	8089	8	Special paper2	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes. * This code is not supported by LL20/25ppm model.	4	
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/1200 dpi)	Detail	8089	11	Envelope	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes. * This code is not supported by LL20/25ppm model.	4	
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/1200 dpi)	Detail	8089	12	Overhead transparencies	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes. * This code is not supported by LL20/25ppm model.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/1200 dpi)	Smooth	8090	0	Plain paper	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes. * This code is not supported by LL20/25ppm model.	4	
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/1200 dpi)	Smooth	8090	2	Recycled paper	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes. * This code is not supported by LL20/25ppm model.	4	
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/1200 dpi)	Smooth	8090	3	Thick paper1	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes. * This code is not supported by LL20/25ppm model.	4	
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/1200 dpi)	Smooth	8090	4	Thick paper2	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes. * This code is not supported by LL20/25ppm model.	4	
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/1200 dpi)	Smooth	8090	7	Special paper1	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes. * This code is not supported by LL20/25ppm model.	4	
05	Adjustmen t mode	Image Processing	Maximum toner density threshold adj.	PRT(color/1200 dpi)	Smooth	8090	8	Special paper2	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes. * This code is not supported by LL20/25ppm model.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustment mode	Image Processing	Maximum toner density threshold adj.	PRT(color/1200 dpi)	Smooth	8090	11	Envelope	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes. * This code is not supported by LL20/25ppm model.	4	
05	Adjustment mode	Image Processing	Maximum toner density threshold adj.	PRT(color/1200 dpi)	Smooth	8090	12	Overhead transparencies	128	0-255	SYS	The larger the value, the larger the maximum amount of toner to be adhered becomes. The smaller the value, the smaller the maximum amount of toner to be adhered becomes. * This code is not supported by LL20/25ppm model.	4	
05	Adjustment mode	Image Processing	Fine line enhancement switchover	PRT(color)		8102	0	PS	1	0-1	SYS	0: OFF 1: ON * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustment mode	Image Processing	Fine line enhancement switchover	PRT(color)		8102	1	PCL	1	0-1	SYS	0: OFF 1: ON	4	Yes
05	Adjustment mode	Image Processing	Fine line enhancement switchover	PRT(color)		8102	2	XPS	1	0-1	SYS	0: OFF 1: ON * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustment mode	Image Processing	Sharpness adjustment	PRT(color)	e-BRIDGE/PS/Twin color	8108	0	Text	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes.	4	Yes
05	Adjustment mode	Image Processing	Sharpness adjustment	PRT(color)	e-BRIDGE/PS/Twin color	8108	1	Graphics	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes.	4	Yes
05	Adjustment mode	Image Processing	Sharpness adjustment	PRT(color)	e-BRIDGE/PS/Twin color	8108	2	Photo	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes.	4	Yes
05	Adjustment mode	Image Processing	Sharpness adjustment	PRT(color)	e-BRIDGE/PS	8109	0	Red seal color/Text	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes.	4	
05	Adjustment mode	Image Processing	Sharpness adjustment	PRT(color)	e-BRIDGE/PS	8109	1	Red seal color/Graphics	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes.	4	
05	Adjustment mode	Image Processing	Sharpness adjustment	PRT(color)	e-BRIDGE/PS	8109	2	Red seal color/Photo	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PRT(color)	e-BRIDGE/PS/General	8110	0	Text	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PRT(color)	e-BRIDGE/PS/General	8110	1	Graphics	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PRT(color)	e-BRIDGE/PS/General	8110	2	Photo	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PRT(color)	e-BRIDGE/PS/Photogra ph	8111	0	Text	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PRT(color)	e-BRIDGE/PS/Photogra ph	8111	1	Graphics	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PRT(color)	e-BRIDGE/PS/Photogra ph	8111	2	Photo	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PRT(color)	e-BRIDGE/PS/Presenta tion	8112	0	Text	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PRT(color)	e-BRIDGE/PS/Presenta tion	8112	1	Graphics	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PRT(color)	e-BRIDGE/PS/Presenta tion	8112	2	Photo	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PRT(color)	e-BRIDGE/PS/Line art	8113	0	Text	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PRT(color)	e-BRIDGE/PS/Line art	8113	1	Graphics	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PRT(color)	e-BRIDGE/PS/Line art	8113	2	Photo	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PRT(black)	e-BRIDGE/PS	8118	0	Text	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes. If the value of 05-7322 is "0", the adjustment is applied to text, and if the value is "1", the adjustment is applied to text and others. 0: No adjustment	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PRT(black)	e-BRIDGE/PS	8118	1	Graphics	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes. If the value of 05-7322 is "0", the adjustment is applied to graphics, and if the value is "1", the adjustment is applied to thin text. 0: No adjustment	4	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	PRT(black)	e-BRIDGE/PS	8118	2	Photo	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Smudged/f aint text adjustment	PRT(color)		8130		PS	0	0-8	SYS	The larger the value, the darker the small text and fine lines become and the more faint text is suppressed. * This code is not supported by LL20/25ppm model.	1	Yes
05	Adjustmen t mode	Image Processing	Smudged/f aint text adjustment	PRT(color)		8131		PCL	0	0-8	SYS	The larger the value, the darker the small text and fine lines become and the more faint text is suppressed.	1	Yes
05	Adjustmen t mode	Image Processing	Smudged/f aint text adjustment	PRT(color)		8132		XPS	0	0-8	SYS	The larger the value, the darker the small text and fine lines become and the more faint text is suppressed. * This code is not supported by LL20/25ppm model.	1	Yes
05	Adjustmen t mode	Image Processing	Maximum toner density adjustment	PRT(color/600 dpi)		8145		OHP film	200	0-255	SYS	The larger the value, the darker the image becomes. The smaller the value, the lighter the image becomes. * Image offset may occur if the value is too large.	1	Yes
05	Adjustmen t mode	Image Processing	Maximum toner density adjustment	PRT(color/1200 dpi)		8149		OHP film	200	0-255	SYS	The larger the value, the darker the image becomes. The smaller the value, the lighter the image becomes. * Image offset may occur if the value is too large. * This code is not supported by LL20/25ppm model.	1	
05	Adjustmen t mode	Image Processing	Upper limit value in toner saving mode	PRT color/Two-color	600 dpi	8160	0	PS	176	0-255	SYS	The smaller the value, the lighter the printed image becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Upper limit value in toner saving mode	PRT color/Two-color	600 dpi	8160	1	PCL	176	0-255	SYS	The smaller the value, the lighter the printed image becomes.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Upper limit value in toner saving mode	PRT color/Two-color	600 dpi	8160	2	XPS	176	0-255	SYS	The smaller the value, the lighter the printed image becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Upper limit value in toner saving mode	PRT color	1200 dpi	8161		PS	176	0-255	SYS	The smaller the value, the lighter the printed image becomes. * This code is not supported by LL20/25ppm model.	1	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PCL/Text	8210	0	General	8	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PCL/Text	8210	1	Photo	8	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PCL/Text	8210	2	Presentation	8	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PCL/Text	8210	3	Line art	8	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PCL/Graphic	8211	0	General	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PCL/Graphic	8211	1	Photo	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PCL/Graphic	8211	2	Presentation	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PCL/Graphic	8211	3	Line art	8	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PCL/Image	8212	0	General	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PCL/Image	8212	1	Photo	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PCL/Image	8212	2	Presentation	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PCL/Image	8212	3	Line art	8	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	Twin color print/General	8213		Text	8	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	Twin color print/General	8214		Graphics	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes.	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	Twin color print/General	8215		Image	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Black selection	PRT(color)	Twin color print	8218		Photo	0	0-1	SYS	Sets whether the image on an original is printed in the color or the black mode. 0: OFF (printed in color) 1: ON (printed in black)	1	Yes
05	Adjustmen t mode	Image Processing	Stroke adjustment	PS/PDF automatic stroke adjustment	600dpi	8239	0	Default setting	1	0-3	SYS	This code is used to change the width of fine lines in PS and PDF printing. Automatic stroke adjustment is the function that prevents the width from changing according to the position. This code sets whether automatic stroke adjustment is enabled or disabled if it is not included in the print data. If this setting is disabled, there will be an increase in cases in which the width of fine lines becomes thicker by 1 dot when they are printed. 0: Disabled 1: Enabled 2: Forcibly disabled (Ignores command in printing data) 3: Forcibly enabled (Ignores command in printing data)	4	
05	Adjustmen t mode	Image Processing	Stroke adjustment	PS/PDF automatic stroke adjustment	600dpi	8239	1	Minimum stroke width when disabled	1	1-2	SYS	This code is used to change the width of fine lines in PS and PDF printing. Automatic stroke adjustment is the function that prevents the width from changing according to the position. This code sets the minimum width of fine lines when the automatic stroke adjustment is disabled. For example, if automatic stroke adjustment is disabled and the width of fine lines is set to "0" in the PS command, the width of the lines becomes 1 dot if the value of this code is set to "1"; equally, if it is set to "2", the width of the lines becomes 2 dots. 1: 1 dot 2: 2 dots	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Stroke adjustment	PS/PDF automatic stroke adjustment	1200dpi	8239	2	Default setting	1	0-3	SYS	This code is used to change the width of fine lines in PS and PDF printing. Automatic stroke adjustment is the function that prevents the width from changing according to the position. This code sets whether automatic stroke adjustment is enabled or disabled if it is not included in the print data. If this setting is disabled, there will be an increase in cases in which the width of fine lines becomes thicker by 1 dot when they are printed. 0: Disabled 1: Enabled 2: Forcibly disabled (Ignores command in printing data) 3: Forcibly enabled (Ignores command in printing data) * This code is not supported by LL20/25ppm model.	4	
05	Adjustmen t mode	Image Processing	Stroke adjustment	PS/PDF automatic stroke adjustment	1200dpi	8239	3	Minimum stroke width when disabled	1	1-2	SYS	This code is used to change the width of fine lines in PS and PDF printing. Automatic stroke adjustment is the function that prevents the width from changing according to the position. This code sets the minimum width of fine lines when the automatic stroke adjustment is disabled. For example, if automatic stroke adjustment is disabled and the width of fine lines is set to "0" in the PS command, the width of the lines becomes 1 dot if the value of this code is set to "1"; equally, if it is set to "2", the width of the lines becomes 2 dots. 1: 1 dot 2: 2 dots * This code is not supported by LL20/25ppm model.	4	
05	Adjustmen t mode	Image Processing	Line width minimum value adjustment	PRT(color)		8240		600dpi	2	1-9	SYS	The larger the value, the darker the fine lines become.	1	Yes
05	Adjustmen t mode	Image Processing	Line width minimum value adjustment	PRT(color)		8241		1200dpi	2	1-9	SYS	The larger the value, the darker the fine lines become. * This code is not supported by LL20/25ppm model.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Line density adjustment	PRT(color)	1200dpi	8242	0	Gray (K)	3	0-5	SYS	The larger the value, the darker the fine line becomes. * This code is not supported by LL20/25ppm model.	4	
05	Adjustmen t mode	Image Processing	Line density adjustment	PRT(color)	1200dpi	8242	1	Color (CMYK)	1	0-5	SYS	The larger the value, the darker the fine line becomes. * This code is not supported by LL20/25ppm model.	4	
05	Adjustmen t mode	Image Processing	Line density adjustment	PRT(color)	1200dpi	8243	0	Gray (K) lower limit value	1	0-255	SYS	Specifies the effective density range of 05-8242 from 0 to 255. * This code is not supported by LL20/25ppm model.	4	
05	Adjustmen t mode	Image Processing	Line density adjustment	PRT(color)	1200dpi	8243	1	Gray (K) upper limit value	200	0-255	SYS	Specifies the effective density range of 05-8242 from 0 to 255. * This code is not supported by LL20/25ppm model.	4	
05	Adjustmen t mode	Image Processing	Line density adjustment	PRT(color)	1200dpi	8243	2	Color (CMYK) lower limit value	1	0-255	SYS	Specifies the effective density range of 05-8242 from 0 to 255. * This code is not supported by LL20/25ppm model.	4	
05	Adjustmen t mode	Image Processing	Line density adjustment	PRT(color)	1200dpi	8243	3	Color (CMYK) upper limit value	255	0-255	SYS	Specifies the effective density range of 05-8242 from 0 to 255. * This code is not supported by LL20/25ppm model.	4	
05	Adjustmen t mode	Image Processing	Auto Trapping setting	PRT (color)	PS/Text, PS/Graphic	8244	0	Trapping width (dot)	3	1-3	SYS	Sets the value of width for Auto Trapping. When the value increases, the bigger gap is suppressed, but the overlap part becomes more visible. 1: 1 dot 2: 2 dot 3: 3 dot * This code is not supported by LL20/25ppm model.	4	
05	Adjustmen t mode	Image Processing	Auto Trapping setting	PRT (color)	PS/Text, PS/Graphic	8244	1	Trapping density (%)	0	0-3	SYS	Sets the value of density for Auto Trapping. When the value increases, the bigger gap is suppressed, but the overlap part becomes more visible. 0: 100% 1: 75% 2: 50% 3: 25% * This code is not supported by LL20/25ppm model.	4	
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	XPS/Text	8249	0	General	8	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	XPS/Text	8249	1	Photo	8	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	XPS/Text	8249	2	Presentation	8	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	XPS/Text	8249	3	Line art	8	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	XPS/Text	8249	4	Advanced	8	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	XPS/Graphic	8250	0	General	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	XPS/Graphic	8250	1	Photo	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	XPS/Graphic	8250	2	Presentation	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	XPS/Graphic	8250	3	Line art	8	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Procedure	Service UI
05	Adjustment mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	XPS/Graphic	8250	4	Advanced	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustment mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	XPS/Image	8251	0	General	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustment mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	XPS/Image	8251	1	Photo	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustment mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	XPS/Image	8251	2	Presentation	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustment mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	XPS/Image	8251	3	Line art	8	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustment mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	XPS/Image	8251	4	Advanced	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustment mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PS/Text	8252	0	General	8	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustment mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PS/Text	8252	1	Photo	8	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PS/Text	8252	2	Presentation	8	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PS/Text	8252	3	Line art	8	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PS/Text	8252	4	Advanced	8	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PS/Graphic	8253	0	General	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PS/Graphic	8253	1	Photo	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PS/Graphic	8253	2	Presentation	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PS/Graphic	8253	3	Line art	8	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PS/Graphic	8253	4	Advanced	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PS/Image	8254	0	General	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PS/Image	8254	1	Photo	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PS/Image	8254	2	Presentation	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PS/Image	8254	3	Line art	8	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Pure Black/Gray threshold adjustment	PRT(color)	PS/Image	8254	4	Advanced	1	1-255	SYS	The larger the value, the wider the range of colors to be replaced with black becomes. The smaller the value, the narrower the range becomes. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Smooth/1200dpi/Y	8268	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Smooth/1200dpi/Y	8268	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Smooth/1200dpi/Y	8268	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Smooth/1200dpi/ M	8269	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Smooth/1200dpi/ M	8269	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Smooth/1200dpi/ M	8269	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Smooth/1200dpi/C	8270	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Smooth/1200dpi/C	8270	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Smooth/1200dpi/C	8270	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Smooth/1200dpi/K	8271	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Smooth/1200dpi/K	8271	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Smooth/1200dpi/K	8271	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Detail/1200dpi/Y	8272	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Detail/1200dpi/Y	8272	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Detail/1200dpi/Y	8272	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Detail/1200dpi/M	8273	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Detail/1200dpi/M	8273	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Detail/1200dpi/M	8273	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Detail/1200dpi/C	8274	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Detail/1200dpi/C	8274	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Detail/1200dpi/C	8274	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Detail/1200dpi/K	8275	0	Low density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Detail/1200dpi/K	8275	1	Medium density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	Color balance adjustment	PRT(color)	PS/Detail/1200dpi/K	8275	2	High density	128	0-255	SYS	When the value increases, the density in the target area becomes higher. * This code is not supported by LL20/25ppm model.	4	Yes
05	Adjustmen t mode	Image Processing	JPEG compressi on level	NW SCN(color)		8304	0	High quality	128	0-255	SYS	When the value increases, the quality gets better, and the file size gets larger.	4	
05	Adjustmen t mode	Image Processing	JPEG compressi on level	NW SCN(color)		8304	1	Standard	128	0-255	SYS	When the value increases, the quality gets better, and the file size gets larger.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	JPEG compressi on level	NW SCN(color)		8304	2	Low quality	128	0-255	SYS	When the value increases, the quality gets better, and the file size gets larger.	4	
05	Adjustmen t mode	Image Processing	Color conversion table selection	NW SCN(color)		8305		Text/Photo	1	0-2	SYS	0: Text, Photo 1: Text/Photo 2: For reproduction of pure color	1	
05	Adjustmen t mode	Image Processing	Color conversion table selection	NW SCN(color)		8308		User custom	0	0-2	SYS	0: Text, Photo 1: Text/Photo 2: For reproduction of pure color	1	
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	SCN(color)		8309		Text/Photo	128	0-255	SYS	The smaller the value, the lighter the background becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	SCN(color)		8310		Text	128	0-255	SYS	The smaller the value, the lighter the background becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	SCN(color)		8311		Photo	128	0-255	SYS	The smaller the value, the lighter the background becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Fine adjustment of black density	SCN(color)		8314		Text/Photo	1	0-4	SYS	The larger the value, the darker the black side of the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Fine adjustment of black density	SCN(color)		8315		Text	0	0-4	SYS	The larger the value, the darker the black side of the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Fine adjustment of black density	SCN(color)		8316		Photo	0	0-4	SYS	The larger the value, the darker the black side of the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	RGB conversion method selection	SCN(color)		8319		Text/Photo	0	0-3	SYS	Sets the color space format of the output image. 0: sRGB 1: AppleRGB 2: ROMMRGB 3: AdobeRGB	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	RGB conversion method selection	SCN(color)		8320		Text	0	0-3	SYS	Sets the color space format of the output image. 0: sRGB 1: AppleRGB 2: ROMMRGB 3: AdobeRGB	1	Yes
05	Adjustmen t mode	Image Processing	RGB conversion method selection	SCN(color)		8321		Photo	0	0-3	SYS	Sets the color space format of the output image. 0: sRGB 1: AppleRGB 2: ROMMRGB 3: AdobeRGB	1	Yes
05	Adjustmen t mode	Image Processing	Saturation adjustment	SCN(color)		8324		Text/Photo	128	0-255	SYS	The larger the value, the brighter the image becomes. The smaller the value, the duller the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Saturation adjustment	SCN(color)		8325		Text	128	0-255	SYS	The larger the value, the brighter the image becomes. The smaller the value, the duller the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Saturation adjustment	SCN(color)		8326		Photo	128	0-255	SYS	The larger the value, the brighter the image becomes. The smaller the value, the duller the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	SCN(color)	Full color	8335		Text	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	SCN(color)	Full color	8336		Photo	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	SCN(color)	Manual adjustment/Center value	8339		Text/Photo	128	0-255	SYS	The larger the value, the darker the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	SCN(color)	Manual adjustment/Center value	8340		Text	128	0-255	SYS	The larger the value, the darker the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Density adjustment	SCN(color)	Manual adjustment/Center value	8341		Photo	128	0-255	SYS	The larger the value, the darker the image becomes.	1	Yes
05	Adjustmen t mode	Image Processing	Sharpness adjustment	SCN(color)	Full color	8354		Text/Photo	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	Yes
05	Adjustmen t mode	Image Processing	Backgroun d adjustment	SCN(color)		8370		User custom	128	0-255	SYS	When the value increases, the background becomes darker.	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	Fine adjustment of black density	SCN(color)		8371		User custom	0	0-4	SYS	The larger the value, the darker the black side of the image becomes.	1	
05	Adjustmen t mode	Image Processing	RGB conversion method selection	SCN(color)		8372		User custom	0	0-3	SYS	Sets the color space format of the output image. 0: sRGB 1: AppleRGB 2: ROMMRGB 3: AdobeRGB	1	
05	Adjustmen t mode	Image Processing	Saturation adjustment	SCN(color)		8373		User custom	128	0-255	SYS	The larger the value, the brighter the image becomes. The smaller the value, the duller the image becomes.	1	
05	Adjustmen t mode	Image Processing	Sharpness adjustment	SCN(color)	Full color	8375		User custom	128	0-255	SYS	The larger the value, the sharper the image becomes. The smaller the value, the softer the image becomes and the less moire appears.	1	
05	Adjustmen t mode	Image Processing	Density adjustment	SCN(color)	Manual adjustment/Center value	8380		User custom	128	0-255	SYS	The larger the value, the darker the image becomes.	1	
05	Adjustmen t mode	Image Processing	ADF noise reduction	SCN(color)		8412		User custom	100	0-200	SYS	When the value decreases, the effect of reducing streaks (set with 08-8300) becomes larger. When the value increases, the effect of reducing streaks (set with 08-8300) becomes smaller. When the value is too small, text might be blurry. When "0" is set, this function is disabled.	1	
05	Adjustmen t mode	Image Processing	ADF noise reduction	SCN(color)		8413		Text/Photo	100	0-200	SYS	When the value decreases, the effect of reducing streaks (set with 08-8300) becomes larger. When the value increases, the effect of reducing streaks (set with 08-8300) becomes smaller. When the value is too small, text might be blurry. When "0" is set, this function is disabled.	1	
05	Adjustmen t mode	Image Processing	ADF noise reduction	SCN(color)		8414		Text	100	0-200	SYS	When the value decreases, the effect of reducing streaks (set with 08-8300) becomes larger. When the value increases, the effect of reducing streaks (set with 08-8300) becomes smaller. When the value is too small, text might be blurry. When "0" is set, this function is disabled.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
05	Adjustmen t mode	Image Processing	ADF noise reduction	SCN(color)		8415		Photo	100	0-200	SYS	When the value decreases, the effect of reducing streaks (set with 08-8300) becomes larger. When the value increases, the effect of reducing streaks (set with 08-8300) becomes smaller. When the value is too small, text might be blurry. When "0" is set, this function is disabled.	1	
05	Adjustmen t mode	System	Maintenan ce			9043		Equipment number (serial number) display	-	-	SYS	If this code is performed, 08-9601 is performed. 7 digits out of 9 digits can be entered except for upper 2 digits (fixed digits).	1	
05	Adjustmen t mode	System	Image			9104		Compression quality of SLIM PDF background processing	5	0-10	SYS	0-10 0: High compression, low image quality 10: Low compression, high image quality	1	
05	Adjustmen t mode	System	Image			9107		Resolution of SLIM PDF background processing	1	0-3	SYS	0: 75dpi 1: 100dpi 2: 150dpi 3: 200dpi	1	
05	Adjustmen t mode	System	Image			9149		Acquisition of image location adjustment log	-	-	-	Insert the USB media before performing this code.	6	
05	Adjustmen t mode	System	Maintenan ce			9960		Display of equipment information (SRAM)	Refer to content s	0-2	SYS	Displays the equipment information in SRAM. 0: Not set 1: Destinations other than NAD 2: NAD <Default value> NAD: 2 Others: 1	2	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Process	Fuser			2002		Fuser unit error status counter	0	0-71	M	0: No error 1: C411 error 2: C412 error 3: - 4: C412 error 5: C445 error 6: C446 error 7: C447 error 8: - 9: C449 error 10: - 11: - 12: - 13: - 14: - 15: - 16: - 17: - 18: - 19: C449 error 20: - 21: - 22: C449 error 23: C449 error 24: C447 error 25: C449 error 26: - 27: C449 error 28: - 29: C449 error 30: - 31: - 32: - 33: - 34: - 35: - 36: - 37: - 38: C450 error 39: - 40: - 41: C451 error 42: - 43: - 44: - 45: - 46: - 47: - 48: C450 error 49: - 50: C452 error 51: - 52: - 53: - 54: - 55: - 56: - 57: - 58: - 59: - 60: - 61: - 62: - 63: - 64: - 65: - 66: - 67: - 68: - 69: - 70: - 71: -	1	
08	Setting mode	Process	Fuser	Fuser	Center / Plain paper	2010	0	At normal temperatures (black)	Refer to contents	0-16	M	0: 90 ℃ 1: 95 ℃ 2: 100 ℃ 3: 105 ℃ 4: 110 ℃ 5: 115 ℃ 6: 120 ℃ 7: 125 ℃ 8: 130 ℃ 9: 135 ℃ 10: 140 ℃ 11: 145 ℃ 12: 150 ℃ 13: 155 ℃ 14: 160 ℃ 15: 165 ℃ 16: 170 ℃ <Default value> JPD: 11 Others: 12	4	
08	Setting mode	Process	Fuser	Fusing temperature during printing	Center / Plain paper	2010	1	At normal temperatures (color)	Refer to contents	0-16	M	0: 90 ℃ 1: 95 ℃ 2: 100 ℃ 3: 105 ℃ 4: 110 ℃ 5: 115 ℃ 6: 120 ℃ 7: 125 ℃ 8: 130 ℃ 9: 135 ℃ 10: 140 ℃ 11: 145 ℃ 12: 150 ℃ 13: 155 ℃ 14: 160 ℃ 15: 165 ℃ 16: 170 ℃ <Default value> JPD: 11 Others: 12	4	
08	Setting mode	Process	Fuser	Fusing temperature during printing	Center / Plain paper	2010	2	At low temperatures (black)	12	0-16	M	0: 90 ℃ 1: 95 ℃ 2: 100 ℃ 3: 105 ℃ 4: 110 ℃ 5: 115 ℃ 6: 120 ℃ 7: 125 ℃ 8: 130 ℃ 9: 135 ℃ 10: 140 ℃ 11: 145 ℃ 12: 150 ℃ 13: 155 ℃ 14: 160 ℃ 15: 165 ℃ 16: 170 ℃	4	
08	Setting mode	Process	Fuser	Fusing temperature during printing	Center / Plain paper	2010	3	At low temperatures (color)	12	0-16	M	0: 90 ℃ 1: 95 ℃ 2: 100 ℃ 3: 105 ℃ 4: 110 ℃ 5: 115 ℃ 6: 120 ℃ 7: 125 ℃ 8: 130 ℃ 9: 135 ℃ 10: 140 ℃ 11: 145 ℃ 12: 150 ℃ 13: 155 ℃ 14: 160 ℃ 15: 165 ℃ 16: 170 ℃	4	
08	Setting mode	Process	Fuser	Fusing temperature	Center / Special paper	2017	0	Special paper 1 (except for long-sized paper)	14	0-16	M	0: 90℃ 1: 95℃ 2: 100℃ 3: 105℃ 4: 110℃ 5: 115℃ 6: 120℃ 7: 125℃ 8: 130℃ 9: 135℃ 10: 140℃ 11: 145℃ 12: 150℃ 13: 155℃ 14: 160℃ 15: 165℃ 16: 170℃	4	
08	Setting mode	Process	Fuser	Fusing temperature	Center / Special paper	2017	1	Special paper 2 (except for long-sized paper)	14	0-16	M	0: 90℃ 1: 95℃ 2: 100℃ 3: 105℃ 4: 110℃ 5: 115℃ 6: 120℃ 7: 125℃ 8: 130℃ 9: 135℃ 10: 140℃ 11: 145℃ 12: 150℃ 13: 155℃ 14: 160℃ 15: 165℃ 16: 170℃	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Process	Fuser	Fusing temperature	Side / Special paper	2018	0	Special paper 1 (except for long-sized paper)	14	0-16	M	0: 90℃ 1: 95℃ 2: 100℃ 3: 105℃ 4: 110℃ 5: 115℃ 6: 120℃ 7: 125℃ 8: 130℃ 9: 135℃ 10: 140℃ 11: 145℃ 12: 150℃ 13: 155℃ 14: 160℃ 15: 165℃ 16: 170℃	4	
08	Setting mode	Process	Fuser	Fusing temperature	Side / Special paper	2018	1	Special paper 2 (except for long-sized paper)	14	0-16	M	0: 90℃ 1: 95℃ 2: 100℃ 3: 105℃ 4: 110℃ 5: 115℃ 6: 120℃ 7: 125℃ 8: 130℃ 9: 135℃ 10: 140℃ 11: 145℃ 12: 150℃ 13: 155℃ 14: 160℃ 15: 165℃ 16: 170℃	4	
08	Setting mode	Process	Fuser	Pre-running time for first printing	Special paper	2020	0	Special paper 1 / Normal	0	0-16	M	0: Invalid 1: 0 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 10 sec. 10: 12 sec. 11: 14 sec. 12: 16 sec. 13: 18 sec. 14: 20 sec. 15: 25 sec. 16: 30 sec.	4	
08	Setting mode	Process	Fuser	Pre-running time for first printing	Special paper	2020	1	Special paper 2 / Normal	0	0-16	M	0: Invalid 1: 0 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 10 sec. 10: 12 sec. 11: 14 sec. 12: 16 sec. 13: 18 sec. 14: 20 sec. 15: 25 sec. 16: 30 sec.	4	
08	Setting Mode	Process	Fuser	Fusing temperature in the low power mode		2042		Center	0	0-25	M	0: OFF 1: 40ºC 2: 45ºC 3: 50ºC 4: 55ºC 5: 60ºC 6: 65ºC 7: 70ºC 8: 75ºC 9: 80ºC 10: 85ºC 11: 90ºC 12: 95ºC 13: 100ºC 14: 105ºC 15: 110ºC 16: 115ºC 17: 120ºC 18: 125ºC 19: 130ºC 20: 135ºC 21: 140ºC 22: 145ºC 23: 150ºC 24: 155ºC 25: 160ºC	1	
08	Setting mode	Process	Fuser	Fusing temperature during printing	Center / Thick paper 1	2049	0	Normal length paper (black)	13	0-16	M	0: 90 ºC 1: 95 ºC 2: 100 ºC 3: 105 ºC 4: 110 ºC 5: 115 ºC 6: 120 ºC 7: 125 ºC 8: 130 ºC 9: 135 ºC 10: 140 ºC 11: 145 ºC 12: 150 ºC 13: 155 ºC 14: 160 ºC 15: 165 ºC 16: 170 ºC	4	
08	Setting mode	Process	Fuser	Fusing temperature during printing	Center / Thick paper 2	2050	0	Normal length paper	14	0-16	M	0: 90 ºC 1: 95 ºC 2: 100 ºC 3: 105 ºC 4: 110 ºC 5: 115 ºC 6: 120 ºC 7: 125 ºC 8: 130 ºC 9: 135 ºC 10: 140 ºC 11: 145 ºC 12: 150 ºC 13: 155 ºC 14: 160 ºC 15: 165 ºC 16: 170 ºC	4	
08	Setting mode	Process	Fuser	Fusing temperature during printing	Center / OHP film	2051		Normal length paper	14	0-16	M	0: 90 ºC 1: 95 ºC 2: 100 ºC 3: 105 ºC 4: 110 ºC 5: 115 ºC 6: 120 ºC 7: 125 ºC 8: 130 ºC 9: 135 ºC 10: 140 ºC 11: 145 ºC 12: 150 ºC 13: 155 ºC 14: 160 ºC 15: 165 ºC 16: 170 ºC	1	
08	Setting mode	Process	Fuser	Pre-running time for first printing		2052		OHP film	0	0-16	M	0: Invalid 1: 0 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 10 sec. 10: 12 sec. 11: 14 sec. 12: 16 sec. 13: 18 sec. 14: 20 sec. 15: 25 sec. 16: 30 sec.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Process	Fuser	Pre-running time for first printing	Plain paper / At low temperatures	2053	0	black	0	0-16	M	0: Invalid 1: 0 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 10 sec. 10: 12 sec. 11: 14 sec. 12: 16 sec. 13: 18 sec. 14: 20 sec. 15: 25 sec. 16: 30 sec.	4	
08	Setting mode	Process	Fuser	Pre-running time for first printing	Plain paper / At low temperatures	2053	1	color	0	0-16	M	0: Invalid 1: 0 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 10 sec. 10: 12 sec. 11: 14 sec. 12: 16 sec. 13: 18 sec. 14: 20 sec. 15: 25 sec. 16: 30 sec.	4	
08	Setting mode	Process	Fuser	Pre-running time for first printing	Thick paper 1	2054	0	Normal length paper	0	0-16	M	0: Invalid 1: 0 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 10 sec. 10: 12 sec. 11: 14 sec. 12: 16 sec. 13: 18 sec. 14: 20 sec. 15: 25 sec. 16: 30 sec.	4	
08	Setting mode	Process	Fuser	Pre-running time for first printing	Thick paper 2	2055	0	Normal length paper	0	0-16	M	0: Invalid 1: 0 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 10 sec. 10: 12 sec. 11: 14 sec. 12: 16 sec. 13: 18 sec. 14: 20 sec. 15: 25 sec. 16: 30 sec.	4	
08	Setting mode	Process	Fuser	Temperature setting to start process for abnormality / Thick paper 1	Center & side thermistors	2079	0	Black	4	0-12	M	0: 120ºC 1: 125ºC 2: 130ºC 3: 135ºC 4: 140ºC 5: 145ºC 6: 150ºC 7: 155ºC 8: 160ºC 9: 165ºC 10: 170ºC 11: 175ºC 12: Disable	4	
08	Setting mode	Process	Fuser	Temperature setting to start process for abnormality / Thick paper 1	Center & side thermistors	2079	1	Color	5	0-12	M	0: 120ºC 1: 125ºC 2: 130ºC 3: 135ºC 4: 140ºC 5: 145ºC 6: 150ºC 7: 155ºC 8: 160ºC 9: 165ºC 10: 170ºC 11: 175ºC 12: Disable	4	
08	Setting mode	Process	Fuser	Temperature setting to start process for abnormality / Plain paper/ Normal temperature	Center & side thermistors	2080	0	Black	3	0-12	M	0: 120ºC 1: 125ºC 2: 130ºC 3: 135ºC 4: 140ºC 5: 145ºC 6: 150ºC 7: 155ºC 8: 160ºC 9: 165ºC 10: 170ºC 11: 175ºC 12: Disable	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Process	Fuser	Temperature setting to start process for abnormality / Plain paper/ Normal temperature	Center & side thermistors	2080	1	Color	Refer to contents	0-12	M	0: 120ºC 1: 125ºC 2: 130ºC 3: 135ºC 4: 140ºC 5: 145ºC 6: 150ºC 7: 155ºC 8: 160ºC 9: 165ºC 10: 170ºC 11: 175ºC 12: Disable <Default value> JPD: 3 Others: 4	4	
08	Setting mode	Process	Fuser	Temperature setting to start process for abnormality / Thick paper 2	Center & side thermistors	2081	0	Black	4	0-12	M	0: 120ºC 1: 125ºC 2: 130ºC 3: 135ºC 4: 140ºC 5: 145ºC 6: 150ºC 7: 155ºC 8: 160ºC 9: 165ºC 10: 170ºC 11: 175ºC 12: Disable	4	
08	Setting mode	Process	Fuser	Temperature setting to start process for abnormality / Thick paper 2	Center & side thermistors	2081	1	Color	5	0-12	M	0: 120ºC 1: 125ºC 2: 130ºC 3: 135ºC 4: 140ºC 5: 145ºC 6: 150ºC 7: 155ºC 8: 160ºC 9: 165ºC 10: 170ºC 11: 175ºC 12: Disable	4	
08	Setting mode	Process	Fuser	Applicable period of pre-running time for first printing	At low temperatures	2085	0	Plain paper (black)	8	0-11	M	0: Invalid (always ON) 1: 0 min. 2: 0.5 min. 3: 1 min. 4: 2 min. 5: 3 min. 6: 5 min. 7: 7 min. 8: 10 min. 9: 15 min. 10: 30 min. 11: 60 min.	4	
08	Setting mode	Process	Fuser	Applicable period of pre-running time for first printing	At low temperatures	2085	1	Plain paper (color)	8	0-11	M	0: Invalid (always ON) 1: 0 min. 2: 0.5 min. 3: 1 min. 4: 2 min. 5: 3 min. 6: 5 min. 7: 7 min. 8: 10 min. 9: 15 min. 10: 30 min. 11: 60 min.	4	
08	Setting mode	Process	Fuser	Applicable period of pre-running time for first printing	At low temperatures	2085	4	Recycled paper (black)	8	0-11	M	0: Invalid (always ON) 1: 0 min. 2: 0.5 min. 3: 1 min. 4: 2 min. 5: 3 min. 6: 5 min. 7: 7 min. 8: 10 min. 9: 15 min. 10: 30 min. 11: 60 min.	4	
08	Setting mode	Process	Fuser	Applicable period of pre-running time for first printing	At low temperatures	2085	5	Recycled paper (color)	8	0-11	M	0: Invalid (always ON) 1: 0 min. 2: 0.5 min. 3: 1 min. 4: 2 min. 5: 3 min. 6: 5 min. 7: 7 min. 8: 10 min. 9: 15 min. 10: 30 min. 11: 60 min.	4	
08	Setting mode	Process	Fuser	Applicable period of pre-running time for first printing	At low temperatures	2085	8	Thick paper 1	8	0-11	M	0: Invalid (always ON) 1: 0 min. 2: 0.5 min. 3: 1 min. 4: 2 min. 5: 3 min. 6: 5 min. 7: 7 min. 8: 10 min. 9: 15 min. 10: 30 min. 11: 60 min.	4	
08	Setting mode	Process	Fuser	Applicable period of pre-running time for first printing	At low temperatures	2085	9	Thick paper 2	8	0-11	M	0: Invalid (always ON) 1: 0 min. 2: 0.5 min. 3: 1 min. 4: 2 min. 5: 3 min. 6: 5 min. 7: 7 min. 8: 10 min. 9: 15 min. 10: 30 min. 11: 60 min.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Process	Fuser	Applicable period of pre-running time for first printing	At low temperatures	2085	12	OHP film	8	0-11	M	0: Invalid (always ON) 1: 0 min. 2: 0.5 min. 3: 1 min. 4: 2 min. 5: 3 min. 6: 5 min. 7: 7 min. 8: 10 min. 9: 15 min. 10: 30 min. 11: 60 min.	4	
08	Setting mode	Process	Fuser	Applicable period of pre-running time for first printing	At low temperatures	2085	13	Special paper 1	8	0-11	M	0: Invalid (always ON) 1: 0 min. 2: 0.5 min. 3: 1 min. 4: 2 min. 5: 3 min. 6: 5 min. 7: 7 min. 8: 10 min. 9: 15 min. 10: 30 min. 11: 60 min.	4	
08	Setting mode	Process	Fuser	Applicable period of pre-running time for first printing	At low temperatures	2085	14	Special paper 2	8	0-11	M	0: Invalid (always ON) 1: 0 min. 2: 0.5 min. 3: 1 min. 4: 2 min. 5: 3 min. 6: 5 min. 7: 7 min. 8: 10 min. 9: 15 min. 10: 30 min. 11: 60 min.	4	
08	Setting mode	Process	Fuser	Applicable period of pre-running time for first printing	At low temperatures	2085	15	Envelope	8	0-11	M	0: Invalid (always ON) 1: 0 min. 2: 0.5 min. 3: 1 min. 4: 2 min. 5: 3 min. 6: 5 min. 7: 7 min. 8: 10 min. 9: 15 min. 10: 30 min. 11: 60 min.	4	
08	Setting mode	Process	Fuser	Abnormality process starting temperature setting	Plain paper/Low temperature	2087	0	black	3	0-12	M	0: 120ºC 1: 125ºC 2: 130ºC 3: 135ºC 4: 140ºC 5: 145ºC 6: 150ºC 7: 155ºC 8: 160ºC 9: 165ºC 10: 170ºC 11: 175ºC 12: Disable	4	
08	Setting mode	Process	Fuser	Abnormality process starting temperature setting	Plain paper/Low temperature	2087	1	color	4	0-12	M	0: 120ºC 1: 125ºC 2: 130ºC 3: 135ºC 4: 140ºC 5: 145ºC 6: 150ºC 7: 155ºC 8: 160ºC 9: 165ºC 10: 170ºC 11: 175ºC 12: Disable	4	
08	Setting mode	Process	Fuser	Temperature setting to start process for abnormality		2088		OHP film	6	0-12	M	0: 120ºC 1: 125ºC 2: 130ºC 3: 135ºC 4: 140ºC 5: 145ºC 6: 150ºC 7: 155ºC 8: 160ºC 9: 165ºC 10: 170ºC 11: 175ºC 12: Disable	1	
08	Setting mode	Process	Fuser	Fusing temperature during printing	Side / Plain paper	2140	0	Normal temperature/Black	Refer to contents	0-16	M	0: 90℃ 1: 95℃ 2: 100℃ 3: 105℃ 4: 110℃ 5: 115℃ 6: 120℃ 7: 125℃ 8: 130℃ 9: 135℃ 10: 140℃ 11: 145℃ 12: 150℃ 13: 155℃ 14: 160℃ 15: 165℃ 16: 170℃ <Default value> JPD: 11 Others: 12	4	
08	Setting mode	Process	Fuser	Fusing temperature during printing	Side / Plain paper	2140	1	Normal temperature/Color	Refer to contents	0-16	M	0: 90℃ 1: 95℃ 2: 100℃ 3: 105℃ 4: 110℃ 5: 115℃ 6: 120℃ 7: 125℃ 8: 130℃ 9: 135℃ 10: 140℃ 11: 145℃ 12: 150℃ 13: 155℃ 14: 160℃ 15: 165℃ 16: 170℃ <Default value> JPD: 11 Others: 12	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Process	Fuser	Fusing temperature during printing	Side / Plain paper	2140	2	Low temperature/Black	12	0-16	M	0: 90℃ 1: 95℃ 2: 100℃ 3: 105℃ 4: 110℃ 5: 115℃ 6: 120℃ 7: 125℃ 8: 130℃ 9: 135℃ 10: 140℃ 11: 145℃ 12: 150℃ 13: 155℃ 14: 160℃ 15: 165℃ 16: 170℃	4	
08	Setting mode	Process	Fuser	Fusing temperature during printing	Side / Plain paper	2140	3	Low temperature/Color	12	0-16	M	0: 90℃ 1: 95℃ 2: 100℃ 3: 105℃ 4: 110℃ 5: 115℃ 6: 120℃ 7: 125℃ 8: 130℃ 9: 135℃ 10: 140℃ 11: 145℃ 12: 150℃ 13: 155℃ 14: 160℃ 15: 165℃ 16: 170℃	4	
08	Setting mode	Process	Fuser	Fusing temperature during printing		2141		Side / Thick paper 1	13	0-16	M	0: 90℃ 1: 95℃ 2: 100℃ 3: 105℃ 4: 110℃ 5: 115℃ 6: 120℃ 7: 125℃ 8: 130℃ 9: 135℃ 10: 140℃ 11: 145℃ 12: 150℃ 13: 155℃ 14: 160℃ 15: 165℃ 16: 170℃	1	
08	Setting mode	Process	Fuser	Fusing temperature during printing		2142		Side / Thick paper 2	14	0-16	M	0: 90℃ 1: 95℃ 2: 100℃ 3: 105℃ 4: 110℃ 5: 115℃ 6: 120℃ 7: 125℃ 8: 130℃ 9: 135℃ 10: 140℃ 11: 145℃ 12: 150℃ 13: 155℃ 14: 160℃ 15: 165℃ 16: 170℃	1	
08	Setting mode	Process	Fuser			2143		Fusing temperature during printing (Side / Overhead transparencies)	14	0-16	M	0: 90℃ 1: 95℃ 2: 100℃ 3: 105℃ 4: 110℃ 5: 115℃ 6: 120℃ 7: 125℃ 8: 130℃ 9: 135℃ 10: 140℃ 11: 145℃ 12: 150℃ 13: 155℃ 14: 160℃ 15: 165℃ 16: 170℃	1	
08	Setting mode	Process	Fuser	Retention period of temperature of print operation at print end		2179	0	Plain paper/Recycled paper/Thin paper	0	0-10	M	0: Disabled 1: 10 sec. 2: 20 sec. 3: 30 sec. 4: 40 sec. 5: 50 sec. 6: 60 sec. 7: 90 sec. 8: 120 sec. 9: 150 sec. 10: 180 sec.	4	
08	Setting mode	Process	Fuser	Retention period of temperature of print operation at print end		2179	1	Thick paper 1, 2/OHP/Special paper 1, 2/Envelope	0	0-10	M	0: Disabled 1: 10 sec. 2: 20 sec. 3: 30 sec. 4: 40 sec. 5: 50 sec. 6: 60 sec. 7: 90 sec. 8: 120 sec. 9: 150 sec. 10: 180 sec.	4	
08	Setting mode	Process	Fuser	Fusing temperature for envelop		2194		Center	14	0-16	M	0: 90℃ 1: 95℃ 2: 100℃ 3: 105℃ 4: 110℃ 5: 115℃ 6: 120℃ 7: 125℃ 8: 130℃ 9: 135℃ 10: 140℃ 11: 145℃ 12: 150℃ 13: 155℃ 14: 160℃ 15: 165℃ 16: 170℃	1	
08	Setting mode	Process	Fuser	Fusing temperature for envelop		2195		Side	14	0-16	M	0: 90℃ 1: 95℃ 2: 100℃ 3: 105℃ 4: 110℃ 5: 115℃ 6: 120℃ 7: 125℃ 8: 130℃ 9: 135℃ 10: 140℃ 11: 145℃ 12: 150℃ 13: 155℃ 14: 160℃ 15: 165℃ 16: 170℃	1	
08	Setting mode	Process	Fuser	Lower limit value of control temperature	Plain paper/Normal temperature	2205	0	Black/Heat roller (Center)	12	0-18	M	0: 80℃ 1: 85℃ 2: 90℃ 3: 95℃ 4: 100℃ 5: 105℃ 6: 110℃ 7: 115℃ 8: 120℃ 9: 125℃ 10: 130℃ 11: 135℃ 12: 140℃ 13: 145℃ 14: 150℃ 15: 155℃ 16: 160℃ 17: 165℃ 18: 170℃	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Process	Fuser	Lower limit value of control temperature	Plain paper/Normal temperature	2205	1	Black/Heat roller (Side)	12	0-18	M	0: 80℃ 1: 85℃ 2: 90℃ 3: 95℃ 4: 100℃ 5: 105℃ 6: 110℃ 7: 115℃ 8: 120℃ 9: 125℃ 10: 130℃ 11: 135℃ 12: 140℃ 13: 145℃ 14: 150℃ 15: 155℃ 16: 160℃ 17: 165℃ 18: 170℃	4	
08	Setting mode	Process	Fuser	Lower limit value of control temperature	Plain paper/Normal temperature	2205	2	Color/Heat roller (Center)	Refer to contents	0-18	M	0: 80℃ 1: 85℃ 2: 90℃ 3: 95℃ 4: 100℃ 5: 105℃ 6: 110℃ 7: 115℃ 8: 120℃ 9: 125℃ 10: 130℃ 11: 135℃ 12: 140℃ 13: 145℃ 14: 150℃ 15: 155℃ 16: 160℃ 17: 165℃ 18: 170℃ <Default value> JPD: 12 Others: 13	4	
08	Setting mode	Process	Fuser	Lower limit value of control temperature	Plain paper/Normal temperature	2205	3	Color/Heat roller (Side)	Refer to contents	0-18	M	0: 80℃ 1: 85℃ 2: 90℃ 3: 95℃ 4: 100℃ 5: 105℃ 6: 110℃ 7: 115℃ 8: 120℃ 9: 125℃ 10: 130℃ 11: 135℃ 12: 140℃ 13: 145℃ 14: 150℃ 15: 155℃ 16: 160℃ 17: 165℃ 18: 170℃ <Default value> JPD: 12 Others: 13	4	
08	Setting mode	Process	Fuser	Lower limit value of control temperature	Plain paper/Low temperature	2206	0	Black/Heat roller (Center)	12	0-18	M	0: 80℃ 1: 85℃ 2: 90℃ 3: 95℃ 4: 100℃ 5: 105℃ 6: 110℃ 7: 115℃ 8: 120℃ 9: 125℃ 10: 130℃ 11: 135℃ 12: 140℃ 13: 145℃ 14: 150℃ 15: 155℃ 16: 160℃ 17: 165℃ 18: 170℃	4	
08	Setting mode	Process	Fuser	Lower limit value of control temperature	Plain paper/Low temperature	2206	1	Black/Heat roller (Side)	12	0-18	M	0: 80℃ 1: 85℃ 2: 90℃ 3: 95℃ 4: 100℃ 5: 105℃ 6: 110℃ 7: 115℃ 8: 120℃ 9: 125℃ 10: 130℃ 11: 135℃ 12: 140℃ 13: 145℃ 14: 150℃ 15: 155℃ 16: 160℃ 17: 165℃ 18: 170℃	4	
08	Setting mode	Process	Fuser	Lower limit value of control temperature	Plain paper/Low temperature	2206	2	Color/Heat roller (Center)	13	0-18	M	0: 80℃ 1: 85℃ 2: 90℃ 3: 95℃ 4: 100℃ 5: 105℃ 6: 110℃ 7: 115℃ 8: 120℃ 9: 125℃ 10: 130℃ 11: 135℃ 12: 140℃ 13: 145℃ 14: 150℃ 15: 155℃ 16: 160℃ 17: 165℃ 18: 170℃	4	
08	Setting mode	Process	Fuser	Lower limit value of control temperature	Plain paper/Low temperature	2206	3	Color/Heat roller (Side)	13	0-18	M	0: 80℃ 1: 85℃ 2: 90℃ 3: 95℃ 4: 100℃ 5: 105℃ 6: 110℃ 7: 115℃ 8: 120℃ 9: 125℃ 10: 130℃ 11: 135℃ 12: 140℃ 13: 145℃ 14: 150℃ 15: 155℃ 16: 160℃ 17: 165℃ 18: 170℃	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Process	Fuser	Lower limit value of control temperature	Thick paper 1	2208	0	Heat roller (Center)	13	0-18	M	0: 80℃ 1: 85℃ 2: 90℃ 3: 95℃ 4: 100℃ 5: 105℃ 6: 110℃ 7: 115℃ 8: 120℃ 9: 125℃ 10: 130℃ 11: 135℃ 12: 140℃ 13: 145℃ 14: 150℃ 15: 155℃ 16: 160℃ 17: 165℃ 18: 170℃	4	
08	Setting mode	Process	Fuser	Lower limit value of control temperature	Thick paper 1	2208	1	Heat roller (Side)	13	0-18	M	0: 80℃ 1: 85℃ 2: 90℃ 3: 95℃ 4: 100℃ 5: 105℃ 6: 110℃ 7: 115℃ 8: 120℃ 9: 125℃ 10: 130℃ 11: 135℃ 12: 140℃ 13: 145℃ 14: 150℃ 15: 155℃ 16: 160℃ 17: 165℃ 18: 170℃	4	
08	Setting mode	Process	Fuser	Lower limit value of control temperature	Thick paper 2	2209	0	Heat roller (Center)	14	0-18	M	0: 80℃ 1: 85℃ 2: 90℃ 3: 95℃ 4: 100℃ 5: 105℃ 6: 110℃ 7: 115℃ 8: 120℃ 9: 125℃ 10: 130℃ 11: 135℃ 12: 140℃ 13: 145℃ 14: 150℃ 15: 155℃ 16: 160℃ 17: 165℃ 18: 170℃	4	
08	Setting mode	Process	Fuser	Lower limit value of control temperature	Thick paper 2	2209	1	Heat roller (Side)	14	0-18	M	0: 80℃ 1: 85℃ 2: 90℃ 3: 95℃ 4: 100℃ 5: 105℃ 6: 110℃ 7: 115℃ 8: 120℃ 9: 125℃ 10: 130℃ 11: 135℃ 12: 140℃ 13: 145℃ 14: 150℃ 15: 155℃ 16: 160℃ 17: 165℃ 18: 170℃	4	
08	Setting mode	Process	Fuser	Temperature setting for starting abnormality handling		2233		Envelope (Center/side thermistor)	6	0-12	M	0: 120℃ 1: 125℃ 2: 130℃ 3: 135℃ 4: 140℃ 5: 145℃ 6: 150℃ 7: 155℃ 8: 160℃ 9: 165℃ 10: 170℃ 11: 175℃ 12: Disabled	1	
08	Setting mode	Process	Fuser	Temperature setting for starting abnormality handling	Special paper (Center/side thermistor)	2246	0	Special paper 1	6	0-12	M	0: 120℃ 1: 125℃ 2: 130℃ 3: 135℃ 4: 140℃ 5: 145℃ 6: 150℃ 7: 155℃ 8: 160℃ 9: 165℃ 10: 170℃ 11: 175℃ 12: Disabled	4	
08	Setting mode	Process	Fuser	Temperature setting for starting abnormality handling	Special paper (Center/side thermistor)	2246	1	Special paper 2	6	0-12	M	0: 120℃ 1: 125℃ 2: 130℃ 3: 135℃ 4: 140℃ 5: 145℃ 6: 150℃ 7: 155℃ 8: 160℃ 9: 165℃ 10: 170℃ 11: 175℃ 12: Disabled	4	
08	Setting mode	Process	Fuser			2248		Threshold value for application time of pre-running when finished printing	2	0-10	M	0: Disabled 1: 30 sec. 2: 60 sec. 3: 90 sec. 4: 120 sec. 5: 150 sec. 6: 180 sec. 7: 210 sec. 8: 240 sec. 9: 270 sec. 10: 300 sec.	1	
08	Setting Mode	Process	Fuser	Fusing temperature in the low power mode		2250		Side	0	0-25	M	0: OFF 1: 40℃ 2: 45℃ 3: 50℃ 4: 55℃ 5: 60℃ 6: 65℃ 7: 70℃ 8: 75℃ 9: 80℃ 10: 85℃ 11: 90℃ 12: 95℃ 13: 100℃ 14: 105℃ 15: 110℃ 16: 115℃ 17: 120℃ 18: 125℃ 19: 130℃ 20: 135℃ 21: 140℃ 22: 145℃ 23: 150℃ 24: 155℃ 25: 160℃	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Process	Fuser	Pre-running time for first printing		2282		Envelope	0	0-15	M	0: Disabled 1: 1 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 9 sec. 10: 10 sec. 11: 12 sec. 12: 14 sec. 13: 16 sec. 14: 18 sec. 15: 20 sec.	1	
08	Setting mode	Process	Transfer	Setting of 2nd transfer bias table		2307		For each destination/paper thickness	Refer to contents	0-5	M	0: 80 g/m2 (21.3 lb.)/EUR 1: 75 g/m2 (20 lb.)/UC 2: 64 g/m2 (17.1 lb.)/JPN 3: - 4: - 5: - <Default value> MJD: 0 NAD: 1 Others: 2	1	
08	Setting Mode	Process	Main charger			2365		Main charger wire cleaning - cycle setting	5	0-9	M	Sets the display interval for cleaning if "Color banding (in feeding direction)" occurs. 0: Invalid 1: 3000 pages 2: 5000 pages 3: 7500 pages 4: 10000 pages 5: 15000 pages 6: 20000 pages 7: 25000 pages 8: 30000 pages 9: 35000 pages	1	Yes
08	Setting mode	Process	Cleaner			2370		Exhaust fan high-speed rotation period in ready status	6	0-10	M	Sets the longer time if blurred image, white banding (at right angles to feeding direction), or color banding (at right angles to feeding direction) occurs. 0: No control 1: 10 sec. 2: 20 sec. 3: 30 sec. 4: 40 sec. 5: 50 sec. 6: 1 min. 7: 2 min. 8: 3 min. 9: 7 min. 10: 15 min.	1	Yes
08	Setting mode	Process	General			2373		Enable/Disable setting of new or old detection of developer and cleaner	1	0-1	M	0: Disabled 1: Enabled	1	
08	Setting mode	Process	Cleaner	Control of photoconductive drum idling in standby mode		2380		Control setting of photoconductive drum idling in standby mode	1	0-1	M	0: Disabled 1: Enabled	1	
08	Setting mode	Process	Cleaner	Control of photoconductive drum idling in standby mode		2381		Rotation starting time	0	0-6	M	Refer to "3.11.4 Drum driving sleep mode". 0: 10 sec. 1: 20 sec. 2: 30 sec. 3: 1 min. 4: 2 min. and 50 sec. 5: 6 min. and 50 sec. 6: 9 min. and 50 sec.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Process	Cleaner	Control of photoconductive drum idling in standby mode		2382		Time interval	4	0-7	M	Refer to "3.11.4 Drum driving sleep mode". 0: 10 sec. 1: 20 sec. 2: 30 sec. 3: 1 min. 4: 2 min. 5: 3 min. 6: 5 min. 7: 7 min.	1	
08	Setting mode	Process	Cleaner	Control of photoconductive drum idling in standby mode		2383		Maximum number	5	0-6	M	Refer to "3.11.4 Drum driving sleep mode". 0: Once 1: Twice 2: 3 times 3: 4 times 4: 5 times 5: 7 times 6: 10 times	1	
08	Setting Mode	Process	Developm ent			2385		Setting of the number of sheets to shift to sleep mode for the drum drive	7	1-255	M	Setting value x 10 (sheets)	1	
08	Setting Mode	Process	Fuser			2386		Condition of shift to pre-sleep mode (temperature)	4	0-7	M	0: None (Temperature condition is disabled) 1: 10 degrees C or less 2: 12 degrees C or less 3: 14 degrees C or less 4: 16 degrees C or less 5: 18 degrees C or less 6: 20 degrees C or less 7: 22 degrees C or less	1	
08	Setting Mode	Process	Developm ent	Main charger/LED head		2387		Synchronization setting of notice for cleaning	0	0-1	M	Synchronizes the display timing of the cleaning of the main charger and LED head. If the synchronization setting is enabled, the main charger and LED head may become dirty because of the insufficient cleaning. 0: Disabled 1: Enabled	1	
08	Setting Mode	Process	Image control	Image quality	Image quality closed-loop control	2486		Contrast voltage	1	0-1	M	Sets whether or not correcting the contrast voltage in image quality control. 0: Invalid 1: Valid	1	
08	Setting mode	Process	Image control	Image quality	Image quality closed-loop control automatic start-up	2492		At the first power-ON in the morning	1	0-2	M	Sets the behavior of closed-loop control at power-ON when the fuser roller temperature becomes below the specified level. 0: Disabled 1: Enabled (Performed in the short mode) 2: Enabled (Performed in the full mode)	1	
08	Setting mode	Process	Image control	Image quality		2493		Vc default value open method selection	1	0-1	M	0: Calculated with environmental parameter 1: Result of last close + environmental variation	1	
08	Setting mode	Process	Image control	Image quality		2495		Enable/Disable setting of image quality close IQC Short mode	1	0-1	M	0: Disabled 1: Enabled	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Process	Image control	Image quality	Image quality closed-loop control automatic start-up	2496		Period of time unattended	1	0-2	M	Sets the behavior of closed-loop control at the operation start when the equipment has not been used for a specified period of time in the energy saving mode. 0: Disabled 1: Enabled (Performed in the short mode) 2: Enabled (Performed in the full mode)	1	
08	Setting mode	Process	Image control	Image quality		2497		Accumulated copied/printed number of sheets setting 2 for start-up of short mode IQC	100	0-500	M	Unit (Sheets)	1	
08	Setting mode	Process	Image control	Image quality	Image quality closed-loop control automatic start-up	2498		Accumulated print volume	1	0-1	M	Sets whether or not performing closed-loop control automatically when the specified number of sheets has been printed out from the previous control. 0: Disabled 1: Enabled	1	
08	Setting mode	Process	Image control	Image quality	Image quality closed-loop control automatic start-up	2500		When recovered from "Toner empty"	1	0-1	M	Sets whether or not performing closed-loop control automatically when recovered from "Toner empty". 0: Disabled 1: Enabled	1	
08	Setting Mode	Process	Image control	Image quality	Auto start	2505		Relative humidity difference	2	0-6	M	Color mode only. 0: 0% 1: 5% 2: 10% 3: 15% 4: 20% 5: 25% 6: 30%	1	
08	Setting Mode	Process	Developm ent			2506		Enable/disable setting of toner density correction control	1	0-1	M	0: Disabled 1: Enabled When setting the value of 08-2708 (Toner density ratio manual offset control) to other than "0" (Disabled), set the value of this code to "0" (Disabled).	1	
08	Setting Mode	Process	Image control	Image quality	Auto start	2507		Period of time unattended	15	0-15	M	Sets the unattended period of time to perform closed-loop control automatically at the start of operation when the equipment has not been used for a specified period of time in the energy saving mode. 0: 3 1: 5 2: 7 3: 10 4: 15 5: 20 6: 30 7: 45 8: 60 9: 90 10: 120 11: 150 12: 180 13: 240 14: 300 15: 360 (Unit: minute)	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Process	Image control	Image quality	Image quality closed-loop control automatic start-up	2509		Setting of accumulated print volume	1000	100-9999	M	Sets the number of accumulated print volume to perform closed-loop control when "1" (valid) is set in 08-2498. Image problems may occur if the value extremely smaller than the default value is set to the equipment whose print ratio of monochrome is relatively high. (unit: pages)	1	
08	Setting mode	Process	Image control	Contrast voltage offset correction setting	Normal speed	2513	0	Y	5	0-10	M	0: -100 1: -80 2: -60 3: -40 4: -20 5: 0 6: +20 7: +40 8: +60 9: +80 10: +100 (Unit: V)	4	
08	Setting mode	Process	Image control	Contrast voltage offset correction setting	Normal speed	2513	1	M	5	0-10	M	0: -100 1: -80 2: -60 3: -40 4: -20 5: 0 6: +20 7: +40 8: +60 9: +80 10: +100 (Unit: V)	4	
08	Setting mode	Process	Image control	Contrast voltage offset correction setting	Normal speed	2513	2	C	5	0-10	M	0: -100 1: -80 2: -60 3: -40 4: -20 5: 0 6: +20 7: +40 8: +60 9: +80 10: +100 (Unit: V)	4	
08	Setting mode	Process	Image control	Contrast voltage offset correction setting	Normal speed	2513	3	K	5	0-10	M	0: -100 1: -80 2: -60 3: -40 4: -20 5: 0 6: +20 7: +40 8: +60 9: +80 10: +100 (Unit: V)	4	
08	Setting mode	Process	Image control	Contrast voltage offset correction setting	Decelerating	2514	0	Y	5	0-10	M	0: -100 1: -80 2: -60 3: -40 4: -20 5: 0 6: +20 7: +40 8: +60 9: +80 10: +100 (Unit: V)	4	
08	Setting mode	Process	Image control	Contrast voltage offset correction setting	Decelerating	2514	1	M	5	0-10	M	0: -100 1: -80 2: -60 3: -40 4: -20 5: 0 6: +20 7: +40 8: +60 9: +80 10: +100 (Unit: V)	4	
08	Setting mode	Process	Image control	Contrast voltage offset correction setting	Decelerating	2514	2	C	5	0-10	M	0: -100 1: -80 2: -60 3: -40 4: -20 5: 0 6: +20 7: +40 8: +60 9: +80 10: +100 (Unit: V)	4	
08	Setting mode	Process	Image control	Contrast voltage offset correction setting	Decelerating	2514	3	K	5	0-10	M	0: -100 1: -80 2: -60 3: -40 4: -20 5: 0 6: +20 7: +40 8: +60 9: +80 10: +100 (Unit: V)	4	
08	Setting Mode	Process	Image control	Abnormality detection	Display/0 clearing	2528		Y	0	0-16	M	Counts the abnormality detection of image quality control. Accumulating total of [CE10], [CE20] and [CE40]	1	Yes
08	Setting Mode	Process	Image control	Abnormality detection	Display/0 clearing	2529		M	0	0-16	M	Counts the abnormality detection of image quality control. Accumulating total of [CE10], [CE20] and [CE40]	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Process	Image control	Abnormality detection	Display/0 clearing	2530		C	0	0-16	M	Counts the abnormality detection of image quality control. Accumulating total of [CE10], [CE20] and [CE40]	1	Yes
08	Setting Mode	Process	Image control	Abnormality detection	Display/0 clearing	2531		K	0	0-16	M	Counts the abnormality detection of image quality control. Accumulating total of [CE10], [CE20] and [CE40]	1	Yes
08	Setting mode	Process	Image control	Potential on white background/Correctio n setting	Normal speed	2548	0	Y	6	0-12	M	0: -30 1: -25 2: -20 3: -15 4: -10 5: -5 6: 0 7: 5 8: 10 9: 15 10: 20 11: 25 12: 30	4	
08	Setting mode	Process	Image control	Potential on white background/Correctio n setting	Normal speed	2548	1	M	6	0-12	M	0: -30 1: -25 2: -20 3: -15 4: -10 5: -5 6: 0 7: 5 8: 10 9: 15 10: 20 11: 25 12: 30	4	
08	Setting mode	Process	Image control	Potential on white background/Correctio n setting	Normal speed	2548	2	C	6	0-12	M	0: -30 1: -25 2: -20 3: -15 4: -10 5: -5 6: 0 7: 5 8: 10 9: 15 10: 20 11: 25 12: 30	4	
08	Setting mode	Process	Image control	Potential on white background/Correctio n setting	Normal speed	2548	3	K	6	0-12	M	0: -30 1: -25 2: -20 3: -15 4: -10 5: -5 6: 0 7: 5 8: 10 9: 15 10: 20 11: 25 12: 30	4	
08	Setting mode	Process	Image control	Potential on white background/Correctio n setting	Reduced speed	2549	0	Y	6	0-12	M	0: -30 1: -25 2: -20 3: -15 4: -10 5: -5 6: 0 7: 5 8: 10 9: 15 10: 20 11: 25 12: 30	4	
08	Setting mode	Process	Image control	Potential on white background/Correctio n setting	Reduced speed	2549	1	M	6	0-12	M	0: -30 1: -25 2: -20 3: -15 4: -10 5: -5 6: 0 7: 5 8: 10 9: 15 10: 20 11: 25 12: 30	4	
08	Setting mode	Process	Image control	Potential on white background/Correctio n setting	Reduced speed	2549	2	C	6	0-12	M	0: -30 1: -25 2: -20 3: -15 4: -10 5: -5 6: 0 7: 5 8: 10 9: 15 10: 20 11: 25 12: 30	4	
08	Setting mode	Process	Image control	Potential on white background/Correctio n setting	Reduced speed	2549	3	K	6	0-12	M	0: -30 1: -25 2: -20 3: -15 4: -10 5: -5 6: 0 7: 5 8: 10 9: 15 10: 20 11: 25 12: 30	4	
08	Setting mode	Process	Transfer			2556		1st transfer environmental control switchover	1	0-1	M	0: Disabled 1: Enabled	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Process	Image control	Image quality		2600		Enable/disable setting of pattern formation of image quality TRC control	1	0-1	M	0: Disabled 1: Enabled	1	
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	Multiple values	2620	0	Normal speed Y	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	Multiple values	2620	1	Normal speed M	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	Multiple values	2620	2	Normal speed C	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	Multiple values	2620	3	Normal speed K	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	Multiple values	2620	4	Decelerating Y	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	Multiple values	2620	5	Decelerating M	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	Multiple values	2620	6	Decelerating C	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	Multiple values	2620	7	Decelerating K	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	Binary	2621	0	Normal speed Y	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	Binary	2621	1	Normal speed M	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	Binary	2621	2	Normal speed C	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	Binary	2621	3	Normal speed K	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	Binary	2621	4	Decelerating Y	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	Binary	2621	5	Decelerating M	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	Binary	2621	6	Decelerating C	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	Binary	2621	7	Decelerating K	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	1200dpi	2622	0	Normal speed Y	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	1200dpi	2622	1	Normal speed M	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	1200dpi	2622	2	Normal speed C	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	1200dpi	2622	3	Normal speed K	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	1200dpi	2622	4	Decelerating Y	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	1200dpi	2622	5	Decelerating M	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	1200dpi	2622	6	Decelerating C	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	
08	Setting Mode	Process	LED	Factor setting for LED sub-line emission time	1200dpi	2622	7	Decelerating K	15	8-36	M	Use this code to change the reproducibility of the isolated points and thickness of fine lines in the image. The larger the value, the sharper the isolated points become and the sharper and thicker the fine lines become. Be sure to perform image quality control after changing the value.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Process	Image control	Refreshing behavior after being left unattended		2677		Enable/Disable setting	0	0-1	M	Sets whether the control to stabilize image quality after the equipment is left unattended for a long time is enabled or not. When this setting is enabled, the amount of toner consumption and waste toner may increase. 0: Disabled 1: Enabled	1	
08	Setting Mode	Process	Image control	Refreshing behavior after being left unattended		2678	0	Display of number of times of execution (Level 1)	0	0-9999	M	Only 0 clear is available. Unit: number of times	4	
08	Setting Mode	Process	Image control	Refreshing behavior after being left unattended		2678	1	Display of number of times of execution (Level 2)	0	0-9999	M	Only 0 clear is available. Unit: number of times	4	
08	Setting Mode	Process	Image control	Refreshing behavior after being left unattended		2678	2	Display of number of times of execution (Level 3)	0	0-9999	M	Only 0 clear is available. Unit: number of times	4	
08	Setting Mode	Process	Image control	Refreshing behavior after being left unattended		2679	0	Display of number of times of repeated execution (Level 1)	1	1-20	M	Unit: number of times	4	
08	Setting Mode	Process	Image control	Refreshing behavior after being left unattended		2679	1	Display of number of times of repeated execution (Level 2)	2	1-20	M	Unit: number of times	4	
08	Setting Mode	Process	Image control	Refreshing behavior after being left unattended		2679	2	Display of number of times of repeated execution (Level 3)	3	1-20	M	Unit: number of times	4	
08	Setting mode	Process	Development	Toner density ratio manual offset control	Y	2707	0	Y	0	0-8	M	0: Disabled 1: +4bit 2: +7bit 3: +10bit 4: +14bit 5: -4bit 6: -7bit 7: -10bit 8: -14bit When setting the value of this code to other than "0", set the value of 08-2506 (Enable/disable setting of toner density correction control) to "0" (Disabled).	4	
08	Setting mode	Process	Development	Toner density ratio manual offset control	M	2707	1	M	0	0-8	M	0: Disabled 1: +4bit 2: +7bit 3: +10bit 4: +14bit 5: -4bit 6: -7bit 7: -10bit 8: -14bit When setting the value of this code to other than "0", set the value of 08-2506 (Enable/disable setting of toner density correction control) to "0" (Disabled).	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Process	Developm ent	Toner density ratio manual offset control	C	2707	2	C	0	0-8	M	0: Disabled 1: +4bit 2: +7bit 3: +10bit 4: +14bit 5: -4bit 6: -7bit 7: -10bit 8: -14bit When setting the value of this code to other than "0", set the value of 08-2506 (Enable/disable setting of toner density correction control) to "0" (Disabled).	4	
08	Setting mode	Process	Developm ent	Toner density ratio manual offset control	K	2707	3	K	0	0-8	M	0: Disabled 1: +4bit 2: +7bit 3: +10bit 4: +14bit 5: -4bit 6: -7bit 7: -10bit 8: -14bit When setting the value of this code to other than "0", set the value of 08-2506 (Enable/disable setting of toner density correction control) to "0" (Disabled).	4	
08	Setting Mode	Scanner				3015		Pre-scan setting switchover	0	0-1	SYS	0: Not performing pre-scanning 1: Performing pre-scanning	1	Yes
08	Setting Mode	Scanner	RADF			3021		Set for switchback-mixed size copy	0	0-1	SYS	This setting is whether the original length is detected or not by transporting without scanning in reverse when A4-R/FOLIO paper or LT-R/LG paper is detected in a mixed size copying. 0: Disabled - AMS: A series - Judges as A4-R without transporting in reverse with no scanning. LT series - Judges whether it is LT-R or LG by its length without transporting in reverse with no scanning. APS: A series - Judges whether it is A4-R or FOLIO without transporting in reverse with no scanning. LT series - Judges whether it is LT-R or LG without transporting in reverse with no scanning. 1: Enable 1 AMS: A series - Judges whether it is A4-R or FOLIO by Transporting without scanning in reverse to detect its length. LT series - Judges whether it is LT-R or LG by transporting without scanning in reverse to detect its length. APS: The same as that of APS in 0: Disabled.	1	Yes
08	Setting Mode	Scanner				3025		Correction of carriage position	2	0-2	SYS	0: No correction 1: Performs correction before scanning 2: Performs correction after scanning	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Scanner				3065		Initialization of model information in lens unit	-	-	-	Normally this code is not used. When an error occurs by installing the lens unit used for other models, perform this code to initialize the model information.	3	
08	Setting Mode	Scanner	RADF			3075		Allowing of trailing edge adjustment of scanning	0	0-1	SYS	0: Not allowed 1: Allowed	1	
08	Setting Mode	Scanner				3080		Detection method of original size	1	1, 3	SYS	1: Two-step detection (lights twice) 3: Single-step detection (lights once) When "3" is set, the detection accuracy of dark originals may decrease.	1	
08	Setting Mode	System	User interface	Card reading device		3500		Device setting	0	0-429496729 5	SYS	To enable the e-Bridge ID Gate, a card reading device should be set in the order of "ABYYZZZZ". (Enter the corresponding values to "A", "B", "YY" and "ZZZZ".) - AB: Special setting - A: Debugging NIC 0: Not used 1: Used - B: Interface 0: USB connection 1: Serial connection (KP-2003 only) - YY: Authentication 00: No authentication using card 03: Mifare (KP-2005 only) 04: HID (KP-2004 only) 09: Magnetic card I/F - ZZZZ: Sub-code (Specifies the usage type of card ID) 0000: No authentication using card 0001: IDm (Felica/NFC-Felica) and (or) UID (Mifare/NFC-Mifare) 0002: Data (Felica/NFC-Felica/Mifare/NFC-Mifare) 0003: SSFC mode	5	Yes
08	Setting Mode	System	User interface	Card reading device		3501		Card reader format information -1	0	0-429496729 5	SYS	To access the data in the noncontact IC card, the Key Information "LLLL" and the Sector Number "MMMM" should be set. The "LLLL" should be set first, and then "MMMM". <KP-2005> LLLL: Key information MMMM: Sector number (hexadecimal number)	5	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	User interface	Card reading device		3502		Card reader format information -2	0	0-429496729 5	SYS	The data of the block number in the noncontact IC is set. <KP-2005> RRBSEbse (hexadecimal number) RR: 00 (Fixed) B: 1st area block number S: 1st area beginning byte offset E: 1st area ending byte offset b: 2nd area block number s: 2nd area beginning byte offset e: 2nd area ending byte offset * If the 2nd block/area is not used, set the SSTU to "FFFF" (hexadecimal number), the bse to"FFF" (hexadecimal number).	5	Yes
08	Setting Mode	System	User interface	Card reading device		3503		Card reader format information -3	0	Refer to contents	SYS	Security key "KKKKKKKKKKKK" (12 digits) <hexadecimal number> in the [Key Information] of the [Sector Number] set in the code 08-3501 should be entered. <Acceptable value> 0-0xFFFFFFFFFFFFFFFF	5	Yes
08	Setting Mode	System	User interface	Card reading device		3504		Card authentication LDAP server	0	0-100	SYS	LDAP server number for the card authentication when a noncontact IC card is used should be set.	1	Yes
08	Setting mode	System	General	Available profile display		3600	0	LL_IS34_00.icc (LL20/25ppm) WL_IS34_00.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	1	LL_IS34_01.icc (LL20/25ppm) WL_IS34_01.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	2	LL_IS34_02.icc (LL20/25ppm) WL_IS34_02.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Available profile display		3600	3	LL_IS34_03.icc (LL20/25ppm) WL_IS34_03.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	4	LL_IS34_04.icc (LL20/25ppm) WL_IS34_04.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	5	LL_IS34_05.icc (LL20/25ppm) WL_IS34_05.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	6	LL_IS34_06.icc (LL20/25ppm) WL_IS34_06.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	7	LL_IS34_07.icc (LL20/25ppm) WL_IS34_07.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	8	LL_IS34_08.icc (LL20/25ppm) WL_IS34_08.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	9	LL_IS34_09.icc (LL20/25ppm) WL_IS34_09.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	10	LL_IS34_10.icc (LL20/25ppm) WL_IS34_10.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Available profile display		3600	11	LL_IS34_11.icc (LL20/25ppm) WL_IS34_11.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	12	LL_IS34_12.icc (LL20/25ppm) WL_IS34_12.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	13	LL_IS34_13.icc (LL20/25ppm) WL_IS34_13.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	14	LL_IS34_14.icc (LL20/25ppm) WL_IS34_14.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	15	LL_IS34_15.icc (LL20/25ppm) WL_IS34_15.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	16	LL_IS34_16.icc (LL20/25ppm) WL_IS34_16.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	17	LL_IS34_17.icc (LL20/25ppm) WL_IS34_17.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	18	LL_IS34_18.icc (LL20/25ppm) WL_IS34_18.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Available profile display		3600	19	LL_IS34_19.icc (LL20/25ppm) WL_IS34_19.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	20	LL_IS34_20.icc (LL20/25ppm) WL_IS34_20.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	21	LL_IS34_21.icc (LL20/25ppm) WL_IS34_21.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	22	LL_IS34_22.icc (LL20/25ppm) WL_IS34_22.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	23	LL_IS34_23.icc (LL20/25ppm) WL_IS34_23.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	24	LL_IS34_24.icc (LL20/25ppm) WL_IS34_24.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	25	LL_IS34_25.icc (LL20/25ppm) WL_IS34_25.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	26	LL_IS34_26.icc (LL20/25ppm) WL_IS34_26.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Available profile display		3600	27	LL_IS34_27.icc (LL20/25ppm) WL_IS34_27.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	28	LL_IS34_28.icc (LL20/25ppm) WL_IS34_28.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	29	LL_IS34_29.icc (LL20/25ppm) WL_IS34_29.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	30	LL_IS34_30.icc (LL20/25ppm) WL_IS34_30.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	31	LL_IS34_31.icc (LL20/25ppm) WL_IS34_31.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	32	LL_IS34_32.icc (LL20/25ppm) WL_IS34_32.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	33	LL_IS34_33.icc (LL20/25ppm) WL_IS34_33.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	34	LL_IS34_34.icc (LL20/25ppm) WL_IS34_34.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Available profile display		3600	35	LL_IS34_35.icc (LL20/25ppm) WL_IS34_35.icc (20/25ppm)	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code.	14	
08	Setting mode	System	General	Available profile display		3600	36	WL_IS34_36.icc	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Available profile display		3600	37	WL_IS34_37.icc	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Available profile display		3600	38	WL_IS34_38.icc	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Available profile display		3600	39	WL_IS34_39.icc	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Available profile display		3600	40	WL_IS34_40.icc	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Available profile display		3600	41	WL_IS34_41.icc	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Available profile display		3600	42	WL_IS34_42.icc	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Available profile display		3600	43	WL_IS34_43.icc	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Available profile display		3600	44	WL_IS34_44.icc	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Available profile display		3600	45	WL_IS34_45.icc	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code. * This code is not supported by LL20/25ppm model.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Available profile display		3600	46	WL_IS34_46.icc	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Available profile display		3600	47	WL_IS34_47.icc	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Available profile display		3600	48	WL_IS34_48.icc	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Available profile display		3600	49	WL_IS34_49.icc	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Available profile display		3600	50	WL_IS34_50.icc	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Available profile display		3600	51	WL_IS34_51.icc	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Available profile display		3600	52	WL_IS34_52.icc	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Available profile display		3600	53	WL_IS34_53.icc	-	-	SYS	Displays PG Device Pure Gray TRC attribute for the current RGB Ink Sim profile and the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General			3601		Recovery of the profile at the shipment	0	0-53	SYS	Recovers the default RGB Ink Sim profile and PG Device Pure Gray TRC in the same sub-code. <20/25ppm> 0: WL_IS34_00 1: WL_IS34_01 2: WL_IS34_02 ..... 51: WL_IS34_51 52: WL_IS34_52 53: WL_IS34_53 <LL20/25ppm> 0: LL_IS34_00 1: LL_IS34_01 2: LL_IS34_02 ..... 33: LL_IS34_33 34: LL_IS34_34 35: LL_IS34_35	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General			3602		Copying the profile at the shipment to USB memory	0	0-53	SYS	Copies the default RGB Ink Sim profile and PG Device Pure Gray TRC in the same sub-code to the USB memory. <20/25ppm> 0: WL_IS34_00 1: WL_IS34_01 2: WL_IS34_02 ..... 51: WL_IS34_51 52: WL_IS34_52 53: WL_IS34_53 <LL20/25ppm> 0: LL_IS34_00 1: LL_IS34_01 2: LL_IS34_02 ..... 33: LL_IS34_33 34: LL_IS34_34 35: LL_IS34_35	1	
08	Setting mode	System	General			3603		Updating the profile at the shipment from UBS memory	0	0-53	SYS	Uploads the default RGB Ink Sim profile and PG Device PureGray TRC in the same sub-code from the USB memory. <20/25ppm> 0: WL_IS34_00 1: WL_IS34_01 2: WL_IS34_02 ..... 51: WL_IS34_51 52: WL_IS34_52 53: WL_IS34_53 <LL20/25ppm> 0: LL_IS34_00 1: LL_IS34_01 2: LL_IS34_02 ..... 33: LL_IS34_33 34: LL_IS34_34 35: LL_IS34_35	1	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	0	LL_IS34_00.000 (LL20/25ppm) WL_IS34_00.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	1	LL_IS34_01.000 (LL20/25ppm) WL_IS34_01.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	2	LL_IS34_02.000 (LL20/25ppm) WL_IS34_02.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	3	LL_IS34_03.000 (LL20/25ppm) WL_IS34_03.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	4	LL_IS34_04.000 (LL20/25ppm) WL_IS34_04.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	5	LL_IS34_05.000 (LL20/25ppm) WL_IS34_05.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	6	LL_IS34_06.000 (LL20/25ppm) WL_IS34_06.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	7	LL_IS34_07.000 (LL20/25ppm) WL_IS34_07.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	8	LL_IS34_08.000 (LL20/25ppm) WL_IS34_08.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	9	LL_IS34_09.000 (LL20/25ppm) WL_IS34_09.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	10	LL_IS34_10.000 (LL20/25ppm) WL_IS34_10.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	11	LL_IS34_11.000 (LL20/25ppm) WL_IS34_11.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	12	LL_IS34_12.000 (LL20/25ppm) WL_IS34_12.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	13	LL_IS34_13.000 (LL20/25ppm) WL_IS34_13.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	14	LL_IS34_14.000 (LL20/25ppm) WL_IS34_14.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	15	LL_IS34_15.000 (LL20/25ppm) WL_IS34_15.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	16	LL_IS34_16.000 (LL20/25ppm) WL_IS34_16.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	17	LL_IS34_17.000 (LL20/25ppm) WL_IS34_17.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	18	LL_IS34_18.000 (LL20/25ppm) WL_IS34_18.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	19	LL_IS34_19.000 (LL20/25ppm) WL_IS34_19.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	20	LL_IS34_20.000 (LL20/25ppm) WL_IS34_20.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	21	LL_IS34_21.000 (LL20/25ppm) WL_IS34_21.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	22	LL_IS34_22.000 (LL20/25ppm) WL_IS34_22.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	23	LL_IS34_23.000 (LL20/25ppm) WL_IS34_23.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	24	LL_IS34_24.000 (LL20/25ppm) WL_IS34_24.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	25	LL_IS34_25.000 (LL20/25ppm) WL_IS34_25.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	26	LL_IS34_26.000 (LL20/25ppm) WL_IS34_26.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	27	LL_IS34_27.000 (LL20/25ppm) WL_IS34_27.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	28	LL_IS34_28.000 (LL20/25ppm) WL_IS34_28.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	29	LL_IS34_29.000 (LL20/25ppm) WL_IS34_29.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	30	LL_IS34_30.000 (LL20/25ppm) WL_IS34_30.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	31	LL_IS34_31.000 (LL20/25ppm) WL_IS34_31.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	32	LL_IS34_32.000 (LL20/25ppm) WL_IS34_32.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	33	LL_IS34_33.000 (LL20/25ppm) WL_IS34_33.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	34	LL_IS34_34.000 (LL20/25ppm) WL_IS34_34.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	35	LL_IS34_35.000 (LL20/25ppm) WL_IS34_35.000 (20/25ppm)	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	36	WL_IS34_36.000	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	37	WL_IS34_37.000	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	38	WL_IS34_38.000	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	39	WL_IS34_39.000	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	40	WL_IS34_40.000	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	41	WL_IS34_41.000	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	42	WL_IS34_42.000	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	43	WL_IS34_43.000	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	44	WL_IS34_44.000	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	45	WL_IS34_45.000	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	46	WL_IS34_46.000	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	47	WL_IS34_47.000	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	48	WL_IS34_48.000	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	49	WL_IS34_49.000	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	50	WL_IS34_50.000	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	51	WL_IS34_51.000	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	52	WL_IS34_52.000	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3604	53	WL_IS34_53.000	-	-	SYS	Displays the default RGB Ink Sim profile and PG Device PureGray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General			3605		Making the profile available	0	0-53	SYS	Selecting a profile Overwrites the adjusted RGB Ink Sym profile on the current area (PG CIE Based PureGray TRC in the same sub-code is overwritten to the current area.) <20/25ppm> 0: WL_IS34_00 1: WL_IS34_01 2: WL_IS34_02 ..... 51: WL_IS34_51 52: WL_IS34_52 53: WL_IS34_53 <LL20/25ppm> 0: LL_IS34_00 1: LL_IS34_01 2: LL_IS34_02 ..... 33: LL_IS34_33 34: LL_IS34_34 35: LL_IS34_35	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General			3606		Copying the adjusted profile to USB memory	0	0-53	SYS	Copies the adjusted RGB Ink Sim profile and PG CIE Based Pure Gray TRC in the same sub-code to USB memory. <20/25ppm> 0: WL_IS34_00 1: WL_IS34_01 2: WL_IS34_02 ..... 51: WL_IS34_51 52: WL_IS34_52 53: WL_IS34_53 <LL20/25ppm> 0: LL_IS34_00 1: LL_IS34_01 2: LL_IS34_02 ..... 33: LL_IS34_33 34: LL_IS34_34 35: LL_IS34_35	1	
08	Setting mode	System	General			3607		Uploading the adjusted profile from USB memory	0	0-53	SYS	Uploads the adjusted RGBInkSim profile and PG CIE Based PureGray TRC in the same sub-code from the USB memory. <20/25ppm> 0: WL_IS34_00 1: WL_IS34_01 2: WL_IS34_02 ..... 51: WL_IS34_51 52: WL_IS34_52 53: WL_IS34_53 <LL20/25ppm> 0: LL_IS34_00 1: LL_IS34_01 2: LL_IS34_02 ..... 33: LL_IS34_33 34: LL_IS34_34 35: LL_IS34_35	1	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	0	LL_IS34_00.001 (LL20/25ppm) WL_IS34_00.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	1	LL_IS34_01.001 (LL20/25ppm) WL_IS34_01.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	2	LL_IS34_02.001 (LL20/25ppm) WL_IS34_02.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	3	LL_IS34_03.001 (LL20/25ppm) WL_IS34_03.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	4	LL_IS34_04.001 (LL20/25ppm) WL_IS34_04.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	5	LL_IS34_05.001 (LL20/25ppm) WL_IS34_05.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	6	LL_IS34_06.001 (LL20/25ppm) WL_IS34_06.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	7	LL_IS34_07.001 (LL20/25ppm) WL_IS34_07.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	8	LL_IS34_08.001 (LL20/25ppm) WL_IS34_08.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	9	LL_IS34_09.001 (LL20/25ppm) WL_IS34_09.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	10	LL_IS34_10.001 (LL20/25ppm) WL_IS34_10.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	11	LL_IS34_11.001 (LL20/25ppm) WL_IS34_11.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	12	LL_IS34_12.001 (LL20/25ppm) WL_IS34_12.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	13	LL_IS34_13.001 (LL20/25ppm) WL_IS34_13.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	14	LL_IS34_14.001 (LL20/25ppm) WL_IS34_14.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	15	LL_IS34_15.001 (LL20/25ppm) WL_IS34_15.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	16	LL_IS34_16.001 (LL20/25ppm) WL_IS34_16.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	17	LL_IS34_17.001 (LL20/25ppm) WL_IS34_17.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	18	LL_IS34_18.001 (LL20/25ppm) WL_IS34_18.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	19	LL_IS34_19.001 (LL20/25ppm) WL_IS34_19.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	20	LL_IS34_20.001 (LL20/25ppm) WL_IS34_20.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	21	LL_IS34_21.001 (LL20/25ppm) WL_IS34_21.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	22	LL_IS34_22.001 (LL20/25ppm) WL_IS34_22.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	23	LL_IS34_23.001 (LL20/25ppm) WL_IS34_23.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	24	LL_IS34_24.001 (LL20/25ppm) WL_IS34_24.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	25	LL_IS34_25.001 (LL20/25ppm) WL_IS34_25.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	26	LL_IS34_26.001 (LL20/25ppm) WL_IS34_26.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	27	LL_IS34_27.001 (LL20/25ppm) WL_IS34_27.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	28	LL_IS34_28.001 (LL20/25ppm) WL_IS34_28.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	29	LL_IS34_29.001 (LL20/25ppm) WL_IS34_29.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	30	LL_IS34_30.001 (LL20/25ppm) WL_IS34_30.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	31	LL_IS34_31.001 (LL20/25ppm) WL_IS34_31.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	32	LL_IS34_32.001 (LL20/25ppm) WL_IS34_32.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	33	LL_IS34_33.001 (LL20/25ppm) WL_IS34_33.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	34	LL_IS34_34.001 (LL20/25ppm) WL_IS34_34.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	35	LL_IS34_35.001 (LL20/25ppm) WL_IS34_35.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	36	WL_IS34_36.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	37	WL_IS34_37.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	38	WL_IS34_38.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	39	WL_IS34_39.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	40	WL_IS34_40.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	41	WL_IS34_41.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	42	WL_IS34_42.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	43	WL_IS34_43.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	44	WL_IS34_44.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	45	WL_IS34_45.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	46	WL_IS34_46.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	47	WL_IS34_47.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	48	WL_IS34_48.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	49	WL_IS34_49.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	50	WL_IS34_50.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	51	WL_IS34_51.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	52	WL_IS34_52.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Displaying the attribute of the profile at the shipment		3608	53	WL_IS34_53.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure Gray TRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting Mode	System	General			3612		Date of unpacking	-	13 digits	SYS	Year/month/date/day/hour/minute/second Example:03 07 01 3 13 27 48 "Day" - "0" is for "Sunday". Proceeds Monday through Saturday from "1" to "6".	11	Yes
08	Setting mode	System	General	List print USB storage setting		3615		List print USB storage setting	0	0-1	SYS	0: Enable (USB storage available) 1: Disable (USB storage not available)	1	
08	Setting mode	System	General	Clearing of service history list file		3619		Clearing of service history list file	-	-	SYS	Initializes the service history list file.	3	
08	Setting mode	System	General	Real time log notification function		3623		Job filtering setting	0	0-65535	SYS	Changes the target type of jobs for notification in real time log notification function.	1	
08	Setting mode	System	General	Real time log notification function		3624		Log item filtering setting	2147483 921	0- 429496729 5	SYS	Changes the target type of logs for notification in real time log notification function.	5	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	General	Real time log notification function		3626		Department information transmission setting	0	0-1	SYS	Sets whether the department information (number, name, code) is transmitted or not in the real time log notification function. 0: Department number, department name, department code 1: Department number, department name	1	
08	Setting mode	System	General			3628		Enable/Disable setting of standard data overwrite function	1	0-1	SYS	0: Disabled 1: Enabled * This code is valid for NAD only.	1	
08	Setting mode	System	General			3629		Enabling/Disabling standard EWB function	1	0-1	SYS	0: Disabled 1: Enabled * This code is valid for MJD and AUD only.	1	
08	Setting Mode	System	Network			3631		Remote Access (SNMP)	1	0-1	SYS	0: Disabled 1: Enabled	1	
08	Setting mode	System	User interface			3635		Trial copy function	1	0-1	SYS	0: Disabled1: Enabled	1	
08	Setting mode	System	Network	Internet Fax		3637		Addition of transmission header	0	0-1	SYS	0:Disabled 1:Enabled	1	Yes
08	Setting mode	System	Network	Internet Fax		3638		Addition of receiving record	0	0-1	SYS	0:Disabled 1:Enabled	1	Yes
08	Setting mode	System	Network	Internet Fax		3639		Adding method of transmission header	1	1-2	SYS	1: Overwriting inside the image (5 mm from the top) 2: Adding outside the image (5 mm from the top)	1	Yes
08	Setting mode	System	Network			3640		Authentication of MDS system	0	0-1	SYS	0: Disabled (Normal mode) 1: Enabled (MDS authentication mode) * If the EWB license has not been installed at startup, this code becomes "0".	1	
08	Setting mode	System	Network			3641		Display in TopAccess	0	0-1	SYS	Sets whether the information of MDS Authentication will be displayed or not in TopAccess and control panel. 0: Non display 1: Display * When "1" is set in 3640, the setting value of this code becomes "1" accordingly. The setting value cannot be changed to "0".	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Network			3642	0	User authentication setting for NW print/NW fax/Internet fax function	0	0-3	SYS	0: Authentication with user name and domain name 1: No authentication control in the equipment 2: Authentication with user name 3: Authentication with domain participation information	4	
08	Setting mode	System	Network			3642	2	Disabling job authentication/permis sion check/Quota check for DPWS Scan	0	0-1	SYS	0: OFF 1: ON	4	
08	Setting mode	System	User interface			3643		Filtering condition for job list on the panel	1	0-1	SYS	0: Filtered with user name 1: Filtered with domain name and user name * This code is valid only when the value of 08-3642-0 is "1".	1	
08	Setting mode	System	General			3644		Login restriction for reissued card	0	0-1	SYS	0: Disabled 1: Enabled	1	
08	Setting mode	System	User interface	User authentication		3646		Copy	1	0-1	SSDK	0: Disabled 1: Enabled	1	
08	Setting mode	System	User interface	User authentication		3647		FAX	1	0-1	SSDK	0: Disabled 1: Enabled	1	
08	Setting mode	System	User interface	User authentication		3648		Printer/e-Filing	1	0-1	SSDK	0: Disabled 1: Enabled	1	
08	Setting mode	System	User interface	User authentication		3649		Scanning	1	0-1	SSDK	0: Disabled 1: Enabled	1	
08	Setting mode	System	User interface	User authentication		3650		List print	1	0-1	SSDK	0: Disabled 1: Enabled	1	
08	Setting mode	System	User interface			3651		Authentication method for administrator	1	0-1	SSDK	0: Only password 1: User name and password	1	
08	Setting mode	System	User interface			3652		Switchover of card reader display on the control panel	0	0-1	SYS	Switches the display on the control panel (authentication screen) depending on the connected card reader. 0: Non-contact type 1: Card insertion type	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	User interface			3653		Timing of the determined for the print job connectable	0	0-1	SYS	Selects the timing to be determined whether the print job connectable. 0: Consumables life priority It is judged whether the following print job exeists by the time the last page of the predecessor job is printed. After the last page is discharged, the machine is stopped when the following print job doesn't exist. 1: Print Performance priority It is judged whether the following print job exeists by the time the last page of the predecessor job is discharged.	1	
08	Setting mode	System	Paper feeding			3657		List/report printing from the drawer specified for "FAX"	0	0-1	SYS	Sets to feed the paper from a drawer whose attribute is specified to "FAX" when a list or report is printed. 0: Disabled 1: Enabled	1	
08	Setting mode	System	Network	InternetFax		3658		To/Bcc Destination	0	0-1	SYS	Switches the destination of an internet fax to be sent to To or Bcc. 0: To 1: Bcc	1	
08	Setting mode	System	FAX			3659		Image position and size setting at the time of forwarding received fax jobs	1	0-2	SYS	This setting is applied only when a received fax job is forwarded with a pdf format file. 0: Sets to select the paper size from the drawers in which paper is loaded by corresponding to an image size. The image position is the upper part of the paper. 1: Sets to select the paper size from the drawers in which paper is loaded by corresponding to an image size. The image position is the center part of the paper. 2: Sets to select a standard size paper corresponding to an image size. The image position is the upper part of the paper. - If "FAX" has been set as the attribute of a drawer, its paper size will be applied when "0" or "1" is selected.	1	
08	Setting mode	System	FAX			3661		Fax operation setting during off-hook transmission	1	0-2	SYS	0: Transmission is not operable during off-hook 1: Direct transmission is operable during off-hook 2: Transmission is operable during off-hook	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Scanning			3662		Waiting period for continue after the RADF scanning	0	0-1	SYS	0: Disabled 1: Enabled * When "Enabled" is set, the screen to notify continuity appears for 1 second after RADF scanning has been completed.	1	
08	Setting mode	System				3666		Process of user authentification(Shimp leBind)	0	0-1	SSDK	0: Normal process 1: Special process	1	
08	Setting mode	System	Network			3702		Logon User Name of Windows Domain Authentication	MFP's serial number	-	-	Maximum 128 letters "MFP's serial number" is set as default. Perform 08-9083 to set the default value.	12	
08	Setting mode	System	Network			3703		Logon User Name Password of Windows Domain Authentication	-	-	NIC	Maximum 128 letters	12	
08	Setting mode	System	Network			3704		PDC2 of user authentication	-	-	UTY	Maximum 128 letters	12	
08	Setting mode	System	Network			3705		BDC2 of user authentication	-	-	UTY	Maximum 128 letters	12	
08	Setting mode	System	Network			3706		PDC3 of user authentication	-	-	UTY	Maximum 128 letters	12	
08	Setting mode	System	Network			3707		BDC3 of user authentication	-	-	UTY	Maximum 128 letters	12	
08	Setting mode	System	Network			3708		PDC of Windows Domain Authentication	-	-	NIC	Maximum 128 letters	12	
08	Setting mode	System	Network			3709		BDC of device authentication	-	-	NIC	Maximum 128 letters	12	
08	Setting mode	System	Network			3718		Domain name of device authentication	-	-	NIC	Maximum 128 letters	12	
08	Setting mode	System	Network			3719		Windows domain No. 2 of user authentication	-	-	UTY	Maximum 128 letters	12	
08	Setting mode	System	Network			3720		Windows domain No. 3 of user authentication	-	-	UTY	Maximum 128 letters	12	
08	Setting mode	System	Network			3721		AppleTalk device name	MFP's serial number	-	-	Maximum 32 letters "MFP's serial number" is set as default. Perform 08-9083 to set the default value.	12	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Network			3722		PDC/BDC timeout value of Windows Domain Authentication (Unit: Seconds)	60	1-180	NIC	Applied to the device authentication	12	
08	Setting mode	System	Network			3723		User authentication PDC/BDC time-out period (Unit: Seconds)	30	1-180	NIC	Applied to the user authentication	12	
08	Setting mode	System	Network			3724		Windows Domain Authentication method of Windows Domain/User Authentication	1	1-4	NIC	Sets the Windows domain authentication method for device authentication, Scan to SMB, and user authentication. When the setting of the domain authentication method is unknown, it's strongly recommended to set the value of this code to "1" (Auto). 1: Auto 2: Kerberos 3: NTLMv2 4: NTLMv1 * Note that the internal processing is different between user authentication and Windows logon authentication/Scan to SMB as follows. - User authentication "1" (Auto): Auto (Kerberos -> NTLMv2) "4" (NTLMv1): NTLMv2 - Windows logon authentication/Scan to SMB "1" (Auto): Auto (Kerberos -> NTLMv1) "4" (NTLMv1): NTLMv1	12	
08	Setting mode	System	Network			3725		IPP max connection	16	1-16	NIC		12	
08	Setting mode	System	Network			3726		IPP active connection	10	1-16	NIC		12	
08	Setting mode	System	Network			3727		LPD max connection	10	1-16	NIC		12	
08	Setting mode	System	Network			3728		LPD active connection	10	1-16	NIC		12	
08	Setting mode	System	Network			3729		ATalk PS max Connection	10	1-16	NIC		12	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Network			3730		ATalk PS active Connection	10	1-16	NIC		12	
08	Setting mode	System	Network			3731		Raw TCP max Connection	10	1-16	NIC		12	
08	Setting mode	System	Network			3732		Raw TCP active connection	10	1-16	NIC		12	
08	Setting mode	System	Network			3736		DNS client TimeOut	5	1-180	NIC	Use when a timeout occurred at DNS client connection	12	
08	Setting mode	System	Network			3739		FTP Client TimeOut (SCAN)	30	1-180	NIC	Use when a timeout occurred at FTP client connection	12	
08	Setting mode	System	Network			3743		LDAP client TimeOut	5	1-180	NIC	Use when a timeout occurred at LDAP client connection	12	
08	Setting mode	System	Network	DPWS		3754		Switching printer setting	1	1-2	NIC	DPWS printer function is switched. 1: Enabled 2: Disabled	12	
08	Setting mode	System	Network	DPWS		3755		Switching scanner setting	1	1-2	NIC	DPWS scanner function is switched. 1: Enabled 2: Disabled	12	
08	Setting mode	System	Network	DPWS		3757		Discovery Port Number	3702	1-65535	NIC	Port number used for DPWS Discovery	12	
08	Setting mode	System	Network	DPWS		3758		Metadata Exchange Port Number	50081	1-65535	NIC	Port number used for DPWS Metadata Exchange	12	
08	Setting mode	System	Network	DPWS		3759		Print Port Number	50082	1-65535	NIC	Port number used for DPWS Print	12	
08	Setting mode	System	Network	DPWS		3760		Scan Port Number	50083	1-65535	NIC	Port number used for DPWS Scan	12	
08	Setting mode	System	Network	DPWS		3765		Print Max numbers of connection	10	1-20	NIC	Maximum numbers received from more than one connection request in the DPWS print	12	
08	Setting mode	System	Network	DPWS		3766		Print Max numbers of reception	10	1-20	NIC	Maximum numbers of data received from more than one clients in the DPWS print	12	
08	Setting mode	System	Network	IPv6		3767		Switching IPv6 setting	2	1-2	NIC	IPv6 function is switched. 1: Enabled 2: Disabled	12	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Network	IPv6		3768		Switching address acquisition	2	1-3	NIC	IP (IPv6) address acquisition setting is switched. 1: Manual 2: Stateless 3: Stateful	12	
08	Setting mode	System	Network	IPv6		3770		IPv6 Address	-	-	-	Displays IPv6 address. Maximum 40 characters (byte).	12	
08	Setting mode	System	Network	IPv6		3771		Prefix display setting	-	-	-	Sets the length of the displayed prefix. Maximum 3 characters (byte).	12	
08	Setting mode	System	Network	IPv6		3772		Default Gateway setting	-	-	-	Sets the default gateway for IPv6 address. Maximum 40 characters (byte).	12	
08	Setting mode	System	Network			3774		DHCPv6 Option setting	2	1-2	NIC	DHCPv6 Option is switched when the Manual is set. 1: Enabled 2: Disabled	12	
08	Setting mode	System	Network			3777		Stateless Address setting	2	1-2	NIC	IP Address is acquired by both Stateless and State full Address. 1: Enabled2: Disabled	12	
08	Setting mode	System	Network			3778		Acquiring DHCPv6 Option	2	1-2	NIC	When Stateless Address is selected, an option is acquired from DHCPv6 server. 1: Enabled 2: Disabled	12	
08	Setting mode	System	Network			3779		Stateful Address setting	1	1-2	NIC	IP Address is acquired from DHCPv6 server. 1: Enabled 2: Disabled	12	
08	Setting mode	System	Network			3780		Stateful Option setting	1	1-2	NIC	An option is acquired from DHCPv6 server. 1: Enabled 2: Disabled	12	
08	Setting mode	System	Network	IPv6		3781		Primary DNS Server Address Registration	-	-	-	Registration of Primary DNS Server Address. Maximum 40 characters (byte).	12	
08	Setting mode	System	Network	IPv6		3782		Secondary DNS Server Address Registration	-	-	-	Registration of Secondary DNS Server Address. Maximum 40 characters (byte).	12	
08	Setting mode	System	Network			3793		LLTD function setting	1	1-2	NIC	Sets the LLTD function. 1: Enabled 2: Disabled	12	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	USB media direct printing		3802		Paper size	Refer to contents	0-13	SYS	0: ledger 1: legal 2: letter 3: computer 4: statement 5: A3 6: A4 7: A5 9: B4 10: B5 11: Folio 12: Legal13" 13: LetterSquare <Default value> NAD: 2 Others: 6	1	
08	Setting mode	System	General	USB media direct printing		3803		Enable/disable setting	1	0-1	SYS	Sets the USB media direct printing function. 0: Disabled 1: Enabled * This code is not supported by LL20/25ppm model.	1	
08	Setting mode	System	Scanner			3805		Department Management setting by Remote Scan	3	0-3	SYS	Sets the department management with remote scanning as follows: 0: w/o GUI OFF, w/ GUI OFF 1: w/o GUI ON, w/ GUI OFF 2: w/o GUI OFF, w/ GUI ON 3: w/o GUI ON, w/ GUI ON w/o GUI: Remote scanning is operated on SSOP application of eCOPY Inc. w/ GUI: Remote scanning is operated on TTEC-specific GUI. This setting is only for department management with remote scanning. When GUI is set ON, a department code dialog is displayed at the start-up of remote scanning. This code is valid only when the code 08-9120 is set "1 (Valid)".	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	Network	Direct SMTP		3810		Communication setting	0	0-1	SYS	When an Internet Fax is sent, Direct SMTP communication is set. 0: Disabled 1: Enabled When "0: Disabled" is set, an Internet Fax is sent using an SMTP server. When "1: Enabled" is set, direct SMTP communication is enabled and an Internet Fax is sent to MFPs If "1: Enabled" is set in 08-3810, set "1: Enabled" in 08-3812 as well.	1	Yes
08	Setting Mode	System	Network	Direct SMTP		3811		Image encrypting at the Direct SMTP	0	0-1	SYS	When Direct SMTP communication is performed, an attached image is encrypted. 0: Disabled 1: Enabled	1	Yes
08	Setting Mode	System	Network	Internet Fax		3812		Dummy full mode at transmission	0	0-1	SYS	When an Internet Fax is sent, the resolution ratio and the paper size of an attached image are set to the full mode. 0: Disabled 1: Enabled If "1: Enabled" is set in 08-3810, set "1: Enabled" in 08-3812 as well.	1	Yes
08	Setting mode	System	Scanner	XPS file		3815		Thumbnail addition	1	0-1	SYS	Thumbnail is added to the XPS file produced by the Scan function. 0: Not added 1: Only the top page added	1	
08	Setting mode	System	Scanner	XPS file		3816		Paper size setting	1	0-1	SYS	The paper size of the XPS file produced by the Scan function is set. 0: Scanned image size 1: Standard size	1	
08	Setting mode	System	Scanner	PDF file		3817		Version setting	4	0-1,4	SYS	The version of PDF file produced by the Scan function is set. 0: PDF V1.3 1: PDF V1.4 4: PDF V1.7	1	
08	Setting mode	System	General			3833		Home directory function	0	0-1	SYS	Function to store a file in the user's home directory 0: Disabled 1: Enabled	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General			3837		Display switching for the machine name shown in the notification	0	0-1	SYS	The display method of the machine name shown in the event related notification is switched. 0: IP address 1: NetBIOS name	1	
08	Setting mode	System	General	License control		3840		Registration/ deletion	-	-	-	Registers electronic keys for setting related optional items (e.g. when the equipment is delivered). Returns the license file having the same ID as that in the one-time dongle. Displays all the electronic keys stored in a USB media connected to the equipment in a list. Displays electronic keys registered in the equipment.	3	Yes
08	Setting Mode	System	Option	FAX		3847		FAX mis-transmission prevention	0	0-1	SYS	FAX mis-transmission prevention function is switched. 0: OFF (Disabled) 1: ON (Enabled)	1	Yes
08	Setting Mode	System	Option	FAX		3848		Restriction on Address Book destination	0	0-1	SYS	Sets whether the address in the address book is selectable or not for the FAX mis-transmission prevention function. 0: OFF (Disabled) 1: ON (Enabled)	1	Yes
08	Setting Mode	System	Option	FAX		3849		Restriction on destination direct entry	0	0-1	SYS	Sets whether the direct entry of the FAX number is available or not for the FAX mis-transmission prevention function. 0: OFF (Disabled) 1: ON (Enabled)	1	Yes
08	Setting mode	System	General			3851		Template display	0	0-1	SYS	0: ID number order1: Alphabetical order	1	
08	Setting mode	System	General	Summer time		3852		Summer time Automatic change function	Refer to contents	0-1	SYS	0: Disabled 1: Enabled <Default value> MJD, NAD: 1 Others: 0	1	
08	Setting mode	System	General	Summer time		3853		Time to shift	2	0-7	SYS	0: +2:00 1: +1:30 2: +1:00 3: +0:30 4: -0:30 5: -1:00 6: -1:30 7: -2:00	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Summer time	Start	3854		Month	Refer to contents	1-12	SYS	1: Jan 2: Feb 3: Mar 4: Apr 5: May 6: Jun 7: Jul 8: Aug 9: Sep 10: Oct 11: Nov 12: Dec <Default value> MJD, NAD: 3 Others: 1	1	
08	Setting mode	System	General	Summer time	Start	3855		Week	Refer to contents	1-5	SYS	1: 1st 2: 2nd 3: 3rd 4: 4th 5: Last <Default value> MJD: 5 NAD: 2 Others: 1	1	
08	Setting mode	System	General	Summer time	Start	3856		Day of the week	0	0-6	SYS	0: Sun 1: Mon 2: Tue 3: Wed 4: Thu 5: Fri 6: Sat	1	
08	Setting mode	System	General	Summer time	Start	3857		Hours	Refer to contents	0-23	SYS	0 to 23 <Default value> MJD, NAD: 2 Others: 0	1	
08	Setting mode	System	General	Summer time	Start	3858		Minutes	0	0-59	SYS	0 to 59	1	
08	Setting mode	System	General	Summer time	End	3859		Month	Refer to contents	1-12	SYS	1: Jan 2: Feb 3: Mar 4: Apr 5: May 6: Jun 7: Jul 8: Aug 9: Sep 10: Oct 11: Nov 12: Dec <Default value> MJD: 10 NAD: 11 Others: 1	1	
08	Setting mode	System	General	Summer time	End	3860		Week	Refer to contents	1-5	SYS	1: 1st 2: 2nd 3: 3rd 4: 4th 5: Last <Default value> MJD: 5 Others: 1	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Summer time	End	3861		Day of the week	0	0-6	SYS	0: Sun1: Mon2: Tue3: Wed4: Thu5: Fri6: Sat	1	
08	Setting mode	System	General	Summer time	End	3862		Hours	Refer to contents	0-23	SYS	0 to 23 <Default value> MJD: 3 NAD: 2 Others: 0	1	
08	Setting mode	System	General	Summer time	End	3863		Minutes	0	0-59	SYS	0 to 59	1	
08	Setting mode	System	Network			3864		Disclosure of telnet function	0	0-1	SYS	0: Not disclosed 1: Disclosed When this value is set to "0", the value of code 08-3865 is set to "2".	1	
08	Setting mode	System	Network			3865		Availability of telnet server	2	1-2	NIC	1: Enable2: Disable	12	
08	Setting Mode	System	Fax			3875		Address confirmation for multiple destinations	Refer to contents	0-1	SYS	Enable this setting to display the address confirmation screen before sending fax to prevent wrong transmission when multiple destination addresses are specified. 0: Disabled 1: Enabled <Default value> JPD: 1 Others: 0	1	
08	Setting mode	Printer	Paper feeding	Default setting of paper source	PPC	4010		Default setting of paper source	0	0-5	SYS	0: A4/LT 1: LCF 2: 1st drawer 3: 2nd drawer 4: PFP upper drawer 5: PFP lower drawer	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Printer	Paper feeding	Automatic change of paper source	Auto	4011		PPC	1	1-2	SYS	Sets whether the drawer is changed automatically if the paper runs out in the selected drawer and the paper of the same size is in other drawer. 1: ON (Changes to the drawer with the same paper direction and size: ex. A4 to A4) 2: ON (Changes to the drawer with the same paper size. Paper with the different direction is acceptable as long as the size is the same: ex., A4 to A4-R, LT-R to LT. "1" is applied when the staple/hole punch is specified.)	1	Yes
08	Setting mode	Printer	Laser			4012		Pre-running of print device	0	0-2	SYS	Sets whether or not switching the status of print device from the standby to the ready to print when the original is set on the RADF or the platen cover is opened. 0: Valid (when using RADF and the original is set manually) 1: Invalid 2: Valid (when using RADF only)	1	
08	Setting mode	Printer	Laser			4015		Time to shift to energy saving of print device	3	0-6	SYS	Switches the status of print device from the ready for print to the standby when a certain period of time has passed from the pre-running. This code sets the period to switch the status to the standby. 0: 15 sec. 1: 20 sec. 2: 25 sec. 3: 30 sec. 4: 35 sec. 5: 40 sec. 6: 45 sec. This setting is effective when the value of 08-4012 is set to "0" or "2."	1	
08	Setting Mode	Printer	Paper feeding	Automatic change of paper source	When a drawer is specified	4016	0	PPC	0	0-1	SYS	Sets whether the automatic change of paper source is performed or not if the drawer is specified as the paper source and the paper in the specified drawer runs out when coping. 0: Does not change the paper source automatically 1: Changes the paper source automatically	4	Yes
08	Setting Mode	Printer	Paper feeding	Automatic change of paper source	When a drawer is specified	4016	1	Printing/BOX printing	0	0-1	SYS	Sets whether the automatic change of paper source is performed or not if the drawer is specified as the paper source and the paper in the specified drawer runs out when printing/BOX printing. 0: Does not change the paper source automatically 1: Changes the paper source automatically	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Printer				4017		Polygonal motor stop function when the [FUNCTION CLEAR] button is pressed	0	0~1	SYS	0: Disabled 1: Enabled	1	
08	Setting Mode	Printer	Paper feeding	Feeding retry number setting	1st drawer	4020	0	Plain paper/recycled paper/Thin paper	5	0-5	M	Sets the number of times feeding retry occurs from the 1st drawer.	4	Yes
08	Setting Mode	Printer	Paper feeding	Feeding retry number setting	1st drawer	4020	1	Other paper	5	0-5	M	Sets the number of times feeding retry occurs from the 1st drawer.	4	Yes
08	Setting Mode	Printer	Paper feeding	Feeding retry number setting	2nd drawer	4021	0	Plain paper/recycled paper/Thin paper	5	0-5	M	Sets the number of times feeding retry occurs from the 2nd drawer.	4	Yes
08	Setting Mode	Printer	Paper feeding	Feeding retry number setting	2nd drawer	4021	1	Other paper	5	0-5	M	Sets the number of times feeding retry occurs from the 2nd drawer.	4	Yes
08	Setting Mode	Printer	Paper feeding	Feeding retry number setting	PFP upper drawer	4022	0	Plain paper/recycled paper/Thin paper	5	0-5	M	Sets the number of times feeding retry occurs from the PFP upper drawer.	4	Yes
08	Setting Mode	Printer	Paper feeding	Feeding retry number setting	PFP upper drawer	4022	1	Other paper	5	0-5	M	Sets the number of times feeding retry occurs from the PFP upper drawer.	4	Yes
08	Setting Mode	Printer	Paper feeding	Feeding retry number setting	PFP lower drawer	4023	0	Plain paper/recycled paper/Thin paper	5	0-5	M	Sets the number of times feeding retry occurs from the PFP lower drawer.	4	Yes
08	Setting Mode	Printer	Paper feeding	Feeding retry number setting	PFP lower drawer	4023	1	Other paper	5	0-5	M	Sets the number of times feeding retry occurs from the PFP lower drawer.	4	Yes
08	Setting Mode	Printer	Paper feeding	Feeding retry number setting	Bypass feed	4024	0	Plain paper/recycled paper/Thin paper	5	0-5	M	Sets the number of times feeding retry occurs from the bypass tray.	4	Yes
08	Setting Mode	Printer	Paper feeding	Feeding retry number setting	Bypass feed	4024	1	Other paper	5	0-5	M	Sets the number of times feeding retry occurs from the bypass tray.	4	Yes
08	Setting Mode	Printer	Paper feeding	Feeding retry number setting	LCF	4025		Plain paper	5	0-5	M	Sets the number of times feeding retry occurs from the LCF.	1	Yes
08	Setting mode	Printer	Paper feeding	Paper size setting		4100		1st drawer	Refer to contents	0-255	M	Press the button on the LCD to select the size. This code is reset every time a paper size is detected automatically. 4: A4 64: LT <Default value> NAD: 64 Others: 4	9	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Printer	Paper feeding	Paper size setting		4101		2nd drawer	Refer to contents	0-255	M	Press the button on the LCD to select the size. This code is reset every time a paper size is detected automatically. 19: A3 81: LD <Default value> NAD: 81 Others: 19	9	
08	Setting mode	Printer	Paper feeding	Paper size setting		4102		PFP upper drawer	Refer to contents	0-255	M	Press the button on the LCD to select the size. This code is reset every time a paper size is detected automatically. 20: A4-R 80: LT-R <Default value> NAD: 80 Others: 20	9	
08	Setting mode	Printer	Paper feeding	Paper size setting		4103		PFP lower drawer	Refer to contents	0-255	M	Press the button on the LCD to select the size. This code is reset every time a paper size is detected automatically. 4: A4 52: B4 82: LG <Default value> NAD: 82 JPD: 52 Others: 4	9	
08	Setting mode	Printer	Paper feeding	Paper size setting		4104		LCF	Refer to contents	0-255	M	Press the button on the LCD to select the size. This code is reset every time a paper size is detected automatically. 4: A4 64: LT <Default value> NAD: 64 Others: 4	9	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Printer	Feeding system/Pa per transport			4105		PFP/LCF installation	0	0-4	M	0: Auto 1: PFP upper-drawer type installed 2: PFP upper-drawer and lower-drawer type installed 3: LCF installed 4: Neither PFP nor LCF installed In the following case, set the value to "0" (Automatic) or change the value to the corresponding one. - When any of the above option is replaced - When any of the above option is installed while "4" (Not installed) has been set	1	
08	Setting mode	Printer	Paper feeding	Paper size setting		4106		A3-R	420/297	182-432/140-297	M	Value of feeding/widthwise direction	10	
08	Setting mode	Printer	Paper feeding	Paper size setting		4107		A4-R	297/210	182-432/140-297	M	Value of feeding/widthwise direction	10	
08	Setting mode	Printer	Paper feeding	Paper size setting		4108		A5-R	210/148	182-432/140-297	M	Value of feeding/widthwise direction	10	
08	Setting mode	Printer	Paper feeding	Paper size setting		4109		B4-R	364/257	182-432/140-297	M	Value of feeding/widthwise direction	10	
08	Setting mode	Printer	Paper feeding	Paper size setting		4110		B5-R	257/182	182-432/140-297	M	Value of feeding/widthwise direction	10	
08	Setting mode	Printer	Paper feeding	Paper size setting		4111		LT-R	279/216	182-432/140-297	M	Value of feeding/widthwise direction	10	
08	Setting mode	Printer	Paper feeding	Paper size setting		4112		LD-R	432/279	182-432/140-297	M	Value of feeding/widthwise direction	10	
08	Setting mode	Printer	Paper feeding	Paper size setting		4113		LG-R	356/216	182-432/140-297	M	Value of feeding/widthwise direction	10	
08	Setting mode	Printer	Paper feeding	Paper size setting		4114		ST-R	216/140	182-432/140-297	M	Value of feeding/widthwise direction	10	
08	Setting mode	Printer	Paper feeding	Paper size setting		4115		COMPUTER-R	356/257	182-432/140-297	M	Value of feeding/widthwise direction	10	
08	Setting mode	Printer	Paper feeding	Paper size setting		4116		FOLIO-R	330/210	182-432/140-297	M	Value of feeding/widthwise direction	10	
08	Setting mode	Printer	Paper feeding	Paper size setting		4117		13"LG-R	330/216	182-432/140-297	M	Value of feeding/widthwise direction	10	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Printer	Paper feeding	Paper size setting		4118		8.5"X8.5"-R	216/216	182-432/140-297	M	Value of feeding/widthwise direction	10	
08	Setting mode	Printer	Paper feeding	Paper size setting		4119		Non-standard	432/279	148-432/105-297	SYS	Value of feeding/widthwise direction	10	
08	Setting mode	Printer	Paper feeding	Paper size setting		4120		8K-R	390/270	182-432/140-297	M	Value of feeding/widthwise direction	10	
08	Setting mode	Printer	Paper feeding	Paper size setting		4121		16K-R	270/195	182-432/140-297	M	Value of feeding/widthwise direction	10	
08	Setting mode	Printer	Paper feeding	Paper size setting		4122		A3-wide-R	457/305	182-457/140-305	M	Value of feeding/widthwise direction	10	
08	Setting mode	Printer	Paper feeding	Paper size setting		4123		A6-R	148/105	148-432/105-297	M	Value of feeding/widthwise direction	10	
08	Setting Mode	Printer	Paper feeding			4131		Feeding retry setting	0	0-1	M	0: ON 1: OFF * When the value of 08-9016 is set to "5", the value of this code is automatically set to "1".	1	Yes
08	Setting mode	Printer	Paper feeding	Paper size setting	PPC	4140		Bypass feed	255	0-431	SYS	Press the button on the LCD to select the size.	9	
08	Setting mode	Printer	Paper feeding	Paper size setting		4143		Envelop: Monarch-R	191/98	148-432/98-297	M	Value of feeding/widthwise direction	10	
08	Setting mode	Printer	Paper feeding	Paper size setting		4144		Envelop: 120x235-R	235/120	148-432/105-297	M	Value of feeding/widthwise direction	10	
08	Setting mode	Printer	Paper feeding	Paper size setting		4145		Envelop: 105x235-R	235/105	148-432/105-297	M	Value of feeding/widthwise direction	10	
08	Setting mode	Printer	Paper feeding	Paper size setting		4205		LD-wide	457/305	148-457/105-305	M	Value of feeding/widthwise direction	10	
08	Setting mode	Printer	Paper feeding	Paper size setting		4206		Post card	148/100	148-432/100-297	M	Value of feeding/widthwise direction. * Post card is supported only for JPN model.	10	
08	Setting mode	Printer	Fuser	Fusing error temperature	Temperature of the fuser roller center thermistor	4530	0	Data before correction	0	0-255	M		4	
08	Setting mode	Printer	Fuser	Fusing error temperature	Temperature of the fuser roller center thermistor	4530	1	Data after correction	0	0-255	M		4	
08	Setting mode	Printer	Fuser	Fusing error temperature	Temperature of the fuser roller rear thermistor	4531	0	Data before correction	0	0-255	M		4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Printer	Fuser	Fusing error temperature	Temperature of the fuser roller rear thermistor	4531	1	Data after correction	0	0-255	M		4	
08	Setting mode	Printer	Fuser	Fusing error temperature		4532		Temperature of the fuser roller front thermopiles	0	0-255	M		1	
08	Setting Mode	Printer	Paper feeding			4542		Switching for incorrect size jam detection	0	0-1	M	0: Enabled 1: Disabled	1	Yes
08	Setting Mode	Printer	Paper transport	Color registration control		4546		Execution mode setting	4	0-6	M	0: Not performed automatically 1: (a) 2: (b) 3: (a)＋(b)＋(1) 4: (a)＋(b)＋(2) 5: (a)＋(b)＋(3) 6: (a)＋(b)＋(4) <Description> (a) Performs the adjustment automatically after unit replacement, at pre-warming, and at recovery from the sleep mode. (b) Performs the adjustment automatically every time after a specified period of time has passed. (1) Never performs the adjustment at warming up and after the first print job has completed. (2) Performs the adjustment automatically after the first print job has completed. (3) If the adjustment was performed last time the specified period of time has passed, (4) is applied. If not, (2) is applied. (4) Performs the adjustment automatically at warming up.	1	Yes
08	Setting mode	Printer	Finisher			4547		Manual stapling time-out period	15	3-30	M	3-30sec. (In increments of 1sec.)	1	
08	Setting mode	Printer	Finisher			4548		Finisher model switching setting value	1	0-1	M	0: - 1: MJ-1036/1037	1	
08	Setting Mode	Printer	Paper transport	Color registration control	Start-up time set for color registration	4550	0	1st startup	3	3-255	M	1st color registration control start-up time [unit: minute] automatically set when the color registration control has not been performed automatically at power ON, recovery from the ready status or recovery from the sleep mode.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Printer	Paper transport	Color registration control	Start-up time set for color registration	4550	1	2nd or subsequent startups	30	3-255	M	Start-up time [unit: minute] for 2nd or subsequent color registration control start-ups automatically set when the color registration control has been automatically performed after a specified period of time.	4	Yes
08	Setting mode	Printer	Developm ent	Waste toner mixing paddle setting	During printing	4551	0	Mixing start	2	0-6	M	0: 100 counts 1: 200 counts 2: 300 counts 3: 600 counts 4: 1200 counts 5: 2400 counts 6: 3600 counts	4	
08	Setting mode	Printer	Developm ent	Waste toner mixing paddle setting	During printing	4551	1	Rotation period	3	0-6	M	0: Agitated for 3 sec. 1: Agitated for 4 sec. 2: Agitated for 5 sec. 3: Agitated for 6 sec. 4: Agitated for 8 sec. 5: Agitated for 10 sec. 6: Agitated for 20 sec.	4	
08	Setting mode	Printer	Paper feeding	Pausing of pushing paper		4553	1	2nd drawer	1	0-7	M	0: Disabled 1: Enabled (recycled paper only) 2: Enabled (plain paper only) 3: Enabled (plain paper and recycled paper) 4: Enabled (thin paper only) 5: Enabled (recycled paper and thin paper) 6: Enabled (plain paper and thin paper) 7: Enabled (plain paper, recycled paper, and thin paper)	4	
08	Setting mode	Printer	Paper feeding	Pausing of pushing paper		4553	2	PFP upper drawer	1	0-7	M	0: Disabled 1: Enabled (recycled paper only) 2: Enabled (plain paper only) 3: Enabled (plain paper and recycled paper) 4: Enabled (thin paper only) 5: Enabled (recycled paper and thin paper) 6: Enabled (plain paper and thin paper) 7: Enabled (plain paper, recycled paper, and thin paper)	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Printer	Paper feeding	Pausing of pushing paper		4553	3	PFP lower drawer	1	0-7	M	0: Disabled 1: Enabled (recycled paper only) 2: Enabled (plain paper only) 3: Enabled (plain paper and recycled paper) 4: Enabled (thin paper only) 5: Enabled (recycled paper and thin paper) 6: Enabled (plain paper and thin paper) 7: Enabled (plain paper, recycled paper, and thin paper)	4	
08	Setting mode	Printer	Developm ent	Waste toner mixing paddles setting	During warming-up	4554	0	At normal status	1	0-5	M	0: Agitated for 2 sec. 1: Agitated for 3 sec. 2: Agitated for 5 sec. 3: Agitated for 8 sec. 4: Agitated for 10 sec. 5: Agitated for 20 sec.	4	
08	Setting mode	Printer	Developm ent	Waste toner mixing paddles setting	During warming-up	4554	1	During warming-up after used toner full status detection	2	0-5	M	0: Agitated for 3 sec. 1: Agitated for 5 sec. 2: Agitated for 8 sec. 3: Agitated for 10 sec. 4: Agitated for 15 sec. 5: Agitated for 20 sec.	4	
08	Setting mode	Printer	Paper transport	Color registration control		4562		Time of pausing continuous printing	5	1-60	M	Sets the time from reaching the start-up for color registration control to pausing the printing. (Unit: minute)	1	Yes
08	Setting mode	Printer	Paper feeding	Paper size setting		4567		SRA3	450/320	148-460/105-320	M	Value of feeding/widthwise direction	10	
08	Setting mode	Printer	Paper feeding	Paper size setting		4568		460 mm x 320 mm	460/320	148-460/105-320	M	Value of feeding/widthwise direction	10	
08	Setting mode	Printer	General			4586		Checking of EEPROM data on LGC board No. 1 (Models)	Refer to contents	210-231	M	<Default value> 210: e-STUDIO2050C 211: e-STUDIO2550C 230: e-STUDIO2051C 231: e-STUDIO2551C	2	
08	Setting Mode	Printer	Paper transport	Color registration control		4605		Accumulated counter value	0	8 digits	M	Counts the number of color registration control for each starting mode. Color registration operations other than those performed at the specified timing are counted as 2.	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Printer	General	Destination		4608		Destination categorized code	Refer to contents	0-9	M	For EEPROM on LGC board 0: NAD 1: MJD 2: JPD 3: ASD 5: TWD 6: CND 8: AUD 9: ARD <Default value> MJD: 1 NAD: 0 JPD: 2 ASD: 3 AUD: 8 TWD: 5 CND: 6 ARD: 9	2	
08	Setting Mode	Printer	Counter			4615	0	Counter for job number of sheets	0	8 digits	M	Once	4	
08	Setting Mode	Printer	Counter			4615	1	Counter for job number of sheets	0	8 digits	M	Twice	4	
08	Setting Mode	Printer	Counter			4615	2	Counter for job number of sheets	0	8 digits	M	3 times	4	
08	Setting Mode	Printer	Counter			4615	3	Counter for job number of sheets	0	8 digits	M	Up to 5 times	4	
08	Setting Mode	Printer	Counter			4615	4	Counter for job number of sheets	0	8 digits	M	Up to 10 times	4	
08	Setting Mode	Printer	Counter			4615	5	Counter for job number of sheets	0	8 digits	M	Up to 20 times	4	
08	Setting Mode	Printer	Counter			4615	6	Counter for job number of sheets	0	8 digits	M	Up to 50 times	4	
08	Setting Mode	Printer	Counter			4615	7	Counter for job number of sheets	0	8 digits	M	Up to 100 times	4	
08	Setting Mode	Printer	Counter			4615	8	Counter for job number of sheets	0	8 digits	M	Up to 250 times	4	
08	Setting Mode	Printer	Counter			4615	9	Counter for job number of sheets	0	8 digits	M	Up to 500 times	4	
08	Setting Mode	Printer	Counter			4615	10	Counter for job number of sheets	0	8 digits	M	Up to 1000 times	4	
08	Setting Mode	Printer	Counter			4615	11	Counter for job number of sheets	0	8 digits	M	Up to 2000 times	4	
08	Setting Mode	Printer	Counter			4615	12	Counter for job number of sheets	0	8 digits	M	2001 times or more	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Printer	Counter	History storing area of fusing error counter		4616	0	Latest	0	0-255	M	0:No error 1: C411 error 2: C412 error 3: C443 error 4: Not used 5: C445, C465 error 6: C446, C466 error 7: C447 error 8: C468 error 9: C449 error 10 to 17: Not used 18: C468 error 19: C449 error 20: C468 error 21: C449 error 22: C449 error 23: C449 error 24: C447 error 25: C449 error 26: C468 error 27: C449 error 28: C468 error 29: C449 error 30: Not used 31: C4D0 error 32: C448 error 33: C467 error 34: C467 error 35 to 37: Not used 38: C450 error 39: C450 error 40: Not used 41: C451 error 42: C451 error 43 to 47: Not used 48: C450 error 49: C450 error 50: C452 error 51: C452 error 52 to 255: Not used	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Printer	Counter	History storing area of fusing error counter		4616	1	Once earlier	0	0-255	M	0:No error 1: C411 error 2: C412 error 3: C443 error 4: Not used 5: C445, C465 error 6: C446, C466 error 7: C447 error 8: C468 error 9: C449 error 10 to 17: Not used 18: C468 error 19: C449 error 20: C468 error 21: C449 error 22: C449 error 23: C449 error 24: C447 error 25: C449 error 26: C468 error 27: C449 error 28: C468 error 29: C449 error 30: Not used 31: C4D0 error 32: C448 error 33: C467 error 34: C467 error 35 to 37: Not used 38: C450 error 39: C450 error 40: Not used 41: C451 error 42: C451 error 43 to 47: Not used 48: C450 error 49: C450 error 50: C452 error 51: C452 error 52 to 255: Not used	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Printer	Counter	History storing area of fusing error counter		4616	2	Twice earlier	0	0-255	M	0:No error 1: C411 error 2: C412 error 3: C443 error 4: Not used 5: C445, C465 error 6: C446, C466 error 7: C447 error 8: C468 error 9: C449 error 10 to 17: Not used 18: C468 error 19: C449 error 20: C468 error 21: C449 error 22: C449 error 23: C449 error 24: C447 error 25: C449 error 26: C468 error 27: C449 error 28: C468 error 29: C449 error 30: Not used 31: C4D0 error 32: C448 error 33: C467 error 34: C467 error 35 to 37: Not used 38: C450 error 39: C450 error 40: Not used 41: C451 error 42: C451 error 43 to 47: Not used 48: C450 error 49: C450 error 50: C452 error 51: C452 error 52 to 255: Not used	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Printer	Counter	History storing area of fusing error counter		4616	3	3 times earlier	0	0-255	M	0:No error 1: C411 error 2: C412 error 3: C443 error 4: Not used 5: C445, C465 error 6: C446, C466 error 7: C447 error 8: C468 error 9: C449 error 10 to 17: Not used 18: C468 error 19: C449 error 20: C468 error 21: C449 error 22: C449 error 23: C449 error 24: C447 error 25: C449 error 26: C468 error 27: C449 error 28: C468 error 29: C449 error 30: Not used 31: C4D0 error 32: C448 error 33: C467 error 34: C467 error 35 to 37: Not used 38: C450 error 39: C450 error 40: Not used 41: C451 error 42: C451 error 43 to 47: Not used 48: C450 error 49: C450 error 50: C452 error 51: C452 error 52 to 255: Not used	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Printer	Counter	History storing area of fusing error counter		4616	4	4 times earlier	0	0-255	M	0:No error 1: C411 error 2: C412 error 3: C443 error 4: Not used 5: C445, C465 error 6: C446, C466 error 7: C447 error 8: C468 error 9: C449 error 10 to 17: Not used 18: C468 error 19: C449 error 20: C468 error 21: C449 error 22: C449 error 23: C449 error 24: C447 error 25: C449 error 26: C468 error 27: C449 error 28: C468 error 29: C449 error 30: Not used 31: C4D0 error 32: C448 error 33: C467 error 34: C467 error 35 to 37: Not used 38: C450 error 39: C450 error 40: Not used 41: C451 error 42: C451 error 43 to 47: Not used 48: C450 error 49: C450 error 50: C452 error 51: C452 error 52 to 255: Not used	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Printer	Counter	History storing area of fusing error counter		4616	5	5 times earlier	0	0-255	M	0:No error 1: C411 error 2: C412 error 3: C443 error 4: Not used 5: C445, C465 error 6: C446, C466 error 7: C447 error 8: C468 error 9: C449 error 10 to 17: Not used 18: C468 error 19: C449 error 20: C468 error 21: C449 error 22: C449 error 23: C449 error 24: C447 error 25: C449 error 26: C468 error 27: C449 error 28: C468 error 29: C449 error 30: Not used 31: C4D0 error 32: C448 error 33: C467 error 34: C467 error 35 to 37: Not used 38: C450 error 39: C450 error 40: Not used 41: C451 error 42: C451 error 43 to 47: Not used 48: C450 error 49: C450 error 50: C452 error 51: C452 error 52 to 255: Not used	14	
08	Setting mode	Printer	Paper feeding			4621		Bypass paper size detection setting	0	0-1	M	Detects whether the size of paper fed by bypass feeding is the same as the paper size set on the control panel. If the sizes are not the same, the warning message is displayed (Paper jam does not occur). When the bypass paper size detection is broken, the equipment can be used without the size detection by disabling this setting. After repair, enable this setting. 0: Enabled 1: Disabled	1	
08	Setting mode	Printer	Paper feeding	Bypass paper size detection counter	PPC/PRT	4622		Bypass paper size detection counter	0	0-65535	M	This is a counter for bypass paper size detection setting. If the printing is executed with the paper size that differs from the paper size set on the control panel, the counter is counted up.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Printer	All clear	Destination		4659		Storing area for SYS destination information	Refer to contents	0-255	M	Stores SYS-SRAM destination data when code 08-9090 is performed. 0: MJD 1: NAD 2: JPD 3: AUD 4: CND 5: KRD 6: TWD 7: SAD 8: ASU 9: ASD 10: ARD 11: BMJ <Default value> JPD: 2 NAD: 1 MJD: 0 ASD: 9 AUD: 3 TWD: 6 CND: 4 ARD: 10	2	
08	Setting Mode	Printer	Maintenan ce			4661		Serial number display for engine	-	-	M	1st digit: Country of production (fixed) 2nd digit: Model (fixed) 3rd digit: Dominical year (changes) 4th digit: Month (changes) 5th to 9th digit: Serial number (changes) 11th to 13th digit: **** 14th to 17th digit: Model information (changes) ("UNDEFINED" is displayed before input)	1	
08	Setting Mode	Printer	Counter	Tray-up abnormality		4665		Error count process for tray-up abnormality	1	0~1	M	Switches the error count process for the tray-up abnormality. 0: An occurrence is counted as a 1-time error when a tray-up abnormality is generated at least 1 time. 1: An occurrence is counted as a 1-time error when a tray-up abnormality is generated at least 2 times in a row.	1	
08	Setting Mode	Printer	Counter	Tray-up abnormality	1st drawer	4669	0	1 time	0	0~255	M	Displays the number of the tray-up abnormality occurrences which are generated only 1 time. An error is counted when "1" is set for 08-4665.	4	
08	Setting Mode	Printer	Counter	Tray-up abnormality	2nd drawer	4669	1	2 times in a row	0	0~255	M	Displays the number of the tray-up abnormality occurrences which are generated 2 times in a row. An error is counted when "1" is set for 08-4665, and is listed in the error history.	4	
08	Setting Mode	Printer	Counter	Tray-up abnormality	3rd drawer	4669	2	At least 3 times in a row	0	0~255	M	Displays the number of the tray-up abnormality occurrences which are generated at least 3 times in a row. The 3 times error is counted as 1, the 4 times one is 2, the 5 times one is 3 and the later ones are counted consequently. An error is counted when "1" is set for 08-4665.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Printer	Counter	Tray-up abnormality	4th drawer	4669	3	Total number of occurrences	0	0~255	M	Displays the total number of tray-up abnormality occurrences. An error is counted when "0" is set for 08-4665, and is listed in the error history.	4	
08	Setting Mode	Printer	Counter	Tray-up abnormality	1st drawer	4670	0	1 time	0	0~255	M	Displays the number of the tray-up abnormality occurrences which are generated only 1 time. An error is counted when "1" is set for 08-4665.	4	
08	Setting Mode	Printer	Counter	Tray-up abnormality	2nd drawer	4670	1	2 times in a row	0	0~255	M	Displays the number of the tray-up abnormality occurrences which are generated 2 times in a row. An error is counted when "1" is set for 08-4665, and is listed in the error history.	4	
08	Setting Mode	Printer	Counter	Tray-up abnormality	3rd drawer	4670	2	At least 3 times in a row	0	0~255	M	Displays the number of the tray-up abnormality occurrences which are generated at least 3 times in a row. The 3 times error is counted as 1, the 4 times one is 2, the 5 times one is 3 and the later ones are counted consequently. An error is counted when "1" is set for 08-4665.	4	
08	Setting Mode	Printer	Counter	Tray-up abnormality	4th drawer	4670	3	Total number of occurrences	0	0~255	M	Displays the total number of tray-up abnormality occurrences. An error is counted when "0" is set for 08-4665, and is listed in the error history.	4	
08	Setting Mode	Printer	Counter	Tray-up abnormality	1st drawer	4671	0	1 time	0	0~255	M	Displays the number of the tray-up abnormality occurrences which are generated only 1 time. An error is counted when "1" is set for 08-4665.	4	
08	Setting Mode	Printer	Counter	Tray-up abnormality	2nd drawer	4671	1	2 times in a row	0	0~255	M	Displays the number of the tray-up abnormality occurrences which are generated 2 times in a row. An error is counted when "1" is set for 08-4665, and is listed in the error history.	4	
08	Setting Mode	Printer	Counter	Tray-up abnormality	3rd drawer	4671	2	At least 3 times in a row	0	0~255	M	Displays the number of the tray-up abnormality occurrences which are generated at least 3 times in a row. The 3 times error is counted as 1, the 4 times one is 2, the 5 times one is 3 and the later ones are counted consequently. An error is counted when "1" is set for 08-4665.	4	
08	Setting Mode	Printer	Counter	Tray-up abnormality	4th drawer	4671	3	Total number of occurrences	0	0~255	M	Displays the total number of tray-up abnormality occurrences. An error is counted when "0" is set for 08-4665, and is listed in the error history.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Printer	Paper feeding			4675		Paper ejection setting for size error of bypass feeding	2	0-2	M	0: Disabled 1: Position change of jammed paper 2: Ejects paper	1	
08	Setting Mode	Printer	Paper feeding			4676		Counter of paper ejection for size error of bypass feeding	0	0-65535	M	Number of paper ejection	1	
08	Setting Mode	Printer	General			4686		Printer ROM version display at printer all clear	-	-	M	Displays the last 2 or 3 digits of the printer ROM version (08-9901) when printer all clear (08-9090) is performed. The version number is described by alphanumeric characters.	2	
08	Setting Mode	Printer	IC chip	Board information of toner cartridge		4689	0	Y	0	0-255	M	0: Normal 1: Access abnormality 1 2: Access abnormality 2 3: Access abnormality 3 4: Access abnormality 4 5: Occurrence of C911	4	
08	Setting Mode	Printer	IC chip	Board information of toner cartridge		4689	1	M	0	0-255	M	0: Normal 1: Access abnormality 1 2: Access abnormality 2 3: Access abnormality 3 4: Access abnormality 4 5: Occurrence of C911	4	
08	Setting Mode	Printer	IC chip	Board information of toner cartridge		4689	2	C	0	0-255	M	0: Normal 1: Access abnormality 1 2: Access abnormality 2 3: Access abnormality 3 4: Access abnormality 4 5: Occurrence of C911	4	
08	Setting Mode	Printer	IC chip	Board information of toner cartridge		4689	3	K	0	0-255	M	0: Normal 1: Access abnormality 1 2: Access abnormality 2 3: Access abnormality 3 4: Access abnormality 4 5: Occurrence of C911	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Printer	Finisher	Batch writing of adjustment value		4695		MJ-1036/1037	-	-	M	When replacing the finisher control PC board, writes all the adjustment value (05-4820 to 4827) of the finisher saved on the equipment to the finisher control PC board. * This code is not supported by LL20/25ppm model.	3	Yes
08	Setting Mode	Printer	Finisher	Batch read-in of adjustment value		4696		MJ-1036/1037	-	-	M	Copies and saves all the adjustment values of the finisher to the equipment for the replacement of the finisher control PC board due to damage. * This code is not supported by LL20/25ppm model.	3	Yes
08	Setting mode	Printer	Maintenan ce	Waste toner box		4700		Detection setting of nearly-full status	6	0-6	M	The use of this code is not recommended. If the waste toner box has become full before the waste toner nearly-full is detected, the value set in 08-4700 may be larger than the one of 08-6984 counted at that point. In this case, check the value of 08-6984, and change the setting of 08-4700 so that its value becomes smaller than the one counted in 08-6984. If there is wide difference in detection even though the smallest value is set in 08-4700, change its setting to "Disable". 0: 140000 1: - 2: 198400 3: - 4: 375900 5: - 6: Disable (Nearly-full detection is disabled) * The above values are the ones counted in 08-6984.	1	Yes
08	Setting mode	Printer	Maintenan ce	Display of details of CE80		4706	0	Y	0	0-15	M	Displays the details of CE80. Enter "0" to clear the error. 0=Normal, 1=Error bit0: Not connected bit1: Mix bit2: Checksum mismatch bit3: Gradation module error	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Printer	Maintenan ce	Display of details of CE80		4706	1	M	0	0-15	M	Displays the details of CE80. Enter "0" to clear the error. 0=Normal, 1=Error bit0: Not connected bit1: Mix bit2: Checksum mismatch bit3: Gradation module error	4	
08	Setting mode	Printer	Maintenan ce	Display of details of CE80		4706	2	C	0	0-15	M	Displays the details of CE80. Enter "0" to clear the error. 0=Normal, 1=Error bit0: Not connected bit1: Mix bit2: Checksum mismatch bit3: Gradation module error	4	
08	Setting mode	Printer	Maintenan ce	Display of details of CE80		4706	3	K	0	0-15	M	Displays the details of CE80. Enter "0" to clear the error. 0=Normal, 1=Error bit0: Not connected bit1: Mix bit2: Checksum mismatch bit3: Gradation module error	4	
08	Setting mode	Printer	General			4708		Switchover setting of transport control for custom size (297x431.8mm)	Refer to contents	0-1	M	When feeding 305 x 457 mm sized paper by bypass feeding, set the value of this code to "1" for JAM detection. When the value is set to "1", the print speed decreases. 0: Disabled (Setting for 297 × 431.8 mm) 1: Enabled (Setting for 305 × 457 mm) <Default value> CND: 1 Others: 0	1	
08	Setting mode	Printer	Feeding system / Paper transport	Performance improvement at retry by bypass feeding		4713	0	Plain paper/Recycled paper	0	0-1	M	Use this code when retry by bypass feeding occurs frequently and the performance decreases. Note that the performance decreases if this setting is enabled when retry does not occur. 0: Disabled 1: Enabled	4	
08	Setting mode	Printer	Feeding system / Paper transport	Performance improvement at retry by bypass feeding		4713	1	Thick paper 1	0	0-1	M	Use this code when retry by bypass feeding occurs frequently and the performance decreases. Note that the performance decreases if this setting is enabled when retry does not occur. 0: Disabled 1: Enabled	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Printer	Feeding system / Paper transport	Performance improvement at retry by bypass feeding		4713	2	Thick paper 2	0	0-1	M	Use this code when retry by bypass feeding occurs frequently and the performance decreases. Note that the performance decreases if this setting is enabled when retry does not occur. 0: Disabled 1: Enabled	4	
08	Setting mode	Printer	Feeding system / Paper transport	Performance improvement at retry by bypass feeding		4713	3	Special paper/Transparencies	0	0-1	M	Use this code when retry by bypass feeding occurs frequently and the performance decreases. Note that the performance decreases if this setting is enabled when retry does not occur. 0: Disabled 1: Enabled	4	
08	Setting mode	Printer	Feeding system / Paper transport	Performance improvement at retry by bypass feeding		4713	4	Envelope	0	0-1	M	Use this code when retry by bypass feeding occurs frequently and the performance decreases. Note that the performance decreases if this setting is enabled when retry does not occur. 0: Disabled 1: Enabled	4	
08	Setting mode	Printer	LED			4719		Enable/Disable setting of LED head distortion correction	1	0-2	M	Set the value to "2" if the image of K color is uneven. Set the value to "0" if the image of YMC is uneven. 0: Disabled 1: Enabled (Corrects YMCK respectively) 2: Enabled (Corrects YMC respectively)	1	
08	Setting mode	Printer	LED	Serial number display of LED head	Y	4720	0	Serial number	-	000000-999999	M	Serial number (6 digits)	14	
08	Setting mode	Printer	LED	Serial number display of LED head	Y	4720	1	Production date	-	00000-91231	M	Production date (YMMDD) Y: Last one digit of year	14	
08	Setting mode	Printer	LED	Serial number display of LED head	M	4720	2	Serial number	-	000000-999999	M	Serial number (6 digits)	14	
08	Setting mode	Printer	LED	Serial number display of LED head	M	4720	3	Production date	-	00000-91231	M	Production date (YMMDD) Y: Last one digit of year	14	
08	Setting mode	Printer	LED	Serial number display of LED head	C	4720	4	Serial number	-	000000-999999	M	Serial number (6 digits)	14	
08	Setting mode	Printer	LED	Serial number display of LED head	C	4720	5	Production date	-	00000-91231	M	Production date (YMMDD) Y: Last one digit of year	14	
08	Setting mode	Printer	LED	Serial number display of LED head	K	4720	6	Serial number	-	000000-999999	M	Serial number (6 digits)	14	
08	Setting mode	Printer	LED	Serial number display of LED head	K	4720	7	Production date	-	00000-91231	M	Production date (YMMDD) Y: Last one digit of year	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Printer	LED			4722		Switchover of I/F initialization abnormality check between LED and LGC (CE81)	0	0-1	M	0: Enabled 1: Disabled	1	
08	Setting mode	Printer	LED			4723		Occurrence flag of I/F initialization abnormality between LED and LGC (CE81)	0	0-15	M	0 bit: Y 1st bit: M 2nd bit: C 3rd bit: K 0: Normal 1: Abnormality	1	
08	Setting mode	Printer	Image control			4744		Self check interval Setting	0	0-2	M	0: STANDARD 1: LONGER 2: LONGEST * Select "0" to give higher priority to the image	1	
08	Setting mode	Process	Developm ent	Toner near empty		5155		Toner near empty threshold setting	1	0-5	M	0: The period from the appearance of the toner near-empty sign to the actual complete consumption of the toner is set to long. 1: Normal (Default) 2: The period from the appearance of the toner near-empty sign to the actual complete consumption of the toner is set to short. 4: Toner near-empty status threshold value: (%)* 5: Toner near-empty status threshold value: (Number of sheets)* * The toner near-empty status is displayed if the remaining amount of toner is equal to or less than the amount set in 08-5810/5811 (percentage or number of sheets).	1	Yes
08	Setting mode	Process	Developm ent	Toner near empty	Fine adjustment of threshold for displaying remaining toner and toner near empty	5156	0	Y	100	50-150	M	Adjusts the threshold value for displaying remaining amount of toner and toner near empty. Display threshold value = default threshold value x setting value/100 (unit: %)	4	
08	Setting mode	Process	Developm ent	Toner near empty	Fine adjustment of threshold for displaying remaining toner and toner near empty	5156	1	M	100	50-150	M	Adjusts the threshold value for displaying remaining amount of toner and toner near empty. Display threshold value = default threshold value x setting value/100 (unit: %)	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Process	Development	Toner near empty	Fine adjustment of threshold for displaying remaining toner and toner near empty	5156	2	C	100	50-150	M	Adjusts the threshold value for displaying remaining amount of toner and toner near empty. Display threshold value = default threshold value x setting value/100 (unit: %)	4	
08	Setting mode	Process	Development	Toner near empty	Fine adjustment of threshold for displaying remaining toner and toner near empty	5156	3	K	100	50-150	M	Adjusts the threshold value for displaying remaining amount of toner and toner near empty. Display threshold value = default threshold value x setting value/100 (unit: %)	4	
08	Setting mode	Process	Fuser	Pre-running starting time at warm-up		5204	0	Warm-up	0	0-60	M	Setting value x 1 sec. 0: Disabled	4	
08	Setting mode	Process	Fuser	Pre-running starting time at warm-up		5204	1	Recovery from the sleep mode	0	0-60	M	Setting value x 1 sec. 0: Disabled	4	
08	Setting Mode	Process	Fuser	Sleep	Temperature correction for allowing ready at recovery from sleep mode	5244		Paper	0	0-2	M	0: Disabled 1: 60 to 80g paper 2: 81 to 1050g paper	1	
08	Setting mode	Process	Fuser	Temperature drop control during printing 2		5284	0	Black	0	0-8	M	0: Disabled 1: Enabled; Thick paper 2/Thick paper 3 (HR and PR of normal/low temperature) 2: Enabled; Thick paper 2/Thick paper 3 (HR of normal/low temperature) 3: Enabled; Thick paper 2 (HR of normal/low temperature) 4: Enabled; Thick paper 2 (HR of normal temperature) 5: Enabled; Thick paper 2/Thick paper 3 (HR of normal temperature) 6: Enabled; Thick paper 2 (HR and PR of normal/low temperature) 7: Enabled; Thick paper 2 (HR and PR of normal temperature) 8: Enabled; Thick paper 2/Thick paper 3 (HR and PR of normal temperature)	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Process	Fuser	Temperature drop control during printing 2		5284	1	Color	0	0-8	M	0: Disabled 1: Enabled; Thick paper 2/Thick paper 3 (HR and PR of normal/low temperature) 2: Enabled; Thick paper 2/Thick paper 3 (HR of normal/low temperature) 3: Enabled; Thick paper 2 (HR of normal/low temperature) 4: Enabled; Thick paper 2 (HR of normal temperature) 5: Enabled; Thick paper 2/Thick paper 3 (HR of normal temperature) 6: Enabled; Thick paper 2 (HR and PR of normal/low temperature) 7: Enabled; Thick paper 2 (HR and PR of normal temperature) 8: Enabled; Thick paper 2/Thick paper 3 (HR and PR of normal temperature)	4	
08	Setting mode	Process	Fuser	Fusing temperature during printing	Recycled paper/Center	5293	0	At normal temperatures/Black	10	0-22	M	0: 90℃ 1: 95℃ 2: 100℃ 3: 105℃ 4: 110℃ 5: 115℃ 6: 120℃ 7: 125℃ 8: 130℃ 9: 135℃ 10: 140℃ 11: 145℃ 12: 150℃ 13: 155℃ 14: 160℃ 15: 165℃ 16: 170℃	4	
08	Setting mode	Process	Fuser	Fusing temperature during printing	Recycled paper/Center	5293	1	At normal temperatures/Color	10	0-22	M	0: 90℃ 1: 95℃ 2: 100℃ 3: 105℃ 4: 110℃ 5: 115℃ 6: 120℃ 7: 125℃ 8: 130℃ 9: 135℃ 10: 140℃ 11: 145℃ 12: 150℃ 13: 155℃ 14: 160℃ 15: 165℃ 16: 170℃	4	
08	Setting mode	Process	Fuser	Fusing temperature during printing	Recycled paper/Center	5293	2	At low temperatures/Black	11	0-22	M	0: 90℃ 1: 95℃ 2: 100℃ 3: 105℃ 4: 110℃ 5: 115℃ 6: 120℃ 7: 125℃ 8: 130℃ 9: 135℃ 10: 140℃ 11: 145℃ 12: 150℃ 13: 155℃ 14: 160℃ 15: 165℃ 16: 170℃	4	
08	Setting mode	Process	Fuser	Fusing temperature during printing	Recycled paper/Center	5293	3	At low temperatures/Color	11	0-22	M	0: 90℃ 1: 95℃ 2: 100℃ 3: 105℃ 4: 110℃ 5: 115℃ 6: 120℃ 7: 125℃ 8: 130℃ 9: 135℃ 10: 140℃ 11: 145℃ 12: 150℃ 13: 155℃ 14: 160℃ 15: 165℃ 16: 170℃	4	
08	Setting mode	Process	Fuser	Fusing temperature during printing	Recycled paper/Side	5294	0	At normal temperatures/Black	10	0-16	M	0: 90℃ 1: 95℃ 2: 100℃ 3: 105℃ 4: 110℃ 5: 115℃ 6: 120℃ 7: 125℃ 8: 130℃ 9: 135℃ 10: 140℃ 11: 145℃ 12: 150℃ 13: 155℃ 14: 160℃ 15: 165℃ 16: 170℃	4	
08	Setting mode	Process	Fuser	Fusing temperature during printing	Recycled paper/Side	5294	1	At normal temperatures/Color	10	0-16	M	0: 90℃ 1: 95℃ 2: 100℃ 3: 105℃ 4: 110℃ 5: 115℃ 6: 120℃ 7: 125℃ 8: 130℃ 9: 135℃ 10: 140℃ 11: 145℃ 12: 150℃ 13: 155℃ 14: 160℃ 15: 165℃ 16: 170℃	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Process	Fuser	Fusing temperature during printing	Recycled paper/Side	5294	2	At low temperatures/Black	11	0-16	M	0: 90℃ 1: 95℃ 2: 100℃ 3: 105℃ 4: 110℃ 5: 115℃ 6: 120℃ 7: 125℃ 8: 130℃ 9: 135℃ 10: 140℃ 11: 145℃ 12: 150℃ 13: 155℃ 14: 160℃ 15: 165℃ 16: 170℃	4	
08	Setting mode	Process	Fuser	Fusing temperature during printing	Recycled paper/Side	5294	3	At low temperatures/Color	11	0-16	M	0: 90℃ 1: 95℃ 2: 100℃ 3: 105℃ 4: 110℃ 5: 115℃ 6: 120℃ 7: 125℃ 8: 130℃ 9: 135℃ 10: 140℃ 11: 145℃ 12: 150℃ 13: 155℃ 14: 160℃ 15: 165℃ 16: 170℃	4	
08	Setting mode	Process	Fuser	Pre-running time for first printing	Recycled paper/At low temperatures	5299	0	Black	0	0-16	M	0: Invalid 1: 0 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 10 sec. 10: 12 sec. 11: 14 sec. 12: 16 sec. 13: 18 sec. 14: 20 sec. 15: 25 sec. 16: 30 sec.	4	
08	Setting mode	Process	Fuser	Pre-running time for first printing	Recycled paper/At low temperatures	5299	1	Color	0	0-16	M	0: Invalid 1: 0 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 10 sec. 10: 12 sec. 11: 14 sec. 12: 16 sec. 13: 18 sec. 14: 20 sec. 15: 25 sec. 16: 30 sec.	4	
08	Setting mode	Process	Fuser	Lower limit value of control temperature	Recycled paper/Normal temperature	5300	0	Black/Heat roller (Center)	Refer to contents	0-18	M	0: 80℃ 1: 85℃ 2: 90℃ 3: 95℃ 4: 100℃ 5: 105℃ 6: 110℃ 7: 115℃ 8: 120℃ 9: 125℃ 10: 130℃ 11: 135℃ 12: 140℃ 13: 145℃ 14: 150℃ 15: 155℃ 16: 160℃ 17: 165℃ 18: 170℃ <Default value> JPD: 10 Others: 11	4	
08	Setting mode	Process	Fuser	Lower limit value of control temperature	Recycled paper/Normal temperature	5300	1	Black/Heat roller (Side)	Refer to contents	0-18	M	0: 80℃ 1: 85℃ 2: 90℃ 3: 95℃ 4: 100℃ 5: 105℃ 6: 110℃ 7: 115℃ 8: 120℃ 9: 125℃ 10: 130℃ 11: 135℃ 12: 140℃ 13: 145℃ 14: 150℃ 15: 155℃ 16: 160℃ 17: 165℃ 18: 170℃ <Default value> JPD: 10 Others: 11	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Process	Fuser	Lower limit value of control temperature	Recycled paper/Normal temperature	5300	2	Color/Heat roller (Center)	Refer to contents	0-18	M	0: 80℃ 1: 85℃ 2: 90℃ 3: 95℃ 4: 100℃ 5: 105℃ 6: 110℃ 7: 115℃ 8: 120℃ 9: 125℃ 10: 130℃ 11: 135℃ 12: 140℃ 13: 145℃ 14: 150℃ 15: 155℃ 16: 160℃ 17: 165℃ 18: 170℃ <Default value> JPD: 10 Others: 11	4	
08	Setting mode	Process	Fuser	Lower limit value of control temperature	Recycled paper/Normal temperature	5300	3	Color/Heat roller (Side)	Refer to contents	0-18	M	0: 80℃ 1: 85℃ 2: 90℃ 3: 95℃ 4: 100℃ 5: 105℃ 6: 110℃ 7: 115℃ 8: 120℃ 9: 125℃ 10: 130℃ 11: 135℃ 12: 140℃ 13: 145℃ 14: 150℃ 15: 155℃ 16: 160℃ 17: 165℃ 18: 170℃ <Default value> JPD: 10 Others: 11	4	
08	Setting mode	Process	Fuser	Lower limit value of control temperature	Recycled paper/Low temperature	5301	0	Black/Heat roller (Center)	Refer to contents	0-18	M	0: 80℃ 1: 85℃ 2: 90℃ 3: 95℃ 4: 100℃ 5: 105℃ 6: 110℃ 7: 115℃ 8: 120℃ 9: 125℃ 10: 130℃ 11: 135℃ 12: 140℃ 13: 145℃ 14: 150℃ 15: 155℃ 16: 160℃ 17: 165℃ 18: 170℃ <Default value> JPD: 11 Others: 12	4	
08	Setting mode	Process	Fuser	Lower limit value of control temperature	Recycled paper/Low temperature	5301	1	Black/Heat roller (Side)	Refer to contents	0-18	M	0: 80℃ 1: 85℃ 2: 90℃ 3: 95℃ 4: 100℃ 5: 105℃ 6: 110℃ 7: 115℃ 8: 120℃ 9: 125℃ 10: 130℃ 11: 135℃ 12: 140℃ 13: 145℃ 14: 150℃ 15: 155℃ 16: 160℃ 17: 165℃ 18: 170℃ <Default value> JPD: 11 Others: 12	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Process	Fuser	Lower limit value of control temperature	Recycled paper/Low temperature	5301	2	Color/Heat roller (Center)	Refer to contents	0-18	M	0: 80℃ 1: 85℃ 2: 90℃ 3: 95℃ 4: 100℃ 5: 105℃ 6: 110℃ 7: 115℃ 8: 120℃ 9: 125℃ 10: 130℃ 11: 135℃ 12: 140℃ 13: 145℃ 14: 150℃ 15: 155℃ 16: 160℃ 17: 165℃ 18: 170℃ <Default value> JPD: 11 Others: 12	4	
08	Setting mode	Process	Fuser	Lower limit value of control temperature	Recycled paper/Low temperature	5301	3	Color/Heat roller (Side)	Refer to contents	0-18	M	0: 80℃ 1: 85℃ 2: 90℃ 3: 95℃ 4: 100℃ 5: 105℃ 6: 110℃ 7: 115℃ 8: 120℃ 9: 125℃ 10: 130℃ 11: 135℃ 12: 140℃ 13: 145℃ 14: 150℃ 15: 155℃ 16: 160℃ 17: 165℃ 18: 170℃ <Default value> JPD: 11 Others: 12	4	
08	Setting mode	Process	Fuser	Pre-running time for first printing	Plain paper / At normal temperatures	5308	0	Plain paper/Black	0	0-16	M	0: Invalid 1: 0 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 10 sec. 10: 12 sec. 11: 14 sec. 12: 16 sec. 13: 18 sec. 14: 20 sec. 15: 25 sec. 16: 30 sec.	4	
08	Setting mode	Process	Fuser	Pre-running time for first printing	Plain paper / At normal temperatures	5308	1	Plain paper/Color	0	0-16	M	0: Invalid 1: 0 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 10 sec. 10: 12 sec. 11: 14 sec. 12: 16 sec. 13: 18 sec. 14: 20 sec. 15: 25 sec. 16: 30 sec.	4	
08	Setting mode	Process	Fuser	Pre-running time for first printing	Recycled paper / At normal temperatures	5309	0	Black	0	0-16	M	0: Invalid 1: 0 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 10 sec. 10: 12 sec. 11: 14 sec. 12: 16 sec. 13: 18 sec. 14: 20 sec. 15: 25 sec. 16: 30 sec.	4	
08	Setting mode	Process	Fuser	Pre-running time for first printing	Recycled paper / At normal temperatures	5309	1	Color	0	0-16	M	0: Invalid 1: 0 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 10 sec. 10: 12 sec. 11: 14 sec. 12: 16 sec. 13: 18 sec. 14: 20 sec. 15: 25 sec. 16: 30 sec.	4	
08	Setting mode	Process	Fuser	Applicable period of pre-running time for first printing	Plain paper/At normal temperatures	5310	0	Black	8	0-11	M	0: Disabled (Always ON) 1: 0 min. 2: 0.5 min. 3: 1 min. 4: 2 min. 5: 3 min. 6: 5 min. 7: 7 min. 8: 10 min. 9: 15 min. 10: 30 min. 11: 60 min.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Process	Fuser	Applicable period of pre-running time for first printing	Plain paper/At normal temperatures	5310	1	Color	8	0-11	M	0: Disabled (Always ON) 1: 0 min. 2: 0.5 min. 3: 1 min. 4: 2 min. 5: 3 min. 6: 5 min. 7: 7 min. 8: 10 min. 9: 15 min. 10: 30 min. 11: 60 min.	4	
08	Setting mode	Process	Fuser	Applicable period of pre-running time for first printing	Recycled paper/At normal temperatures	5310	2	Black	8	0-11	M	0: Disabled (Always ON) 1: 0 min. 2: 0.5 min. 3: 1 min. 4: 2 min. 5: 3 min. 6: 5 min. 7: 7 min. 8: 10 min. 9: 15 min. 10: 30 min. 11: 60 min.	4	
08	Setting mode	Process	Fuser	Applicable period of pre-running time for first printing	Recycled paper/At normal temperatures	5310	3	Color	8	0-11	M	0: Disabled (Always ON) 1: 0 min. 2: 0.5 min. 3: 1 min. 4: 2 min. 5: 3 min. 6: 5 min. 7: 7 min. 8: 10 min. 9: 15 min. 10: 30 min. 11: 60 min.	4	
08	Setting mode	Process	Fuser			5316		Decreasing cpm for small-size paper	0	0-1	M	0: Disabled 1: Enabled	1	
08	Setting mode	Process	Fuser	Temperature setting for starting abnormality handling	Recycled paper	5409	0	At normal temperatures (Black)	Refer to contents	0-12	M	0: 120℃ 1: 125℃ 2: 130℃ 3: 135℃ 4: 140℃ 5: 145℃ 6: 150℃ 7: 155℃ 8: 160℃ 9: 165℃ 10: 170℃ 11: 175℃ 12: Disabled <Default value> JPD: 2 Others: 3	4	
08	Setting mode	Process	Fuser	Temperature setting for starting abnormality handling	Recycled paper	5409	1	At normal temperatures (Color)	Refer to contents	0-12	M	0: 120℃ 1: 125℃ 2: 130℃ 3: 135℃ 4: 140℃ 5: 145℃ 6: 150℃ 7: 155℃ 8: 160℃ 9: 165℃ 10: 170℃ 11: 175℃ 12: Disabled <Default value> JPD: 2 Others: 3	4	
08	Setting mode	Process	Fuser	Temperature setting for starting abnormality handling	Recycled paper	5410	0	At low temperatures (Black)	3	0-12	M	0: 120℃ 1: 125℃ 2: 130℃ 3: 135℃ 4: 140℃ 5: 145℃ 6: 150℃ 7: 155℃ 8: 160℃ 9: 165℃ 10: 170℃ 11: 175℃ 12: Disabled	4	
08	Setting mode	Process	Fuser	Temperature setting for starting abnormality handling	Recycled paper	5410	1	At low temperatures (Color)	3	0-12	M	0: 120℃ 1: 125℃ 2: 130℃ 3: 135℃ 4: 140℃ 5: 145℃ 6: 150℃ 7: 155℃ 8: 160℃ 9: 165℃ 10: 170℃ 11: 175℃ 12: Disabled	4	
08	Setting mode	Process	Fuser			5412		Threshold value for disabling elevation correction due to low temperature	5	0-15	M	0: None 1: 30℃ 2: 40℃ 3: 50℃ 4: 60℃ 5: 70℃ 6: 80℃ 7: 90℃ 8: 100℃ 9: 110℃ 10: 120℃ 11: 130℃ 12: 140℃ 13: 150℃ 14: 160℃ 15: 170℃	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Process	Fuser	Wait setting before wide-size paper feeding (combination job)	Number in small-size paper continuous printing	5455	0	Print number setting	4	0-14	M	Sets the number in the continuous printing with small-size paper when the Wait control is carried out for wide-size paper feeding during a combination job. 0:10Sheets 1:20Sheets 2:30Sheets 3:50Sheets 4:75Sheets 5:100Sheets 6:150Sheets 7:250Sheets 8:300Sheets 9:400Sheets 10:500Sheets 11:1Sheets 12:2Sheets 13:3Sheets 14:5Sheets	4	
08	Setting mode	Process	Fuser	Wait setting before wide-size paper feeding (combination job)		5456	0	Period setting	9	0-15	M	Sets the Wait period before wide-size paper is fed during a combination job. 0:1sec 1:2sec 2:3sec 3:4sec 4:5sec 5:6sec 6:7sec 7:8sec 8:9sec 9:10sec 10:12sec 11:14sec 12:16sec 13:18sec 14:20sec 15:22sec	4	
08	Setting mode	Process	Fuser	Wait setting before wide-size paper feeding (combination job)		5457	0	Normal temperature	0	0-1	M	Sets whether the Wait control for wide-size paper feeding is enabled or disabled during a combination job in normal temperatures. 0: Disabled 1: Enabled	4	
08	Setting mode	Process	Fuser	Wait setting before wide-size paper feeding (combination job)		5457	1	Low temperature	0	0-1	M	Sets whether the Wait control for wide-size paper feeding is enabled or disabled during a combination job in low temperatures. 0: Disabled 1: Enabled	4	
08	Setting mode	Process	Fuser	Noncontact thermistor correction amount		5461	0	Center thermistor	18	5-50	M	The correction amount of the detection temperature of the noncontact thermistor. (degrees C)	4	
08	Setting mode	Process	Fuser	Noncontact thermistor correction amount		5461	1	Side thermistor	18	5-50	M	The correction amount of the detection temperature of the noncontact thermistor. (degrees C)	4	
08	Setting mode	Process	Fuser			5462		Temperature at correction	20	0-100	M	The temperature of the temperature and humidity sensor when executing in the correction mode.	2	
08	Setting Mode	Counter	Maintenan ce	PM counter	M	5550		Setting value	Refer to contents	8 digits	M	Sets the threshold for displaying a message for PM timing. 0: Not displayed <Default> 20/LL20ppm: 56000 25/LL25ppm: 70000 [Unit: page]	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Counter	Maintenance	PM drive counter	M	5551		Setting value	225000	8 digits	M	Sets the threshold for displaying a message for PM timing. 0: Not displayed [Unit: count]	1	
08	Setting Mode	Counter	Maintenance	PM counter	C	5552		Setting value	Refer to contents	8 digits	M	Sets the threshold for displaying a message for PM timing. 0: Not displayed <Default> 20/LL20ppm: 56000 25/LL25ppm: 70000 [Unit: page]	1	
08	Setting Mode	Counter	Maintenance	PM drive counter	C	5553		Setting value	225000	8 digits	M	Sets the threshold for displaying a message for PM timing. 0: Not displayed [Unit: count]	1	
08	Setting mode	Counter	Maintenance	PM counter	Developer material	5554		Setting value (K)	Refer to contents	8 digits	M	<Default> 20/LL20ppm: 56000 25/LL25ppm: 70000 [Unit: page]	1	
08	Setting mode	Counter	Maintenance	PM drive counter	Developer material	5555		Setting value (K)	145000	8 digits	M	Time accumulating counter	1	
08	Setting mode	Counter	Maintenance	PM counter	Developer material	5556		Setting value (Y)	Refer to contents	8 digits	M	<Default> 20/LL20ppm: 56000 25/LL25ppm: 70000 [Unit: page]	1	
08	Setting mode	Counter	Maintenance	PM drive counter	Developer material	5557		Setting value (Y)	145000	8 digits	M	Time accumulating counter	1	
08	Setting mode	Counter	Maintenance	PM counter	Developer material	5558		Setting value (M)	Refer to contents	8 digits	M	<Default> 20/LL20ppm: 56000 25/LL25ppm: 70000 [Unit: page]	1	
08	Setting mode	Counter	Maintenance	PM drive counter	Developer material	5559		Setting value (M)	145000	8 digits	M	Time accumulating counter	1	
08	Setting mode	Counter	Maintenance	PM counter	Developer material	5560		Setting value (C)	Refer to contents	8 digits	M	<Default> 20/LL20ppm: 56000 25/LL25ppm: 70000 [Unit: page]	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	Maintenan ce	PM drive counter	Developer material	5561		Setting value (C)	145000	8 digits	M	Time accumulating counter	1	
08	Setting mode	Counter	Maintenan ce	PM counter	Parts	5562		Setting value	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 112000 25ppm/LL25ppm: 140000 [Unit. page]	1	
08	Setting mode	Counter	Maintenan ce	PM drive counter	Parts	5563		Setting value	450000	8 digits	M	Time accumulating counter	1	
08	Setting Mode	Counter	Maintenan ce	PM counter	M	5564		Current value	0	8 digits	M	Counts up when the registration sensor is ON. 0: clear (Unit: page) same as 08-6254-0	1	
08	Setting Mode	Counter	Maintenan ce	PM drive counter	M	5565		Current value	0	8 digits	M	Counts the drum driving time. 0: clear Same as 08-6254-3 [Unit] 1 count = 2 seconds (Normal), 1 count = 3 seconds (Decelerating mode)	1	
08	Setting Mode	Counter	Maintenan ce	PM counter	C	5566		Current value	0	8 digits	M	Counts up when the registration sensor is ON. 0: clear (Unit: page) same as 08-6256-0	1	
08	Setting Mode	Counter	Maintenan ce	PM drive counter	C	5567		Current value	0	8 digits	M	Counts the drum driving time. 0: clear Same as 08-6256-3 [Unit] 1 count = 2 seconds (Normal), 1 count = 3 seconds (Decelerating mode)	1	
08	Setting mode	Counter	Maintenan ce	PM counter	Developer material	5568		Current value (K)	0	8 digits	M	Counts up when the registration sensor is ON. 0: clear (Unit: page)	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	Maintenan ce	PM drive counter	Developer material	5569		Current value (K)	0	8 digits	M	Counts the drum driving time. 0: clear [Unit] 1 count = 2 seconds (Normal), 1 count = 3 seconds (Decelerating mode)	1	
08	Setting mode	Counter	Maintenan ce	PM counter	Developer material	5570		Current value (Y)	0	8 digits	M	Counts up when the registration sensor is ON. 0: clear (Unit: page)	1	
08	Setting mode	Counter	Maintenan ce	PM drive counter	Developer material	5571		Current value (Y)	0	8 digits	M	Counts the drum driving time. 0: clear [Unit] 1 count = 2 seconds (Normal), 1 count = 3 seconds (Decelerating mode)	1	
08	Setting mode	Counter	Maintenan ce	PM counter	Developer material	5572		Current value (M)	0	8 digits	M	Counts up when the registration sensor is ON. 0: clear (Unit: page)	1	
08	Setting mode	Counter	Maintenan ce	PM drive counter	Developer material	5573		Current value (M)	0	8 digits	M	Counts the drum driving time. 0: clear [Unit] 1 count = 2 seconds (Normal), 1 count = 3 seconds (Decelerating mode)	1	
08	Setting mode	Counter	Maintenan ce	PM counter	Developer material	5574		Current value (C)	0	8 digits	M	Counts up when the registration sensor is ON. 0: clear (Unit: page)	1	
08	Setting mode	Counter	Maintenan ce	PM drive counter	Developer material	5575		Current value (C)	0	8 digits	M	Counts the drum driving time. 0: clear [Unit] 1 count = 2 seconds (Normal), 1 count = 3 seconds (Decelerating mode)	1	
08	Setting mode	Counter	Maintenan ce	PM counter	Parts	5576		Current value	0	8 digits	M	Counts up when the registration sensor is ON. 0: clear (Unit: page)	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	Maintenan ce	PM drive counter	Parts	5577		Current value	0	8 digits	M	Counts the drum driving time. 0: clear [Unit] 1 count = 2 seconds (Normal), 1 count = 3 seconds (Decelerating mode)	1	
08	Setting mode	Counter	Maintenan ce	PM counter	Switching of output pages/ driving counts	5578		Y	1	0-2	M	Selects the reference to notify the PM timing. (The message is displayed on the LCD screen.) 0: PM counter (The number of output pages is set at 08-6190.) 1: PM time counter (The timing is set at 08-6191.) 2: Whichever comes faster	1	
08	Setting mode	Counter	Maintenan ce	PM counter	Switching of output pages/ driving counts	5579		M	1	0-2	M	Selects the reference to notify the PM timing. (The message is displayed on the LCD screen.) 0: PM counter (The number of output pages is set at 08-6190.) 1: PM time counter (The timing is set at 08-6191.) 2: Whichever comes faster	1	
08	Setting mode	Counter	Maintenan ce	PM counter	Switching of output pages/ driving counts	5580		C	1	0-2	M	Selects the reference to notify the PM timing. (The message is displayed on the LCD screen.) 0: PM counter (The number of output pages is set at 08-6190.) 1: PM time counter (The timing is set at 08-6191.) 2: Whichever comes faster	1	
08	Setting mode	Counter	Maintenan ce	PM counter	Switching of output pages/ driving counts	5581		Developer material (K)	1	0-2	M	Selects the reference to notify the PM timing. (The message is displayed on the LCD screen.) 0: PM counter (The number of output pages is set at 08-6190.) 1: PM time counter (The timing is set at 08-6191.) 2: Whichever comes faster	1	
08	Setting mode	Counter	Maintenan ce	PM counter	Switching of output pages/ driving counts	5582		Developer material (Y)	1	0-2	M	Selects the reference to notify the PM timing. (The message is displayed on the LCD screen.) 0: PM counter (The number of output pages is set at 08-6190.) 1: PM time counter (The timing is set at 08-6191.) 2: Whichever comes faster	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	Maintenan ce	PM counter	Switching of output pages/ driving counts	5583		Developer material (M)	1	0-2	M	Selects the reference to notify the PM timing. (The message is displayed on the LCD screen.) 0: PM counter (The number of output pages is set at 08-6190.) 1: PM time counter (The timing is set at 08-6191.) 2: Whichever comes faster	1	
08	Setting mode	Counter	Maintenan ce	PM counter	Switching of output pages/ driving counts	5584		Developer material (C)	1	0-2	M	Selects the reference to notify the PM timing. (The message is displayed on the LCD screen.) 0: PM counter (The number of output pages is set at 08-6190.) 1: PM time counter (The timing is set at 08-6191.) 2: Whichever comes faster	1	
08	Setting mode	Counter	Maintenan ce	PM counter	Switching of output pages/ driving counts	5585		Parts	0	0-2	M	Selects the reference to notify the PM timing. (The message is displayed on the LCD screen.) 0: PM counter (The number of output pages is set at 08-6190.) 1: PM time counter (The timing is set at 08-6191.) 2: Whichever comes faster	1	
08	Setting mode	Process	Developm ent	Toner near empty	Toner near-empty status threshold value setting (%)	5810	0	K	3	1-99	M	This code is used when the value of 08-5155 is set to "4". Use this code to specify the threshold value (unit: %) for displaying the toner near-empty status. The accuracy of value is influenced by usage environment or originals.	4	
08	Setting mode	Process	Developm ent	Toner near empty	Toner near-empty status threshold value setting (%)	5810	1	Y	3	1-99	M	This code is used when the value of 08-5155 is set to "4". Use this code to specify the threshold value (unit: %) for displaying the toner near-empty status. The accuracy of value is influenced by usage environment or originals.	4	
08	Setting mode	Process	Developm ent	Toner near empty	Toner near-empty status threshold value setting (%)	5810	2	M	3	1-99	M	This code is used when the value of 08-5155 is set to "4". Use this code to specify the threshold value (unit: %) for displaying the toner near-empty status. The accuracy of value is influenced by usage environment or originals.	4	
08	Setting mode	Process	Developm ent	Toner near empty	Toner near-empty status threshold value setting (%)	5810	3	C	3	1-99	M	This code is used when the value of 08-5155 is set to "4". Use this code to specify the threshold value (unit: %) for displaying the toner near-empty status. The accuracy of value is influenced by usage environment or originals.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Process	Developm ent	Toner near empty	Toner near-empty status threshold value setting (number of sheets)	5811	0	K	1000	1-9999	M	This code is used when the value of 08-5155 is set to "5". Use this code to specify the threshold value (unit: number of sheets) for displaying the toner near-empty status. The accuracy of value is influenced by usage environment or originals.	4	
08	Setting mode	Process	Developm ent	Toner near empty	Toner near-empty status threshold value setting (number of sheets)	5811	1	Y	1000	1-9999	M	This code is used when the value of 08-5155 is set to "5". Use this code to specify the threshold value (unit: number of sheets) for displaying the toner near-empty status. The accuracy of value is influenced by usage environment or originals.	4	
08	Setting mode	Process	Developm ent	Toner near empty	Toner near-empty status threshold value setting (number of sheets)	5811	2	M	1000	1-9999	M	This code is used when the value of 08-5155 is set to "5". Use this code to specify the threshold value (unit: number of sheets) for displaying the toner near-empty status. The accuracy of value is influenced by usage environment or originals.	4	
08	Setting mode	Process	Developm ent	Toner near empty	Toner near-empty status threshold value setting (number of sheets)	5811	3	C	1000	1-9999	M	This code is used when the value of 08-5155 is set to "5". Use this code to specify the threshold value (unit: number of sheets) for displaying the toner near-empty status. The accuracy of value is influenced by usage environment or originals.	4	
08	Setting Mode	Counter	Double count	For fee charging	Paper size	6010		Large-sized paper	Refer to contents	0-2	M	0: Counted as 1 1: Counted as 2 2: Counted as 1 (Mechanical counter is double counter) <Default value> JPD: 0 Others: 1	1	Yes
08	Setting Mode	Counter	Double count	For fee charging	Paper size	6011		Definition setting of large sized paper	0	0-1	M	0: A3/LD 1: A3/LD/B4/LG/FOLIO/COMP	1	Yes
08	Setting Mode	Counter	Double count	For PM	Paper size	6012		Large-sized paper	1	0-1	M	0: Counted as 1 1: Counted as 2	1	Yes
08	Setting Mode	Counter	Double count	For PM	Paper size	6013		Definition setting of large sized paper	1	0-1	M	0: A3/LD 1: A3/LD/B4/LG/FOLIO/COMP	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Counter	Double count	For PM	Paper type	6014		Thick paper	1	0-1	M	0: Counted as 1 1: Counted as 2	1	Yes
08	Setting Mode	Counter	Double count	For PM	Paper type	6015		OHP	1	0-1	M	0: Counted as 1 1: Counted as 2	1	Yes
08	Setting Mode	Counter	Double count	For PM	Paper type	6016		Envelope	1	0-1	M	0: Counted as 1 1: Counted as 2	1	Yes
08	Setting Mode	Counter	Double count	For PM	Paper type	6017		Tab paper	1	0-1	M	0: Counted as 1 1: Counted as 2	1	Yes
08	Setting Mode	Counter	Double count	For PM	Paper type	6018		Count setting of special paper	1	0-1	M	0: Counted as 1 1: Counted as 2	1	Yes
08	Setting mode	Counter	Copy	Print	Full color	6060	0	Large	0	8 digits	SYS	Counts the number of output pages at the Full Color Mode in the Copier Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-6011 Small: Number of output pages other than set as large-sized paper	14	
08	Setting mode	Counter	Copy	Print	Full color	6060	1	Small	0	8 digits	SYS	Counts the number of output pages at the Full Color Mode in the Copier Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-6011 Small: Number of output pages other than set as large-sized paper	14	
08	Setting mode	Counter	Copy	Print	Twin Color/Monocolor	6062	0	Large	0	8 digits	SYS	Counts the number of output pages at the Twin Color Mode in the Copier Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-6011 Small: Number of output pages other than set as large-sized paper	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	Copy	Print	Twin Color/Monocolor	6062	1	Small	0	8 digits	SYS	Counts the number of output pages at the Twin Color Mode in the Copier Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-6011 Small: Number of output pages other than set as large-sized paper	14	
08	Setting mode	Counter	Printer	Black		6064	0	Large	0	8 digits	SYS	Counts the number of output pages at the Black Mode in the Printer Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-6011 Small: Number of output pages other than set as large-sized paper	14	
08	Setting mode	Counter	Printer	Black		6064	1	Small	0	8 digits	SYS	Counts the number of output pages at the Black Mode in the Printer Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-6011 Small: Number of output pages other than set as large-sized paper	14	
08	Setting mode	Counter	FAX	Print	Black	6066	0	Large	0	8 digits	SYS	Counts the number of output pages in the FAX Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-6011 Small: Number of output pages other than set as large-sized paper	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	FAX	Print	Black	6066	1	Small	0	8 digits	SYS	Counts the number of output pages in the FAX Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-6011 Small: Number of output pages other than set as large-sized paper	14	
08	Setting mode	Counter	NW Scanning	Full color		6068	0	Large	0	8 digits	SYS	Counts the number of scanning pages at the Full Color Mode in the Scanning Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-6011 Small: Number of output pages other than set as large-sized paper	14	
08	Setting mode	Counter	NW Scanning	Full color		6068	1	Small	0	8 digits	SYS	Counts the number of scanning pages at the Full Color Mode in the Scanning Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-6011 Small: Number of output pages other than set as large-sized paper	14	
08	Setting mode	Counter	Copy	Scanning	Black	6070	0	Large	0	8 digits	SYS	Counts the number of scanning pages at the Black Mode in the Copier Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-6011 Small: Number of output pages other than set as large-sized paper	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	Copy	Scanning	Black	6070	1	Small	0	8 digits	SYS	Counts the number of scanning pages at the Black Mode in the Copier Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-6011 Small: Number of output pages other than set as large-sized paper	14	
08	Setting Mode	Counter	Custom counter	For dealer		6080		Enabling/Disabling custom counter	0	0-1	SYS	When this setting is enabled, the custom counter of total counter is enabled. Related code: 08-6088, 6089. When this setting is enabled, 08-6010 does not affect the total counter. Since the count is calculated based on the existing Large/Small counter, the count before changing this setting is also included in the count. 0: Disabled 1: Enabled	1	Yes
08	Setting Mode	Counter	Custom counter/Jo b Quota	For administrator	Weighting/Scanning	6081	0	Black	0	0-9999	SYS	Weights subtraction of scanning from department/user Job Quota and addition of Scan Counter to Custom Counter. 0 (weight: 0.00) – 9999 (weight: 99.99)	4	Yes
08	Setting Mode	Counter	Custom counter/Jo b Quota	For administrator	Weighting/Scanning	6081	1	Full Color	0	0-9999	SYS	Weights subtraction of scanning from department/user Job Quota and addition of Scan Counter to Custom Counter. 0 (weight: 0.00) – 9999 (weight: 99.99)	4	Yes
08	Setting Mode	Counter	Double count	For charging	Paper type	6083	1	Thick1/2 (Back)	Refer to contents	0-1	SYS	Sets the weight of fee charging count for printing per page. Scan counter and fax counter are not influenced. 0: Single 1: Double <Default value> JPD/CND: 0 Others: 1	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Counter	Double count	For charging	Paper type	6083	2	Special1/2 (Back)	Refer to contents	0-1	SYS	Sets the weight of fee charging count for printing per page. Scan counter and fax counter are not influenced. 0: Single 1: Double <Default value> JPD/CND: 0 Others: 1	4	Yes
08	Setting Mode	Counter	Double count	For charging	Paper type	6083	3	Transparency	Refer to contents	0-1	SYS	Sets the weight of fee charging count for printing per page. Scan counter and fax counter are not influenced. 0: Single 1: Double <Default value> JPD/CND: 0 Others: 1	4	Yes
08	Setting Mode	Counter	Double count	For charging	Paper type	6083	4	Envelope (Back)	Refer to contents	0-1	SYS	Sets the weight of fee charging count for printing per page. Scan counter and fax counter are not influenced. 0: Single 1: Double <Default value> JPD/CND: 0 Others: 1	4	Yes
08	Setting Mode	Counter	Double count	For charging	Paper type	6083	5	Tab paper	Refer to contents	0-1	SYS	Sets the weight of fee charging count for printing per page. Scan counter and fax counter are not influenced. 0: Single 1: Double <Default value> JPD/CND: 0 Others: 1	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Counter	Custom counter/Job Quota	For administrator		6084		Enabling/Disabling custom counter/Job Quota	0	0-1	SYS	When this setting is enabled, the custom counter and Job Quota of department/user are enabled. Related code: 08-6081, 6085. When this setting is enabled, 08-6010 does not affect the counter/Quota of department/user. 0: Disabled 1: Enabled	1	Yes
08	Setting Mode	Counter	Custom counter/Job Quota	For administrator	Weighting/Print	6085	0	Black/Small	100	0-9999	SYS	Weights subtraction of printing from department/user Job Quota and addition of printing to Custom Counter. 0 (weight: 0.00) – 9999 (weight: 99.99)	4	Yes
08	Setting Mode	Counter	Custom counter/Job Quota	For administrator	Weighting/Print	6085	1	Black/Large	100	0-9999	SYS	Weights subtraction of printing from department/user Job Quota and addition of printing to Custom Counter. 0 (weight: 0.00) – 9999 (weight: 99.99)	4	Yes
08	Setting Mode	Counter	Custom counter/Job Quota	For administrator	Weighting/Print	6085	2	Full color/Small	100	0-9999	SYS	Weights subtraction of printing from department/user Job Quota and addition of printing to Custom Counter. 0 (weight: 0.00) – 9999 (weight: 99.99)	4	Yes
08	Setting Mode	Counter	Custom counter/Job Quota	For administrator	Weighting/Print	6085	3	Full color/Large	100	0-9999	SYS	Weights subtraction of printing from department/user Job Quota and addition of printing to Custom Counter. 0 (weight: 0.00) – 9999 (weight: 99.99)	4	Yes
08	Setting Mode	Counter	Custom counter/Job Quota	For administrator	Weighting/Print	6085	4	Twin Color/Monocolor/Small	100	0-9999	SYS	Weights subtraction of printing from department/user Job Quota and addition of printing to Custom Counter. 0 (weight: 0.00) – 9999 (weight: 99.99)	4	Yes
08	Setting Mode	Counter	Custom counter/Job Quota	For administrator	Weighting/Print	6085	5	Twin Color/Monocolor/Large	100	0-9999	SYS	Weights subtraction of printing from department/user Job Quota and addition of printing to Custom Counter. 0 (weight: 0.00) – 9999 (weight: 99.99)	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Counter	Counter Settings	Color/Black quota selection		6087		Twin/Mono color count	0	0-1	SYS	When the pages are counted for twin/mono color counter, this code sets whether the pages are subtracted from Color Quota or Black Quota. Not all the pages of twin/mono color are subtracted. The pages assigned to twin/mono color counter are subtracted. The setting of this code is enabled only in the Color/Black Quota mode and not enabled in the Job Quota mode. If the value of this code is set to "0" (Color Quota), an error occurs if a user without color permission performs twin color printing. Note that the same error occurs in the Job Quota mode. 0: Color Quota 1: Black Quota Related code: 08-6084, 08-9128, 08-9892	1	Yes
08	Setting Mode	Counter	Custom counter	For dealer	Weighting/Scanning	6088	0	Black/Gray	0	0-9999	SYS	Weights addition of Scan Counter to Custom Counter (Total Counter). Since the count is calculated based on the existing Large/Small counter, the count before changing this setting is also included in the count. 0 (weight: 0.00) – 9999 (weight: 99.99)	4	Yes
08	Setting Mode	Counter	Custom counter	For dealer	Weighting/Scanning	6088	1	Full Color	0	0-9999	SYS	Weights addition of Scan Counter to Custom Counter (Total Counter). Since the count is calculated based on the existing Large/Small counter, the count before changing this setting is also included in the count. 0 (weight: 0.00) – 9999 (weight: 99.99)	4	Yes
08	Setting Mode	Counter	Custom counter	For dealer	Weighting/Print	6089	0	Black/Small	100	0-9999	SYS	Weights addition of print to Custom Counter (Total Counter). Since the count is calculated based on the existing Large/Small counter, the count before changing this setting is also included in the count. 0 (weight: 0.00) – 9999 (weight: 99.99)	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Counter	Custom counter	For dealer	Weighting/Print	6089	1	Black/Large	100	0-9999	SYS	Weights addition of print to Custom Counter (Total Counter). Since the count is calculated based on the existing Large/Small counter, the count before changing this setting is also included in the count. 0 (weight: 0.00) – 9999 (weight: 99.99)	4	Yes
08	Setting Mode	Counter	Custom counter	For dealer	Weighting/Print	6089	2	Full color/Small	100	0-9999	SYS	Weights addition of print to Custom Counter (Total Counter). Since the count is calculated based on the existing Large/Small counter, the count before changing this setting is also included in the count. 0 (weight: 0.00) – 9999 (weight: 99.99)	4	Yes
08	Setting Mode	Counter	Custom counter	For dealer	Weighting/Print	6089	3	Full color/Large	100	0-9999	SYS	Weights addition of print to Custom Counter (Total Counter). Since the count is calculated based on the existing Large/Small counter, the count before changing this setting is also included in the count. 0 (weight: 0.00) – 9999 (weight: 99.99)	4	Yes
08	Setting Mode	Counter	Custom counter	For dealer	Weighting/Print	6089	4	Twin Color/Monocolor/Small	100	0-9999	SYS	Weights addition of print to Custom Counter (Total Counter). Since the count is calculated based on the existing Large/Small counter, the count before changing this setting is also included in the count. 0 (weight: 0.00) – 9999 (weight: 99.99)	4	Yes
08	Setting Mode	Counter	Custom counter	For dealer	Weighting/Print	6089	5	Twin Color/Monocolor/Large	100	0-9999	SYS	Weights addition of print to Custom Counter (Total Counter). Since the count is calculated based on the existing Large/Small counter, the count before changing this setting is also included in the count. 0 (weight: 0.00) – 9999 (weight: 99.99)	4	Yes
08	Setting Mode	Counter	Custom counter	For dealer		6090		Truncation after decimal point of custom counter value	0	0-1	SYS	Sets the display method of custom counter value of total counter. 0: Displays 2 decimal places. 1: Displays integer (Truncation after decimal point) When the value is displayed as integer, the total counter value (total value of each color) is sum of the truncated custom counter value of each color. Note that the value is slightly decreases compared to display with decimal point.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Counter	Custom counter	For dealer		6091		Output of annotation for custom counter	1	0-1	SYS	Sets whether the annotation "Custom Counter is result of..." for custom counter of total counter is output or not. 0: Annotation is not output 1: Annotation is output	1	
08	Setting Mode	Counter	Counter of Paper feed			6110		1st drawer	0	8 digits	M	Counts the number of sheets fed from 1st drawer.	2	Yes
08	Setting Mode	Counter	Counter of Paper feed			6111		2nd drawer	0	8 digits	M	Counts the number of sheets fed from 2nd drawer.	2	Yes
08	Setting Mode	Counter	Counter of Paper feed			6112		Bypass feed	0	8 digits	M	Counts the number of sheets fed from bypass feed.	2	Yes
08	Setting Mode	Counter	Counter of Paper feed			6113		LCF	0	8 digits	M	Counts the number of sheets fed from LCF.	2	Yes
08	Setting Mode	Counter	Counter of Paper feed			6114		PFP upper drawer	0	8 digits	M	Counts the number of sheets fed from PFP upper drawer.	2	Yes
08	Setting Mode	Counter	Counter of Paper feed			6115		PFP lower drawer	0	8 digits	M	Counts the number of sheets fed from PFP lower drawer.	2	Yes
08	Setting Mode	Counter	Counter of Paper feed			6116		ADU	0	8 digits	M	Counts the number of output pages of duplex printing.	2	Yes
08	Setting Mode	Counter	Counter of Paper feed			6117		RADF	0	8 digits	SYS	Counts the number of originals fed from RADF.	2	Yes
08	Setting Mode	Counter	Maintenan ce	PM counter	K	6190		Setting value	Refer to contents	8 digits	M	Sets the threshold for displaying a message for PM timing. 0: Not displayed <Default> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000 [Unit: page]	1	Yes
08	Setting Mode	Counter	Maintenan ce	PM drive counter	K	6191		Setting value	225000	8 digits	M	Sets the threshold for displaying a message for PM timing. 0: Not displayed [Unit: count]	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Counter	Maintenan ce	PM counter	Y	6192		Setting value	Refer to contents	8 digits	M	Sets the threshold for displaying a message for PM timing. 0: Not displayed <Default> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000 [Unit: page]	1	Yes
08	Setting Mode	Counter	Maintenan ce	PM drive counter	Y	6193		Setting value	225000	8 digits	M	Sets the threshold for displaying a message for PM timing. 0: Not displayed [Unit: count]	1	
08	Setting Mode	Counter	Maintenan ce	PM counter	K	6194		Current value	0	8 digits	M	Counts up when the registration sensor is ON. 0: clear (Unit: page) same as 08-6250-0	1	Yes
08	Setting Mode	Counter	Maintenan ce	PM drive counter	K	6195		Current value	0	8 digits	M	Counts the drum driving time. 0: clear (Unit: 1 count = 2 seconds) *Decelerating/Accelerating mode; 1 count = 4 seconds Same as 08-6250-3	1	Yes
08	Setting Mode	Counter	Maintenan ce	PM counter	Y	6196		Current value	0	8 digits	M	Counts up when the registration sensor is ON. 0: clear (Unit: page) same as 08-6252-0	1	Yes
08	Setting Mode	Counter	Maintenan ce	PM drive counter	Y	6197		Current value	0	8 digits	M	Counts the drum driving time. 0: clear (Unit: 1 count = 2 seconds) *Decelerating/Accelerating mode; 1 count = 4 seconds Same as 08-6252-3	1	Yes
08	Setting mode	Counter	Maintenan ce	PM counter	Switching of output pages/ driving counts at PM	6198		K	1	0-2	M	Selects the reference to notify the PM timing. (The message is displayed on the LCD screen.) 0: PM counter (The number of output pages is set at 08-6190.) 1: PM time counter (The timing is set at 08-6191.) 2: Whichever comes faster	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	Process			6211		Accumulated counter of output pages since the performing of image quality control	0	4 digits	M	Cleared to "0" by the image quality closed-loop control. Counts up with the number of printing job received after this control.	2	
08	Setting mode	Counter	Process	Number of output pages		6225		Thick paper 1	0	8 digits	M	Counts up when the registration sensor is ON in the thick paper 1 mode.	1	
08	Setting mode	Counter	Process	Number of output pages		6226		Thick paper 2	0	8 digits	M	Counts up when the registration sensor is ON in the thick paper 2 mode.	1	
08	Setting mode	Counter	Process	Number of output pages		6228		OHP film	0	8 digits	M	Counts up when the registration sensor is ON in the OHP film mode.	1	
08	Setting mode	Counter	Main charger			6229		Main charger needle electrode cleaning counter	0	8 digits	M	Does not count up when cleaning is not effective.	1	
08	Setting Mode	Counter	Paper feeding	Feeding retry counter		6230		1st drawer	0	8 digits	M	Counts the number of times of the feeding retry from the 1st drawer.	1	Yes
08	Setting Mode	Counter	Paper feeding	Feeding retry counter		6231		2nd drawer	0	8 digits	M	Counts the number of times of the feeding retry from the 2nd drawer.	1	Yes
08	Setting Mode	Counter	Paper feeding	Feeding retry counter		6232		PFP upper drawer	0	8 digits	M	Counts the number of times of feeding retries from the PFP upper drawer.	1	Yes
08	Setting Mode	Counter	Paper feeding	Feeding retry counter		6233		PFP lower drawer	0	8 digits	M	Counts the number of times of feeding retries from the PFP upper drawer.	1	Yes
08	Setting Mode	Counter	Paper feeding	Feeding retry counter		6234		Bypass feed	0	8 digits	M	Counts the number of times of the feeding retry from the bypass tray.	1	Yes
08	Setting Mode	Counter	Paper feeding	Feeding retry counter		6235		LCF	0	8 digits	M	Counts the number of times of the feeding retry from the LCF.	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	Paper feeding	Feeding retry counter	Upper limit value	6236		1st drawer	20	8 digits	M	When the number of feeding retry (08-6230 to 6235) exceeds the setting value, the feeding retry will not be performed subsequently. In case "0" is set as a setting value, however, the feeding retry continues regardless of the counter setting value. * Feeding retry counter upper limit value In this equipment, a toner image is formed on the transfer belt prior to a paper feeding. When the feeding retry occurs and the transport timing is delayed, the toner image on the transfer belt is cleaned off without the 2nd transfer since the paper cannot be reached for the 2nd transfer process. After that, the toner image formation is retried while the paper is waited. In this case, the toner for this image formation is consumed wastefully since the toner image on the transfer belt is already cleaned off, even though the printing is normally completed. Therefore, note that the excessive toner will be consumed consequently when the upper limit value of feeding retry counter is set larger or set as "0" (no limit). The toner is also consumed wastefully when the paper misfeeding occurs. Replace the roller at earlier timing if the paper misfeedings have occurred frequently.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	Paper feeding	Feeding retry counter	Upper limit value	6237		2nd drawer	20	8 digits	M	When the number of feeding retry (08-6230 to 6235) exceeds the setting value, the feeding retry will not be performed subsequently. In case "0" is set as a setting value, however, the feeding retry continues regardless of the counter setting value. * Feeding retry counter upper limit value In this equipment, a toner image is formed on the transfer belt prior to a paper feeding. When the feeding retry occurs and the transport timing is delayed, the toner image on the transfer belt is cleaned off without the 2nd transfer since the paper cannot be reached for the 2nd transfer process. After that, the toner image formation is retried while the paper is waited. In this case, the toner for this image formation is consumed wastefully since the toner image on the transfer belt is already cleaned off, even though the printing is normally completed. Therefore, note that the excessive toner will be consumed consequently when the upper limit value of feeding retry counter is set larger or set as "0" (no limit). The toner is also consumed wastefully when the paper misfeeding occurs. Replace the roller at earlier timing if the paper misfeedings have occurred frequently.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	Paper feeding	Feeding retry counter	Upper limit value	6238		PFP upper drawer	20	8 digits	M	When the number of feeding retry (08-6230 to 6235) exceeds the setting value, the feeding retry will not be performed subsequently. In case "0" is set as a setting value, however, the feeding retry continues regardless of the counter setting value. * Feeding retry counter upper limit value In this equipment, a toner image is formed on the transfer belt prior to a paper feeding. When the feeding retry occurs and the transport timing is delayed, the toner image on the transfer belt is cleaned off without the 2nd transfer since the paper cannot be reached for the 2nd transfer process. After that, the toner image formation is retried while the paper is waited. In this case, the toner for this image formation is consumed wastefully since the toner image on the transfer belt is already cleaned off, even though the printing is normally completed. Therefore, note that the excessive toner will be consumed consequently when the upper limit value of feeding retry counter is set larger or set as "0" (no limit). The toner is also consumed wastefully when the paper misfeeding occurs. Replace the roller at earlier timing if the paper misfeedings have occurred frequently.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	Paper feeding	Feeding retry counter	Upper limit value	6239		PFP lower drawer	20	8 digits	M	When the number of feeding retry (08-6230 to 6235) exceeds the setting value, the feeding retry will not be performed subsequently. In case "0" is set as a setting value, however, the feeding retry continues regardless of the counter setting value. * Feeding retry counter upper limit value In this equipment, a toner image is formed on the transfer belt prior to a paper feeding. When the feeding retry occurs and the transport timing is delayed, the toner image on the transfer belt is cleaned off without the 2nd transfer since the paper cannot be reached for the 2nd transfer process. After that, the toner image formation is retried while the paper is waited. In this case, the toner for this image formation is consumed wastefully since the toner image on the transfer belt is already cleaned off, even though the printing is normally completed. Therefore, note that the excessive toner will be consumed consequently when the upper limit value of feeding retry counter is set larger or set as "0" (no limit). The toner is also consumed wastefully when the paper misfeeding occurs. Replace the roller at earlier timing if the paper misfeedings have occurred frequently.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	Paper feeding	Feeding retry counter	Upper limit value	6240		Bypass feed	0	8 digits	M	When the number of feeding retry (08-6230 to 6235) exceeds the setting value, the feeding retry will not be performed subsequently. In case "0" is set as a setting value, however, the feeding retry continues regardless of the counter setting value. * Feeding retry counter upper limit value In this equipment, a toner image is formed on the transfer belt prior to a paper feeding. When the feeding retry occurs and the transport timing is delayed, the toner image on the transfer belt is cleaned off without the 2nd transfer since the paper cannot be reached for the 2nd transfer process. After that, the toner image formation is retried while the paper is waited. In this case, the toner for this image formation is consumed wastefully since the toner image on the transfer belt is already cleaned off, even though the printing is normally completed. Therefore, note that the excessive toner will be consumed consequently when the upper limit value of feeding retry counter is set larger or set as "0" (no limit). The toner is also consumed wastefully when the paper misfeeding occurs. Replace the roller at earlier timing if the paper misfeedings have occurred frequently.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	Paper feeding	Feeding retry counter	Upper limit value	6241		LCF	20	8 digits	M	When the number of feeding retry (08-6230 to 6235) exceeds the setting value, the feeding retry will not be performed subsequently. In case "0" is set as a setting value, however, the feeding retry continues regardless of the counter setting value. * Feeding retry counter upper limit value In this equipment, a toner image is formed on the transfer belt prior to a paper feeding. When the feeding retry occurs and the transport timing is delayed, the toner image on the transfer belt is cleaned off without the 2nd transfer since the paper cannot be reached for the 2nd transfer process. After that, the toner image formation is retried while the paper is waited. In this case, the toner for this image formation is consumed wastefully since the toner image on the transfer belt is already cleaned off, even though the printing is normally completed. Therefore, note that the excessive toner will be consumed consequently when the upper limit value of feeding retry counter is set larger or set as "0" (no limit). The toner is also consumed wastefully when the paper misfeeding occurs. Replace the roller at earlier timing if the paper misfeedings have occurred frequently.	1	
08	Setting mode	Counter	Paper feeding			6243		Special paper	0	8 digits	M	Counts up when the registration sensor is ON in the special paper mode.	1	
08	Setting mode	Counter	Paper feeding			6244		Tab paper	0	8 digits	M	Counts up when the registration sensor is ON in the tab paper mode.	1	
08	Setting mode	Counter	Paper feeding			6247		Envelope	0	8 digits	M	(Unit: Sheets)	1	
08	Setting mode	Counter	Toner	Backup counter for rotation time of toner refill motor		6249	0	Y	0	8 digits	M	The rotation time of toner refill motor is stored when the toner cartridge becomes empty.	14	
08	Setting mode	Counter	Toner	Backup counter for rotation time of toner refill motor		6249	1	M	0	8 digits	M	The rotation time of toner refill motor is stored when the toner cartridge becomes empty.	14	
08	Setting mode	Counter	Toner	Backup counter for rotation time of toner refill motor		6249	2	C	0	8 digits	M	The rotation time of toner refill motor is stored when the toner cartridge becomes empty.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	Toner	Backup counter for rotation time of toner refill motor		6249	3	K	0	8 digits	M	The rotation time of toner refill motor is stored when the toner cartridge becomes empty.	14	
08	Setting mode	Counter	PM counter	Photoconductive drum (K)		6250	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (K)		6250	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	Photoconductive drum (K)		6250	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (K)		6250	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (K)		6250	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (K)		6250	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (K)		6250	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (K)		6250	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (K)		6250	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (K)		6251		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Photoconductive drum (Y)		6252	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (Y)		6252	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	Photoconductive drum (Y)		6252	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (Y)		6252	3	Present driving counts	0	8 digits	M		4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Photoconductive drum (Y)		6252	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (Y)		6252	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (Y)		6252	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (Y)		6252	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (Y)		6252	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (Y)		6253		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Photoconductive drum (M)		6254	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (M)		6254	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	Photoconductive drum (M)		6254	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (M)		6254	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (M)		6254	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (M)		6254	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (M)		6254	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (M)		6254	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (M)		6254	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (M)		6255		Date of previous replacement	0	8 digits	M		2	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Photoconductive drum (C)		6256	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (C)		6256	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	Photoconductive drum (C)		6256	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (C)		6256	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (C)		6256	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (C)		6256	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (C)		6256	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (C)		6256	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (C)		6256	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Photoconductive drum (C)		6257		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Drum cleaning blade (K)		6258	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (K)		6258	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (K)		6258	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (K)		6258	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (K)		6258	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (K)		6258	5	Driving counts at the last replacement	0	8 digits	M		4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Drum cleaning blade (K)		6258	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (K)		6258	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (K)		6258	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (K)		6259		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Drum cleaning blade (Y)		6260	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (Y)		6260	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (Y)		6260	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (Y)		6260	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (Y)		6260	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (Y)		6260	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (Y)		6260	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (Y)		6260	7	Present rotation counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (Y)		6260	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (Y)		6261		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Drum cleaning blade (M)		6262	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (M)		6262	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Drum cleaning blade (M)		6262	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (M)		6262	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (M)		6262	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (M)		6262	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (M)		6262	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (M)		6262	7	Present rotation counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (M)		6262	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (M)		6263		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Drum cleaning blade (C)		6264	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (C)		6264	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (C)		6264	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (C)		6264	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (C)		6264	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (C)		6264	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (C)		6264	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (C)		6264	7	Present rotation counts for control	0	8 digits	M		4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Drum cleaning blade (C)		6264	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Drum cleaning blade (C)		6265		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Charger grid (K)		6274	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (K)		6274	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	Charger grid (K)		6274	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (K)		6274	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (K)		6274	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (K)		6274	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (K)		6274	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (K)		6274	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (K)		6274	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (K)		6275		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Charger grid (Y)		6276	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (Y)		6276	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	Charger grid (Y)		6276	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (Y)		6276	3	Present driving counts	0	8 digits	M		4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Charger grid (Y)		6276	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (Y)		6276	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (Y)		6276	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (Y)		6276	7	Present rotation counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (Y)		6276	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (Y)		6277		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Charger grid (M)		6278	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (M)		6278	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	Charger grid (M)		6278	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (M)		6278	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (M)		6278	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (M)		6278	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (M)		6278	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (M)		6278	7	Present rotation counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (M)		6278	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (M)		6279		Date of previous replacement	0	8 digits	M		2	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Charger grid (C)		6280	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (C)		6280	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	Charger grid (C)		6280	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (C)		6280	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (C)		6280	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (C)		6280	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (C)		6280	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (C)		6280	7	Present rotation counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (C)		6280	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger grid (C)		6281		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(K)		6282	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(K)		6282	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(K)		6282	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(K)		6282	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(K)		6282	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(K)		6282	5	Driving counts at the last replacement	0	8 digits	M		4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(K)		6282	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(K)		6282	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(K)		6282	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(K)		6283		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(Y)		6284	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(Y)		6284	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(Y)		6284	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(Y)		6284	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(Y)		6284	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(Y)		6284	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(Y)		6284	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(Y)		6284	7	Present rotation counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(Y)		6284	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(Y)		6285		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(M)		6286	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(M)		6286	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(M)		6286	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(M)		6286	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(M)		6286	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(M)		6286	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(M)		6286	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(M)		6286	7	Present rotation counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(M)		6286	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(M)		6287		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(C)		6288	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(C)		6288	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(C)		6288	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(C)		6288	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(C)		6288	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(C)		6288	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(C)		6288	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(C)		6288	7	Present rotation counts for control	0	8 digits	M		4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(C)		6288	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger (Wire/needle)(C)		6289		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Charger cleaning pad (K)		6290	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (K)		6290	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (K)		6290	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (K)		6290	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (K)		6290	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (K)		6290	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (K)		6290	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (K)		6290	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (K)		6290	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (K)		6291		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Charger cleaning pad (Y)		6292	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (Y)		6292	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (Y)		6292	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (Y)		6292	3	Present driving counts	0	8 digits	M		4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Charger cleaning pad (Y)		6292	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (Y)		6292	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (Y)		6292	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (Y)		6292	7	Present rotation counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (Y)		6292	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (Y)		6293		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Charger cleaning pad (M)		6294	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (M)		6294	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (M)		6294	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (M)		6294	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (M)		6294	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (M)		6294	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (M)		6294	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (M)		6294	7	Present rotation counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (M)		6294	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (M)		6295		Date of previous replacement	0	8 digits	M		2	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Charger cleaning pad (C)		6296	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (C)		6296	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (C)		6296	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (C)		6296	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (C)		6296	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (C)		6296	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (C)		6296	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (C)		6296	7	Present rotation counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (C)		6296	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Charger cleaning pad (C)		6297		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Ozone filter		6298	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Ozone filter		6298	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 168000 25ppm/LL25ppm: 210000	4	
08	Setting mode	Counter	PM counter	Ozone filter		6298	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Ozone filter		6298	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Ozone filter		6298	4	Recommended driving counts to be replaced	675000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Ozone filter		6298	5	Driving counts at the last replacement	0	8 digits	M		4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Ozone filter		6298	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Ozone filter		6298	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Ozone filter		6298	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Ozone filter		6299		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Developer material (K)		6300	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (K)		6300	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value>\n20ppm/LL20ppm: 56000\n25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	Developer material (K)		6300	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (K)		6300	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (K)		6300	4	Recommended driving counts to be replaced	145000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (K)		6300	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (K)		6300	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (K)		6300	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (K)		6300	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (K)		6301		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Developer material (Y)		6302	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (Y)		6302	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value>\n20ppm/LL20ppm: 56000\n25ppm/LL25ppm: 70000	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Developer material (Y)		6302	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (Y)		6302	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (Y)		6302	4	Recommended driving counts to be replaced	145000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (Y)		6302	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (Y)		6302	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (Y)		6302	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (Y)		6302	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (Y)		6303		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Developer material (M)		6304	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (M)		6304	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	Developer material (M)		6304	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (M)		6304	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (M)		6304	4	Recommended driving counts to be replaced	145000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (M)		6304	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (M)		6304	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (M)		6304	7	Present driving counts for control	0	8 digits	M		4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Developer material (M)		6304	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (M)		6305		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Developer material (C)		6306	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (C)		6306	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	Developer material (C)		6306	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (C)		6306	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (C)		6306	4	Recommended driving counts to be replaced	145000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (C)		6306	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (C)		6306	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (C)		6306	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (C)		6306	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Developer material (C)		6307		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	1st transfer K roller		6314	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer K roller		6314	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 168000 25ppm/LL25ppm: 210000	4	
08	Setting mode	Counter	PM counter	1st transfer K roller		6314	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer K roller		6314	3	Present driving counts	0	8 digits	M		4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	1st transfer K roller		6314	4	Recommended driving counts to be replaced	675000	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer K roller		6314	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer K roller		6314	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer K roller		6314	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer K roller		6314	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer K roller		6315		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	1st transfer Y roller		6316	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer Y roller		6316	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 168000 25ppm/LL25ppm: 210000	4	
08	Setting mode	Counter	PM counter	1st transfer Y roller		6316	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer Y roller		6316	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer Y roller		6316	4	Recommended driving counts to be replaced	675000	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer Y roller		6316	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer Y roller		6316	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer Y roller		6316	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer Y roller		6316	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer Y roller		6317		Date of previous replacement	0	8 digits	M		2	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	1st transfer M roller		6318	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer M roller		6318	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 168000 25ppm/LL25ppm: 210000	4	
08	Setting mode	Counter	PM counter	1st transfer M roller		6318	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer M roller		6318	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer M roller		6318	4	Recommended driving counts to be replaced	675000	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer M roller		6318	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer M roller		6318	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer M roller		6318	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer M roller		6318	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer M roller		6319		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	1st transfer C roller		6320	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer C roller		6320	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 168000 25ppm/LL25ppm: 210000	4	
08	Setting mode	Counter	PM counter	1st transfer C roller		6320	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer C roller		6320	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer C roller		6320	4	Recommended driving counts to be replaced	675000	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer C roller		6320	5	Driving counts at the last replacement	0	8 digits	M		4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	1st transfer C roller		6320	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer C roller		6320	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer C roller		6320	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	1st transfer C roller		6321		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Transfer belt		6328	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Transfer belt		6328	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 168000 25ppm/LL25ppm: 210000	4	
08	Setting mode	Counter	PM counter	Transfer belt		6328	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Transfer belt		6328	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Transfer belt		6328	4	Recommended driving counts to be replaced	675000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Transfer belt		6328	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Transfer belt		6328	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Transfer belt		6328	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Transfer belt		6328	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Transfer belt		6329		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Transfer belt cleaning blade		6332	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Transfer belt cleaning blade		6332	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 168000 25ppm/LL25ppm: 210000	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Transfer belt cleaning blade		6332	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Transfer belt cleaning blade		6332	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Transfer belt cleaning blade		6332	4	Recommended driving counts to be replaced	675000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Transfer belt cleaning blade		6332	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Transfer belt cleaning blade		6332	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Transfer belt cleaning blade		6332	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Transfer belt cleaning blade		6332	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Transfer belt cleaning blade		6333		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	2nd transfer roller		6340	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	2nd transfer roller		6340	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 112000 25ppm/LL25ppm: 140000	4	
08	Setting mode	Counter	PM counter	2nd transfer roller		6340	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	2nd transfer roller		6340	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	2nd transfer roller		6340	4	Recommended driving counts to be replaced	450000	8 digits	M		4	
08	Setting mode	Counter	PM counter	2nd transfer roller		6340	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	2nd transfer roller		6340	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	2nd transfer roller		6340	7	Present driving counts for control	0	8 digits	M		4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	2nd transfer roller		6340	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	2nd transfer roller		6341		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Heat roller		6346	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Heat roller		6346	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 168000 25ppm/LL25ppm: 210000	4	
08	Setting mode	Counter	PM counter	Heat roller		6346	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Heat roller		6346	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Heat roller		6346	4	Recommended driving counts to be replaced	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 675000 25ppm/LL25ppm: 815000	4	
08	Setting mode	Counter	PM counter	Heat roller		6346	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Heat roller		6346	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Heat roller		6346	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Heat roller		6346	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Heat roller		6347		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Pressure roller		6350	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pressure roller		6350	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 168000 25ppm/LL25ppm: 210000	4	
08	Setting mode	Counter	PM counter	Pressure roller		6350	2	Number of output pages at the last replacement	0	8 digits	M		4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Pressure roller		6350	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pressure roller		6350	4	Recommended driving counts to be replaced	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 675000 25ppm/LL25ppm: 815000	4	
08	Setting mode	Counter	PM counter	Pressure roller		6350	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pressure roller		6350	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pressure roller		6350	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pressure roller		6350	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pressure roller		6351		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Heat roller separation finger		6368	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Heat roller separation finger		6368	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 168000 25ppm/LL25ppm: 210000	4	
08	Setting mode	Counter	PM counter	Heat roller separation finger		6368	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Heat roller separation finger		6368	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Heat roller separation finger		6368	4	Recommended driving counts to be replaced	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 675000 25ppm/LL25ppm: 815000	4	
08	Setting mode	Counter	PM counter	Heat roller separation finger		6368	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Heat roller separation finger		6368	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Heat roller separation finger		6368	7	Present driving counts for control	0	8 digits	M		4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Heat roller separation finger		6368	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Heat roller separation finger		6369		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Pressure roller separation finger		6370	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pressure roller separation finger		6370	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 168000 25ppm/LL25ppm: 210000	4	
08	Setting mode	Counter	PM counter	Pressure roller separation finger		6370	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pressure roller separation finger		6370	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pressure roller separation finger		6370	4	Recommended driving counts to be replaced	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 675000 25ppm/LL25ppm: 815000	4	
08	Setting mode	Counter	PM counter	Pressure roller separation finger		6370	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pressure roller separation finger		6370	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pressure roller separation finger		6370	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pressure roller separation finger		6370	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pressure roller separation finger		6371		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Pickup roller (RADF)		6382	0	Present number of output pages	0	8 digits	SYS		4	
08	Setting mode	Counter	PM counter	Pickup roller (RADF)		6382	1	Recommended number of output pages for replacement	120000	8 digits	SYS		4	
08	Setting mode	Counter	PM counter	Pickup roller (RADF)		6382	2	Number of output pages at the last replacement	0	8 digits	SYS		4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Pickup roller (RADF)		6382	8	Number of times replaced	0	8 digits	SYS		4	
08	Setting mode	Counter	PM counter	Pickup roller (RADF)		6383		Date of previous replacement	0	8 digits	SYS		2	
08	Setting mode	Counter	PM counter	Feed roller (RADF)		6384	0	Present number of output pages	0	8 digits	SYS		4	
08	Setting mode	Counter	PM counter	Feed roller (RADF)		6384	1	Recommended number of output pages for replacement	120000	8 digits	SYS		4	
08	Setting mode	Counter	PM counter	Feed roller (RADF)		6384	2	Number of output pages at the last replacement	0	8 digits	SYS		4	
08	Setting mode	Counter	PM counter	Feed roller (RADF)		6384	8	Number of times replaced	0	8 digits	SYS		4	
08	Setting mode	Counter	PM counter	Feed roller (RADF)		6385		Date of previous replacement	0	8 digits	SYS		2	
08	Setting mode	Counter	PM counter	Separation roller (RADF)		6386	0	Present number of output pages	0	8 digits	SYS		4	
08	Setting mode	Counter	PM counter	Separation roller (RADF)		6386	1	Recommended number of output pages for replacement	120000	8 digits	SYS		4	
08	Setting mode	Counter	PM counter	Separation roller (RADF)		6386	2	Number of output pages at the last replacement	0	8 digits	SYS		4	
08	Setting mode	Counter	PM counter	Separation roller (RADF)		6386	8	Number of times replaced	0	8 digits	SYS		4	
08	Setting mode	Counter	PM counter	Separation roller (RADF)		6387		Date of previous replacement	0	8 digits	SYS		2	
08	Setting mode	Counter	PM counter	Pickup roller (1st drawer)		6390	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pickup roller (1st drawer)		6390	1	Recommended number of output pages for replacement	80000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pickup roller (1st drawer)		6390	2	Number of output pages at the last replacement	0	8 digits	M		4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Pickup roller (1st drawer)		6390	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pickup roller (1st drawer)		6391		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Pickup roller (2nd drawer)		6392	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pickup roller (2nd drawer)		6392	1	Recommended number of output pages for replacement	80000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pickup roller (2nd drawer)		6392	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pickup roller (2nd drawer)		6392	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pickup roller (2nd drawer)		6393		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Pickup roller (LCF)		6394	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pickup roller (LCF)		6394	1	Recommended number of output pages for replacement	160000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pickup roller (LCF)		6394	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pickup roller (LCF)		6394	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pickup roller (LCF)		6395		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Feed roller (1st drawer)		6398	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Feed roller (1st drawer)		6398	1	Recommended number of output pages for replacement	80000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Feed roller (1st drawer)		6398	2	Number of output pages at the last replacement	0	8 digits	M		4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Feed roller (1st drawer)		6398	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Feed roller (1st drawer)		6399		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Feed roller (2nd drawer)		6400	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Feed roller (2nd drawer)		6400	1	Recommended number of output pages for replacement	80000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Feed roller (2nd drawer)		6400	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Feed roller (2nd drawer)		6400	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Feed roller (2nd drawer)		6401		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Feed roller (LCF)		6402	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Feed roller (LCF)		6402	1	Recommended number of output pages for replacement	160000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Feed roller (LCF)		6402	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Feed roller (LCF)		6402	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Feed roller (LCF)		6403		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Separation pad (1st drawer)		6406	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Separation pad (1st drawer)		6406	1	Recommended number of output pages for replacement	80000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Separation pad (1st drawer)		6406	2	Number of output pages at the last replacement	0	8 digits	M		4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Separation pad (1st drawer)		6406	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Separation pad (1st drawer)		6407		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Separation roller (2nd drawer)		6408	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Separation roller (2nd drawer)		6408	1	Recommended number of output pages for replacement	80000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Separation roller (2nd drawer)		6408	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Separation roller (2nd drawer)		6408	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Separation roller (2nd drawer)		6409		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Separation roller (LCF)		6410	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Separation roller (LCF)		6410	1	Recommended number of output pages for replacement	160000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Separation roller (LCF)		6410	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Separation roller (LCF)		6410	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Separation roller (LCF)		6411		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Separation roller (PFP upper drawer)		6412	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Separation roller (PFP upper drawer)		6412	1	Recommended number of output pages for replacement	80000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Separation roller (PFP upper drawer)		6412	2	Number of output pages at the last replacement	0	8 digits	M		4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Separation roller (PFP upper drawer)		6412	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Separation roller (PFP upper drawer)		6413		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Separation roller (PFP lower drawer)		6414	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Separation roller (PFP lower drawer)		6414	1	Recommended number of output pages for replacement	80000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Separation roller (PFP lower drawer)		6414	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Separation roller (PFP lower drawer)		6414	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Separation roller (PFP lower drawer)		6415		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Separation pad (Bypass unit)		6416	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Separation pad (Bypass unit)		6416	1	Recommended number of output pages for replacement	80000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Separation pad (Bypass unit)		6416	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Separation pad (Bypass unit)		6416	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Separation pad (Bypass unit)		6417		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Feed roller (PFP upper drawer)		6420	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Feed roller (PFP upper drawer)		6420	1	Recommended number of output pages for replacement	80000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Feed roller (PFP upper drawer)		6420	2	Number of output pages at the last replacement	0	8 digits	M		4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Feed roller (PFP upper drawer)		6420	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Feed roller (PFP upper drawer)		6421		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Feed roller (PFP lower drawer)		6422	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Feed roller (PFP lower drawer)		6422	1	Recommended number of output pages for replacement	80000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Feed roller (PFP lower drawer)		6422	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Feed roller (PFP lower drawer)		6422	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Feed roller (PFP lower drawer)		6423		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Feed roller (Bypass unit)		6424	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Feed roller (Bypass unit)		6424	1	Recommended number of output pages for replacement	80000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Feed roller (Bypass unit)		6424	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Feed roller (Bypass unit)		6424	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Feed roller (Bypass unit)		6425		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Pickup roller (PFP upper drawer)		6428	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pickup roller (PFP upper drawer)		6428	1	Recommended number of output pages for replacement	80000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pickup roller (PFP upper drawer)		6428	2	Number of output pages at the last replacement	0	8 digits	M		4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	Pickup roller (PFP upper drawer)		6428	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pickup roller (PFP upper drawer)		6429		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Pickup roller (PFP lower drawer)		6430	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pickup roller (PFP lower drawer)		6430	1	Recommended number of output pages for replacement	80000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pickup roller (PFP lower drawer)		6430	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pickup roller (PFP lower drawer)		6430	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pickup roller (PFP lower drawer)		6431		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	Pickup roller (Bypass unit)		6432	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pickup roller (Bypass unit)		6432	1	Recommended number of output pages for replacement	80000	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pickup roller (Bypass unit)		6432	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pickup roller (Bypass unit)		6432	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	Pickup roller (Bypass unit)		6433		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Pixel counter	Setting			6500		Standard paper size	Refer to contents	0-1	SYS	Selects the standard paper size to convert it into the pixel count (%). 0: A4 1: LT <Default value> NAD: 1 Others: 0	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Clearing			6501		All clearing	-	-	SYS	Clears all information related to the pixel counter.	3	
08	Setting mode	Pixel counter	Clearing			6502		Service technician reference counter	-	-	SYS	Clears all information related to the service technician reference pixel counter.	3	
08	Setting mode	Pixel counter	Clearing			6503		Toner cartridge reference counter	-	-	SYS	Clears all information related to the toner cartridge reference pixel counter.	3	
08	Setting mode	Pixel counter	Setting			6504		Pixel counter display	1	0-1	SYS	Selects whether or not to display the pixel counter on the LCD screen. 0: Displayed 1: Not displayed	1	
08	Setting mode	Pixel counter	Setting			6505		Displayed reference	0	0-1	SYS	Selects the reference when displaying the pixel counter on the LCD screen. 0: Service technician reference1: Toner cartridge reference	1	
08	Setting mode	Pixel counter	Setting			6506		Toner empty determination counter	0	0-1	SYS	Selects the counter to determine toner empty. 0: Output pages 1: Pixel counter	1	
08	Setting mode	Pixel counter	Setting	Threshold setting for toner empty determination		6507		Output pages	500	0-999	SYS	Sets the number of output pages to determine toner empty. This setting is valid when "0" is set at 08-6506.	1	
08	Setting mode	Pixel counter	Setting	Threshold setting for toner empty determination		6508		Pixel counter	21500	0-60000	SYS	Sets the number of output pages to determine toner empty. This setting is valid when "1" is set at 08-6506.	1	
08	Setting mode	Pixel counter	Clearing	Flag		6509		Service technician reference	0	0-1	SYS	Becomes "1" when 08-6502 is performed.	2	
08	Setting mode	Pixel counter	Display	Cleared date		6510		Service technician reference	-	-	SYS	Displays the date on which 08-6502 was performed.	2	
08	Setting mode	Pixel counter	Display	Cleared date	Toner cartridge reference	6511		Y	-	-	SYS	Displays the date on which 08-6503 was performed.	2	
08	Setting mode	Pixel counter	Display	Cleared date	Toner cartridge reference	6512		M	-	-	SYS	Displays the date on which 08-6503 was performed.	2	
08	Setting mode	Pixel counter	Display	Cleared date	Toner cartridge reference	6513		C	-	-	SYS	Displays the date on which 08-6503 was performed.	2	
08	Setting mode	Pixel counter	Display	Cleared date	Toner cartridge reference	6514		K	-	-	SYS	Displays the date on which 08-6503 was performed.	2	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Display	Count started date	Toner cartridge reference	6519		Y	-	-	SYS	Displays the date on which 08-6503 was performed.	2	
08	Setting mode	Pixel counter	Display	Count started date	Toner cartridge reference	6520		M	-	-	SYS	Displays the date on which 08-6503 was performed.	2	
08	Setting mode	Pixel counter	Display	Count started date	Toner cartridge reference	6521		C	-	-	SYS	Displays the date on which 08-6503 was performed.	2	
08	Setting mode	Pixel counter	Display	Count started date	Toner cartridge reference	6522		K	-	-	SYS	Displays the date on which 08-6503 was performed.	2	
08	Setting mode	Pixel counter	Number of output pages	Service technician reference	PPC	6557		Full color	0	8 digits	SYS	Counts the number of output pages converted to the standard paper size in the copy function, full color mode and service technician reference. [Unit. page]	2	
08	Setting mode	Pixel counter	Number of output pages	Service technician reference	PPC	6558		Black	0	8 digits	SYS	Counts the number of output pages converted to the standard paper size in the copy function, black mode and service technician reference. [Unit. page]	2	
08	Setting mode	Pixel counter	Number of output pages	Service technician reference	PRT	6559		Full color	0	8 digits	SYS	Counts the number of output pages converted to the standard paper size in the printer function, full color mode and service technician reference. [Unit. page]	2	
08	Setting mode	Pixel counter	Number of output pages	Service technician reference	PRT	6560		Black	0	8 digits	SYS	Counts the number of output pages converted to the standard paper size in the printer function, black mode and service technician reference. [Unit. page]	2	
08	Setting mode	Pixel counter	Number of output pages	Service technician reference	FAX	6561		Black	0	8 digits	SYS	Counts the number of output pages converted to the standard paper size in the FAX function, black mode and service technician reference. [Unit. page]	2	
08	Setting mode	Pixel counter	Number of output pages	Toner cartridge reference	PPC	6562		Full color (K)	0	8 digits	SYS	Counts the number of output pages converted to the standard paper size in the copy function, full color mode, toner K and toner cartridge reference. [Unit. page]	2	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Number of output pages	Toner cartridge reference	PPC	6563		Black	0	8 digits	SYS	Counts the number of output pages converted to the standard paper size in the copy function, black mode and toner cartridge reference. [Unit. page]	2	
08	Setting mode	Pixel counter	Number of output pages	Toner cartridge reference	PRT	6564		Full color (K)	0	8 digits	SYS	Counts the number of output pages converted to the standard paper size in the printer function, full color mode, toner K and toner cartridge reference. [Unit. page]	2	
08	Setting mode	Pixel counter	Number of output pages	Toner cartridge reference	PRT	6565		Black	0	8 digits	SYS	Counts the number of output pages converted to the standard paper size in the printer function, black mode and toner cartridge reference. [Unit. page]	2	
08	Setting mode	Pixel counter	Number of output pages	Toner cartridge reference	FAX	6566		Black	0	8 digits	SYS	Counts the number of output pages converted to the standard paper size in the FAX function, black mode and toner cartridge reference. [Unit. page]	2	
08	Setting mode	Pixel counter	Number of output pages	Toner cartridge reference	PPC	6567		Full color (Y)	0	8 digits	SYS	Counts the number of output pages converted to the standard paper size in the copy function, full color mode, toner Y and toner cartridge reference. [Unit. page]	2	
08	Setting mode	Pixel counter	Number of output pages	Toner cartridge reference	PRT	6568		Full color (Y)	0	8 digits	SYS	Counts the number of output pages converted to the standard paper size in the printer function, full color mode, toner Y and toner cartridge reference. [Unit. page]	2	
08	Setting mode	Pixel counter	Number of output pages	Toner cartridge reference	PPC	6569		Full color (M)	0	8 digits	SYS	Counts the number of output pages converted to the standard paper size in the copy function, full color mode, toner M and toner cartridge reference. [Unit. page]	2	
08	Setting mode	Pixel counter	Number of output pages	Toner cartridge reference	PRT	6570		Full color (M)	0	8 digits	SYS	Counts the number of output pages converted to the standard paper size in the printer function, full color mode, toner M and toner cartridge reference. [Unit. page]	2	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Number of output pages	Toner cartridge reference	PPC	6571		Full color (C)	0	8 digits	SYS	Counts the number of output pages converted to the standard paper size in the copy function, full color mode, toner C and toner cartridge reference. [Unit. page]	2	
08	Setting mode	Pixel counter	Number of output pages	Toner cartridge reference	PRT	6572		Full color (C)	0	8 digits	SYS	Counts the number of output pages converted to the standard paper size in the printer function, full color mode, toner C and toner cartridge reference. [Unit. page]	2	
08	Setting mode	Pixel counter	Counter	Toner cartridge replacement counter		6573		Y	0	3 digits	SYS	Counts the number of time of the toner cartridge Y replacement.	2	
08	Setting mode	Pixel counter	Counter	Toner cartridge replacement counter		6574		M	0	3 digits	SYS	Counts the number of time of the toner cartridge M replacement.	2	
08	Setting mode	Pixel counter	Counter	Toner cartridge replacement counter		6575		C	0	3 digits	SYS	Counts the number of time of the toner cartridge C replacement.	2	
08	Setting mode	Pixel counter	Counter	Toner cartridge replacement counter		6576		K	0	3 digits	SYS	Counts the number of time of the toner cartridge K replacement.	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Service technician reference	PPC	6587		Full color (Y+M+C+K)	0	0-10000	SYS	Displays the average pixel count in the copy function, full color mode, all toner and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Service technician reference	PPC	6588		Full color (Y)	0	0-10000	SYS	Displays the average pixel count in the copy function, full color mode, toner Y and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Service technician reference	PPC	6589		Full color (M)	0	0-10000	SYS	Displays the average pixel count in the copy function, full color mode, toner M and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Service technician reference	PPC	6590		Full color (C)	0	0-10000	SYS	Displays the average pixel count in the copy function, full color mode, toner C and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Service technician reference	PPC	6591		Full color (K)	0	0-10000	SYS	Displays the average pixel count in the copy function, full color mode, toner K and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Service technician reference	PRT	6592		Full color (Y+M+C+K)	0	0-10000	SYS	Displays the average pixel count in the printer function, full color mode, all toner and service technician reference. [Unit: 0.01%]	2	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Counter	Average pixel count/Service technician reference	PRT	6593		Full color (Y)	0	0-10000	SYS	Displays the average pixel count in the printer function, full color mode, toner Y and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Service technician reference	PRT	6594		Full color (M)	0	0-10000	SYS	Displays the average pixel count in the printer function, full color mode, toner M and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Service technician reference	PRT	6595		Full color (C)	0	0-10000	SYS	Displays the average pixel count in the printer function, full color mode, toner C and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Service technician reference	PRT	6596		Full color (K)	0	0-10000	SYS	Displays the average pixel count in the printer function, full color mode, toner K and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Service technician reference	PPC/PRT	6597		Full color (Y+M+C+K)	0	0-10000	SYS	Displays the average pixel count in the copy/printer function, full color mode, all toner and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Service technician reference	PPC/PRT	6598		Full color (Y)	0	0-10000	SYS	Displays the average pixel count in the copy/printer function, full color mode, toner Y and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Service technician reference	PPC/PRT	6599		Full color (M)	0	0-10000	SYS	Displays the average pixel count in the copy/printer function, full color mode, toner M and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Service technician reference	PPC/PRT	6600		Full color (C)	0	0-10000	SYS	Displays the average pixel count in the copy/printer function, full color mode, toner C and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Service technician reference	PPC/PRT	6601		Full color (K)	0	0-10000	SYS	Displays the average pixel count in the copy/printer function, full color mode, toner K and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Service technician reference	PPC	6602		Black	0	0-10000	SYS	Displays the average pixel count in the copy function, black mode and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Service technician reference	PRT	6603		Black	0	0-10000	SYS	Displays the average pixel count in the printer function, black mode and service technician reference. [Unit: 0.01%]	2	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Counter	Average pixel count/Service technician reference	FAX	6604		Black	0	0-10000	SYS	Displays the average pixel count in the FAX function, black mode and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Service technician reference	PPC/PRT/FAX	6605		Black	0	0-10000	SYS	Displays the average pixel count in the copy/printer/FAX function, black mode and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Latest pixel count/Service technician reference	PPC	6606		Full color (Y+M+C+K)	0	0-10000	SYS	Displays the latest pixel count in the copy function, full color mode, all toner and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Latest pixel count/Service technician reference	PPC	6607		Full color (Y)	0	0-10000	SYS	Displays the latest pixel count in the copy function, full color mode, toner Y and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Latest pixel count/Service technician reference	PPC	6608		Full color (M)	0	0-10000	SYS	Displays the latest pixel count in the copy function, full color mode, toner M and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Latest pixel count/Service technician reference	PPC	6609		Full color (C)	0	0-10000	SYS	Displays the latest pixel count in the copy function, full color mode, toner C and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Latest pixel count/Service technician reference	PPC	6610		Full color (K)	0	0-10000	SYS	Displays the latest pixel count in the copy function, full color mode, toner K and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Latest pixel count/Service technician reference	PRT	6611		Full color (Y+M+C+K)	0	0-10000	SYS	Displays the latest pixel count in the printer function, full color mode, all toner and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Latest pixel count/Service technician reference	PRT	6612		Full color (Y)	0	0-10000	SYS	Displays the latest pixel count in the printer function, full color mode, toner Y and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Latest pixel count/Service technician reference	PRT	6613		Full color (M)	0	0-10000	SYS	Displays the latest pixel count in the printer function, full color mode, toner M and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Latest pixel count/Service technician reference	PRT	6614		Full color (C)	0	0-10000	SYS	Displays the latest pixel count in the printer function, full color mode, toner C and service technician reference. [Unit: 0.01%]	2	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Counter	Latest pixel count/Service technician reference	PRT	6615		Full color (K)	0	0-10000	SYS	Displays the latest pixel count in the printer function, full color mode, toner K and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Latest pixel count/Service technician reference	PPC	6616		Black	0	0-10000	SYS	Displays the latest pixel count in the copy function, black mode and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Latest pixel count/Service technician reference	PRT	6617		Black	0	0-10000	SYS	Displays the latest pixel count in the printer function, black mode and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Latest pixel count/Service technician reference	FAX	6618		Black	0	0-10000	SYS	Displays the latest pixel count in the FAX function, black mode and service technician reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Toner cartridge reference	PPC	6619		Full color (Y)	0	0-10000	SYS	Displays the average pixel count in the copy function, full color mode, toner Y and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Toner cartridge reference	PPC	6620		Full color (M)	0	0-10000	SYS	Displays the average pixel count in the copy function, full color mode, toner M and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Toner cartridge reference	PPC	6621		Full color (C)	0	0-10000	SYS	Displays the average pixel count in the copy function, full color mode, toner C and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Toner cartridge reference	PPC	6622		Full color (K)	0	0-10000	SYS	Displays the average pixel count in the copy function, full color mode, toner K and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Toner cartridge reference	PPC	6623		Black	0	0-10000	SYS	Displays the average pixel count in the copy function, black mode and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Toner cartridge reference	PPC	6624		Full color (K)+black	0	0-10000	SYS	Displays the average pixel count in the copy function, full color/black mode, toner K and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Toner cartridge reference	PRT	6625		Full color (Y)	0	0-10000	SYS	Displays the average pixel count in the printer function, full color mode, toner Y and toner cartridge reference. [Unit: 0.01%]	2	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Counter	Average pixel count/Toner cartridge reference	PRT	6626		Full color (M)	0	0-10000	SYS	Displays the average pixel count in the printer function, full color mode, toner M and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Toner cartridge reference	PRT	6627		Full color (C)	0	0-10000	SYS	Displays the average pixel count in the printer function, full color mode, toner C and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Toner cartridge reference	PRT	6628		Full color (K)	0	0-10000	SYS	Displays the average pixel count in the printer function, full color mode, toner K and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Toner cartridge reference	PRT	6629		Black	0	0-10000	SYS	Displays the average pixel count in the printer function, black mode and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Toner cartridge reference	PRT	6630		Full color (K)+black	0	0-10000	SYS	Displays the average pixel count in the printer function, full color/black mode, toner K and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Toner cartridge reference	PPC/PRT	6631		Full color (Y)	0	0-10000	SYS	Displays the average pixel count in the copy/printer function, full color mode, toner Y and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Toner cartridge reference	PPC/PRT	6632		Full color (M)	0	0-10000	SYS	Displays the average pixel count in the copy/printer function, full color mode, toner M and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Toner cartridge reference	PPC/PRT	6633		Full color (C)	0	0-10000	SYS	Displays the average pixel count in the copy/printer function, full color mode, toner C and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Toner cartridge reference	PPC/PRT/FAX	6634		Full color (K)+black	0	0-10000	SYS	Displays the average pixel count in the copy/printer/FAX function, black mode, toner K and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Average pixel count/Toner cartridge reference	FAX	6635		Black	0	0-10000	SYS	Displays the average pixel count in the FAX function, black mode and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Latest pixel count/Toner cartridge reference	PPC	6636		Full color (Y)	0	0-10000	SYS	Displays the latest pixel count in the copy function, full color mode, toner Y and toner cartridge reference. [Unit:0.01%]	2	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Counter	Latest pixel count/Toner cartridge reference	PPC	6637		Full color (M)	0	0-10000	SYS	Displays the latest pixel count in the copy function, full color mode, toner M and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Latest pixel count/Toner cartridge reference	PPC	6638		Full color (C)	0	0-10000	SYS	Displays the latest pixel count in the copy function, full color mode, toner C and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Latest pixel count/Toner cartridge reference	PPC	6639		Full color (K)	0	0-10000	SYS	Displays the latest pixel count in the copy function, full color mode, toner K and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Latest pixel count/Toner cartridge reference	PRT	6640		Full color (Y)	0	0-10000	SYS	Displays the latest pixel count in the printer function, full color mode, toner Y and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Latest pixel count/Toner cartridge reference	PRT	6641		Full color (M)	0	0-10000	SYS	Displays the latest pixel count in the printer function, full color mode, toner M and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Latest pixel count/Toner cartridge reference	PRT	6642		Full color (C)	0	0-10000	SYS	Displays the latest pixel count in the printer function, full color mode, toner C and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Latest pixel count/Toner cartridge reference	PRT	6643		Full color (K)	0	0-10000	SYS	Displays the latest pixel count in the printer function, full color mode, toner K and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Latest pixel count/Toner cartridge reference	FAX	6644		Black	0	0-10000	SYS	Displays the latest pixel count in the FAX function, black mode and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (Y)	PPC (color)	6713	0	0-5%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner Y are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (Y)	PPC (color)	6713	1	5.1-10%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner Y are displayed. [Unit: page]	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (Y)	PPC (color)	6713	2	10.1-15%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner Y are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (Y)	PPC (color)	6713	3	15.1-20%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner Y are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (Y)	PPC (color)	6713	4	20.1-25%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner Y are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (Y)	PPC (color)	6713	5	25.1-30%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner Y are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (Y)	PPC (color)	6713	6	30.1-40%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner Y are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (Y)	PPC (color)	6713	7	40.1-60%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner Y are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (Y)	PPC (color)	6713	8	60.1-80%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner Y are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (Y)	PPC (color)	6713	9	80.1-100%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner Y are displayed. [Unit: page]	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (M)	PPC (color)	6714	0	0-5%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner M are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (M)	PPC (color)	6714	1	5.1-10%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner M are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (M)	PPC (color)	6714	2	10.1-15%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner M are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (M)	PPC (color)	6714	3	15.1-20%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner M are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (M)	PPC (color)	6714	4	20.1-25%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner M are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (M)	PPC (color)	6714	5	25.1-30%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner M are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (M)	PPC (color)	6714	6	30.1-40%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner M are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (M)	PPC (color)	6714	7	40.1-60%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner M are displayed. [Unit: page]	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (M)	PPC (color)	6714	8	60.1-80%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner M are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (M)	PPC (color)	6714	9	80.1-100%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner M are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (C)	PPC (color)	6715	0	0-5%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner C are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (C)	PPC (color)	6715	1	5.1-10%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner C are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (C)	PPC (color)	6715	2	10.1-15%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner C are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (C)	PPC (color)	6715	3	15.1-20%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner C are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (C)	PPC (color)	6715	4	20.1-25%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner C are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (C)	PPC (color)	6715	5	25.1-30%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner C are displayed. [Unit: page]	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (C)	PPC (color)	6715	6	30.1-40%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner C are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (C)	PPC (color)	6715	7	40.1-60%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner C are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (C)	PPC (color)	6715	8	60.1-80%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner C are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (C)	PPC (color)	6715	9	80.1-100%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner C are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (K)	PPC (color)	6716	0	0-5%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner K are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (K)	PPC (color)	6716	1	5.1-10%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner K are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (K)	PPC (color)	6716	2	10.1-15%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner K are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (K)	PPC (color)	6716	3	15.1-20%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner K are displayed. [Unit: page]	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (K)	PPC (color)	6716	4	20.1-25%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner K are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (K)	PPC (color)	6716	5	25.1-30%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner K are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (K)	PPC (color)	6716	6	30.1-40%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner K are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (K)	PPC (color)	6716	7	40.1-60%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner K are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (K)	PPC (color)	6716	8	60.1-80%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner K are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (K)	PPC (color)	6716	9	80.1-100%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function, full color mode and toner K are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (Y)	PRT (color)	6717	0	0-5%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner Y are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (Y)	PRT (color)	6717	1	5.1-10%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner Y are displayed. [Unit: page]	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (Y)	PRT (color)	6717	2	10.1-15%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner Y are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (Y)	PRT (color)	6717	3	15.1-20%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner Y are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (Y)	PRT (color)	6717	4	20.1-25%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner Y are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (Y)	PRT (color)	6717	5	25.1-30%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner Y are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (Y)	PRT (color)	6717	6	30.1-40%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner Y are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (Y)	PRT (color)	6717	7	40.1-60%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner Y are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (Y)	PRT (color)	6717	8	60.1-80%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner Y are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (Y)	PRT (color)	6717	9	80.1-100%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner Y are displayed. [Unit: page]	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (M)	PRT (color)	6718	0	0-5%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner M are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (M)	PRT (color)	6718	1	5.1-10%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner M are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (M)	PRT (color)	6718	2	10.1-15%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner M are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (M)	PRT (color)	6718	3	15.1-20%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner M are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (M)	PRT (color)	6718	4	20.1-25%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner M are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (M)	PRT (color)	6718	5	25.1-30%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner M are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (M)	PRT (color)	6718	6	30.1-40%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner M are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (M)	PRT (color)	6718	7	40.1-60%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner M are displayed. [Unit: page]	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (M)	PRT (color)	6718	8	60.1-80%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner M are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (M)	PRT (color)	6718	9	80.1-100%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner M are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (C)	PRT (color)	6719	0	0-5%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner C are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (C)	PRT (color)	6719	1	5.1-10%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner C are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (C)	PRT (color)	6719	2	10.1-15%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner C are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (C)	PRT (color)	6719	3	15.1-20%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner C are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (C)	PRT (color)	6719	4	20.1-25%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner C are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (C)	PRT (color)	6719	5	25.1-30%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner C are displayed. [Unit: page]	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (C)	PRT (color)	6719	6	30.1-40%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner C are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (C)	PRT (color)	6719	7	40.1-60%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner C are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (C)	PRT (color)	6719	8	60.1-80%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner C are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (C)	PRT (color)	6719	9	80.1-100%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner C are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (K)	PRT (color)	6720	0	0-5%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner K are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (K)	PRT (color)	6720	1	5.1-10%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner K are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (K)	PRT (color)	6720	2	10.1-15%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner K are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (K)	PRT (color)	6720	3	15.1-20%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner K are displayed. [Unit: page]	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (K)	PRT (color)	6720	4	20.1-25%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner K are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (K)	PRT (color)	6720	5	25.1-30%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner K are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (K)	PRT (color)	6720	6	30.1-40%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner K are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (K)	PRT (color)	6720	7	40.1-60%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner K are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (K)	PRT (color)	6720	8	60.1-80%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner K are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/full color (K)	PRT (color)	6720	9	80.1-100%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function, full color mode and toner K are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	PPC (black)	6721	0	0-5%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	PPC (black)	6721	1	5.1-10%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function and black mode are displayed. [Unit: page]	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	PPC (black)	6721	2	10.1-15%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	PPC (black)	6721	3	15.1-20%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	PPC (black)	6721	4	20.1-25%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	PPC (black)	6721	5	25.1-30%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	PPC (black)	6721	6	30.1-40%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	PPC (black)	6721	7	40.1-60%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function and black mode are displayed. [Unit: page]	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	PPC (black)	6721	8	60.1-80%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	PPC (black)	6721	9	80.1-100%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	PRT (black)	6722	0	0-5%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	PRT (black)	6722	1	5.1-10%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	PRT (black)	6722	2	10.1-15%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	PRT (black)	6722	3	15.1-20%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function and black mode are displayed. [Unit: page]	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	PRT (black)	6722	4	20.1-25%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	PRT (black)	6722	5	25.1-30%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	PRT (black)	6722	6	30.1-40%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	PRT (black)	6722	7	40.1-60%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	PRT (black)	6722	8	60.1-80%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	PRT (black)	6722	9	80.1-100%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function and black mode are displayed. [Unit: page]	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	FAX (black)	6723	0	0-5%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the FAX function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	FAX (black)	6723	1	5.1-10%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the FAX function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	FAX (black)	6723	2	10.1-15%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the FAX function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	FAX (black)	6723	3	15.1-20%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the FAX function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	FAX (black)	6723	4	20.1-25%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the FAX function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	FAX (black)	6723	5	25.1-30%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the FAX function and black mode are displayed. [Unit: page]	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	FAX (black)	6723	6	30.1-40%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the FAX function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	FAX (black)	6723	7	40.1-60%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the FAX function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	FAX (black)	6723	8	60.1-80%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the FAX function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Pixel count distribution/black	FAX (black)	6723	9	80.1-100%	0	8 digits	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the FAX function and black mode are displayed. [Unit: page]	14	
08	Setting mode	Pixel counter	Counter	Latest pixel count/Toner cartridge reference	PPC	6724		Black	0	0-10000	SYS	Displays the latest pixel count in the copy function, black mode and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Pixel counter	Counter	Latest pixel count/Toner cartridge reference	PRT	6725		Black	0	0-10000	SYS	Displays the latest pixel count in the printer function, black mode and toner cartridge reference. [Unit: 0.01%]	2	
08	Setting mode	Counter				6817		Calibration counter	0	8 digits	SYS	Displays the number of times a calibration chart is printed. When "0" is set for this code, and also when in the line adjustment mode or when the fee charging counter is reset, this counter is reset. The counter value goes up every time a calibration chart is printed, regardless of the setting value of the code 08-9894 (Calibration chart charging method).	1	
08	Setting mode	Counter	Total counter			6900		Thick paper decelerating mode	0	8 digits	M	Displays the current value of the total counter. Counts up when the registration sensor is ON.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	Total counter	Decelerating mode	Photoconductive drum (K)	6905	0	Present number of output pages	0	8 digits	M	Present number of output pages: Displays the accumulated number of sheets that have been printed in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Photoconductive drum (K)	6905	1	Number of output pages at the last replacement	0	8 digits	M	Number of output pages at the last replacement: Displays the total number of output pages in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Photoconductive drum (K)	6905	2	Present drive counts	0	8 digits	M	Present drive counts: Displays the accumulated driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Photoconductive drum (K)	6905	3	Drive counts at the last replacement	0	8 digits	M	Drive counts at the last replacement: Displays the total driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Photoconductive drum (Y)	6906	0	Present number of output pages	0	8 digits	M	Present number of output pages: Displays the accumulated number of sheets that have been printed in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Photoconductive drum (Y)	6906	1	Number of output pages at the last replacement	0	8 digits	M	Number of output pages at the last replacement: Displays the total number of output pages in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Photoconductive drum (Y)	6906	2	Present drive counts	0	8 digits	M	Present drive counts: Displays the accumulated driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset. (1 count = 3 seconds)	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	Total counter	Decelerating mode	Photoconductive drum (Y)	6906	3	Drive counts at the last replacement	0	8 digits	M	Drive counts at the last replacement: Displays the total driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Photoconductive drum (M)	6907	0	Present number of output pages	0	8 digits	M	Present number of output pages: Displays the accumulated number of sheets that have been printed in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Photoconductive drum (M)	6907	1	Number of output pages at the last replacement	0	8 digits	M	Number of output pages at the last replacement: Displays the total number of output pages in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Photoconductive drum (M)	6907	2	Present drive counts	0	8 digits	M	Present drive counts: Displays the accumulated driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Photoconductive drum (M)	6907	3	Drive counts at the last replacement	0	8 digits	M	Drive counts at the last replacement: Displays the total driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Photoconductive drum (C)	6908	0	Present number of output pages	0	8 digits	M	Present number of output pages: Displays the accumulated number of sheets that have been printed in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Photoconductive drum (C)	6908	1	Number of output pages at the last replacement	0	8 digits	M	Number of output pages at the last replacement: Displays the total number of output pages in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	Total counter	Decelerating mode	Photoconductive drum (C)	6908	2	Present drive counts	0	8 digits	M	Present drive counts: Displays the accumulated driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Photoconductive drum (C)	6908	3	Drive counts at the last replacement	0	8 digits	M	Drive counts at the last replacement: Displays the total driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Developer material (K)	6925	0	Present number of output pages	0	8 digits	M	Present number of output pages: Displays the accumulated number of sheets that have been printed in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Developer material (K)	6925	1	Number of output pages at the last replacement	0	8 digits	M	Number of output pages at the last replacement: Displays the total number of output pages in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Developer material (K)	6925	2	Present drive counts	0	8 digits	M	Present drive counts: Displays the accumulated driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Developer material (K)	6925	3	Drive counts at the last replacement	0	8 digits	M	Drive counts at the last replacement: Displays the total driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Developer material (Y)	6926	0	Present number of output pages	0	8 digits	M	Present number of output pages: Displays the accumulated number of sheets that have been printed in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	Total counter	Decelerating mode	Developer material (Y)	6926	1	Number of output pages at the last replacement	0	8 digits	M	Number of output pages at the last replacement: Displays the total number of output pages in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Developer material (Y)	6926	2	Present drive counts	0	8 digits	M	Present drive counts: Displays the accumulated driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Developer material (Y)	6926	3	Drive counts at the last replacement	0	8 digits	M	Drive counts at the last replacement: Displays the total driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Developer material (M)	6927	0	Present number of output pages	0	8 digits	M	Present number of output pages: Displays the accumulated number of sheets that have been printed in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Developer material (M)	6927	1	Number of output pages at the last replacement	0	8 digits	M	Number of output pages at the last replacement: Displays the total number of output pages in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Developer material (M)	6927	2	Present drive counts	0	8 digits	M	Present drive counts: Displays the accumulated driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Developer material (M)	6927	3	Drive counts at the last replacement	0	8 digits	M	Drive counts at the last replacement: Displays the total driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed. (1 count = 3 seconds)	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	Total counter	Decelerating mode	Developer material (C)	6928	0	Present number of output pages	0	8 digits	M	Present number of output pages: Displays the accumulated number of sheets that have been printed in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Developer material (C)	6928	1	Number of output pages at the last replacement	0	8 digits	M	Number of output pages at the last replacement: Displays the total number of output pages in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Developer material (C)	6928	2	Present drive counts	0	8 digits	M	Present drive counts: Displays the accumulated driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Developer material (C)	6928	3	Drive counts at the last replacement	0	8 digits	M	Drive counts at the last replacement: Displays the total driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	1st transfer power supply roller (K)	6929	0	Present number of output pages	0	8 digits	M	Present number of output pages: Displays the accumulated number of sheets that have been printed in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	1st transfer power supply roller (K)	6929	1	Number of output pages at the last replacement	0	8 digits	M	Number of output pages at the last replacement: Displays the total number of output pages in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	1st transfer power supply roller (K)	6929	2	Present drive counts	0	8 digits	M	Present drive counts: Displays the accumulated driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset. (1 count = 3 seconds)	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	Total counter	Decelerating mode	1st transfer power supply roller (K)	6929	3	Drive counts at the last replacement	0	8 digits	M	Drive counts at the last replacement: Displays the total driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	1st transfer power supply roller (Y)	6930	0	Present number of output pages	0	8 digits	M	Present number of output pages: Displays the accumulated number of sheets that have been printed in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	1st transfer power supply roller (Y)	6930	1	Number of output pages at the last replacement	0	8 digits	M	Number of output pages at the last replacement: Displays the total number of output pages in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	1st transfer power supply roller (Y)	6930	2	Present drive counts	0	8 digits	M	Present drive counts: Displays the accumulated driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	1st transfer power supply roller (Y)	6930	3	Drive counts at the last replacement	0	8 digits	M	Drive counts at the last replacement: Displays the total driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	1st transfer power supply roller (M)	6931	0	Present number of output pages	0	8 digits	M	Present number of output pages: Displays the accumulated number of sheets that have been printed in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	1st transfer power supply roller (M)	6931	1	Number of output pages at the last replacement	0	8 digits	M	Number of output pages at the last replacement: Displays the total number of output pages in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	Total counter	Decelerating mode	1st transfer power supply roller (M)	6931	2	Present drive counts	0	8 digits	M	Present drive counts: Displays the accumulated driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	1st transfer power supply roller (M)	6931	3	Drive counts at the last replacement	0	8 digits	M	Drive counts at the last replacement: Displays the total driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	1st transfer power supply roller (C)	6932	0	Present number of output pages	0	8 digits	M	Present number of output pages: Displays the accumulated number of sheets that have been printed in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	1st transfer power supply roller (C)	6932	1	Number of output pages at the last replacement	0	8 digits	M	Number of output pages at the last replacement: Displays the total number of output pages in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	1st transfer power supply roller (C)	6932	2	Present drive counts	0	8 digits	M	Present drive counts: Displays the accumulated driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	1st transfer power supply roller (C)	6932	3	Drive counts at the last replacement	0	8 digits	M	Drive counts at the last replacement: Displays the total driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Transfer belt	6933	0	Present number of output pages	0	8 digits	M	Present number of output pages: Displays the accumulated number of sheets that have been printed in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	Total counter	Decelerating mode	Transfer belt	6933	1	Number of output pages at the last replacement	0	8 digits	M	Number of output pages at the last replacement: Displays the total number of output pages in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Transfer belt	6933	2	Present drive counts	0	8 digits	M	Present drive counts: Displays the accumulated driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	Transfer belt	6933	3	Drive counts at the last replacement	0	8 digits	M	Drive counts at the last replacement: Displays the total driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	2nd transfer roller	6935	0	Present number of output pages	0	8 digits	M	Present number of output pages: Displays the accumulated number of sheets that have been printed in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	2nd transfer roller	6935	1	Number of output pages at the last replacement	0	8 digits	M	Number of output pages at the last replacement: Displays the total number of output pages in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed.	4	
08	Setting mode	Counter	Total counter	Decelerating mode	2nd transfer roller	6935	2	Present drive counts	0	8 digits	M	Present drive counts: Displays the accumulated driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at present. Only "0" is acceptable. When "0" is entered, the counter is reset. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Total counter	Decelerating mode	2nd transfer roller	6935	3	Drive counts at the last replacement	0	8 digits	M	Drive counts at the last replacement: Displays the total driving time in the decelerating mode (mode for thick paper, special paper, and etc.) at the last replacement. "0" is displayed if no replacement was performed. (1 count = 3 seconds)	4	
08	Setting mode	Counter	Counter			6984		Waste toner box nearly-full detection counter	0	8 digits	M	Total count of the values of Y, M, C, and BK of 08-6246 (Counter for period of toner cartridge rotation time)	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	LED gap spacer (K)		6985	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (K)		6985	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	LED gap spacer (K)		6985	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (K)		6985	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (K)		6985	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (K)		6985	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (K)		6985	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (K)		6985	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (K)		6985	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (K)		6986		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	LED gap spacer (Y)		6987	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (Y)		6987	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	LED gap spacer (Y)		6987	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (Y)		6987	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (Y)		6987	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (Y)		6987	5	Driving counts at the last replacement	0	8 digits	M		4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	LED gap spacer (Y)		6987	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (Y)		6987	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (Y)		6987	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (Y)		6988		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	LED gap spacer (M)		6989	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (M)		6989	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	
08	Setting mode	Counter	PM counter	LED gap spacer (M)		6989	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (M)		6989	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (M)		6989	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (M)		6989	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (M)		6989	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (M)		6989	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (M)		6989	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (M)		6990		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	PM counter	LED gap spacer (C)		6991	0	Present number of output pages	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (C)		6991	1	Recommended number of output pages for replacement	Refer to contents	8 digits	M	<Default value> 20ppm/LL20ppm: 56000 25ppm/LL25ppm: 70000	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Counter	PM counter	LED gap spacer (C)		6991	2	Number of output pages at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (C)		6991	3	Present driving counts	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (C)		6991	4	Recommended driving counts to be replaced	225000	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (C)		6991	5	Driving counts at the last replacement	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (C)		6991	6	Present output pages for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (C)		6991	7	Present driving counts for control	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (C)		6991	8	Number of times replaced	0	8 digits	M		4	
08	Setting mode	Counter	PM counter	LED gap spacer (C)		6992		Date of previous replacement	0	8 digits	M		2	
08	Setting mode	Counter	Cleaning	Main charger		6993		Cleaning counter	0	8 digits	M	(Unit: times)	1	
08	Setting mode	Counter	Cleaning	LED head		6994		Cleaning counter	0	8 digits	M	(Unit: times)	1	
08	Setting mode	Counter	Cleaning	LED head		6995		Number of times of cleaning/0 clear	0	8 digits	M	(Unit: times)	1	
08	Setting mode	Counter	Image control	Execution number counter	Full mode execution number	6997	0	Execution number counter of image quality control	0	8 digits	M	Clearing the number to 0 is only available. Unit: Number	4	
08	Setting mode	Counter	Image control	Execution number counter	Short paper and full color mode execution number	6997	1	Execution number counter of image quality control	0	8 digits	M	Clearing the number to 0 is only available. Unit: Number	4	
08	Setting mode	Counter	Image control	Execution number counter	Short paper and monochrome mode execution number	6997	2	Execution number counter of image quality control	0	8 digits	M	Clearing the number to 0 is only available. Unit: Number	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Image Processing	Image	All clearing	Adjustment values of all 05/08 image process codes	7000		PPC related codes	-	-	SYS	Clears the values of the following codes: 05-7025 to 7296 05-7618 to 7987 08-7021 to 7052 08-7601 to 7618 08-8103, 8104	3	
08	Setting mode	Image Processing	Image	All clearing	Gamma correction table	7001		PPC related codes	-	-	SYS	Clears PPC related areas of the HDD.	3	
08	Setting mode	Image Processing	User interface	User custom mode setting	PPC	7034		Black	0	0-2	SYS	0: Unused 1: Text/Photo base 2: Text base	1	Yes
08	Setting Mode	Image Processing	Automatic tone correction data	Last updated date and time	Color PPC	7052	0	Plain paper	0	0-4212312359	SYS	Last updated date and time of automatic tone correction data. YYMMDDHHMM YY: year, MM: month, DD: day, HH: hour, MM: minute	14	Yes
08	Setting Mode	Image Processing	Automatic tone correction data	Last updated date and time	Color PPC	7052	2	Recycled paper	0	0-4212312359	SYS	Last updated date and time of automatic tone correction data. YYMMDDHHMM YY: year, MM: month, DD: day, HH: hour, MM: minute	14	Yes
08	Setting Mode	Image Processing	Automatic tone correction data	Last updated date and time	Color PPC	7052	3	Thick paper1	0	0-4212312359	SYS	Last updated date and time of automatic tone correction data. YYMMDDHHMM YY: year, MM: month, DD: day, HH: hour, MM: minute	14	Yes
08	Setting Mode	Image Processing	Automatic tone correction data	Last updated date and time	Color PPC	7052	4	Thick paper2	0	0-4212312359	SYS	Last updated date and time of automatic tone correction data. YYMMDDHHMM YY: year, MM: month, DD: day, HH: hour, MM: minute	14	Yes
08	Setting Mode	Image Processing	Automatic tone correction data	Last updated date and time	Color PPC	7052	7	Special paper1	0	0-4212312359	SYS	Last updated date and time of automatic tone correction data. YYMMDDHHMM YY: year, MM: month, DD: day, HH: hour, MM: minute	14	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Image Processing	Automatic tone correction data	Last updated date and time	Color PPC	7052	8	Special paper2	0	0-421231235 9	SYS	Last updated date and time of automatic tone correction data. YYMMDDHHMM YY: year, MM: month, DD: day, HH: hour, MM: minute	14	Yes
08	Setting mode	Image Processing	Image	All clearing	Adjustment values of all 05/08 image process codes	7300		NW PRT related codes	-	-	SYS	Clears the values of the following codes: 05-7302 to 7385 05-8001 to 8275 08-8005, 08-8103	3	
08	Setting mode	Image Processing	Image	All clearing	Gamma correction table	7301		NW PRT related codes	-	-	SYS	Clears print related area in HDD.	3	
08	Setting mode	Image Processing	Screen switchover	Printer		7310		600x600 dpi/Black	0	0-1	SYS	0: High screen ruling value 1: Low screen ruling value	1	
08	Setting Mode	Image Processing	Automatic tone correction data	Last updated date and time	NW printer/600dpi	7352	0	Plain paper	0	0-421231235 9	SYS	Last updated date and time of automatic tone correction data. YYMMDDHHMM YY: year, MM: month, DD: day, HH: hour, MM: minute	14	Yes
08	Setting Mode	Image Processing	Automatic tone correction data	Last updated date and time	NW printer/600dpi	7352	2	Recycled paper	0	0-421231235 9	SYS	Last updated date and time of automatic tone correction data. YYMMDDHHMM YY: year, MM: month, DD: day, HH: hour, MM: minute	14	Yes
08	Setting Mode	Image Processing	Automatic tone correction data	Last updated date and time	NW printer/600dpi	7352	3	Thick paper1	0	0-421231235 9	SYS	Last updated date and time of automatic tone correction data. YYMMDDHHMM YY: year, MM: month, DD: day, HH: hour, MM: minute	14	Yes
08	Setting Mode	Image Processing	Automatic tone correction data	Last updated date and time	NW printer/600dpi	7352	4	Thick paper2	0	0-421231235 9	SYS	Last updated date and time of automatic tone correction data. YYMMDDHHMM YY: year, MM: month, DD: day, HH: hour, MM: minute	14	Yes
08	Setting Mode	Image Processing	Automatic tone correction data	Last updated date and time	NW printer/600dpi	7352	7	Special paper1	0	0-421231235 9	SYS	Last updated date and time of automatic tone correction data. YYMMDDHHMM YY: year, MM: month, DD: day, HH: hour, MM: minute	14	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	Image Processing	Automatic tone correction data	Last updated date and time	NW printer/600dpi	7352	8	Special paper2	0	0-4212312359	SYS	Last updated date and time of automatic tone correction data. YYMMDDHHMM YY: year, MM: month, DD: day, HH: hour, MM: minute	14	Yes
08	Setting Mode	Image Processing	Automatic tone correction data	Last updated date and time	NW printer/1200dpi	7354	0	Plain paper	0	0-4212312359	SYS	Last updated date and time of automatic tone correction data. YYMMDDHHMM YY: year, MM: month, DD: day, HH: hour, MM: minute * This code is not supported by LL20/25ppm model.	14	Yes
08	Setting Mode	Image Processing	Automatic tone correction data	Last updated date and time	NW printer/1200dpi	7354	2	Recycled paper	0	0-4212312359	SYS	Last updated date and time of automatic tone correction data. YYMMDDHHMM YY: year, MM: month, DD: day, HH: hour, MM: minute * This code is not supported by LL20/25ppm model.	14	Yes
08	Setting Mode	Image Processing	Automatic tone correction data	Last updated date and time	NW printer/1200dpi	7354	3	Thick paper1	0	0-4212312359	SYS	Last updated date and time of automatic tone correction data. YYMMDDHHMM YY: year, MM: month, DD: day, HH: hour, MM: minute * This code is not supported by LL20/25ppm model.	14	Yes
08	Setting Mode	Image Processing	Automatic tone correction data	Last updated date and time	NW printer/1200dpi	7354	4	Thick paper2	0	0-4212312359	SYS	Last updated date and time of automatic tone correction data. YYMMDDHHMM YY: year, MM: month, DD: day, HH: hour, MM: minute * This code is not supported by LL20/25ppm model.	14	Yes
08	Setting Mode	Image Processing	Automatic tone correction data	Last updated date and time	NW printer/1200dpi	7354	7	Special paper1	0	0-4212312359	SYS	Last updated date and time of automatic tone correction data. YYMMDDHHMM YY: year, MM: month, DD: day, HH: hour, MM: minute * This code is not supported by LL20/25ppm model.	14	Yes
08	Setting Mode	Image Processing	Automatic tone correction data	Last updated date and time	NW printer/1200dpi	7354	8	Special paper2	0	0-4212312359	SYS	Last updated date and time of automatic tone correction data. YYMMDDHHMM YY: year, MM: month, DD: day, HH: hour, MM: minute * This code is not supported by LL20/25ppm model.	14	Yes
08	Setting mode	Image Processing	Image	All clearing	Adjustment values of all 05/08 image process codes	7400		NW SCN related codes	-	-	SYS	Clears the values of the following codes: 05-7400 to 05-7499 05-8300 to 05-8415 08-7401 08-8300 to 08-8304	3	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Image Processing	User interface	User custom mode setting	NW SCN	7401		Black	0	0-3	SYS	0: Unused 1: Black TEXT/PHOTO base 2: Black TEXT base 3: Black PHOTO base	1	Yes
08	Setting mode	Image Processing	Image	All clearing	Adjustment values of all 05 image process codes	7500		FAX related codes	-	-	SYS	Clears the adjustment values of the following codes: 05-7500 to 7599	3	
08	Setting mode	Image Processing	User interface	PPC (color)		7610		Display setting of red seal color mode	Refer to contents	0-1	SYS	0: Display setting OFF 1: Display setting ON <Default value> CND: 1 Others: 0	1	
08	Setting mode	Image Processing	Image	Image repeat gap	Image repeat gap	7612		Image repeat gap	5	0-10	SYS	Unit: mm	1	
08	Setting mode	Image Processing	User interface	User custom mode setting	PPC	7614		Color	0	0-5	SYS	0: Unused 1: TEXT/PHOTO base 2: TEXT base 3: Printed image base 4: Photo base 5: Map base	1	Yes
08	Setting mode	Image Processing	Image	PPC (color)		7617		ADF noise reduction	3	0-3	SYS	Sets the adjustment level for reducing color streaks when the RADF is used. 3: Disabled (default) 2: Noise reduction level - Low 1: Noise reduction level - Middle (recommended) 0: Noise reduction level - High	1	
08	Setting mode	Image Processing	User interface	Color NW printer	Display setting of red seal color mode	8005		Display of check box	Refer to contents	0-1	SYS	0: Display setting OFF 1: Display setting ON <Default value> CND: 1 Others: 0	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	Image Processing	Image quality	TRC correction control		8103		Switchover of enable/disable setting of tone correction	1	0-1	SYS	Switches the enable/disable setting of tone correction with image quality TRC control. Do not change the value as it may decrease the tone correction. 0: Disable 1: Enable	1	
08	Setting mode	Image Processing	Screen switchover	Printer		8110		600x600 dpi/Color	0	0-1	SYS	0: High screen ruling value 1: Low screen ruling value	1	
08	Setting mode	Image Processing	Image	Scan		8300		ADF noise reduction	3	0-3	SYS	Sets the adjustment level for reducing color streaks when the RADF is used. 3: Disabled (default) 2: Noise reduction level - Low 1: Noise reduction level - Middle (recommended) 0: Noise reduction level - High	1	
08	Setting mode	Image Processing	User interface	User custom mode setting	NW SCN	8303		Color	0	0-4	SYS	0: Unused 1: Text/Photo base 2: Text base 3: Photo base 4: e-document base * e-document: This is the mode that corresponds to the law in Japan. This mode is used to clarify area where changes were made with such as a correction fluid.	1	Yes
08	Setting mode	System	General			8504		Feeding method of odd page number in duplex printing (Raw print)	0	0-1	SYS	0: One side 1: Both sides * This code is not supported by LL20/25ppm model.	1	
08	Setting mode	System	General			8506		Forcible mode change in cartridge empty status	0	0-2	SYS	0: SLEEP MODE 1: AUTO POWER SAVE 2: READY	1	
08	Setting mode	System	General	Controlling method for print image position adjustment in secondary scanning direction	PRT	8508		Controlling method for print image position adjustment in secondary scanning direction	2	0-2	SYS	0: No control 1: Cuts the image 2: Shifts the image	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Controlling amount for print image position adjustment in secondary scanning direction	PRT	8509		Controlling amount for print image position adjustment in secondary scanning direction	12	0-36	SYS	0-36	1	
08	Setting mode	System	General	Menu display for controlling print image position adjustment in secondary scanning direction	PRT	8510		Menu display for controlling print image position adjustment in secondary scanning direction	0	0-1	SYS	0: Menu not displayed1: Menu displayed	1	
08	Setting mode	System	General	Wide A4 Mode (for PCL)	PRT	8511		Wide A4 Mode (for PCL)	0	0-1	SYS	0: Disable 1: Enable * This code is not supported by LL20/25ppm model.	1	
08	Setting mode	System	General			8512		Number of jobs in batch processing	10	2-10	SYS	2-10: From 2 to jobs can be specified	1	
08	Setting mode	System	General	Overprint function setting		8513	0	For PDF printing	2	0-2	SYS	Enables or disables the overprinting function setting when printing PDF files. 0: OFF 1: ON 2: ON (only for PDF/X files) * This code is not supported by LL20/25ppm model.	4	
08	Setting mode	System	General	Overprint function setting		8513	1	For PostScript printing	0	0-1	SYS	Enables or disables the overprinting function setting for PostScript printing. 0: OFF 1: ON * This code is not supported by LL20/25ppm model.	4	
08	Setting mode	System	General			8514		Threshold value setting for RIP standard paper judgment	20	5-30	SYS	This code is used for changing the range in which non-standard paper sizes are judged as standard ones. If the page size data are within the standard paper size ± the setting value, the page size is judged as a standard paper size in PS/PDF printing. If the page size data are out of the range, the page size is judged as a non-standard paper size. The unit for the setting value is PS points. 1 PS point is approx. 0.35 mm. * This code is not supported by LL20/25ppm model.	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Outside erase Judgment threshold (Default)		8515		PPC	0	-3-3	SYS	The larger the value, area to be erased increases. The smaller the value, area to be erased decreases.	1	
08	Setting mode	System	General	Outside erase Judgment threshold (Default)		8516		NW SCN	0	-3-3	SYS	The larger the value, area to be erased increases. The smaller the value, area to be erased decreases.	1	
08	Setting mode	System	General			8517		Remote Scan User authentication automatic login	1	0-1	SYS	0: OFF (A user always enters manually (current method))1: ON (Previous authentication information will be used)	1	
08	Setting mode	System	General			8518		Overwriting mode for scanned files	0	0-3	SYS	0: Always OFF 1: Meta Scan function ON / Normal scan function OFF 2: Meta Scan function OFF / Normal scan function ON 3: Always ON	1	
08	Setting mode	System	General			8519		Scan PDF file Paper size	1	0-1	SYS	0: Equivalent to scan image size 1: Fitted into any standard size	1	
08	Setting mode	System	General			8520		Underscore conversion of prohibited character in filename	1	0-1	SYS	Sets the prohibited characters in filename to covert to underscore. 0: \ / > < , " | ? * : ; = [ ] + 1: \ / > < " | ? * : * 0: Existing model standard 1: Windows standard Since setting the value to "1" allows some prohibited characters, filename might not be processed in external application or server.	1	
08	Setting mode	System	General			8521		Switchover of output format of Service Notification attachment	Refer to contents	0-1	SYS	Switches the output format of date in attachment of Service Notification. 0: YYYY.MM.DD 1: YYYY-MM-DDTHH:MM:SS <Default value> NAD: 1 Others: 0	1	
08	Setting Mode	System	User interface	Display setting		8523		Toner near-empty status Message	Refer to contents	0-1	SYS	0: ON 1: OFF <Default value> JPD/NAD/MJD/AUD/ARD: 1 ASD/TWD/CND: 0	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	User interface	Display setting		8524		No paper message	0	0-1	SYS	0: ON 1: OFF	1	
08	Setting mode	System	User interface	Display setting		8525		No paper message (T-LCF left tray)	0	0-1	SYS	0: ON 1: OFF	1	
08	Setting mode	System	User interface			8526		Scan Preview Default setting	0	0-1	SYS	0: OFF 1: ON	1	
08	Setting mode	System	General			8527		Scan Preview Default display type	0	0-1	SYS	0: Page Fit 1: Width Fit	1	
08	Setting mode	System	General	Transfer belt release threshold in ACS	Short size	8529	0	Number of pages released (Copier)	4	0-9	SYS	Sets a threshold (the number of pages) for switching from ACS to the black mode. When the specified number of pages has been printed in the black mode only, the transfer belt is released and ACS shifts to the black mode. [Unit. page]	4	
08	Setting mode	System	General	Transfer belt release threshold in ACS	Short size	8529	1	Number of pages released (Printer)	4	0-9	SYS	Sets a threshold (the number of pages) for switching from ACS to the black mode. When the specified number of pages has been printed in the black mode only, the transfer belt is released and ACS shifts to the black mode. [Unit. page]	4	
08	Setting mode	System	General	Transfer belt release threshold in ACS	Short size	8529	2	Number of pages released (Box print)	4	0-9	SYS	Sets a threshold (the number of pages) for switching from ACS to the black mode. When the specified number of pages has been printed in the black mode only, the transfer belt is released and ACS shifts to the black mode. [Unit. page]	4	
08	Setting mode	System	General			8532		Control panel Brightness level adjustment	4	1-7	SYS	1-7: Brightness level	1	
08	Setting mode	System	General			8533		1st transfer roller contact/release setting when printing thick paper	0	0-2	SYS	When jittering occurs during the printing of thick paper in the black mode with the 2nd transfer roller released from the transfer belt, this setting makes the roller contact. 0: Disabled 1: Enabled only for thick paper and special paper 2: Enabled for all media types	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General			8534		1st transfer roller contact/release setting when printing thick paper (for copy)	0	0-2	SYS	When jittering occurs during the printing of thick paper in the black mode with the 2nd transfer roller released from the transfer belt, this setting makes the roller contact. 0: Disabled 1: Enabled only for thick paper and special paper 2: Enabled for all media types	1	
08	Setting mode	System	General	Sorting method for displaying private print jobs	PRT	8537		Sorting method for displaying private/hold print jobs	0	0-1	SYS	Changes the sorting order for print jobs on the private/hold print list. 0: Descending order 1: Ascending order	1	
08	Setting mode	System	User interface			8538		Toner near empty notification setting	0	0-1	SYS	0: Disabled 1: Enabled	1	
08	Setting mode	System	User interface	Scanning		8540		Date/time format in the Meta Scan XML file	1	0-1	SYS	0: YYYY/MM/DDhh:mm:ss.mmm 1: YYYY-MMDDThh:mm:ss.mmmTZD	1	
08	Setting mode	System	User interface			8543		Switching to the low power consumption mode in the Sleep mode	1	0-1	SYS	0: Not switched 1: Switched under certain conditions	1	Yes
08	Setting mode	System	User interface			8544		Tolerance for switching to Super Sleep mode	5	5-600	SYS	Sets the range of tolerance in which the equipment returns to the Super Sleep mode after the system is started during that mode. Unit: Second	1	Yes
08	Setting mode	System	User interface			8546		Input setting of minus value for image shift when copying	0	0-1	SYS	0: Inputting a minus value is disabled. 1: Inputting a minus value is enabled.	1	Yes
08	Setting mode	System	User interface	Paper feeding		8548		Operation of drawer size change when printing is interrupted by size mismatch	0	0-1	SYS	0: Operation of cassette size change is disabled. 1: Operation of cassette size change is enabled.	1	
08	Setting mode	System	User interface	Counter		8549		Hardware key control when external counter is installed	0	0-1	SYS	0: No control 1: Mode switch key is disabled.	1	
08	Setting Mode	System	Network			8585		Edit setting of e-mail subject	1	0-1	SYS	0: Not allowed 1: Allowed	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	Network			8586		Addition of date and time to email subject	1	0-1	SYS	0: Not added 1: Added	1	
08	Setting Mode	System	Network			8587		Character string of email subject	0	0-1	SYS	Switches the default character string of subject. 0: Character string at the shipment 1: Character string specified by users	1	
08	Setting Mode	System	User control	LDAP authentication	Attribute value setting	8592		Sender address	mail	-	SYS	Sets the default attribute value of sender address. Maximum 34 characters (ASCII).	11	
08	Setting Mode	System	User control	LDAP authentication	Attribute value setting	8593		Sender name	uid	-	SYS	Sets the default attribute value of sender name. Maximum 34 characters (ASCII).	11	
08	Setting Mode	System	User interface			8597		Automatic update of private/hold print job list	0	0-1	SYS	0: Disabled 1: Enabled	1	
08	Setting mode	System	User interface			8598		Template icon layout on the control panel	0	0-1	SYS	0: Pattern 1 (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) 1: Pattern 2 (1) (2) (9) (10) (3) (4) (11) (12) (5) (6) (13) (14) (7) (8) (15) (16)	1	
08	Setting Mode	System	General	Outside erase		8600		Change of default value	0	0-1	SYS	0: Disabled 1: Enabled	1	Yes
08	Setting Mode	System	User interface			8603		Special usage of external options I/F	0	0-2	SYS	0: None 1: Usage 1 2: Usage 2	1	
08	Setting Mode	System	Network	Prioritized authentication server		8608		Windows	0	0-100	SYS	Sets the prioritized authentication server to be searched (0 to 100). The servers displayed on the screen accessed by TopAccess -> Administration -> Maintenance -> Directory Service are numbered beginning at the top (0 to 100).	1	Yes
08	Setting Mode	System	Network	Prioritized authentication server		8609		LDAP	0	0-100	SYS	Sets the prioritized authentication server to be searched (0 to 100). The servers displayed on the screen accessed by TopAccess -> Administration -> Maintenance -> Directory Service are numbered beginning at the top (0 to 100).	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	Network	Prioritized authentication server		8610		Card	0	0-100	SYS	Sets the prioritized authentication server to be searched (0 to 100). The servers displayed on the screen accessed by TopAccess -> Administration -> Maintenance -> Directory Service are numbered beginning at the top (0 to 100).	1	Yes
08	Setting Mode	System	User interface			8622		Date and time addition setting to file name of scan to file/e-mail	1	0-1	SYS	0: Not added 1: Added	1	
08	Setting Mode	System	General			8623	0	RIP function setting	1	0-1	SYS	Enables/Disables the function related to Excel boarder rendering of PCL6. The function is to prevent missing lines when scaling down and inconsistent line width when scaling up. 0: Disabled (No correction. Compliant with PCL6 language) 1: Enabled	4	
08	Setting Mode	System	User interface			8624		Switchover of filename display method	3	0-3	SYS	Switches the display method of filename. 0: Displays the filename from the beginning 1: Displays the trailing characters 2: Displays the beginning and trailing characters 3: Displays the filename without abbreviation	1	Yes
08	Setting mode	System	User interface			8628		Job operation on the COPY screen when the coin controller is connected	0	0-1	SYS	This setting enables user to move from the COPY screen to JOB STATUS screen, and then operate jobs during printing when the coin controller is connected. This code is valid when the value of 08-9016 is "1". 0: Disabled 1: Enabled	1	
08	Setting Mode	System	FAX			8631		Filename creation at fax reception and forwarding	0	0-1	SYS	0: Use address name (family-name/first-name) as filename if multiple names are found by address book search of TSI (sender information). 1: Use address name (family-name/first-name) as filename only when single name is found by address book search of TSI (sender information).	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	User interface			8640		Job build operation when the coin controller is connected	0	0-1	SYS	This setting enables user to use the job build function when the coin controller is connected. This code is valid when the value of 08-9016 is "1". 0: Disabled 1: Enabled	1	
08	Setting Mode	System	General			8641		Notification setting for job cancel	1	0-1	SYS	Sets the notification setting for job cancel. This setting is effective for the following error codes: 1CC0, 2BB0, 2CC0, 2DC0, 2EC0 0: Disabled (Not notified) 1: Enabled (Notified)	1	
08	Setting Mode	System	User interface	Card reading device	LDAP authentication	8642		LDAP attribute name settings 2	eBMUse rCard	-	SYS	Maximum 32 characters (ASCII).	11	
08	Setting Mode	System	User interface	Card reading device	LDAP authentication	8643		LDAP attribute name settings 3	eBMUse rCard	-	SYS	Maximum 32 characters (ASCII).	11	
08	Setting Mode	System	User interface	Card reading device	LDAP authentication	8644		LDAP attribute name settings 4	eBMUse rCard	-	SYS	Maximum 32 characters (ASCII).	11	
08	Setting Mode	System	User interface	Card reading device	LDAP authentication	8645		LDAP attribute name settings 5	eBMUse rCard	-	SYS	Maximum 32 characters (ASCII).	11	
08	Setting Mode	System	User interface	Card reading device	LDAP authentication	8646		LDAP attribute name settings 6	eBMUse rCard	-	SYS	Maximum 32 characters (ASCII).	11	
08	Setting Mode	System	User interface	Card reading device	LDAP authentication	8647		LDAP attribute name settings 7	eBMUse rCard	-	SYS	Maximum 32 characters (ASCII).	11	
08	Setting Mode	System	User interface	Card reading device	LDAP authentication	8648		LDAP attribute name settings 8	eBMUse rCard	-	SYS	Maximum 32 characters (ASCII).	11	
08	Setting Mode	System	User interface	Card reading device	LDAP authentication	8649		LDAP attribute name settings 9	eBMUse rCard	-	SYS	Maximum 32 characters (ASCII).	11	
08	Setting Mode	System	User interface	Card reading device	LDAP authentication	8650		LDAP attribute name settings 10	eBMUse rCard	-	SYS	Maximum 32 characters (ASCII).	11	
08	Setting Mode	System	User interface	Card reading device	LDAP authentication	8651		LDAP attribute name settings 11	eBMUse rCard	-	SYS	Maximum 32 characters (ASCII).	11	
08	Setting Mode	System	User interface	Card reading device	LDAP authentication	8652		LDAP attribute name settings 12	eBMUse rCard	-	SYS	Maximum 32 characters (ASCII).	11	
08	Setting Mode	System	User interface	Card reading device	LDAP authentication	8653		LDAP attribute name settings 13	eBMUse rCard	-	SYS	Maximum 32 characters (ASCII).	11	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	User interface	Card reading device	LDAP authentication	8654		LDAP attribute name settings 14	eBMUse rCard	-	SYS	Maximum 32 characters (ASCII).	11	
08	Setting Mode	System	User interface	Card reading device	LDAP authentication	8655		LDAP attribute name settings 15	eBMUse rCard	-	SYS	Maximum 32 characters (ASCII).	11	
08	Setting Mode	System	User interface	Card reading device	LDAP authentication	8656		LDAP attribute name settings 16	eBMUse rCard	-	SYS	Maximum 32 characters (ASCII).	11	
08	Setting Mode	System	Sound			8657		Placing original	0	0-1	SYS	0: OFF 1: ON	1	Yes
08	Setting Mode	System	Sound			8658		Pressing [INTERRUPT] button	0	0-1	SYS	0: OFF 1: ON	1	Yes
08	Setting Mode	System	Sound			8659		Switchover of function	0	0-1	SYS	0: OFF 1: ON	1	Yes
08	Setting Mode	System	Sound			8660		Completion of job (except for FAX)	0	0-1	SYS	0: OFF 1: ON	1	Yes
08	Setting Mode	System	Sound			8661		End of warming-up/prewarming/sleep	0	0-1	SYS	0: OFF 1: ON	1	Yes
08	Setting Mode	System	Sound			8662		Job interrupt (out of paper)	0	0-1	SYS	0: OFF 1: ON	1	Yes
08	Setting Mode	System	Sound			8663		Fax transmission error	0	0-1	SYS	0: OFF 1: ON	1	Yes
08	Setting Mode	System	Sound	Hours for mute		8664	0	Enable/Disable setting of mute	0	0-1	SYS	0: Mute is disabled 1: Mute is enabled	4	Yes
08	Setting Mode	System	Sound	Hours for mute		8664	1	Starting time	0	0-2359	SYS	(HHMM)	4	Yes
08	Setting Mode	System	Sound	Hours for mute		8664	2	Ending time	0	0-2359	SYS	(HHMM)	4	Yes
08	Setting Mode	System	General			8670		e-Filing print setting when key counter/totalizer is installed	0	0-1	SYS	0: Not allowed 1: Allowed	1	
08	Setting Mode	System	Network	Number of retry for file transfer		8671	0	FTP	0	0-10	SYS	The transmission may succeed when the number of retry increases. However, it takes longer time to complete the job.	4	
08	Setting Mode	System	Network	Number of retry for file transfer		8671	1	SMB	0	0-10	SYS	The transmission may succeed when the number of retry increases. However, it takes longer time to complete the job.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	Network	Number of retry for file transfer		8671	2	NetWare	0	0-10	SYS	The transmission may succeed when the number of retry increases. However, it takes longer time to complete the job.	4	
08	Setting Mode	System	Network	Retry interval for file transfer		8672	0	FTP	0	0-999	SYS	The transmission may succeed when the retry interval becomes longer. However, it takes longer time to complete the job. (Unit: sec.)	4	
08	Setting Mode	System	Network	Retry interval for file transfer		8672	1	SMB	0	0-999	SYS	The transmission may succeed when the retry interval becomes longer. However, it takes longer time to complete the job. (Unit: sec.)	4	
08	Setting Mode	System	Network	Retry interval for file transfer		8672	2	NetWare	0	0-999	SYS	The transmission may succeed when the retry interval becomes longer. However, it takes longer time to complete the job. (Unit: sec.)	4	
08	Setting Mode	System	General			8673		Disclosure of image log function	0	0-1	SSDK	0: Not opened to public 1: Opened to public * This code is valid only when HDD is installed.	1	
08	Setting Mode	System	General			8674		Prohibition of transition to sleep mode during network initialization	0	0-1	SYS	0: Allowed 1: Prohibited	1	
08	Setting Mode	System	FAX			8700		Secret reception setting	0	0-2	SYS	When the value of 08-8924 is "0", the value of this code can be set to "1" or "2". 0: Always Off 1: Always On 2. Scheduled reception	1	
08	Setting Mode	System	User interface			8704		Email/FAX address restriction	0	0-1	SYS	0: No restriction 1: Search for external LDAP only Use this code to restrict address of emal/fax to specified LDAP server. If the value of this code is set to "1", the addresses of emal/fax are restricted to the LDAP server specified with TopAccess, and the direct input of addresses and selecting addresses from the local address book are not available. If the value of this code is set to "1", this setting is given priority over the setting value of 08-9299, 08-3848, 08-3849.	1	

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05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	User interface			8709		Display setting of Service Notification	Refer to contents	0-1	SYS	Sets whether the [SERVICE NOTIFICATION] button is displayed on the screen accessed by [USER FUNCTIONS] -> [ADMIN] -> [SERVICE]. 0: Disabled 1: Enabled <Default value> JPD/NAD/MJD: 1 Others: 0	1	Yes
08	Setting Mode	System	Scanning			8710		Designation of language code for ScanToFTP	0	0-2	SYS	0: Automatic selection 1: UTF8 2: Shift-JIS	1	
08	Setting Mode	System	General	Hardcopy security printing		8711		Enable/Disable setting of watermark information tracking application	1	0-1	SYS	Set this code to "1: Disabled" to disable the watermark information tracking application at hardcopy security printing. When this code is set to "1: Disabled", a license error occurs even if the license for hardcopy security printing is enabled. If this error occurs, hardcopy security printing is available, but copy prohibition function and tracking application are not available. 0: Disabled 1: Enabled	1	
08	Setting Mode	System	User interface			8712		Display setting of the drawer setting button	1	0-1	SYS	Sets whether the drawer button in USER FUNCTIONS is displayed or not. 0: Not displayed 1: Displayed	1	Yes
08	Setting Mode	System	User interface			8713		Setting of web upload/web printing	1	0-1	SYS	Sets whether the web upload and web printing function is enabled or disabled. - Web upload is a function which uploads the image data created on the equipment to the web page displayed on EWB. - Web printing is a function which prints the web page displayed on EWB or the PDF file included in the web page displayed on EWB. 0: Disabled 1: Enabled	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	User interface	Service notification information		8715		Password for zip file with password	#104810 9	-	SYS	Password for zip file with password of service notification information. Minimum number of digits: 0, maximum number of digits: 20 Available character: alphanumeric characters and symbols	11	
08	Setting Mode	System	General			8717		Shutdown when Super Sleep is enabled	0	0-1	SYS	Sets the operation when the power button is pressed for a few seconds if Super Sleep is enabled. 0: Hibernation 1: Super Sleep	1	Yes
08	Setting Mode	System	User interface			8718		Selection for caching the screen of control panel at start-up	0	0-17	SYS	Use this code to shorten the time to switch the function on the control panel for the first time immediately after start-up. However, the start-up time becomes longer (about 1 to 3 seconds per screen). When selecting multiple screens, enter the total value. 0: Disabled 1: Copy 16: Fax	1	
08	Setting Mode	System	Network			8719		MTU setting of network communication	1500	576-1500	NIC	Normally there's no need to change the MTU value. However, set the proper MTU value when MFP is connected to the Internet using broadband router and so on.	12	
08	Setting Mode	System	User interface			8720		Department code display with asterisk	0	0-1	SYS	0: Displays department code with asterisk when inputting it. 1: Displays department code as it is when inputting it.	1	Yes
08	Setting Mode	System	FAX			8721		Automatic FAX sending at AutoClear when scanning original put on the glass	0	0-1	SYS	Sets whether the job is sent or canceled when AutoClear is executed on the interruption screen to confirm the next original displayed after scanning the original put on the glass. Use this code to cancel job when the equipment is left unattended while the interruption screen is displayed. 0: Sends job 1: Cancels job	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	User interface			8722		Display method of "Cannot find the Home Directory" on the control panel	0	0-1	SYS	Sets the display method of error if the Home Directory for user cannot be obtained from the server when setting the Home Directory for scanning. Use this code to disable the pop-up display when the Home Directory cannot be obtained depending on the user. 0: Displays the pop-up dialogue when user logs in 1: Displays the message in the guidance area when the Scan to File screen is displayed	1	Yes
08	Setting Mode	System	User interface			8723		Pop-up display of logging out of user authentication and department management on the control panel	1	0-1	SYS	Sets whether the pop-up dialog of confirmation for logging out is displayed when user or department logs out by pressing [FUNCTION CLEAR] button twice or pressing [ACCESS] button. 0: Logs out without displaying pop-up dialog 1: Displays pop-up dialog when logging out	1	Yes
08	Setting Mode	System	User interface			8724		Display setting of Edit From Address button for Scan to email	1	0-1	SYS	0: Not displayed (From Address cannot be edited) 1: Displayed (From Address can be edited)	1	Yes
08	Setting Mode	System	User interface			8725		Display setting of [USER FUNCTIONS]-> CHANGE LANGUAGE button	1	0-1	SYS	Sets whether the [CHANGE LANGUAGE] button accessed from [USER FUNCTIONS] button is displayed or not. Use this code to prohibit users from changing the language displayed on the control panel. Administrators can change the language. 0: Not displayed 1: Displayed	1	Yes
08	Setting Mode	System	General			8726		Job deletion on the Job Status screen	0	0-1	SYS	Use this code to enable the job deletion on the [Job Status] screen. When "3: High level" is set for code 08-8911, be sure to disable this setting. 0: Disabled 1: Enabled	1	Yes
08	Setting Mode	System	User interface	Card reading device		8727		Display of dedicated screen for card authentication	0	0-1	SYS	Switches whether the message to hold a card over the card reader is displayed on the login screen when the card authentication is enabled. 0: Disabled 1: Enabled	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	Forced printing of user name			8728	0	Display/Non-display setting in TopAccess	0	0-1	SYS	0: Disabled 1: Enabled * This code is not supported by LL20/25ppm model.	4	
08	Setting Mode	System	Forced printing of user name			8728	1	Enable/Disable setting of forced printing	0	0-1	SYS	Normally this setting is made in TopAccess. 0: Disabled 1: Enabled * This code is not supported by LL20/25ppm model.	4	
08	Setting Mode	System	Forced printing of user name			8728	2	Prioritizing printer driver setting	1	0-1	SYS	Normally this setting is made in TopAccess. 0: Disabled 1: Enabled * This code is not supported by LL20/25ppm model.	4	
08	Setting Mode	System	Forced printing of user name			8728	3	Application to network fax job	0	0-1	SYS	Normally this setting is made in TopAccess. 0: Disabled 1: Enabled * This code is not supported by LL20/25ppm model.	4	
08	Setting Mode	System	Forced printing of user name			8728	4	Enable/Disable setting of prefix/suffix	0	0-1	SYS	Normally this setting is made in TopAccess. 0: Disabled 1: Enabled * This code is not supported by LL20/25ppm model.	4	
08	Setting Mode	System	Forced printing of user name			8728	6	White background setting	1	0-1	SYS	Normally this setting is made in TopAccess. 0: Disabled 1: Enabled * This code is not supported by LL20/25ppm model.	4	
08	Setting Mode	System	Forced printing of user name			8728	7	Print position	0	0-3	SYS	Normally this setting is made in TopAccess. 0: Bottom left 1: Top left 2: Bottom right 3: Top right * This code is not supported by LL20/25ppm model.	4	
08	Setting Mode	System	Forced printing of user name			8728	8	Fine adjustment of print position (X)	3	0-100	SYS	Adjusts the print position in X direction. The print position shifts toward inside of original when the value increases. Unit: pt. 1pt = 0.35mm. * This code is not supported by LL20/25ppm model.	4	
08	Setting Mode	System	Forced printing of user name			8728	9	Fine adjustment of print position (Y)	3	0-100	SYS	Adjusts the print position in Y direction. The print position shifts toward inside of original when the value increases. Unit: pt. 1pt = 0.35mm. * This code is not supported by LL20/25ppm model.	4	
08	Setting Mode	System	Forced printing of user name			8728	10	Font setting	0	0-9	SYS	Normally this setting is made in TopAccess. 0: Helvetica 1: AlbertusMT 2: Chicago 3: Eurostile 4: Geneva 5: GillSans 6: LetterGothic 7: Monaco 8: Taffy 9: TimesNewRomanPSMT * This code is not supported by LL20/25ppm model.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	Forced printing of user name			8728	11	Font size setting	8	6-16	SYS	Normally this setting is made in TopAccess. 6-16pt. * This code is not supported by LL20/25ppm model.	4	
08	Setting Mode	System	Forced printing of user name			8728	12	Font color setting	0	0-7	SYS	Normally this setting is made in TopAccess. 0: Black 1: Gray 2: Red 3: Green 4: Blue 5: Light red 6: Light green 7: Light blue * This code is not supported by LL20/25ppm model.	4	
08	Setting Mode	System	Forced printing of user name			8728	13	Density setting of light font color	40	10-90	SYS	Sets the density when the font color is set to gray, light red, light green, or light blue. * This code is not supported by LL20/25ppm model.	4	
08	Setting Mode	System	Forced printing of user name			8729		Prefix setting	Printed by	-	SYS	Normally this setting is made in TopAccess. Maximum 64 characters. * This code is not supported by LL20/25ppm model.	11	
08	Setting Mode	System	Forced printing of user name			8730		Suffix setting	-	-	SYS	Normally this setting is made in TopAccess. Maximum 64 characters. * This code is not supported by LL20/25ppm model.	11	
08	Setting Mode	System	User interface			8732		Default screen for Menu	0	0-1	SYS	0: My Menu (Default) 1: Public Menu	1	
08	Setting Mode	System	Scanning			8735		Sending setting of ScanToURL	0	0-1	SYS	0: Disabled 1: Enabled * This code is valid only when HDD is installed.	1	
08	Setting Mode	System	Scanning			8736		Maximum size for ScanToURL attachment	5	0-100	SYS	Sets the maximum size of attachment that can be sent with ScanToURL. 0: Always sends URL 1-100: Maximum size (MB)	1	
08	Setting Mode	System	General			8737		Restart behavior when out of paper is solved (bypass feeding)	0	0-1	SYS	0: Automatically restarted 1: Restarted by pressing the [START] button	1	
08	Setting Mode	System	User interface	Display setting		8738		E-mail address direct input button	1	0-1	SYS	Switches the display setting of the [INPUT @] button. 0: Not displayed 1: Displayed	1	Yes
08	Setting Mode	System	User interface	Display setting		8744		Switchover of pop-up display during scanning	1	0-1	SYS	Switches the pop-up display during scanning 0: Not displayed 1: Displayed	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	User interface			8745		Enable/Disable setting of EWB history	0	0-1	SYS	Sets whether part of the cookie, password, and form data of user who logs in to EWB is saved or not. 0: Disabled 1: Enabled	1	
08	Setting Mode	System	Network			8746		Port number setting of destination 10 for sending trap	162	1-65535	NIC	Sets the port number of destination 10 for sending SNMP trap. If the port is used when using the real time log notification function, change the port number.	12	
08	Setting Mode	System	User interface			8747		Switchover of screen transition at self-copying	0	0-1	SYS	Switches screen transition at job end of self-copying. 0: Traditional 1: New	1	
08	Setting Mode	System	User interface			8748		Input of department code at user authentication	0	0-1	SYS	0: Not required 1: Required	1	
08	Setting Mode	System	Network			8749		User authentication by logon information to domain (external authentication)	0	0-1	SYS	0: Disabled 1: Enabled * When this code is enabled, 08-8774 is automatically disabled.	1	
08	Setting Mode	System	General			8750		Time to wait for print image	0	0-1	SYS	Sets whether the drum idling is executed or not when the waiting for print image occurred. If there is the stain on the back side of the paper, set the value of this code to "1". When the value is set to "1", the number of times the equipment stops printing may increase. 0: Waiting is enabled (8 sec.) 1: Waiting is disabled (0 sec.)	1	
08	Setting Mode	System	Maintenan ce			8752		Switchover of display of notice on the control panel when the time to replace the unit has come	0	0-1	SYS	Specifies the contents of the message displayed on the control panel when the time to replace the unit has come. 0: Contact the service engineer for replacement (SRU) 1: Replacement by user (CRU)	1	Yes
08	Setting Mode	System	General			8754		Output of error sheet at reception of PDL data not supported	1	0-1	SYS	0: Disabled 1: Enabled * This code is not supported by 20/25ppm model.	1	
08	Setting Mode	System	Maintenan ce	Notification of remaining amount of toner		8755		Enable/Disable setting	0	0-1	SYS	0: Disabled 1: Enabled	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	Maintenan ce	Notification of remaining amount of toner		8756	0	Remaining amount at first notification	25	0-100	SYS	0 to 100%	4	Yes
08	Setting Mode	System	Maintenan ce	Notification of remaining amount of toner		8756	1	Notification interval	10	1-25	SYS	1 to 25%	4	Yes
08	Setting Mode	System	User interface	Display setting	LED head/Main charger	8757		Cleaning button	2	0-2	SYS	0: Not displayed 1: Displayed (USER FUNCTIONS -> USER) 2: Displayed (USER FUNCTIONS -> ADMIN)	1	Yes
08	Setting Mode	System	User interface	Card reading device		8758		Overwriting of login at authentication	0	0-1	SYS	Switches the enable/disable setting for the function to overwrite the login information at the card authentication. 0: Disabled 1: Enabled	1	Yes
08	Setting Mode	System	Option			8759		Batch setting for HDD installation	-	-	SYS	Executes the batch setting for the optional HDD when installing it. * This code is not supported by LL20/25ppm model.	3	
08	Setting Mode	System	Option			8760		Batch setting for disconnecting HDD	-	-	SYS	When disconnecting HDD, revert the settings to the default settings. * This code is not supported by LL20/25ppm model.	3	
08	Setting Mode	System	General			8761		Retention of print (spooling) data	0	0-1	SYS	Use this code to retain and obtain the print data (spooling data) if problem occurs. After obtaining the data, be sure to disable the setting. 0: Disabled (print data is deleted) 1: Enabled (print data is retained)	1	Yes
08	Setting Mode	System	Maintenan ce	Display of remaining amount of toner (for RDMS/MMDT)		8762	0	K	0	0-100	SYS	0 to 100%	14	
08	Setting Mode	System	Maintenan ce	Display of remaining amount of toner (for RDMS/MMDT)		8762	1	C	0	0-100	SYS	0 to 100%	14	
08	Setting Mode	System	Maintenan ce	Display of remaining amount of toner (for RDMS/MMDT)		8762	2	M	0	0-100	SYS	0 to 100%	14	
08	Setting Mode	System	Maintenan ce	Display of remaining amount of toner (for RDMS/MMDT)		8762	3	Y	0	0-100	SYS	0 to 100%	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	User interface			8763		Notification setting for thick paper	1	0-1	SYS	If thick paper is set to the 1st drawer, this code sets whether the notification to set the thick paper to the drawer is displayed or not when the drawer is opened. 0: Not displayed 1: Displayed	1	Yes
08	Setting mode	System	Network			8771		Account setting for access to Home Directory	0	0-1	SYS	0: Setting of Remote1 is used 1: Setting of Remote1 and Remote2 is used	1	
08	Setting mode	System	Network			8774		Password authentication of print job	0	0-1	SYS	Sets whether the user authentication for network printing/FAX/InternetFAX using the user information and password input on the printer driver is enabled or disabled. When this setting is enabled, the setting of 08-8749 is automatically disabled. 0: Disabled 1: Enabled	1	
08	Setting mode	System	Network	PIN code		8775		PIN code authentication setting at user authentication	0	0-2	SYS	0: Disabled 1: PIN code 2: Card+PIN code	1	
08	Setting mode	System	Network	PIN code		8776		Logging setting of PIN code	0	0-1	SYS	0: Disabled 1: Enabled	1	
08	Setting mode	System	Network	PIN code		8777		Attribute value setting of LDAP PIN authentication server 1	eBMUse rPIN	-	SYS	Attribute name of PIN code Maximum 32 characters (ASCII).	11	
08	Setting mode	System	Network	PIN code		8778		Attribute value setting of LDAP PIN authentication server 2	eBMUse rPIN	-	SYS	Attribute name of PIN code Maximum 32 characters (ASCII).	11	
08	Setting mode	System	Network	PIN code		8779		Attribute value setting of LDAP PIN authentication server 3	eBMUse rPIN	-	SYS	Attribute name of PIN code Maximum 32 characters (ASCII).	11	
08	Setting mode	System	Network	PIN code		8780		Prioritized authentication server	1	1-3	SYS	Sets the prioritized authentication server to be searched.	1	
08	Setting mode	System	User interface	Display setting		8781		Default setting of print screen when USB is inserted	0	0-1	SYS	0: Disabled (The setting of 08-9236 is used) 1: USB print screen	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Interval setting	Transition to Super Sleep	8782		For fax	15	15-600	SYS	Sets the interval to shift to Super Sleep again after recovery from Super Sleep. (Unit: seconds)	1	Yes
08	Setting mode	System	General			8783		Switchover of document sorting order of e-Filing Box	1	0-1	SYS	0: Sorted by saved date 1: Sorted by document name	1	
08	Setting mode	System	User interface			8785		Display/Non-display of pop-up for card authentication	Refer to contents	0-1	SYS	Sets whether the pop-up is displayed or not after the success of card authentication. This code is effective when the value of 08-8727 is "1" (Enabled). 0: Does not display pop-up 1: Displays pop-up <Default value> JPD: 0 Others: 1	1	
08	Setting mode	System	User interface	Default keyboard setting for inputting user name		8786	0	Japanese	3	0-4	SYS	0: Romaji 1: Hiragana 2: Katakana (one-byte) 3: Alphabetical character (one-byte) 4: Symbol (one-byte)	4	
08	Setting mode	System	User interface	Default keyboard setting for inputting user name		8786	1	Chinese	0	0-2	SYS	0: Alphabetical character (one-byte) 1: Pinyin 2: Symbol (one-byte)	4	
08	Setting Mode	System	Network			8788		Detection interval when authentication server is down	60	1-1440	SSDK	Sets the interval to access the authentication server again after the detection of server down. 1-1440 (min.)	1	
08	Setting mode	System	User interface			8789		Display/Non-display of pop-up for automatic output of jobs	1	0-1	SYS	Sets whether the pop-up is displayed or not when jobs are automatically released after user authentication. This code is effective when the value of 08-8915 is "1" (Enabled). 0: Does not display pop-up 1: Displays pop-up	1	
08	Setting Mode	System	Network			8790		Switchover of server when authentication server is down	0	0-1	SSDK	Enables/disables the function that switches the access to another authentication server when it is detected that the authentication server is down. 0: Disabled 1: Enabled	1	
08	Setting Mode	System	Network			8792		Format of host name used for Scan To URL	0	0-2	SYS	0: IP address 1: Host name (FQDN) 2: NetBIOS name	1	
08	Setting Mode	System	User interface			8795		Default setting of duplex mode for printer driver	Refer to contents	0-1	SYS	0: Single-sided 1: Duplex <Default value> JPD: 0 Others: 1	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Maintenan ce	General		8796		Performing of special reboot	0	0-1	SYS	0:Disabled 1:Enabled	1	Yes
08	Setting mode	System	Maintenan ce	General		8797		Reboot setting for resource check	0	0-1	SYS	0: OFF 1: ON	1	Yes
08	Setting mode	System	Network	IEEE802.1X		8800		Enable/Disable setting	2	1-2	NIC	1: Enabled 2: Disabled	12	
08	Setting mode	System	Network	IPsec		8802		Enable/Disable setting	2	1-2	NIC	1: Enabled 2: Disabled	12	
08	Setting mode	System	Network	SNMPv3		8803		Enable/Disable setting	2	1-2	NIC	1: Enabled 2: Disabled	12	
08	Setting mode	System	Network	IP Filtering		8804		Enable/Disable setting	2	1-2	SYS	1: Enabled 2: Disabled	1	
08	Setting mode	System	Network	MAC Address Filtering		8805		Enable/Disable setting	2	1-2	SYS	1: Enabled 2: Disabled	1	
08	Setting mode	System	Network	IPsec	NAT-Traversal	8820		Enable/Disable setting	1	1-3	NIC	1: Default (IKEv1: Disabled, IKEv2: Enabled) 2: Enable IKEv1 & IKEv2 3: Disable IKEv1 & IKEv2	12	
08	Setting mode	System	Network	IPsec	CRL	8821		Enable/Disable setting	2	1-2	NIC	1: Enable CRL 2: Disable CRL	12	
08	Setting mode	System	Network			8824		FTP client mode	0	0-2	NIC	Sets the FTP transfer mode when FTP is selected for "FILE" to save the scanned data. 0: Automatic 1: Passive mode 2: Active mode	12	
08	Setting mode	System	Network			8825		Sending of host announcement in Super Sleep mode	1	1-2	NIC	Since MFP is deleted from the master browser of Windows network if MFP is in the Super Sleep mode for 36 minutes or more, enable this setting to always display MFP in the browse list. 1: Enabled 2: Disabled	12	
08	Setting mode	System	Network	Dynamic update of DNS server		8826		Enable/Disable setting	1	1-2	NIC	Sets whether the function that gets the secondary DNS server to work as the primary DNS server temporarily is enabled or not when the primary DNS server is not available. 1: Enabled 2: Disabled	12	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Network	Dynamic update of DNS server		8827		Operating interval	60	1-1440	NIC	Sets the operating interval of dynamic update. 1-1440 (min.)	12	Yes
08	Setting mode	System	General			8828		Pop-up setting for department code in the printer driver	0	0-1	SYS	Sets the condition to display the pop-up for entering a department code in a printer driver. To display the pop-up when the HDD is not installed, set the value of this code to "1", and check that the value of 08-9121 is "2". 0: Not displayed 1: Displayed when the value of 08-9121 is "2". * This setting is disabled when the HDD is installed.	1	
08	Setting mode	System	Network			8830	0	Beep setting to identify printer for AirPrint IPP	1	0-1	SYS	Sets whether the beep for identifying printer is emitted or not when IPP is used for AirPrint. 0: No beep 1: Emits beep	4	
08	Setting mode	System	Network			8830	1	Blinking setting to identify printer for AirPrint IPP	1	0-1	SYS	Sets whether the blinking for identifying printer is enabled or not when IPP is used for AirPrint. 0: Disabled (No blinking) 1: Enabled	4	
08	Setting mode	System	Network			8830	2	AirPrint swith of a part of pdf document under iOS printing	1	1-2	SYS	AirPrint swith of a part of pdf document under iOS printing 1. Apple mode - print PDF with A4/Lt size(AirPrint spec compatible) 2. Toshiba mode - print PDF with original PDF size (AirPrint spec uncompatible)	4	
08	Setting mode	System	Network			8831		Time-out period for EWB network connection	60	1-300	SYS	1 to 300 (sec.)	1	
08	Setting mode	System	Network			8833		SMB server protocol	1	1-2	NIC	1: SMB1.0 2: SMB2.0	12	
08	Setting mode	System	Network			8835		Link down detection of network cable	1	0-1	NIC	0: Disabled 1: Enabled	12	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Network			8836		Time-out period for SMB client connection	30	1-180	NIC	Sets the time-out period for the SMB client connection to a server. 1 to 180 (seconds) * If a small value is set, connection to an SMB server may fail. * If the time-out is carried out while a connection to No. 445 port of an SMB server is set, the connection request is switched to No. 139 port.	12	
08	Setting mode	System	General	Registration number for workflow		8900	0	Total	Refer to contents	1000-2000	SYS	Changes the maximum number for workflow that is registrable. <Default value> 1000 (When HDD is not installed), 2000 (When HDD is installed)	4	
08	Setting mode	System	General	Registration number for workflow		8900	1	Number of interrupt copy	1	1	SYS	Changes the maximum number for workflow that is registrable.	4	
08	Setting mode	System	General	Registration number for workflow		8900	2	Number of transmission and calling of Fax/InternetFax	Refer to contents	10-100	SYS	Changes the maximum number for workflow that is registrable. <Default value> 50 (When HDD is not installed), 100 (When HDD is installed)	4	
08	Setting mode	System	General	Registration number for workflow		8900	3	Number of printing	Refer to contents	150-1000	SYS	Changes the maximum number for workflow that is registrable. <Default value> 500 (When HDD is not installed), 1000 (When HDD is installed)	4	
08	Setting Mode	System	Preview	Fax		8901		Default setting	0	0-1	SYS	Sets whether the preview function is enabled or disabled by default when using the Fax function. 0: OFF 1: ON	1	
08	Setting Mode	System	Preview	Fax		8902		Default display method	0	0-1	SYS	Sets the default display method on the preview screen when using the Fax function. 0: Fit to page 1: Fit to width	1	
08	Setting mode	System	Printer			8904		Job jump instruction setting	0	0-1	SYS	0: Disabled 1: Enabled	1	
08	Setting mode	System				8905		Forcible printing against unacceptable paper error	0	0-1	SYS	0: OFF (printing not continued) 1: ON (printing continued by automatically selecting the available exit tray)	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Finisher	Continuous print setting when punching dust box is full		8906		Copy	0	0-1	SYS	0: OFF (copying not continued) 1: ON (copying continued by canceling punching setting)	1	
08	Setting mode	System	Finisher	Continuous print setting when punching dust box is full		8907		Printer/e-Filing	1	0-1	SYS	0: OFF (copying not continued) 1: ON (copying continued by canceling punching setting)	1	
08	Setting Mode	System	General			8910		Time to auto-clearing when in the self-diagnostic mode	0	0-5	SYS	0: None 1: 1 min. 2: 5 min. 3: 10 min. 4: 30 min. 5: 99 min.	1	
08	Setting Mode	System	Security			8911		Security mode (level) setting	1	1-4	SYS	Level setting for security function 1: Low level 2: - 3: High level 4: -	1	
08	Setting Mode	System	Maintenan ce	General		8912		Serial number display of finisher	-	-	-	FIN S/N: XXXXXXXXX	2	Yes
08	Setting Mode	System	Maintenan ce	General		8913		Warning display for password expiration	15	0-30	SYS	0: None 1-30: Remaining days until the password expiration for warning start.	1	Yes
08	Setting mode	System	MFP function setting			8914	0	Copy	1	0-1	SYS	Sets whether the Copier function is enabled or disabled. 0: Disabled 1: Enabled	4	
08	Setting Mode	System	MFP function setting			8914	1	e-Filing	Refer to contents	0-1	SYS	Sets whether the filing function is enabled or disabled. 0: Disabled 1: Enabled <Default value> 20/25ppm: 0 (When HDD is not installed), 1 (When HDD is installed) LL20/25ppm: 0	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	MFP function setting			8914	2	Fax	1	0-1	SYS	Sets whether the Fax function is enabled or disabled. 0: Disabled 1: Enabled	4	
08	Setting Mode	System	MFP function setting			8914	3	InternetFAX	1	0-1	SYS	Sets whether the InternetFAX function is enabled or disabled. 0: Disabled 1: Enabled	4	
08	Setting Mode	System	MFP function setting			8914	4	Email	1	0-1	SYS	Sets whether the email function is enabled or disabled. 0: Disabled 1: Enabled	4	
08	Setting Mode	System	MFP function setting			8914	5	Save as Local HDD	Refer to contents	0-1	SYS	Sets whether the function that saves data to HDD in the equipment is enabled or disabled. 0: Disabled 1: Enabled <Default value> 20/25ppm: 0 (When HDD is not installed), 1 (When HDD is installed) LL20/25ppm: 0	4	
08	Setting Mode	System	MFP function setting			8914	6	Save as Local HDD from Print	Refer to contents	0-1	SYS	Sets whether the function that saves data to HDD in the equipment using print function is enabled or disabled. 0: Disabled 1: Enabled <Default value> 20/25ppm: 0 (When HDD is not installed), 1 (When HDD is installed) LL20/25ppm: 0	4	
08	Setting Mode	System	MFP function setting			8914	7	Save as Local HDD from Fax	1	0-1	SYS	Sets whether the function that saves data to HDD in the equipment using Fax function is enabled or disabled. 0: Disabled 1: Enabled	4	
08	Setting Mode	System	MFP function setting			8914	8	Save to USB Media	1	0-1	SYS	Sets whether the function that saves scanned data of originals to USB media is enabled or disabled. 0: Disabled 1: Enabled	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	MFP function setting			8914	9	Save as FTP	1	0-1	SYS	Sets whether the function that saves scanned data of originals to FTP server is enabled or disabled. 0: Disabled 1: Enabled	4	
08	Setting Mode	System	MFP function setting			8914	10	Save as FTPS	1	0-1	SYS	Sets whether the function that saves scanned data of originals to FTP server using SSL is enabled or disabled. 0: Disabled 1: Enabled	4	
08	Setting Mode	System	MFP function setting			8914	11	Save as SMB	1	0-1	SYS	Sets whether the function that saves scanned data of originals to the SMB server is enabled or disabled. 0: Disabled 1: Enabled	4	
08	Setting Mode	System	MFP function setting			8914	12	Save as Netware	1	0-1	SYS	Sets whether the function that saves scanned data of originals to the Netware server is enabled or disabled. 0: Disabled 1: Enabled	4	
08	Setting Mode	System	MFP function setting			8914	13	Web Service Scanning (WS Scan)	1	0-1	SYS	Sets whether the WS scanning function is enabled or disabled. 0: Disabled 1: Enabled	4	
08	Setting Mode	System	MFP function setting			8914	14	Twain Scanning (Remote Scan)	1	0-1	SYS	Sets whether the remote scanning function is enabled or disabled. 0: Disabled 1: Enabled	4	
08	Setting Mode	System	MFP function setting			8914	15	Send to External Controller	1	0-1	SYS	Sets whether the function that saves data to the external server is enabled or disabled. 0: Disabled 1: Enabled	4	
08	Setting mode	System	MFP function setting			8914	16	Network Fax	1	0-1	SYS	Sets whether the Network Fax function is enabled or disabled. 0: Disabled 1: Enabled	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	MFP function setting			8914	17	Network InternetFAX	1	0-1	SYS	Sets whether the Network InternetFAX function is enabled or disabled. 0: Disabled 1: Enabled	4	
08	Setting Mode	System	Network			8915		Automatic output of jobs at login	0	0-1	SYS	Sets whether jobs registered in the hold queue of user are automatically output or not when the user logs in. 0: Disabled 1: Enabled	1	
08	Setting Mode	System	Security			8919		Service password	-	-	SYS	Sets the password to log into the self-diagnostic mode and Service UI.	11	Yes
08	Setting Mode	System	Option	FAX		8920		Output tray for FAX/InternetFAX/e-mail printing	0	0-2	SYS	Selects the tray onto which the received document is output. * When MJ-1107/1108 is installed: 0: Inner receiving tray 1: Finisher upper receiving tray 2: Finisher lower receiving tray * When MJ-1037 is installed: 0: Inner receiving tray 1: Finisher upper receiving tray 2: Finisher upper receiving tray * When MJ-1036 is installed: 0: Upper receiving tray 1: Lower receiving tray 2: Lower receiving tray * When the job separator is installed: 0: Job separator tray 1: Inner receiving tray 2: Job separator tray	1	Yes
08	Setting mode	System	Department management			8921		Clearing of the user/department counter	1	0-1	SYS	0: Not allowed 1: Allowed	1	Yes
08	Setting mode	System	User interface	Email		8922		Email header print setting	0	0-1	SYS	Sets whether the header of an Email or an Internet Fax is printed or not as they are received. 0: Not printed 1: Printed	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	User interface	Email		8923		Email body print setting	1	0-1	SYS	Sets whether the body of an Email or an Internet Fax is printed or not as they are received. 0: Not printed 1: Printed	1	
08	Setting mode	System	User interface			8924		Registration of the received FAX / Internet Fax / Email jobs to hold queue	0	0-1	SYS	Registers the received Fax / Internet Fax / Email jobs to the hold queue instead of printing immediately. Data in the hold queue are not printed unless the user allows printing by means of the control panel. 0: Not registered (normal printing) 1: Registered	1	
08	Setting mode	System				8925		Data tampering checking at start-up	0	0-1	SYS	Sets whether data tampering is checked or not at startup. 0: Not checked 1: Checked * When the value of 08-8911 is set to "3" (Security mode: High level), the value of this code is automatically set to "1."	1	
08	Setting mode	System	Departmen t managem ent			8926		Clearing of all department counters	-	-	SYS	In cases when the administrator has prohibited the clearing of department counter data using code 08-8921, a service technician can clear the data using this code.	3	Yes
08	Setting mode	System	Departmen t managem ent			8927		Clearing of all user counter	-	-	SYS	In cases when the administrator has prohibited the clearing of user counter data using code 08-8921, a service technician can clear the data using this code.	3	Yes
08	Setting mode	System	Password			8929		Administrator password reset	-	-	SYS	The default password is set. When "3: High level" is set for code 08-8911, the default password is set as a temporary password.	3	
08	Setting mode	System	User interface	Off Device Customization Architecture		8931		Output Management Service setting	1	0-1	SYS	0: Disabled 1: Enabled	1	
08	Setting mode	System	User interface			8932		Availability of Netware	2	1-2	NIC	1: Enabled 2: Disabled	12	
08	Setting mode	System	User interface	SSL		8933		SSL SMTP Client	2	1-3	NIC	1: Enabled (accepts all server certificates) 2: Disabled 3: Enabled (uses the imported CA certificate)	12	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	User interface	SSL		8934		SMTP Client SSL/TLS	1	1-2	NIC	1: STARTTLS 2: Over SSL	12	
08	Setting mode	System	User interface	Remote Scan		8935		Enable/Disable setting	1	0-1	NIC	0: Disabled 1: Enabled	12	
08	Setting mode	System	User interface	Remote Scan		8936		Remote scanning with SSL	0	0-1	NIC	0: Disabled 1: Enabled	12	
08	Setting mode	System	User interface	Remote Scan		8937		Port number	20080	0-65535	NIC		12	
08	Setting mode	System	User interface	Remote Scan		8938		SSL port number	20443	0-65535	NIC		12	
08	Setting mode	System				8942		Debug level setting	2	0, 2	-	Sets the output volume of debug log. When the value is set to "0", the performance may decrease. 0: Debug log level - high 2: Debug log level - normal	1	
08	Setting mode	System	Maintenan ce	RDMS		8946	0	Acquisition starting time for RDMS	0	0-99999999	SYS	Month/day/hour/minute of starting time	14	
08	Setting mode	System	Maintenan ce	RDMS		8946	1	Acquisition ending time for RDMS	0	0-99999999	SYS	Month/day/hour/minute of ending time	14	
08	Setting mode	System	User interface	Card reading device		8947		Automatic user registration for card authentication	0	0-1	SSDK	0: Disabled 1: Enabled	1	
08	Setting Mode	System	User interface			8948		Language package information	-	-	-	Displays the information of the installed language package.	2	Yes
08	Setting Mode	System	Version			8952		External version of HD data	-	-	-	External version of file system for system software	2	
08	Setting Mode	System	Feeding system / Paper transport			8967		Rotation printing by guides width of bypass feed tray	1	0-1	SYS	If the printing size and the guides width of the bypass feed tray are different, it is judged that paper is set in the wrong direction. The occurrence frequency of interruption by the error of the guides width may be decreased. However, this code does not work depending on the conditions, such as when stapling is selected. Set this code when requested by user or the guides width sensor is broken. Related code: 08-4621. 0: Invalid 1: Valid	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	User interface	General	Language package information	8968		Panel Help	-	-	-	Displays the language package information of the installed Panel Help.	2	Yes
08	Setting Mode	System	User interface	General	Language package information	8969		WebHelp	-	-	-	Displays the language package information of the installed WebHelp.	2	Yes
08	Setting Mode	System	User interface	General	Language package information	8970		Service UI	-	-	-	Displays the language package information of the installed Service UI.	2	Yes
08	Setting Mode	System	User interface	General		8971		Installation of language package	-	-	-	Installs the language package.	3	Yes
08	Setting Mode	System	General	Self-certificate		8973		Length of public key	1	0-1	SYS	0: 1024 bit 1: 2048 bit	1	
08	Setting Mode	System	General	Self-certificate		8974		Signature algorithm	0	0-4	SYS	0: SHA1 1: SHA224 2: SHA256 3: SHA384 4: SHA512	1	
08	Setting Mode	System	Network			8975		Data clearing of Point and Print	-	-	SYS	Point and Print in the equipment is deleted when this code is performed. Perform this code when a trouble occurs such as when uploading Point and Print is not possible. After performing this code, upload Point and Print from [Maintenance] menu in the [Administration] menu of TopAccess.	3	
08	Setting Mode	System	General	Detection of originals prohibited from duplication		8977	0	Copy	1	0-1	SYS	Sets whether the originals that are prohibited from duplication are detected or not. 0: Detection disabled 1: Detection enabled	4	
08	Setting Mode	System	General	Detection of originals prohibited from duplication		8977	1	Scan	1	0-1	SYS	Sets whether the originals that are prohibited from duplication are detected or not. 0: Detection disabled 1: Detection enabled	4	
08	Setting Mode	System	General	Detection of originals prohibited from duplication		8977	2	FAX	1	0-1	SYS	Sets whether the originals that are prohibited from duplication are detected or not. 0: Detection disabled 1: Detection enabled	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	Scanning			8980		Execution of Remote Scan while control panel is operated	0	0-1	NIC	Sets whether the remote scanning is enabled or disabled if the user is logged in using the control panel when user authentication or department management is enabled. 0: Disabled 1: Enabled	12	
08	Setting Mode	System	General	Scheduled automatic reboot		8981		Day of the week	0	0-255	SYS	Sets the condition and day of the week for scheduled automatic reboot. The condition and day of the week are assigned to each bit as follows. Input the sum of each bit as setting value. <Input value> bit1: Monday 0: Disabled 1: Enabled bit2: Tuesday 0: Disabled 2: Enabled bit3: Wednesday 0: Disabled 4: Enabled bit4: Thursday 0: Disabled 8: Enabled bit5: Friday 0: Disabled 16: Enabled bit6: Saturday 0: Disabled 32: Enabled bit7: Sunday 0: Disabled 64: Enabled bit8: Set the condition of reboot 0: Reboots only when in the sleep or super sleep mode 128: Reboots regardless of the sleep mode <Example> - Reboots every day regardless of the sleep mode: 255 (1+2+4+8+16+32+64+128=255) - Reboots on Sundays: 192 (0+0+0+0+0+0+64+128=192) - Reboots every day only when in the sleep or super sleep mode: 127 (1+2+4+8+16+32+64+0=127) - Reboots on Sundays only when in the sleep or super sleep mode: 64 (0+0+0+0+0+0+64+0=64)	1	
08	Setting Mode	System	General	Scheduled automatic reboot		8982		Time (Hour)	0	0-23	SYS	Sets time (hour) for scheduled automatic reboot.	1	
08	Setting Mode	System	General	Scheduled automatic reboot		8983		Time (Minute)	0	0-59	SYS	Sets time (minute) for scheduled automatic reboot.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	User interface	NFC reader		8986		Usage type	0	0-4294967295	SYS	0011ZZZZ (First 4 digits are fixed) -ZZZZ: Sub code 0000: No authentication using card 0001: IDm (Felica/NFC-FeliCa) and (or) UID (Mifare/NFC-Mifare) are used 0002: Data (Felica/NFC-FeliCa/Mifare/NFC-Mifare) 0003: SSFC mode	5	Yes
08	Setting Mode	System	User interface	NFC reader		8987		Format information 1	0	0-4294967295	SYS	000ASSSS (hexadecimal, first 3 digits are fixed) -A: 0: A key 1: B key -SSSS: Sector number (first 2 digits are fixed to "0")	5	Yes
08	Setting Mode	System	User interface	NFC reader		8988		Format information 2	0	0-4294967295	SYS	00BSEbse (hexadecimal, first 2 digits are fixed) -B: Block number of first block -S: Starting offset of first block -E: Ending offset of first block -b: Block number of second block -s: Starting offset of second block -e: Ending offset of second block	5	Yes
08	Setting Mode	System	User interface	NFC reader		8989		Format information 3	0	0-0xFFFFFFFFFFFFFFFF	SYS	0000KKKKKKKKKKKK (hexadecimal, first 4 digits are fixed) -KKKKKKKKKKKK: key (12 digits)	5	Yes
08	Setting Mode	System	Maintenan ce	Notification of equipment information		8991		Notification setting	0	0-1	SYS	0: Disabled 1: Enabled	2	Yes
08	Setting Mode	System	Maintenan ce	Notification of equipment information		8992		Notification day 1	0	0-31	SYS	1st to 31th. Input "0" to disable this setting.	1	Yes
08	Setting Mode	System	Maintenan ce	Notification of equipment information		8993		Notification day 2	0	0-31	SYS	1st to 31th. Input "0" to disable this setting.	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	Maintenan ce	Notification of equipment information		8994		Notification day of the week	0	0-127	SYS	Input the value which corresponds to the day of the week. Input "0" to disable this setting. Sunday: 64 Monday: 32 Tuesday: 16 Wednesday: 8 Thursday: 4 Friday: 2 Saturday: 1 e.g.) Monday: 32 Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday: 127 (64+32+16+8+4+2+1=127)	1	Yes
08	Setting Mode	System	Maintenan ce	Notification of equipment information		8995		Notification time	300	0-2359	SYS	(Hour/Hour/Minute/Minute)	1	Yes
08	Setting Mode	System	Maintenan ce	Notification of equipment information		8996		Email address 1 for notification	-	-	SYS	Maximum 192 characters.	11	Yes
08	Setting Mode	System	Maintenan ce	Notification of equipment information		8997		Email address 2 for notification	-	-	SYS	Maximum 192 characters.	11	Yes
08	Setting Mode	System	Maintenan ce	Notification of equipment information		8998		Email address 3 for notification	-	-	SYS	Maximum 192 characters.	11	Yes
08	Setting Mode	System	Maintenan ce	Notification of equipment information		8999	1	Adjustment mode (05) data list	0	0-1	SYS	0: Disabled 1: Enabled	4	Yes
08	Setting Mode	System	Maintenan ce	Notification of equipment information		8999	2	Setting mode (08) data list	0	0-1	SYS	0: Disabled 1: Enabled	4	Yes
08	Setting Mode	System	Maintenan ce	Notification of equipment information		8999	3	PM support mode data list	0	0-1	SYS	0: Disabled 1: Enabled	4	Yes
08	Setting Mode	System	Maintenan ce	Notification of equipment information	Pixel counter list	8999	4	Toner cartridge reference	0	0-1	SYS	0: Disabled 1: Enabled	4	Yes
08	Setting Mode	System	Maintenan ce	Notification of equipment information	Pixel counter list	8999	5	Service engineer reference	0	0-1	SYS	0: Disabled 1: Enabled	4	Yes
08	Setting Mode	System	Maintenan ce	Notification of equipment information	Error history list	8999	6	Maximum 1000 items	0	0-1	SYS	0: Disabled 1: Enabled	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	Maintenan ce	Notification of equipment information	Error history list	8999	7	Latest 80 items	0	0-1	SYS	0: Disabled 1: Enabled	4	Yes
08	Setting Mode	System	Maintenan ce	Notification of equipment information	Firmware upgrade log	8999	8	Maximum 200 items	0	0-1	SYS	0: Disabled 1: Enabled	4	Yes
08	Setting Mode	System	Maintenan ce	Notification of equipment information		8999	9	Power ON/OFF log	0	0-1	SYS	0: Disabled 1: Enabled	4	Yes
08	Setting Mode	System	Maintenan ce	Notification of equipment information		8999	10	Version list	0	0-1	SYS	0: Disabled 1: Enabled	4	Yes
08	Setting Mode	System	Maintenan ce	Notification of equipment information		8999	11	Engine firmware log	0	0-1	SYS	0: Disabled 1: Enabled	4	Yes
08	Setting Mode	System	Maintenan ce	Notification of equipment information		8999	12	Total counter list	0	0-1	SYS	0: Disabled 1: Enabled	4	Yes
08	Setting mode	System	General			9000		Destination selection	Refer to contents	0-2	M	0: Others 1: North America 2: Japan <Default value> NAD: 1 JPD: 2 Others: 0	1	
08	Setting Mode	System	Option	FAX		9001		Destination setting	Refer to contents	0-25	SYS	0: Japan 1: Asia 2: Australia 3: Hong Kong 4: U.S.A./Canada 5: Germany 6: U.K. 7: Italy 8: Belgium 9: Netherlands 10: Finland 11: Spain 12: Austria 13: Switzerland 14: Sweden 15: Denmark 16: Norway 17: Portugal 18: France 19: Greece 20: Poland 21: Hungary 22: Czech 23: Turkey 24: South Africa 25: Taiwan <Default value> NAD: 4 MJD: 5 JPD: 0 Others: 1	1	Yes
08	Setting mode	System	General			9010		Line adjustment mode	0	0-1	M	0: For factory shipment 1: For line Field: "0" must be selected	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General			9012		Language selection to be displayed at power-ON	Refer to contents	-	SYS	en_US: English de_DE: German fr_FR: French es_ES: Spanish it_IT: Italian ja_JP: Japanese en_GB: English (British) zh_CN: Simplified Chinese zh_TW: Traditional Chinese ko_KR: Korean <Default value> JPD: Japanese CND: Simplified Chinese TWD: Traditional Chinese MJD: English (British) Others: English	11	
08	Setting mode	System	User interface			9016		Externally installed counter	0	0-5	M	0: No external counter 1: Coin controller (If the value of 08-9979 is "0" (ACS), it is changed to "2" (Full color).) 2: Copy key card (This value is valid only when "2" is set for 08-9000.) 3: Key copy counter 5: Coin controller supporting ACS/mixed-size (The value of 08-4131 is set to "1") * "4" cannot be set.	1	
08	Setting mode	System	Counter			9017		Setting for counter installed externally	1	0-7	M	Selects the job to count up for the external counter. 0: Not selected 1: Copy 2: Fax 3: Copy/Fax 4: Print 5: Copy/Print 6: Fax/Print 7: Copy/Fax/Print	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	General	Memory		9020		Size information of memory	-	-	SYS	Displays the sizes of the main memory and page memory. Enables to check if each memory is properly	2	Yes
08	Setting Mode	System	General			9022		Production process management status for easy setup	99	0-99	SYS	Perform this code when an error occurs during the easy setup (unpacking manual adjustment) and you want to finish the easy setup, or when you want to restart the unpacking manual adjustment from the beginning. Only 0 to 8 and 99 are available for this code. 0: Packing mode completed (before starting to unpack) 1: Auto toner adjustment completed 2: Installation of toner cartridge confirmed 3: Installation of toner cartridge completed 4: Forced image quality control completed 5: Forced registration completed 6: Enforced performing of fuser thermistor correction completed 7: Auto gamma adjustment (PPC) completed 8: Auto gamma adjustment (PRT 600 dpi) completed 99: Unpacking and adjustment completed * "8" is not supported by LL20/25ppm model.	1	
08	Setting Mode	System	Initializatio n			9030		Initialization after software version up	-	-	SYS	Perform this code when the software in this equipment has been upgraded.	3	Yes
08	Setting Mode	System	User interface			9036		On/Off setting of self-copy function	0	0-1	SYS	Sets whether the self-copy function is enabled or disabled. 0: Disabled 1: Enabled	1	
08	Setting Mode	System	User interface	Counter installed externally		9037		Job handling-short paid-coin controller	1	0-1	SYS	Sets whether pause or stop the printing job when it is short paid using a coin controller. 0: Pause the job 1: Stop the job	1	
08	Setting Mode	System	Maintenan ce	General		9050		Performing panel calibration	-	-	SYS	Performs the calibration of the pressing position on the touch panel (LCD screen). The calibration is performed by pressing 4 reference positions after this code is started up.	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	User interface	Display setting		9051		Panel calibration setting value	0	0-1	SYS	Switches whether the screen for displaying panel calibration setting values is displayed or not. 0: Disabled (screen not displayed) 1: Enabled (screen displayed)	1	Yes
08	Setting Mode	System	Maintenan ce	General		9059		Operation switching at calibration	Refer to contents	0-1	SYS	Switches whether a menu for selecting paper in user calibration (automatic gamma adjustment) is displayed or not. 0: Not displayed 1: Displayed (copy/print) <Default value> MJD: 1 Others: 0	1	Yes
08	Setting mode	System				9060		Destination display at SRAM initialization	Refer to contents	0-255	SYS	0: MJD 1: NAD 2: JPD 3: AUD 4: CND 5: Not defined 6: TWD 7: Not defined 8: Not defined 9: ASD 10: ARD 11: Not defined <Default value> JPD: 2 NAD: 1 MJD: 0 ASD: 9 AUD: 3 TWD: 6 CND: 4 ARD: 10	2	
08	Setting Mode	System	HDD			9065		HDD diagnostic menu display	-	-	SYS	Displays the HDD information.	2	Yes
08	Setting Mode	System	HDD			9072		Performing HDD testing	-	-	SYS	Checks the bad sector. It may take more than 30 minutes to finish the checking.	3	
08	Setting mode	System	General			9081		Initialization of department management information	-	-	SYS	Initializing of the department management information Enter the code with the digital keys and press the [INITIALIZE] button to perform the initialization. If the area storing the department management information is destroyed for some reason, "Enter Department Code" is displayed on the control panel even if the department management function is not set on. In this case, initialize the area with this code. This area is normally initialized at the factory.	3	
08	Setting Mode	System	Initializatio n			9083		Initialization of NIC information	-	-	SYS	Returns the value to the factory shipping default value.	3	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	All clear	LGC-SRAM board		9090		Printer all clear	-	-	M	Initializes all the self-diagnosis 05/08 codes with "M" in the "RAM" field.	3	Yes
08	Setting mode	System	General			9100		Date and time setting	-	13 digits	-	Year/month/date/day/hour/minute/second Example: 03 07 01 3 13 27 48 "Day" - "0" is for "Sunday". Proceeds Monday through Saturday from "1" to "6".	5	
08	Setting mode	System	User interface			9102		Date display format	Refer to contents	0-2	SYS	0: YYYY.MM.DD 1: DD.MM.YYYY 2: MM.DD.YYYY <Default value> MJD: 1 JPD: 0 Others: 2	1	
08	Setting mode	System	General			9103		Time differences	Refer to contents	0-47	SYS	0: +12.0h 1: +11.5h 2: +11.0h 3: +10.5h 4: +10.0h 5: +9.5h 6: +9.0h 7: +8.5h 8: +8.0h 9: +7.5h 10: +7.0h 11: +6.5h 12: +6.0h 13: +5.5h 14: +5.0h 15: +4.5h 16: +4.0h 17: +3.5h 18: +3.0h 19: +2.5h 20: +2.0h 21: +1.5h 22: +1.0h 23: +0.5h 24: 0.0h 25:-0.5h 26: -1.0h 27: -1.5h 28: -2.0h 29: -2.5h 30: -3.0h 31: -3.5h 32: -4.0h 33: -4.5h 34: -5.0h 35: -5.5h 36: -6.0h 37: -6.5h 38: -7.0h 39: -7.5h 40: -8.0h 41: -8.5h 42: -9.0h 43: -9.5h 44: -10.0h 45: -10.5h 46: -11.0h 47: -11.5h <Default value> MJD: 24 NAD: 40 JPD: 6 Others: 0	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	User interface			9110		Auto-clear timer setting	3	0-10	SYS	Timer to return the equipment to the default settings when the [START] button is not pressed after the function and the mode are set 0: Not cleared 1 to 10: Set number x 15 sec.	1	
08	Setting Mode	System	User interface			9111		Auto power save mode timer setting	4	0, 4, 6-15	SYS	Timer to automatically switch to the auto power save mode when the equipment has not been used 0: Invalid 4: 1 min. 6: 3 min. 7: 4 min. 8: 5 min. 9: 7 min. 10: 10 min. 11: 15 min. 12: 20 min. 13: 30 min. 14: 45 min. 15: 60 min.	1	Yes
08	Setting Mode	System	User interface			9112		Auto Shut Off timer setting (Sleep Mode)	21	0-21	SYS	Timer to automatically switch to the auto sleep mode when the equipment has not been used 0: 3 min.　1: 5 min.　2: 10 min. 3: 15 min.　4: 20 min.　5: 25 min. 6: 30 min.　7: 40 min.　8: 50 min. 9: 60 min.　10: 70 min.　11: 80 min. 12: 90 min.　13: 100 min.　14: 110 min. 15: 120 min.　16: 150 min.　17: 180 min. 18: 210 min.　19: 240 min.　20: Invalid 21: 1 min.	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	User interface	Power save		9113		Setting for turning the screen OFF for Auto Power Save mode or the Auto Shut Off mode	Refer to contents	0-1	SYS	0: OFF 1: ON <Default value> JPD/NAD/MJD: 1 Others: 0	1	Yes
08	Setting Mode	System	User interface	General		9116		Black-free function	0	0-1	SYS	0: Disabled 1: Enabled When "1" (enabled) is set at this code, "1" (black) is automatically set at the code 08-9979. In this case "0" (ACS) and "2" (full color) are not selectable for 08-9979. When "0" (OFF) is set at 08-9120 and "1" (ON) is set at 08-9264, the value for this code becomes "0" (disabled) automatically ("1" is not selectable). When the value of 08-6084 is "1" (Quota type = Job Quota), the value of this code cannot be set to "1".	1	Yes
08	Setting mode	System	General	Raw printing job		9117		Blank page print	0	0-1	SYS	0: OFF 1: ON * This code is not supported by LL20/25ppm model.	1	
08	Setting Mode	System	User interface	Department setting		9120		Enable/Disable setting	0	0-1	SYS	0: Invalid 1: Valid	1	Yes
08	Setting Mode	System	User interface	Department setting		9121		Print setting without department code	Refer to contents	0-2	SYS	0: Printed forcibly 1: Not printed 2: Deleted forcibly <Default value> 20/25ppm: 1 (When HDD is installed), 2 (When HDD is not installed) LL20/25ppm: 2	1	Yes
08	Setting Mode	System	User interface	Department setting		9122		Copy	1	0-1	SYS	0: Disabled 1: Enabled	1	Yes
08	Setting Mode	System	User interface	Department setting		9123		FAX	1	0-1	SYS	0: Disabled 1: Enabled	1	Yes
08	Setting Mode	System	User interface	Department setting		9124		Printer/e-Filing	1	0-1	SYS	0: Disabled 1: Enabled	1	Yes
08	Setting Mode	System	User interface	Department setting		9125		Scanning	1	0-1	SYS	0: Disabled 1: Enabled	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	User interface	Department setting		9126		List print	1	0-1	SYS	0: Disabled 1: Enabled	1	Yes
08	Setting mode	System	Counter	Counting method in Twin Color Mode	PPC	9128		Counting method in Twin Color Mode	0	0-2	SYS	Sets the counting method of fee charging or duplexing count in the Twin Color Mode. 0: Count as Twin Color Mode 1: Count as Black Mode 2: Count as Full Color Mode	1	
08	Setting Mode	System	User interface	External counter	Coin controller	9129		Duplex print setting	1	0-1	SYS	Sets whether duplex printing is allowed or not (only permitting single printing) when a coin controller is used. 0: Invalid (printing only one side) 1: Valid (printing both sides)	1	
08	Setting mode	System	User interface			9130		Highlighting display on LCD	0	0-1	SYS	0: Black letter on white background 1: White letter on black background	1	
08	Setting Mode	System	User interface	Default mode setting	Default setting	9132		Default setting of screen (Function)	0	0-99	SYS	Sets the screen to be displayed after the auto-clear time has passed or it has recovered from the energy saving mode or sleep mode. 0: Copier 1: Fax 2: Scan 3: Box 4: Print 5: Template 6: Menu 7: Job status 99: EWB * Only 0 to 7 and 99 can be entered.	1	Yes
08	Setting mode	System	User interface			9133		Default setting for APS/AMS	0	0-2	SYS	0: APS (Automatic Paper Selection) 1: AMS (Automatic Magnification Selection) 2: Not selected	1	
08	Setting Mode	System	User interface	Default setting of RADF mode		9134		Default setting	0	0-1	SYS	0: Continuous feeding (by pressing the [START] button) 1: Single feeding (by setting original on the tray)	1	Yes
08	Setting mode	System	User interface	Book type original priority	PPC	9135		Book type original priority	0	0-1	SYS	0: Left page to right page 1: Right page to left page	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	User interface	Maximum number of copy volume	PPC	9136		Maximum number of copy volume	1	1-3	SYS	1: 999 2: 99 3: 9	1	
08	Setting Mode	System	User interface	Default mode setting	Default setting	9137		Setting for automatic duplexing mode	0	0-3	SYS	0: Invalid 1: Single-sided to duplex copying 2: Two-sided to duplex copying 3: User selection	1	Yes
08	Setting mode	System	User interface	Paper size selection for [OTHER] button	PPC	9140		Paper size selection for [OTHER] button	Refer to contents	0-431	SYS	Press the icon on the LCD to select the size. <Default value> NAD: COMP JPD: A5-R Others: FOLIO	9	
08	Setting Mode	System	User interface	Default setting of RADF mode		9142		Default setting of RADF original size	0	0-1	SYS	0: Same size originals 1: Mixed size originals	1	Yes
08	Setting mode	System	Paper feeding			9143		Time lag before auto-start of bypass feeding	10	0-10	SYS	Sets the time taken to add paper feeding when paper in the bypass tray has run out during the bypass feed copying. 0: Paper is not drawn in unless the [START] button is pressed. 1-10: Setting value x 0.5sec.	1	
08	Setting mode	System	User interface	Blank copying prevention mode during RADF jamming	PPC	9144		Blank copying prevention mode during RADF jamming	0	0-1	SYS	0: OFF 1: ON (Start printing when the scanning of each page is finished)	1	
08	Setting Mode	System	User interface	Rotation printing		9146		Rotation printing at the non-sorting	0	0-1	SYS	0: Not rotating 1: Rotating	1	Yes
08	Setting mode	System	User interface	Direction priority of original image	PPC	9147		Direction priority of original image	0	0-1	SYS	0: Automatic 1: Portrait	1	
08	Setting mode	System	User interface			9148		Inner receiving tray priority at Non-sort Mode	0	0-1	SYS	0: Normal 1: Inner receiving tray	1	
08	Setting mode	System	User interface	Width setting for image shift copying (linkage of front side and back side)	PPC	9149		Width setting for image shift copying (linkage of front side and back side)	0	0-1	SYS	0: ON 1: OFF	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	User interface	Automatic Sorting Mode setting (RADF)	PPC	9150		Automatic Sorting Mode setting (RADF)	2	0-4	SYS	0: Invalid 1: STAPLE 2: SORT 3: GROUP 4: ROTATE SORT	1	
08	Setting mode	System	User interface	Default setting of Sorter Mode	PPC	9151		Default setting of Sorter Mode	0	0-4	SYS	0: NON-SORT 1: STAPLE 2: SORT 3: GROUP 4: ROTATE SORT	1	
08	Setting mode	System	User interface	Correction of reproduction ratio in editing copy	PPC	9152		Correction of reproduction ratio in editing copy	10	0-10	SYS	Sets the reproduction ratio for the "X in 1" printing (including magazine sort) to the "Reproduction ratio x Correction ratio". 0: 90% 1: 91% 2: 92% 3: 93% 4: 94% 5: 95% 6: 96% 7: 97% 8: 98% 9: 99% 10: 100%	1	
08	Setting mode	System	User interface			9153		Image position in editing	2	0-3	SYS	Sets the page pasted position for "X in 1" to the upper left corner/center. 0: Cornering (PPC)/Cornering (PRT) 1: Centering (PPC)/Cornering (PRT) 2: Cornering (PPC)/Centering (PRT) 3: Centering (PPC)/Centering (PRT)	1	
08	Setting mode	System	User interface			9155		Magazine sort setting	0	0-1	SYS	0: Left page to right page 1: Right page to left page	1	
08	Setting mode	System	User interface	2 in 1/4 in 1 page allocating order setting	PPC	9156		2 in 1 / 4 in 1 page allocating order setting	0	0-1	SYS	0: Horizontal 1: Vertical	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	User interface	Printing format setting for Time Stamp and Page Number	PPC	9157		Printing format setting for Time Stamp and Page Number	0	0-1	SYS	Hyphen 0: OFF 1: ON Note: Hyphen printing format ON: -1- OFF: 1	1	
08	Setting mode	System	User interface	Cascade operation setting	PPC / FAX	9158	0	Enable/Disable setting	0	0-1	SYS	0: Disabled 1: Enabled	4	
08	Setting mode	System	User interface	Cascade operation setting	PPC / FAX	9158	1	Operation setting	0	0-1	SYS	0: Once 1: Circulation (Loop)	4	
08	Setting mode	System	User interface	Cascade operation setting	Printer/Box	9159	0	Enable/Disable setting	0	0-1	SYS	0: Disabled 1: Enabled	4	
08	Setting mode	System	User interface	Cascade operation setting	Printer/Box	9159	1	Operation setting	0	0-1	SYS	0: Once 1: Circulation (Loop)	4	
08	Setting mode	System	User interface			9163		Default setting of printing direction for Time Stamp and Page Number	0	0-1	SYS	0: Short edge 1: Long edge	1	
08	Setting Mode	System	User interface	Paper Feed	Auto-start setting for bypass feed printing	9164		Remote	0	0-1	SYS	Sets whether or not feeding a paper automatically into the copier when it is placed on the bypass tray. 0: OFF (Press the [START] button to start feeding.) 1: ON (Automatic feeding)	1	Yes
08	Setting mode	System	User interface	Paper Feed	Auto-start setting for bypass feed printing	9165		Local	1	0-1	SYS	Sets whether or not feeding a paper automatically into the copier when it is placed on the bypass tray. 0: OFF (Press the [START] button to start feeding.)1: ON (Automatic feeding)	1	
08	Setting mode	System	User interface	Twin color copy		9178		Color 1 (The color judged as black)	0	0-6	SYS	0: K 1: Y 2: M 3: C 4: R 5: G 6: B	1	
08	Setting mode	System	User interface	Twin color copy		9179		Color 2 (The color judged as other than black)	4	0-6	SYS	0: K 1: Y 2: M 3: C 4: R 5: G 6: B	1	
08	Setting Mode	System	Option	FAX		9183		Application of paper source	0	0-1	SYS	0: Not subjected for APS judgment 1: Subjected for APS judgment	1	Yes
08	Setting mode	System	User interface			9184		Centering printing of primary/secondary direction at AMS	1	0-1	SYS	0: Invalid 1: Valid	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	User interface	Feeding paper media		9185	0	Copier	3	1-3	SYS	Sets a media type for APS drawer searching in the copier functions. Acceptable value (decimal number): 1, 2, 3 Each bit 0: Excluded from feeding target media Each bit 1: Feeding target media bit 0: Plain paper bit 1: Recycled paper bit 2: N/A (Always set "0") bit 3: N/A (Always set "0") * Do not set the paper type that is not supported.	4	
08	Setting mode	System	User interface	Feeding paper media		9185	1	Printer/Box	1	1	SYS	Sets a media type to print on plain paper in the printer/box functions. This setting is used for drawer searching or media type inconsistency judgment. The setting result does not affect other media types, other than plain paper. Acceptable value (decimal number): 1 only Each bit 0: Excluded from feeding target media Each bit 1: Feeding target media bit 0: Plain paper bit 1: N/A (Always set "0") bit 2: N/A (Always set "0") bit 3: N/A (Always set "0")	4	
08	Setting Mode	System	Network	Retention period		9193		Web data retention period	10	0-999	SYS	When a certain period of time has passed without operation after accessing TopAccess, the data being registered is automatically reset. This period is set at this code. (Unit: minute)	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General			9199		Automatic interruption page number setting for printing	500	0-9999	SYS	Sets the number of pages to interrupt printing automatically. If "1" or more is set to this code, printing is interrupted at the set value. If "0" is set, printing is not interrupted automatically. By the combination of this code and 08-2509, performing image quality control is possible while processing jobs. Even if the number of jobs exceeds the set value of 08-2509, image quality control can be performed around the set value of 08-2509 by interrupting printing automatically with this code, and the change of image density can be suppressed. However, image problems may occur if the value extremely smaller than the default value is set to the equipment whose print ratio of monochrome is relatively high. (unit: pages)	1	
08	Setting Mode	System	Network	Retention period		9200		File retention period	30	0-999	SYS	0: No limits 1 to 999: 1 to 999 days	1	Yes
08	Setting Mode	System	Network	E-mail		9201		Max. size in email/InternetFAX transmission	30	2-100	SYS	2 to 100 M bytes	1	Yes
08	Setting mode	System	Electronic filing			9203		e-Filing document guarantee mode	1	0-1	SYS	Sets the file retention level during edition in e-Filing (when the document cut/save command is used) 0: Not retained (Documents could be lost due to We session timeout / electricity cutoff during document cut/save.) 1: Full retained - Documents are retained until cut/save command completion. When "1" is set, documents are not lost even if disk full occurs during command execution.	1	
08	Setting mode	System	User interface	When judging as black in the ACS Mode		9204		Binarizing level selection	3	1-5	SYS	1: Step -2 2: Step -1 3: Step 0 (center) 4: Step 1 5: Step 2 The binarizing level of each step is set at 08-9230.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Electronic filing			9207		Default setting of user box retention period	0	0-999	SYS	Sets the data retention period when creating a user box. 0: Not deleted 1 to 999: Retention period (Unit: Day)	1	
08	Setting Mode	System	HDD			9208		Warning notification-File Share/e-Filling	90	0-100	SYS	Sets the percentage of HDD partition filled when warning notification is sent. 0 to 100: 0 to 100% * Checks the remaining amount of HDD with the searching interval set at 08-9225.	1	Yes
08	Setting mode	System	Scanning	E-mail		9209		Notification setting of E-mail saving time limit	3	0-99	SYS	Sets the days left the notification of E-mail saving time limit appears 0 to 99: 0 to 99 days	1	
08	Setting mode	System	Scanning	E-mail		9210		Default setting of partial size when transmitting E-mail	0	0-6	SYS	Sets the default value for the partial size of E-mail to be transmitted when creating a template. 0: Not divided 1: 64 2: 128 3: 256 4: 512 5: 1024 6: 2048 (Unit: KB)	1	
08	Setting Mode	System	Option	FAX		9211		Default setting of page by page-I FAX	0	0-4	SYS	Sets the default value for the page by page of Internet FAX to be transmitted when creating a template. 0: Not divided 1: 256 2: 512 3: 1024 4: 2048 (Unit: KB)	1	Yes
08	Setting Mode	System	User interface	Default mode setting	Default setting (SCN)	9213		Default set of density adjust (Black)	0	0-11	SYS	0: Automatic density 1: Step -5 2: Step -4 3: Step -3 4: Step -2 5: Step -1 6: Step 0 (center) 7: Step +1 8: Step +2 9: Step +3 10: Step +4 11: Step +5 (1 to 11: Manual density)	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	User interface	Default mode setting	Default setting of background adjustment	9214		Full Color	5	1-9	SYS	1: Step -4 2: Step -3 3: Step -2 4: Step -1 5: Step 0 (center) 6: Step +1 7: Step +2 8: Step +3 9: Step +4	1	
08	Setting Mode	System	User interface	Default mode setting	Default setting (SCN)	9215		Color mode	0	0-4	SYS	0: Black 1: Gray Scale 2: Unused 3: Full Color 4: Auto Color	1	Yes
08	Setting Mode	System	User interface	Default mode setting	Default setting of resolution (SCN)	9216		Full Color	2	0-5	SYS	0: 100 dpi 1: 150 dpi 2: 200 dpi 3: 300 dpi 4: 400 dpi 5: 600 dpi	1	Yes
08	Setting Mode	System	User interface	Default mode setting	Default setting of resolution (SCN)	9217		Gray Scale	2	0-5	SYS	0: 100 dpi 1: 150 dpi 2: 200 dpi 3: 300 dpi 4: 400 dpi 5: 600 dpi	1	Yes
08	Setting Mode	System	User interface	Default mode setting	Default setting of resolution (SCN)	9218		Black	1	0-5	SYS	0: 150 dpi 1: 200 dpi 2: 300 dpi 3: 400 dpi 4: 600 dpi 5: 100 dpi	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	User interface	Default mode setting	Default setting (SCN)	9219		Original mode (Full color)	0	0-3	SYS	0: Text 1: Text/Photo 2: Photo 3: Custom (Valid only when a setting other than "0" is set for 08-8303)	1	Yes
08	Setting Mode	System	User interface	Default mode setting	Default setting (SCN)	9220		Original mode (Black)	0	0-3	SYS	0: Text 1: Text/Photo 2: Photo 3: Custom The value other than "0" needs to be set for 08-7401 to select "3: Custom."	1	Yes
08	Setting mode	System	User interface	Default mode setting		9221		Default setting of scanning mode	0	0-2	SYS	0: Single 1: Book 2: Tablet	1	
08	Setting mode	System	User interface	Default mode setting		9222		Default setting of rotation mode	0	0-3	SYS	0: 0 degree 1: 90 degrees 2: 180 degrees 3: 270 degrees	1	
08	Setting mode	System	User interface	Default mode setting		9223		Default setting of original paper size	0	0-22	SYS	0: Automatic 1: A3 2: A4 3: LD 4: LT 5: A4-R 6: A5-R 7: LT-R 8: LG 9: B4 10: B5 11: ST-R 12: COMP 13: B5-R 14: FOLIO 15: 13"LG 16: 8.5"x 8.5" 18: A6-R 19: Size mixed20: 8K 21: 16K 22: 16K-R	1	
08	Setting mode	System	General			9225		Searching interval of deleting expired files and checking capacity of HDD partitions	12	1-24	SYS	Sets the search interval of deleting expired files and checking capacity of HDD partitions. (Unit: Hour) Related code: 08-9208	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	User interface	Default mode setting		9226		Default setting of background adjustment (Gray Scale)	5	1-9	SYS	1: Step -4 2: Step -3 3: Step -2 4: Step -1 5: Step 0 (Center) 6: Step +1 7: Step +2 8: Step +3 9: Step +4	1	
08	Setting Mode	System	User interface	Default setting of filing format	E-mail	9227		Black	1	0-6	SYS	0: TIFF (Multi) 1: PDF (Multi) 2: Not used 3: TIFF (Single) 4: PDF (Single) 5: XPS (Multi) 6: XPS (Single)	1	Yes
08	Setting Mode	System	User interface	Default setting of filing format	Storing files	9228		Color/ACS	1	0-8	SYS	0: TIFF (Multi) 1: PDF (Multi) 2: JPG 3: TIFF (Single) 4: PDF (Single) 5: SLIM PDF (Multi) 6: SLIM PDF (Single) 7: XPS (Multi) 8: XPS (Single)	1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	User interface	Default setting of filing format	Storing files	9229		Black	Refer to contents	0-6	SYS	0: TIFF (Multi) 1: PDF (Multi) 2: Not used 3: TIFF (Single) 4: PDF (Single) 5: XPS (Multi) 6: XPS (Single) <Default value> MJD: 1 Others: 0	1	Yes
08	Setting mode	System	Image	Binarizing level setting (When judging as black in the ACS Mode)		9230	0	Step -2	115	0-255	SYS	Sets the binarizing level of each step. When the value increases, the image becomes darker. When the value decreases, the image becomes lighter. Refer to 08-9204.	4	
08	Setting mode	System	Image	Binarizing level setting (When judging as black in the ACS Mode)		9230	1	Step -1	145	0-255	SYS	Sets the binarizing level of each step. When the value increases, the image becomes darker. When the value decreases, the image becomes lighter. Refer to 08-9204.	4	
08	Setting mode	System	Image	Binarizing level setting (When judging as black in the ACS Mode)		9230	2	Step 0 (center)	175	0-255	SYS	Sets the binarizing level of each step. When the value increases, the image becomes darker. When the value decreases, the image becomes lighter. Refer to 08-9204.	4	
08	Setting mode	System	Image	Binarizing level setting (When judging as black in the ACS Mode)		9230	3	Step +1	205	0-255	SYS	Sets the binarizing level of each step. When the value increases, the image becomes darker. When the value decreases, the image becomes lighter. Refer to 08-9204.	4	
08	Setting mode	System	Image	Binarizing level setting (When judging as black in the ACS Mode)		9230	4	Step +2	235	0-255	SYS	Sets the binarizing level of each step. When the value increases, the image becomes darker. When the value decreases, the image becomes lighter. Refer to 08-9204.	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Scanning			9233		Equipment name and user name setting to a folder when saving files	0	0-2	SYS	Sets whether or not adding the equipment name and user name to the folder when saving files. 0: Not added 1: Add the equipment name 2: Add the user name	1	
08	Setting mode	System	User interface	Default screen setting		9236		Default setting of print screen	1	1-4	SYS	1: Private print screen (Job list of log-in user is displayed if user authentication is enabled.) 2: Hold print screen (Job list of log-in user is displayed if user authentication is enabled.) 3: Private print screen (If the private print screen is displayed when user authentication is enabled, user list is displayed if user logs in as GUEST, and job list of log-in user is displayed if user logs in as general user.) 4: Hold print screen (If the private print screen is displayed when user authentication is enabled, user list is displayed if user logs in as GUEST, and job list of log-in user is displayed if user logs in as general user.) * If user data department management (08-9264) is changed from OFF to ON, the value in this code changes from "1" to "2", and "3" to "4". The value does not change if it is "2" or"4". Reset this value as necessary when changing user data department management (08-9264) from OFF to ON.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Data overwrite enabler			9240		HDD data overwriting type setting	3	0-3	SYS	Select the type of the overwriting level for deleting HDD data. (This setting is enabled only when the GP-1070 is installed.) 0: LOW Standard overwriting method. 1: MEDIUM More secure overwriting method than LOW. The overwriting time is between LOW and HIGH. 2: HIGH The most secure overwriting method. The overwriting time is the longest. 3: SIMPLE Simple overwriting method. The time for overwriting is the shortest.	1	
08	Setting mode	System	Paper feeding			9248		Tab paper / Inserter paper automatic feeding setting (Remote)	1	0-1	SYS	0: Invalid 1: Valid	1	
08	Setting mode	System	User interface			9250		Image setting for Electronic Filing printing (Only for color image)	0	0-3	SYS	0: General 1: Photograph 2: Presentation 3: Line art	1	
08	Setting mode	System	User interface			9251		Access code entry for Electronic Filing printing	0	0-1	SYS	0: Renewed automatically 1: Enter every time	1	
08	Setting mode	System	User interface			9252		Clearing timing for files and Electronic Filing Agent	1	0-1	SYS	0: Immediately after the completion of scanning 1: Cleared by Auto Clear	1	
08	Setting mode	System	Paper feeding			9253		Setting of paper size switching to 13" LG	0	0-2	SYS	0: Not switched 1: LG -> 13"LG 2: FOLIO -> 13"LG	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	Option	FAX		9255		FOLIO/A4-R judgment when width of paper is mixed	0	0-1	SYS	When the value of this code is "0", the paper size is judged by performing switchback. When the value of this code is "1" and the paper size is AB-series, FOLIO is judged as A4-R and switchback is not performed. When the paper size is LT-series, the switchback is always performed. When the value of this code is set to "1", the scanning performance increases at fax transmission. However, the whole image cannot be output since FOLIO is judged as A4-R. 0: Judgment is enabled 1: Judgment is disabled	1	
08	Setting mode	System	User interface			9261		Maximum number of time job build performed	1000	5-1000	SYS	Sets the maximum number of time a job build has been performed. 5-1000: 5 to 1000 times	1	
08	Setting mode	System	General			9264		User data department management	0	0-1	SYS	0: Disabled 1: Enabled	1	
08	Setting mode	System	Paper feeding			9267		Detection method of 13" LG for single-size document	0	0-1	SYS	0: Disabled 1: Enabled	1	
08	Setting Mode	System	Option	FAX		9268		Inbound FAX function (Forwarding by TSI)	1	0-1	SYS	0: OFF (Function disabled) 1: ON (Function enabled)	1	Yes
08	Setting Mode	System	Option	FAX		9269		Tab/cover sheet-FAX Printing stop function	0	0-1	SYS	Sets ON or OFF of the printing function of special sheets such as tab or cover sheet of FAX, Email or list print. 0: Function OFF 1: Function ON	1	Yes
08	Setting mode	System	Network			9271		Authentication method of "Scan to Email"	0	0-2	SYS	0: Disabled 1: SMTP authentication 2: LDAP authentication	1	
08	Setting mode	System	Network			9272		Setting whether use of the Internet FAX is permitted at the time of authentication	0	0-1	SYS	0: Not permitted 1: Permitted	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Network			9274		"From" address assignment method at the time of authentication	0	0-2	SYS	0: User name + @ + Domain name 1: LDAP searching 2: Use the address registered at "From" field of E-mail setting	1	
08	Setting mode	System	Network			9276		Setting for "From" address edit at "Scan to Email"	0	0-1	SYS	0: Not permitted 1: Permitted	1	
08	Setting mode	System	Network	E-mail		9278		Domain name	-	-	SYS	96 + 2 (delimiter) character ASCII sequence only	11	
08	Setting Mode	System	User interface	Sound		9280		Error sound	1	0-1	SYS	0: OFF 1: ON	1	Yes
08	Setting Mode	System	User interface	Sound		9281		Sound setting -- Energy Saving	Refer to contents	0-1	SYS	0: OFF 1: ON <Default value> JPD: 0 Others: 1	1	Yes
08	Setting mode	System	General	Color		9288		User data management limitation setting	0	0-1	SYS	0: Disabled 1: Enabled	1	
08	Setting mode	System	General	Color		9289		User data management limitation Setting by number of printouts	0	7 digits	SYS	0-9,999,999: 0-9,999,999 sheets	1	
08	Setting mode	System	General			9293		User authentication method	0	0-2	SYS	0: Local authentication 1: Windows domain authentication 2: LDAP authentication	1	
08	Setting mode	System	General			9294		Automatic user registration for external authentication	1	0-1	SYS	0: Disabled 1: Enabled	1	
08	Setting mode	System	General			9295		User data management limitation setting	0	0-1	SYS	0: Disabled 1: Enabled	1	
08	Setting mode	System	General			9296		User data management limitation Setting by number of printouts	0	7 digits	SYS	0-9,999,999: 0-9,999,999 sheets	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Network			9298		Restriction on Address book operation by administrator	0	0-1	SYS	Some restrictions can be given on the administrator for operating the Address book. 0: No restriction 1: Can be operated only under the administrator's authorization	1	
08	Setting mode	System	Network			9299		Restriction on "To" ("cc") address	0	0-3	SYS	0: No restriction 1: Can be set from both of the Address book and LDAP server 2: Can be set only from the Address book 3: Can be set only from the LDAP server	1	
08	Setting mode	System	Paper feeding	Paper information		9300		Drawer 1	0	0-8	SYS	0: Plain paper 1: Thick paper 1 8: Recycled paper * Only 0, 1, 8 are acceptable. * Do not set the paper type that is not supported.	1	
08	Setting mode	System	Paper feeding	Paper information		9301		Drawer 2	0	0-8	SYS	0: Plain paper 1: Thick paper 1 8: Recycled paper * Only 0, 1, 8 are acceptable. * Do not set the paper type that is not supported.	1	
08	Setting mode	System	Paper feeding	Paper information		9302		PFP 1	0	0-8	SYS	0: Plain paper 1: Thick paper 1 8: Recycled paper * Only 0, 1, 8 are acceptable. * Do not set the paper type that is not supported.	1	
08	Setting mode	System	Paper feeding	Paper information		9303		PFP 2	0	0-8	SYS	0: Plain paper 1: Thick paper 1 8: Recycled paper * Only 0, 1, 8 are acceptable. * Do not set the paper type that is not supported.	1	
08	Setting mode	System	Paper feeding	Paper information		9304		LCF	0	0-8	SYS	0: Plain paper 8: Recycled paper * Only 0 and 8 are acceptable. * Do not set the paper type that is not supported.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Paper feeding	Paper information		9305		Bypass tray	0	0-160	SYS	0: Plain paper 1: Thick paper 1 2: Thick paper 2 6: Special paper 1 7: Special paper 2 8: Recycled paper 16: OHP film 32: Envelop 128: Plain paper (reverse) 129: Thick paper 1 (reverse) 130: Thick paper 2 (reverse) 134: Special paper 1 (reverse) 135: Special paper 2 (reverse) 136: Recycled paper (reverse) 160: Envelope (reverse) * Only 0-2, 6-8, 16, 32, 129-130, 134-136, and 160 are acceptable. * Do not set the paper type that is not supported.	1	
08	Setting mode	System	Paper feeding	Size conversion		9306		LT <-> A4 / LD <-> A3	0	0-1	SYS	Sets to whether to print a document in a different paper size from the one selected if there is no drawer which has the same size setting. 0: Enabled Prints a document specified in an LT/LD size with an A4/A3 one, or vice versa. 1: Disabled: Sets to display a message notifying that the same paper size as the one selected should be used.	1	
08	Setting Mode	System	Network	Print	Retention period	9307		Storage period at trail and private	14	0-53	SYS	0: No limits 1 to 30: 1 to 30 days 31: 1 hour 32: 2 hours 33: 4 hours 34: 8 hours 35: 12 hours 50: 5 min. 51: 10 min. 52: 15 min. 53: 30 min.	1	Yes
08	Setting mode	System	Network	Print	Raw printing job	9308		Duplex	1	0-1	SYS	0: Valid 1: Invalid * This code is not supported by LL20/25ppm model.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Network	Print	Raw printing job	9309		Paper size	Refer to contents	0-13	SYS	0: LD 1: LG 2: LT 3: COMP 4: ST 5: A3 6: A4 7: A5 8: A6 9: B4 10: B5 11: FOLIO 12: 13"LG 13: 8.5" x 8.5" <Default value> NAD: 2 Others: 6	1	
08	Setting mode	System	Network	Print	Raw printing job	9310		Paper type	0	0-7	SYS	0: Plain paper 1: Thick paper 1 2: Thick paper 2 4: OHP film 7: Recycled paper * This code is not supported by LL20/25ppm model.	1	
08	Setting mode	System	Network	Print	Raw printing job	9311		Paper direction	0	0-1	SYS	0: Portrait 1: Landscape * This code is not supported by LL20/25ppm model.	1	
08	Setting mode	System	Network	Print	Raw printing job	9312		Staple	1	0-1	SYS	0: Valid 1: Invalid * This code is not supported by LL20/25ppm model.	1	
08	Setting mode	System	Network	Print	Raw printing job	9313		Exit tray	0	0-2	SYS	0: Inner tray 1: Finisher tray1 2: Finisher tray2 3: Unused 4: Unused 5: Unused 6: Unused * This code is not supported by LL20/25ppm model.	1	
08	Setting mode	System	Network	Print	Raw printing job	9314		Number of form lines	1200	500-12800	SYS	Sets the number of form lines from 5 to 128. (A hundredfold of the number of form lines is defined as the setting value.) * This code is not supported by LL20/25ppm model.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Network	Print	Raw printing job	9315		PCL font pitch	1000	44-9999	SYS	Sets the font pitch from 0.44 to 99.99. (A hundredfold of the font pitch is defined as the setting value.) * This code is not supported by LL20/25ppm model.	1	
08	Setting mode	System	Network	Print	Raw printing job	9316		PCL font size	1200	400-99975	SYS	Sets the font size from 4 to 999.75. (A hundredfold of the font size is defined as the setting value.) * This code is not supported by LL20/25ppm model.	1	
08	Setting mode	System	Network	Print	Raw printing job	9317		PCL font number	0	0-9999	SYS	Sets the PCL font number. * This code is not supported by LL20/25ppm model.	1	
08	Setting mode	System	Paper feeding	Paper size (bypass feeding/non-standard type)		9318		Memory 1	148/100	148-432/100-297	SYS	Registers the paper size of bypass feed (non-standard type) into [MEMORY 1]. Feeding/Widthwise direction.	10	
08	Setting mode	System	Paper feeding	Paper size (bypass feeding/non-standard type)		9319		Memory 2	148/100	148-432/100-297	SYS	Registers the paper size of bypass feed (non-standard type) into [MEMORY 2]. Feeding/Widthwise direction.	10	
08	Setting mode	System	Paper feeding	Paper size (bypass feeding/non-standard type)		9320		Memory 3	148/100	148-432/100-297	SYS	Registers the paper size of bypass feed (non-standard type) into [MEMORY 3]. Feeding/Widthwise direction.	10	
08	Setting mode	System	Paper feeding	Paper size (bypass feeding/non-standard type)		9321		Memory 4	148/100	148-432/100-297	SYS	Registers the paper size of bypass feed (non-standard type) into [MEMORY 4]. Feeding/Widthwise direction.	10	
08	Setting Mode	System	User interface	Sound		9325		Key touch sound of control panel	1	0-1	SYS	0: OFF 1: ON	1	Yes
08	Setting Mode	System	User interface	Display setting		9326		Size indicator	0	0-1	SYS	0: Invalid 1: Valid	1	Yes
08	Setting mode	System	General	Banner advertising		9327		Setting of banner advertising display	0	0-1	SYS	Sets whether or not displaying the banner advertising. The setting contents of 08-9328 and 9329 are displayed at the time display section on the right top of the screen. When both are set, each content is displayed alternately. 0: Not displayed 1: Displayed	1	
08	Setting mode	System	General	Banner advertising		9328		Banner advertising display 1	-	-	SYS	Maximum 27 letters (one-byte character)	11	
08	Setting mode	System	General	Banner advertising		9329		Banner advertising display 2	-	-	SYS	Maximum 27 letters (one-byte character)	11	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Banner advertising		9330		Display of [BANNER MESSAGE] button	0	0-1	SYS	0: Not displayed 1: Displayed This button enables the entry of "Banner advertising display 1 (08-9328)" and "Banner advertising display 2 (08-9329)" on the control panel.	1	
08	Setting mode	System	Network			9331		Local I/F time-out period	6	1-50	SYS	Sets the period of time when the job is judged as completed in local I/F printing (USB or parallel). 1: 1.0 sec. 2: 1.5 sec. 50: 25.5 sec. (in increments of 0.5 sec.)	1	
08	Setting mode	System	User interface			9332		Original counter display	Refer to contents	0-4	SYS	Sets whether the original counter is displayed or not. 0: Not displayed 2: Displayed 4: Displayed (Double sized original is counted as 2.) <Default value> MJD: 2 Others: 0	1	
08	Setting mode	System	Network	Print		9334		PCL line feed code setting	0	0-3	SYS	Sets the PCL line feed code. 0: Automatic setting 1: CR=CR, LF=LF 2: CR=CR+LF, LF=LF 3: CR=CR, LF=CR+LF * This code is not supported by LL20/25ppm model.	1	
08	Setting mode	System	Paper feeding			9336		Default setting of drawers (Printer/BOX)	1	1-5	SYS	1: LCF 2: 1st drawer 3: 2nd drawer 4: PFP upper drawer 5: PFP lower drawer	1	
08	Setting mode	System	User interface			9337		Restriction of the template function with the administrator privilege	0	0-1	SYS	Selects the restriction of the template function usage setting. 0: No restriction 1: Only available with the administrator privilege.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Network	Print	Raw printing job	9338		Paper feeding drawer	0	0-5	SYS	0: AUTO 1: 1st drawer 2: 2nd drawer 3: PFP upper drawer 4: PFP lower drawer 5: LCF * This code is not supported by LL20/25ppm model.	1	
08	Setting mode	System	Network	Print	Raw printing job	9339		PCL symbol set	0	0-39	SYS	0: Roman-8 1: ISO 8859/1 Latin 1 2: ISO 8859/2 Latin 2 3: ISO 8859/9 Latin 5 4: PC-8, Code Page 437 5: PC-8 D/N, Danish/Norwegian 6: PC-850, Multilingual 7: PC-852, Latin2 8: PC-8 Turkish 9: Windows 3.1 Latin 1 10: Windows 3.1 Latin 2 11: Windows 3.1 Latin 5 12: DeskTop 13: PS Text 14: Ventura International 15: Ventura US 16: Microsoft Publishing 17: Math-8 18: PS Math 19: Ventura Math 20: Pi Font 21: Legal 22: ISO 4: United Kingdom 23: ISO 6: ASCII 24: ISO 11 25: ISO 15: Italian 26: ISO 17 27: ISO 21: German 28: ISO 60: Danish/Norwegian 29: ISO 69: French 30: Windows 3.0 Latin 1 31: MC Text 32: PC Cyrillic 33: ITC Zapf Dingbats 34: ISO 8859/10 Latin 6 35: PC-775 36: PC-1004 37: Symbol 38: Windows Baltic 39: Wingdings * This code is not supported by LL20/25ppm model.	1	
08	Setting mode	System	User interface	Copy	Binding margin setting	9341	0	Left binding front (Right binding back)	7	0-100	SYS	Sets the binding margin displayed as default on the setting screen for the top/bottom/left/right binding function when copying.	4	Yes
08	Setting mode	System	User interface	Copy	Binding margin setting	9341	1	Left binding back (Right binding front)	7	0-100	SYS	Sets the binding margin displayed as default on the setting screen for the top/bottom/left/right binding function when copying.	4	Yes
08	Setting mode	System	User interface	Copy	Binding margin setting	9341	2	Top binding front (Bottom binding back)	7	0-100	SYS	Sets the binding margin displayed as default on the setting screen for the top/bottom/left/right binding function when copying.	4	Yes
08	Setting mode	System	User interface	Copy	Binding margin setting	9341	3	Top binding back (Bottom binding front)	7	0-100	SYS	Sets the binding margin displayed as default on the setting screen for the top/bottom/left/right binding function when copying.	4	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	User interface	Copy	Binding margin setting	9342		Margin width (Book binding)	14	0-30	SYS	Sets the binding margin displayed as default on the setting screen for the book binding function when copying.	1	Yes
08	Setting Mode	System	Paper feeding	Automatic change of paper source	Auto	9343		Printing/BOX printing	1	1-2	SYS	Sets whether the drawer is changed automatically if the paper runs out in the selected drawer and the paper of the same size is in other drawer. 1: ON (Changes to the drawer with the same paper direction and size: ex. A4 to A4) 2: ON (Changes to the drawer with the same paper size. Paper with the different direction is acceptable as long as the size is the same: ex., A4 to A4-R, LT-R to LT. "1" is applied when the staple/hole punch is specified.)	1	Yes
08	Setting mode	System	Network	Print		9344		Restriction mode of network printing	0	0-3	SYS	0: Normal 1: Private-print-only mode 2: Hold-print-only mode 3: Private/Hold-print-only mode	1	
08	Setting mode	System	User			9352		Display of paper size setting by installation operation of drawers	Refer to contents	0-1	SYS	0: Not displayed 1: Displayed <Default value> MJD, JPD: 0 Others: 1	1	
08	Setting mode	System	General	Print		9357		Enhanced bold for PCL6	0	0-1	SYS	0: OFF 1: ON (Enhanced bold for PCL6.)	1	
08	Setting Mode	System	User interface	Paper Feed setting		9359		Printing resume after jam releasing	1	0-1	SYS	0: Auto resume 1: Resume by users	1	Yes
08	Setting mode	System	General	Color profile	Available profile display	9361	0	LL_OP_00.icc (LL20/25ppm) WL_OP_00.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	1	LL_OP_01.icc (LL20/25ppm) WL_OP_01.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Color profile	Available profile display	9361	2	LL_OP_02.icc (LL20/25ppm) WL_OP_02.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	3	LL_OP_03.icc (LL20/25ppm) WL_OP_03.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	4	LL_OP_04.icc (LL20/25ppm) WL_OP_04.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	5	LL_OP_05.icc (LL20/25ppm) WL_OP_05.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	6	LL_OP_06.icc (LL20/25ppm) WL_OP_06.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	7	LL_OP_07.icc (LL20/25ppm) WL_OP_07.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	8	LL_OP_08.icc (LL20/25ppm) WL_OP_08.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	9	LL_OP_09.icc (LL20/25ppm) WL_OP_09.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Color profile	Available profile display	9361	10	LL_OP_10.icc (LL20/25ppm) WL_OP_10.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	11	LL_OP_11.icc (LL20/25ppm) WL_OP_11.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	12	LL_OP_12.icc (LL20/25ppm) WL_OP_12.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	13	LL_OP_13.icc (LL20/25ppm) WL_OP_13.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	14	LL_OP_14.icc (LL20/25ppm) WL_OP_14.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	15	LL_OP_15.icc (LL20/25ppm) WL_OP_15.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	16	LL_OP_16.icc (LL20/25ppm) WL_OP_16.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	17	LL_OP_17.icc (LL20/25ppm) WL_OP_17.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Color profile	Available profile display	9361	18	LL_OP_18.icc (LL20/25ppm) WL_OP_18.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	19	LL_OP_19.icc (LL20/25ppm) WL_OP_19.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	20	LL_OP_20.icc (LL20/25ppm) WL_OP_20.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	21	LL_OP_21.icc (LL20/25ppm) WL_OP_21.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	22	LL_OP_22.icc (LL20/25ppm) WL_OP_22.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	23	LL_OP_23.icc (LL20/25ppm) WL_OP_23.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	24	LL_OP_24.icc (LL20/25ppm) WL_OP_24.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	25	LL_OP_25.icc (LL20/25ppm) WL_OP_25.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Color profile	Available profile display	9361	26	LL_OP_26.icc (LL20/25ppm) WL_OP_26.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	27	LL_OP_27.icc (LL20/25ppm) WL_OP_27.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	28	LL_OP_28.icc (LL20/25ppm) WL_OP_28.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	29	LL_OP_29.icc (LL20/25ppm) WL_OP_29.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	30	LL_OP_30.icc (LL20/25ppm) WL_OP_30.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	31	LL_OP_31.icc (LL20/25ppm) WL_OP_31.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	32	LL_OP_32.icc (LL20/25ppm) WL_OP_32.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	33	LL_OP_33.icc (LL20/25ppm) WL_OP_33.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Color profile	Available profile display	9361	34	LL_OP_34.icc (LL20/25ppm) WL_OP_34.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	35	LL_OP_35.icc (LL20/25ppm) WL_OP_35.icc (20/25ppm)	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	36	WL_OP_36.icc	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	37	WL_OP_37.icc	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	38	WL_OP_38.icc	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	39	WL_OP_39.icc	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	40	WL_OP_40.icc	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	41	WL_OP_41.icc	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Color profile	Available profile display	9361	42	WL_OP_42.icc	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	43	WL_OP_43.icc	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	44	WL_OP_44.icc	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	45	WL_OP_45.icc	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	46	WL_OP_46.icc	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	47	WL_OP_47.icc	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	48	WL_OP_48.icc	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	49	WL_OP_49.icc	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Color profile	Available profile display	9361	50	WL_OP_50.icc	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	51	WL_OP_51.icc	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	52	WL_OP_52.icc	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Available profile display	9361	53	WL_OP_53.icc	-	-	SYS	Displaying the current Output Profile and PG CIE Based Pure GrayTRC attribute (PG CIE Based PureGray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile		9362		Recovery of the profile at the shipment	0	0-53	SYS	Recovers the default Output Profile and PG CIE Based Pure GrayTRC (PG CIE Based PureGray TRC in the same sub-code is recovered to the default.) <20/25ppm> 0: WL_OP_00 1: WL_OP_01 2: WL_OP_02 ... 51: WL_OP_51 52: WL_OP_52 53: WL_OP_53 <LL20/25ppm> 0: LL_OP_00 1: LL_OP_01 2: LL_OP_02 ... 33: LL_OP_33 34: LL_OP_34 35: LL_OP_35	1	
08	Setting mode	System	General	Color profile		9363		Copying the profile at the shipment to USB memory	0	0-53	SYS	Copies the default Output Profile and PG CIE Based Pure Gray TRC to the USB memory. <20/25ppm> 0: WL_OP_00 1: WL_OP_01 2: WL_OP_02 ... 51: WL_OP_51 52: WL_OP_52 53: WL_OP_53 <LL20/25ppm> 0: LL_OP_00 1: LL_OP_01 2: LL_OP_02 ... 33: LL_OP_33 34: LL_OP_34 35: LL_OP_35	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Color profile		9364		Uploading the profile at the shipment from UBS memory	0	0-53	SYS	Uploads the default Output Profile and PG CIE Based Pure GrayTRC from the USB memory. <20/25ppm> 0: WL_OP_00 1: WL_OP_01 2: WL_OP_02 ... 51: WL_OP_51 52: WL_OP_52 53: WL_OP_53 <LL20/25ppm> 0: LL_OP_00 1: LL_OP_01 2: LL_OP_02 ... 33: LL_OP_33 34: LL_OP_34 35: LL_OP_35	1	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	0	LL_OP_00.000 (LL20/25ppm) WL_OP_00.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	1	LL_OP_01.000 (LL20/25ppm) WL_OP_01.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	2	LL_OP_02.000 (LL20/25ppm) WL_OP_02.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	3	LL_OP_03.000 (LL20/25ppm) WL_OP_03.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	4	LL_OP_04.000 (LL20/25ppm) WL_OP_04.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	5	LL_OP_05.000 (LL20/25ppm) WL_OP_05.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	6	LL_OP_06.000 (LL20/25ppm) WL_OP_06.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	7	LL_OP_07.000 (LL20/25ppm) WL_OP_07.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	8	LL_OP_08.000 (LL20/25ppm) WL_OP_08.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	9	LL_OP_09.000 (LL20/25ppm) WL_OP_09.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	10	LL_OP_10.000 (LL20/25ppm) WL_OP_10.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	11	LL_OP_11.000 (LL20/25ppm) WL_OP_11.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	12	LL_OP_12.000 (LL20/25ppm) WL_OP_12.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	13	LL_OP_13.000 (LL20/25ppm) WL_OP_13.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	14	LL_OP_14.000 (LL20/25ppm) WL_OP_14.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	15	LL_OP_15.000 (LL20/25ppm) WL_OP_15.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	16	LL_OP_16.000 (LL20/25ppm) WL_OP_16.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	17	LL_OP_17.000 (LL20/25ppm) WL_OP_17.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	18	LL_OP_18.000 (LL20/25ppm) WL_OP_18.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	19	LL_OP_19.000 (LL20/25ppm) WL_OP_19.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	20	LL_OP_20.000 (LL20/25ppm) WL_OP_20.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	21	LL_OP_21.000 (LL20/25ppm) WL_OP_21.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	22	LL_OP_22.000 (LL20/25ppm) WL_OP_22.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	23	LL_OP_23.000 (LL20/25ppm) WL_OP_23.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	24	LL_OP_24.000 (LL20/25ppm) WL_OP_24.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	25	LL_OP_25.000 (LL20/25ppm) WL_OP_25.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	26	LL_OP_26.000 (LL20/25ppm) WL_OP_26.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	27	LL_OP_27.000 (LL20/25ppm) WL_OP_27.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	28	LL_OP_28.000 (LL20/25ppm) WL_OP_28.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	29	LL_OP_29.000 (LL20/25ppm) WL_OP_29.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	30	LL_OP_30.000 (LL20/25ppm) WL_OP_30.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	31	LL_OP_31.000 (LL20/25ppm) WL_OP_31.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	32	LL_OP_32.000 (LL20/25ppm) WL_OP_32.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	33	LL_OP_33.000 (LL20/25ppm) WL_OP_33.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	34	LL_OP_34.000 (LL20/25ppm) WL_OP_34.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	35	LL_OP_35.000 (LL20/25ppm) WL_OP_35.000 (20/25ppm)	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.)	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	36	WL_OP_36.000	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	37	WL_OP_37.000	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	38	WL_OP_38.000	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	39	WL_OP_39.000	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	40	WL_OP_40.000	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	41	WL_OP_41.000	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	42	WL_OP_42.000	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	43	WL_OP_43.000	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	44	WL_OP_44.000	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	45	WL_OP_45.000	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	46	WL_OP_46.000	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	47	WL_OP_47.000	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	48	WL_OP_48.000	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	49	WL_OP_49.000	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	50	WL_OP_50.000	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	51	WL_OP_51.000	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	52	WL_OP_52.000	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9365	53	WL_OP_53.000	-	-	SYS	Displays the default Output Profile and PG CIE Based Pure Gray TRC attribute. (PG CIE Based Pure Gray TRC attribute in the same sub-code is displayed at the same time.) * This code is not supported by LL20/25ppm model.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Color profile		9366		Making the profile available	0	0-53	SYS	Selecting a profile Overwrites the adjusted Output Profile on the current area (PG CIE Based Pure Gray TRC in the same sub-code is replaced with the adjusted profile at the same time.) <20/25ppm> 0: WL_OP_00 1: WL_OP_01 2: WL_OP_02 ... 51: WL_OP_51 52: WL_OP_52 53: WL_OP_53 <LL20/25ppm> 0: LL_OP_00 1: LL_OP_01 2: LL_OP_02 ... 33: LL_OP_33 34: LL_OP_34 35: LL_OP_35	1	
08	Setting mode	System	General	Color profile		9367		Copying the adjusted profile to USB memory	0	0-53	SYS	Copies the adjusted Output Profile and PG CIE Based Pure GrayTRC to the USB memory. (PG CIE Based PureGray TRC in the same sub-code is copied to the USB memory at the same time.) <20/25ppm> 0: WL_OP_00 1: WL_OP_01 2: WL_OP_02 ... 51: WL_OP_51 52: WL_OP_52 53: WL_OP_53 <LL20/25ppm> 0: LL_OP_00 1: LL_OP_01 2: LL_OP_02 ... 33: LL_OP_33 34: LL_OP_34 35: LL_OP_35	1	
08	Setting mode	System	General	Color profile		9368		Uploading the adjusted profile from USB memory	0	0-53	SYS	Uploads the Output Profile and PG CIE Based Pure Gray TRC from the USB memory. <20/25ppm> 0: WL_OP_00 1: WL_OP_01 2: WL_OP_02 ... 51: WL_OP_51 52: WL_OP_52 53: WL_OP_53 <LL20/25ppm> 0: LL_OP_00 1: LL_OP_01 2: LL_OP_02 ... 33: LL_OP_33 34: LL_OP_34 35: LL_OP_35	1	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	0	LL_OP_00.001 (LL20/25ppm) WL_OP_00.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	1	LL_OP_01.001 (LL20/25ppm) WL_OP_01.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	2	LL_OP_02.001 (LL20/25ppm) WL_OP_02.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	3	LL_OP_03.001 (LL20/25ppm) WL_OP_03.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	4	LL_OP_04.001 (LL20/25ppm) WL_OP_04.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	5	LL_OP_05.001 (LL20/25ppm) WL_OP_05.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	6	LL_OP_06.001 (LL20/25ppm) WL_OP_06.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	7	LL_OP_07.001 (LL20/25ppm) WL_OP_07.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	8	LL_OP_08.001 (LL20/25ppm) WL_OP_08.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	9	LL_OP_09.001 (LL20/25ppm) WL_OP_09.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	10	LL_OP_10.001 (LL20/25ppm) WL_OP_10.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	11	LL_OP_11.001 (LL20/25ppm) WL_OP_11.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	12	LL_OP_12.001 (LL20/25ppm) WL_OP_12.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	13	LL_OP_13.001 (LL20/25ppm) WL_OP_13.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	14	LL_OP_14.001 (LL20/25ppm) WL_OP_14.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	15	LL_OP_15.001 (LL20/25ppm) WL_OP_15.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	16	LL_OP_16.001 (LL20/25ppm) WL_OP_16.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	17	LL_OP_17.001 (LL20/25ppm) WL_OP_17.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	18	LL_OP_18.001 (LL20/25ppm) WL_OP_18.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	19	LL_OP_19.001 (LL20/25ppm) WL_OP_19.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	20	LL_OP_20.001 (LL20/25ppm) WL_OP_20.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	21	LL_OP_21.001 (LL20/25ppm) WL_OP_21.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	22	LL_OP_22.001 (LL20/25ppm) WL_OP_22.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	23	LL_OP_23.001 (LL20/25ppm) WL_OP_23.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	24	LL_OP_24.001 (LL20/25ppm) WL_OP_24.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	25	LL_OP_25.001 (LL20/25ppm) WL_OP_25.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	26	LL_OP_26.001 (LL20/25ppm) WL_OP_26.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	27	LL_OP_27.001 (LL20/25ppm) WL_OP_27.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	28	LL_OP_28.001 (LL20/25ppm) WL_OP_28.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	29	LL_OP_29.001 (LL20/25ppm) WL_OP_29.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	30	LL_OP_30.001 (LL20/25ppm) WL_OP_30.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	31	LL_OP_31.001 (LL20/25ppm) WL_OP_31.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	32	LL_OP_32.001 (LL20/25ppm) WL_OP_32.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	33	LL_OP_33.001 (LL20/25ppm) WL_OP_33.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	34	LL_OP_34.001 (LL20/25ppm) WL_OP_34.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	35	LL_OP_35.001 (LL20/25ppm) WL_OP_35.001 (20/25ppm)	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	36	WL_OP_36.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	37	WL_OP_37.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	38	WL_OP_38.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	39	WL_OP_39.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	40	WL_OP_40.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	41	WL_OP_41.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	42	WL_OP_42.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	43	WL_OP_43.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	44	WL_OP_44.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	45	WL_OP_45.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	46	WL_OP_46.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	47	WL_OP_47.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	48	WL_OP_48.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	49	WL_OP_49.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	50	WL_OP_50.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	51	WL_OP_51.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	52	WL_OP_52.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	
08	Setting mode	System	General	Color profile	Displaying the attribute of the profile at the shipment	9369	53	WL_OP_53.001	-	-	SYS	Displays the adjusted Output Profile and PG CIE Based Pure GrayTRC attribute in the same sub-code. * This code is not supported by LL20/25ppm model.	14	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	User interface	Security		9379		AES data encryption function setting	Refer to contents	0-2	SYS	0: Encryption invalid 1: Encryption valid (Security priority) Encrypts all of the user's data. 2: Encryption valid (Performance priority) Encrypts the user's data except the files temporarily created and deleted in the image processing such as copying or printing. * If the setting is changed, the data including user's data are erased. <Default value> NAD: 2 (When HDD is installed) 1 (When HDD is not installed) Others: 0	1	
08	Setting mode	System	User interface	Email		9380		Converting 1-byte katakana into 2 byte-katakana at e-mail transmission	1	0-1	SYS	0: Non-conversion1: With conversion	1	
08	Setting mode	System	General	Paper size setting		9381		Custom size (Photo size)	148/100	10-434/10-300	SYS	Value of feeding/widthwise direction	10	
08	Setting Mode	System	User interface	Default setting of filing format	E-mail	9384		Color/ACS	1	0-8	SYS	0: TIFF (Multi) 1: PDF (Multi) 2: JPG 3: TIFF (Single) 4: PDF (Single) 5: SLIM PDF (Multi) 6: SLIM PDF (Single) 7: XPS (Multi) 8: XPS (Single)	1	Yes
08	Setting mode	System	Network	Notification of scan job		9386	0	When job completed	0	0-1	SYS	Sets the notification method of scan job completion. 0: Invalid 1: Valid	4	
08	Setting mode	System	Network	Notification of scan job		9386	1	On error	0	0-1	SYS	Sets the notification method of scan job completion. 0: Invalid 1: Valid	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Network	Scanning		9387		File name format of "Save as file" and Email transmission	0	0-6	SYS	Sets the file naming method for "Save as file" and Email transmission. 0: [FileName]-[Data]-[Page] 1: [FileName]-[Page]-[Data] 2: [Data]-[FileName]-[Page] 3: [Data]-[Page]-[File-Name] 4: [Page]-[FileName]-[Data] 5: [Page]-[Data]-[File-Name] 6: [HostName]_[Data]-[Page]	1	
08	Setting mode	System	Network	Scanning		9388		Date display format of the file name of "Save as file" and Email transmission	0	0-5	SYS	Sets the data display format of the file for "Save as file" and Email transmission. 0: [YYYY][MM][DD][HH][mm][SS] 1: [YY][MM][DD][HH][mm][SS] 2: [YYYY][MM][DD] 3: [YY][MM][DD] 4: [HH][mm][SS] 5: [YYYY][MM][DD][HH][mm][SS][mm0] The order of [YY], [MM] and [DD] varies depending on the setting of the code 08-9102 (Data display format).	1	
08	Setting mode	System	Network	Scanning		9389		Single page data saving directory at "Save as file"	0	0-1	SYS	Sets the directory where the file of "Save as file" is saved. 0: Save it under a subfolder 1: Save it without creating a subfolder	1	
08	Setting mode	System	Network	Scanning		9390		Page number display format of the file of "Save as file" and Email transmission	4	3-6	SYS	Sets the digit of a page number attached on the file. 3-6: 3-6 digits	1	
08	Setting mode	System	Network	Scanning		9391		Extension (suffix) format of the file of "Save as file"	3	3-6	SYS	Sets the extension digits of the file to be saved. 3: Auto 4: 4 digits 5: 5 digits 6: 6 digits	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Network	Scanning		9394		Single-page option for storing File and sending Email	0	0-1	SYS	0: Sets 1 page as 1 file 1: Makes a file based on the original	1	
08	Setting mode	System	User interface	LDAP authentication		9397		Execution of user authentication when the user ID is not entered	2	0-2	SYS	0: Forcible execution1: Execution impossible (pooled in the invalid queue) 2: Forcible deletion	1	
08	Setting Mode	System	User interface	Card reading device	LDAP authentication	9398		LDAP attribute name settings 1	eBMUse rCard	-	SYS	Maximum 32 characters (ASCII).	11	
08	Setting mode	System	User interface	LDAP authentication		9399		Role Based Access LDAP search index	0	0-429496729 5	SYS	This code is used to specify the ID for the LDAP server to implement Role-Based Access Control.	5	
08	Setting mode	System	Network	Ethernet		9403		Communication speed and settings of Ethernet	1	1-7	-	1: Auto 2: - 3: 10MBPS Full Duplex 4: - 5: 100MBPS Full Duplex 6: - 7: 1000MBPS Full Duplex	12	
08	Setting Mode	System	Network	TCP/IP		9406		Method of acquiring IP address	2	1-3	NIC	1: Fixed IP address 2: Dynamic IP address 3: Dynamic IP address without Auto IP	12	Yes
08	Setting mode	System	Network			9407		Domain name	-	-	NIC	Maximum 96 letters	12	
08	Setting Mode	System	Network	TCP/IP		9408		IP address	Refer to contents	Refer to contents	NIC	<Default value> 0.0.0.0 <Acceptable value> 0.0.0.0-255.255.255.255	12	Yes
08	Setting Mode	System	Network	TCP/IP		9409		Subnet mask	Refer to contents	Refer to contents	NIC	<Default value> 0.0.0.0 <Acceptable value> 0.0.0.0-255.255.255.255	12	Yes
08	Setting Mode	System	Network	TCP/IP		9410		Gateway	Refer to contents	Refer to contents	NIC	<Default value> 0.0.0.0 <Acceptable value> 0.0.0.0-255.255.255.255	12	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Network	IPX/SPX		9411		Enable/disable setting of IPX/SPX	2	1-2	NIC	1: Enabled 2: Disabled	12	
08	Setting mode	System	Network	AppleTalk		9414		Availability of AppleTalk	2	1-2	NIC	1: Enabled 2: Disabled * This code is not supported by LL20/25ppm model.	12	
08	Setting mode	System	Network	AppleTalk		9414		Availability of AppleTalk (EFI)	2	1-2	NIC	1: Enabled 2: Disabled The default value is reflected by performing 08-9951 when the EFI Printer Board is connected.	12	
08	Setting mode	System	Network	LDAP		9416		Availability of LDAP	1	1-2	NIC	1: Available 2: Not available	12	
08	Setting Mode	System	Network	DNS		9417		Availability of DNS	1	1-2	NIC	1: Available 2: Not available	12	Yes
08	Setting Mode	System	Network	DNS		9418		IP address to DNS server (Primary)	-	Refer to contents	NIC	<Acceptable value> 0.0.0.0-255.255.255.255	12	Yes
08	Setting Mode	System	Network	DNS		9419		IP address to DNS server (Secondary)	-	Refer to contents	NIC	<Acceptable value> 0.0.0.0-255.255.255.255	12	Yes
08	Setting mode	System	Network	NetWare		9421		Availability of SLP	1	1-2	NIC	Sets the availability of SLP on NetWare. 1: Enabled 2: Disabled	12	
08	Setting mode	System	Network			9423		NetBios name	MFP-serial	-	NIC	Maximum 15 letters The network-related serial number of the equipment appears at "serial"	12	
08	Setting mode	System	Network			9424		Name of WINS server or IP address (Primary)	Refer to contents	Refer to contents	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12	
08	Setting mode	System	Network			9425		Name of WINS server or IP address (Secondary)	Refer to contents	Refer to contents	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12	
08	Setting mode	System	Network	NetWare		9426		Availability of Bindery	1	1-2	NIC	1: Available 2: Not available	12	
08	Setting mode	System	Network	NetWare		9427		Availability of NDS	1	1-2	NIC	1: Available 2: Not available	12	
08	Setting mode	System	Network	HTTP		9430		Availability of HTTP server	1	1-2	NIC	1: Available 2: Not available	12	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Network	SMTP		9437		Availability of SMTP client	1	1-2	NIC	1: Available 2: Not available	12	
08	Setting mode	System	Network	SMTP		9438		FQDN or IP address to SMTP server	-	-	NIC	Maximum 128 Bytes	12	
08	Setting mode	System	Network	SMTP		9440		Availability of SMTP server	1	1-2	UTY	1: Available 2: Not available	12	
08	Setting mode	System	Network	POP3		9446		Availability of POP3 clients	1	1-2	NIC	1: Available 2: Not available	12	
08	Setting mode	System	Network			9459		Availability of FTP server	1	1-2	NIC	1: Available 2: Not available	12	
08	Setting mode	System	Network	SNMP		9463		Availability of MIB function	1	1-2	NIC	1: Valid 2: Invalid	12	
08	Setting mode	System	Network	Raw TCP		9473		Availability of Raw/TCP	1	1-2	NIC	1: Valid 2: Invalid	12	
08	Setting mode	System	Network	LPD		9475		Availability of LPD client	1	1-2	NIC	1: Valid 2: Invalid	12	
08	Setting mode	System	Network	IPP		9478		Availability of IPP	1	1-2	NIC	1: Valid 2: Invalid	12	
08	Setting mode	System	Network	IPP		9481		IPP printer name	MFPseri al	-	NIC	Maximum 127 letters The network-related serial number of the equipment appears at "serial"	12	
08	Setting mode	System	Network	IPP		9486		IPP printer "Make and Model"	Refer to contents	-	NIC	Maximum 127 characters <Default value> mfp model name	12	
08	Setting mode	System	Network	IPP		9487		IPP printer information (more) MFGR	-	-	NIC	Maximum 127 characters	12	
08	Setting mode	System	Network	IPP		9488		IPP message from operator	-	-	NIC	Maximum 127 characters	12	
08	Setting mode	System	Network	FTP		9489		Availability of FTP print	1	1-2	NIC	1: Available 2: Not available	12	
08	Setting mode	System	Network	Email		9499		Page number limitation for printing text of received Email	5	1-99	SYS		1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Network			9505		Bonjour setting	1	1-2	NIC	1: Valid 2: Invalid	12	
08	Setting mode	System	Network			9514		Host name	MFP_ser ial	-	NIC	Maximum 63 letters The network-related serial number of the equipment appears at "serial"	12	
08	Setting mode	System	Network	Windows authentication		9515		Windows domain No.1 of user authentication	-	-	UTY	Maximum 128 letters	12	
08	Setting mode	System	Network	Windows authentication		9516		PDC (Primary Domain Controller) name No.1 of authentication	-	-	UTY	Maximum 128 letters	12	
08	Setting mode	System	Network	Windows authentication		9517		BDC (Backup Domain Controller) name No.1 of authentication	-	-	UTY	Maximum 128 letters	12	
08	Setting mode	System	Network	Windows authentication		9518		Windows domain of device authentication	4	3-4	NIC	3: ON (Domain selected) 4: OFF (Work group selected)	12	
08	Setting Mode	System	Network			9519		Workgroup name	Workgro up	-	NIC	Maximum 15 letters	12	
08	Setting Mode	System	Network			9525		Display of MAC address	-	-	-	(**:**:**:**:**:**) The address is displayed as above. 6-byte data is divided by colon.	2	Yes
08	Setting mode	System	Network	SSL		9548		HTTP server OFF/ON	2	1-2	-	1: Enabled 2: Disabled	12	
08	Setting mode	System	Network	SSL		9550		IPP server OFF/ON setting	2	1-2	-	1: Enabled 2: Disabled	12	
08	Setting mode	System	Network	SSL		9552		SSL ftp server OFF/ON	2	1-2	-	OFF/ON1: Valid2: Invalid	12	
08	Setting mode	System	Network	SSL		9556		SSL POP3 Client OFF/ON	2	1-3	-	OFF/ON 1: Valid (Accepts all the certification of the server) 2: Invalid 3: Use the imported certification.	12	
08	Setting mode	System	Network	TCP/IP		9563		IP Conflict Detect	1	1-2	-	OFF/ON 1: Valid 2: Invalid	12	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Network	SNTP		9564		SNTP Enable	2	1-2	-	OFF/ON 1: Valid 2: Invalid	12	
08	Setting mode	System	Network	DHCP	DNS Server	9580		Enabling server's IP address acquired by DHCP	1	1-2	-	Domain Name Server option (6) 1: Enabled 2: Disabled This value is used only when DHCP is enabled.	12	
08	Setting mode	System	Network	DHCP	NetBIOS over TCP/IP Name Server	9581		Enabling server's IP address acquired by DHCP	1	1-2	-	NetBIOS over TCP/IP Name Server option (44) = Primary and Secondary Wins NAME 1: Enabled 2: Disabled This value is used only when DHCP is enabled.	12	
08	Setting mode	System	Network	SMTP		9584		SMTP Server Option (69) Simple Mail Server Address	2	1-2	-	OFF/ON1: Valid2: Invalid	12	
08	Setting mode	System	Network	POP3		9585		POP3 Server Option (70) Post Office Server Address	2	1-2	-	OFF/ON1: Valid2: Invalid	12	
08	Setting mode	System	Network	DHCP	SNTP	9587		Enabling server's IP address acquired by DHCP	2	1-2	-	SNTP Server Option (42) NTP Server Address 1: Enabled 2: Disabled This value is used only when DHCP is enabled.	12	
08	Setting mode	System	Network	SMB		9599		Samba server ON/OFF setting	Refer to contents	1-4	NIC	1: Samba enabled 2: Samba disabled 3: Print Share disabled 4: File Share disabled <Default value> 20/25ppm: 1 LL20/25ppm: 4	12	
08	Setting mode	System	Network	SMB		9599		Samba server ON/OFF setting (When HDD is installed)	1	1月4日	NIC	1: Samba enabled 2: Samba disabled 3: Print Share disabled 4: File Share disabled	12	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	Maintenan ce	General		9601		Equipment number (serial number) display	-	9 digits	SYS	Fist digit: Production country (fixed) Second digit: Model (fixed) Third digit: Month (variable) Fourth to ninth digit: serial number (variable) This can be also entered with 05-9043.	11	Yes
08	Setting mode	System	Maintenan ce			9602		Dealer's name	-	-	SYS	Maximum 100 letters Needed at initial registration	11	
08	Setting Mode	System	Maintenan ce	RDMS		9603		Login name	-	20 letters	SYS	Maximum 20 letters Needed at initial registration	11	Yes
08	Setting Mode	System	Maintenan ce	Remote-controlled service	Call /Display function	9604		Display set of Service Notification button	Refer to contents	0-1	SYS	0: Not displayed 1: Displayed <Default value> NAD/MJD: 1 Others: 0	1	Yes
08	Setting mode	System	Maintenan ce	RDMS		9605		Sending error contents of equipment	0	0-1	SYS	0: Invalid 1: Valid	1	
08	Setting mode	System	Maintenan ce	Remote-controlled service		9606		Setting total counter transmission interval	-	-	SYS	(Hour/Hour/Minute/Minute)	1	
08	Setting mode	System	Maintenan ce	Remote-controlled service		9607		Destination E-mail address 2	-	-	SYS	Maximum 192 letters	11	
08	Setting mode	System	Maintenan ce	Remote-controlled service		9608		Destination E-mail address 3	-	-	SYS	Maximum 192 letters	11	
08	Setting mode	System	Maintenan ce	RDMS		9610		Polling day selection Day-1	0	0-31	SYS	0: OFF 1 to 31: 1st to 31st of a month	1	
08	Setting mode	System	Maintenan ce	RDMS		9611		Polling day selection Day-2	0	0-31	SYS	0: OFF 1 to 31: 1st to 31st of a month	1	
08	Setting mode	System	Maintenan ce	RDMS		9612		Polling day selection Day-3	0	0-31	SYS	0: OFF 1 to 31: 1st to 31st of a month	1	
08	Setting mode	System	Maintenan ce	RDMS		9613		Polling day selection Day-4	0	0-31	SYS	0: OFF 1 to 31: 1st to 31st of a month	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	Maintenan ce	RDMS	Remote-controlled service polling day	9614		Sunday	1	0-1	SYS	0: Invalid 1: Valid	1	Yes
08	Setting Mode	System	Maintenan ce	RDMS	Remote-controlled service polling day	9615		Monday	1	0-1	SYS	0: Invalid 1: Valid	1	Yes
08	Setting Mode	System	Maintenan ce	RDMS	Remote-controlled service polling day	9616		Tuesday	1	0-1	SYS	0: Invalid 1: Valid	1	Yes
08	Setting Mode	System	Maintenan ce	RDMS	Remote-controlled service polling day	9617		Wednesday	1	0-1	SYS	0: Invalid 1: Valid	1	Yes
08	Setting Mode	System	Maintenan ce	RDMS	Remote-controlled service polling day	9618		Thursday	1	0-1	SYS	0: Invalid 1: Valid	1	Yes
08	Setting Mode	System	Maintenan ce	RDMS	Remote-controlled service polling day	9619		Friday	1	0-1	SYS	0: Invalid 1: Valid	1	Yes
08	Setting Mode	System	Maintenan ce	RDMS	Remote-controlled service polling day	9620		Saturday	1	0-1	SYS	0: Invalid 1: Valid	1	Yes
08	Setting mode	System	Maintenan ce	Remote-controlled service	Information of supplies	9621		Setting of toner cartridge C	0	0-1	SYS	0: Invalid 1: Valid	1	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Information of supplies	9622		Setting of toner cartridge M	0	0-1	SYS	0: Invalid 1: Valid	1	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Information of supplies	9623		Setting of toner cartridge Y	0	0-1	SYS	0: Invalid 1: Valid	1	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Information of supplies	9624		Setting of toner cartridge K	0	0-1	SYS	0: Invalid 1: Valid	1	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Information of supplies	9625		Setting of waste toner box	0	0-1	SYS	0: Invalid 1: Valid	1	
08	Setting mode	System	Maintenan ce	RDMS	Long interval polling	9626		Setting of polling at the end of month	0	0-1	SYS	0: Invalid 1: Valid	1	
08	Setting mode	System	Network	InternetFAX		9627		Sending mail text of Internet FAX	1	0-1	SYS	0: Invalid 1: Valid	1	
08	Setting mode	System	Network	SMTP		9628		From Name Creation setting in SMTP authentication	0	0-2	SYS	0: Not edited 1: Account name of From Address +Device name 2: LDAP searching	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Wireless LAN			9649		Wireless LAN setting	2	1-2	NIC	Sets whether the wireless LAN connection is enabled or disabled. 1: Enabled 2: Disabled	12	
08	Setting mode	System	Network	DHCP	DNS Client	9694		Enabling server's IP address acquired by DHCP	1	1-2	-	DNS domain name Option (15) DNS domain name of the client 1: Enabled 2: Disabled This value is used only when DHCP is enabled.	12	
08	Setting mode	System	User interface			9698		Color mode notification setting at ACS	0	0-1	SYS	0: Color 1: Black	1	
08	Setting Mode	System	Maintenan ce	General		9700		Service technician telephone number	0	32 digits	SYS	A telephone number can be entered up to 32 digits. Use the [MONITOR/PAUSE] button to enter a hyphen(-).	11	Yes
08	Setting mode	System	User interface			9702		Automatic calibration disclosure level	1	0-2	SYS	Sets the disclosing level of automatic calibration. 0: Service technician 1: Administrator 2: User	1	
08	Setting Mode	System	Maintenan ce	General		9703		Error history display	-	-	SYS	Displays the latest 20 errors data	2	Yes
08	Setting mode	System	Network	Scanning		9709		Default data saving directory of "Scan to File"	0	0-2	SYS	0: Local directory 1: REMOTE 1 2: REMOTE 2	1	
08	Setting Mode	System	Maintenan ce	RDMS	General	9710		Remote-controlled service function	2	0-2	SYS	0: Valid (Remote-controlled server) 1: Valid (L2) 2: Invalid	1	Yes
08	Setting Mode	System	Maintenan ce	RDMS	HTTP	9711		Remote-controlled service URL setting	-	-	SYS	Maximum 256 letters	11	Yes
08	Setting Mode	System	Maintenan ce	RDMS	HTTP	9715		Initially-registered server URL setting	Refer to contents	-	SYS	Maximum 256 letters <Default value> https://device.mfp-support.com:443/device/firstregist.ashx	11	Yes
08	Setting mode	System	Maintenan ce (Remote)	RDMS		9718		Short time interval setting of recovery from Emergency Mode	24	1-48	SYS	Sets the time interval to recover from the Emergency Mode to the Normal Mode. (Unit: Hour)	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Maintenan ce	RDMS		9719		Short time interval setting of Emergency Mode	60	30-360	SYS	Unit: Minute	1	
08	Setting Mode	System	Maintenan ce	RDMS	General	9723		Periodical polling timing	1000	0-2359	SYS	(Hour/Hour/Minute/Minute) 0 (0:00) to 2359 (23:59)	1	Yes
08	Setting Mode	System	Maintenan ce	RDMS	General	9724		Writing data of self-diagnostic code	0	0-1	SYS	0: Prohibited 1: Accepted	1	Yes
08	Setting Mode	System	Maintenan ce	RDMS	General	9726		Remote-service initial registration	0	0-3	SYS	0: OFF 1: Start 2: Only certification is scanned 3: RDMS communication starts	1	Yes
08	Setting Mode	System	Maintenan ce	RDMS	General	9727		Remote-controlled service tentative password	-	10 letters	SYS	Maximum 10 letters	11	Yes
08	Setting Mode	System	Maintenan ce	RDMS	General	9729		Status of remote-service initial regist	0	0-1	SYS	0: Not registered 1: Registered	2	Yes
08	Setting Mode	System	Maintenan ce	RDMS	Call /Display function	9730		Service center call function	1	0-2	SYS	0: OFF 1: Notifies all service calls 2: Notifies all but paper jams	1	Yes
08	Setting Mode	System	Maintenan ce	RDMS	HTTP	9732		Service center call HTTP server URL setting	-	-	SYS	Maximum 256 letters	11	Yes
08	Setting mode	System	Counter	External counter		9736		Interrupt copying	0	0-1	SYS	0: Invalid 1: Valid	1	
08	Setting Mode	System	Maintenan ce	RDMS	Call /Display function	9739		Toner-end notification	0	0-2	SYS	0: RDMS toner empty notified immediately 1: RDMS toner empty notified once a day 2: RDMS toner empty not notified	1	Yes
08	Setting Mode	System	Maintenan ce	RDMS	HTTP	9740		HTTP proxy setting	1	0-1	SYS	0: Valid 1: Invalid	1	Yes
08	Setting Mode	System	Maintenan ce	RDMS	HTTP	9741		HTTP proxy IP address setting	Refer to contents	-	SYS	Input IP address or FQDN. <Default value> 0.0.0.0	11	Yes
08	Setting Mode	System	Maintenan ce	RDMS	HTTP	9742		HTTP proxy port number setting	0	0-65535	SYS		1	Yes

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	Maintenan ce	RDMS	HTTP	9743		HTTP proxy ID setting	-	-	SYS	Maximum 30 letters	11	Yes
08	Setting Mode	System	Maintenan ce	RDMS	HTTP	9744		HTTP proxy password setting	-	-	SYS	Maximum 30 letters	11	Yes
08	Setting Mode	System	Maintenan ce	RDMS	HTTP	9745		HTTP proxy panel display	1	0-1	SYS	0: Valid 1: Invalid	1	Yes
08	Setting mode	System	Network	Security		9746		802.1X/Dynamic WEP selecting button display	1	0-1	SYS	Switches whether a selecting button for Security mode 802.1X/Dynamic WEP is displayed or not. 0: Not displayed 1: Displayed	1	
08	Setting mode	System	Network	Scanning		9749		WIA Scan Driver	1	1-2	NIC	Selects WIA Scan Driver. 1: TTEC 2: Microsoft	12	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Automatic ordering function of supplies	9750		Ordering method	3	0-3	SYS	0: Ordered by FAX 1: Ordered by E-mail 2: Ordered by HTTP 3: OFF	1	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Automatic ordering function of supplies	9751		FAX number	-	-	SYS	Maximum 32 digits Enter hyphen with the [Monitor/Pause] button	11	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Automatic ordering function of supplies	9752		E-mail address	-	-	SYS	Maximum 192 letters List: 256 digits	11	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Automatic ordering function of supplies	9756		User's name	-	-	SYS	Maximum 50 letters	11	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Automatic ordering function of supplies	9757		User's telephone number	-	-	SYS	Maximum 32 digits Enter hyphen with the [Monitor/Pause] button	11	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Automatic ordering function of supplies	9758		User's E-mail address	-	-	SYS	Maximum 192 letters List: 256 digits	11	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Automatic ordering function of supplies	9759		User's address	-	-	SYS	Maximum 100 letters	11	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Automatic ordering function of supplies	9760		Service number	-	-	SYS	Maximum 5 digits	11	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Automatic ordering function of supplies	9761		Service technician's name	-	-	SYS	Maximum 50 letters	11	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Maintenan ce	Remote-controlled service	Automatic ordering function of supplies	9762		Service technician's telephone number	-	-	SYS	Maximum 32 digits Enter hyphen with the [Monitor/Pause] button	11	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Automatic ordering function of supplies	9763		Service technician's E-mail address	-	-	SYS	Maximum 192 letters List: 256 digits	11	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Automatic ordering function of supplies	9764		Supplier's name	-	-	SYS	Maximum 50 letters	11	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Automatic ordering function of supplies	9765		Supplier's address	-	-	SYS	Maximum 100 letters	11	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Automatic ordering function of supplies	9766		Notes	-	-	SYS	Maximum 128 letters	11	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Information about supplies	9767		Part number of toner cartridge C	-	-	SYS	Maximum 20 digits	11	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Information about supplies	9768		Order quantity of toner cartridge C	1	1-99	SYS		1	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Information about supplies	9769		Condition number of toner cartridge C	1	1-99	SYS		1	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Information about supplies	9770		Part number of toner cartridge M	-	-	SYS	Maximum 20 digits	11	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Information about supplies	9771		Order quantity of toner cartridge M	1	1-99	SYS		1	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Information about supplies	9772		Condition number of toner cartridge M	1	1-99	SYS		1	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Information about supplies	9773		Part number of toner cartridge Y	-	-	SYS	Maximum 20 digits	11	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Information about supplies	9774		Order quantity of toner cartridge Y	1	1-99	SYS		1	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Information about supplies	9775		Condition number of toner cartridge Y	1	1-99	SYS		1	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Information about supplies	9776		Part number of toner cartridge K	-	-	SYS	Maximum 20 digits	11	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Information about supplies	9777		Order quantity of toner cartridge K	1	1-99	SYS		1	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Information about supplies	9778		Condition number of toner cartridge K	1	1-99	SYS		1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Maintenan ce	Remote-controlled service	Information about supplies	9779		Part number of waste toner box	-	-	SYS	Maximum 20 digits	11	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Information about supplies	9780		Order quantity of waste toner box	1	1-99	SYS		1	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Information about supplies	9781		Condition number of waste toner box	1	1-99	SYS		1	
08	Setting mode	System	Maintenan ce	Remote-controlled service	Automatic supply ordering	9782		Result table printout	1	0-2	SYS	0: OFF 1: Always 2: ON Error	1	
08	Setting Mode	System	Maintenan ce	Remote-controlled service	Automatic supply ordering	9783		Call /Display function	Refer to contents	0-2	SYS	0: Valid (FAX/Internet FAX) 1: Valid (FAX/Internet FAX/HTTP) 2: Invalid <Default value> NAD: 0 Others: 2	1	Yes
08	Setting mode	System	Maintenan ce	Remote-controlled service	Automatic supply ordering	9784		Counter notification Remote FAX setting	-	-	SYS	Maximum 32 digits Enter a hyphen with the [MONITOR/PAUSE] button.	11	
08	Setting Mode	System	Counter			9787		Suspend when quota is empty	0	0-1	SYS	Sets whether the process is suspended immediately or suspended after the job is completed if quota is used up. 0: Suspended immediately 1: Suspended after the job is finished	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Maintenan ce			9788		Service call checking period setting	6	0-12	SYS	0: No checking period specified (= Calls service technician immediately) 1: 10 minutes 2: 30 minutes 3: 1 hour 4: 6 hours 5: 12 hours 6: 24 hours 7: 48 hours 8: 7 days 9: 1 month 10: 1 year 11: 5 years 12: Not limited (= Calls service technician if such error has occurred in the past even once or more)	1	
08	Setting mode	System	General			9789		Default repeat count	2	2-8	SYS	Unit: times	1	
08	Setting mode	System	Maintenan ce	Remote-controlled service		9793		Service Notification setting	0	0-2	SYS	Enables to set up to 3 E-mail addresses to be sent. (08-9794, 9607, 9608) 0: Invalid 1: Valid (E-mail) 2: Valid (FAX)	1	
08	Setting mode	System	Maintenan ce	Remote-controlled service		9794		Destination E-mail address 1	-	-	SYS	Maximum 192 letters	11	
08	Setting mode	System	Maintenan ce	Remote-controlled service		9795		Total counter information transmission setting	0	0-1	SYS	0: Invalid 1: Valid	1	
08	Setting mode	System	Maintenan ce	Remote-controlled service		9796		Total counter transmission date setting	0	0-31	SYS	0 to 31	1	
08	Setting mode	System	Maintenan ce	Remote-controlled service		9797		PM counter notification setting	0	0-1	SYS	0: Invalid 1: Valid	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Network			9798		Temporary communication password setting	99999	-	SYS	Sets a temporary communication password. The password can be entered in alphanumeric characters (A to Z, a to z, 0 to 9) up to 10 digits. The entered password is displayed with "*" on the touch panel and the self-diagnostic lists. (Maximum 10 digits, minimum 5 digits)	11	
08	Setting mode	System	User managem ent	Local authentication		9799		Switchover of mode	0	0-1	SYS	Sets the authentication mode when "0: (Internal authentication)" is selected in the code 08-9293. 0: Card ID differs from the User ID 1: Card ID is the same as the User ID	1	
08	Setting mode	System	Image processing			9804		Forcible mode change in toner empty status	0	0-2	SYS	0: SLEEP MODE 1: AUTO POWER SAVE 2: READY	1	
08	Setting mode	System	Finisher	Interruption of stapling operation (no staple)		9810	0	Copying	1	0-1	SYS	When staple runs out while printing in the stapling mode, sets whether printing is interrupted or printing is continued by switching to sorting. This code is valid only when printing in the stapling mode. However, printing is always interrupted when staple for saddle stitch runs out. 0: Continues printing by switching to sort setting 1: Interrupts printing	4	
08	Setting mode	System	Finisher	Interruption of stapling operation (no staple)		9810	1	Printing / BOX printing	0	0-1	SYS	When staple runs out while printing in the stapling mode, sets whether printing is interrupted or printing is continued by switching to sorting. This code is valid only when printing in the stapling mode. However, printing is always interrupted when staple for saddle stitch runs out. 0: Continues printing by switching to sort setting 1: Interrupts printing	4	
08	Setting mode	System	Finisher	Stapling setting: Maximum number of sheets acceptable exceeding upper limit	Long size	9811	0	Plain/Recycled	0	-50-50	SYS	-50 to 50	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Finisher	Stapling setting: Maximum number of sheets acceptable exceeding upper limit	Long size	9811	1	Thick1	0	-50-50	SYS	-50 to 50	4	
08	Setting mode	System	Finisher	Stapling setting: Maximum number of sheets acceptable exceeding upper limit	Long size	9811	2	Thick2	0	-50-50	SYS	-50 to 50	4	
08	Setting mode	System	General	Number of output pages for pausing continuous printing for 2nd transfer resistance detection control		9814		At normal temperatures	4	0-100	SYS	When the setting value of this code is "1" or higher, the 2nd transfer resistance detection is performed every time the number of pages of (setting value X 100) have output.	1	
08	Setting mode	System	General	Number of output pages for pausing continuous printing for 2nd transfer resistance detection control		9815		At low temperatures	10	0-100	SYS	When the setting value of this code is "1" or higher, the 2nd transfer resistance detection is performed every time the number of pages of (setting value X 10) have output.	1	
08	Setting mode	System	General			9816		Addition of the page number to the multi-page file name of File	0	0-1	SYS	Only when job is executed with TimeStamp enabled for file storage, page number is added with the format set at 08-9387. 0: Invalid (Page number not added) 1: Valid (Page number added)	1	
08	Setting mode	System	General			9817		Maximum number of decimals in the extension fields	2	0-6	SYS	0 to 6 digits	1	
08	Setting mode	System	General			9818		The default value of the stored/attached file name of a File/Email	0	0-1	SYS	0: DOCYYMMDD1: NetBios name	1	
08	Setting mode	System	User interface	Off Device Customization Architecture		9819		STAGE SSL	0	0-1	SYS	Sets whether SSL communication is enabled or disabled for remote scanning. 0: Disabled 1: Enabled	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	User interface	Off Device Customization Architecture		9820		STAGE I/F	1	0-1	SYS	Sets whether interface is enabled or disabled for remote scanning. 0: Disabled 1: Enabled	1	
08	Setting mode	System	User interface	Off Device Customization Architecture		9821		Port number	49629	0-65535	SYS	Sets a port number for the remote scanning.	1	
08	Setting mode	System	User interface	Off Device Customization Architecture		9822		SSL port number	49630	0-65535	SYS	Sets an SSL port number for remote scanning using SSL communication.	1	
08	Setting mode	System	Network			9823		User name and password at user authentication or "Save as file"	0	0-2	SYS	0: User name and password of the device 1: User name and password at the user authentication (Template registration information comes first when a template is retrieved.) 2: User name and password at the user authentication (User information of the authentication comes first when a template is retrieved.)	1	
08	Setting mode	System	Image			9825		Image quality of the black part in the ACS mode	0	0-1	SYS	0: Black 1: Gray scale	1	
08	Setting mode	System	General	Department management		9829		Limitation setting	0	0-3	SYS	Decide the default limitation setting when the new department code is created. 0: No limit 1: Limited only in the black mode 2: Limited in the color mode 3: Limited in the black/color mode	1	
08	Setting mode	System	Finisher			9847		Hole punching setting	0	0-1	SYS	0: Invalid 1: Valid	1	
08	Setting mode	System	General	Display setting		9848		Registration disclosure level setting	1	0-2	SYS	0: Displays no icons 1: ADMIN 2: USER	1	
08	Setting mode	System	General	Remote-controlled service	Automatic ordering function of supplies	9880		Total counter data transmission date 2	0	0-31	SYS	0 to 31	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	Remote-controlled service	Automatic ordering function of supplies	9881		Day of the total counter data transmission	0	0-127	SYS	1 byte 00000000(0)-01111111(127)From the 2nd bit - Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday	1	
08	Setting mode	System	General	Security	Hardcopy security printing	9883		Enable/Disable setting	0	0-1	SYS	0: Disabled 1: Enabled	1	
08	Setting mode	System	General	Security	Hardcopy security printing	9884		Counting method switchover	0	0-1	SYS	0: Counted as 1 1: Counted as 2	1	
08	Setting mode	System	General			9886		Decimal point indication for Enhanced Scan Template	Refer to contents	0-1	SYS	0: Comma 1: Full stop <Default value> MJD: 0 Others: 1	1	
08	Setting mode	System	General			9888		Permission setting for changing the scan parameter when recalling an extension	0	0-1	SYS	0: Prohibited1: Accepted	1	
08	Setting Mode	System	General	Data cloning		9889		Status display for USB cloning	0	0-1	SYS	0: Accepted 1: Prohibited	2	Yes
08	Setting Mode	System	User interface	Display setting		9891		Warning message when PM time has come	1	0-1	SYS	0: No warning notification 1: Warning notification	1	Yes
08	Setting mode	System	General			9892		Monocolor counting method	0	0-2	SYS	Sets the counting method of fee charging or duplexing count in the Monocolor mode. Department and user counters are not applicable. 0: Mono/Twin Color 1: Black 2: Full Color	1	
08	Setting mode	System	General			9894		Calibration chart charging method	0	0-1	SYS	Decide whether the calibration chart printing is charged or not 0: No charge 1: Charge	1	
08	Setting mode	System	Image	Default value setting	Background peak adjustment	9897		Black	5	1-9	SYS	1: -4 2: -3 3: -2 4: -1 5: 0 6: +1 7: +2 8: +3 9: +4	1	
08	Setting mode	System	Image	Default value setting	Density in the scan mode	9898		Color	6	0-11	SYS	0: Auto 1: -5 2: -4 3: -3 4: -2 5: -1 6: 0 7: +1 8: +2 9: +3 10: +4 11: +5	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Image	Default value setting	Density in the scan mode	9899		Grayscale	6	0-11	SYS	0: Auto 1: -5 2: -4 3: -3 4: -2 5: -1 6: 0 7: +1 8: +2 9: +3 10: +4 11: +5	1	
08	Setting Mode	System	Version	System		9900		System software ROM version	-	-	-	TXXXSY0WXXXX	2	Yes
08	Setting Mode	System	Version	Engine		9901		Engine firmware version	-	-	-	210M-XXX	2	Yes
08	Setting Mode	System	Version	System		9902		Scanner firmware version	-	-	-	210S-XXX	2	Yes
08	Setting Mode	System	Version	Engine		9903		RADF firmware version	-	-	-	DF-XXXX	2	Yes
08	Setting Mode	System	Version	Finisher		9904		Finisher firmware version	-	-	-	FIN-XXX * This code is not supported by LL20/25ppm model.	2	Yes
08	Setting Mode	System	Version	FAX		9905		FAX firmware version	-	-	-	F670-XXX	2	Yes
08	Setting Mode	System	Version	System		9930		System firmware version	-	-	-	TXXXSF0WXXXX	2	Yes
08	Setting mode	System	Network	LDAP authentication		9933		Domain participation confirmation of printing when LDAP authentication is used	1	0-1	SSDK	Sets whether domain participation of a client computer for print job authentication is confirmed or not when LDAP is selected as the authentication method for user authentication. This function is enabled only when department management is enabled. 0: Disabled 1: Enabled	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	S-ACS operation setting		9934	0	Copy	1	1-9	SYS	1: The number of contact control: 1 Continuous color control: 1 sheet 2: The number of contact control: 2 Continuous color control: 2 sheets 3: The number of contact control: 3 Continuous color control: 3 sheets 4: The number of contact control: 4 Continuous color control: 4 sheets 5: The number of contact control: 5 Continuous color control: 5 sheets 6: The number of contact control: 6 Continuous color control: 6 sheets 7: The number of contact control: 7 Continuous color control: 7 sheets 8: The number of contact control: 8 Continuous color control: 8 sheets 9: The number of contact control: 9 Continuous color control: 9 sheets	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	S-ACS operation setting		9934	1	Print	1	1-9	SYS	1: The number of contact control: 1 Continuous color control: 1 sheet 2: The number of contact control: 2 Continuous color control: 2 sheets 3: The number of contact control: 3 Continuous color control: 3 sheets 4: The number of contact control: 4 Continuous color control: 4 sheets 5: The number of contact control: 5 Continuous color control: 5 sheets 6: The number of contact control: 6 Continuous color control: 6 sheets 7: The number of contact control: 7 Continuous color control: 7 sheets 8: The number of contact control: 8 Continuous color control: 8 sheets 9: The number of contact control: 9 Continuous color control: 9 sheets	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	General	S-ACS operation setting		9934	2	Box, Others	1	1-9	SYS	1: The number of contact control: 1 Continuous color control: 1 sheet 2: The number of contact control: 2 Continuous color control: 2 sheets 3: The number of contact control: 3 Continuous color control: 3 sheets 4: The number of contact control: 4 Continuous color control: 4 sheets 5: The number of contact control: 5 Continuous color control: 5 sheets 6: The number of contact control: 6 Continuous color control: 6 sheets 7: The number of contact control: 7 Continuous color control: 7 sheets 8: The number of contact control: 8 Continuous color control: 8 sheets 9: The number of contact control: 9 Continuous color control: 9 sheets	4	
08	Setting mode	System	Finisher	Stapling setting Acceptable number of sheets exceeding upper limit	Short size	9937	0	Plain/Recycled	0	-100-100	SYS	-100 to 100	4	
08	Setting mode	System	Finisher	Stapling setting Acceptable number of sheets exceeding upper limit	Short size	9937	1	Thick1	0	-100-100	SYS	-100 to 100	4	
08	Setting mode	System	Finisher	Stapling setting Acceptable number of sheets exceeding upper limit	Short size	9937	2	Thick2	0	-100-100	SYS	-100 to 100	4	
08	Setting mode	System	Finisher	Stapling setting Acceptable number of sheets exceeding upper limit	Saddle stitch	9938	0	Plain/Recycled	0	-15-15	SYS	-15 to 15	4	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Finisher	Stapling setting Acceptable number of sheets exceeding upper limit	Saddle stitch	9938	1	Thick1	0	-15-15	SYS	-15 to 15	4	
08	Setting Mode	System	Version	Engine		9940		PFC firmware version	-	-	-	210F-XXX	2	Yes
08	Setting Mode	System	Version	Finisher		9944		Punch firmware version	-	-	-	PUN-XXX * This code is not supported by LL20/25ppm model.	2	Yes
08	Setting Mode	System	Network	E-mail		9946		Number of Email transmission retries	Refer to contents	0-14	SYS	0 to 14 times <Default value> 20/25ppm: 3 (When HDD is installed), 0 (When HDD is not installed) LL20/25ppm: 0	1	Yes
08	Setting Mode	System	Network	E-mail		9947		E-mail transmission retry interval	1	0-15	SYS	0 to 15 min.	1	Yes
08	Setting mode	System	General			9954		Counter / job list printing operation	0	0-1	SYS	0: Invalid 1: Valid	1	
08	Setting mode	System	User interface			9955		Name of [EXTENSION] button	EXTENS ION	-	SYS	Sets the name of " EXTENSION" button displayed on the MENU screen. Maximum 10 characters with alphameric characters and symbols.	11	
08	Setting mode	System	Network	E-mail		9958		Bcc address display ON/OFF setting (Job Log / Job Status)	0	0-1	SYS	Sets whether the Bcc address is displayed or not on the Job Log or Job Status when "1: To/Bcc" is selected in the code 08-9957. 0: OFF (Bcc address not displayed) 1: ON (Bcc address displayed)	1	
08	Setting mode	System	Network	E-mail		9959		Bcc address display ON/OFF setting (Job Notification)	1	0-1	SYS	Sets whether the Bcc address is displayed or not on all the Job Notifications except for the administrator when "1: To/Bcc" is selected in the code 08-9957. 0: OFF (Bcc address not displayed) 1: ON (Bcc address displayed)	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	Maintenan ce			9960		Display of equipment information (SRAM)	Refer to contents	0-2	SYS	Displays the equipment information in SRAM. 0: Not set 1: Destinations other than NAD 2: NAD <Default value> NAD: 2 Others: 1	2	
08	Setting Mode	System	User interface			9963		Display of receiving job on PRINT/JOB STATUS screen	2	0-2	SYS	0: Disabled 1: Enabled (Other user's receiving job can be deleted) 2: Enabled (Other user's receiving job cannot be deleted) * This setting is automatically disabled in the high security mode.	1	
08	Setting Mode	System	User interface	Default mode setting	Default setting (PPC)	9970		Original mode (Black)	0	0-4	SYS	0: Text/Photo 1: Text 2: Photo 3: Gray Scale 4: User custom mode	1	Yes
08	Setting mode	System	General	Default setting	Image quality density	9971		PPC (black)	0	0-1	SYS	0: Auto 1: Manual	1	
08	Setting mode	System	General	Default setting	Blank page judgment: Default setting	9972		PPC	0	-3-3	SYS	The larger the value, the more the paper is judged as a blank page. The smaller the value, the less the paper is judged as a blank page.	1	
08	Setting mode	System	User interface	Default setting	Blank page judgment: Default setting	9973		NW SCN	0	-3-3	SYS	The larger the value, the more the paper is judged as a blank page. The smaller the value, the less the paper is judged as a blank page.	1	
08	Setting mode	System	User interface	Default setting	ACS judgment adjustment: Default setting	9974		PPC	0	-3-3	SYS	The larger the value, the more the original is judged as color data. The smaller the value, the less the original is judged as black data.	1	
08	Setting mode	System	User interface	Default setting	ACS judgment adjustment: Default setting	9975		NW SCN	0	-3-3	SYS	The larger the value, the more the original is judged as color data. The smaller the value, the less the original is judged as black data.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting Mode	System	User interface	Default mode setting	Default setting (PPC)	9976		Original mode (Color)	0	0-6	SYS	0: Text/Photo 1: Text 2: Printed image 3: Photo 4: Map 5: Custom 6: Reproduction of red seal color	1	Yes
08	Setting mode	System	User interface	Default setting	ACS original mode	9977		PPC	0	0-2	SYS	0: Text/Photo 1: Text 2: Printed image	1	
08	Setting mode	System	User interface	Default setting	Image quality density	9978		ACS/PPC (full color)	1	0-1	SYS	0: Auto 1: Manual	1	
08	Setting Mode	System	User interface	Default mode setting	Default setting (PPC)	9979		Color mode	2	0-2	SYS	0: Auto color 1: Black 2: Full color When the value of the code 08-9116 is "1: Enabled", "1: Black" is automatically set for this code and "0: ACS" and "2: Full color" become unselectable.	1	Yes
08	Setting mode	System	Network	Email		9980		Receiver's address fixing function at authentication	0	0-4	SYS	Sets address of TO/CC/BCC when the user authentication and E-mail authentication are enabled. When the value of this code is set to "1", the address specified as From Address is input to TO destination field. TO/CC/BCC field cannot be edited. When the value of this code is set to "2 to 4", the address specified as From Address is input to each field. TO/CC/BCC field can be edited by pressing the TO/CC/BCC button. 0: Disabled 1: Fixed to TO field. 2: Added to TO field. 3: Added to CC field. 4: Added to BCC field.	1	

05/08	Mode	Element	Sub element	Item	Subitem	Code	Sub-code	Details	Default value	Acceptable value	RAM	Contents	Proce dure	Servic e UI
08	Setting mode	System	Network	Email		9981		Sending body text of email	1	0-1	SYS	Sets whether the job information is output in the body of e-mail when executing e-mail send job. 0: Disabled 1: Enabled	1	
08	Setting mode	System	User interface			9982		Switch of display attribute of [EXTENSION] icon	0	0-1	SYS	0: Touch is invalid when authentication is not completed. 1: Touch is valid when authentication is not completed.	1	
08	Setting Mode	System	User interface			9984		Document or file name display form for the PRINT screen, JOB STATUS screen, Job Status tab and Logs tab	0	0-1	SYS	0: Displays with the document or file name 1: Does not display the document or file name	1	
08	Setting Mode	System	User interface			9985		Screen displayed by pressing MENU button	0	0-1	SYS	0: MENU screen 1: EWB screen	1	
08	Setting Mode	System	Maintenan ce			9987		Retention of fax sending settings	0	0-3	SYS	Sets whether the fax sending settings are retained or not. 0: Clears all settings (The authentication screen is displayed if user authentication or department management is enabled.) 1: Clears all 2: Clears only addresses 3: Retains all settings * When the value of this code is set to "3", the value of 08-3847 (FAX mistransmission prevention) is automatically set to "1" (Enabled).	1	

MAINTENANCE CHECK LIST /
LISTE DE VERIFICATIÕN DENTRETIEN /
LISTE DER WARTUNQSPRÜFUNG /
LISTA DE CONTROL DE MANTENIMIENTO

e-STUDIO2050C/2550C/2051C/2551C

DATE | **TECHNICIAN** | **COUNTER**

CLEANING UNIT

	2051C 2050C	2551C 2550C
	56k	70k
	112k	140k
	168k	210k
	224k	280k
	280k	350k
	336k	420k
	392k	490k
	448k	560k
	504k	630k
	560k	700k

1.DRUM
2.CLEANER
3.CHARGER
4.DEVELOPER (K)
5.DEVELOPER (Y)
6.DEVELOPER (M)
7.DEVELOPER (C)
8.FUSER
9.SCANNER
10.SLIT GLASS
11.PAPER FEED SECTION
12.SFB
13.ADU
14.RADF
15.LCF
16.PFP
17.PFU

REPLACEMENT PARTS AND SUPPLIES

1.DRUM (K)
2.DRUM BLADE (K)
3.GRID (K)
4.MAIN CHARGER NEEDLE (K)
5.CHARGER CLEANING PAD (K)
6.DRUM (Y)
7.DRUM BLADE (Y)
8.GRID (Y)
9.MAIN CHARGER NEEDLE (Y)
10.CHARGER CLEANING PAD (Y)
11.DRUM (M)
12.DRUM BLADE (M)
13.GRID (M)
14.MAIN CHARGER NEEDLE (M)
15.CHARGER CLEANING PAD (M)
16.DRUM (C)
17.DRUM BLADE (C)
18.GRID (C)
19.MAIN CHARGER NEEDLE (C)
20.CHARGER CLEANING PAD (C)
21.2nd TRANSFER ROLLER
22.FUSER BELT
23.FUSER BELT GUIDE
24.PICK UP ROLLER(PFP)
25.FEED ROLLER(PFP)
26.SEP ROLLER(PFP)
27.PICK UP ROLLER (PFU)
28.FEED ROLLER (PFU)
29.SEP ROLLER (PFU)
30.LED GAP SPACER

	2051C 2050C	2551C 2550C
	120k	240k
	240k	360k
	360k	480k
	480k	600k
	600k	720k
	720k	840k
	840k	960k
	960k	1080k
	1080k	1200k
	1200k	

1.PICK UP ROLLER (RADF)
2.FEED ROLLER (RADF)
3.SEP ROLLER (RADF)

	2051C 2050C	2551C 2550C
	80k	160k
	160k	240k
	240k	320k
	320k	400k
	400k	480k
	480k	560k
	560k	640k
	640k	720k
	720k	800k

1.FEED ROLLER
2.SEP ROLLER
3.FEED ROLLER (SFB)
4.SEP ROLLER (SFB)

REPLACEMENT UNIT

1.CLEANER/DRUM/CHARGER (K)
2.CLEANER/DRUM/CHARGER (Y)
3.CLEANER/DRUM/CHARGER (M)
4.CLEANER/DRUM/CHARGER (C)
5.BLACK DEVELOPER
6.YELLOW DEVELOPER
7.MAGENTA DEVELOPER
8.CYAN DEVELOPER
9.TBU BELT CLEANER UNIT

	2051C 2050C	2551C 2550C
	56k	70k
	112k	140k
	168k	210k
	224k	280k
	280k	350k
	336k	420k
	392k	490k
	448k	560k
	504k	630k
	560k	700k

REVISION RECORD

Ver07

	Ver07<2014.08.08>
Page	**Contents**
2-12	System List has been corrected.
3-40	The parts name have been changed. (RADF original glass -> ADF original glass)
3-41	The parts name have been changed. (RADF original glass -> ADF original glass)
3-77	The part name has been changed. (exit/reverse roller -> exit roller)
4-117	The unit name has been changed. (paper exit guide -> paper exit unit)
4-118	The unit name has been changed. (paper exit guide -> paper exit unit) The parts name have been changed. (upper paper exit roller/lower paper exit roller -> exit roller, lower paper exit roller -> idling roller)
4-119	A note has been added. The unit name has been changed. (paper exit guide -> paper exit unit)
5-30	The description of the "[G] Initialization of log file" has been changed.
5-61	The wrong description has been corrected.
6-14	The wrong description has been corrected.
6-17	The wrong description has been corrected.
6-57	The wrong description has been corrected.
6-60	A note has been corrected.
6-62	A note has been added.
6-65	A note has been added.
6-66	The wrong description has been corrected.
6-82	"6.8.2 Separation roller pressure force adjustment (PFP/PFU)" has been added.
7-10	"OZONE FILTER" has been added to Access tree.
7-40	The parts name have been changed. (upper exit roller -> exit roller, lower exit roller -> idling roller, exit guide lib -> paper exit unit lib)
7-46	The part name has been changed. (Lower exit roller -> Idling roller)
7-47	The wrong description has been corrected.
8-13	Error codes C261 and C262 have been added.
8-14	The description of the C370 has been changed.
8-15	The description of the C9E0 has been changed.
8-21	Error code F902_2 has been added. The description of the F902_3 has been changed.
8-104	The description of the troubleshooting for C260 has been changed.
8-105	The descriptions of the troubleshooting for C261 and C262 have been added.
8-119	The description of the troubleshooting for C900 has been changed.
8-121	The descriptions of the troubleshooting for C962 and C9E0 have been changed.
8-148	The description of the troubleshooting for CC94 has been changed.
8-161	The description of the troubleshooting for CE40 has been changed.
8-165	The description of the troubleshootings for CE70 has been changed.
8-167	The description of the troubleshooting for C370 has been changed.
8-176	The description of the troubleshooting for C3E0 has been changed.
8-208	The description of the troubleshooting for F902_1 has been changed. The description of the troubleshooting for F902_2 has been added.
8-209	The description of the troubleshooting for F902_3 has been changed.
9-2	Note has been added.
9-5	Note has been added.
9-22	The part name has been changed. (DIMM -> main memory)
9-36	The unnecessary description (code) has been deleted.

Ver07<2014.08.08>	
Page	**Contents**
Chapter 15	<05> RAM has been changed: 05-3033 Contents has been changed: 05-4065, 05-4800-0 ~ 3 Default value and contents has been changed: 05-4100-0 ~ 4, 05-4101-0 ~ 4, 05-4103-0 ~ 4, 05-4104-0 ~ 4, 05-4105-0 ~ 4, 05-4106-0 ~ 4, 05-4107-0 ~ 4, 05-4108-0 ~ 4, 05-4109-0 ~ 4, 05-4110-0 ~ 4, 05-4111, 05-4115-0 ~ 4, 05-4116-0 ~ 4, 05-4117-0 ~ 4, 05-4118-0 ~ 4, 05-4120-0 ~ 4, 05-4128-0 ~ 4, 05-4129-0 ~ 4 <08> RAM has been changed: 08-9933 Addition: 08-3657, 08-3658, 08-3659, 08-3661, 08-3662, 08-3666, 08-4017, 08-4744, 08-8836 The element has been changed: 08-8967, 08-9343 Details and contents have been added: 08-3640, 08-3641 Contents has been changed: 08-4586, 08-4700, 08-9306, 08-9379, 08-9599 Default value and contents has been changed: 08-2080, 08-3802, 08-4708, 08-5563, 08-6298-4, 08-6314-4, 08-6316-4, 08-6318-4, 08-6328-4, 08-6332-4, 08-6340-4, 08-9229 Acceptable value has been changed: 08-3817, 08-4547, 08-9313 Default value has been changed: 08-4551-0, 08-6416-1, 08-8830-2 Details has been changed: 08-8516, 08-8537, 08-9344, 08-9973, 08-9975 Default value and acceptable value has been changed: 08-9424, 08-9425 Procedure has been changed: 08-4669-0 ~ 3, 08-4670-0 ~ 3, 08-4671-0 ~ 3

Ver06

Ver06<2014.04.25>	
Page	**Contents**
2	The trademarks has been changed.
4, 8	"4. Important Service Parts for Safety" has been changed.
1-1, 3-19, 3-22, 3-47~49, 3-64, 4-26, 4-28~31, 4-33, 5-48, 5-50, 6-4, 6-27, 6-50, 8-18, 8-116~118, 8-124~127, 8-162, 8-164, 8-226, 8-262, 8-269, 8-275, 8-282, 8-301	"LED head" has been changed to "LED printer head".
2-2	The paper size of bypass feeding has been changed. The HDD size has been changed. The machine version has been changed.
2-3	The machine version has been changed.
2-7	The supported client OS has been changed.
2-9	The SSD/HDD memory map size has been changed.
2-11	The machine version has been changed.
3-2	"Bypass feed tray" has been changed to "Bypass tray".
3-22	The machine version has been changed.
3-37	The notes of hibernation function have been changed.
3-93	The mistake has been corrected.
4-11	"4.3.2 Lens cover" has been changed.
4-12	"4.3.3 Automatic original detection sensor-1, -2 (S24, S25)" and "4.3.4 Lens unit/CCD driving PC board" has been changed.
4-14	"4.3.5 Carriage home position sensor (S23)" has been changed.
4-37	The disassembly of bypass feed roller has been changed.
5-9	Procedure 5 has been added.
5-10	Procedure 5 has been added.
5-20	The note has been addedin "[C] Creating HDD partition (Format HDD)". The note has been addedin "[D] Formatting SRAM data (Clear SRAM)".
5-21	The note has been addedin "[F] Erasing HDD securely (Erase HDD Securely)".
5-28	The note has been addedin "[C] Initialize the File System (Initialize HDD)".
5-32	The note has been addedin "[B] 1. Clear SRAM"
5-34, 35	The Job log/Message log has been added.
5-47	The notes has been addedin "(05) adjustment value/(08) setting value difference".
6-14	The remarks of code"4526" has been changed.
6-49	"6.2.24 ADF noise reduction (Copying Function)" has been added.
6-75	"6.4.16 ADF noise reduction (Scanning Function)" has been added.
8-33	The messages have been changed.
8-34	The error code has been changed.
8-121	The step 8 has been added.
8-151	The step 1and 2 have been changed.
8-158	The replacement part of [CE10] has been added.
8-160	The replacement part of [CE20] has been added.
8-165	The replacement part of [CE41] has been added.
8-168	The measure in step 1 has been changed.
8-169	The replacement part of [C380] has been added. The measure in step 1 has been changed.

Ver06<2014.04.25>	
Page	**Contents**
8-170	The measure in step 1 has been changed. The replacement part of [C390] has been added.
8-171	The measure in step 1 has been changed.
8-172	The measure in step 1 has been changed. The replacement part of [C3A0] has been added.
8-173	The measure in step 1 has been changed.
8-174	The measure in step 1 has been changed. The replacement part of [C3B0] has been added.
8-175	The measure in step 1 has been changed.
8-183	The check items have been added. The replacement part of [F101_0]~[F101_3] has been changed.
8-184	The check items and the replacement part have been changed.
8-185	The check items and the replacement part have been changed.
8-186	The check items and the replacement part have been changed.
8-187	The check items and the replacement part have been changed.
8-188	The check items and the replacement part have been changed.
8-189	The check items and the replacement part have been changed.
8-228	"[6014] The authentication server that cannot be accessed is detected" has been added.
8-8-247,248	"8.4.7 Hard disk full error "H04" is displayed" has been added. "8.4.9 "Authentication Failed" is displayed". "8.4.10 Error code "M00" is displayed while updating firmware" have been added.
8-255	The Step 1in the background fogging 1 has been added.
9-15	The notes have been added.
9-25	The note has been changed in step5.
9-36	The notes has been added.
10-1	"(2) Order Intervals" has been changed.
10-12	"(26)" has been added.
11-14	The mistake has been corrected.
12-4	The notes has been added (9).
Chapter 15	<03> [6]D,E have been changed. 264 and 265 have been added. <04> 33 has been added. <05> Addition: 3350, 7150~7152, 7400~7404, 7693, 7694, 8412~8415, 3009, 3046, 3047, 7486-0~2 Details has been changed: 4064-0,2,4 Default value and contents has been changed: 3233, 4018-5, 4065, 4526-0, 4526-4 <08> Addition 3075, 3637~3639, 3642-0,2, 3646~3652, 3875, 4665, 4668-0~3, 4669-0~3, 4670-0~3, 4671-0~3, 6997-0~2, 8300, 8670, 8672-0~2, 8674, 8732, 8788~8790, 8792, 8795~8797, 8830-0~2, 8833, 8835, 3629, 3640, 3641, 6088-1, 6089-0~5, 8657~8663, 8664-0~2, 8754, 8826, 8827, 8713, 9398, 9414 Details has been changed: 6088-0, 8710, 8673, 8735 Default value has been changed: 8914-7, 9974, 9975 Subitem has been added: 9580, 9581, 9587, 9694,7617 Contents has been changed: 3643, 4105, 4131, 7400, 8900-0~3, 8981, 9012, 9627, 9987 Procedure has been added: 9744 Item, details and contents have been changed: 5457-0,1 Details, default value, acceptablevalue and contents been changed: 9963

Ver05

Ver05 <2013.08.06>	
Page	**Contents**
2-2	The descriptions of the paper type have been corrected.
2-3	A description has been added to the warm-up time.
2-4	The values of the eliminated portion have been corrected.
2-7	The values of the eliminated portion have been corrected. The specification of the optional interface has been corrected.
2-12	GE-1220N has been added.
2-13	GE-1220N has been added. A note for GE-1200N has been added.
3-37	"3.6.4 Hibernation function" has been added.
3-55	The symbol of the 1st drawer empty sensor has been corrected.
3-72	The descriptions in "3.12.4 Functions of the toner cartridge PC board (CTRG)" have been changed.
3-74	The part name has been corrected.
3-80	The error code has been corrected.
4-25	The description of step (5) has been changed.
4-52	The part name has been changed.
4-59	The part name has been changed.
4-99	The description of step (4) has been changed.
5-1	The title for reference has been changed.
5-3	The titles for reference have been changed.
5-5	The title for reference has been changed.
5-8	The title for reference has been changed.
5-9	The title for reference has been changed.
5-10	The title for reference has been changed.
5-14	"Grid pattern (Black)" has been added to the test pattern table.
5-28	A note has been added.
5-34	Codes for the list print have been added.
5-35	Codes for the list print and a note have been added.
5-36	The title for the reference has been changed.
5-37	The title for the reference has been changed.
5-44	The image of the version list has been changed.
5-47	A description of the difference list print has been added.
5-58	The title for the reference has been changed.
6-11	Test patterns for the black mode have been added.
6-27	"HDD" has been added to the parts list to be replaced for the automatic gamma adjustment.
6-50	"HDD" has been added to the parts list to be replaced for the automatic gamma adjustment. The titles for the reference have been changed.
6-61	"6.3.13 Screen switchover" has been deleted.
6-77	The descriptions in step (6) have been changed.
6-82	The value of the doctor-sleeve gap jig has been changed.
6-83	The value of the doctor-sleeve gap jig has been changed.
7-18	The part name has been changed.
7-20	The part name has been changed.
7-21	The part name has been changed.
7-22	The part name has been changed.
7-23	The part name has been changed.
7-34	The "Part name" column has been replaced with the "P-I" column. (P-I: Page-Item No.)
7-35	Doctor-sleeve gap jig has been added to the list. The description for download jig has been changed.

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Page	**Contents**
7-36	Doctor-sleeve gap jig has been added to the illustration.
7-39	The parts names have been changed. B2 has been added to the check list. P-I (Page-Item No.) of B1 has been changed.
7-40	P-I (Page-Item No.) of M5 and M6 has been changed.
7-41	The illustration has been changed.
7-43	The description of the precautions has been changed. The part name has been changed.
7-47	"7.12 Machine Refreshing Kit" has been added.
8-7	The reference of E480 has been corrected.
8-9	Error codes E910, E920, E930, E940, E950 and E951 have been added.
8-10	Error codes EA2A, EA2B, EA2C, EA2D and EA60 have been added.
8-11	Error codes EA80, EA81, EAC1, EAF1, EAF2 and EF1A have been added.
8-13	An error code C140 has been added.
8-16	An error code CB00 has been added.
8-18	An error code CF10 has been added.
8-19	The references of F101_5, F101_6, F101_7, F101_8 and F101_9 have been changed.
8-34	6013 has been added.
8-40	The description of the error history has been changed.
8-67	The description of the troubleshooting for E430 has been changed.
8-68	The descriptions of the troubleshooting for E440 and E450 have been changed.
8-69	A description of E480 has been added.
8-73	The description of the troubleshooting for E726 has been changed.
8-76	Descriptions of the troubleshooting for E910 and E920 have been added.
8-77	Descriptions of the troubleshooting for E930 and E940 have been added.
8-78	Descriptions of the troubleshooting for E950 and E951 have been added.
8-80	A description of the troubleshooting for EA2A has been added.
8-80	A description of the troubleshooting for EA2B has been added.
8-81	A description of the troubleshooting for EA2C has been added.
8-82	A description of the troubleshooting for EA2D has been added.
8-86	A description of the troubleshooting for EA60 has been added.
8-87	Descriptions of the troubleshooting for EA80 and EA81 have been added.
8-88	A description of the troubleshooting for EAC1 has been added.
8-89	A description of the troubleshooting for EAF1 has been added.
8-89	A description of the troubleshooting for EAF2 has been added.
8-92	A description of the troubleshooting for EF1A has been added.
8-101	A description of the troubleshooting for C140 has been added.
8-106	The description of the troubleshooting for C260 has been changed.
8-107	The description of the troubleshooting for C270 has been changed.
8-108	The description of the troubleshooting for C280 has been changed.
8-109	The description of the troubleshooting for C290 has been changed.
8-128	The description of the troubleshooting for CB01 has been changed and "CB00" has been added to it.
8-133	The description of the troubleshooting for CB50 has been changed.
8-184	The description of the troubleshooting for F101_5 has been changed.
8-185	The description of the troubleshooting for F101_6 has been changed.
8-186	The description of the troubleshooting for F101_7 has been changed.
8-187	The description of the troubleshooting for F101_8 has been changed.
8-188	The description of the troubleshooting for F101_9 has been changed.
8-200	The descriptions of the troubleshooting for F110 and F111 have been changed.

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Page	**Contents**
8-203	The description of the troubleshooting for F200 has been changed.
8-211	The description of the troubleshooting for 2B31 has been changed.
8-222	The description of the troubleshooting for 5012 has been changed.
8-227	6013 has been added.
8-253	The section title has been changed.
8-255	"8.5.5 Background fogging 2 (1200 dpi printing)" has been added.
8-298	The section title has been changed.
9-13	The error codes have been changed.
9-26	The illustration has been changed.
11-1	The updating method has been changed.
11-3	The RADF firmware has been deleted.
11-35	The RADF firmware has been deleted.
11-36	The RADF firmware has been deleted.
11-39	The RADF firmware has been deleted.
11-42	The flow has been changed.
13-1	The description has been changed.
13-2	The description has been changed.
13-3	The description has been changed.
13-4	The description has been changed.
13-5	The description has been changed.
14-3	The illustration of the wire harness has been changed.
Chapter 15	The default value of 05-8242 has been changed. The default values of 08-2497, 2507, 4015, 5409 have been changed. 08-2707-0, -1, -2, -3, 3644, 6090, 6091, 7617, 8520, 8598, 8628, 8640, 8641, 8642, 8643, 8644, 8645, 8646, 8647, 8648, 8649, 8650, 8651, 8652, 8653, 8654, 8655, 8656, 8657, 8658, 8659, 8660, 8661, 8662, 8663, 8664-0, -1, -2, 8667, 8668, 8728-0, -1, -2, -3, -4, -6, -7, -8, -9, -10, -11, -12, -13, 8729, 8730, 8735, 8736, 8783, 8785, 8786-0, -1, 8825, 8826, 8827, 8828, 8831, 8942, 9255, 9963 have been added. The contents of 08-3500, 3501, 3502, 3724, 6249-0, -1, -2, -3, 7000, 8623-0, 8920 have been changed. The acceptable value of 08-3623 has been changed. The details and contents of 08-6080 have been changed. The sub-element, item, sub-item, default value, and contents of 08-6081-0, -1 have been changed. The sub-element, item, details, and contents of 08-6084 have been changed. The sub-element, item, sub-item, details, and contents of 08-6085-0, -1, -2, -3, -4, -5 have been changed. The item and sub-item of 08-6088-0, -1, 6089-0, -1, -2, -3, -4, -5 have been changed. The acceptable value and contents of 08-9017 have been changed. The default value and contents of 08-9307 have been changed. The details of 08-9398 has been changed.

Ver04

Ver04 <2012.12.03>	
Page	**Contents**
-	The trademark has been added.
2-14	The system list has been changed.
3-15	The name has been changed.
3-71	The description for remaining toner has been changed.
3-76, 7-40	The part names have been changed.
4-84 to 4-87	4.6.36 Drum damp heater (Right) has been added. 4.6.37 Drum damp heater (Left) has been added.
4-93	The image for 1st transfer roller has been changed.
4-101 to 4-104	The description and illustrations of fuser unit have been added.
4-117	The description and image of exit sensor have been changed.
5-5	Chart print mode has been added.
5-14	The test print pattern has been added.
5-22, 5-24	The description has been changed and deleted.
5-31, 5-32, 5-33	"[E] 4. L-LL" has been added.
6-3	Notes for adjustment have been changed.
6-4, 6-5	The steps have been changed.
6-14	The table and description for reproduction ratio of secondary scanning direction (Fine adjustment of transfer belt motor rotation speed) have been changed.
6-51	The description has been added.
6-83	Note has been changed.
6-84	The description and cross-reference for Performing Image Quality Control have been changed.
7-18, 7-39	The names have been changed.
7-36	The illustration number has been changed.
8-42	The description of E140 has been changed.
8-45	E270 has been added.
8-85	The description of C150 and C160 has been changed.
8-87	The description of C260 has been added.
8-103	The description of C911 has been changed.
8-147	The description of CE70 has been changed.
8-169, 8-170	The measures for F106_3, F106_4, and F106_5 have been changed.
8-170, 8-178, 8-206	F106_6 to F106_8, F106_10, F106_UNDEF, F110, F111, and 6052 have been added.
8-184	F902_0 has been added.
8-202	5030 and 50FF have been added.
8-276	"8.5.34 Image Skewing on Paper Trailing Edge" has been added.
9-21, 11-18	The description has been added.
11-5, 11-7, 11-21, 11-22	The data file name has been changed.
11-32	The file name has been changed.
11-41	The step has been added and deleted.

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Page	**Contents**
Appendix	The default value of 05-3234 has been changed.
	The contents of 05-4120-0 to 4 have been changed.
	The details of 05-4562-0, 4563-0, 4564-0, 4565-0, 4568-0 have been changed.
	05-4832-0 to 1 and 4833 have been added.
	The default value of 05-7212-4 has been changed.
	05-8176 and 8187 have been deleted.
	05-8244-0 to 1, 8305, and 8308 have been added.
	08-2677, 2678-0 to 2, 2679-0 to 2, 3080, 3631, 3703, 3708, 3709, 3718 have been added.
	The acceptable value and contents of 08-3724 have been changed.
	The acceptable value of 08-4140 has been changed.
	The contents of 08-4719 have been changed.
	08-4720-0 to 7, 5156-0 to 3, and 5410-0 to 1 have been added.
	The default value of 08-5563 has been changed.
	The details of 08-6083-4 have been changed.
	08-6085-0 to 5 and 6087 have been added.
	The default values of 08-6298-1,-4, 6314-1,-4, 6316-1,-4, 6318-1,-4, 6320-1, 6328-1,-4, 6332-1,-4, 6346-1,-4, 6350-1,-4, 6368-1,-4, and 6370-1,-4 have been changed.
	08-7310 and 8110 have been added.
	The default value and contents of 08-8523 have been changed.
	08-8525, 8623, 8624, 8631, 8744, 8745, 8746, 8747, 8748, 8749, 8771, 8774, 8775, 8776, 8777, 8778, 8779, 8780, 8781, 8782, and 8824 have been added.
	The acceptable values and contents of 08-9000 and 9016 have been changed.
	The default value of 08-9238 has been changed.
	08-9036 has been added.
	The acceptable value of 08-9140 has been changed.
	The default value of 08-9238 has been changed.
	08-9294 has been added.
	The acceptable value and contents of 08-9305 have been changed.
	08-9423, 9424, 9425, and 9438 have been added.
	08-9482, 9483, 9484, 9485 have been deleted.
	The default value of 08-9486 has been changed.
	08-9514, 9518, 9519, and 9985 have been added.
Back cover	The address has been changed.

Ver03

Ver03 <2012.09.18>	
Page	**Contents**
7-13 to 32	The contents of "Preventive Maintenance Checklist" have been changed.
7-13 to 18,21,22,26,29	The contents of table have been changed.
7-38 to 46	Machine Refreshing Checklist has been added.

Ver02

Ver02 <2012.08.03>	
Page	**Contents**
2-1	The description of "Paper feeding" has been corrected.
2-3	The description of "Warm-up time" has been corrected. A time switching from the sleep mode has been added.
2-11	"Right lower cover" has been added to the accessories list.
2-12,2-14	The spelling errors have been corrected.
2-13	The "Notes" has been corrected.
2-13	The "Notes" has been corrected.
3-16	The "Name" of S7 and S8 has been corrected.
3-22	The description of "Developer material" has been corrected.
3-22	The description of "20ppm" has been corrected.
3-36	"Waste toner box" has been changed to "front cover".
3-65	The description of "2. Drum cleaner unit" has been corrected. The description of "5. Discharge LED" has been corrected.
3-74	The names of the Image position aligning sensor have been corrected.
3-75	"Image quality sensor (front)" has been changed to "Image position aligning sensor (front)".
3-75	"S18" has been changed to "S8".
3-89	"5. Recovering from super sleep mode" has been added.
4-5	The description of Step (4) has been corrected.
4-13	Fig. 4-33 has been changed.
4-13	The "Notes" in "4.3.4 CCD driving PC board" has been added. Fig. 4-31 has been corrected.
4-16	"Note" has been added.
4-24	Notes have been added.
4-32	Notes have been added.
4-37	The description of "4.5.2 Bypass feed roller" has been changed.
4-38	The description of "4.5.3 Bypass separation pad" has been changed.
4-50	A note has been added.
4-51,61	"Note" and an illustration have been added.
4-87	Steps (2) and (3) have been corrected.
4-95	A "Note" has been added.
4-100	"Image quality sensor (rear)" has been changed to "Image position aligning sensor (rear)/ Image quality sensor".
4-106	"Note" has been added.
4-106	Step (6) has been changed.
4-109	"Pressure roller cover" has been changed to "reverse guide". Step (5) has been corrected.
5-27,28	"8: /encryption" has been added to the figures in [A] and [B]. The "Notes" in [C] have been changed.
5-28	A description of [C] has been added. The "Notes" in [C] have been corrected.
6-1	Fig. 6-1 has been changed.
6-3	"Note" has been added.

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Page	**Contents**
6-4,5	"Image position aligning sensor" has been changed to "Image position aligning sensor (Front)". "Image quality sensor" has been changed to "Image position aligning sensor (Rear)/Image quality sensor". The description of "<When "Waste toner box replacement" is displayed>" has been corrected.
6-6	"Waste toner box" has been changed to "front cover".
6-7	A description of "*1" has been added.
6-12	The description of "Note" has been corrected.
6-14	The wrong description has been corrected.
6-15	The description of "Remarks" has been corrected.
6-20,21,25,26,33	"TCC-1" has been changed to "TCC-1/TCC-2".
6-28	"Image position aligning sensor" has been changed to "Image position aligning sensor (Front)". "Image quality sensor" has been changed to "Image position aligning sensor (Rear)/Image quality sensor".
6-51	"Image position aligning sensor" has been changed to "Image position aligning sensor (Front)". "Image quality sensor" has been changed to "Image position aligning sensor (Rear)/Image quality sensor".
6-79	The description of "6.6.2 Adjustment CCD camera unit positions" has been changed.
6-81	The description of Step (3) has been corrected. Fig. 6-31 has been changed.
6-82	"PS-HVT-450" has been changed to "PS-HVT".
6-83,84	Fig. 6-32 and 6-33 have been changed.
6-84	No. 2 of the "Notes" has been deleted.
6-85	"Image quality sensor" has been changed to "image position aligning sensor (front) or image position aligning sensor (rear)/image quality sensor".
7-13	The lists in "7.6 Preventive Maintenance Checklist" have been changed.
7-14 to 37	The lists have been changed. Lists for 25ppm/ll25ppm have been added.
7-17	Fig. 7-10 has been changed. The part names listed in "Item to check" have been corrected. C4 has been added.
7-18	The description of "7.6.4 Automatic duplexing unit" has been corrected.
7-19	Fig. 7-12 has been corrected. The description of "7.6.5 Bypass feed unit" has been corrected.
7-19	The illustration and contents in "7.6.5 Bypass feed unit" have been corrected.
7-33	"Image position aligning sensor (Rear)" has been changed to "Image position aligning sensor (Rear)/Image quality sensor".
7-34	The replacement values of "L1" have been corrected.
7-35	Fig. 7-24 has been corrected. "M4 (Separation finger for pressure roller)" has been added. The numbers from "M4" to "M8" have been changed to "M5" to "M9" sequentially.
7-38	The numbers of "Replacement" in "7.6.18 JSP (MJ-5004)" have been deleted.
7-45	The list in "7.9 Maintenance Part List" has been corrected.
7-47	"7.11 Life Cycle" has been deleted.
8-13	CE81 and F071 have been added. The "Classification" of CA00 to CE80 have been corrected.
8-14	The page numbers of the troubleshooting have been corrected.
8-14	F101_4 to F101_9 have been added.
8-14	The descriptions of F101_2 and F101_3 have been corrected.
8-15	F131 has been added.
8-95	Descriptions have been added to "Check Item" and "Measure" of F070.
8-96	Descriptions of F071 have been added.

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Page	**Contents**
8-99	The descriptions of C910 have been deleted.
8-101	Descriptions have been added to "Check Item" and "Measure" of C962.
8-105	Descriptions of CE81 have been added.
8-129,132,133,135	CA00 "Check Item" of step 3 has been changed. "Measure" of step 12 has been corrected. "Measure" of step 17 has been corrected. "Measure" of step 30 has been corrected.
8-135	"S16, S17" has been changed to "S7, S8".
8-136 to 139	CE20 Step 1 has been added. The step number has been changed sequentially. "Check Item" of step 2 has been corrected. "Measure" of step 4 has been added. The description of "*" has been corrected.
8-140,141	CE40 The descriptions of steps 6, 7, 8 and 9 have been changed. "Check Item" of step 10 has been corrected. "Check Item" of step 13 has been corrected. "Check Item" of step 15 has been corrected. Step 21 has been deleted. The description of "*" has been corrected.
8-142,143	CE41 The descriptions of steps 1 and 2 have been changed. Step 3 has been added. The step number has been changed sequentially. "Check Item" of step 4 has been corrected. The numbers in "Next step" of steps 5, 6 and 7 have been added. "Check Item" of steps 7 and 8 has been changed.
8-160	Descriptions of "Check Item" and "Replacement part" of F109_0 have been added.
8-161	F101_2, F101_3 and F101 have been moved. The descriptions of "Contents", "Check Item" and "Measure" have been corrected.
8-161	F101_2 and F101_4 to F101_9 have been added.
8-161	F101_2 and F101_3 have been added. F101_4 has been deleted. The title description has been corrected. The "Contents" has been corrected.
8-162	Step 1 in "Measure" has been added. "Note" in "Measure" has been corrected.
8-163	A new page has been added. F101_2, F101_3 and F101 have been added. The descriptions of "Contents", "Check Item" and "Measure" have been corrected.
8-163	F101_2 and F101 have been deleted.
8-163	"F101_3" has been changed to "F101_4". The descriptions of "Contents" and "Measure" have been corrected.
8-176	A description of F131 has been added.
8-265	Step 2 has been added.
8-266	Fig. 8-36 has been added.
9-1	Step (2) has been corrected.
9-4	"FAX cover" has been changed to "PFC cover".
9-6	"Note" has been added.
9-7	The description of "Note" has been corrected.
9-36	The description of "Remarks" has been corrected.
9-38	05/2984 and 05/2983 have been deleted from the list in "[C] Adjust image quality".
9-38	The description of "Notes" has been corrected.
11-1	The name of the Download jig has been changed to "PWA-DWNLD-JIG2F".
11-2	The illustration of the system firmware has been corrected.
11-8	The capacity of a flash memory has been changed.
11-14	A note has been added.

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Page	**Contents**
11-30	"PWA-DWNLD-350-JIG1F" has been changed to "PWA-DWNLD-JIG2F". "16MB" has been changed to "48MB". The names of "Type of jig" from No. 1 to No. 4 have been corrected.
11-31	"PWA-DWNLD-350-JIG1F" has been changed to "PWA-DWNLD-JIG2F". The name of the ROM writer adapter has been changed to "PWA-DL-ADP-350-1931-LV640". The illustration of PWA-DL-ADP-350-1931-LV640 has been corrected.
11-33,34	The description of "11.3.2 System firmware" has been corrected.
11-33	"*" has been changed to "=>".
11-33	"PWA-DWNLD-350-JIG1F" has been changed to "PWA-DWNLD-JIG2F".
11-35	"Finisher ROM" has been deleted. The "Notes" has been deleted.
11-41	"PWA-DWNLD-350-JIG1F" has been changed to "PWA-DWNLD-JIG2F".
Appendix	Input check: 03-[FAX]ON/[4]/[D] has been changed. 05-2670-0 to 3, 8066 have been added. The default values of 05-2817-0 to 3 have been changed. The contents of 05-3031, 3046, 3047 have been changed. 08-2079-0 to 1, 2492, 2513-0 to 3, 2514-0 to 3, 3629, 4713-0 to 4, 4719, 4722, 4723, 6249-0 to 3, 7610, 8005, 8103, 8717, 9238 have been added. The default values of 08-2081-1 has been changed. 08-2384 has been deleted. The acceptable value and contents of 08-2496 have been changed. The contents of 08-2509, 8303 have been changed. The item names of 08-6406-0 to 2,-8, 6407 have been changed.

Ver01

Ver01 <2012.06.04>	
Page	**Contents**
2-2	The descriptions of paper size for bypass feeding and automatic duplexing unit have been changed.
3-19	The names of thermistor have been changed.
3-46	The description has been changed.
4-28	The note has been added.
7-10	The items for sub-screen of 2nd CST., RADF, LCF, and 3rd CST. have been changed.
7-11	The items for sub-screen of 4th CST. have been changed.
7-15	The title of 7.6.2 has been changed.
7-40	The descriptions of PM Kit have been changed.
7-41, 42	The harness holding jig has been added.
9-20	The description has been changed.
14-3	The names of thermistor have been changed.
14-4	The names of thermistor have been changed.

TOSHIBA