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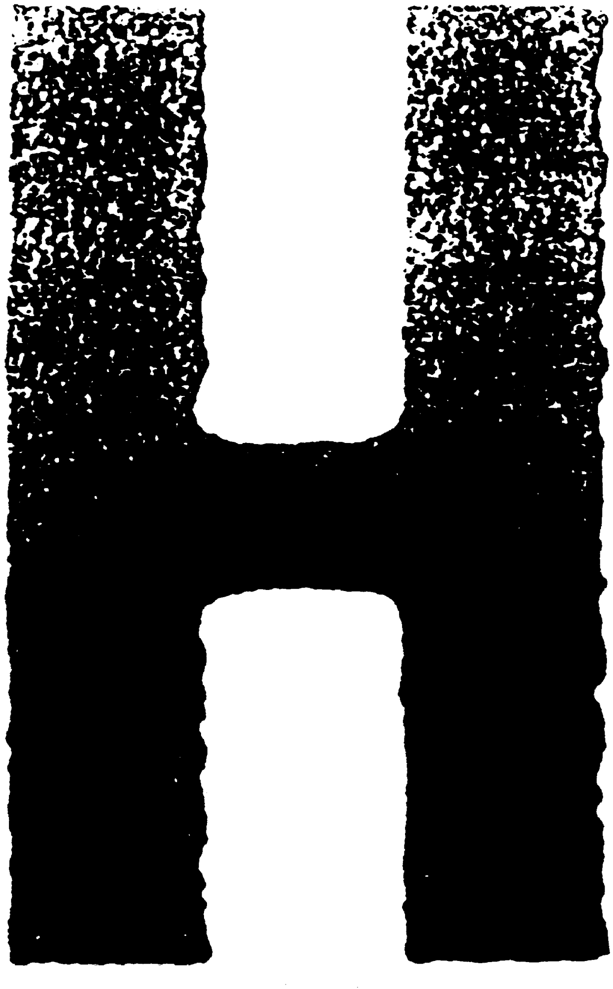
TOSHIBA

SERVICE HANDBOOK

MULTIFUNCTIONAL DIGITAL SYSTEMS

e-STUDIO205L/255/305
e-STUDIO355/455



Model: DP-2090/2520/3000/3570/4570
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Ver10_2012-03

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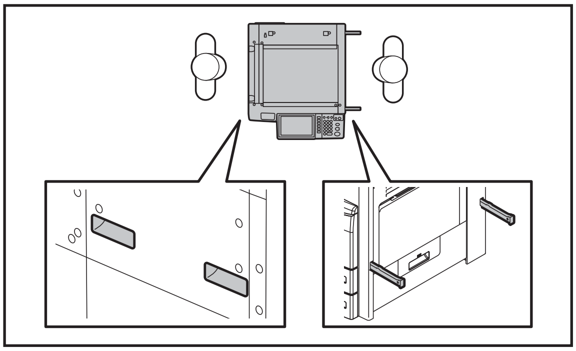
GENERAL PRECAUTIONS REGARDING THE SERVICE FOR e-STUDIO205L/255/305/355/455

The installation and service should 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 e-STUDIO205L/255/305 weighs approximately 57 kg (125.66 lb.), and e-STUDIO355/455 weighs approximately 60 kg (132.28 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 110 V / 13.2 A, 115 V or 127 V / 12 A, 220-240 V or 240 V / 8 A 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 80 cm (32”) on the left, 80 cm (32”) on the right and 10 cm (4”) 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.
   - When the equipment is used after the option is removed, be sure to install the parts or the covers which have been taken off so that the inside of the equipment is not exposed.

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 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 wristband since the ICs on it may be damaged due to static electricity.

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

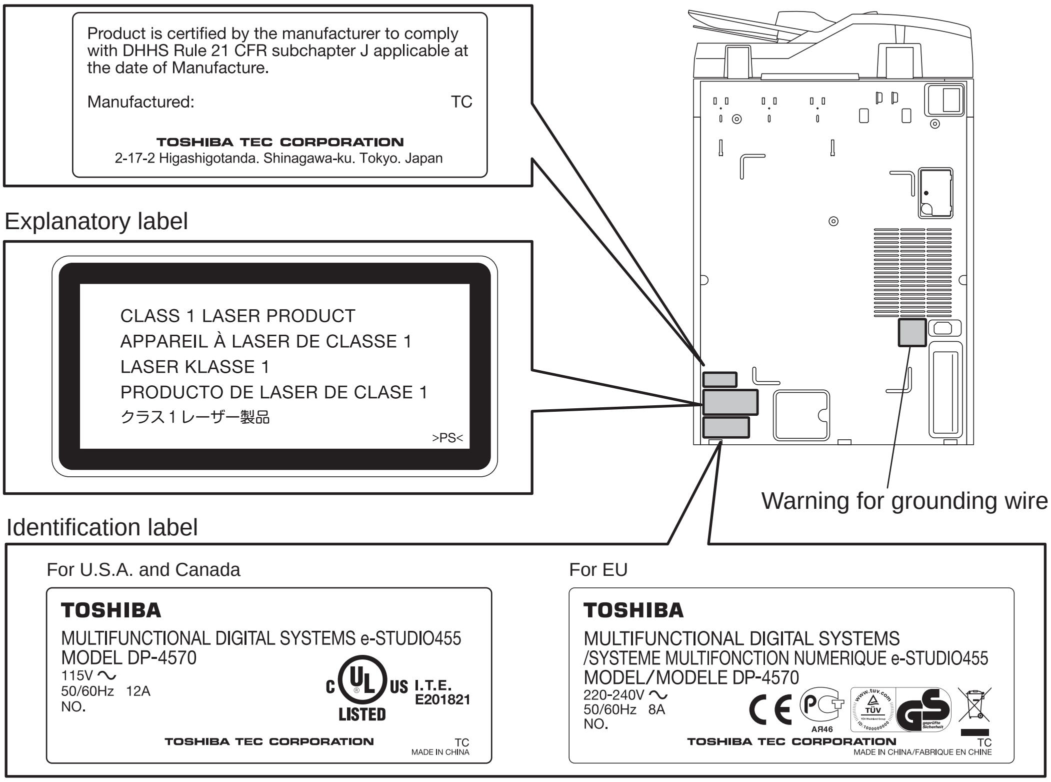
- Avoid expose to laser beam during service. This equipment uses a laser diode. Be sure not to expose your eyes to the laser beam. Do not insert reflecting parts or tools such as a screwdriver on the laser beam path. Remove all reflecting metals such as watches, rings, etc. before starting service.
- Be sure not to touch high-temperature sections such as the exposure lamp, fuser unit, damp heater and areas around them.
- Be sure not to touch high-voltage sections such as the chargers, transfer roller, developer, high-voltage transformer, exposure lamp control inverter, inverter for the LCD backlight 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, fans and laser beam exit of the laser optical unit).
- 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. Avoid exposing your eyes to laser beam.
- 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) **Important Service Parts for Safety**

- The breaker, door switch, fuse, thermostat, thermofuse, thermistor, 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 burnout. Do not allow a short-circuit or do not use the parts not recommended by Toshiba TEC Corporation.

4) **Cautionary Labels**

- During servicing, be sure to check the rating plate and cautionary labels such as “Unplug the power cable during service”, “CAUTION. HOT”, “CAUTION. HIGH VOLTAGE”, “CAUTION. LASER BEAM”, etc. to see if there is any dirt on their surface and if they are properly stuck to the equipment.



Certification label (For U.S.A. and Canada)

Product is certified by the manufacturer to comply with DHHS Rule 21 CFR subchapter J applicable at the date of Manufacture.

Manufactured: TC

TOSHIBA TEC CORPORATION
2-17-2 Higashigotanda. Shinagawa-ku. Tokyo. Japan

Explanatory label

CLASS 1 LASER PRODUCT
APPAREIL À LASER DE CLASSE 1
LASER KLASSE 1
PRODUCTO DE LASER DE CLASE 1
クラス１レーザー製品
>PS<

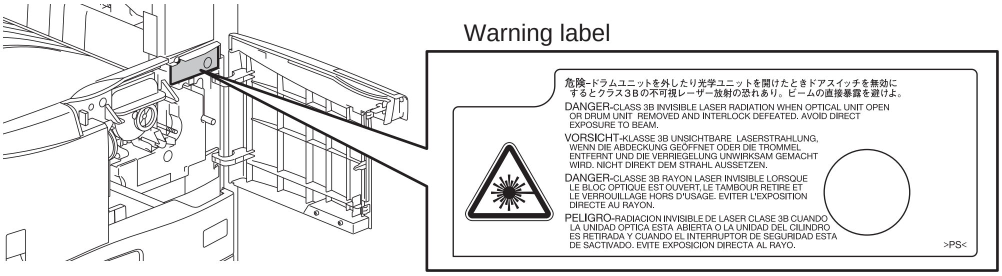
Identification label

For U.S.A. and Canada

TOSHIBA
MULTIFUNCTIONAL DIGITAL SYSTEMS e-STUDIO455
MODEL DP-4570
115V ∿
50/60Hz 12A
NO.
C UL US LISTED I.T.E. E201821
TOSHIBA TEC CORPORATION
TC
MADE IN CHINA

For EU

TOSHIBA
MULTIFUNCTIONAL DIGITAL SYSTEMS
/SYSTEME MULTIFONCTION NUMERIQUE e-STUDIO455
MODEL/MODELE DP-4570
220-240V ∿
50/60Hz 8A
NO.
CE AR46 TÜV GS
TOSHIBA TEC CORPORATION
TC
MADE IN CHINA/FABRIQUE EN CHINE



Warning label

危険–ドラムユニットを外したり光学ユニットを開けたときドアスイッチを無効にするとクラス３Ｂの不可視レーザー放射の恐れあり。ビームの直接暴露を避けよ。

DANGER-CLASS 3B INVISIBLE LASER RADIATION WHEN OPTICAL UNIT OPEN OR DRUM UNIT REMOVED AND INTERLOCK DEFEATED. AVOID DIRECT EXPOSURE TO BEAM.

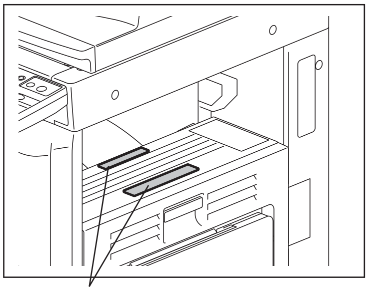
VORSICHT-KLASSE 3B UNSICHTBARE LASERSTRAHLUNG, WENN DIE ABDECKUNG GEÖFFNET ODER DIE TROMMEL ENTFERNT UND DIE VERRIEGELUNG UNWIRKSAM GEMACHT WIRD. NICHT DIREKT DEM STRAHL AUSSETZEN.

DANGER-CLASSE 3B RAYON LASER INVISIBLE LORSQUE LE BLOC OPTIQUE EST OUVERT, LE TAMBOUR RETIRE ET LE VERROUILLAGE HORS D'USAGE. EVITER L'EXPOSITION DIRECTE AU RAYON.

PELIGRO-RADIACION INVISIBLE DE LASER CLASE 3B CUANDO LA UNIDAD OPTICA ESTA ABIERTA O LA UNIDAD DEL CILINDRO ES RETIRADA Y CUANDO EL INTERRUPTOR DE SEGURIDAD ESTA DE SACTIVADO. EVITE EXPOSICION DIRECTA AL RAYO.

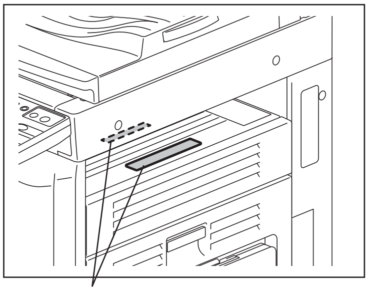
>PS<

e-STUDIO205L/255/305

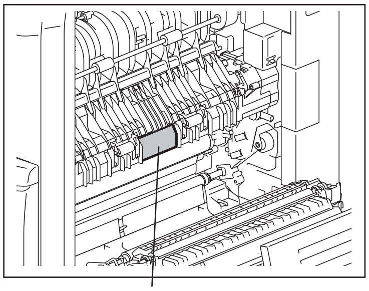


Warning for high temperature area (Fuser unit)

e-STUDIO355/455



Warning for high temperature area (Fuser unit)



Warning for high temperature area (Fuser unit)

5) **Disposal of the Equipment, Supplies, Packing Materials, Used Batteries and IC-RAMs**

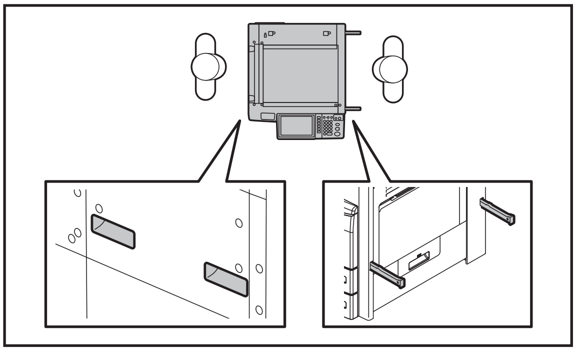
- Regarding the recovery and disposal of the equipment, supplies, packing materials, used batteries and IC-RAMs including lithium batteries, follow the relevant local regulations or rules.

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-STUDIO205L/255/305/355/455

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 57 kg (e-STUDIO205L/255/305) oder 60 kg (e-STUDIO355/455); 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 110 V / 13.2 A, 115 V oder 127 V / 12 A, 220-240 V / 8 A 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 10 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

-
- 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.

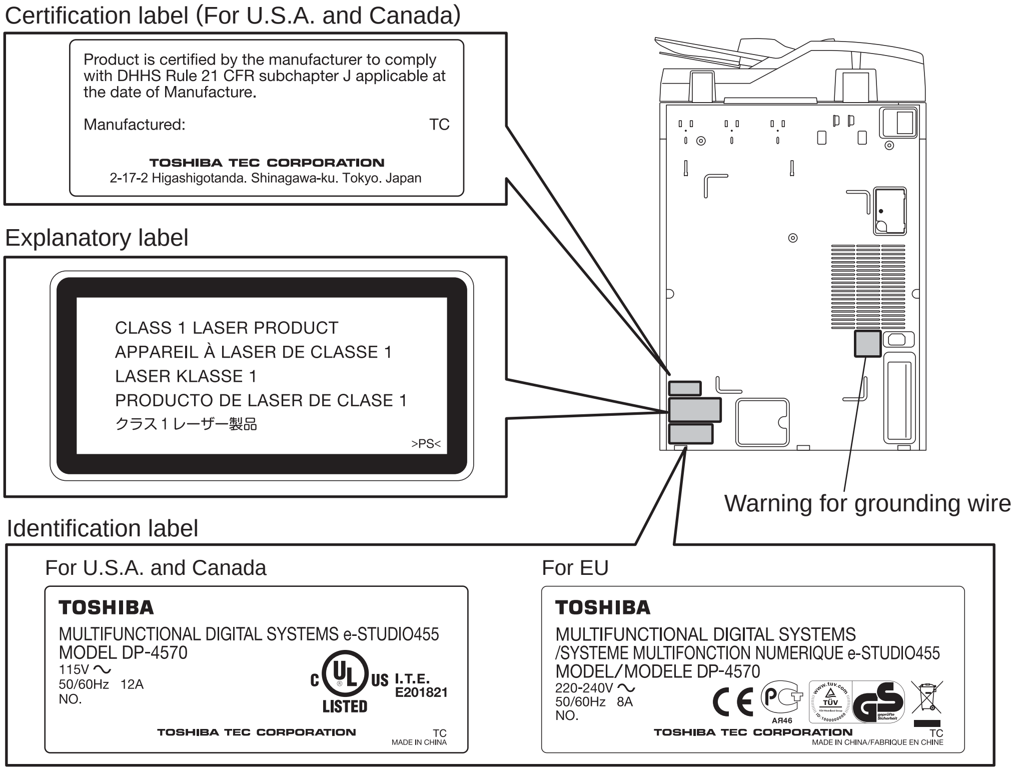
  Vorsicht: Vor Benutzung der Manschette der Betätigung des Armbandes, das Netzkabel des Gerätes herausziehen und prüfen, dass es in der Nähe keine geladenen Gegenstände, die nicht isoliert sind, gibt.

- Setzen Sie sich während der Wartungsarbeiten nicht dem Laserstrahl aus. Dieses Gerät ist mit einer Laserdiode ausgestattet. Es ist unbedingt zu vermeiden, direkt in den Laserstrahl zu blicken. Keine reflektierenden Teile oder Werkzeuge, wie z. B. Schraubendreher, in den Pfad des Laserstrahls halten. Vor den Wartungsarbeiten sämtliche reflektierenden Metallgegenstände, wie Uhren, Ringe usw., entfernen.
- Auf keinen Fall Hochtemperaturbereiche, wie die Belichtungslampe, die Fixiereinheit, die Heizquelle und die umliegenden Bereiche, berühren.
- Auf keinen Fall Hochspannungsbereiche, wie die Ladeeinheiten, die Transferwalze, die Entwicklereinheit, den Hochspannungstransformator, den Steuerumrichter für die Belichtungslampe, den Umrichter für die LCD-Hintergrundbeleuchtung 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, Lüfter und die Laseraustrittsöffnung der optischen Lasereinheit) 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. Nicht direkt in den Laserstrahl blicken.
- 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) Sicherheitsrelevante Wartungsteile

- Der Leistungsschutzschalter, der Türschalter, die Sicherung, der Thermostat, die Thermosicherung, der Thermistor, 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 einem Abbrand, führen. Kurzschlüsse sind zu vermeiden, und es sind ausschließlich Teile zu verwenden, die von der Toshiba TEC Corporation empfohlen sind.

4) 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.



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Manufactured: TC

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2-17-2 Higashigotanda. Shinagawa-ku. Tokyo. Japan

Explanatory label

CLASS 1 LASER PRODUCT
APPAREIL À LASER DE CLASSE 1
LASER KLASSE 1
PRODUCTO DE LASER DE CLASE 1
クラス１レーザー製品
>PS<

Warning for grounding wire

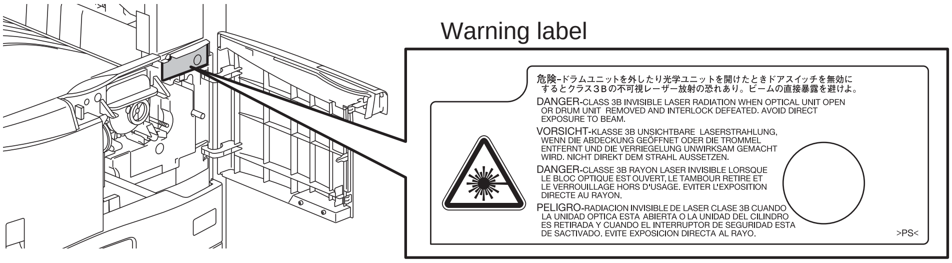
Identification label

For U.S.A. and Canada

TOSHIBA
MULTIFUNCTIONAL DIGITAL SYSTEMS e-STUDIO455
MODEL DP-4570
115V ∿
50/60Hz 12A
NO.
I.T.E.
E201821
TOSHIBA TEC CORPORATION
TC
MADE IN CHINA

For EU

TOSHIBA
MULTIFUNCTIONAL DIGITAL SYSTEMS
/SYSTEME MULTIFONCTION NUMERIQUE e-STUDIO455
MODEL/MODELE DP-4570
220-240V ∿
50/60Hz 8A
NO.
TOSHIBA TEC CORPORATION
TC
MADE IN CHINA/FABRIQUE EN CHINE



Warning label

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VORSICHT-KLASSE 3B UNSICHTBARE LASERSTRAHLUNG, WENN DIE ABDECKUNG GEÖFFNET ODER DIE TROMMEL ENTFERNT UND DIE VERRIEGELUNG UNWIRKSAM GEMACHT WIRD. NICHT DIREKT DEM STRAHL AUSSETZEN.

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PELIGRO-RADIACION INVISIBLE DE LASER CLASE 3B CUANDO LA UNIDAD OPTICA ESTA ABIERTA O LA UNIDAD DEL CILINDRO ES RETIRADA Y CUANDO EL INTERRUPTOR DE SEGURIDAD ESTA DE SACTIVADO. EVITE EXPOSICION DIRECTA AL RAYO.

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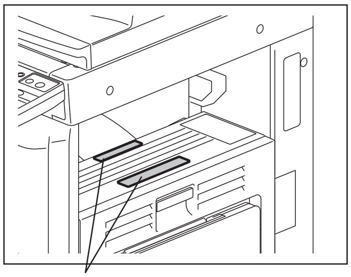
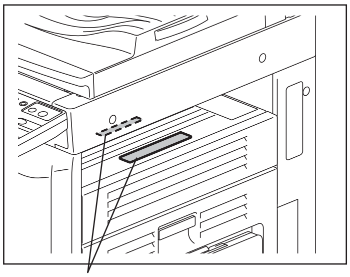
e-STUDIO205L/255/305

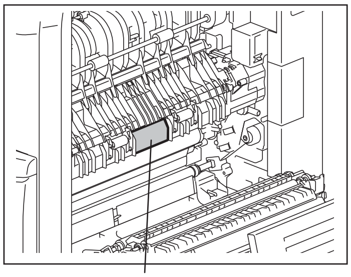


Warning for high temperature area (Fuser unit)

e-STUDIO355/455



Warning for high temperature area (Fuser unit)



Warning for high temperature area (Fuser unit)

5) 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. SPECIFICATIONS / ACCESSORIES / OPTIONS / SUPPLIES

1.1 Specifications

Values in [[ ]] are for e-STUDIO205L, values in {{ }} are for e-STUDIO305, values in [ ] are for e-STUDIO355, values in { } are for e-STUDIO455 and values in < > are for e-STUDIO355/455 in case that the specification is different among e-STUDIO205L, e-STUDIO255, e-STUDIO305, e-STUDIO355 and e-STUDIO455.
e-STUDIO255S/305S for CNS is the same as e-STUDIO255/305 for CNS except that the Printer/ Scanner Kit (GM-2150C/GM-2160C) is not included.
e-STUDIO305SD for CNS is the same as e-STUDIO305 for CND except that HDD is changed to SSD and the Printer/Scanner Kit (GM-2160C) is not included.
e-STUDIO205SE/255SE/305SE/355SE/455SE for NAS is the same as that for NAD except that the Data Overwrite Enabler (GP-1070) and External Interface Enabler (GS-1020) are included as standard.

1.1.1 General

- Type.. Desktop type (console type: when paper feed pedestal (PFP) and large capacity feeder (LCF) are installed)

- Original glass........................... Fixed type (the left rear corner used as guide to place originals)

- Copy process .... Indirect electrophotographic process (dry)

- Fixing method.......................... Halogen lamp (2 pieces) <Halogen lamp (3 pieces)>

- Photosensor type .... OPC

- Original scanning sensor......... Linear CCD sensor

- Scanning light source.............. Xenon lamp

- Reproduction ratio................... Actual ratio: 100±0.5%
  Zooming: 25 to 400% in increments of 1%
  (25 to 200% when using RADF)

- Resolution .... Scanning: 600 dpi x 600 dpi
  Printing: Equivalent to 2400 dpi x 600 dpi

- Gradation................................ 256 steps

- Paper feeding .... 2 drawers + Bypass feeding + LCF (optional)
  2 drawers + Bypass feeding + 2 PFP (optional)

- Paper supply .... Standard drawers:
  Stack height 60.5 mm, equivalent to 550 sheets; 80 g/m^2 (20 lb. Bond)): Depends on destinations or versions.

  Bypass feeding:
  Stack height 11 mm: equivalent to 100 sheets; 80 g/m^2 (20 lb. Bond)

  PFP:(Option):

Two drawer: stack height 60.5 mm, 550 sheets; 80 g/m^2 (20 lb. Bond)

LCF:(Option)

Stack height 110 mm x 2: equivalent to 1000 sheets; 80 g/m^2 (20 lb. Bond)

•paper

Paper size	Drawers	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"x8.5" (Non-standard sizes are not available)
	Bypass feeding	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"x8.5", Envelope (DL, COM10, Monarch, CHO-3, YOU-4)
	LCF (optional)	A4, LT (Non-standard sizes are not available)
Paper type	Drawers/LCF (optional)	Plain paper (Tracing paper, OHP films, sticker labels, envelopes and punched paper are not available)
	Bypass feeding	Plain paper, Tracing paper, OHP film, Sticker labels, Tab paper, Envelope (DL, COM10, Monarch, CHO-3, YOU-4)
Paper weight	Drawers/LCF (optional)	64 - 105 g/m^2 (17 - 28 lb. Bond)
	Bypass feeding	52 - 209 g/m^2 (14 lb. Bond - 110 lb. Index) (for single feed) Plain paper: 64 - 80 g/m^2 (17 - 20 lb. Bond) Thin paper: 52 - 63 g/m^2 (14 - 17 lb. Bond) Thick 1: 81 - 105 g/m^2 (21 - 28 lb. Bond) Thick 2: 106 - 163 g/m^2 (29 lb. Bond - 90 lb. Index) Thick 3: 164 - 209 g/m^2 (91 - 110 lb. Index)
		64 - 209 g/m^2 (17 lb. Bond - 110 lb. Index) (for continuous feed)
	ADU	64 - 105 g/m^2 (17 - 28 lb. Bond)

•Automatic duplexing unit .... Stackless, Switchback type

e-STUDIO205L/255/305: No exclusive switchback mechanism
e-STUDIO355/455: Uses an exclusive switchback mechanism

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

64 - 105 g/m^2 (17 - 28 lb. Bond)

•Offset mechanism .... e-STUDIO205L/255/305: No exclusive offset mechanism
e-STUDIO355/455: Uses an exclusive offset mechanism
Offsetting mechanism with movable exit roller
(Shift amount: 30 mm, Stack height: 40 mm (250 sheets))

•Interface .... Standard:
USB 2.0 (High Speed),
Ethernet (10BASE-T/100BASE-TX)
Optional:
Wireless LAN (IEEE 802.11b/g),
Bluetooth (HCRP and BIP)

- Toner supply............................ Automatic toner density detection/supply
Toner cartridge replacing method (There is a recovered toner supply mechanism.)

- Toner density control .... Automatic density mode and manual density mode selectable in 11 steps

- Memory(RAM)......................... Main memory: 1GB(Incl. page memory)

- HDD.. 60GB

- Account Codes........................ 10,000 codes

- Department Codes .... 1,000 codes

- Warming-up time .... Approx. 20 sec. (temperature: 20°C)

- Power consumption................. 1.5 kW or less (115 V series, 200 V series)
Super Sleep mode: 1 W or less (When the damp heater switch is set to OFF, and only 1 FAX line is used)
* The acceptable value of each voltage is ±10%.

- Power consumption................. 1.5 kW or less (115 V series, 200 V series)
* The electric power is supplied to the RADF, (ADU), Finisher, Job Separator, Offset Tray, PFP and LCF through the equipment.

- Total counter............................ Electronical counter

- Dimensions of the equipment...................... See the figure below (W 575 x D 586 x H 756 (mm))

* The height includes the surface of the original glass.
* When the tilt angle of the control panel is 7 to 84 degrees.

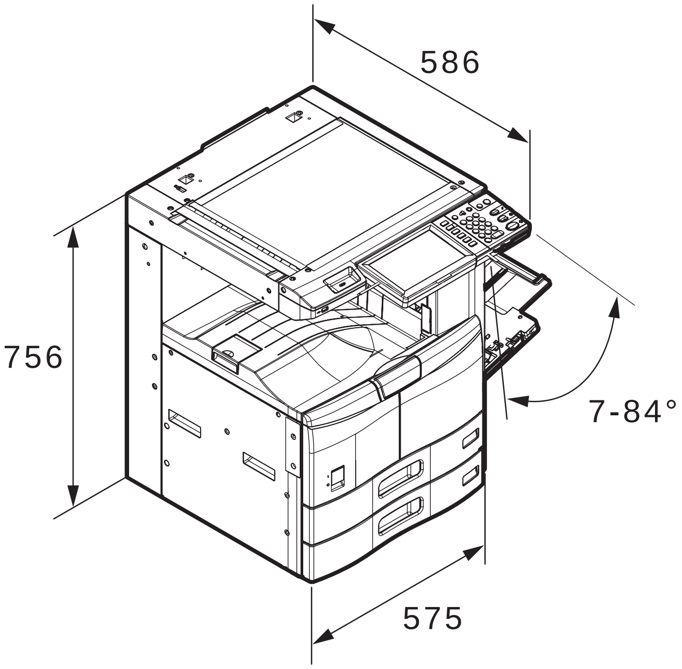


Fig. 1-1

- Weight .... Approximately 57 kg (125.66 lb.): e-STUDIO205L/255/305 (include the developer material and drum)
  Approximately 60 kg (132.28 lb.): e-STUDIO355/455 (include the developer material and drum)

1.1.2 Copy

- Reversing automatic document feeder (Option)

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, LD, LG, LT, LT-R, ST-R

Original paper weight:
Single-sided copy: 35 - 157 g/m^2 (9.3 - 41.8 lb. Bond)
Double-sided copy: 50 - 157 g/m^2 (13.3 - 41.8 lb. Bond)

Original capacity
Max. 100 sheets (80 g/m^2) (Stack height 16 mm)

- Accepted originals................... Sheet, book and 3-dimensional object. The reversing automatic document feeder (RADF) only accepts paper which are not pasted or stapled. Carbon paper are not acceptable either.
Maximum size: A3/LD

Single - sided original	Double - sided original
35 - 157 g/m^2 (9.3 - 41.8 lb. Bond)	50 - 157 g/m^2 (13.3 - 41.8 lb. Bond)

- Eliminated portion.................... Leading edges: 3.0±2.0 mm, Side/trailing edges: 2.0±2.0 mm (copy)
Leading / trailing edges: 4.2±2.0 mm, Side edges: 4.2±2.0 mm (print)

- Multiple copying....................... Up to 999 copies; Key in set numbers

- First copy time......................... Approx. [[4.7]] 4.7 {{4.7}} <3.7> sec. or less
(A4/LT, upper drawer, 100%, original placed manually)

- Copy speed (Copies/min.)

e-STUDIO205L

Paper size	Drawer	Bypass feed		PFP	LCF
		Size specified	Size not specified		
A4, LT, B5, A5-R, ST-R	20.3	20.3	13.2	20.3	20.3
A4-R, B5-R, LT-R	16.9	16.9	13.2	16.9	–
B4, LG	14.8	14.8	13.2	14.8	–
A3, LD	13.2	13.2	13.2	13.2	–

e-STUDIO255

Paper size	Drawer	Bypass feed		PFP	LCF
		Size specified	Size not specified		
A4, LT, B5, A5-R, ST-R	25.3	25.3	16.8	25.3	25.3
A4-R, B5-R, LT-R	23.3	23.3	16.8	23.3	–
B4, LG	19.5	19.5	16.8	19.5	–
A3, LD	16.8	16.8	16.8	16.8	–

e-STUDIO305

Paper size	Drawer	Bypass feed		PFP	LCF
		Size specified	Size not specified		
A4, LT, B5, A5-R, ST-R	30.3	30.3	16.8	30.3	30.3
A4-R, B5-R, LT-R	23.3	23.3	16.8	23.3	–
B4, LG	19.5	19.5	16.8	19.5	–
A3, LD	16.8	16.8	16.8	16.8	–

e-STUDIO355

Paper size	Drawer	Bypass feed		PFP	LCF
		Size specified	Size not specified		
A4, LT, B5, A5-R, ST-R	35.3	35.3	25.4	35.3	35.3
A4-R, B5-R, LT-R	35.0	35.0	25.4	35.0	–
B4, LG	29.5	29.5	25.4	29.5	–
A3, LD	25.4	25.4	25.4	25.4	–

e-STUDIO455

Paper size	Drawer	Bypass feed		PFP	LCF
		Size specified	Size not specified		
A4, LT, B5, A5-R, ST-R	45.3	45.3	25.4	45.3	45.3
A4-R, B5-R, LT-R	35.0	35.0	25.4	35.0	–
B4, LG	29.5	29.5	25.4	29.5	–
A3, LD	25.4	25.4	25.4	25.4	–

* “–” means “Not acceptable”.

* The copy speed in the above table are available when originals are manually placed for single side, multiple copying.

Copy speed for thick paper (Copies/min.)

Thick 1 (81 - 105 g/m^2, 21 - 28 lb. Bond)

Paper size	Drawer	Bypass feed		PFP	LCF
		Size specified	Size not specified		
A4, LT, B5, A5-R, ST-R	[[19.7]] 25.3 {{29.0}} [35.3] {43.4}	[[19.7]] 25.3 {{29.0}} [35.3] {43.4}	[[12.9]] 16.4 {{16.4}} [24.8] {24.8}	[[19.7]] 25.3 {{29.0}} [35.3] {43.4}	[[19.7]] 25.3 {{29.0}} [35.3] {43.4}
A4-R, B5-R, LT-R	[[16.5]] 22.5 {{22.5}} [33.9] {33.9}	[[16.5]] 22.5 {{22.5}} [33.9] {33.9}	[[12.9]] 16.4 {{16.4}} [24.8] {24.8}	[[16.5]] 22.5 {{22.5}} [33.9] {33.9}	[[-]] - {{-}} [-] {-}
B4, LG, FOLIO, COMPUTER	[[14.5]] 19.0 {{19.0}} [28.7] {28.7}	[[14.5]] 19.0 {{19.0}} [28.7] {28.7}	[[12.9]] 16.4 {{16.4}} [24.8] {24.8}	[[14.5]] 19.0 {{19.0}} [28.7] {28.7}	[[-]] - {{-}} [-] {-}
A3, LD	[[12.9]] 16.4 {{16.4}} [24.8] {24.8}	[[12.9]] 16.4 {{16.4}} [24.8] {24.8}	[[12.9]] 16.4 {{16.4}} [24.8] {24.8}	[[12.9]] 16.4 {{16.4}} [24.8] {24.8}	[[-]] - {{-}} [-] {-}

Thick 2 (106 - 163 g/m^2, 29 lb. Bond - 90 lb. Index)

Paper size	Drawer	Bypass feed		PFP	LCF
		Size specified	Size not specified		
A4, LT, B5, A5-R, ST-R	[[-]] - {{-}} [-] {-}	[[19.7]] 25.3 {{29.0}} [35.3] {43.4}	[[12.9]] 16.4 {{16.4}} [24.8] {24.8}	[[-]] - {{-}} [-] {-}	[[-]] - {{-}} [-] {-}
A4-R, B5-R, LT-R	[[-]] - {{-}} [-] {-}	[[16.5]] 22.5 {{22.5}} [33.9] {33.9}	[[12.9]] 16.4 {{16.4}} [24.8] {24.8}	[[-]] - {{-}} [-] {-}	[[-]] - {{-}} [-] {-}
B4, LG, FOLIO, COMPUTER	[[-]] - {{-}} [-] {-}	[[14.5]] 19.0 {{19.0}} [28.7] {28.7}	[[12.9]] 16.4 {{16.4}} [24.8] {24.8}	[[-]] - {{-}} [-] {-}	[[-]] - {{-}} [-] {-}
A3, LD	[[-]] - {{-}} [-] {-}	[[12.9]] 16.4 {{16.4}} [24.8] {24.8}	[[12.9]] 16.4 {{16.4}} [24.8] {24.8}	[[-]] - {{-}} [-] {-}	[[-]] - {{-}} [-] {-}

Thick 3 (164 - 209 g/m^2, 91 - 110 lb. Index)

Paper size	Drawer	Bypass feed		PFP	LCF
		Size specified	Size not specified		
A4, LT, B5, A5-R, ST-R	[[-]] - {{-}} [-] {-}	[[19.7]] 25.3 {{29.0}} [35.3] {43.4}	[[12.9]] 16.4 {{16.4}} [24.8] {24.8}	[[-]] - {{-}} [-] {-}	[[-]] - {{-}} [-] {-}
A4-R, B5-R, LT-R	[[-]] - {{-}} [-] {-}	[[16.5]] 22.5 {{22.5}} [33.9] {33.9}	[[12.9]] 16.4 {{16.4}} [24.8] {24.8}	[[-]] - {{-}} [-] {-}	[[-]] - {{-}} [-] {-}
B4, LG, FOLIO, COMPUTER	[[-]] - {{-}} [-] {-}	[[14.5]] 19.0 {{19.0}} [28.7] {28.7}	[[12.9]] 16.4 {{16.4}} [24.8] {24.8}	[[-]] - {{-}} [-] {-}	[[-]] - {{-}} [-] {-}
A3, LD	[[-]] - {{-}} [-] {-}	[[12.9]] 16.4 {{16.4}} [24.8] {24.8}	[[12.9]] 16.4 {{16.4}} [24.8] {24.8}	[[-]] - {{-}} [-] {-}	[[-]] - {{-}} [-] {-}

* “–” means “Not acceptable”.
* Only A4/LT size is available for the LCF.
* The tolerance is within ±2.

* System copy speed (Unit: Second)

		A4 (Reproduction ratio 100%)			
		1 sheet	5 sheets	10 sheets	20 sheets
e-STUDIO 205L	Single-sided originals ↓ Single-sided copies	92	97	99	100
	Single-sided originals ↓ Double-sided copies	83	97	99	100
	Double-sided originals ↓ Double-sided copies	88	99	100	100
	Double-sided originals ↓ Single-sided copies	93	99	100	100

		A4 (Reproduction ratio 100%)			
		1 sheet	**5 sheets**	**10 sheets**	**20 sheets**
e-STUDIO 255	Single-sided originals ↓ Single-sided copies	89	96	98	99
	Single-sided originals ↓ Double-sided copies	78	95	98	99
	Double-sided originals ↓ Double-sided copies	80	97	99	100
	Double-sided originals ↓ Single-sided copies	87	98	99	100
e-STUDIO 305	Single-sided originals ↓ Single-sided copies	85	94	97	99
	Single-sided originals ↓ Double-sided copies	72	93	96	98
	Double-sided originals ↓ Double-sided copies	67	96	98	99
	Double-sided originals ↓ Single-sided copies	72	97	99	100
e-STUDIO 355	Single-sided originals ↓ Single-sided copies	88	96	97	99
	Single-sided originals ↓ Double-sided copies	72	93	96	98
	Double-sided originals ↓ Double-sided copies	60	96	97	99
	Double-sided originals ↓ Single-sided copies	64	97	99	100
e-STUDIO 455	Single-sided originals ↓ Single-sided copies	83	92	96	98
	Single-sided originals ↓ Double-sided copies	61	90	94	97
	Double-sided originals ↓ Double-sided copies	47	94	97	98
	Double-sided originals ↓ Single-sided copies	49	96	98	99

- * The system copy speed, including scanning time, is available when 10 sheets of A4/LT size original are set on RADF and one of the copy modes in the above table is selected. The period of time from pressing [START] to the paper exit completely out of the equipment based on the actually measured value.
- * Upper drawer is selected and copying is at the non-sort mode.
- * Automatic copy density, APS/AMS are turned off.
- * Finisher is not installed.

1.1.3 Print

Page Description Language (Printer Driver)		PCL6, PostScript 3 emulation, XPS
Page Description Language (RIP)		PCL6, PostScript 3 emulation, XPS, PCL5e, PDF(emulation)
Supported OS		Windows 2000 / XP / Server 2003 / Server 2003 R2/ Vista / Server 2008/ Server 2008 R2 / Windows 7 / Mac OS X (Ver.10.2.4 or higher) Solaris (SUN) / HP-UX / AIX (IBM) / Linux / SCO
Resolution		600 x 600 dpi
Eliminated portion		Leading edges / Trailing edges / Side edges: 4.2 (±2.0) mm
Interface	Standard	USB 2.0 (High Speed), Ethernet (10BASE-T/100BASE-TX)
	Optional	Wireless LAN (IEEE 802.11b/g), Bluetooth

1.1.4 Scan

Scanning speed	45 sheets/min
Resolution	600 x 600 dpi
Original mode	[TEXT], [TEXT/PHOTO], [PHOTO], [Printed Image]
File formats	JPEG (Gray scale mode only), Multi/Single page TIFF, Multi/Single page PDF, Multi/Single page XPS

* Measuring condition of the scanning speed: Scanning single-sided A4/LT originals in the Text/Photo mode with 100% reproduction ratio using the RADF

1.1.5 e-Filing

Number of Boxes	Public Box	1
	User Box	200
Number of Folder		100 folders per box
Number of Document		400 documents per box/folder
Number of Page		200 pages per document
Capacity of HDD	e-Filing	9.5 GB

1.1.6 Internet Fax

[1] Internet FAX transmission

Resolution	TX Resolution < dots/mm >	Standard (8 x 3.85), Fine (8 x 7.7), U-Fine (16 x 15.4)* * If U-Fine is selected in TX resolution, data is converted to Fine resolution in RX.
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	0.7sec. (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	1000 stations
	Group	Max. 200 stations
Transmission Features	Broadcast transmission	Max. 400 destinations/job. (Fax number and E-mail address are available to registered in same job.)
	Message size limitation	Max. 30M Byte
	Message division	Page by page

[2] Internet FAX receiving

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

1.1.7 Network Fax

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	400 dpi x 400 dpi
Original Document Size		A3, B4, A4, B5, A5, LT, LG, LD, ST, FOLIO, Computer
Mail Box	User defined	Max. 300 boxes
Data transfer 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

1.2 Accessories

Unpacking/setup instruction	1 set
Operator’s manual	1 set (except for MJD)
Operator's manual pocket	1 pc. (for AUD)
Power cable	1 pc.
Warranty sheet	1 pc. (for NAD)
Setup report	1 set (for NAD and MJD, CND)
Drum (installed inside of the equipment)	1 pc.
Toner cartridge	1 pc. (except for NAD, MJD)
Developer material	1 pc. (except for NAD, MJD)
Control panel stopper	1 pc.
Rubber plug	6 pcs.
CD-ROM	1 set

Machine version

NAD:	North America
ARD:	Argentina and 220-volt South America
ASD:	Hong Kong
AUD:	Australia
MJD:	Europe
SAD:	Saudi Arabia
CND:	China
TWD:	Taiwan
JPD:	Japan

1.3 Options

	e-STUDIO205L/255/305	e-STUDIO355/455
Original Cover	KA-1640 PC/PC-C	KA-1640 PC/PC-C
Reversing Automatic Document Feeder (RADF)	MR-3021/C	MR-3022/C
Drawer Module	MY-1033/C	MY-1033/C
Paper Feed Pedestal (PFP)	KD-1025/C	KD-1025/C
Large Capacity Feeder (LCF)	KD-1026 A4/LT/A4-C	KD-1026 A4/LT/A4-C
Finisher	-	MJ-1101/-C
Hanging Finisher	MJ-1031/C	MJ-1031/C
Saddle Stitch Finisher	MJ-1025	MJ-1024
Hole Punch Unit	MJ-6005N/E/F/S *1 (for MJ-1025)	MJ-6004N/E/F/S *1 (for MJ-1024) MJ-6101N/E/F/S *1 (for MJ-1101)
Staple Cartridge	STAPLE-2000 (for MJ-1025/MJ-1031)	STAPLE-600 (for MJ-1024) STAPLE-2000 (for MJ-1024/MJ-1031) STAPLE-2400 (for MJ-1101)
Bridge Kit	KN-2520/C	KN-2520/C
Job Separator	MJ-5004/-C	MJ-5006/C
Offset Tray	MJ-5005/-C	-
Operator's manual pocket	KK-1660/-C	KK-1660/-C
Accessible Arm	KK-2550	KK-2550
Work Table	KK-4550/C	KK-4550/C
Damp Heater kit	MF-4550 U/E	MF-4550 U/E
Fax Unit	GD-1250 NA/EU/AU/AS/TW/C	GD-1250 NA/EU/AU/AS/TW/C
2nd Line for Fax Unit	GD-1260 NA/EU/AU/TW/C	GD-1260 NA/EU/AU/TW/C
Printer kit	GM-1150/C	GM-1160/C
Printer/Scanner kit	GM-2150/C	GM-2160/C
Scanner kit	GM-4150/C	GM-4160/C
Wireless LAN Module	GN-1050/C	GN-1050/C
Bluetooth Module	GN-2010	GN-2010
Antenna	GN-3010/C	GN-3010/C
e-BRIDGE ID Gate	KP-2004 (HID) KP-2005/C (MIFARE)	KP-2004 (HID) KP-2005/C (MIFARE)
Desk	MH-2520	MH-2520
Meta Scan Enabler	GS-1010	GS-1010
External Interface Enabler	GS-1020	GS-1020
Data Overwrite Enabler	GP-1070	GP-1070
IP Sec Enabler	GP-1080	GP-1080
Harness kit for coin controller	GQ-1180	GQ-1180

* 1) N: North America E: Europe F: France S: Sweden

Notes:

- "-" means "Not acceptable".
- The bridge unit (KN-2520) is necessary for installation of the finisher (MJ-1101, MJ-1024, MJ-1025, MJ-1031).
- The finisher (MJ-1101) is necessary for installation of the hole punch unit (MJ-6101N/E/F/S).
- The finisher (MJ-1024) is necessary for installation of the hole punch unit (MJ-6004N/E/F/S).
- The finisher (MJ-1025) is necessary for installation of the hole punch unit (MJ-6005N/E/F/S).
- The antenna (GN-3010) is necessary to enable the wireless LAN module (GN-1050) and Bluetooth module (GN-2010).
- Only one Antenna (GN-3010) can be installed in the Bluetooth Module (GN-2010), while up to two can be installed in the Wireless LAN Module (GN-1050).
- The Work Table (KK-4550) and the e-BRIDGE ID Gate (KP-2004/2005) cannot be installed together.

1.4 Supplies

	e-STUDIO205L	**STUDIO255/305**	**e-STUDIO355/455**
Drum	OD-4530 /C	OD-4530 /C	OD-4530 /C
Toner cartridge	PS-ZT4530(1) /T/D/C/E/A[*1] PS-ZT4530C10K(1)	PS-ZT4530(1) /T/D/C/E/A[*1] PS-ZT4530C10K(1)	PS-ZT4530(1) /T/D/C/E/A[*1] PS-ZT4530C10K(1)
Developer	D-4530 /C	D-4530 /C	D-4530 /C

* 1) T: Taiwan D: Asia C: China E: Europe A: Argentina/220-volt South America NONE: North America

1.5 System List

1.5.1 e-STUDIO205L/255/305

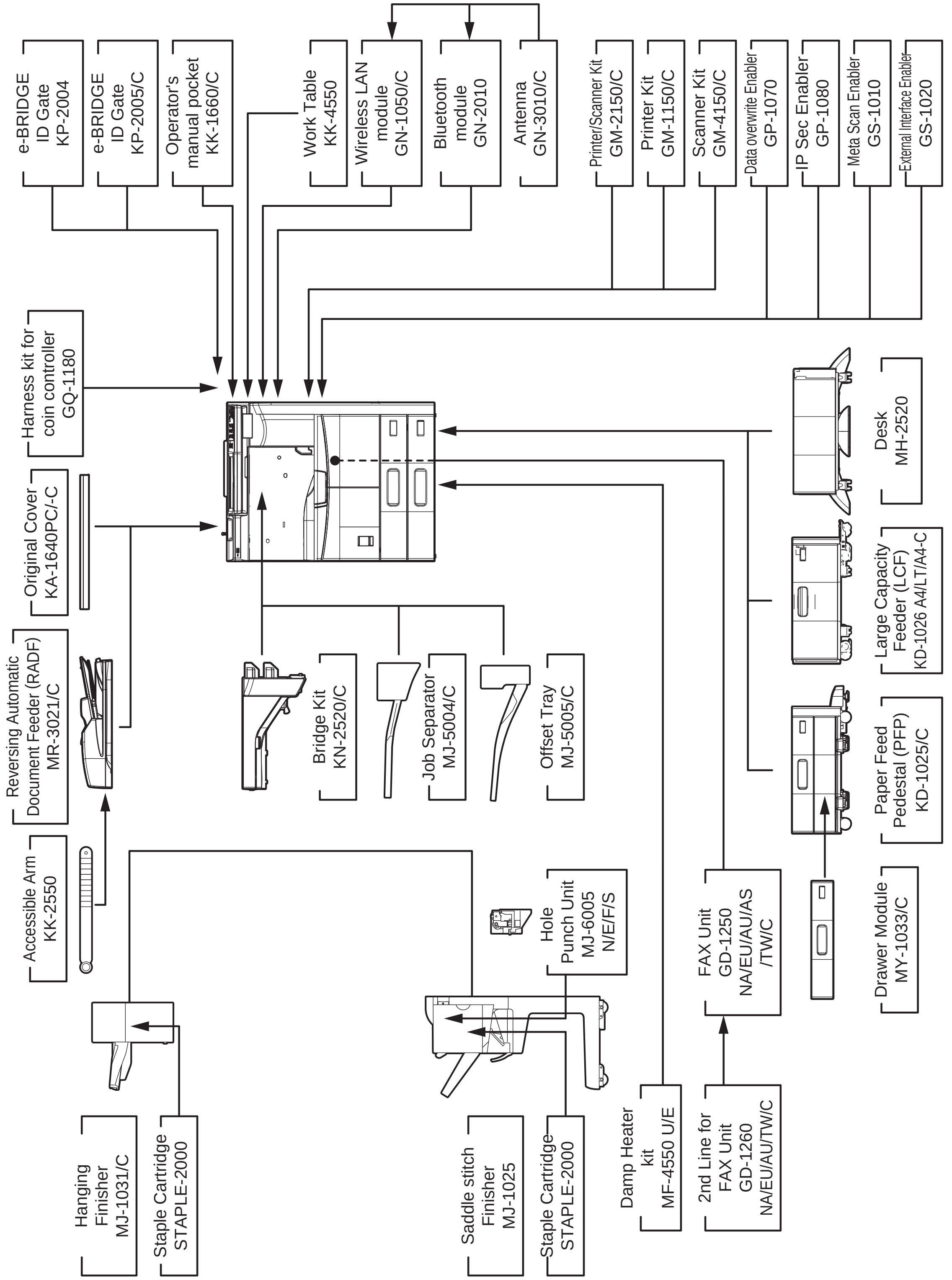

e-BRIDGE ID Gate KP-2004
e-BRIDGE ID Gate KP-2005/C
Operator's manual pocket KK-1660/C
Work Table KK-4550
Wireless LAN module GN-1050/C
Bluetooth module GN-2010
Antenna GN-3010/C
Printer/Scanner Kit GM-2150/C
Printer Kit GM-1150/C
Scanner Kit GM-4150/C
Data overwrite Enabler GP-1070
IP Sec Enabler GP-1080
Meta Scan Enabler GS-1010
External Interface Enabler GS-1020
Harness kit for coin controller GQ-1180
Original Cover KA-1640PC/-C
Reversing Automatic Document Feeder (RADF) MR-3021/C
Accessible Arm KK-2550
Bridge Kit KN-2520/C
Job Separator MJ-5004/C
Offset Tray MJ-5005/C
Desk MH-2520
Large Capacity Feeder (LCF) KD-1026 A4/LT/A4-C
Paper Feed Pedestal (PFP) KD-1025/C
Drawer Module MY-1033/C
Hole Punch Unit MJ-6005 N/E/F/S
FAX Unit GD-1250 NA/EU/AU/AS /TW/C
Hanging Finisher MJ-1031/C
Staple Cartridge STAPLE-2000
Saddle stitch Finisher MJ-1025
Staple Cartridge STAPLE-2000
Damp Heater kit MF-4550 U/E
2nd Line for FAX Unit GD-1260 NA/EU/AU/TW/C

Fig. 1-2

1.5.2 e-STUDIO355/455

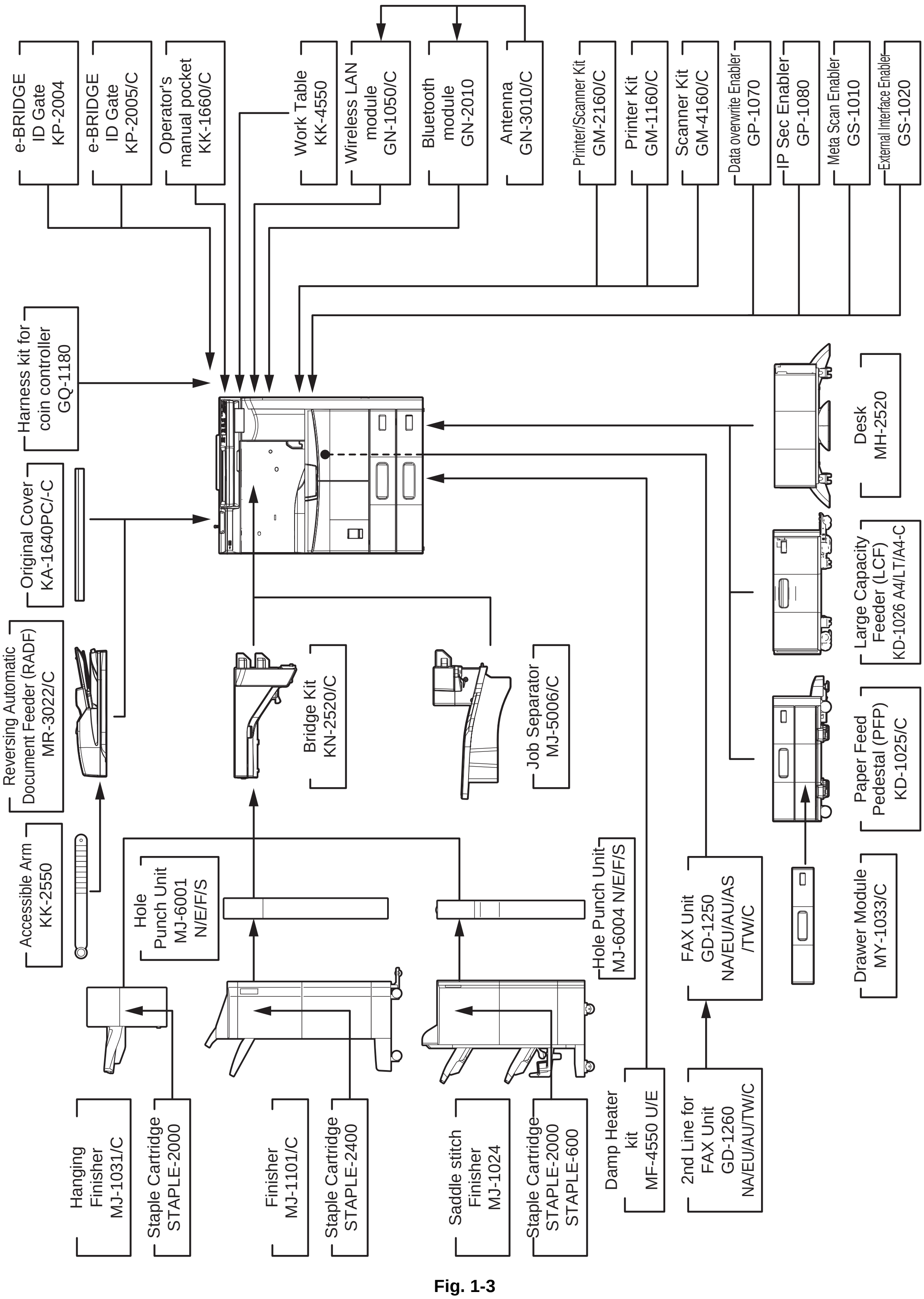

e-BRIDGE ID Gate KP-2004
e-BRIDGE ID Gate KP-2005/C
Operator's manual pocket KK-1660/C
Work Table KK-4550
Wireless LAN module GN-1050/C
Bluetooth module GN-2010
Antenna GN-3010/C
Printer/Scanner Kit GM-2160/C
Printer Kit GM-1160/C
Scanner Kit GM-4160/C
Data overwrite Enabler GP-1070
IP Sec Enabler GP-1080
Meta Scan Enabler GS-1010
External Interface Enabler GS-1020
Harness kit for coin controller GQ-1180
Desk MH-2520
Original Cover KA-1640PC/-C
Large Capacity Feeder (LCF) KD-1026 A4/LT/A4-C
Reversing Automatic Document Feeder (RADF) MR-3022/C
Bridge Kit KN-2520/C
Job Separator MJ-5006/C
Paper Feed Pedestal (PFP) KD-1025/C
Accessible Arm KK-2550
Hole Punch Unit MJ-6001 N/E/F/S
Hole Punch Unit MJ-6004 N/E/F/S
FAX Unit GD-1250 NA/EU/AU/AS /TW/C
Drawer Module MY-1033/C
Hanging Finisher MJ-1031/C
Staple Cartridge STAPLE-2000
Finisher MJ-1101/C
Staple Cartridge STAPLE-2400
Saddle stitch Finisher MJ-1024
Staple Cartridge STAPLE-2000 STAPLE-600
Damp Heater kit MF-4550 U/E
2nd Line for FAX Unit GD-1260 NA/EU/AU/TW/C

Fig. 1-3

2. SELF-DIAGNOSIS MODES

2.1 Overview

Starting each mode

Shut down the equipment by pressing the [ON/OFF] button for a few seconds, then turn OFF the main switch. Turn ON the main switch while pressing two digital keys designated to each mode (e.g. [0] and [5]) simultaneously.

Note:

If the normal mode is started instead of self-diagnosis mode, start the equipment in the self-diagnosis mode again.

Exiting from self-diagnosis modes

Shut down the equipment by pressing the [ON/OFF] button for a few seconds to exit from the self-diagnosis mode.

List of modes

Mode	For start	Contents	For exit	Display
Control panel check mode	[0]+[1]+ POWER ON	All LEDs on the control panel are lit, and all the LCD pixels blink.	POWER OFF/ON	
Test mode	[0]+[3]+ POWER ON	Checks the status of input/output signals.	POWER OFF/ON	100% C A4 TEST MODE
Test print mode	[0]+[4]+ POWER ON	Outputs the test patterns.	POWER OFF/ON	100% P A4 TEST PRINT
Adjustment mode	[0]+[5]+ POWER ON	Adjusts various items.	POWER OFF/ON	100% A A4 TEST MODE
Setting mode	[0]+[8]+ POWER ON	Sets various items.	POWER OFF/ON	100% D TEST MOD
List print mode	[9]+[START] +POWER ON	Prints out the data lists of the codes 05 and 08, PM support mode, pixel counter, error history, firmware upgrade log and power ON/OFF log, and also outputs them in a CSV format.	POWER OFF/ON	100% L A4 LIST PRINT
PM support mode	[6]+[START] +POWER ON	Clears each counter.	POWER OFF/ON	100% K TEST MODE
EPU replacement mode	[7]+[START] +POWER ON	When replacing EPU, this mode is available for the installation of the EPU whose initial detection is possible.	POWER OFF/ON	
Firmware update mode	[8]+[9]+POWER ON or [4]+[9]+POWER ON	Performs updating of the system firmware.	POWER OFF/ON	

Note:

When the optional FAX unit is installed, Faxes received automatically during the self-diagnosis mode may not be printed out. Be sure to disconnect the modular code from the line connectors (LINE1, LINE2) of the equipment before starting the self-diagnosis mode. Also, be sure to finish the self-diagnosis mode by turning the power OFF and back ON before connecting the modular code.

State transition diagram of self-diagnosis modes

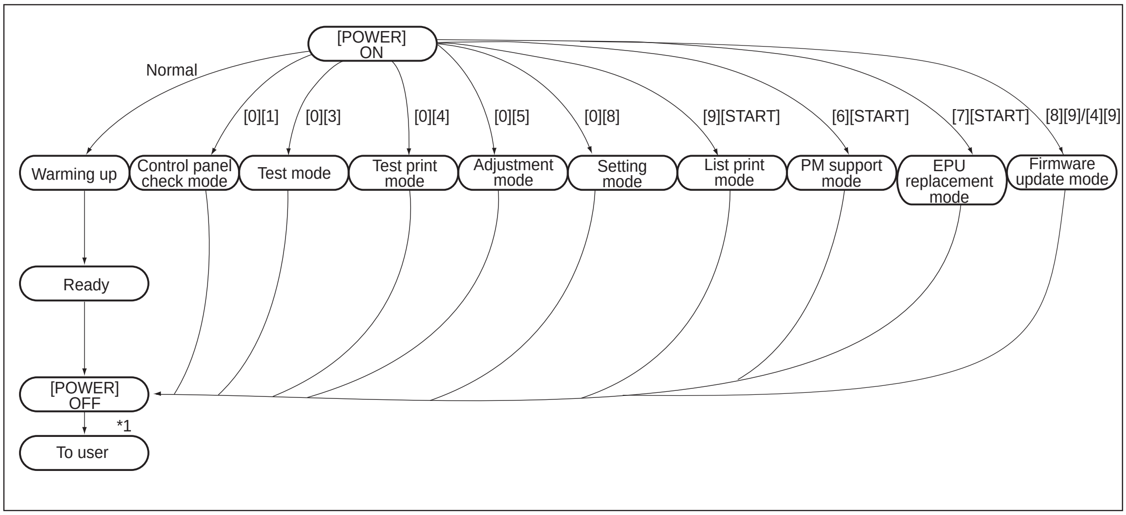
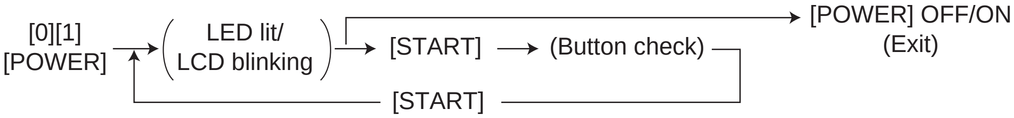

[POWER] ON
Normal
[0][1]
[0][3]
[0][4]
[0][5]
[0][8]
[9][START]
[6][START]
[7][START]
[8][9]/[4][9]
Warming up
Control panel check mode
Test mode
Test print mode
Adjustment mode
Setting mode
List print mode
PM support mode
EPU replacement mode
Firmware update mode
Ready
[POWER] OFF
*1
To user

Fig. 2-1

*1. Turn OFF the power after using the self-diagnosis modes, and leave the equipment to the user.

2.1.1 Control panel check mode (01)

Operation procedure


[0][1]
[POWER]
LED lit/
LCD blinking
[START]
(Button check)
[START]
[POWER] OFF/ON
(Exit)

The mode can be canceled by [POWER] OFF/ON when the LED is lit and the LCD is blinking.

Button Check

- Press the buttons with LED to turn OFF the LED.
- Press the buttons without LED to display the message on the control panel.
- Press the button on touch panel to display the screen on the control panel 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.

2.1.2 Test mode (03)

Refer to the following.

📖 P.2-4 "2.2 Input Check (Test Mode 03)"

📖 P.2-12 "2.3 Output Check (Test Mode 03)"

2.1.3 Test print mode (04)

Refer to the following.

📖 P.2-16 "2.4 Test Print Mode (Test Mode 04)"

2.1.4 Adjustment mode (05)

Refer to the following.

📖 P.2-31 "2.6 Adjustment Mode (05)"

2.1.5 Setting mode (08)

Refer to the following.

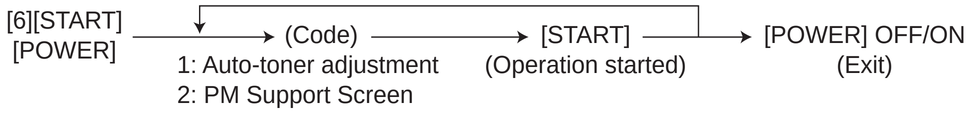
📖 P.2-63 "2.7 Setting Mode (08)"

2.1.6 List print mode (9S)

Refer to the following.
📖 P.2-17 "2.5 List Print Mode"

2.1.7 PM support mode (6S)

Operation procedure


[6][START]
[POWER]
(Code)
1: Auto-toner adjustment
2: PM Support Screen
[START]
(Operation started)
[POWER] OFF/ON
(Exit)

2.1.8 EPU replacement mode (7S)

Refer to the following.
📖 P.5-12 "5.5 EPU Replacement Mode"

2.1.9 Firmware update mode (89)/(49)

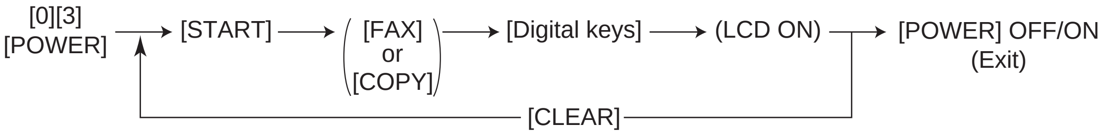
Refer to the following.

📖 P.8-1 "8. FIRMWARE UPDATING"

2.2 Input Check (Test Mode 03)

The status of each input signal can be checked by pressing the [FAX] button, and the digital keys in the test mode (03).

Operation procedure


[0][3]
[POWER]
[START]
[FAX]
or
[COPY]
[Digital keys]
(LCD ON)
[POWER] OFF/ON
(Exit)
[CLEAR]

Note:
Initialization is performed before the equipment enters the test mode.

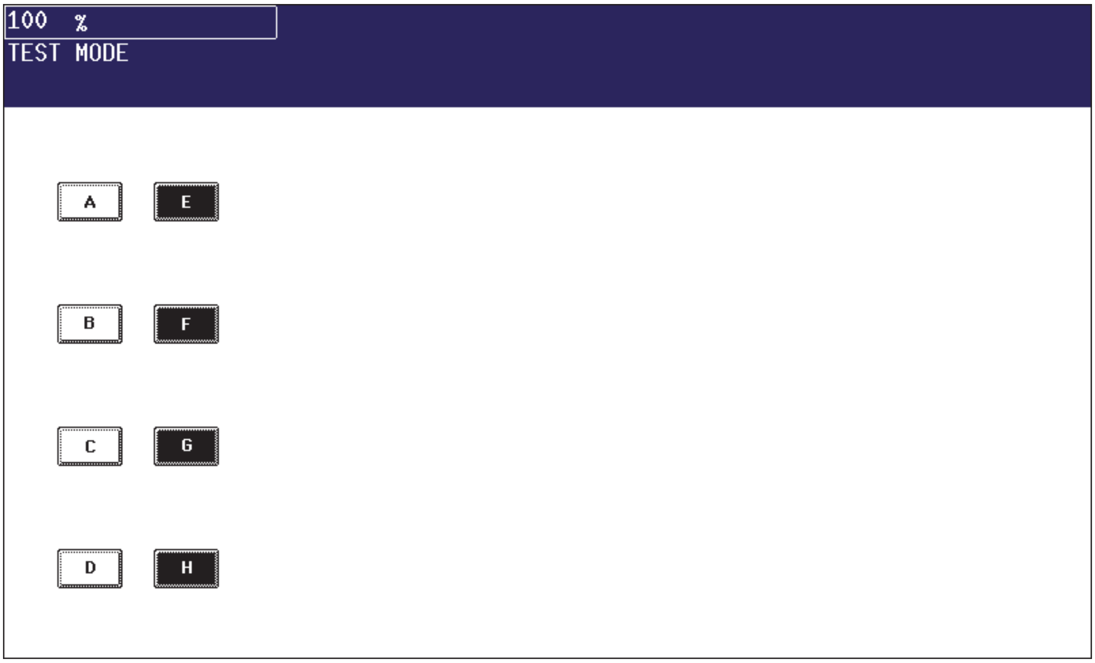

100 %
TEST MODE
A
E
B
F
C
G
D
H

Fig. 2-2 Example of display during input check

Items to be checked and the condition of the equipment when the buttons [A] to [H] are highlighted are listed in the following pages.

[FAX] button: OFF/[COPY] button: OFF ([FAX] LED: OFF/[COPY] LED: OFF)

Digital key	Button	Items to check	Contents	
			Highlighted display e.g. A	Normal display e.g. A
[1]	A	PFP connection	Not connected	Connected
	B	LCF connection	Not connected	Connected
	C	REV connection	Not connected	Connected
	D	ADU entrance sensor	Paper present	No paper
	E	ADU exit sensor	Paper present	No paper
	F	-	-	-
	G	-	-	-
	H	-	-	-
[2]	A	PFP side cover opening/closing switch	Cover opened	Cover closed
	B	PFP upper drawer feed sensor	Paper present	No paper
	C	PFP upper drawer detection switch	Drawer not installed	Drawer present
	D	PFP upper drawer tray-up sensor	Tray at upper limit position	Other than upper limit position
	E	PFP upper drawer nearly empty sensor	Drawer is nearly empty	Paper present
	F	PFP upper drawer empty sensor	No paper	Paper present
	G	-	-	-
	H	-	-	-
[3]	A	PFP motor rotation status (Motor is rotating at output mode (03))	Abnormal rotation	Normal rotation
	B	PFP lower drawer feed sensor	Paper present	No paper
	C	PFP lower drawer detection switch	Drawer not installed	Drawer present
	D	PFP lower drawer tray-up sensor	Tray at upper limit position	Other than upper limit position
	E	PFP lower drawer nearly empty sensor	Drawer is nearly empty	Paper present
	F	PFP lower drawer empty sensor	No paper	Paper present
	G	-	-	-
	H	-	-	-
[4]	A	LCF motor rotation status (Motor is rotating at output mode (03))	Abnormal rotation	Normal rotation
	B	LCF side cover opening/closing switch	Cover closed	Cover opened
	C	LCF feed sensor	No paper	Paper present
	D	LCF standby side empty sensor	No paper	Paper present
	E	LCF feed side empty sensor	Paper present	No paper
	F	LCF right drawer detection switch	Drawer not installed	Drawer present
	G	LCF left drawer detection switch	Drawer not installed	Drawer present
	H	-	-	-

Digital key	**Button**	**Items to check**	**Contents**	
			Highlighted display **e.g.** A	**Normal display** **e.g.** A
[5]	A	LCF tray-up sensor	Tray at upper limit position	Other than upper limit position
	B	LCF tray-bottom sensor	Tray at lower limit position	Other than lower limit position
	C	LCF end fence stop position sensor	Fence stop position	Other than stop position
	D	LCF end fence home position sensor	Fence home position	Other than home position
	E	LCF feed side nearly empty sensor	Drawer is nearly empty	Paper present
	F	LCF paper misfeed detection sensor	Normal	Paper misfeed
	G	-	-	-
	H	-	-	-
[6]	A	1st transport sensor (S21)	Paper present	No paper
	B	Upper drawer tray-up sensor	Tray at upper limit position	Other than upper limit position
	C	Upper drawer empty sensor	No paper	Paper present
	D	Upper drawer nearly empty sensor	Drawer is nearly empty	Paper present
	E	Upper drawer detection sensor	Drawer not installed	Drawer present
	F	-	-	-
	G	-	-	-
	H	-	-	-
[7]	A	2nd transport sensor (S14)	Paper present	No paper
	B	Lower drawer tray-up sensor	Tray at upper limit position	Other than upper limit position
	C	Lower drawer empty sensor	No paper	Paper present
	D	Lower drawer nearly empty sensor	Drawer is nearly empty	Paper present
	E	Lower drawer detection sensor	Drawer not installed	Drawer present
	F	-	-	-
	G	-	-	-
	H	-	-	-
[8]	A	Bypass feed sensor	No paper	Paper present
	B	Bypass feed paper width sensor 0	Refer to table 1	
	C	Bypass feed paper width sensor 1	Refer to table 1	
	D	Bypass feed paper width sensor 2	Refer to table 1	
	E	Bypass feed paper width sensor 3	Refer to table 1	
	F	-	-	-
	G	-	-	-
	H	-	-	-
[9]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	-	-	-
	F	-	-	-
	G	-	-	-
	H	-	-	-

Digital key	Button	Items to check	Contents	
			Highlighted display e.g. A	Normal display e.g. A
[0]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	-	-	-
	F	-	-	-
	G	-	-	-
	H	-	-	-

Table 1. Relation between the status of the bypass paper width sensor and paper size (width).

Paper-width size	Bypass paper-width sensor			
	0	**1**	**2**	**3**
A3/A4	1	1	1	0
B4/B5	1	1	0	0
A4-R/A5	1	1	0	1
B5-R/B6	1	0	0	1
A5-R/A6	1	0	1	1
A6-R (Card size)	0	1	1	1
LD/LT	1	1	1	0
LG/LT-R/ST	1	1	0	1
ST-R/COMP	1	0	1	1

[FAX] button: ON/[COPY] button: OFF ([FAX] LED: ON/[COPY] LED: OFF)

Digital key	Button	Items to check		Contents	
				Highlighted display **e.g.** A	**Normal display** **e.g.** A
[1]	A	IPC board connection		Not connected	Connected
	B	MOT board connection		Not connected	Connected
	C	-		-	-
	D	Key copy counter connection		Not connected	Connected
	E	Auto-toner sensor connection		Not connected	Connected
	F	Fuser unit connection		Fuser unit installed	Fuser unit not installed
	G	Fuser unit initial detection		fuse disconnected	Other than fuse disconnection
	H	-		-	-
[2]	A	24 V power supply		Power ON	Power OFF
	B	High-voltage power supply abnormality (shutdown) detection		Normal	Abnormal
	C	Main motor rotation status (Motor is rotating in Output Mode (03))		Abnormal rotation	Normal rotation
	D	Polygonal motor rotation status (Motor is rotating in Output Mode (03))		Abnormal rotation	Normal rotation
	E	-		-	-
	F	-		-	-
	G	-		-	-
	H	-		-	-
[3]	A	Bridge unit/Job Separator/Offset Tray connection detection 1		Refer to table 2	
	B	Bridge unit/Job Separator/Offset Tray connection detection 2		Refer to table 2	
	C	Bridge unit/Job Separator/Offset Tray connection detection 3		Refer to table 2	
	D	When bridge unit is connected	Paper full detection	Full	Not full
		When job separator is connected	Lower tray paper full detection	Full	Not full
		When offset tray is connected	Paper full detection	Full	Not full
	E	When bridge unit is connected	Cover opening/closing switch	Cover opened	Cover closed
		When job separator is connected	Cover opening/closing switch	Cover opened	Cover closed
		When offset tray is connected	Cover opening/closing switch	Cover opened	Cover closed
	F	When bridge unit is connected	Paper exit sensor	Paper present	No paper
		When job separator is connected	-	-	-
		When offset tray is connected	-	-	-
	G	When bridge unit is connected	Intermediate transport sensor	Paper present	No paper
		When job separator is connected	Jam detection sensor	Paper present	No paper
		When offset tray is connected	Offset tray timing sensor	Paper present	No paper
	H	When bridge unit is connected	-	-	-
		When job separator is connected	Upper tray paper full detection	Full	Not full
		When offset tray is connected	Offset tray initial position detection	Initial position	Other than initial position

Digital key	Button	Items to check	Contents	
			Highlighted display e.g. A	Normal display e.g. A
[4]	A	Job Separator connection	Not connected	Connected
	B	Bridge unit connection	Not connected	Connected
	C	Offset Tray initial position detection	Initial position	Other than initial position
	D	Bridge unit paper full detection	Full	Not full
	E	Bridge unit cover opening/closing switch	Cover opened	Cover closed
	F	Bridge unit paper exit sensor	Paper present	No paper
	G	Bridge unit transport sensor	Paper present	No paper
	H	Job Separator upper tray paper full detection	Full	Not full
[5]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	-	-	-
	F	RADF connection	Connected	Not connected
	G	Platen SW detection	Opened	Closed
	H	Scanner home position detection	Home position	Other than home position
[6]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	APS sensor (APS-R)	Original present	No original
	E	APS sensor (APS-C)	Original present	No original
	F	APS sensor (APS-3)	Original present	No original
	G	APS sensor (APS-2)	Original present	No original
	H	APS sensor (APS-1)	Original present	No original
[7]	A	[RADF] Original tray length sensor	Original present	No original
	B	[RADF] Original empty sensor	Original present	No original
	C	[RADF] Jam access cover sensor	Cover opened	Cover closed
	D	[RADF] RADF opening/closing sensor	RADF opened	RADF closed
	E	[RADF] Original exit/reverse sensor	Original present	No original
	F	[RADF] Original intermediate transport sensor	Original present	No original
	G	[RADF] Read sensor	Original present	No original
	H	[RADF] Original registration sensor	Original present	No original

Digital key	Button	Items to check	Contents	
			Highlighted display e.g. A	Normal display e.g. A
[8]	A	[RADF] Original tray width sensor 1 (TWID0S) (Refer to table3)	OFF (H)	ON (L)
	B	[RADF] Original tray width sensor 2 (TWID1S) (Refer to table3)	OFF (H)	ON (L)
	C	[RADF] Original tray width sensor 3 (TWID2S) (Refer to table3)	OFF (H)	ON (L)
	D	-	-	-
	E	[RADF] Original length detection sensor	Original present	No original
	F	[RADF] Original width detection sensor 1	Original present	No original
	G	[RADF] Original width detection sensor 2	Original present	No original
	H	-	-	-
[9]	A	Registration sensor	Paper present	No paper
	B	Paper exit sensor	Paper present	No paper
	C	Reverse sensor	Paper present	No paper
	D	Front cover switch	Cover opened	Cover closed
	E	Cassette side cover opening/closing switch	Cover opened	Cover closed
	F	Transfer side cover opening/closing switch	Cover opened	Cover closed
	G	-	-	-
	H	-	-	-
[10]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	-	-	-
	F	-	-	-
	G	-	-	-
	H	-	-	-

Table 2. Connecting status of additional options at inner area of the equipment

	None	Bridge unit	Offset Tray	Job Separator
Option connection detection 3	Normal display	Normal display	Highlighting display	Highlighting display
Option connection detection 1	Normal display	Highlighting display	Normal display	Highlighting display

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	H	LD/LT	A3/A4
H	H	L	-	B5-R
H	L	H	ST-R	A5-R
L	H	H	LD/LT	A3/A4
L	H	L	-	-
L	L	H	8.5" x 8.5" / LT-R / LG / 13" LG	A4-R/FOLIO
L	L	L	COMPUTER	B4/B5

H (= high level): Open L (= low level): Short

[FAX] button: OFF/ [COPY] button: ON ([FAX] LED: OFF/ [COPY] LED: ON)

Digital key	Button	Items to check	Contents	
			Highlighted display e.g. A	Normal display e.g. A
[0]	A	Dongle (for Printer/Scanner kit (GM-2150/2150J/2150C/2160/2160J/2160C)) Connected *1	Connectable	Not connectable
	B	Dongle (for Printer kit (GM-1150/1150J/1150C/1160/1160J/1160C)) Connected	Connectable	Not connectable
	C	Dongle (for Scanner kit (GM-4150/4150C/4160/4160C)) Connected	Connectable	Not connectable
	D	Dongles for other equipments/Other USB devices Connected	Connectable	Not connectable
	E	Judgement for acceptable USB media *2	Acceptable	Not acceptable
	F	-	-	-
	G	-	-	-
	H	-	-	-

* 1

- Since printer and scanner are standard for NAD/MJD/ARD, the key is highlighted without dongle.

* 2

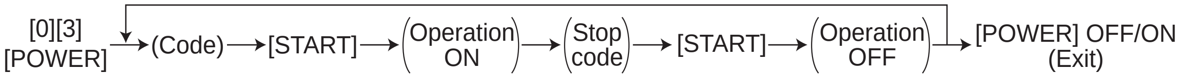
- Be sure to install the USB media to the equipment and check if the device can be used with this code.
- Be sure to turn OFF the write protection (the function to prevent data from erasure by the accidental recording or deleting) of the USB media before performing the check, otherwise this code cannot be used.
- It may take some time (2 sec. to 10 sec.) before this check is completed depending on the USB media.

2.3 Output Check (Test Mode 03)

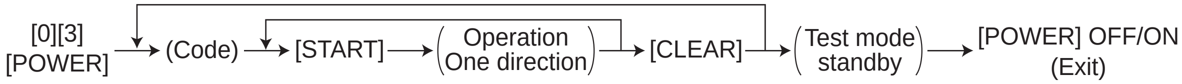
Status of the output signals can be checked by inputting in the following codes in the test mode 03.

Operation procedure

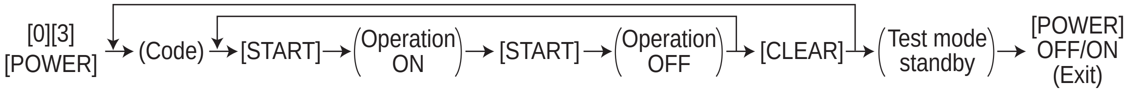
Procedure 1


[0][3]
[POWER]
(Code)
[START]
Operation ON
Stop code
[START]
Operation OFF
[POWER] OFF/ON
(Exit)

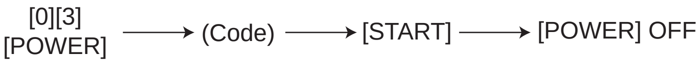
Procedure 2


[0][3]
[POWER]
(Code)
[START]
Operation One direction
[CLEAR]
Test mode standby
[POWER] OFF/ON
(Exit)

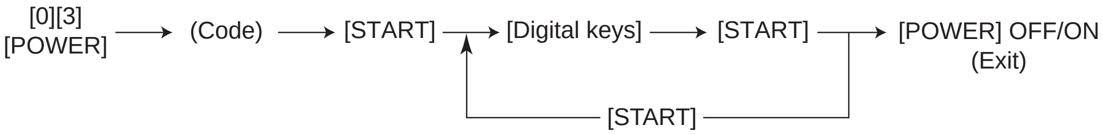
Procedure 3


[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.

Code	Function	Code	Function	Procedure
101	Main motor ON (operational without developer unit)	151	Code No. 101 function OFF	1
102	Toner motor ON (normal rotation)	152	Code No. 102 function OFF	1
103	Polygonal motor ON (600 dpi)	153	Code No. 103 function OFF	1
108	Registration clutch ON	158	Code No. 108 function OFF	1
109	PFP motor ON	159	Code No. 109 function OFF	1
110	ADU motor ON (low speed)	160	Code No. 110 function OFF	1
118	Laser ON	168	Code No. 118 function OFF	1
120	Exit motor ON (normal rotation)	170	Code No. 120 function OFF	1
121	Exit motor ON (reverse rotation)	171	Code No. 121 function OFF	1
122	LCF motor ON	172	Code No. 122 function OFF	1
123	Reverse motor ON (normal rotation) * e-STUDIO355/455 only	173	Code No. 123 function OFF	1
124	Reverse motor ON (reverse rotation) * e-STUDIO355/455 only	174	Code No. 124 function OFF	1

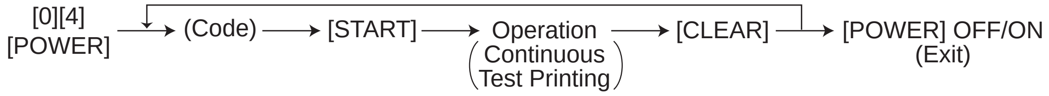
Code	Function	Procedure
177	Offset Tray motor ON (reciprocating movement)	2
201	Upper drawer feed clutch ON/OFF	3
202	Lower drawer feed clutch ON/OFF	3
203	Transport clutch (high speed) ON/OFF	3
204	Bypass feed clutch ON/OFF	3
205	Transport clutch (low speed) ON/OFF	3
206	LCF pickup solenoid ON/OFF	3
207	LCF end fence reciprocating movement *This function is disabled in the following conditions. • When the LCF tray is up. • When the left drawer is not inserted. • When the LCF misfeed insertion detection sensor is incorrectly inserted.	2
209	LCF feed clutch ON/OFF	3
218	Key copy counter count up	2
222	ADU clutch ON/OFF	3
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
232	Bridge unit gate solenoid ON/OFF	3
233	Reverse solenoid ON/OFF * e-STUDIO355/455 only	3
235	Discharge lamp ON/OFF	3
236	Suction fan ON/OFF (low speed)	3
237	Suction fan ON/OFF (high speed)	3
242	Upper drawer tray-up motor ON (tray up)	2
243	Lower drawer tray-up motor ON (tray up)	2
249	Developer bias [-DC] ON/OFF	3
250	Developer bias [AC] ON/OFF	3
252	Main charger ON/OFF	3
253	Separation charger ON/OFF	3
255	Transfer guide bias ON/OFF	3
256	Transfer charger (positive/center) ON/OFF	3
257	Transfer charger (positive/high) ON/OFF	3
258	Transfer charger (negative) ON/OFF	3
261	Scan motor ON (Automatically stops at limit position; speed can be changed with the [ZOOM] button	2
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 (normal rotation)	3
284	RADF exit motor ON/OFF (normal rotation)	3
285	RADF exit motor ON/OFF (reverse rotation)	3
289	Developer cooling fan ON/OFF (high speed)	3
290	Developer cooling fan ON/OFF (low speed)	3
294	Reverse gate solenoid ON/OFF	3
295	Power OFF mode (for 200 V series)	4
297	RADF fan motor ON/OFF	3
301	Modem test 2100Hz	2

Code	Function	Procedure
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
322	CML relay ON	2
410	Power supply cooling fan ON/OFF (low speed)	3
411	Power supply cooling fan ON/OFF (high speed)	3

2.4 Test Print Mode (Test Mode 04)

The embedded test pattern can be printed out by keying in the following codes in the test print mode (04).

Operation procedure


[0][4]
[POWER]
(Code)
[START]
Operation
(Continuous Test Printing)
[CLEAR]
[POWER] OFF/ON
(Exit)

Notes:

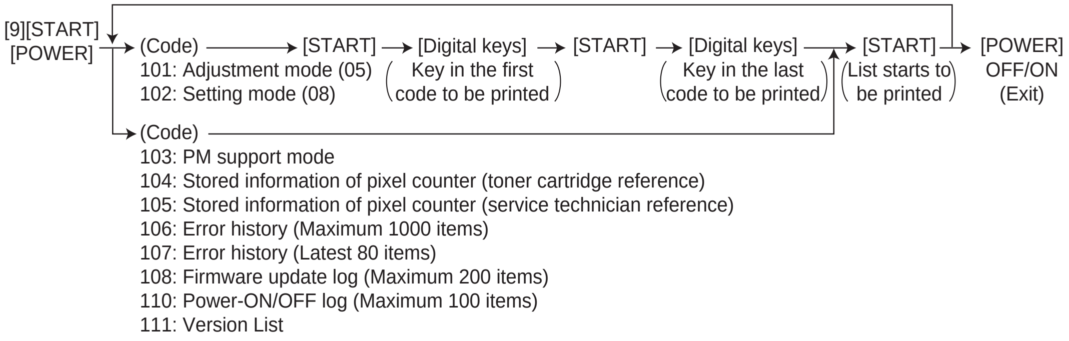
1. When an error occurs, it is indicated on the panel, but the recovery operation is not performed. Turn OFF the power and then back ON to clear the error.
2. During test printing, the [CLEAR] button is disabled when “Wait adding toner” is displayed.

Code	Types of test pattern	Remarks	Procedure	Output from
114	Secondary scanning direction 17 gradation steps	Error diffusion	1	SLG
142	Grid pattern	Pattern width: 2 dots, Pitch: 10 mm	1	LGC

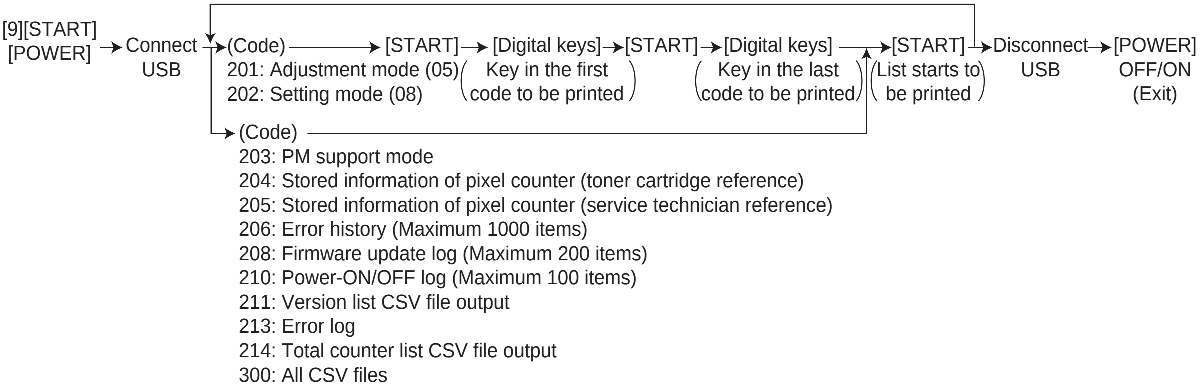
2.5 List Print Mode

2.5.1 Operation procedure

Print output


[9][START]
[POWER]
(Code)
101: Adjustment mode (05)
102: Setting mode (08)
[START]
[Digital keys]
Key in the first code to be printed
[START]
[Digital keys]
Key in the last code to be printed
[START]
List starts to be printed
[POWER]
OFF/ON
(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

CSV output, txt format


[9][START]
[POWER]
Connect USB
(Code)
201: Adjustment mode (05)
202: Setting mode (08)
[START]
[Digital keys]
Key in the first code to be printed
[START]
[Digital keys]
Key in the last code to be printed
[START]
List starts to be printed
Disconnect USB
[POWER]
OFF/ON
(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 CSV file output
213: Error log
214: Total counter list CSV file output
300: All CSV files

Notes:

Precautions when storing information into USB media

- When storing the setting information of the equipment into a USB media, be sure to obtain permission from a user in advance.
- When storing the setting information of the equipment into a USB media, 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.

Remark:

In the USB storage procedure above, lists are stored in a CSV format. The names of the CSV files are shown below (the numbers represent the serial number of the machine: “0123456789”.)

201:ADJUSTMENT_LIST_0123456789.csv
202:SETTING_LIST_0123456789.csv
203:PM_LIST_0123456789.csv
204:PIXEL_TONER_LIST_0123456789.csv
205:PIXEL_SERVICE_LIST_0123456789.csv
206:ERROR_LOG_0123456789.csv
208:FW_UPGRADE_LOG0123456789.csv
210:POWER_ONOFF_LOG_0123456789.csv
211:VERSION_LIST_0123456789.csv
213:logdump.txt / i.txt
214:TOTAL_COUNTER_LIST_0123456789.csv

Remark:

The buttons on the control panel keep blinking while data are being stored in the USB media.

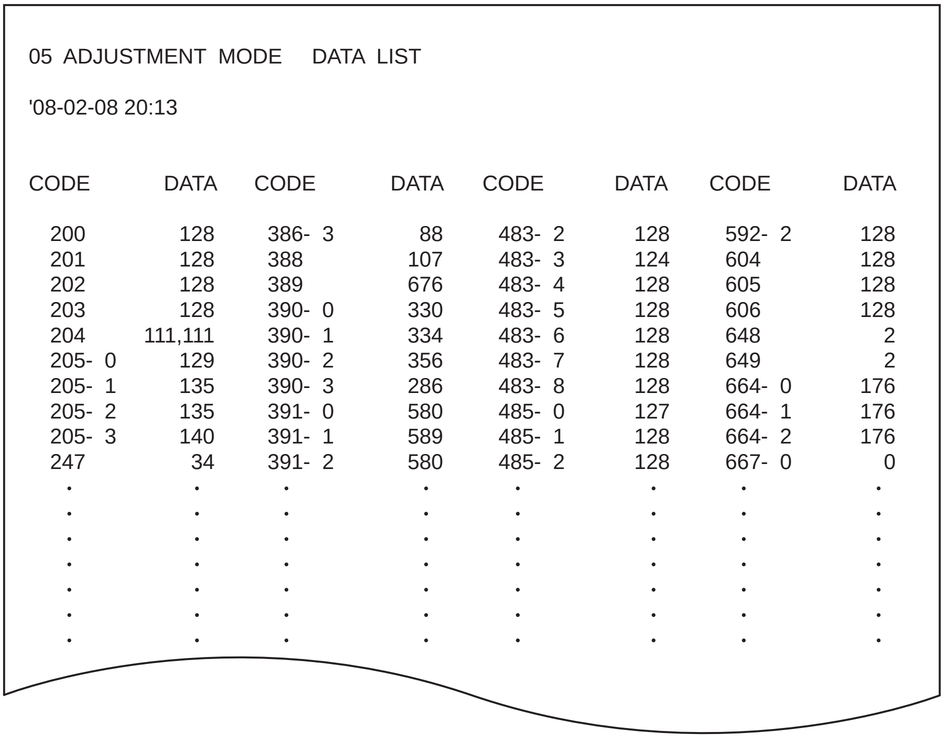
- Do not disconnect the USB media while data are being stored.
- When the data of a code are printed again on the same equipment, the CSV file will be overwritten because the names of these files contain the same serial number.

2.5.2 List printing

Lists below are output in the list print mode.
List data are printed out or output in a CSV or txt format by storing them in a USB media. Paper sizes available for this printing are A4 or LT or larger. This section introduces a sample of each list.
Starting the list print mode: [9] + [START] + [ON/OFF]

Lists	**List code**		
	Printout	**CSV file output**	**txt 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	-
Error log	-	-	213
Total counter list	-	214	-
All CSV files	-	300	-

- Adjustment mode (05)

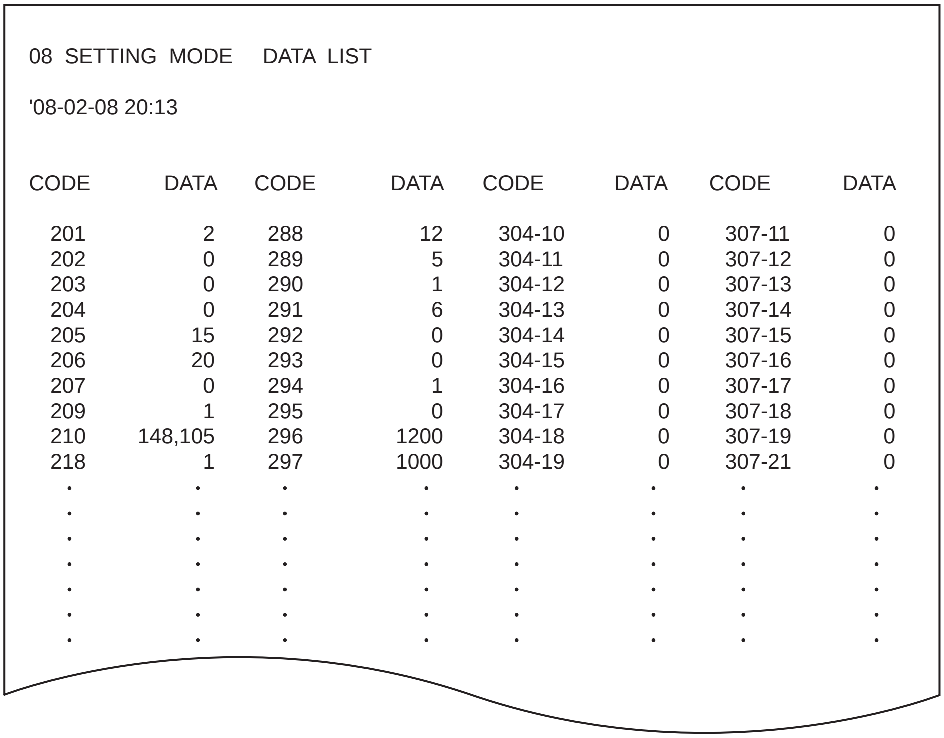


```
05  ADJUSTMENT  MODE     DATA  LIST

'08-02-08 20:13


CODE          DATA    CODE          DATA    CODE          DATA    CODE          DATA

  200          128      386-  3       88      483-  2      128      592-  2      128
  201          128      388          107      483-  3      124      604          128
  202          128      389          676      483-  4      128      605          128
  203          128      390-  0      330      483-  5      128      606          128
  204      111,111      390-  1      334      483-  6      128      648            2
  205-  0      129      390-  2      356      483-  7      128      649            2
  205-  1      135      390-  3      286      483-  8      128      664-  0      176
  205-  2      135      391-  0      580      485-  0      127      664-  1      176
  205-  3      140      391-  1      589      485-  1      128      664-  2      176
  247           34      391-  2      580      485-  2      128      667-  0        0
   .             .       .             .       .             .       .             .
   .             .       .             .       .             .       .             .
   .             .       .             .       .             .       .             .
   .             .       .             .       .             .       .             .
   .             .       .             .       .             .       .             .
   .             .       .             .       .             .       .             .
   .             .       .             .       .             .       .             .
```

Fig. 2-3

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):
📖 P.2-31 "2.6 Adjustment Mode (05)"

- Setting mode (08)

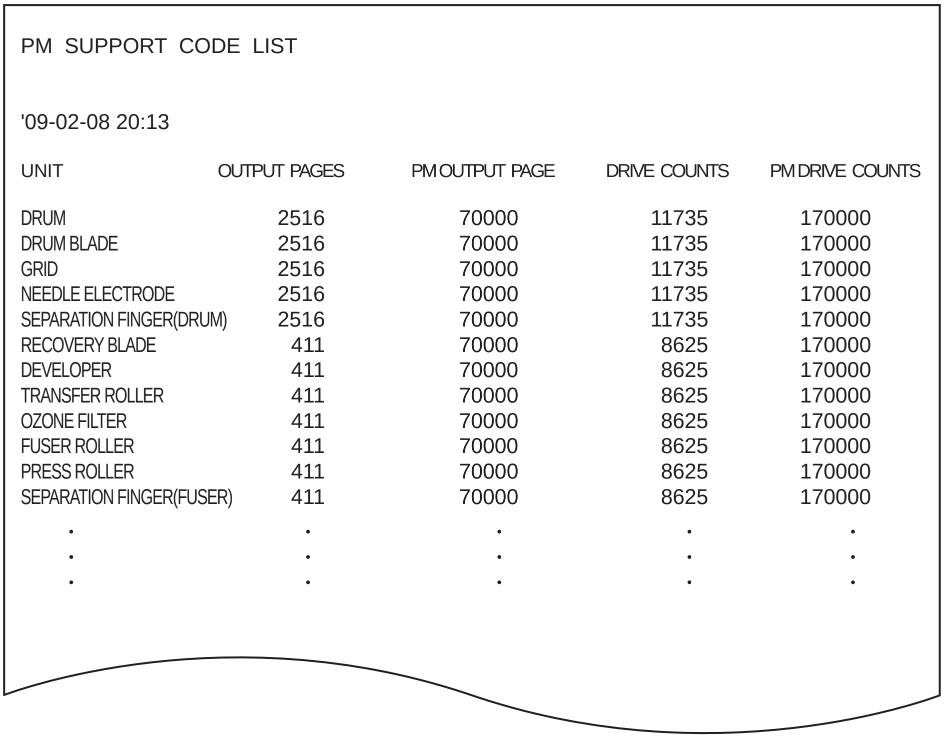


```
08  SETTING  MODE     DATA  LIST

'08-02-08 20:13


CODE        DATA   CODE        DATA   CODE        DATA   CODE        DATA

 201           2    288          12    304-10        0    307-11        0
 202           0    289           5    304-11        0    307-12        0
 203           0    290           1    304-12        0    307-13        0
 204           0    291           6    304-13        0    307-14        0
 205          15    292           0    304-14        0    307-15        0
 206          20    293           0    304-15        0    307-16        0
 207           0    294           1    304-16        0    307-17        0
 209           1    295           0    304-17        0    307-18        0
 210     148,105    296        1200    304-18        0    307-19        0
 218           1    297        1000    304-19        0    307-21        0
  .            .     .            .     .            .     .            .
  .            .     .            .     .            .     .            .
  .            .     .            .     .            .     .            .
  .            .     .            .     .            .     .            .
  .            .     .            .     .            .     .            .
  .            .     .            .     .            .     .            .
  .            .     .            .     .            .     .            .
```

Fig. 2-4

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):
🕮 P.2-63 "2.7 Setting Mode (08)"

- PM support mode

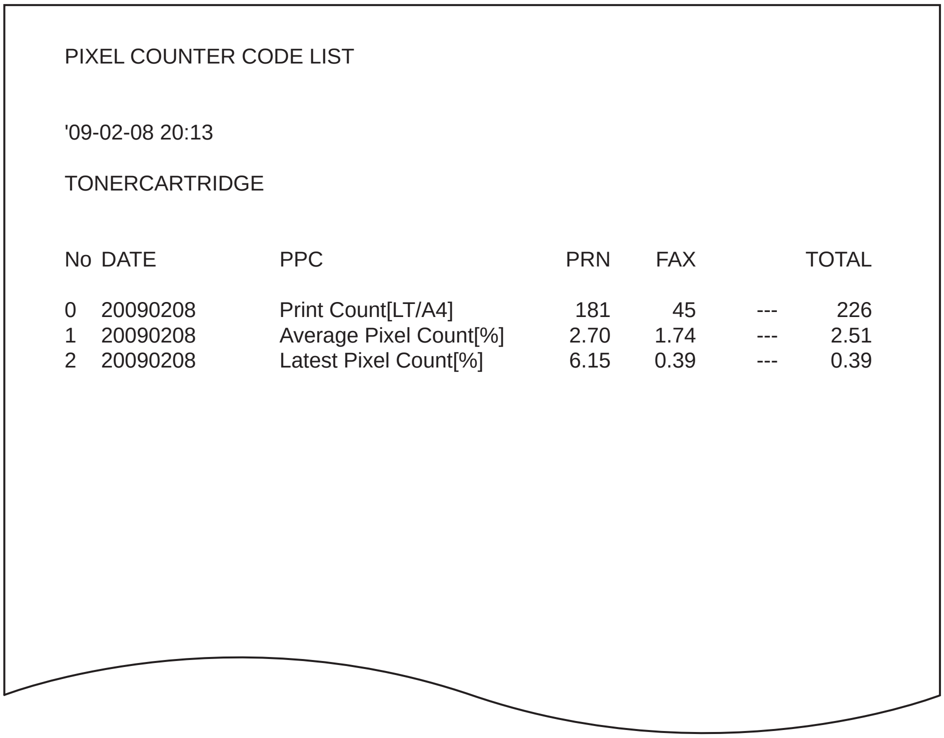


```
PM  SUPPORT  CODE  LIST


'09-02-08 20:13

UNIT                        OUTPUT PAGES    PM OUTPUT PAGE    DRIVE COUNTS    PM DRIVE COUNTS

DRUM                            2516            70000            11735            170000
DRUM BLADE                      2516            70000            11735            170000
GRID                            2516            70000            11735            170000
NEEDLE ELECTRODE                2516            70000            11735            170000
SEPARATION FINGER(DRUM)         2516            70000            11735            170000
RECOVERY BLADE                   411            70000             8625            170000
DEVELOPER                        411            70000             8625            170000
TRANSFER ROLLER                  411            70000             8625            170000
OZONE FILTER                     411            70000             8625            170000
FUSER ROLLER                     411            70000             8625            170000
PRESS ROLLER                     411            70000             8625            170000
SEPARATION FINGER(FUSER)         411            70000             8625            170000
      .                           .               .                 .                 .
      .                           .               .                 .                 .
      .                           .               .                 .                 .
```

Fig. 2-5

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:
Refer to 📖 P.5-1 "5. PREVENTIVE MAINTENANCE (PM)".

- Stored information of pixel counter (toner cartridge reference)

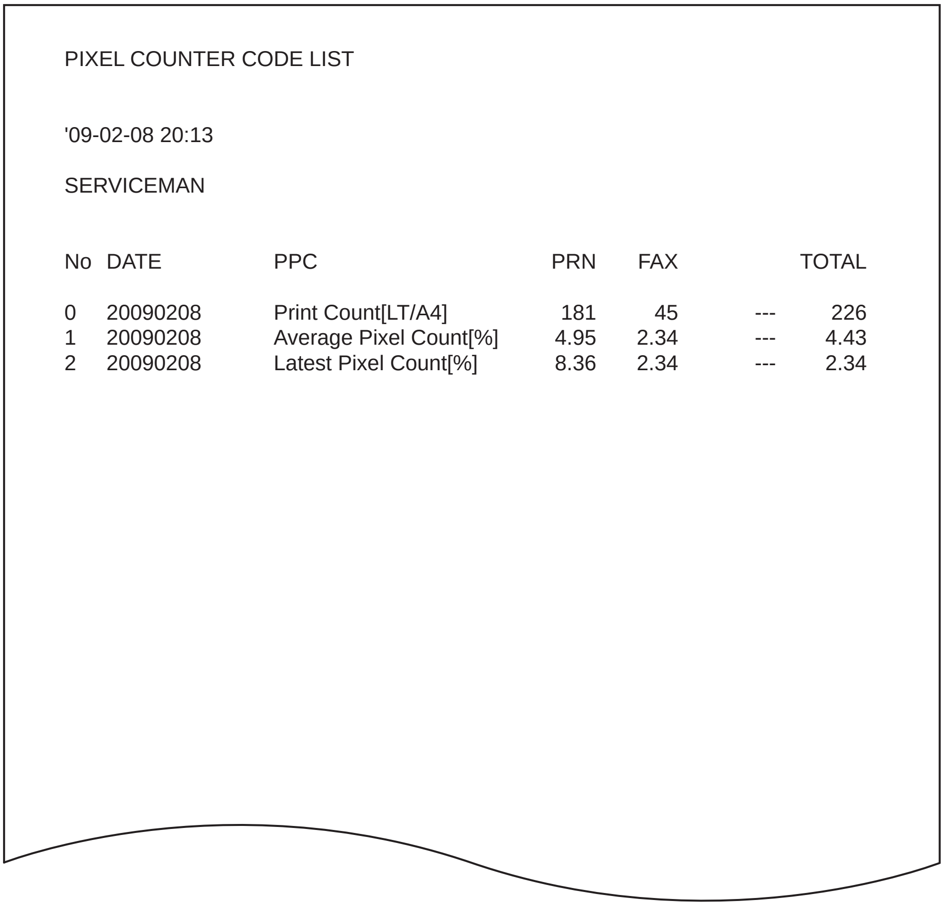


```
PIXEL COUNTER CODE LIST


'09-02-08 20:13

TONERCARTRIDGE


No  DATE            PPC                            PRN      FAX             TOTAL

0   20090208        Print Count[LT/A4]             181       45      ---      226
1   20090208        Average Pixel Count[%]        2.70     1.74      ---     2.51
2   20090208        Latest Pixel Count[%]         6.15     0.39      ---     0.39
```

Fig. 2-6

Pixel counter data (toner cartridge reference) are output in a list. See the following page for the pixel counter:
📖 P.2-203 "2.7.3 Pixel counter and its related code"

- Stored information of pixel counter (service technician reference)

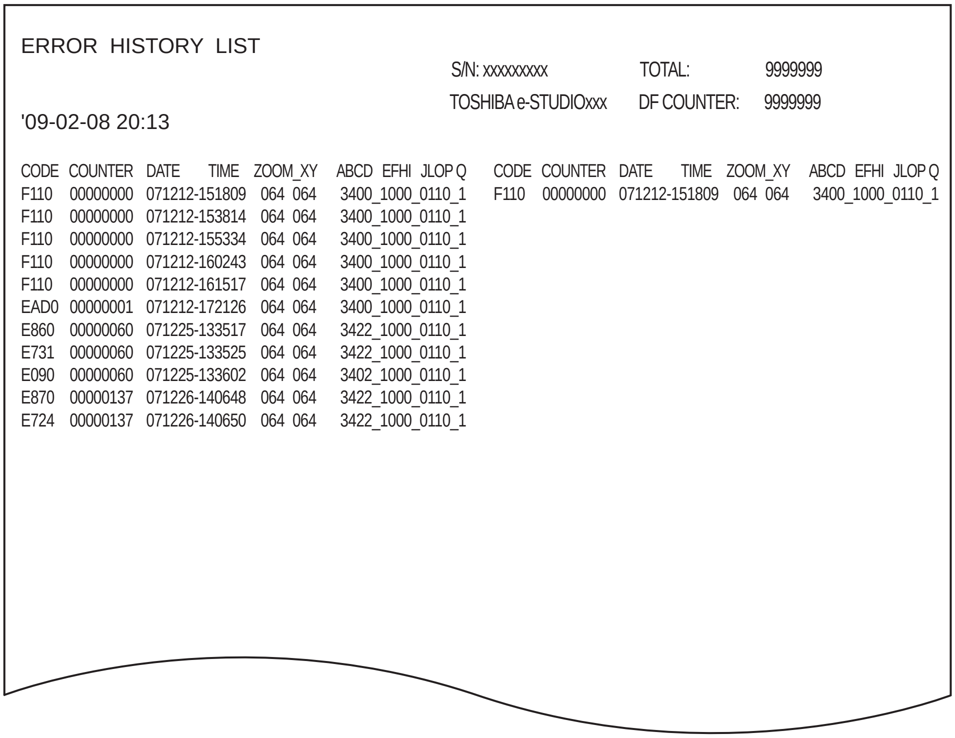


```
PIXEL COUNTER CODE LIST


'09-02-08 20:13

SERVICEMAN


No  DATE            PPC                        PRN      FAX              TOTAL

0   20090208        Print Count[LT/A4]         181       45        ---     226
1   20090208        Average Pixel Count[%]    4.95     2.34        ---    4.43
2   20090208        Latest Pixel Count[%]     8.36     2.34        ---    2.34
```

Fig. 2-7

Pixel counter data (service call reference) are output in a list. See the following page for the pixel counter:
📖 P.2-203 "2.7.3 Pixel counter and its related code"

- Error history

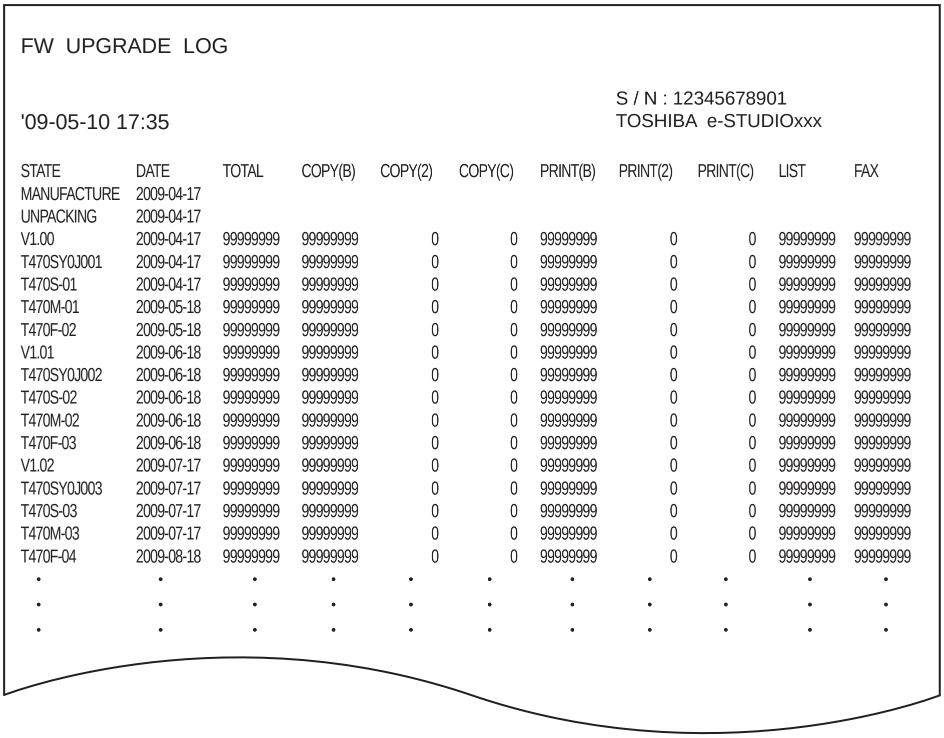


```
ERROR  HISTORY  LIST
                                             S/N: xxxxxxxxx          TOTAL:          9999999
                                             TOSHIBA e-STUDIOxxx     DF COUNTER:     9999999
'09-02-08 20:13

CODE  COUNTER   DATE      TIME   ZOOM_XY   ABCD  EFHI  JLOP Q    CODE  COUNTER   DATE      TIME   ZOOM_XY   ABCD  EFHI  JLOP Q
F110  00000000  071212-151809  064  064   3400_1000_0110_1     F110  00000000  071212-151809  064  064   3400_1000_0110_1
F110  00000000  071212-153814  064  064   3400_1000_0110_1
F110  00000000  071212-155334  064  064   3400_1000_0110_1
F110  00000000  071212-160243  064  064   3400_1000_0110_1
F110  00000000  071212-161517  064  064   3400_1000_0110_1
EAD0  00000001  071212-172126  064  064   3400_1000_0110_1
E860  00000060  071225-133517  064  064   3422_1000_0110_1
E731  00000060  071225-133525  064  064   3422_1000_0110_1
E090  00000060  071225-133602  064  064   3402_1000_0110_1
E870  00000137  071226-140648  064  064   3422_1000_0110_1
E724  00000137  071226-140650  064  064   3422_1000_0110_1
```

Fig. 2-8

The error history is output. See the following page for the parameters for each error:
Refer to 🕮 P.6-24 "6.2.4 Printer function error".

- Firmware update log



```
FW  UPGRADE  LOG

                                                                  S / N : 12345678901
'09-05-10 17:35                                                   TOSHIBA  e-STUDIOxxx

STATE        DATE        TOTAL     COPY(B)   COPY(2)   COPY(C)   PRINT(B)  PRINT(2)  PRINT(C)  LIST      FAX
MANUFACTURE  2009-04-17
UNPACKING    2009-04-17
V1.00        2009-04-17  99999999  99999999         0         0  99999999         0         0  99999999  99999999
T470SY0J001  2009-04-17  99999999  99999999         0         0  99999999         0         0  99999999  99999999
T470S-01     2009-04-17  99999999  99999999         0         0  99999999         0         0  99999999  99999999
T470M-01     2009-05-18  99999999  99999999         0         0  99999999         0         0  99999999  99999999
T470F-02     2009-05-18  99999999  99999999         0         0  99999999         0         0  99999999  99999999
V1.01        2009-06-18  99999999  99999999         0         0  99999999         0         0  99999999  99999999
T470SY0J002  2009-06-18  99999999  99999999         0         0  99999999         0         0  99999999  99999999
T470S-02     2009-06-18  99999999  99999999         0         0  99999999         0         0  99999999  99999999
T470M-02     2009-06-18  99999999  99999999         0         0  99999999         0         0  99999999  99999999
T470F-03     2009-06-18  99999999  99999999         0         0  99999999         0         0  99999999  99999999
V1.02        2009-07-17  99999999  99999999         0         0  99999999         0         0  99999999  99999999
T470SY0J003  2009-07-17  99999999  99999999         0         0  99999999         0         0  99999999  99999999
T470S-03     2009-07-17  99999999  99999999         0         0  99999999         0         0  99999999  99999999
T470M-03     2009-07-17  99999999  99999999         0         0  99999999         0         0  99999999  99999999
T470F-04     2009-08-18  99999999  99999999         0         0  99999999         0         0  99999999  99999999
   .            .           .         .         .         .         .         .         .         .         .
   .            .           .         .         .         .         .         .         .         .         .
   .            .           .         .         .         .         .         .         .         .         .
```

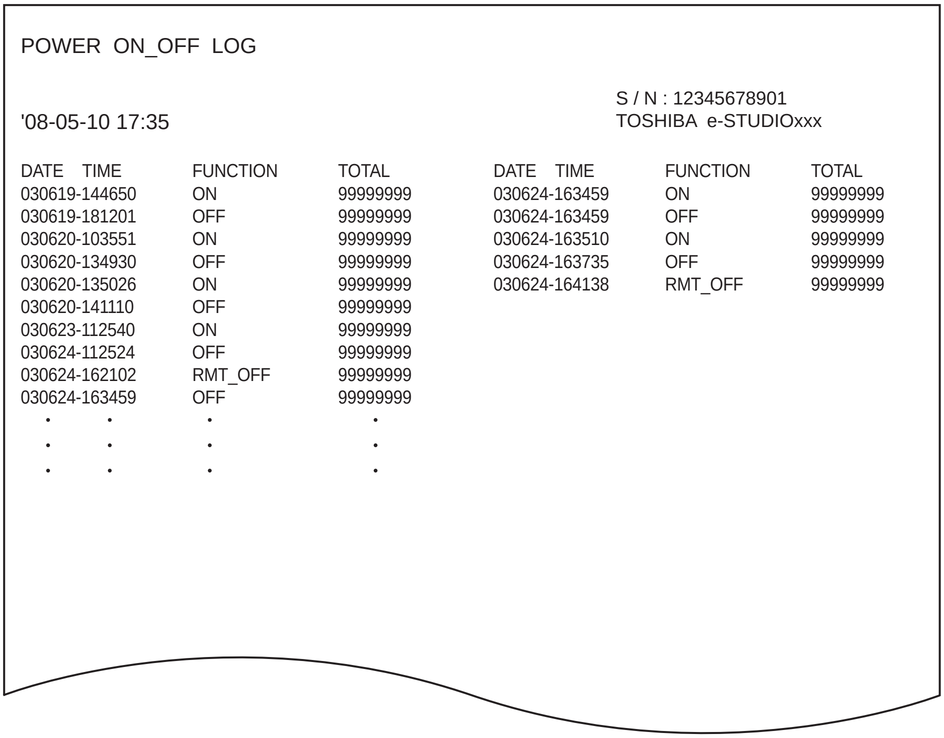
Fig. 2-9

Firmware upgrade logs are output.

- The MANUFACTURE field shows the date of manufacture. The UNPACKING field shows the date that the equipment was unpacked.
- Only the versions of ROMs downloaded using a USB download jig are displayed.

Item	Content
STATE	Version name of ROM downloaded
DATE	Date that the ROM was downloaded
TOTAL	Total counter data when the ROM was downloaded
COPY (B)	Copier counter data (black) when the ROM was downloaded
PRINT (B)	Printer counter data (black) when the ROM was downloaded
LIST	List print counter data when the ROM was downloaded
FAX	Fax print counter data when the ROM was downloaded

- Power-ON/OFF log



```
POWER  ON_OFF  LOG

                                                      S / N : 12345678901
'08-05-10 17:35                                       TOSHIBA  e-STUDIOxxx

DATE    TIME      FUNCTION    TOTAL          DATE    TIME      FUNCTION    TOTAL
030619-144650     ON          99999999       030624-163459     ON          99999999
030619-181201     OFF         99999999       030624-163459     OFF         99999999
030620-103551     ON          99999999       030624-163510     ON          99999999
030620-134930     OFF         99999999       030624-163735     OFF         99999999
030620-135026     ON          99999999       030624-164138     RMT_OFF     99999999
030620-141110     OFF         99999999
030623-112540     ON          99999999
030624-112524     OFF         99999999
030624-162102     RMT_OFF     99999999
030624-163459     OFF         99999999
   .      .        .             .
   .      .        .             .
   .      .        .             .
```

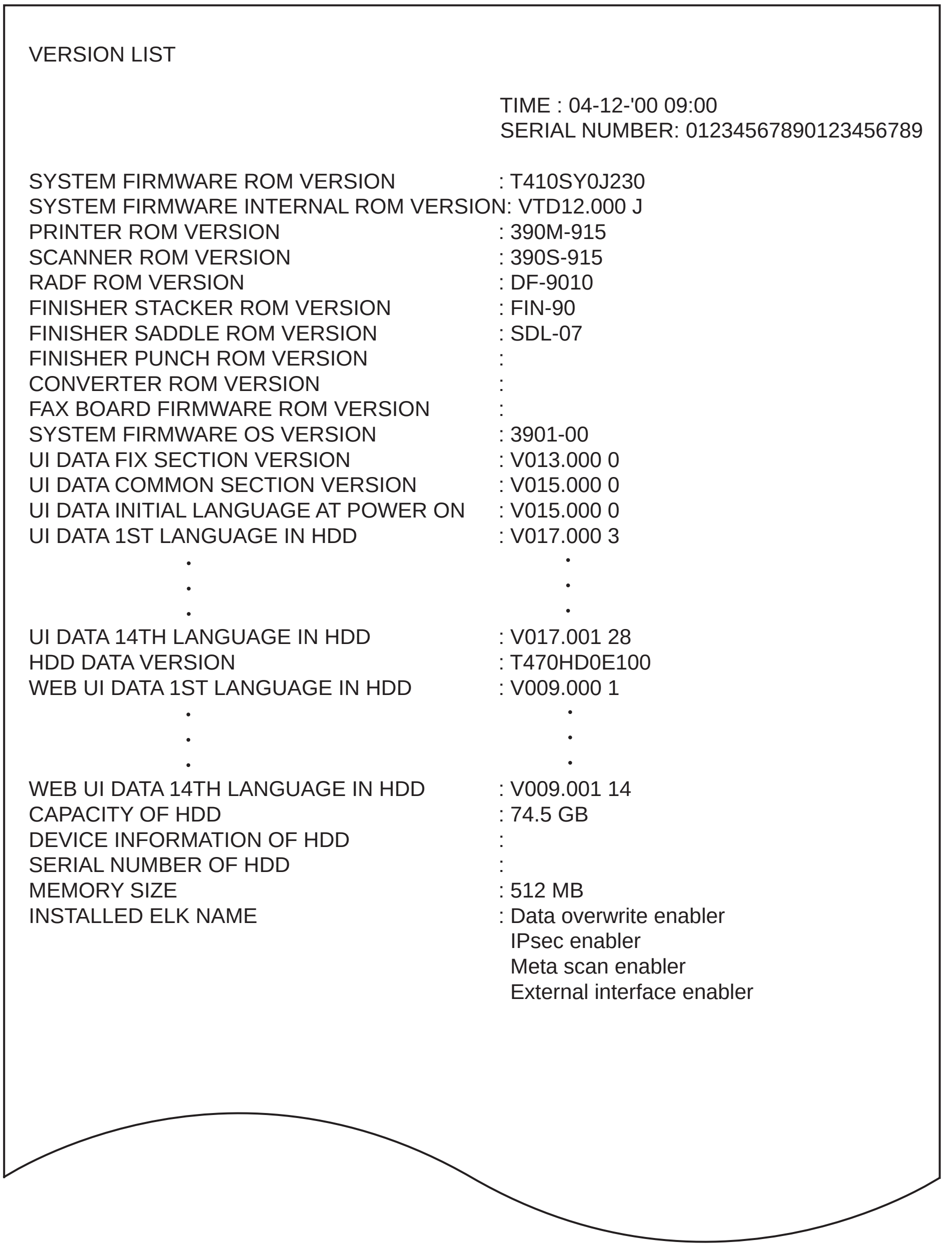
Fig. 2-10

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

                                              TIME : 04-12-'00 09:00
                                              SERIAL NUMBER: 01234567890123456789

SYSTEM FIRMWARE ROM VERSION                   : T410SY0J230
SYSTEM FIRMWARE INTERNAL ROM VERSION: VTD12.000 J
PRINTER ROM VERSION                           : 390M-915
SCANNER ROM VERSION                           : 390S-915
RADF ROM VERSION                              : DF-9010
FINISHER STACKER ROM VERSION                  : FIN-90
FINISHER SADDLE ROM VERSION                   : SDL-07
FINISHER PUNCH ROM VERSION                    :
CONVERTER ROM VERSION                         :
FAX BOARD FIRMWARE ROM VERSION                :
SYSTEM FIRMWARE OS VERSION                    : 3901-00
UI DATA FIX SECTION VERSION                   : V013.000 0
UI DATA COMMON SECTION VERSION                : V015.000 0
UI DATA INITIAL LANGUAGE AT POWER ON          : V015.000 0
UI DATA 1ST LANGUAGE IN HDD                   : V017.000 3
                  .                                     .
                  .                                     .
                  .                                     .
UI DATA 14TH LANGUAGE IN HDD                  : V017.001 28
HDD DATA VERSION                              : T470HD0E100
WEB UI DATA 1ST LANGUAGE IN HDD               : V009.000 1
                  .                                     .
                  .                                     .
                  .                                     .
WEB UI DATA 14TH LANGUAGE IN HDD              : V009.001 14
CAPACITY OF HDD                               : 74.5 GB
DEVICE INFORMATION OF HDD                     :
SERIAL NUMBER OF HDD                          :
MEMORY SIZE                                   : 512 MB
INSTALLED ELK NAME                            : Data overwrite enabler
                                                IPsec enabler
                                                Meta scan enabler
                                                External interface enabler
```

Fig. 2-11

The list of versions is output.

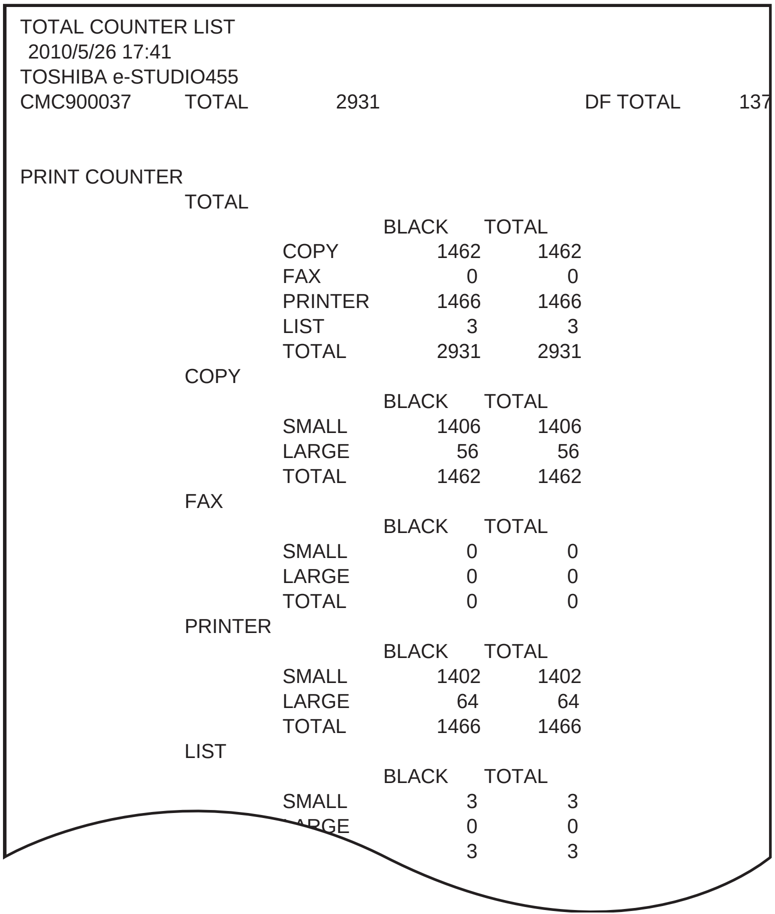
- Error log

  The conditions of the error logs produced in a USB media are as shown below.

  LOG folders

  - yyyymmddhhmm_ss_xxxx (Date and time in which the error occurred + error code)
  - logdump.txt
  - i.txt

- Total counter list
  The list of total counter is output.



```
TOTAL COUNTER LIST
 2010/5/26 17:41
TOSHIBA e-STUDIO455
CMC900037      TOTAL         2931                    DF TOTAL      137


PRINT COUNTER
               TOTAL
                                  BLACK    TOTAL
                        COPY        1462     1462
                        FAX            0        0
                        PRINTER     1466     1466
                        LIST           3        3
                        TOTAL       2931     2931
               COPY
                                  BLACK    TOTAL
                        SMALL       1406     1406
                        LARGE         56       56
                        TOTAL       1462     1462
               FAX
                                  BLACK    TOTAL
                        SMALL          0        0
                        LARGE          0        0
                        TOTAL          0        0
               PRINTER
                                  BLACK    TOTAL
                        SMALL       1402     1402
                        LARGE         64       64
                        TOTAL       1466     1466
               LIST
                                  BLACK    TOTAL
                        SMALL          3        3
                         ARGE          0        0
                                       3        3
```

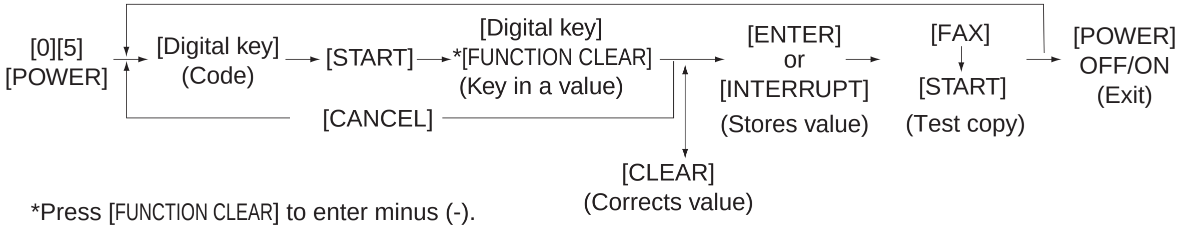
Fig. 2-12

2.6 Adjustment Mode (05)

The items in the adjustment code list can be adjusted or changed in the adjustment mode (05).

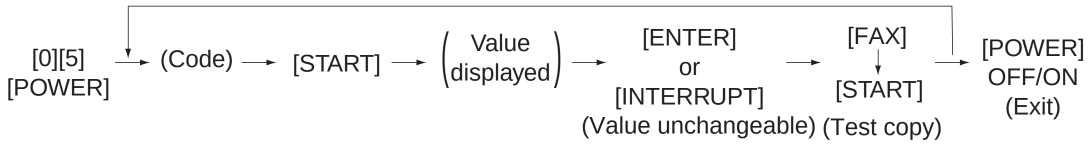
2.6.1 Operation procedure

Procedure 1

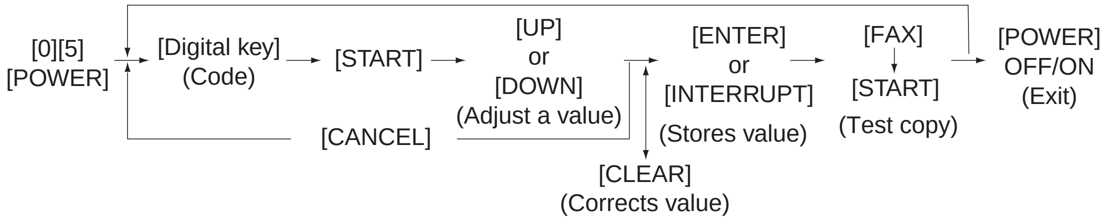

[0][5]
[POWER]
[Digital key]
(Code)
[START]
[Digital key]
*[FUNCTION CLEAR]
(Key in a value)
[CANCEL]
[ENTER]
or
[INTERRUPT]
(Stores value)
[CLEAR]
(Corrects value)
[FAX]
[START]
(Test copy)
[POWER]
OFF/ON
(Exit)

*Press [FUNCTION CLEAR] to enter minus (-).

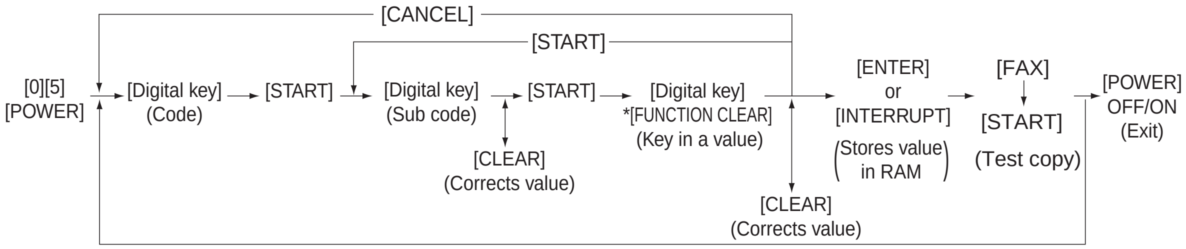
Procedure 2


[0][5]
[POWER]
(Code)
[START]
Value
displayed
[ENTER]
or
[INTERRUPT]
(Value unchangeable)
[FAX]
[START]
(Test copy)
[POWER]
OFF/ON
(Exit)

Procedure 3

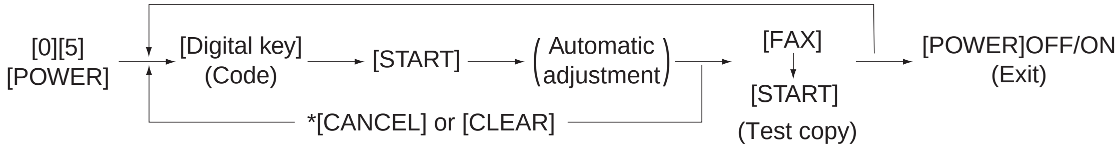

[0][5]
[POWER]
[Digital key]
(Code)
[START]
[UP]
or
[DOWN]
(Adjust a value)
[CANCEL]
[ENTER]
or
[INTERRUPT]
(Stores value)
[CLEAR]
(Corrects value)
[FAX]
[START]
(Test copy)
[POWER]
OFF/ON
(Exit)

Procedure 4


[CANCEL]
[START]
[0][5]
[POWER]
[Digital key]
(Code)
[START]
[Digital key]
(Sub code)
[CLEAR]
(Corrects value)
[START]
[Digital key]
*[FUNCTION CLEAR]
(Key in a value)
[ENTER]
or
[INTERRUPT]
Stores value
in RAM
[CLEAR]
(Corrects value)
[FAX]
[START]
(Test copy)
[POWER]
OFF/ON
(Exit)

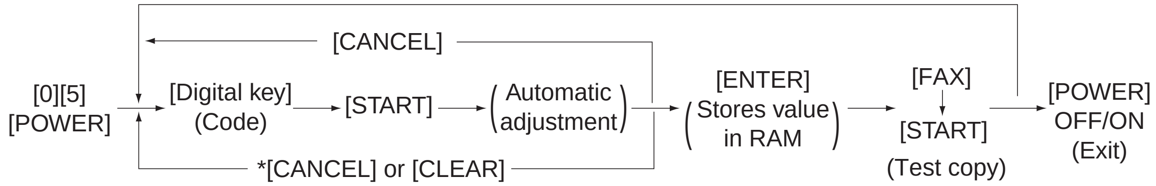
*Press [FUNCTION CLEAR] to enter minus (-).

Procedure 6


[0][5]
[POWER]
[Digital key]
(Code)
[START]
Automatic
adjustment
*[CANCEL] or [CLEAR]
[FAX]
[START]
(Test copy)
[POWER]OFF/ON
(Exit)

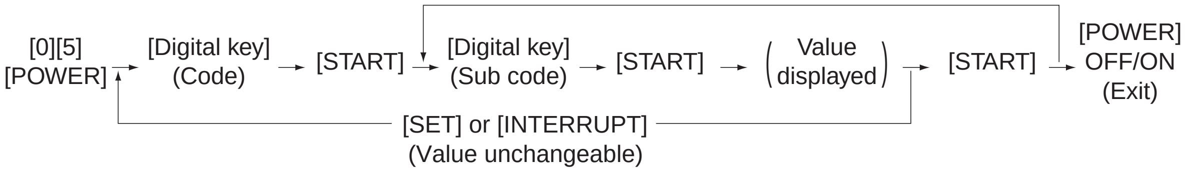
* When the automatic adjustment ends abnormally, error message is displayed. Return to standby screen by pressing the [CANCEL] or [CLEAR] button.

Procedure 7

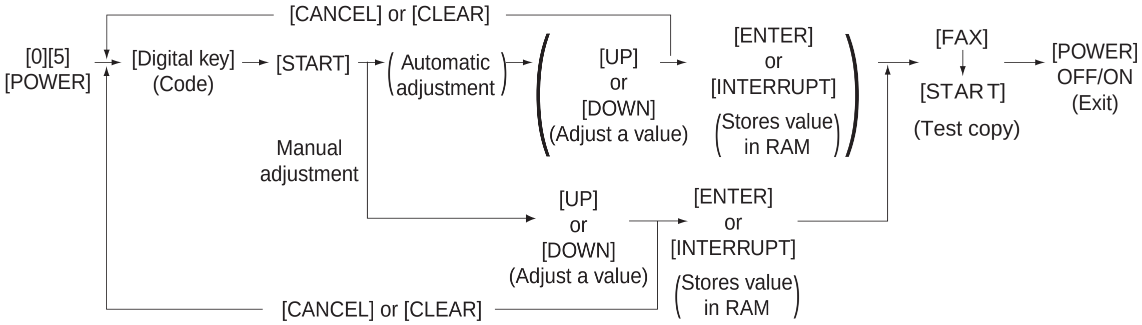

[CANCEL]
[0][5]
[POWER]
[Digital key]
(Code)
[START]
Automatic
adjustment
[ENTER]
Stores value
in RAM
[FAX]
[START]
(Test copy)
[POWER]
OFF/ON
(Exit)
*[CANCEL] or [CLEAR]

* When the automatic adjustment ends abnormally, error message is displayed.

Procedure 10


[0][5]
[POWER]
[Digital key]
(Code)
[START]
[Digital key]
(Sub code)
[START]
Value
displayed
[START]
[POWER]
OFF/ON
(Exit)
[SET] or [INTERRUPT]
(Value unchangeable)

Procedure 17


[CANCEL] or [CLEAR]
[0][5]
[POWER]
[Digital key]
(Code)
[START]
Automatic
adjustment
[UP]
or
[DOWN]
(Adjust a value)
[ENTER]
or
[INTERRUPT]
Stores value
in RAM
[FAX]
[START]
(Test copy)
[POWER]
OFF/ON
(Exit)
Manual
adjustment
[UP]
or
[DOWN]
(Adjust a value)
[ENTER]
or
[INTERRUPT]
Stores value
in RAM
[CANCEL] or [CLEAR]

* When the “storing is not performed within 2 minutes after pressing the [START] button at the manual adjustment, the “automatic adjustment” starts automatically.

Note:

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.

2.6.2 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	Refer to 🕮 P.3-8 "3.3.3 Printer related adjustment".
3	Grid pattern (Duplex printing)	Refer to 🕮 P.3-8 "3.3.3 Printer related adjustment".
6	Copier gamma confirmation pattern	For confirming the reproduction of gradation.
10	Copier gamma adjustment pattern	Refer to 🕮 P.3-22 "3.4.1 Automatic gamma adjustment"

2.6.3 Adjustment codes

Notes:

- The digit after the hyphen in “Code” of the following table is a sub code.
- In “Board”, the SRAM/EEPROM 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 / SYS-IMG board.

Adjustment mode (05)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
200	Developer	Automatic adjustment of auto-toner sensor (Fuser heater ON)	ALL	-	-	As the value increases, the sensor output increases correspondingly. The value starts changing approx. 2 minutes after this adjustment was started and is automatically set in the range of 2.35 to 2.45 V. * Selection is disable when developer unit is not installed. (Ch.3.2)	17
201	Developer	Correction of auto-toner sensor (Fuser heater ON)	ALL	141 <0-255>	M	Corrects the control value of the auto-toner sensor setup in 05-200. * Selection is disable when developer unit is not installed.	3
205	Developer	Developer bias DC output adjustment	ALL	141 <0-255>	M	As the value increases, the transformer output increases correspondingly. Remove the developer unit and install the adjustment jig to make adjustment. (Ch.3.8)	3
210	Charger	Main charger grid bias output adjustment	ALL	e-STUDIO205L/255/305: 90 e-STUDIO355/455: 95 <0-255>	M		3
221	Transfer	Transfer transformer DC output adjustment (C)	ALL	e-STUDIO205L/255/305: 88 e-STUDIO355/455: 117 <0-255>	M		3
234	Separation	Separation transformer DC output adjustment (C)	ALL	52 <0-255>	M		3
247	Process	Temperature/humidity sensor humidity display	ALL	50 <0-100>	M	Displays the humidity value detected by temperature/humidity sensor.	2
248	Charger	Drum thermistor temperature display (K)	ALL	25 <0-100>	M	(Unit: °C)	2
270	Process	Temperature/humidity sensor temperature display	ALL	25 <0-100>	M	Displays the humidity value detected by temperature/humidity sensor.	2

Adjustment mode (05)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
280	Process	Forced performing of idling for toner recycle		ALL	-	M	Perform this adjustment before the replacement of the developer material. (The toner is forcibly removed from the cleaner.)	6
286	Laser	Laser power adjustment		ALL	e-STUDIO205L/ 255/305: 65 e-STUDIO355/ 455: 121 <0-255>	M	When the value increases, the laser output increases correspondingly.	3
305	Scanner	Image location adjustment of secondary scanning direction (scanner section)		ALL	124 <90-166>	SYS	When the value increases by “1”, the image shifts by approx. 0.13013 mm toward the trailing edge of the paper.	1
306	Scanner	Image location adjustment of primary scanning direction (scanner section)		ALL	113 <0-255>	SYS	When the value increases by “1”, the image shifts by approx. 0.0846 mm toward the front side of the paper.	1
308	Scanner	Distortion mode		ALL	-	-	Moves carriages to the adjusting position. (Ch.3.3.4)	6
340	Scanner	Reproduction ratio adjustment of secondary scanning direction (scanner section)		ALL	128 <63-193>	SYS	When the value increases by “1”, the reproduction ratio in the secondary scanning direction (vertical to paper feeding direction) increases by approx. 0.05 mm.	1
350	Scanner	Shading position adjustment	Original glass	ALL	117 <92-165>	SYS	0.13013 mm/step	1
351			RADF	ALL	133 <92-165>	SYS		1
354	RADF	Adjustment of RADF paper alignment	for single - sided original	ALL	10 <0-20>	SYS	When the value increases by “1”, the aligning amount increases by approx. 0.5 mm.	1
355			for double sided original	ALL	10 <0-20>	SYS		1
357	RADF	Fine adjustment of RADF transport speed		ALL	50 <0-100>	SYS	When the value increases by “1”, the reproduction ratio of the secondary scanning direction when using the RADF increases by approx. 0.1%.	1
358	RADF	RADF sideways deviation adjustment		ALL	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. 0.08423 mm.	1

Adjustment mode (05)

Code	Classification	Items	Function	Default <Acceptable value>	Board	Contents	Procedure
359	Scanner	Carriage position adjustment during scanning from RADF (black)	ALL	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.	1
360	Scanner	Carriage position adjustment during scanning from RADF (color)	ALL	128 <0-255>	SYS		1
361	Scanner	Log table switching for RADF copying	ALL (color)	0 <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
362	Scanner	Log table switching for RADF copying	ALL (black)	0 <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
363	Scanner	Data transfer of characteristic value of scanner / SYS board / SYS-IMG board → SLG board	SCN	-	SYS	Transfers the characteristic values of the scanner (shading correction factor / RGB color correction / reproduction ratio color aberration correction / shading position correction factor / reproduction ratio correction value in primary scanning direction) from the SRAM of the SYS board / SYS-IMG board to the SRAM of the SLG board.	6
364	Scanner	Data transfer of characteristic value of scanner / SLG board → SYS board / SYS-IMG board	SCN	-	SYS	Transfers the characteristic values of the scanner (shading correction factor / RGB color correction / reproduction ratio color aberration correction / shading position correction factor / reproduction ratio correction value in primary scanning direction) from the SRAM of the SLG board to the SRAM of the SYS board / SYS-IMG board.	6

Adjustment mode (05)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
365	RADF	RADF leading edge position adjustment	for single - sided original	ALL	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
366			for double sided original	ALL	50 <0-100>	SYS		1
401	Laser	Fine adjustment of polygonal motor rotation speed (adjustment of primary scanning direction reproduction ratio)		PRT	133 <0-255>	M	When the value increases by “1”, the reproduction ratio of primary scanning direction increases by approx. 0.07%. (approx. 0.1 mm/step)	1
405				PPC	134 <0-255>	M		1
410	Laser	Adjustment of primary scanning laser writing start position.		PPC	99 <0-255>	M	When the value increases by “1”, the writing start position shifts to the front side by approx. 0.0423 mm.	1
411				PRT	99 <0-255>	M		1
421	Drive	Adjustment of secondary scanning direction reproduction ratio (fine adjustment of main motor speed)		PPC/ PRT	132 <0-255>	M	When the value increases by “1”, the reproduction ratio of secondary scanning direction increases by approx. 0.04%.	1
422				FAX	128 <0-255>	M		1
424	Drive	Fine adjustment of exit motor speed		PPC/ PRT	128 <0-255>	M	e-STUDIO205L/255/305: When the value increases by "1", the rotation slows by approx. 0.03%. e-STUDIO355/455: When the value increases by "1", the rotation slows by approx. 0.05%.	1
425				FAX	128 <0-255>	M		1

Adjustment mode (05)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
430	Image	Top margin adjustment (blank area at the leading edge of the paper)	PPC	15 <0-255>	M	When the value increases by “1”, the blank area becomes wider by approx. 0.0423 mm.	1
431	Image	Left margin adjustment (blank area at the left of the paper along the paper feeding direction)	PPC	0 <0-255>	M		1
432	Image	Right margin adjustment (blank area at the right of the paper along the paper feeding direction)	PPC	24 <0-255>	M		1
433	Image	Bottom margin adjustment (blank area at the trailing edge of the paper)	PPC	35 <0-255>	M		1
434-0	Image	Bottom margin adjustment (blank area at the trailing edge of the paper)/Reverse side at duplexing	PPC/ PRT	29 <0-255>	M		4
434-1	Image	Right margin adjustment (blank area at the right of the paper along the paper feeding direction)/ Reverse side at duplexing	PPC/ PRT	0 <0-255>	M		4
435	Image	Top margin adjustment (blank area at the leading edge of the paper)	PRT	24 <0-255>	M		1
436	Image	Left margin adjustment (blank area at the left of the paper along the paper feeding direction)	PRT	0 <0-255>	M		1
437	Image	Right margin adjustment (blank area at the right of the paper along the paper feeding direction)	PRT	0 <0-255>	M		1
438	Image	Bottom margin adjustment (blank area at the trailing edge of the paper)	PRT	0 <0-255>	M		1

Adjustment mode (05)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
440	Laser	Adjustment of secondary scanning laser writing start position	Upper drawer	ALL	8 <0-15>	M	When the value increases by “1”, the image shifts toward the leading edge of the paper by approx. 0.4 mm.	1
441			Lower drawer	ALL	e-STUDIO205L/255/305: 20 e-STUDIO355/455: 23 <0-40>	M		1
442			Bypass feeding	ALL	8 <0-15>	M		1
443			LCF	ALL	8 <0-15>	M		1
444			PFP	ALL	8 <0-15>	M		1
445			Duplex feeding	ALL	8 <0-15>	M		1
448-0	Paper feeding	Paper aligning amount adjustment at the registration section (PFP upper drawer/ Plain paper)	Long size	ALL	e-STUDIO205L/255/305: 37 e-STUDIO355/455: 20 <0-63>	M	e-STUDIO205L/255/305: When the value increases by “1”, the aligning amount increases by approx. 0.3 mm. e-STUDIO355/455: When the value increases by “1”, the aligning amount increases by approx. 0.4 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size: 219 mm or shorter	4
448-1			Middle size	ALL	e-STUDIO205L/255/305: 37 e-STUDIO355/455: 20 <0-63>	M		4
448-2			Short size	ALL	e-STUDIO205L/255/305: 31 e-STUDIO355/455: 16 <0-63>	M		4

Adjustment mode (05)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
449-0	Paper feeding	Paper aligning amount adjustment at the registration section (PFP lower drawer/ Plain paper)	Long size	ALL	e-STUDIO205L/ 255/305: 37 e-STUDIO355/ 455: 20 <0-63>	M	e-STUDIO205L/255/305: When the value increases by “1”, the aligning amount increases by approx. 0.3 mm. e-STUDIO355/455: When the value increases by “1”, the aligning amount increases by approx. 0.4 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size: 219 mm or shorter	4
449-1			Middle size	ALL	e-STUDIO205L/ 255/305: 37 e-STUDIO355/ 455: 20 <0-63>	M		4
449-2			Short size	ALL	e-STUDIO205L/ 255/305: 31 e-STUDIO355/ 455: 16 <0-63>	M		4
450-0	Paper feeding	Paper aligning amount adjustment at the registration section (Upper drawer/ Plain paper)	Long size	ALL	e-STUDIO205L/ 255/305: 37 e-STUDIO355/ 455: 21 <0-63>	M		4
450-1			Middle size	ALL	e-STUDIO205L/ 255/305: 37 e-STUDIO355/ 455: 21 <0-63>	M		4
450-2			Short size	ALL	e-STUDIO205L/ 255/305: 37 e-STUDIO355/ 455: 21 <0-63>	M		4

Adjustment mode (05)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
452-0	Paper feeding	Paper aligning amount adjustment at the registration section (Lower drawer/ Plain paper)	Long size	ALL	e-STUDIO205L/ 255/305: 37 e-STUDIO355/ 455: 20 <0-63>	M	e-STUDIO205L/255/305: When the value increases by “1”, the aligning amount increases by approx. 0.3 mm. e-STUDIO355/455: When the value increases by “1”, the aligning amount increases by approx. 0.4 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size: 219 mm or shorter	4
452-1			Middle size	ALL	e-STUDIO205L/ 255/305: 37 e-STUDIO355/ 455: 20 <0-63>	M		4
452-2			Short size	ALL	e-STUDIO205L/ 255/305: 31 e-STUDIO355/ 455: 16 <0-63>	M		4
455-0	Paper feeding	Paper aligning amount adjustment at the registration section (Duplex feeding/ Plain paper)	Long size	ALL	12 <0-63>	M		4
455-1			Middle size	ALL	12 <0-63>	M		4
455-2			Short size	ALL	12 <0-63>	M		4
457	Paper feeding	Paper aligning amount adjustment at the registration section (LCF/Plain paper)		ALL	e-STUDIO205L/ 255/305: 37 e-STUDIO355/ 455: 20 <0-63>	M		1

Adjustment mode (05)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
458-0	Paper feeding	Paper aligning amount adjustment at the registration section (Bypass feeding/ Plain paper)	Long size	ALL	e-STUDIO205L/ 255/305: 44 e-STUDIO355/ 455: 28 <0-63>	M	e-STUDIO205L/255/305: When the value increases by “1”, the aligning amount increases by approx. 0.3 mm. e-STUDIO355/455: When the value increases by “1”, the aligning amount increases by approx. 0.4 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size: 219 mm or shorter	4
458-1			Middle size	ALL	e-STUDIO205L/ 255/305: 44 e-STUDIO355/ 455: 28 <0-63>	M		4
458-2			Short size	ALL	e-STUDIO205L/ 255/305: 44 e-STUDIO355/ 455: 28 <0-63>	M		4
460-0	Paper feeding	Paper aligning amount adjustment at the registration section (Bypass feeding/ Thick paper 1)	Long size	ALL	e-STUDIO205L/ 255/305: 44 e-STUDIO355/ 455: 28 <0-63>	M		4
460-1			Middle size	ALL	e-STUDIO205L/ 255/305: 44 e-STUDIO355/ 455: 28 <0-63>	M		4
460-2			Short size	ALL	e-STUDIO205L/ 255/305: 44 e-STUDIO355/ 455: 28 <0-63>	M		4

Adjustment mode (05)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
461-0	Paper feeding	Paper aligning amount adjustment at the registration section (Bypass feeding/ Thick paper 2)	Long size	ALL	e-STUDIO205L/255/305: 44 e-STUDIO355/455: 28 <0-63>	M	e-STUDIO205L/255/305: When the value increases by “1”, the aligning amount increases by approx. 0.3 mm. e-STUDIO355/455: When the value increases by “1”, the aligning amount increases by approx. 0.4 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size: 219 mm or shorter	4
461-1			Middle size	ALL	e-STUDIO205L/255/305: 44 e-STUDIO355/455: 28 <0-63>	M		4
461-2			Short size	ALL	e-STUDIO205L/255/305: 44 e-STUDIO355/455: 28 <0-63>	M		4
462-0	Paper feeding	Paper aligning amount adjustment at the registration section (Bypass feeding/ Thick paper 3)	Long size	ALL	e-STUDIO205L/255/305: 44 e-STUDIO355/455: 28 <0-63>	M		4
462-1			Middle size	ALL	e-STUDIO205L/255/305: 44 e-STUDIO355/455: 28 <0-63>	M		4
462-2			Short size	ALL	e-STUDIO205L/255/305: 44 e-STUDIO355/455: 28 <0-63>	M		4
462-3			Postcard	ALL	35 <0-63>	M		4

Adjustment mode (05)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
463-0	Paper feeding	Paper aligning amount adjustment at the registration section (Bypass feeding/ OHP film)	Long size	ALL	24 <0-63>	M	e-STUDIO205L/255/305: When the value increases by “1”, the aligning amount increases by approx. 0.3 mm. e-STUDIO355/455: When the value increases by “1”, the aligning amount increases by approx. 0.4 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size: 219 mm or shorter * Postcard is supported only for JPN model.	4
463-1			Middle size	ALL	24 <0-63>	M		4
463-2			Short size	ALL	e-STUDIO205L/ 255/305: 44 e-STUDIO355/ 455: 28 <0-63>	M		4
464-0	Paper feeding	Paper aligning amount adjustment at the registration section (Bypass feeding / Envelope)	Long size	ALL	e-STUDIO205L/ 255/305: 44 e-STUDIO355/ 455: 28 <0-63>	M		4
464-1			Middle size	ALL	e-STUDIO205L/ 255/305: 44 e-STUDIO355/ 455: 28 <0-63>	M		4
464-2			Short size	ALL	e-STUDIO205L/ 255/305: 44 e-STUDIO355/ 455: 28 <0-63>	M		4
466-0	Paper feeding	Adjustment of paper pushing amount/ Bypass feeding	Plain paper	ALL	0 <0-20>	M	When the value increases by “1”, the driving speed of bypass feed roller increases by approx. 10 msec. when the paper transport is started from the registration section. * Postcard is supported only for JPN model.	4
466-1			Postcard	ALL	0 <0-20>	M		4
466-3			Envelope	ALL	0 <0-20>	M		4
466-4			Thick paper 1	ALL	0 <0-20>	M		4
466-5			Thick paper 2	ALL	0 <0-20>	M		4
466-6			Thick paper 3	ALL	0 <0-20>	M		4
466-7			OHP film	ALL	0 <0-20>	M		4
468-0	Finisher	Fine adjustment of binding position/ folding position	A4-R/LT-R	ALL	0 <-14-14>	M	When the value increases by “1”, the binding/folding position shifts toward the right page by 0.25 mm.	4
468-1			B4	ALL	0 <-14-14>	M		4
468-2			A3/LD	ALL	0 <-14-14>	M		4

Adjustment mode (05)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
469-0	Paper feeding	Paper aligning amount adjustment at the registration section (Upper drawer)	Thick paper 1 Long size	ALL	e-STUDIO205L/255/305: 37 e-STUDIO355/455: 21 <0-63>	M	e-STUDIO205L/255/305: When the value increases by “1”, the aligning amount increases by approx. 0.3 mm. e-STUDIO355/455: When the value increases by “1”, the aligning amount increases by approx. 0.4 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size: 219 mm or shorter	4
469-1			Thick paper 1 Middle size	ALL	e-STUDIO205L/255/305: 37 e-STUDIO355/455: 21 <0-63>	M		4
469-2			Thick paper 1 Short size	ALL	e-STUDIO205L/255/305: 37 e-STUDIO355/455: 21 <0-63>	M		4
469-3			Thick paper 2 Long size	ALL	20 <0-63>	M		4
469-4			Thick paper 2 Middle size	ALL	20 <0-63>	M		4
469-5			Thick paper 2 Short size	ALL	20 <0-63>	M		4

Adjustment mode (05)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
470-0	Paper feeding	Paper aligning amount adjustment at the registration section (Lower drawer/ Thick paper 1)	Long size	ALL	e-STUDIO205L/ 255/305: 37 e-STUDIO355/ 455: 20 <0-63>	M	e-STUDIO205L/255/305: When the value increases by “1”, the aligning amount increases by approx. 0.3 mm. e-STUDIO355/455: When the value increases by “1”, the aligning amount increases by approx. 0.4 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size: 219 mm or shorter	4
470-1			Middle size	ALL	e-STUDIO205L/ 255/305: 37 e-STUDIO355/ 455: 20 <0-63>	M		4
470-2			Short size	ALL	e-STUDIO205L/ 255/305: 31 e-STUDIO355/ 455: 16 <0-63>	M		4
471-0	Paper feeding	Paper aligning amount adjustment at the registration section (PFP upper drawer/ Thick paper 1)	Long size	ALL	e-STUDIO205L/ 255/305: 37 e-STUDIO355/ 455: 20 <0-63>	M		4
471-1			Middle size	ALL	e-STUDIO205L/ 255/305: 37 e-STUDIO355/ 455: 20 <0-63>	M		4
471-2			Short size	ALL	e-STUDIO205L/ 255/305: 31 e-STUDIO355/ 455: 16 <0-63>	M		4

Adjustment mode (05)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
472-0	Paper feeding	Paper aligning amount adjustment at the registration section (PFP lower drawer/ Thick paper 1)	Long size	ALL	e-STUDIO205L/255/305: 37 e-STUDIO355/455: 20 <0-63>	M	e-STUDIO205L/255/305: When the value increases by "1", the aligning amount increases by approx. 0.3 mm. e-STUDIO355/455: When the value increases by "1", the aligning amount increases by approx. 0.4 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size: 219 mm or shorter	4
472-1			Middle size	ALL	e-STUDIO205L/255/305: 37 e-STUDIO355/455: 20 <0-63>	M		4
472-2			Short size	ALL	e-STUDIO205L/255/305: 31 e-STUDIO355/455: 16 <0-63>	M		4
473	Paper feeding	Paper aligning amount adjustment at the registration section (LCF/Thick paper 1)		ALL	e-STUDIO205L/255/305: 37 e-STUDIO355/455: 15 <0-63>	M		1
474-0	Paper feeding	Paper aligning amount adjustment at the registration section (Duplex feeding/ Thick paper 1)	Long size	ALL	12 <0-63>	M		4
474-1			Middle size	ALL	12 <0-63>	M		4
474-2			Short size	ALL	12 <0-63>	M		4
497-0	Laser	Adjustment of drawer sideways deviation	Upper drawer	ALL	128 <0-255>	M	When the value increases by "1", the image shifts toward the front side by 0.0423 mm.	4
497-1			Lower drawer	ALL	128 <0-255>	M		4
497-2			PFP upper drawer	ALL	128 <0-255>	M		4
497-3			PFP lower drawer	ALL	128 <0-255>	M		4
497-4			LCF	ALL	128 <0-255>	M		4
497-5			Bypass feeding	ALL	128 <0-255>	M		4
498-0	Laser	Adjustment of primary scanning laser writing start position at duplex feeding	Long size	ALL	148 <0-255>	M	When the value increases by "1", the image shifts toward the front side by 0.0423 mm.	4
498-1			Short size (A4/ LT or smaller)	ALL	148 <0-255>	M		4

Adjustment mode (05)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
501	Image	Density adjustment Fine adjustment of “manual density”/ Center value	Photo	PPC	128 <0-255>	SYS	When the value increases, the image at the center step becomes darker.	1
503			Text/ Photo	PPC	128 <0-255>	SYS		1
504			Text	PPC	128 <0-255>	SYS		1
505	Image	Density adjustment Fine adjustment of “manual density”/ Light step value	Text/ Photo	PPC	20 <0-255>	SYS	When the value increases, the image of the “light” steps becomes lighter.	1
506			Photo	PPC	20 <0-255>	SYS		1
507			Text	PPC	20 <0-255>	SYS		1
508	Image	Density adjustment Fine adjustment of “manual density”/ Dark step value	Text/ Photo	PPC	20 <0-255>	SYS	When the value increases, the image of the “dark” steps becomes darker.	1
509			Photo	PPC	20 <0-255>	SYS		1
510			Text	PPC	20 <0-255>	SYS		1
512	Image	Density adjustment Fine adjustment of “automatic density”	Photo	PPC	128 <0-255>	SYS	When the value increases, the image becomes darker.	1
514			Text/ Photo	PPC	128 <0-255>	SYS		1
515			Text	PPC	128 <0-255>	SYS		1
580	Image	Automatic gamma adjustment	All media types	PPC	-	-	• When color deviation is found in gradation reproduction, the gradation reproduction of color K can be corrected with the automatic gamma adjustment. • The result of the correction above will be applied to all media types.	7
590-0	Image	Gamma balance adjustment (Text/ Photo)	Low density	PPC	128 <0-255>	SYS	The larger the value is, the darker the image of the area surrounding the target area becomes.	4
590-1			Medium density	PPC	128 <0-255>	SYS		4
590-2			High density	PPC	128 <0-255>	SYS		4
591-0	Image	Gamma balance adjustment (Text)	Low density	PPC	128 <0-255>	SYS		4
591-1			Medium density	PPC	128 <0-255>	SYS		4
591-2			High density	PPC	128 <0-255>	SYS		4
592-0	Image	Gamma balance adjustment (Photo)	Low density	PPC	128 <0-255>	SYS		4
592-1			Medium density	PPC	128 <0-255>	SYS		4
592-2			High density	PPC	128 <0-255>	SYS		4

Adjustment mode (05)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
604	Image	Sharpness adjustment (Black)	Text/ Photo	PPC	128 <0-255>	SYS	The larger the value is, the sharper the image becomes. The smaller the value is, the softer the image becomes and the less moire appears.	1
605			Text	PPC	128 <0-255>	SYS		1
606			Photo	PPC	128 <0-255>	SYS		1
648	Image	Smudged/ faint text adjustment	Text/ Photo	PPC	2 <0-4>	SYS	0: Faint text is suppressed most. 4: Smudged text is suppressed most.	1
649			Text	PPC	2 <0-4>	SYS		1
654	Image	Adjustment of smudged/ faint text	PS	PRT	5 <0-9>	M	Adjustment of the smudged/faint text. With decreasing the value, the faint text is suppressed, and with increasing it, the smudged text is suppressed.	1
655			PCL	PRT	5 <0-9>	M		1
656			XPS	PRT	5 <0-9>	M		1
667-0	Image	Setting beam level conversion	Beam level 0/4	PPC	0 <0-10>	M	The smaller the value is, the narrower the beam width becomes and the smaller the dots are reproduced.	4
667-1			Beam level 1/4	PPC	4 <0-10>	M		4
667-2			Beam level 2/4	PPC	5 <0-10>	M		4
667-3			Beam level 3/4	PPC	6 <0-10>	M		4
667-4			Beam level 4/4	PPC	9 <0-10>	M		4
672-0	Image	Setting beam level conversion	Beam level 0/4	PRT	0 <0-10>	M	The smaller the value is, the narrower the beam width becomes and the smaller the dots are reproduced.	4
672-1			Beam level 1/4	PRT	4 <0-10>	M		4
672-2			Beam level 2/4	PRT	5 <0-10>	M		4
672-3			Beam level 3/4	PRT	6 <0-10>	M		4
672-4			Beam level 4/4	PRT	9 <0-10>	M		4
678-0	Image	Setting beam level conversion (FAX)	Beam level 0/4	FAX	0 <0-10>	M	The smaller the value is, the narrower the beam width becomes and the smaller the dots are reproduced.	4
678-1			Beam level 1/4	FAX	4 <0-10>	M		4
678-2			Beam level 2/4	FAX	5 <0-10>	M		4
678-3			Beam level 3/4	FAX	6 <0-10>	M		4
678-4			Beam level 4/4	FAX	10 <0-10>	M		4
700	Image	Adjustment of binarized threshold (Text)	Center value	FAX	128 <0-255>	SYS	When the value increases, the image at the center step becomes darker.	1
710	Image	Density adjustment Fine adjustment of "manual density"/ Center value	Photo	FAX	128 <0-255>	SYS	When the value increases, the image at the center step becomes darker.	1
714			Text/ Photo	FAX	128 <0-255>	SYS		1

Adjustment mode (05)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
725	Image	Density adjustment Fine adjustment of “automatic density”	Photo	FAX	128 <0-255>	SYS	When the value increases, the image becomes darker.	1
729			Text/ Photo	FAX	128 <0-255>	SYS		1
840	Image	Sharpness adjustment	Text/ Photo	NW SCN (black)	128 <0-255>	SYS	The larger the value is, the sharper the image becomes. The smaller the value is, the softer the image becomes and the less moire appears.	1
841			Text	NW SCN (black)	128 <0-255>	SYS		1
842			Photo	NW SCN (black)	128 <0-255>	SYS		1
843			Image smoothing	NW SCN (black)	128 <0-255>	SYS		1
845	Image	Density adjustment (Manual adjustment / Center value)	Text/ Photo	NW SCN (black)	128 <0-255>	SYS	The larger the value is, the darker the image of the center value becomes.	1
846			Text	NW SCN (black)	128 <0-255>	SYS		1
847			Photo	NW SCN (black)	128 <0-255>	SYS		1
848			Image smoothing	NW SCN (black)	128 <0-255>	SYS		1
860	Image	Density adjustment Fine adjustment of “automatic density”	Text/ Photo	NW SCN (black)	128 <0-255>	SYS	When the value increases, the image becomes darker.	1
861			Text	NW SCN (black)	128 <0-255>	SYS		1
862			Photo	NW SCN (black)	128 <0-255>	SYS		1
863			Image smoothing	NW SCN (black)	128 <0-255>	SYS		1

Adjustment mode (05)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
880-0	Image	Gamma balance adjustment (Text/ Photo)	Low density	NW SCN (black)	128 <0-255>	SYS	The larger the value is, the darker the image of the area surrounding the target area becomes.	4
880-1			Medium density	NW SCN (black)	128 <0-255>	SYS		4
880-2			High density	NW SCN (black)	128 <0-255>	SYS		4
881-0	Image	Gamma balance adjustment (Text)	Low density	NW SCN (black)	128 <0-255>	SYS		4
881-1			Medium density	NW SCN (black)	128 <0-255>	SYS		4
881-2			High density	NW SCN (black)	128 <0-255>	SYS		4
882-0	Image	Gamma balance adjustment (Photo)	Low density	NW SCN (black)	128 <0-255>	SYS		4
882-1			Medium density	NW SCN (black)	128 <0-255>	SYS		4
882-2			High density	NW SCN (black)	128 <0-255>	SYS		4
883-0	Image	Gamma balance adjustment (Image smoothing)	Low density	NW SCN (black)	128 <0-255>	SYS	The larger the value is, the darker the image of the area surrounding the target area becomes.	4
883-1			Medium density	NW SCN (black)	128 <0-255>	SYS		4
883-2			High density	NW SCN (black)	128 <0-255>	SYS		4
922	Image	Sharpness adjustment	User custom	PPC	128 <0-255>	SYS	The larger the value is, the sharper the image becomes. The smaller the value is, the softer the image becomes and the less moire appears.	1
925	Image	Smudged/ faint text adjustment	User custom	PPC	2 <0-4>	SYS	0: Faint text is suppressed most. 4: Smudged text is suppressed most.	1

Adjustment mode (05)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
931	Image	Density adjustment Fine adjustment of “manual density”/ Center value	Custom Mode 1	PPC	128 <0-255>	SYS	When the value increases, the image of the center step becomes darker.	1
934	Image	Density adjustment Fine adjustment of “manual density”/ Light step value	Custom Mode 1	PPC	20 <0-255>	SYS	When the value increases, the image of the “light” step density becomes lighter.	1
937	Image	Density adjustment Fine adjustment of “manual density”/ Dark step value	Custom Mode 1	PPC	20 <0-255>	SYS	When the value increases, the image of the “dark” step density becomes darker.	1
940	Image	Density adjustment Fine adjustment of “automatic density”	Custom Mode 1	PPC	128 <0-255>	SYS	When the value increases, the image becomes darker.	1
949-0	Image	Gamma balance adjustment (User custom)	Low density	PPC	128 <0-255>	SYS	The larger the value is, the darker the image of the target area becomes.	4
949-1			Medium density	PPC	128 <0-255>	SYS		4
949-2			High density	PPC	128 <0-255>	SYS		4
976	Maintenance	Equipment number (serial number) entry		ALL	-	SYS	When this adjustment is performed with this code, the setting code (08-995) is also performed automatically (10 digits).	1
1070	Image	Background adjustment	Text	SCN (color)	50 <0-50>	SYS	The smaller the value is, the lighter the background becomes.	1
1071			Printed image	SCN (color)	50 <0-50>	SYS		1
1072			Photo	SCN (color)	50 <0-50>	SYS		1
1075	Image	Fine adjustment of black density	Text	SCN (color)	0 <0-4>	SYS	The larger the value is, the darker the black side of the image becomes.	1
1076			Printed image	SCN (color)	0 <0-4>	SYS		1
1077			Photo	SCN (color)	0 <0-4>	SYS		1

Adjustment mode (05)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
1080	Image	RGB conversion method selection	Text	SCN (color)	0 <0-3>	SYS	Sets the color space format of the output image. 0: sRGB 1: AppleRGB 2: ROMMRGB 3: AdobeRGB	1
1081			Printed image	SCN (color)	0 <0-3>	SYS		1
1082			Photo	SCN (color)	0 <0-3>	SYS		1
1086	Image	Sharpness adjustment	Text	SCN (color)	128 <0-255>	SYS	The larger the value is, the sharper the image becomes. The smaller the value is, the softer the image becomes and the less moire appears.	1
1087			Printed image	SCN (color)	128 <0-255>	SYS		1
1088			Photo	SCN (color)	128 <0-255>	SYS		1
1675	Image	ACS judgment threshold		SCN	70 <0-255>	SYS	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.	1
2083	Image processing	Transfer cleaning bias adjustment (positive)		ALL	e-STUDIO205L/255/305: 63 e-STUDIO355/455: 96 <0-255>	M	When the high-voltage transformer is replaced, the transfer cleaning bias needs to be adjusted with this code. The larger the setting value is, the higher the value of the current (more positive) is. This causes a reduction in the toner adhering to the transfer roller and an improvement in the cleaning performance. Perform this adjustment after the process units (cleaner and developer unit) have been removed. When the high-voltage transformer is replaced, adjusting with the following codes needs to be performed in addition to this adjustment. 05-205, 05-210, 05-221, 05-234	3

Adjustment mode (05)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
2084	Image processing	Transfer cleaning bias adjustment (negative)	ALL	41 <0-255>	M	When the high-voltage transformer is replaced, the transfer cleaning bias needs to be adjusted with this code. The larger the setting value is, the higher the value of the current (more negative) is. This causes a reduction in the toner adhering to the transfer roller and an improvement in the cleaning performance. Perform this adjustment after the process units (cleaner and developer unit) have been removed. When the high-voltage transformer is replaced, adjusting with the following codes need to be performed in addition to this adjustment. 05-205, 05-210, 05-221, 05-234	3
2382	Process	Correction of drum reverse rotation time	PPC	Refer to the contents. <0-255>	M	Corrects the amount of reverse rotation of the drum during cleaning. Set value x 4m sec. = Drum rotation time <Default> e-STUDIO205L: 6 e-STUDIO255: 6 e-STUDIO305: 6 e-STUDIO355: 8 e-STUDIO455: 8	1
7025	Image	Background offset adjustment for RADF	PPC	128 <0-255>	SYS	The larger the adjustment value is, the lighter the background becomes. The smaller the adjustment value is, the darker the background becomes.	1

Adjustment mode (05)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
7033	Image	Background adjustment (Black / Automatic density adjustment)	Text/ Photo	PPC	128 <0-255>	SYS	The larger the value is, the lighter the background becomes. The larger the value is, the lighter the background becomes.	1
7034	Image		Text	PPC	128 <0-255>	SYS		1
7041	Image	Background adjustment (Black / Manual density adjustment)	Text/ Photo	PPC	128 <0-255>	SYS		1
7042	Image		Text	PPC	128 <0-255>	SYS		1
7043	Image	Background adjustment (Black / Automatic density adjustment)	Photo	PPC	128 <0-255>	SYS		1
7048	Image	Background adjustment (Black / Manual density adjustment)	Photo	PPC	128 <0-255>	SYS		1
7050	Image	Background adjustment (Black / Automatic density adjustment)	Color document	PPC	128 <0-255>	SYS		1
7051	Image	Background adjustment (Black / Manual density adjustment)	Color document	PPC	128 <0-255>	SYS		1
7059	Image	Sharpness adjustment (Black)	Color document	PPC	128 <0-255>	SYS	The larger the value is, the sharper the image becomes. The smaller the value is, the softer the image becomes and the less moire appears.	1
7126	Image	Density adjustment Fine adjustment of “manual density”/ Center value	Color document	PPC	128 <0-255>	SYS	When the value increases, the image at the center step becomes darker.	1

Adjustment mode (05)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
7129	Image	Density adjustment Fine adjustment of “automatic density”	Color document	PPC	128 <0-255>	SYS	When the value increases, the image becomes darker.	1
7193-0	Image	Gamma balance adjustment (Color document)	Low density	PPC	128 <0-255>	SYS	The larger the value is, the darker the image of the area surrounding the target area becomes.	4
7193-1			Medium density	PPC	128 <0-255>	SYS		4
7193-2			High density	PPC	128 <0-255>	SYS		4
7236	Image	Range correction adjustment (Automatic density adjustment)	User custom	PPC	1 <0-1>	SYS	0: Background peak - Fixed 1: Background peak - Varied	1
7237	Image	Range correction adjustment (Manual density adjustment)	User custom	PPC	1 <0-1>	SYS		1
7279	Image	Background adjustment (Automatic density adjustment)	User custom	PPC	128 <0-255>	SYS	The larger the value is, the lighter the background becomes.	1
7280	Image	Background adjustment (Manual density adjustment)	User custom	PPC	128 <0-255>	SYS		1
7283	Image	Range correction adjustment (Automatic density adjustment)	Text/ Photo	PPC	1 <0-1>	SYS	0: Background peak - Fixed 1: Background peak - Varied	1
7284	Image		Text	PPC	1 <0-1>	SYS		1
7285	Image		Photo	PPC	1 <0-1>	SYS		1
7286	Image	Range correction adjustment (Manual density adjustment)	Text/ Photo	PPC	1 <0-1>	SYS	0: Background peak - Fixed 1: Background peak - Varied	1
7287	Image		Text	PPC	1 <0-1>	SYS		1
7288	Image		Photo	PPC	0 <0-1>	SYS		1
7289	Image	Range correction adjustment (Automatic density adjustment)	Color document	PPC	1 <0-1>	SYS	0: Background peak - Fixed 1: Background peak - Varied	1
7290	Image	Range correction adjustment (Manual density adjustment)	Color document	PPC	0 <0-1>	SYS	0: Background peak - Fixed 1: Background peak - Varied	1

Adjustment mode (05)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
7315-0	Image	Gamma balance adjustment (PS / Smooth / 600dpi)	L	PRT	128 <0-255>	SYS	When the value increases, the density in the target area becomes higher. L: Low density area M: Medium density area H: High density area	4
7315-1			M	PRT	128 <0-255>	SYS		4
7315-2			H	PRT	128 <0-255>	SYS		4
7316-0	Image	Gamma balance adjustment (PS / Detail / 600dpi)	L	PRT	128 <0-255>	SYS	When the value increases, the density in the target area becomes higher. L: Low density area M: Medium density area H: High density area	4
7316-1			M	PRT	128 <0-255>	SYS		4
7316-2			H	PRT	128 <0-255>	SYS		4
7317-0	Image	Gamma balance adjustment (PCL / Smooth / 600dpi)	L	PRT	128 <0-255>	SYS	When the value increases, the density in the target area becomes higher. L: Low density area M: Medium density area H: High density area	4
7317-1			M	PRT	128 <0-255>	SYS		4
7317-2			H	PRT	128 <0-255>	SYS		4
7318-0	Image	Gamma balance adjustment (PCL / Detail / 600dpi)	L	PRT	128 <0-255>	SYS	When the value increases, the density in the target area becomes higher. L: Low density area M: Medium density area H: High density area	4
7318-1			M	PRT	128 <0-255>	SYS		4
7318-2			H	PRT	128 <0-255>	SYS		4
7319-0	Image	Gamma balance adjustment (XPS / Smooth / 600dpi)	L	PRT	128 <0-255>	SYS	When the value increases, the density in the target area becomes higher. L: Low density area M: Medium density area H: High density area	4
7319-1			M	PRT	128 <0-255>	SYS		4
7319-2			H	PRT	128 <0-255>	SYS		4
7320-0	Image	Gamma balance adjustment (XPS / Detail / 600dpi)	L	PRT	128 <0-255>	SYS	When the value increases, the density in the target area becomes higher. L: Low density area M: Medium density area H: High density area	4
7320-1			M	PRT	128 <0-255>	SYS		4
7320-2			H	PRT	128 <0-255>	SYS		4
7351-0	Image	Setting beam level conversion (PRT Hardcopy security printing)	Beam level 0/4	PRT	0 <0-10>	M	The smaller the value is, the narrower the beam width becomes and the smaller the dots are reproduced.	4
7351-1			Beam level 1/4	PRT	4 <0-10>	M		4
7351-2			Beam level 2/4	PRT	5 <0-10>	M		4
7351-3			Beam level 3/4	PRT	6 <0-10>	M		4
7351-4			Beam level 4/4	PRT	9 <0-10>	M		4
7352-0	Image	Setting beam level conversion (PRT Toner saving)	Beam level 0/4	PRT	0 <0-10>	M	The smaller the value is, the narrower the beam width becomes and the smaller the dots are reproduced.	4
7352-1			Beam level 1/4	PRT	2 <0-10>	M		4
7352-2			Beam level 2/4	PRT	3 <0-10>	M		4
7352-3			Beam level 3/4	PRT	4 <0-10>	M		4
7352-4			Beam level 4/4	PRT	6 <0-10>	M		4

Adjustment mode (05)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
7380-1	Image	Change target gamma for monochrome network printer	PS	PRT	0 <0-1>	SYS	When set to On, gradation priority is set, and highlight density reproduction will be lightened. 0: Off 1: On (gradation priority)	4
7380-2			XPS	PRT	0 <0-1>	SYS		4
7416	Image	Range correction adjustment (Black / Automatic density adjustment)	Text/ Photo	SCN (black)	1 <0-1>	SYS	0: Background peak - Fixed 1: Background peak - Varied	1
7417			Text	SCN (black)	1 <0-1>	SYS		1
7418			Photo	SCN (black)	1 <0-1>	SYS		1
7419			Image smoothing	SCN (black)	1 <0-1>	SYS		1
7421	Image	Range correction adjustment (Black / Manual density adjustment)	Text/ Photo	SCN (black)	0 <0-1>	SYS	0: Background peak - Fixed 1: Background peak - Varied	1
7422			Text	SCN (black)	0 <0-1>	SYS		1
7423			Photo	SCN (black)	0 <0-1>	SYS		1
7424			Image smoothing	SCN (black)	0 <0-1>	SYS		1
7425	Image	Range correction adjustment (Black / Automatic density adjustment)	User custom	SCN (black)	1 <0-1>	SYS	0: Background peak - Fixed 1: Background peak - Varied	1
7426	Image	Range correction adjustment (Black / Manual density adjustment)	User custom	SCN (black)	0 <0-1>	SYS		1
7468	Image	Background offset adjustment for RADF		SCN (black)	128 <0-255>	SYS	The larger the value is, the lighter the background becomes.	1
7470	Image	Sharpness adjustment (Black)	User custom	SCN (black)	128 <0-255>	SYS	The larger the value is, the sharper the image becomes. The smaller the value is, the softer the image becomes and the less moire appears.	1
7475	Image	Density adjustment Manual density adjustment / Center value	User custom	SCN (black)	128 <0-255>	SYS	The larger the value is, the darker the image at the center value becomes.	1

Adjustment mode (05)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
7478	Image	Density adjustment Automatic density adjustment	User custom	SCN (black)	128 <0-255>	SYS	The larger the value is, the larger the surrounding margin becomes.	1
7480-0	Image	Gamma balance adjustment (User custom)	L	SCN (black)	128 <0-255>	SYS	The larger the value is, the darker the image of the area surrounding the target area becomes. L: Low density area M: Medium density area H: High density area	4
7480-1			M	SCN (black)	128 <0-255>	SYS		4
7480-2			H	SCN (black)	128 <0-255>	SYS		4
7489	Image	Amount of surrounding void (network scanning)		SCN	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
7618	Image	Blank page judgment threshold adjustment		PPC/ SCN	128 <0-255>	SYS	The larger the value is, the more the original tends to be judged as a blank page.	1
8325	Image	Saturation adjustment	Text	SCN (color)	128 <0-255>	SYS	The larger the value is, the brighter the image becomes. The smaller the value is, the duller the image becomes.	1
8326			Photo	SCN (color)	128 <0-255>	SYS		1
8327			Printed image	SCN (color)	128 <0-255>	SYS		1
8330	Image	Range correction adjustment (Full color / Automatic density adjustment)	Text	SCN (color)	1 <0-1>	SYS	0: Background peak - Fixed 1: Background peak - Varied	1
8331			Printed image	SCN (color)	1 <0-1>	SYS		1
8332			Photo	SCN (color)	1 <0-1>	SYS		1
8334			User custom	SCN (color)	1 <0-1>	SYS		1
8340	Image	Density adjustment Manual adjustment / Center value	Text	SCN (color)	128 <0-255>	SYS	The larger the value is, the darker the image at the center value becomes.	1
8341			Printed image	SCN (color)	128 <0-255>	SYS		1
8342			Photo	SCN (color)	128 <0-255>	SYS		1

Adjustment mode (05)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
8344	Image	Density adjustment Manual adjustment / Light step value	Text	SCN (color)	20 <0-255>	SYS	Sets the changing amount per step of the density adjustment buttons on the control panel. The larger the value is, the lighter the image of the “light” step becomes.	1
8345			Printed image	SCN (color)	20 <0-255>	SYS		1
8346			Photo	SCN (color)	20 <0-255>	SYS		1
8348	Image	Density adjustment (Manual adjustment / Dark step value)	Text	SCN (color)	20 <0-255>	SYS	Sets the changing amount per step of the density adjustment buttons on the control panel. The larger the value is, the darker the image of the “dark” step becomes.	1
8349			Printed image	SCN (color)	20 <0-255>	SYS		1
8350			Photo	SCN (color)	20 <0-255>	SYS		1
8361	Image	Range correction adjustment (Full color / Manual density adjustment)	Text	SCN (color)	0 <0-1>	SYS	0: Background peak - Fixed 1: Background peak - Varied	1
8362			Printed image	SCN (color)	0 <0-1>	SYS		1
8363			Photo	SCN (color)	0 <0-1>	SYS		1
8365			User custom	SCN (color)	0 <0-1>	SYS		1
8370	Image	Background fine adjustment	User custom mode	SCN (color)	50 <0-50>	SYS	When the value increases, the background becomes darker.	1
8371	Image	Adjustment of black density	User custom mode	SCN (color)	0 <0-4>	SYS	Adjusts the black density of the scanned image. When the value increases, the black density becomes darker.	1
8372	Image	RGB conversion method selection	User custom mode	SCN (color)	0 <0-3>	SYS	Sets the color space format of the output image. 0: sRGB 1: AppleRGB 2: ROMMRGB 3: AdobeRGB	1
8373	Image	Saturation adjustment	User custom mode	SCN (color)	128 <0-255>	SYS	The larger the value is, the brighter the image becomes. The smaller the value is, the duller the image becomes.	1
8375	Image	Sharpness adjustment	User custom mode	SCN (color)	128 <0-255>	SYS	When the value increases, the image becomes sharper. When the value decreases, the image becomes softer. The smaller the value is, the less the moire becomes.	1

Adjustment mode (05)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
8380	Image	Density adjustment (Manual adjustment/ Center value)	User custom mode	SCN (color)	128 <0-255>	SYS	The larger the value is, the darker the image of the center step density becomes.	1
8381	Image	Density adjustment (Manual adjustment/ Light step value)	User custom mode	SCN (color)	20 <0-255>	SYS	Sets the changing amount by 1 step at density adjustment on the control panel The larger the value is, the lighter the image of the light steps becomes.	1
8382	Image	Density adjustment (Manual adjustment/ Dark step value)	User custom mode	SCN (color)	20 <0-255>	SYS	Sets the changing amount by 1 step at density adjustment on the control panel The larger the value is, the darker the image of the dark steps becomes.	1
8385	Image	Background offset adjustment (Automatic density adjustment)	Text	SCN (color)	128 <0-255>	SYS	The larger the value is, the less easily the background (low density area) is printed. The smaller the value is, the more easily the background (low density area) is printed.	1
8386			Printed image	SCN (color)	128 <0-255>	SYS		1
8387			Photo	SCN (color)	128 <0-255>	SYS		1
8389			User custom mode	SCN (color)	128 <0-255>	SYS		1
8390	Image	Background offset adjustment (Manual density adjustment)	Text	SCN (color)	128 <0-255>	SYS	The larger the value is, the less easily the background (low density area) is printed. The smaller the value is, the more easily the background (low density area) is printed.	1
8391			Printed image	SCN (color)	128 <0-255>	SYS		1
8392			Photo	SCN (color)	128 <0-255>	SYS		1
8394			User custom mode	SCN (color)	128 <0-255>	SYS		1
8395	Image	Background offset adjustment for RADF		SCN (color)	128 <0-255>	SYS	The larger the adjustment value is, the lighter the background becomes.	1
8400	Image	Background offset adjustment (Automatic density adjustment)	Text/ Photo	SCN (black)	128 <0-255>	SYS	The larger the value is, the less easily the background (low density area) is printed. The smaller the value is, the more easily the background (low density area) is printed.	1
8402			Photo	SCN (black)	128 <0-255>	SYS		1
8403			Gray scale	SCN (black)	128 <0-255>	SYS		1
8404			User custom mode	SCN (black)	128 <0-255>	SYS		1

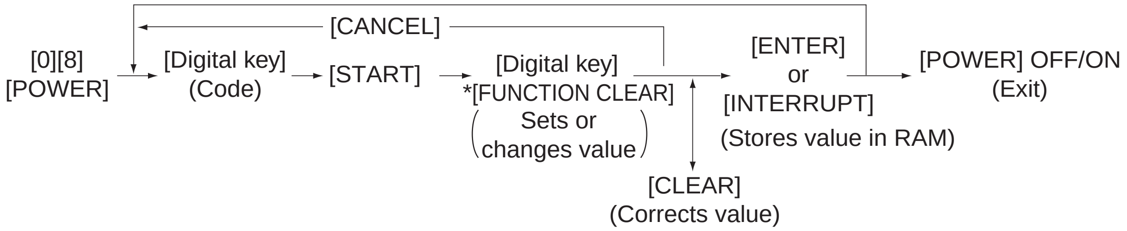
Adjustment mode (05)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
8405	Image	Background offset adjustment (Manual density adjustment)	Text/ Photo	SCN (black)	128 <0-255>	SYS	The larger the value is, the less easily the background (low density area) is printed. The smaller the value is, the more easily the background (low density area) is printed.	1
8407			Photo	SCN (black)	128 <0-255>	SYS		1
8408			Gray scale	SCN (black)	128 <0-255>	SYS		1
8409			User custom mode	SCN (black)	128 <0-255>	SYS		1
9096	General	Display of execution history in the production line process		ALL	-	SYS	Displays the execution history in the production line process. The Format is as follows: Number: OK/NG/-	2
9104	Image	Compression quality of s SLIM PDF background processing		SCN (color)	5 <0-10>	SYS	0-10 0: High compression, low image quality 10: Low compression, high image quality	1
9107	Image	Resolution adjustment of SLIM PDF background processing		SCN (color)	1 <0-3>	SYS	0: 75dpi 1: 100dpi 2: 150dpi 3: 200dpi	1
9960	General	Equipment information (SRAM)		ALL	0 <0-2>	SYS	Displays the equipment information (SRAM: original) 0: Not set 1: Other than SE models 2: SE models	2

2.7 Setting Mode (08)

The items in the setting code list can be set or changed in this setting mode (08).

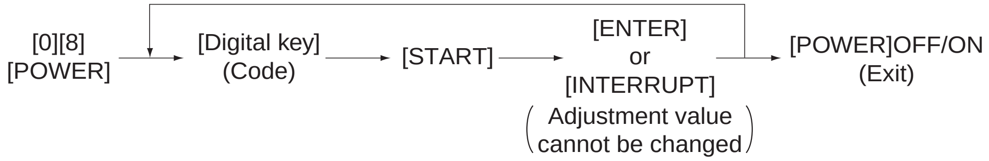
2.7.1 Operation procedure

Procedure 1

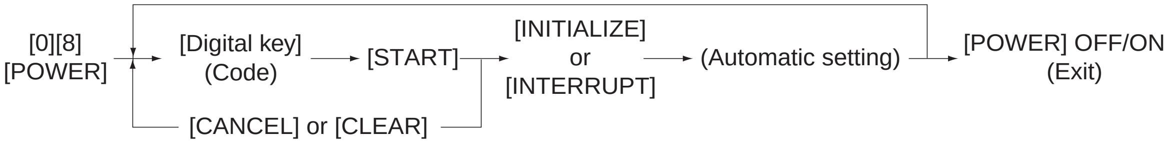

[CANCEL]
[0][8]
[POWER]
[Digital key]
(Code)
[START]
[Digital key]
*[FUNCTION CLEAR]
Sets or changes value
[ENTER]
or
[INTERRUPT]
(Stores value in RAM)
[POWER] OFF/ON
(Exit)
[CLEAR]
(Corrects value)

* Press [FUNCTION CLEAR] to enter minus (-).

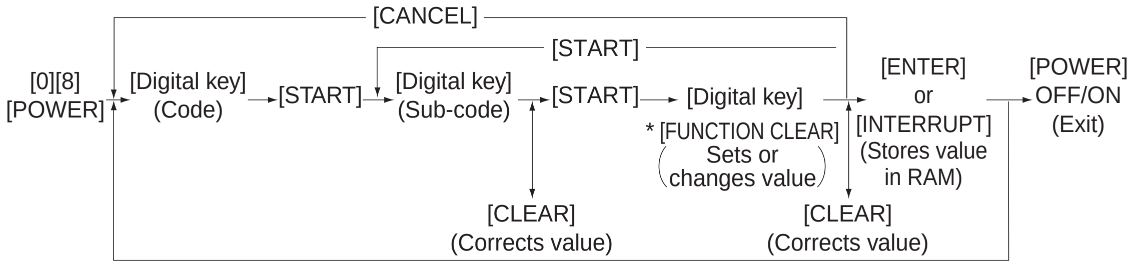
Procedure 2


[0][8]
[POWER]
[Digital key]
(Code)
[START]
[ENTER]
or
[INTERRUPT]
Adjustment value cannot be changed
[POWER]OFF/ON
(Exit)

Procedure 3

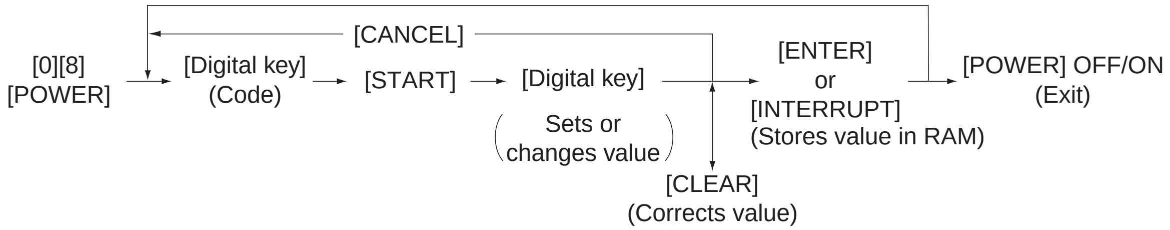

[0][8]
[POWER]
[Digital key]
(Code)
[START]
[INITIALIZE]
or
[INTERRUPT]
(Automatic setting)
[POWER] OFF/ON
(Exit)
[CANCEL] or [CLEAR]

Procedure 4

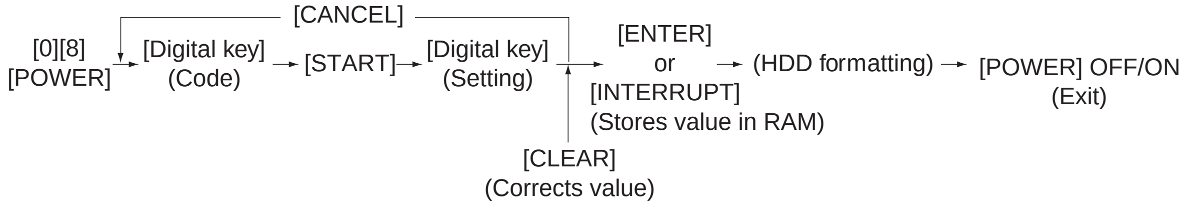

[CANCEL]
[START]
[0][8]
[POWER]
[Digital key]
(Code)
[START]
[Digital key]
(Sub-code)
[START]
[Digital key]
* [FUNCTION CLEAR]
Sets or changes value
[ENTER]
or
[INTERRUPT]
(Stores value in RAM)
[POWER]
OFF/ON
(Exit)
[CLEAR]
(Corrects value)
[CLEAR]
(Corrects value)

* Press [FUNCTION CLEAR] to enter minus (-).

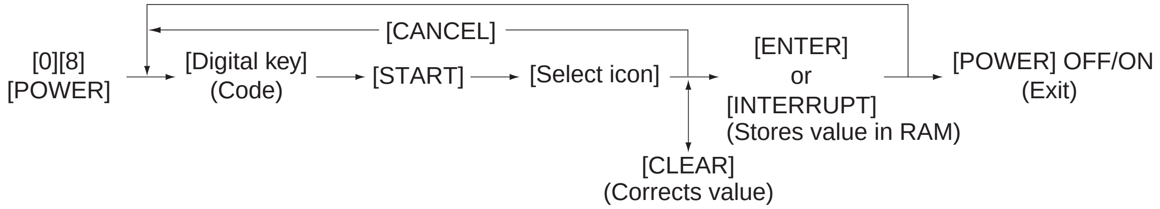
Procedure 5


[CANCEL]
[0][8]
[POWER]
[Digital key]
(Code)
[START]
[Digital key]
Sets or changes value
[ENTER]
or
[INTERRUPT]
(Stores value in RAM)
[POWER] OFF/ON
(Exit)
[CLEAR]
(Corrects value)

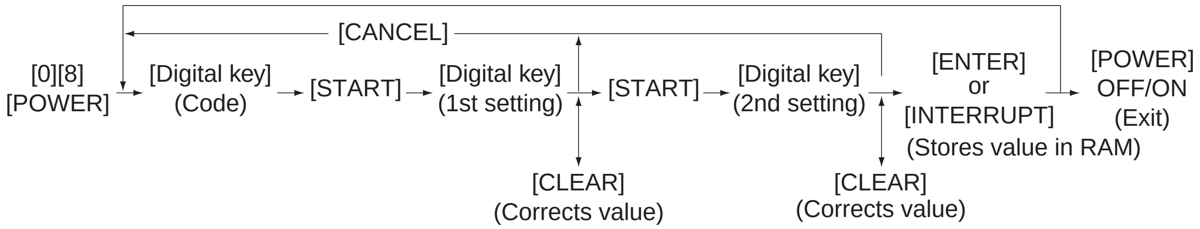
Procedure 7


[CANCEL]
[0][8]
[POWER]
[Digital key]
(Code)
[START]
[Digital key]
(Setting)
[ENTER]
or
[INTERRUPT]
(Stores value in RAM)
(HDD formatting)
[POWER] OFF/ON
(Exit)
[CLEAR]
(Corrects value)

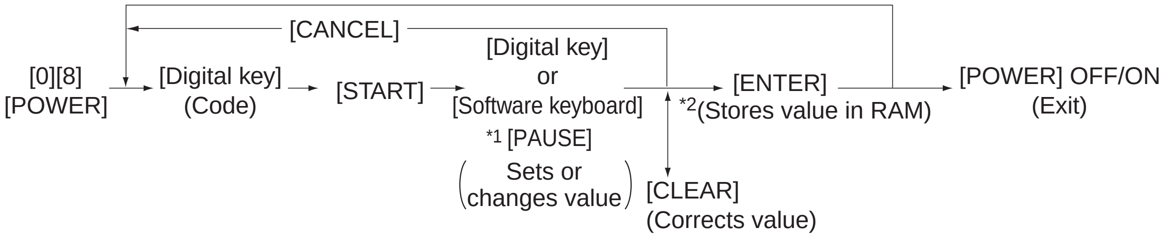
Procedure 9


[CANCEL]
[0][8]
[POWER]
[Digital key]
(Code)
[START]
[Select icon]
[ENTER]
or
[INTERRUPT]
(Stores value in RAM)
[POWER] OFF/ON
(Exit)
[CLEAR]
(Corrects value)

Procedure 10


[CANCEL]
[0][8]
[POWER]
[Digital key]
(Code)
[START]
[Digital key]
(1st setting)
[START]
[Digital key]
(2nd setting)
[ENTER]
or
[INTERRUPT]
(Stores value in RAM)
[POWER]
OFF/ON
(Exit)
[CLEAR]
(Corrects value)
[CLEAR]
(Corrects value)

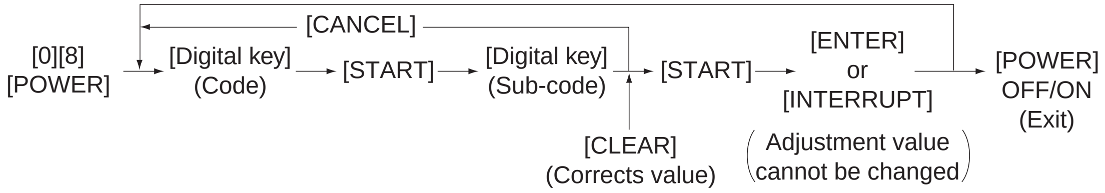
Procedure 11 and 12


[CANCEL]
[0][8]
[POWER]
[Digital key]
(Code)
[START]
[Digital key]
or
[Software keyboard]
*1 [PAUSE]
(Sets or changes value)
[ENTER]
*2(Stores value in RAM)
[POWER] OFF/ON
(Exit)
[CLEAR]
(Corrects value)

*1. Press [PAUSE] to enter “-”, when entering telephone number.

*2. The data are stored in SYS-RAM in procedure 11 and stored in NIC-RAM in procedure 12.

Procedure 14


[CANCEL]
[0][8]
[POWER]
[Digital key]
(Code)
[START]
[Digital key]
(Sub-code)
[START]
[ENTER]
or
[INTERRUPT]
(Adjustment value cannot be changed)
[POWER]
OFF/ON
(Exit)
[CLEAR]
(Corrects value)

2.7.2 Setting codes

Notes:

- The digit after the hyphen in “Code” of the following table is a sub code.
- In "Board", 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 / SYS-IMG board.

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
200	General	Date and time setting	ALL	- <13 digits>	-	Year/month/date/day/hour/minute/second Example: 03 07 0 13 13 27 48 “Day” - “0” is for “Sunday”. Proceeds Monday through Saturday from “1” to “6”.	5
201	General	Destination selection	ALL	EUR: 0 UC: 1 JPN: 2 <0-2>	M	0: EUR 1: UC 2: JPN	1
202	User interface	Counter installed externally	ALL	0 <0-3>	M	0: No external counter 1: Coin controller 2: Copy key card (This value is valid only when “2” is set to 08-201.) 3: Key copy counter	1
203	General	Line adjustment mode	ALL	0 <0-1>	M	0: For factory shipment 1: For line * Field: “0” must be selected	1
204	User interface	Auto-clear timer setting	ALL	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
205	User interface	Auto power save mode timer setting	ALL	4 <0-15>	SYS	Timer to automatically switch to the Auto power save mode when the equipment has not been used 0: Invalid 4: 1min. 5: 2min. 7: 4min. 8: 5min. 9: 7min. 10: 10min. 11: 15min. 12: 20min. 13: 30min. 14: 45min. 15: 60min.	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
206	User interface	Auto Shut Off Mode timer setting (Auto Shut Off Mode/Sleep Mode)	ALL	21 <0-21>	SYS	Timer to turn OFF the power or to enter the Sleep Mode automatically when the equipment has not been used 0: 3min. 1: 5min. 2: 10min. 3: 15min. 4: 20min. 5: 25min. 6: 30min. 7: 40min. 8: 50min. 9: 60min. 10: 70min. 11: 80min. 12: 90min. 13: 100min. 14: 110min. 15: 120min. 16: 150min. 17: 180min. 18: 210min. 19: 240min. 20: Disabled 21: 1min.	1
207	User interface	Highlighting display on LCD	ALL	0 <0-1>	SYS	0: Black letter on white background 1: White letter on black background	1
209	User interface	Default setting of filing format when E-mailing	ALL	1 <0-6>	SYS	0: TIFF (Multi) 1: PDF (Multi) 3: TIFF (Single) 4: PDF (Single) 5: XPS (Multi) 6: XPS (Single)	1
210	Paper feeding	Paper size (A6-R) feeding/widthwise direction	PRT	148/105 <148-432/ 105-297>	M		10
218	User interface	Default setting of filing format when storing files (at color/ACS modes)	SCN (color)	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
219	User interface	Default setting of filing format when storing files	SCN	MJD: 1 Other: 0 <0-6>	SYS	0: TIFF (Multi) 1: PDF (Multi) 3: TIFF (Single) 4: PDF (Single) 5: XPS (Multi) 6: XPS (Single)	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
220	User interface	Language displayed at power-ON	ALL	JPN: 5 NAD/MJD/SAD/ASD/AUD/ARD: 0 TWD/CND/KRD: 5 <0-13>	SYS	0: Language 1 (English) 1: Language 2 (German) 2: Language 3 (French) 3: Language 4 (Spanish) 4: Language 5 (Italian) 5: Language 6 (Japanese/Chinese/Taiwanese/Korean) 6: Language 7 (British English) 7: Language 8 (Danish) 8: Language 9 (Finnish) 9: Language 10 (Norwegian) 10: Language 11 (Swedish) 11: Language 12 (Dutch) 12: Language 13 (Polish) 13: Language 14 (Russian)	1
221	User interface	Language selection in UI data at Web power ON	ALL	JPN: 5 NAD/MJD/SAD/ASD/AUD/ARD: 0 TWD/CND/KRD: 5 <0-13>	SYS	0: Language 1 (English) 1: Language 2 (German) 2: Language 3 (French) 3: Language 4 (Spanish) 4: Language 5 (Italian) 5: Language 6 (Japanese/Chinese/Taiwanese/Korean) 6: Not used (nonenterable) 7: Language 8 (Danish) 8: Language 9 (Finnish) 9: Language 10 (Norwegian) 10: Language 11 (Swedish) 11: Not used (nonenterable) 12: Language 13 (Polish) 13: Language 14 (Russian)	1
223	Maintenance	Switching of output pages/ driving counts at K-PM	ALL	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 08-251.) 1: PM time counter (The timing is set at 08-375.) 2: Whichever comes faster	1
224	Paper feeding	Paper size for bypass feed	PPC	-	SYS	Press the button on the LCD to select the size.	9

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
225	Paper feeding	Paper size for upper drawer	ALL	EUR: A4 UC: LT JPN: A4	M	Press the button on the LCD to select the size.	9
226	Paper feeding	Paper size for lower drawer	ALL	EUR: A3 UC: LD JPN: A3	M	Press the button on the LCD to select the size.	9
227	Paper feeding	Paper size for PFP upper drawer	ALL	EUR: A4-R UC: LT-R JPN: A4-R	M	Press the button on the LCD to select the size.	9
228	Paper feeding	Paper size for PFP lower drawer	ALL	EUR: A4 UC: LG JPN: B4	M	Press the button on the LCD to select the size.	9
229	Paper feeding	Paper size (A3) feeding/ widthwise direction	ALL	420/297 <182-432/ 140-297>	M		10
230	Paper feeding	Paper size (A4-R) feeding/widthwise direction	ALL	297/210 <182-432/ 140-297>	M		10
231	Paper feeding	Paper size (A5-R) feeding/widthwise direction	ALL	210/148 <182-432/ 140-297>	M		10
232	Paper feeding	Paper size (B4-R) feeding/widthwise direction	ALL	364/257 <182-432/ 140-297>	M		10
233	Paper feeding	Paper size (B5-R) feeding/widthwise direction	ALL	257/182 <182-432/ 140-297>	M		10
234	Paper feeding	Paper size (LT-R) feeding/widthwise direction	ALL	279/216 <182-432/ 140-297>	M		10
235	Paper feeding	Paper size (LD-R) feeding/widthwise direction	ALL	432/279 <182-432/ 140-297>	M		10
236	Paper feeding	Paper size (LG-R) feeding/widthwise direction	ALL	356/216 <182-432/ 140-297>	M		10
237	Paper feeding	Paper size (ST-R) feeding/widthwise direction	ALL	216/140 <182-432/ 140-297>	M		10
238	Paper feeding	Paper size (COMPUTER-R) feeding/widthwise direction	ALL	356/257 <182-432/ 140-297>	M		10
239	Paper feeding	Paper size (FOLIO) feeding/widthwise direction	ALL	330/210 <182-432/ 140-297>	M		10
240	Paper feeding	Paper size (13” LG-R) feeding/widthwise direction	ALL	330/216 <182-432/ 140-297>	M		10
241	Paper feeding	Paper size (8.5”X8.5”-R) feeding/widthwise direction	ALL	216/216 <182-432/ 140-297>	M		10
242	Paper feeding	Paper size (Non-standard) feeding/ widthwise direction	ALL	432/279 <148-432/ 105-297>	SYS		10
243	Paper feeding	Memory 1 Paper size (bypass feeding/non-standard type) feeding/widthwise direction	ALL	148/100 <148-432/ 100-297>	SYS	Registers the paper size of bypass feed (non-standard type) into [MEMORY 1].	10

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
244	Paper feeding	Paper size (8K-R) feeding/widthwise direction	ALL	390/270 <182-432/ 140-297>	M		10
245	Paper feeding	Paper size (16K-R) feeding/widthwise direction	ALL	270/195 <182-432/ 140-297>	M		10
247	Paper feeding	Memory 2 Paper size (bypass feeding/non-standard type) feeding/widthwise direction	ALL	148/100 <148-432/ 100-297>	SYS	Registers the paper size of bypass feed (non-standard type) into [MEMORY 2].	10
248	Paper feeding	Memory 3 Paper size (bypass feeding/non-standard type) feeding/widthwise direction	ALL	148/100 <148-432/ 100-297>	SYS	Registers the paper size of bypass feed (non-standard type) into [MEMORY 3].	10
249	Paper feeding	Memory 4 Paper size (bypass feeding/non-standard type) feeding/widthwise direction	ALL	148/100 <148-432/ 100-297>	SYS	Registers the paper size of bypass feed (non-standard type) into [MEMORY 4].	10
250	Maintenance	Service technician telephone number	ALL	0 <32 digits>	SYS	A telephone number can be entered up to 32 digits. Use the [Pause] button to enter a hyphen (-).	11
251	Maintenance	Setting value of PM counter/K	ALL	Refer to contents <8 digits>	M	<Default> e-STUDIO205L: JPD: 0 Other: 80000 e-STUDIO255: JPD: 0 Other: 100000 e-STUDIO305: JPD: 0 Other: 120000 e-STUDIO355: JPD: 0 Other: 125000 e-STUDIO455: JPD: 0 Other: 150000	1
252	Maintenance	Current value of PM counter display/K	ALL	0 <8 digits>	M	Counts up when the registration sensor is ON.	1
253	Maintenance	Error history display	ALL	-	SYS	Displaying of the latest 20 errors data	2
254	Paper feeding	LT <-> A4/LD <-> A3	PRT	0 <0-1>	SYS	Sets whether the data is printed on the different but similar size paper or not when the paper of corresponding size is not available. 0: Valid (The data is printed on A4/A3 when LT/LD is selected or vice versa.) 1: Invalid (The message to use the selected paper size is displayed.)	1

Setting mode (08)

Code	Classification	Items	Function	Default <Acceptable value>	Board	Contents	Procedure
255	Paper feeding	PFP/LCF installation	ALL	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	1
256	Paper feeding	Paper size setting /LCF	ALL	EUR: A4 UC: LT JPN: A4	M	Press the button on the LCD to select the size.	9
259	Network	Storage period trial and private	PRT	14 <0-35>	SYS	0: No limits 1 to 30: 1 to 30 days 31: 1hour 32: 2hours 33: 4hours 34: 8hours 35: 12hours	1
260	Network	Web data retention period	SCN	10 <3 digits>	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
263	User interface	Administrator's password (Maximum 10 digits)	ALL	123456 <10 digits>	-	The password can be entered in alphabets and figures (A-Z, a-z, 0-9) within 10 digits.	11
264	Network	File retention period	SCN	30 <0-999>	SYS	0: No limits 1 to 999: 1 to 999 days	1
265	Network	Maximum data capacity at E-mailing	SCN	30 <2-100>	SYS	2 to 100 M bytes	1
266	Network	Maximum data capacity at Internet FAX	ALL	30 <2-100>	SYS	2 to 100 M bytes	1
267	Electronic Filing	Full guarantee of documents in Electronic Filing when HDD is full	ALL	1 <0-1>	SYS	Sets the file retention level when editing the files in the Electronic Filing (at CutDoc/ SaveDoc command execution). 0: Not full retained 1: Fully retained - Retains the source file until CutDoc/ SaveDoc command is completed. * The file is not deleted even if the HDD has become full during the execution of command when “1” is set.	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
270	Electronic Filing	Default value for user box retention period	ALL	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
271	General	Warning notification of the File Share and e-Filling partitions are filled	ALL	90 <0-100>	SYS	Sets the percentage of HDD partition filled when warning notification is sent. 0 to 100: 0 to 100% * Related code 08-288	1
272	Scanning	Notification setting of E-mail saving time limit	ALL	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
273	Scanning	Default setting of partial size when transmitting E-mail	ALL	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
274	FAX	Default setting of page by page when transmitting Internet FAX	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 divide 1: 256 2: 512 3: 1024 4: 2048 (Unit: KB)	1
276	User interface	Default setting for density adjustment	SCN	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
277	User interface	Default setting of background adjustment (Full Color)	SCN (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

Setting mode (08)

Code	Classification	Items	Function	Default <Acceptable value>	Board	Contents	Procedure
278	User interface	Default setting of color mode	SCN	0 <0-4>	SYS	0: Black 1: Gray Scale 2: Unused 3: Full Color 4: Auto Color	1
279	User interface	Default setting of resolution (Full Color)	SCN (color)	2 <0-5>	SYS	0: 100 dpi 1: 150 dpi 2: 200 dpi 3: 300dpi 4: 400 dpi 5: 600dpi	1
280	User interface	Default setting of resolution (Gray Scale)	SCN (black)	2 <0-5>	SYS	0: 100 dpi 1: 150 dpi 2: 200 dpi 3: 300dpi 4: 400 dpi 5: 600 dpi	1
281	User interface	Default setting of resolution	SCN	1 <0-5>	SYS	0: 150 dpi 1: 200 dpi 2: 300 dpi 3: 400 dpi 4: 600 dpi 5: 100 dpi	1
282	User interface	Default setting of original mode (Full Color)	SCN (color)	0 <0-3>	SYS	0: Text 1: Photo 2: Print 3: Custom (Valid only when other than “0” is set in 08-590)	1
283	User interface	Default setting of original mode	SCN	0 <0-3>	SYS	0: Text 1: Text/Photo 2: Photo 3: Custom	1
284	User interface	Default setting of duplex mode	SCN	0 <0-2>	SYS	0: Single 1: Book 2: Tablet	1
285	User interface	Default setting of rotation angle of original	SCN	0 <0-3>	SYS	0: 0 degree 1: 90 degrees 2: 180 degrees 3: 270 degrees	1
286	User interface	Default setting of original paper size	SCN	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 mixed 20: 8K 21: 16K 22: 16K-R	1
288	General	Searching interval of deleting expired flies and checking capacity of HDD partitions	SCN	12 <1-24>	SYS	Sets the search interval of deleting expired files and checking capacity of HDD partition. (Unit: Hour) * Related code 08-271	1

Setting mode (08)

Code	Classification	Items	Function	Default <Acceptable value>	Board	Contents	Procedure
289	User interface	Default setting of background adjustment (Gray Scale)	SCN	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
290	Network	Raw printing job (Duplex)	PRT	1 <0-1>	SYS	0: Valid 1: Invalid	1
291	Network	Raw printing job (Paper size)	PRT	EUR: 6 UC: 2 JPN: 6 <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”	1
292	Network	Raw printing job (Paper type)	PRT	0 <0-6>	SYS	0: Plain paper 1: Thick paper 1 2: Thick paper 2 3: Thick paper 3 4: OHP film 6: Thin paper	1
293	Network	Raw printing job (Paper direction)	PRT	0 <0-1>	SYS	0: Portrait 1: Landscape	1
294	Network	Raw printing job (Staple)	PRT	1 <0-1>	SYS	0: Valid 1: Invalid	1
295	Network	Raw printing job (receiving tray)	PRT	0 <0-6>	SYS	0: Inner tray 1: Finisher tray 1 2: Finisher tray 2 3: Not used 4: Job Separator upper tray 5: Job Separator lower tray 6: Exit tray * The settings 4 and 5 are effective only when the Job Separator (MJ-5004) is installed.	1
296	Network	Raw printing job (Number of form lines)	PRT	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.)	1
297	Network	Raw printing job (PCL font pitch)	PRT	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.)	1
298	Network	Raw printing job (PCL font size)	PRT	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.)	1
299	Network	Raw printing job (PCL font number)	PRT	0 <0-79>	SYS	Sets the PCL font number.	1
300	User interface	Maximum number of copy volume (MAX9)	PPC	0 <0-2>	SYS	0: 999 1: 99 2: 9	1

Setting mode (08)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
302	User interface	Original counter display		ALL	MJD: 2 Other: 0 <0,2,4>	SYS	Sets whether the original counter is displayed or not. 0: Not displayed 2: Displayed 4: Displayed (Doublesized original is counted as 2.)	1
305-0	Counter	Number of output pages at Black Mode in Copier Function	A3	PPC (black)	0 <8 digits>	SYS	Counts the output pages at the Black Mode in the Copier Function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353). 305-18: SRA3 (320 x 450 mm), 320 x 460 mm 305-21: Feeding direction: 460<n≤ 800 mm 305-22: Feeding direction: 800<n≤ 1200 mm 305-23: Feeding direction: 148<n≤ 460 mm	4
305-1			A4					
305-2			A5					
305-3			A6					
305-4			B4					
305-5			B5					
305-6			FOLIO					
305-7			LD					
305-8			LG					
305-9			LT					
305-10			ST					
305-11			COMP					
305-12			13”LG					
305-13			8.5” x 8.5”					
305-14			16K					
305-15			8K					
305-16			A3Wide					
305-17			LDWide					
305-18			SRA3					
305-19			13 x 19”					
305-20			Envelope					
305-21			Extra long size paper a					
305-22			Extra long size paper b					
305-23			Others					

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
306-0	Counter	Number of output pages at Black Mode in Printer Function	A3	PRT (black)	0 <8 digits>	SYS	Counts the output pages at the Black Mode in the Printer Function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353). 306-18: SRA3 (320 x 450 mm), 320 x 460 mm 306-21: Feeding direction: 460<n≤ 800 mm 306-22: Feeding direction: 800<n≤ 1200 mm 306-23: Feeding direction: 148<n≤ 460 mm	4
306-1			A4					
306-2			A5					
306-3			A6					
306-4			B4					
306-5			B5					
306-6			FOLIO					
306-7			LD					
306-8			LG					
306-9			LT					
306-10			ST					
306-11			COMP					
306-12			13”LG					
306-13			8.5” x 8.5”					
306-14			16K					
306-15			8K					
306-16			A3Wide					
306-17			LDWide					
306-18			SRA3					
306-19			13 x 19”					
306-20			Envelope					
306-21			Extra long size paper a					
306-22			Extra long size paper b					
306-23			Others					

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
307-0	Counter	Number of output pages at List Print Mode	A3	PRT (black)	0 <8 digits>	SYS	Counts the output pages at the List Print Mode for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large sized paper (08-353). 307-18: SRA3 (320 x 450 mm), 320 x 460 mm 307-21: Feeding direction: 460<n≤ 800 mm 307-22: Feeding direction: 800<n≤ 1200 mm 307-23: Feeding direction: 148<n≤ 460 mm	4
307-1			A4					
307-2			A5					
307-3			A6					
307-4			B4					
307-5			B5					
307-6			FOLIO					
307-7			LD					
307-8			LG					
307-9			LT					
307-10			ST					
307-11			COMP					
307-12			13"LG					
307-13			8.5" x 8.5"					
307-14			16K					
307-15			8K					
307-16			A3Wide					
307-17			LDWide					
307-18			SRA3					
307-19			13 x 19"					
307-20			Envelope					
307-21			Extra long size paper a					
307-22			Extra long size paper b					
307-23			Others					

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
308-0	Counter	Number of output pages in FAX Function	A3	FAX	0 <8 digits>	SYS	Counts the output pages in the FAX Function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353). 308-18: SRA3 (320 x 450 mm), 320 x 460 mm 308-21: Feeding direction: 460<n≤ 800 mm 308-22: Feeding direction: 800<n≤ 1200 mm 308-23: Feeding direction: 148<n≤ 460 mm	4
308-1			A4					
308-2			A5					
308-3			A6					
308-4			B4					
308-5			B5					
308-6			FOLIO					
308-7			LD					
308-8			LG					
308-9			LT					
308-10			ST					
308-11			COMP					
308-12			13”LG					
308-13			8.5” x 8.5”					
308-14			16K					
308-15			8K					
308-16			A3Wide					
308-17			LDWide					
308-18			SRA3					
308-19			13 x 19”					
308-20			Envelope					
308-21			Extra long size paper a					
308-22			Extra long size paper b					
308-23			Others					

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
310-0	Counter	Number of scanning pages at Full Color Mode in Scanning Function	A3	SCN (color)	0 <8 digits>	SYS	Counts the scanning pages at the Full Color Mode in the Scanning Function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353). 310-18: SRA3 (320 x 450 mm), 320 x 460 mm 310-21: Feeding direction: 460<n≤ 800 mm 310-22: Feeding direction: 800<n≤ 1200 mm 310-23: Feeding direction: 148<n≤ 460 mm	4
310-1			A4					
310-2			A5					
310-3			A6					
310-4			B4					
310-5			B5					
310-6			FOLIO					
310-7			LD					
310-8			LG					
310-9			LT					
310-10			ST					
310-11			COMP					
310-12			13"LG					
310-13			8.5" x 8.5"					
310-14			16K					
310-15			8K					
310-16			A3Wide					
310-17			LDWide					
310-18			SRA3					
310-19			13 x 19"					
310-20			Envelope					
310-21			Extra long size paper a					
310-22			Extra long size paper b					
310-23			Others					

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
312-0	Counter	Number of scanning pages at Black Mode in Copier Function	A3	PPC (black)	0 <8 digits>	SYS	Counts the scanning pages at the Black Mode in the Copier Function for each paper size according to the setting for the count setting of large sized paper (08-352) and the definition setting of large-sized paper (08-353). 312-18: SRA3 (320 x 450 mm), 320 x 460 mm 312-21: Feeding direction: 460<n≤ 800 mm 312-22: Feeding direction: 800<n≤ 1200 mm 312-23: Feeding direction: 148<n≤ 460 mm	4
312-1			A4					
312-2			A5					
312-3			A6					
312-4			B4					
312-5			B5					
312-6			FOLIO					
312-7			LD					
312-8			LG					
312-9			LT					
312-10			ST					
312-11			COMP					
312-12			13”LG					
312-13			8.5” x 8.5”					
312-14			16K					
312-15			8K					
312-16			A3Wide					
312-17			LDWide					
312-18			SRA3					
312-19			13 x 19”					
312-20			Envelope					
312-21			Extra long size paper a					
312-22			Extra long size paper b					
312-23			Others					

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
313-0	Counter	Number of scanning pages in Scanning Function	A3	SCN (black)	0 <8 digits>	SYS	Counts the scanning pages at the Black Mode in the Scanning Function for each paper size according to the setting for the count setting of large sized paper (08-352) and the definition setting of large-sized paper (08-353). 313-18: SRA3 (320 x 450 mm), 320 x 460 mm 313-21: Feeding direction: 460<n≤ 800 mm 313-22: Feeding direction: 800<n≤ 1200 mm 313-23: Feeding direction: 148<n≤ 460 mm	4
313-1			A4					
313-2			A5					
313-3			A6					
313-4			B4					
313-5			B5					
313-6			FOLIO					
313-7			LD					
313-8			LG					
313-9			LT					
313-10			ST					
313-11			COMP					
313-12			13"LG					
313-13			8.5" x 8.5"					
313-14			16K					
313-15			8K					
313-16			A3Wide					
313-17			LDWide					
313-18			SRA3					
313-19			13 x 19"					
313-20			Envelope					
313-21			Extra long size paper a					
313-22			Extra long size paper b					
313-23			Others					

Setting mode (08)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
314-0	Counter	Number of scanning pages in FAX Function	A3	FAX	0 <8 digits>	SYS	Counts the scanning pages in the FAX Function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large sized paper (08-353). 314-18: SRA3 (320 x 450 mm), 320x460 mm 314-21: Feeding direction: 460<n≤ 800 mm 314-22: Feeding direction: 800<n≤ 1200 mm 314-23: Feeding direction: 148<n≤ 460 mm	4
314-1			A4					
314-2			A5					
314-3			A6					
314-4			B4					
314-5			B5					
314-6			FOLIO					
314-7			LD					
314-8			LG					
314-9			LT					
314-10			ST					
314-11			COMP					
314-12			13”LG					
314-13			8.5” x 8.5”					
314-14			16K					
314-15			8K					
314-16			A3Wide					
314-17			LDWide					
314-18			SRA3					
314-19			13 x 19”					
314-20			Envelope					
314-21			Extra long size paper a					
314-22			Extra long size paper b					
314-23			Others					

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
315-0	Counter	Number of transmitted pages in FAX Function	A3	FAX	0 <8 digits>	SYS	Counts the transmitted pages in the FAX Function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large sized paper (08-353). 315-18: SRA3 (320 x 450 mm), 320x460 mm 315-21: Feeding direction: 460<n≤ 800 mm 315-22: Feeding direction: 800<n≤ 1200 mm 315-23: Feeding direction: 148<n≤ 460 mm	4
315-1			A4					
315-2			A5					
315-3			A6					
315-4			B4					
315-5			B5					
315-6			FOLIO					
315-7			LD					
315-8			LG					
315-9			LT					
315-10			ST					
315-11			COMP					
315-12			13"LG					
315-13			8.5" x 8.5"					
315-14			16K					
315-15			8K					
315-16			A3Wide					
315-17			LDWide					
315-18			SRA3					
315-19			13 x 19"					
315-20			Envelope					
315-21			Extra long size paper a					
315-22			Extra long size paper b					
315-23			Others					

Setting mode (08)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
316-0	Counter	Number of received pages in FAX Function	A3	FAX	0 <8 digits>	SYS	Counts the received pages in the FAX Function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large sized paper (08-353). 316-18: SRA3 (320 x 450 mm), 320 x 460 mm 316-21: Feeding direction: 460<n≤ 800 mm 316-22: Feeding direction: 800<n≤ 1200 mm 316-23: Feeding direction: 148<n≤ 460 mm	4
316-1			A4					
316-2			A5					
316-3			A6					
316-4			B4					
316-5			B5					
316-6			FOLIO					
316-7			LD					
316-8			LG					
316-9			LT					
316-10			ST					
316-11			COMP					
316-12			13”LG					
316-13			8.5” x 8.5”					
316-14			16K					
316-15			8K					
316-16			A3Wide					
316-17			LDWide					
316-18			SRA3					
316-19			13 x 19”					
316-20			Envelope					
316-21			Extra long size paper a					
316-22			Extra long size paper b					
316-23			Others					
320-0	Counter	Display of number of output pages in copier function	Large	PPC	0 <8 digits>	SYS	Counts the number of output pages in the Copier Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
320-1			Small	PPC	0 <8 digits>	SYS		14
320-2			Total	PPC	0 <8 digits>	SYS		14

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
321-0	Counter	Display of number of output pages in printer function	Large	PRT	0 <8 digits>	SYS	Counts the number of output pages in the Printer Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
321-1			Small	PRT	0 <8 digits>	SYS		14
321-2			Total	PRT	0 <8 digits>	SYS		14
322-0	Counter	Display of number of output pages at list print mode	Large	PRT	0 <8 digits>	SYS	Counts the number of output pages at the List Print Mode Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
322-1			Small	PRT	0 <8 digits>	SYS		14
322-2			Total	PRT	0 <8 digits>	SYS		14
323-0	Counter	Display of number of output pages in FAX function	Large	PRT	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 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
323-1			Small	PRT	0 <8 digits>	SYS		14
323-2			Total	PRT	0 <8 digits>	SYS		14

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
325-0	Counter	Display of number of scanning pages at Full Color Mode in Scanning Function	Large	SCN (color)	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 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
325-1			Small	SCN (color)	0 <8 digits>	SYS		14
325-2			Total	SCN (color)	0 <8 digits>	SYS		14
327-0	Counter	Display of number of scanning pages in copier function	Large	PPC	0 <8 digits>	SYS	Counts the number of scanning pages in the Copier Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
327-1			Small	PPC	0 <8 digits>	SYS		14
327-2			Total	PPC	0 <8 digits>	SYS		14
328-0	Counter	Display of number of scanning pages in FAX function	Large	FAX	0 <8 digits>	SYS	Counts the number of scanning pages in the FAX Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
328-1			Small	FAX	0 <8 digits>	SYS		14
328-2			Total	FAX	0 <8 digits>	SYS		14

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
329-0	Counter	Display of number of scanning pages in scanning function	Large	SCN	0 <8 digits>	SYS	Counts the number of scanning pages in the Scanning Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
329-1			Small	SCN	0 <8 digits>	SYS		14
329-2			Total	SCN	0 <8 digits>	SYS		14
330-0	Counter	Display of number of transmitted pages in FAX function	Large	FAX	0 <8 digits>	SYS	Counts the number of transmitted pages in the FAX Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
330-1			Small	FAX	0 <8 digits>	SYS		14
330-2			Total	FAX	0 <8 digits>	SYS		14

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
331	User interface	Priority screen setting		ALL	0 <0-8>	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 8: EWB * "8: EWB" can be set only when EWB is enabled. (The available setting range is from 0 to 7 when EWB is disabled.) If EWB is disabled after "8: EWB" has been set, the setting value will be switched to "0: Copier". (If any of 0 to 7 has been set, the setting value does not change.)	1
332-0	Counter	Display of number of received pages in FAX function	Large	FAX	0 <8 digits>	SYS	Counts the number of received pages in the FAX Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
332-1			Small	FAX	0 <8 digits>	SYS		14
332-2			Total	FAX	0 <8 digits>	SYS		14
335-0	Counter	Display of total number of pages	Large	ALL	0 <8 digits>	SYS	Displays the total number of pages in the copier/printer/scanning/FAX functions.	14
335-1			Small	ALL	0 <8 digits>	SYS		14
335-2			Total	ALL	0 <8 digits>	SYS		14
337	Paper feeding	Paper size (#10-R) feeding/widthwise direction		ALL	241/105 <148-432/ 105-297>	M		10
338	Paper feeding	Paper size (DL-R) feeding/widthwise direction		ALL	220/110 <148-432/ 105-297>	M		10

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
339	Paper feeding	Paper size (Envelope: Monarch-R) feeding/widthwise direction	ALL	191/98 <148-432/98-297>	M		10
340	Paper feeding	Paper size (Envelope: CHO-3-R) feeding/widthwise direction	ALL	235/120 <148-432/ 105-297>	M		10
341	Paper feeding	Paper size (Envelope: YOU-4-R) feeding/widthwise direction	ALL	235/105 <148-432/ 105-297>	M		10
342	User interface	Displaying number of original pages placed on original glass	PPC	0 <0-1>	SYS	This setting is whether the number of pages of originals placed on the original glass is displayed or not. 0: Not displayed 1: Displayed	1
344	Counter	Count setting of tab paper (PM)	ALL	1 <0-1>	M	0: Counted as 1 1: Counted as 2	1
345	Counter	Count setting of envelope (PM)	ALL	1 <0-1>	M	0: Counted as 1 1: Counted as 2	1
346	Counter	Count setting of large-sized paper (PM)	ALL	1 <0-1>	M	0: Counted as 1 1: Counted as 2	1
347	Counter	Definition setting of large-sized paper (PM)	ALL	1 <0-1>	M	0: A3/LD 1: A3/LD/B4/LG/ FOLIO/COMP	1
348	Counter	Count setting of thick paper (PM)	ALL	1 <0-1>	M	0: Counted as 1 1: Counted as 2	1
349	Counter	Count setting of OHP film (PM)	ALL	1 <0-1>	M	0: Counted as 1 1: Counted as 2	1
352	Counter	Count setting of large-sized paper (Fee charging system counter)	ALL	JPN: 0 OTHER: 1 <0-2>	M	0: Counted as 1 1: Counted as 2 2: Counted as 1 (Mechanical counter is double counter)	1
353	Counter	Definition setting of large-sized paper (Fee charging system counter)	ALL	0 <0-1>	M	0: A3/LD 1: A3/LD/B4/LG/ FOLIO/COMP/8K	1
356	Counter	Counter for upper drawer feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from upper drawer	2
357	Counter	Counter for lower drawer feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from lower drawer	2
358	Counter	Counter for bypass feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from bypass feed	2
359	Counter	Counter for LCF feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from LCF	2
360	Counter	Counter for PFP upper drawer feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from PFP upper drawer	2
370	Counter	Counter for PFP lower drawer feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from PFP lower drawer	2
372	Counter	Counter for ADU	ALL	0 <8 digits>	M	Counts the number of output pages of duplex printing.	2

Setting mode (08)

Code	Classification	Items	Function	Default <Acceptable value>	Board	Contents	Procedure
374	Counter	Counter for RADF	ALL	0 <8 digits>	SYS	Counts the number of originals fed from RADF	2
375	Maintenance	Setting value of PM time counter display/K	ALL (black)	e-STUDIO205L/255/305: 161000 e-STUDIO355/455: 135000 <8 digits>	M	Time accumulating counter	1
376	Maintenance	Current value of PM time counter/K	ALL (black)	0 <8 digits>	M	Counts the drum driving time.	1
381	Counter	Setting for counter installed externally	ALL	1 <0-7>	M	Selects the job to count up for the external counter. 0: Not selected 1: Copier 2: FAX 3: Copier/FAX 4: Printer 5: Copier/Printer 6: Printer/FAX 7: Copier/Printer/FAX	1
390	Counter	Number of errors in HDD (Copier)	PPC	0 <8 digits>	SYS	The number of error is reset at HDD formatting.	2
391	Counter	Number of errors in HDD (FAX)	FAX	0 <8 digits>	SYS	The number of error is reset at HDD formatting.	2
392	Counter	Number of errors in HDD (Scanning)	SCN	0 <8 digits>	SYS	The number of error is reset at HDD formatting.	2
393	Counter	Number of errors in HDD (Printer)	PRT	0 <8 digits>	SYS	The number of error is reset at HDD formatting.	2
400	Fuser	Fuser unit error status counter	ALL	0 <0-19>	M	0: No error 1: C410 (Once) 2: C410 (consecutively occurred) 3: C460 4: C430 5: C440 6: C450 7: C440 8: C450 9: C440 10: C470 11: C470 12: C480 13: C490 14: C470 15: C480 16: C490 17: C470 18: C480 19: C490	1

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
404-0	Fuser	Temperature drop setting in ready status (Center thermistor)	The first drop	ALL	e-STUDIO205L/255/305: 1 e-STUDIO355/455: 2 <0-10>	M	This code is valid only when “20” is set to 08-886. Setting value x -5°C: from 0°C to -50°C	4
404-1			The second drop	ALL	e-STUDIO205L/255/305: 1 e-STUDIO355/455: 3 <0-10>	M		4
404-2			The third drop	ALL	e-STUDIO205L/255/305: 1 e-STUDIO355/455: 3 <0-10>	M		4
404-3			The fourth drop	ALL	e-STUDIO205L/255/305: 1 e-STUDIO355/455: 3 <0-10>	M		4

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
405-0	Fuser	Temperature drop setting in ready status (Side thermistor)	The first drop	ALL	e-STUDIO205L/255/305: 4 e-STUDIO355/455: 2 <0-10>	M	This code is valid only when “20” is set to 08-886. Setting value x -5°C: from 0°C to -50°C	4
405-1			The second drop	ALL	e-STUDIO205L/255/305: 4 e-STUDIO355/455: 3 <0-10>	M		4
405-2			The third drop	ALL	e-STUDIO205L/255/305: 4 e-STUDIO355/455: 3 <0-10>	M		4
405-3			The fourth drop	ALL	e-STUDIO205L/255/305: 4 e-STUDIO355/455: 3 <0-10>	M		4
407	Fuser	Fuser roller temperature in ready status (Side thermistor)		ALL	e-STUDIO205L/255/305: 8 e-STUDIO355/455: 10 <0-12>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C	1
409	Fuser	Fuser roller temperature in energy saver mode (Center thermistor)		ALL	0 <0-13>	M	0: OFF 1: 40°C 2: 50°C 3: 60°C 4: 70°C 5: 80°C 6: 90°C 7: 100°C 8: 110°C 9: 120°C 10: 130°C 11: 140°C 12: 150°C 13: 160°C	1
410	Fuser	Fuser roller temperature during printing (Center thermistor/Plain paper)		ALL	e-STUDIO205L/255/305: 8 e-STUDIO355/455: 10 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
411	Fuser	Fuser roller temperature on standby (Center thermistor)	ALL	e-STUDIO205L/255/305: 8 e-STUDIO355/455: 10 <0-12>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C	1
412	Fuser	Fuser roller temperature during printing (Center thermistor/Thick paper 3)	ALL	e-STUDIO205L/255/305: 8 e-STUDIO355/455: 10 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
413	Fuser	Fuser roller temperature during printing (Center thermistor/Thick paper 1)	ALL	e-STUDIO205L/255/305: 8 e-STUDIO355/455: 10 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
414	Developer	Toner density life correction switching	ALL	0 <0-7>	M	0: Unchanged (Default) 1: Approx. 0.3 wt% higher 2: Approx. 0.6 wt% higher 3: Approx. 0.9 wt% higher 4: Approx. 0.2 wt% lower 5: Approx. 0.4 wt% lower 6: Approx. 0.6 wt% lower 7: Approx. 0.9 wt% lower	1
417	Fuser	Pre-running time for first printing (Thick paper 3)	ALL	10 <0-15>	M	0: Invalid 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

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
424-0	Fuser	Temperature drop switching time setting in ready status (Center thermistor)	The first drop	ALL	e-STUDIO205L/255/305: 15 e-STUDIO355/455: 30 <0-60>	M	This code is valid only when “20” is set to 08-886. Setting value x 1 min.: from 10 to 60 min. later	4
424-1			The second drop	ALL	e-STUDIO205L/255/305: 15 e-STUDIO355/455: 60 <0-60>	M		4
424-2			The third drop	ALL	e-STUDIO205L/255/305: 15 e-STUDIO355/455: 60 <0-60>	M		4
424-3			The fourth drop	ALL	e-STUDIO205L/255/305: 15 e-STUDIO355/455: 60 <0-60>	M		4

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
425-0	Fuser	Temperature drop switching time setting in ready status (Side thermistor)	The first drop	ALL	e-STUDIO205L/255/305: 15 e-STUDIO355/455: 30 <0-60>	M	This code is valid only when “20” is set to 08-886. Setting value x 1 min.: from 10 to 60 min. later	4
425-1			The second drop	ALL	e-STUDIO205L/255/305: 15 e-STUDIO355/455: 60 <0-60>	M		4
425-2			The third drop	ALL	e-STUDIO205L/255/305: 15 e-STUDIO355/455: 60 <0-60>	M		4
425-3			The fourth drop	ALL	e-STUDIO205L/255/305: 15 e-STUDIO355/455: 60 <0-60>	M		4
433-0	Fuser	Temperature control lower limit (Plain paper/ at ordinary temperature)	Center thermistor	ALL	e-STUDIO205L/255/305: 7 e-STUDIO355/455: 8 <0-12>	M	0: 130°C 1: 135°C 2: 140°C 3: 145°C 4: 150°C 5: 155°C 6: 160°C 7: 165°C 8: 170°C 9: 175°C 10: 180°C 11: 185°C 12: 120°C	4
433-1			Side thermistor	ALL	e-STUDIO205L/255/305: 5 e-STUDIO355/455: 6 <0-12>	M		4

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
437	Fuser	Fuser roller temperature during printing (Center thermistor /Thick paper 2)	ALL	e-STUDIO205L/255/305: 8 e-STUDIO355/455: 10 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
438	Fuser	Fuser roller temperature during printing (Center thermistor/OHP film)	ALL	e-STUDIO205L/255/305: 8 e-STUDIO355/455: 10 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
439	Fuser	Pre-running time for first printing (Thick paper 2)	ALL	10 <0-15>	M	0: Invalid 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
440	Fuser	Pre-running time for first printing (Plain paper/Low temperature)	ALL	0 <0-15>	M	0: Invalid 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
441	Fuser	Pre-running time for first printing (Thick paper 1)	ALL	0 <0-15>	M	0: Invalid 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
448	Fuser	Fuser roller temperature in Energy Saving Mode (Side thermistor)	ALL	0 <0-13>	M	0: OFF 1: 40°C 2: 50°C 3: 60°C 4: 70°C 5: 80°C 6: 90°C 7: 100°C 8: 110°C 9: 120°C 10: 130°C 11: 140°C 12: 150°C 13: 160°C	1
449	Paper feeding	Incorrect paper size jam detection switching	ALL	0 <0-1>	M	0: Enabled 1: Disabled	1

Setting mode (08)

Code	Classification	Items	Function	Default <Acceptable value>	Board	Contents	Procedure
450	Fuser	Fuser roller temperature during printing (Side thermistor/Plain paper)	ALL	e-STUDIO205L/255/305: 8 e-STUDIO355/455: 10 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
451	Fuser	Fuser roller temperature during printing (Side thermistor/Thick paper 1)	ALL	e-STUDIO205L/255/305: 8 e-STUDIO355/455: 10 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
452	Fuser	Fuser roller temperature during printing (Side thermistor/Thick paper 2)	ALL	e-STUDIO205L/255/305: 8 e-STUDIO355/455: 10 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
453	Fuser	Fuser roller temperature during printing (Side thermistor/OHP film)	ALL	e-STUDIO205L/255/305: 8 e-STUDIO355/455: 10 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
455	Image processing	Toner supply amount correction/Toner motor control	ALL	0 <0-5>	M	Corrects the supply amount of the fresh toner (driving period of the toner motor) into the developer unit. 0: x1.0 1: x0.75 2: x0.5 3: x0.3 4: x2.0 5: x1.5	1

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
462	RADF	Setting for switchback operation in mixed-size copying using RADF		ALL	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
463-0	Paper feeding	Feeding retry number setting (upper drawer)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the upper drawer.	4
463-1			Others	ALL	5 <0-5>	M		4
464-0	Paper feeding	Feeding retry number setting (lower drawer)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the lower drawer.	4
464-1			Others	ALL	5 <0-5>	M		4

Setting mode (08)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
465-0	Paper feeding	Feeding retry number setting (PFP upper drawer)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the PFP upper drawer.	4
465-1			Others	ALL	5 <0-5>	M		4
466-0	Paper feeding	Feeding retry number setting (PFP lower drawer)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the PFP lower drawer.	4
466-1			Others	ALL	5 <0-5>	M		4
467-0	Paper feeding	Feeding retry number setting (bypass feed)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the bypass tray.	4
467-1			Others	ALL	5 <0-5>	M		4
468-0	Paper feeding	Feeding retry number setting (LCF)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the LCF.	4
468-1			Others	ALL	5 <0-5>	M		4
471	Paper feeding	Paper size (Postcard) feeding/widthwise direction		ALL	148/100 <148-432/ 100-297>	M	* Postcard is supported only for JPN model.	10
476-0	Fuser	Dropping temperature setting when printing on thick paper	First drop	ALL	e-STUDIO205L/255/305: 1 e-STUDIO355/455: 0 <0~10>	M	Setting value x 5°C: 0 to 50°C This code is valid only when "20" is set to 08-535-1.	4
476-1			Second drop	ALL	2 <0~10>	M		4
476-2			Third drop	ALL	e-STUDIO205L/255/305: 2 e-STUDIO355/455: 3 <0~10>	M		4
476-3			Fourth drop	ALL	3 <0~10>	M		4
478	Laser	Judged number of polygonal motor rotation error (Normal rotation)		ALL	0 <0-1>	M	Displays the error [CA10] when the set number of rotation error has been detected. 0: 2 times 1: 12 times	1
479	Laser	Judged number of polygonal motor rotation error (At acceleration/ deceleration)		ALL	0 <0-1>	M	0: Time taken from an overshoot occurring to normal value range is 0.6 sec. 1: Time taken from an overshoot occurring to normal value range is 2.2 sec.	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
480	Paper feeding	Default setting of paper source	PPC	0 <0-5>	SYS	0: A4/LT 1: LCF 2: Upper drawer 3: Lower drawer 4: PFP upper drawer 5: PFP lower drawer	1
481	Paper feeding	Paper of different direction	PPC	1 <0-2>	SYS	Sets whether or not changing the drawer automatically to the other drawer with the paper of the same size when paper in the selected drawer has run out. If a value is set in 08-8591, "1" acts as a setting value of this code. If the value "1" is set in 08-8591, only the values "1" and "2" are available in this code. 0: Prohibited 1: ON (Changes to the drawer with the same paper direction and size: e.g., 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: e.g., A4 to A4-R, LT-R to LT. “1” is applied when the staple/hole-punch is specified.)	1
482	Paper feeding	Feeding retry setting	ALL	0 <0-1>	M	0: ON 1: OFF	1
483	Laser	Pre-running rotation of polygonal motor	ALL	0 <0-2>	SYS	Sets whether or not switching the polygonal motor from the standby rotation to the normal rotation when the original is set on the RADF or the original cover is opened. 0: Valid (when using RADF and the original is set manually) 1: Invalid 2: Valid (when using RADF only)	1
484	Laser	Polygonal motor rotational status switching at the Auto Clear Mode	ALL	0 <0-1>	SYS	Sets whether or not switching the polygonal motor from the normal rotation to the standby rotation at the Auto Clear Mode. 0: Valid 1: Invalid	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
485	Laser	Rotational status of polygonal motor on standby	ALL	1 <0-1>	SYS	Sets the rotational status of polygonal motor on standby. 0: Rotated (The rotational speed is set at 08-490.) 1: Stopped	1
486	Laser	Timing of auto-clearing of polygonal motor pre-running rotation	ALL	3 <0-6>	SYS	Switches the polygonal motor to the standby rotation when a certain period of time has passed from the pre-running. At this code, the period to switch the status to the standby rotation is set. 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 "0" or "2" is set at 08-483.	1
488	Laser	Setting of polygonal motor type	ALL	3 <0-3>	M	Set the type of polygonal motor. 0: 2-clock type 1: 3-clock type 2: 4-clock type 3: 6-clock type	1
489	Laser	Polygonal motor rotation number on standby	ALL	5 <0-5>	M	0: 38,090.55 rpm 1: 35,000 rpm 2: 30,000 rpm 3: 25,000 rpm 4: 20,000 rpm 5: 10,000 rpm	1
490	Laser	Polygonal motor rotation in the energy saving mode	ALL	0 <0-1>	M	0: Stopped 1: 10,000 rpm	1
491	Transfer	Transfer charger bias correction (H) at duplexing	ALL	126 <0-255>	M	Corrects the transfer charger bias output value of the leading edge area of paper at duplexing.	1
492	Transfer	Transfer charger bias correction (C) at duplexing	ALL	e-STUDIO205L/255/305: 124 e-STUDIO355/455: 123 <0-255>	M	Corrects the transfer charger bias output value of the center area of paper at duplexing.	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
493	Transfer	Transfer charger bias correction (L) at duplexing	ALL	e-STUDIO205L/255/305: 118 e-STUDIO355/455: 112 <0-255>	M	Corrects the transfer charger bias output value of the trailing edge area of paper at duplexing.	1
499	Image processing	Toner cartridge (K) sensor detection level	ALL	AUD/TWD: 1 JPD/NAD/MJD/SAD/ASD/CND/KRD/ARD: 2 <0-2>	M	0: Level 0 (No detection) 1: Level 1 (Warning notification) 2: Level 3 (Stop printing)	1
502	Image	Error diffusion and dither setting at photo mode	PPC	1 <0-1>	SYS	Sets the image reproduction method at photo mode. 0: Error diffusion 1: Dither	1
503	User interface	Default setting of density adjustment	PPC	0 <0-1>	SYS	0: Automatic 1: Manual (Center)	1
508	Image	Custom Mode setting	PPC	0 <0-3>	SYS	0: Not used 1: Text/Photo is set as a base 2: Text is set as a base 3: Photo is set as a base	1
509	Image	Error diffusion and dither setting at a photo mode (Custom Mode)	PPC	1 <0-1>	SYS	Switches the image processing method when Custom Mode 3 is set. 0: Error diffusion 1: Dither	1
515	Fuser	Temperature setting of warming-up (Center thermistor)	ALL	e-STUDIO205L/255/305: 4 e-STUDIO355/455: 8 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
516	Fuser	Temperature setting of warming-up (Side thermistor)	ALL	e-STUDIO205L/255/305: 4 e-STUDIO355/455: 8 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
517	Fuser	Pre-running time (Normal temperature)	ALL	3 <0-18>	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: 15 sec. 12: 20 sec. 13: 25 sec. 14: 30 sec. 15: 40 sec. 16: 50 sec. 17: 60 sec. 18: 150 sec.	1
518	Fuser	Fuser roller temperature during printing (Side thermistor/Thick paper 3)	ALL	e-STUDIO205L/255/305: 8 e-STUDIO355/455: 10 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
520	Fuser	Fuser roller temperature during printing (Center thermistor/ Envelope)	ALL	e-STUDIO205L/255/305: 11 e-STUDIO355/455: 13 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
521	Fuser	Fuser roller temperature during printing (Side thermistor/ Envelope)	ALL	e-STUDIO205L/255/305: 9 e-STUDIO355/455: 11 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
523	Fuser	Pre-running time for first printing (Envelope)	ALL	10 <0-15>	M	0: Invalid 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

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
525-0	Fuser	Temperature drop switching time setting during printing (Center thermistor)	The first drop	ALL	e-STUDIO205L/255/305: 20 e-STUDIO355/455: 5 <0-200>	M	Setting value x 5 sec.: from 0 to 1,000 sec. later This code is valid only when "20" is set to 08-535-0.	4
525-1			The second drop	ALL	e-STUDIO205L/255/305: 30 e-STUDIO355/455: 18 <0-200>	M		4
525-2			The third drop	ALL	e-STUDIO205L/255/305: 40 e-STUDIO355/455: 24 <0-200>	M		4
525-3			The fourth drop	ALL	75 <0-200>	M		4
526	Fuser	Pre-running time for first printing (OHP film)		ALL	0 <0-15>	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: 9 sec. 10: 10 sec. 11: 12 sec. 12: 14 sec. 13: 16 sec. 14: 18 sec. 15: 20 sec.	1

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
527-0	Fuser	Temperature drop switching time setting during printing (Side thermistor)	The first drop	ALL	e-STUDIO205L/255/305: 20 e-STUDIO355/455: 5 <0-200>	M	Setting value x 5 sec.: from 0 to 1,000 sec. later This code is valid only when "20" is set to 08-535-0.	4
527-1			The second drop	ALL	e-STUDIO205L/255/305: 30 e-STUDIO355/455: 18 <0-200>	M		4
527-2			The third drop	ALL	e-STUDIO205L/255/305: 40 e-STUDIO355/455: 24 <0-200>	M		4
527-3			The fourth drop	ALL	75 <0-200>	M		4
535-0	Fuser	Temperature drop control setting during printing (Temperature/Time)		ALL	e-STUDIO205L/255/305: 2 e-STUDIO355/455: 20 <0-20>	M	0: None 1: Pattern 1 2: Pattern 2 3: Pattern 3 4: Pattern 4 5: Pattern 5 6: Pattern 6 7: Pattern 7 8: Pattern 8 9: Pattern 9 10: Pattern 10 11: Pattern 11 12: Pattern 12 13: Pattern 13 14: Pattern 14 15: Pattern 15 16: Pattern 16 17: Pattern 17 18: Pattern 18 19: Pattern 19 20: Manual adjustment	4

Setting mode (08)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
535-1	Fuser	Temperature drop control setting during printing (Temperature/Time)		ALL	e-STUDIO205L/255/305: 2 e-STUDIO355/455: 20 <0-20>	M	0: None 1: Pattern 1 2: Pattern 2 3: Pattern 3 4: Pattern 4 5: Pattern 5 6: Pattern 6 7: Pattern 7 8: Pattern 8 9: Pattern 9 10: Pattern 10 11: Pattern 11 12: Pattern 12 13: Pattern 13 14: Pattern 14 15: Pattern 15 16: Pattern 16 17: Pattern 17 18: Pattern 18 19: Pattern 19 20: Manual adjustment	4
536-0	Fuser	Temperature drop setting during printing (Center thermistor)	The first drop	ALL	e-STUDIO205L/255/305: 1 e-STUDIO355/455: 0 <0-10>	M	Setting value x -5°C: from 0°C to -50°C This code is valid only when "20" is set to 08-535-0.	4
536-1			The second drop	ALL	2 <0-10>	M		4
536-2			The third drop	ALL	e-STUDIO205L/255/305: 2 e-STUDIO355/455: 3 <0-10>	M		4
536-3			The fourth drop	ALL	3 <0-10>	M		4

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
537-0	Fuser	Temperature drop setting during printing (Side thermistor)	The first drop	ALL	e-STUDIO205L/255/305: 2 e-STUDIO355/455: 4 <0-10>	M	Setting value x -5°C: from 0°C to -50°C This code is valid only when "20" is set to 08-535-0.	4
537-1			The second drop	ALL	e-STUDIO205L/255/305: 3 e-STUDIO355/455: 6 <0-10>	M		4
537-2			The third drop	ALL	e-STUDIO205L/255/305: 4 e-STUDIO355/455: 6 <0-10>	M		4
537-3			The fourth drop	ALL	e-STUDIO205L/255/305: 5 e-STUDIO355/455: 6 <0-10>	M		4

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
539-0	Fuser	Temperature drop setting during printing on thick paper (Side thermistor)	The first drop	ALL	e-STUDIO205L/255/305: 2 e-STUDIO355/455: 4 <0-10>	M	Setting value x -5°C: from 0°C to -50°C This code is valid only when "20" is set to 08-535-1.	4
539-1			The second drop	ALL	e-STUDIO205L/255/305: 3 e-STUDIO355/455: 6 <0-10>	M		4
539-2			The third drop	ALL	e-STUDIO205L/255/305: 4 e-STUDIO355/455: 6 <0-10>	M		4
539-3			The fourth drop	ALL	e-STUDIO205L/255/305: 5 e-STUDIO355/455: 6 <0-10>	M		4

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
540-0	Fuser	Temperature drop switching time setting during printing on thick paper (Center thermistor)	The first drop	ALL	e-STUDIO205L/255/305: 20 e-STUDIO355/455: 5 <0-200>	M	Setting value x 5 seconds: from 0 to 1000 seconds This code is valid only when "20" is set to 08-535-1.	4
540-1			The second drop	ALL	e-STUDIO205L/255/305: 30 e-STUDIO355/455: 18 <0-200>	M		4
540-2			The third drop	ALL	e-STUDIO205L/255/305: 40 e-STUDIO355/455: 24 <0-200>	M		4
540-3			The fourth drop	ALL	75 <0-200>	M		4
541-0	Fuser	Temperature drop switching time setting during printing on thick paper (Side thermistor)	The first drop	ALL	e-STUDIO205L/255/305: 20 e-STUDIO355/455: 5 <0-200>	M	Setting value x 5 seconds: from 0 to 1000 seconds This code is valid only when "20" is set to 08-535-1.	4
541-1			The second drop	ALL	e-STUDIO205L/255/305: 30 e-STUDIO355/455: 18 <0-200>	M		4
541-2			The third drop	ALL	e-STUDIO205L/255/305: 40 e-STUDIO355/455: 24 <0-200>	M		4
541-3			The fourth drop	ALL	75 <0-200>	M		4

Setting mode (08)

Code	Classification	Items	Function	Default <Acceptable value>	Board	Contents	Procedure
550	Image	Default setting of original mode	PPC	0 <0-5>	SYS	0: Standard 1: Text 2: Photo 3: Not used (nonenterable) 4: Custom 5: Color document mode	1
580	User interface	User custom mode setting	SCN (black)	0 <0-3>	SYS	0: Unused 1: B/W TEXT/PHOTO base 2: B/W TEXT base 3: B/W PHOTO base	1
590	User interface	User custom mode setting	SCN (color)	0 <0-4>	SYS	0: Unused 1: TEXT base 2: Printed image base 3: Photo base 4: e-document base	1
602	User interface	Screen setting for Auto power Save Mode and Auto Shut OFF Mode	ALL	EUR: 0 UC: 1 JPN: 1 <0-1>	SYS	0: OFF 1: ON	1
603	User interface	Setting for automatic duplexing mode	PPC	0 <0-3>	SYS	0: Invalid 1: Single-sided to duplex copying 2: Double-sided to duplex copying 3: User selection	1
604	User interface	Default setting for APS/ AMS	PPC	0 <0-2>	SYS	0: APS (Automatic Paper Selection) 1: AMS (Automatic Magnification Selection) 2: Not selected	1
605	User interface	Centering printing of primary/secondary direction at AMS	PPC	1 <0-1>	SYS	0: Invalid 1: Valid	1
607	User interface	Default setting of RADF mode	PPC	0 <0-1>	SYS	0: Continuous feeding (by pressing the [START] button) 1: Single feeding (by setting original on the tray)	1
610	User interface	Key touch sound of control panel	ALL	1 <0-1>	SYS	0: OFF 1: ON	1
611	User interface	Book type original priority	PPC	0 <0-1>	SYS	0: Left page to right page 1: Right page to left page	1
613	User interface	Paper size selection for [OTHER] button	PPC	EUR: FOLIO UC: COMP JPN: A5-R	SYS	Press the button on the LCD to select the size.	9

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
614	Network	Local I/F time-out period	PRT	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
617	User interface	Printing/PC-FAX setting without department code or registration code	ALL	1 <0-2>	SYS	0: Printed 1: Not printed (pooled in the invalid queue) 2: Deleted forcibly	1
618	User interface	Default setting when mixed size originals are set	PPC	0 <0-1>	SYS	0: Scanned as all in same size 1: Scanned as each original size	1
619	Paper feeding	Time lag before Auto Job Start of bypass feeding	ALL	4 <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 0.5 sec.	1
620	User interface	Department management setting (Copier)	PPC	1 <0-1>	SYS	0: Invalid 1: Valid	1
621	User interface	Department management setting (FAX)	FAX	1 <0-1>	SYS	0: Invalid 1: Valid	1
622	User interface	Department management setting (Printer)	PRT	1 <0-1>	SYS	0: Invalid 1: Valid	1
623	User interface	Department management setting (Scanner)	SCN	1 <0-1>	SYS	0: Invalid 1: Valid	1
624	User interface	Department management setting (List print)	PRT	1 <0-1>	SYS	0: Invalid 1: Valid	1
625	User interface	Blank copying prevention mode during RADF jamming	PPC	0 <0-1>	SYS	0: OFF 1: ON (Start printing when the scanning of each page is finished)	1
627	User interface	Rotation printing at the non-sorting	ALL	0 <0-1>	SYS	0: Not rotating 1: Rotating	1
628	User interface	Direction priority of original image	PPC	0 <0-1>	SYS	0: Automatic 1: Portrait	1
629	User interface	Department management setting	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
634	User interface	Inner receiving tray priority at Non-sort Mode	ALL	0 <0-1>	SYS	0: Normal 1: Inner receiving tray	1
636	User interface	Width setting for image shift copying (linkage of front side and back side)	PPC	0 <0-1>	SYS	0: ON 1: OFF	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
638	General	Time differences	ALL	EUR: 24 UC: 40 JPN: 6 <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	1
640	User interface	Date display format	ALL	EUR: 1 UC: 2 JPN: 0 <0-2>	SYS	0: YYYY.MM.DD. 1: DD.MM.YYYY 2: MM.DD.YYYY	1
641	User interface	Automatic Sorting Mode setting (RADF)	PPC	2 <0-4>	SYS	0: Invalid 1: STAPLE 2: SORT 3: GROUP 4: ROTATE SORT	1
642	User interface	Default setting of Sorter Mode	PPC	0 <0-4>	SYS	0: NON-SORT 1: STAPLE 2: SORT 3: GROUP 4: ROTATE SORT	1
645	User interface	Correction of reproduction ratio in editing copy	PPC	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
646	User interface	Image position in editing	PPC	2 <0-3>	SYS	Sets the page pasted position for “X in 1” to the upper left corner/ center. 0: PPC:Cornering/ PRT:Cornering 1: PPC:Centering/ PRT:Cornering 2: PPC:Cornering/ PRT:Centering 3: PPC:Centering/ PRT:Centering	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
648	User interface	Returning finisher tray when printing is finished	ALL	0 <0-1>	SYS	Sets whether or not returning the finisher tray to the bin 1 when printing is finished. 0: Not returned 1: Returned	1
649	User interface	Magazine sort setting	PPC	0 <0-1>	SYS	0: Left page to right page 1: Right page to left page	1
650	User interface	2 in 1/4 in 1 page allocating order setting	PPC	0 <0-1>	SYS	0: Horizontal 1: Vertical	1
651	User interface	Printing format setting for Time stamp and Page Number	PPC	2 <0-3>	SYS	Hyphen (with page number) /Dropout (with date, time and page number) 0: OFF/OFF 1: ON/OFF 2: OFF/ON 3: ON/ON **Note:** Hyphen printing format ON: -1- OFF: 1	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	Board	Contents	Procedure
652	User interface	Cascade operation setting	PPC	0 <0-2>	SYS	Sets the tray switch operation if the output tray becomes full of paper during printing. 0: Stops printing if the tray becomes full of paper. 1: If the receiving tray of the equipment or the upper tray of the finisher becomes full of paper, a switch is made to the lower tray of the finisher. After this, the tray is not switched again within the job. 2: If the receiving tray of the equipment or the upper tray of the finisher becomes full of paper, a switch is made to the lower tray of the finisher. If this tray becomes full of paper after the switch and the other tray of the finisher has space, a switch is made to it (circulation). MJ-1024 The circulation is supported. MJ-1101 Circulation is not supported. Switching from the stationary tray to the movable tray is supported. Switching from the movable tray to the stationary tray is not supported. MJ-1025 The circulation is not supported. MJ-1031 The circulation is not supported.	1
653	User interface	Cascade operation setting	PRT	0 <0-2>	SYS		
657	User interface	Direction priority for date and time stamp printing	PPC	0 <0-1>	SYS	0: Short edge 1: Long edge	1
658	User interface	Auto Job Start setting for bypass feed printing	PRT	0 <0-1>	SYS	Sets whether or not feeding a paper automatically into the equipment when it is placed on the bypass tray. 0: OFF (Press the [START] button to start feeding.) 1: ON (Automatic feeding)	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
659	User interface	Auto Job start setting for bypass feed printing	PPC	1 <0-1>	SYS	Sets whether or not feeding a paper automatically into the equipment when it is placed on the bypass tray. 0: OFF (Press the [START] button to start feeding.) 1: ON (Automatic feeding)	1
660	Network	Auto-forwarding setting of received FAX	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
661	Network	Auto-forwarding setting of received E-mail	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
662	General	Clearing of SMS partition	ALL	-	SYS	Clears SMS partition. (Performs when the service call [F106] has occurred.)	3
666	General	SHR partition clearing	ALL	-	SYS	Initializes the Electronic Filing.	3
667	General	SHA partition clearing	ALL	-	SYS	Initializes the shared folder.	3
670	General	HDD diagnostic menu display	ALL	-	SYS	Display the HDD information	2
671	User interface	Size indicator	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
672	General	Initialization of department management information	-	-	SYS	Initializing of the department management information * Key in the code 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
673	General	Trial period setting	PRT/ SCN	254 <1-60>	SYS	Sets the trial period from 1 to 60 days. This setting is effective only when the default value is “254”. Once the default value is set, this value is only used for a reference.	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
678	General	Setting of banner advertising display	ALL	0 <0-1>	SYS	Sets whether or not displaying the banner advertising. The setting contents of 08-679 and 08-680 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
679	General	Banner advertising display 1	ALL	-	SYS	Maximum 27 letters (one-byte character)	11
680	General	Banner advertising display 2	ALL	-	SYS	Maximum 27 letters (one-byte character)	11
681	General	Display of [BANNER MESSAGE] button	ALL	0 <0-1>	SYS	0: Not displayed 1: Displayed * This button enables the entry of “Banner advertising display 1 (08-679)” and “Banner advertising display 2 (08-680)” on the control panel.	1
683	General	Duplex printing setting when coin controller is used	ALL	1 <0-1>	SYS	When the duplex printing is short paid with a coin controller, reverse side of the original is not printed and is considered as a defect (printing job may be cleared). To solve this problem, the selection of printing method is enabled with this setting. 0: Invalid (Only one side printed) 1: Valid (Both sides printed/One side printed)	1
684	General	Rebuilding all databases	ALL	-	SYS	Rebuilds all databases.	3
685	General	Rebuilding all databases related to address book	ALL	-	SYS	Rebuilds all databases related to the Address Book. (Address book, template, extension, F code, and transmission setting when Fax/ Internet Fax job received)	3
686	General	Rebuilding all databases related to log	ALL	-	SYS	Rebuilds all databases related to the log. (Job log and message log)	3
689	FAX	Adaptation of paper source priority selection	FAX	0 <0-1>	SYS	0: Not subjected for APS judgment 1: Subjected for APS judgment	1
690	General	HDD formatting	ALL	2 <2>	SYS	0: Not formatted 2: Normal formatting	7
691	General	HDD type display	ALL	- <0, 2>	SYS	0: Not formatted 2: Formatted with DSI type	7

Setting mode (08)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
692	Maintenance	Performing panel calibration		ALL	-	SYS	Performs the calibration of the pressing position on the touch panel (LCD screen). The calibration is performed by pressing 2 reference positions after this code is started up.	1
693	General	Initialization of NIC information		ALL	-	SYS	Returns the value to the factory shipping default value.	3
694	General	Performing HDD testing		ALL	-	SYS	Checks the bad sector.	3
695	General	Notifying condition of trial period end		PRT/ SCN	3 <0-255>	SYS	Sets when the end of trial period is notified. 0: On the day it ends 1 to 255: n days before	1
701	FAX	Destination setting for FAX		FAX	EUR: 5 UC: 4 JPN: 0 Other: 1 <0-25>	SYS	0: Japan 1: Asia 2: TAP 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	1
702	Maintenance	Remote-controlled service function		ALL	2 <0-2>	SYS	0: Valid (Remote-controlled server) 1: Valid (L2) 2: Invalid	1
703	Maintenance	Remote-controlled service HTTP server URL setting		ALL	-	SYS	Maximum 256 Bytes	11
704-0	User interface	Interruption of stapling operation (no staple)	Copying	ALL	1 <0-1>	SYS	0: Continues printing by switching sort setting 1: Interrupts printing	4
704-1			Printing / BOX printing	ALL	0 <0-1>	SYS	0: Continues printing by switching sort setting 1: Interrupts printing	4

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
707	Maintenance	Remote-controlled service HTTP initially-registered server URL setting	ALL	https://device.mfp-support.com:443/device/firstregist.ashx	SYS	Maximum 256 Bytes	11
710	Maintenance	Short time interval setting of recovery from Emergency Mode	ALL	24 <1-48>	SYS	Sets the time interval to recover from the Emergency Mode to the Normal Mode. (Unit: Hour)	1
711	Maintenance	Short time interval setting of Emergency Mode	ALL	60 <30-360>	SYS	Unit: Minute	1
715	Maintenance	Remote-controlled service periodical polling timing (Hour/Hour/Minute/Minute)	ALL	1500	SYS	0 (0:00) to 2359 (23:59)	1
716	Maintenance	Remote-controlled service Writing data of self-diagnostic code	ALL	0 <0-1>	SYS	0: Prohibited 1: Accepted	1
717	Maintenance	Remote-controlled service response waiting time (Timeout)	ALL	3 <1-30>	SYS	Unit: Minute	1
718	Maintenance	Remote-controlled service initial registration	ALL	0 <0-3>	SYS	0: OFF 1: Start 2: Only certification is scanned 3: Satellite communication starts	1
719	Maintenance	Remote-controlled service tentative password	ALL	-	SYS	Maximum 10 letters	11
720	Maintenance	Status of remote-controlled service initial registration (Display only)	ALL	0 <0-1>	SYS	0: Not registered 1: Registered	2
721	Maintenance	Service center call function	ALL	2 <0-2>	SYS	0: OFF 1: Notifies all service calls 2: Notifies all but paper jams	1
723	Maintenance	Service center call HTTP server URL setting	ALL	-	SYS	Maximum 256 letters	11
726	Maintenance	HTTP proxy setting	ALL	1 <0-1>	SYS	0: Valid 1: Invalid	1
727	Maintenance	HTTP proxy IP address setting	ALL	-	SYS	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	11
728	Maintenance	HTTP proxy port number setting	ALL	0 <0-65535>	SYS		1
729	Maintenance	HTTP proxy ID setting	ALL	-	SYS	Maximum 30 letters	11

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
730	Maintenance	HTTP proxy password setting	ALL	-	SYS	Maximum 30 letters	11
731	Maintenance	HTTP proxy panel display	ALL	1 <0-1>	SYS	0: Valid 1: Invalid	1
732	Maintenance	Automatic ordering function of supplies	ALL	3 <0-3>	SYS	0: Ordered by FAX 1: Ordered by E-mail 2: Ordered by HTTP 3: OFF	1
733	Maintenance	Automatic ordering function of supplies FAX number	ALL	-	SYS	Maximum 32 digits Enter hyphen with the [Pause] button	11
734	Maintenance	Automatic ordering function of supplies E-mail address	ALL	-	SYS	Maximum 192 letters List: 256 digits	11
738	Maintenance (Remote)	Automatic ordering function of supplies User's name	ALL	-	SYS	Maximum 50 letters	11
739	Maintenance (Remote)	Automatic ordering function of supplies User's telephone number	ALL	-	SYS	Maximum 32 digits Enter hyphen with the [Pause] button	11
740	Maintenance (Remote)	Automatic ordering function of supplies User's E-mail address	ALL	-	SYS	Maximum 192 letters List: 256 digits	11
741	Maintenance (Remote)	Automatic ordering function of supplies User's address	ALL	-	SYS	Maximum 100 letters	11
742	Maintenance (Remote)	Automatic ordering function of supplies Service number	ALL	-	SYS	Maximum 5 digits	11
743	Maintenance (Remote)	Automatic ordering function of supplies Service technician's name	ALL	-	SYS	Maximum 50 letters	11
744	Maintenance (Remote)	Automatic ordering function of supplies Service technician's telephone number	ALL	-	SYS	Maximum 32 digits Enter hyphen with the [Pause] button	11
745	Maintenance (Remote)	Automatic ordering function of supplies Service technician's E-mail address	ALL	-	SYS	Maximum 192 letters List: 256 digits	11
746	Maintenance (Remote)	Automatic ordering function of supplies Supplier's name	ALL	-	SYS	Maximum 50 letters	11
747	Maintenance (Remote)	Automatic ordering function of supplies Supplier's address	ALL	-	SYS	Maximum 100 letters	11
748	Maintenance (Remote)	Automatic ordering function of supplies Notes	ALL	-	SYS	Maximum 128 letters	11
758	Maintenance (Remote)	Information about supplies Part number of toner cartridge	ALL	-	SYS	Maximum 20 digits	11
759	Maintenance (Remote)	Information about supplies Order quantity of toner cartridge	ALL	1 <1-99>	SYS		1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
760	Maintenance (Remote)	Information about supplies Condition number of toner cartridge	ALL	1 <1-99>	SYS		1
761	Maintenance (Remote)	Information about supplies Part number of waste toner box	ALL	-	SYS	Maximum 20 digits	11
762	Maintenance (Remote)	Information about supplies Order quantity of waste toner box	ALL	1 <1-99>	SYS		1
763	Maintenance (Remote)	Information about supplies Condition number of waste toner box	ALL	1 <1-99>	SYS		1
765	Maintenance (Remote)	Automatic ordering supplies Display	ALL	EUR: 2 UC: 0 JPN: 2 <0-2>	SYS	0: Valid (FAX/Internet FAX) 1: Valid (FAX/Internet FAX/HTTP) 2: Invalid	1
767	Maintenance (Remote)	Service Notification setting	ALL	0 <0-2>	SYS	Enables to set up to 3 E-mail addresses to be sent.(08-768, 777, 778) 0: Invalid 1: Valid (E-mail) 2: Valid (FAX)	1
768	Maintenance (Remote)	Destination E-mail address 1	ALL	-	SYS	Maximum 192 letters	11
769	Maintenance (Remote)	Total counter information transmission setting	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
770	Maintenance (Remote)	Total counter transmission date setting	ALL	0 <0-31>	SYS	0 to 31	1
771	Maintenance (Remote)	PM counter notification setting	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
772	Maintenance	Dealer's name	ALL	-	SYS	Maximum 100 letters Needed at initial registration	11
773	Maintenance	Login name	ALL	-	SYS	Maximum 20 letters Needed at initial registration	11
774	Maintenance (Remote)	Display setting of [Service Notification] button	ALL	NAD:1 MJD:1 Other:0 <0-1>	SYS	0: Not displayed 1: displayed	1
775	Maintenance (Remote)	Sending error history of equipment	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
776	Maintenance (Remote)	Setting total counter transmission interval	ALL	-	SYS	(Hour/Hour/Minute/Minute)	1
777	Maintenance (Remote)	Destination E-mail address 2	ALL	-	SYS	Maximum 192 letters	11
778	Maintenance (Remote)	Destination E-mail address 3	ALL	-	SYS	Maximum 192 letters	11

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
780	Maintenance	Remote-controlled service polling day selection Day-1	ALL	0 <0-31>	SYS	0: OFF 1 to 31: 1st to 31st of a month	1
781	Maintenance	Remote-controlled service polling day selection Day-2	ALL	0 <0-31>	SYS	0: OFF 1 to 31: 1st to 31st of a month	1
782	Maintenance	Remote-controlled service polling day selection Day-3	ALL	0 <0-31>	SYS	0: OFF 1 to 31: 1st to 31st of a month	1
783	Maintenance	Remote-controlled service polling day selection Day-4	ALL	0 <0-31>	SYS	0: OFF 1 to 31: 1st to 31st of a month	1
784	Maintenance	Remote-controlled service polling day selection Sunday	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
785	Maintenance	Remote-controlled service polling day selection Monday	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
786	Maintenance	Remote-controlled service polling day selection Tuesday	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
787	Maintenance	Remote-controlled service polling day selection Wednesday	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
788	Maintenance	Remote-controlled service polling day selection Thursday	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
789	Maintenance	Remote-controlled service polling day selection Friday	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
790	Maintenance	Remote-controlled service polling day selection Saturday	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
794	Maintenance	Information of supplies setting of toner cartridge K	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
795	Maintenance	Information of supplies setting of waste toner box	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
796	Maintenance	Remote-controlled service lengthened interval polling (End of month)	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
798	General	Notifying address of trial period end		PRT/ SCN	3 <0-3>	SYS	Sets where the end of the trial period is to be notified. 0: OFF 1: User 2: Service center 3: User and service center	1
799	General	Forcible end of trial period		PRT/ SCN	-	SYS	[CANCEL]: Cancel [EXECUTION]: Forcible end When the "Forcible end of trial period" is performed, "0" is set in the code (08-673) to end up the trial period forcibly.	3
800-0	Fuser	Temperature control lower limit (OHP film)	Center thermistor	ALL	e-STUDIO205L/255/305: 8 e-STUDIO355/455: 11 <0-12>	M	0: 130°C 1: 135°C 2: 140°C 3: 145°C 4: 150°C 5: 155°C 6: 160°C 7: 165°C 8: 170°C 9: 175°C 10: 180°C 11: 185°C 12: 120°C	4
800-1			Side thermistor	ALL	e-STUDIO205L/255/305: 6 e-STUDIO355/455: 7 <0-12>	M		4
801-0	Fuser	Temperature control lower limit (Thick paper 1)	Center thermistor	ALL	e-STUDIO205L/255/305: 8 e-STUDIO355/455: 10 <0-12>	M	0: 130°C 1: 135°C 2: 140°C 3: 145°C 4: 150°C 5: 155°C 6: 160°C 7: 165°C 8: 170°C 9: 175°C 10: 180°C 11: 185°C 12: 120°C	4
801-1			Side thermistor	ALL	6 <0-12>	M		4

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
802-0	Fuser	Temperature control lower limit (Thick paper 2)	Center thermistor	ALL	e-STUDIO205L/255/305: 9 e-STUDIO355/455: 11 <0-12>	M	0: 130°C 1: 135°C 2: 140°C 3: 145°C 4: 150°C 5: 155°C 6: 160°C 7: 165°C 8: 170°C 9: 175°C 10: 180°C 11: 185°C 12: 120°C	4
802-1			Side thermistor	ALL	e-STUDIO205L/255/305: 9 e-STUDIO355/455: 7 <0-12>	M		4
803-0	Fuser	Temperature control lower limit (Thick paper 3)	Center thermistor	ALL	e-STUDIO205L/255/305: 10 e-STUDIO355/455: 11 <0-12>	M	0: 130°C 1: 135°C 2: 140°C 3: 145°C 4: 150°C 5: 155°C 6: 160°C 7: 165°C 8: 170°C 9: 175°C 10: 180°C 11: 185°C 12: 120°C	4
803-1			Side thermistor	ALL	e-STUDIO205L/255/305: 10 e-STUDIO355/455: 7 <0-12>	M		4
804-0	Fuser	Temperature control lower limit (Envelope)	Center thermistor	ALL	e-STUDIO205L/255/305: 10 e-STUDIO355/455: 11 <0-12>	M	0: 130°C 1: 135°C 2: 140°C 3: 145°C 4: 150°C 5: 155°C 6: 160°C 7: 165°C 8: 170°C 9: 175°C 10: 180°C 11: 185°C 12: 120°C	4
804-1			Side thermistor	ALL	e-STUDIO205L/255/305: 10 e-STUDIO355/455: 7 <0-12>	M		4

Setting mode (08)

Code	Classification	Items	Function	Default <Acceptable value>	Board	Contents	Procedure
805	Charger	Main charger bias correction (Text/Photo/OHP film)	PRT	98 <0-255>	M	Corrects the value of the main charger bias adjustment (05-210).	1
807	Charger	Main charger bias correction (Text/Photo/OHP film)	PPC	98 <0-255>	M		1
808	Charger	Main charger bias correction (Text/OHP film)	PPC	98 <0-255>	M		1
809	Charger	Main charger bias correction (Photo/OHP film)	PPC	98 <0-255>	M		1
830	Transfer	Transfer transformer DC correction (C)	ALL	128 <0-255>	M	Corrects the value of the transfer transformer DC output adjustment (05-221).	1
831	Separation	Separation transformer DC correction (C)	ALL	e-STUDIO205L/255/305: 118 e-STUDIO355/455: 121 <0-255>	M	Corrects the value of the separation transformer DC output adjustment (05-234).	1
833	Developer	Developer bias Hi1 correction (Text/Photo/OHP film)	PRT	108 <0-255>	M	Corrects the value of the developer bias adjustment (05-205).	1
835	Developer	Developer bias Hi1 correction (Text/Photo/OHP film)	PPC	108 <0-255>	M		1
836	Developer	Developer bias Hi1 correction (Text/OHP film)	PPC	108 <0-255>	M		1
837	Developer	Developer bias Hi1 correction (Photo/OHP film)	PPC	108 <0-255>	M		1
838	Image processing	Switching of recycled toner saving control	ALL	0 <0-1>	M	0: Switched 1: Not switched	1
839	Image processing	Correction by temperature/humidity	ALL	0 <0-3>	M	Sets the correction by temperature/humidity. 0: All valid 1: All invalid 2: Valid only in auto-toner sensor 3: All valid except transfer and separation	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
849	Paper feeding	Switching of paper pushing amount/lower drawer	ALL	0 <0-1>	M	Switches pushing process by the transport roller when paper loaded from the lower drawer starts to be transported from the registration section. 0: The paper is pushed until its trailing edge reaches the position where the 2nd transport sensor is turned OFF. 1: If the length of the paper is more than 297 mm, it is pushed by the transport roller for a specified time.	1
857	Developer	Developer bias Hi1 correction (FAX)	FAX	128 <0-255>	M	Corrects the value of the developer bias adjustment (05-205).	1
860	Developer	Developer bias Hi1 correction (Normal)	PRT	128 <0-255>	M	Corrects the value of the developer bias adjustment (05-205).	1
861	Developer	Developer bias Hi1 correction (Text/Photo)	PPC	128 <0-255>	M	Corrects the value of the developer bias adjustment (05-205).	1
862	Developer	Developer bias Hi1 correction (Text)	PPC	128 <0-255>	M	Corrects the value of the developer bias adjustment (05-205).	1
863	Developer	Developer bias Hi1 correction (Photo)	PPC	128 <0-255>	M	Corrects the value of the developer bias adjustment (05-205).	1
864	Charger	Main charger bias correction (Normal)	PRT	128 <0-255>	M	Corrects the value of the main charger bias adjustment (05-210).	1
865	Charger	Main charger bias correction (Text/Photo)	PPC	128 <0-255>	M	Corrects the value of the main charger bias adjustment (05-210).	1
866	Charger	Main charger bias correction (Text)	PPC	128 <0-255>	M	Corrects the value of the main charger bias adjustment (05-210).	1
867	Charger	Main charger bias correction (Photo)	PPC	128 <0-255>	M	Corrects the value of the main charger bias adjustment (05-210).	1
868	Transfer	Transfer transformer DC correction (H)	ALL	128 <0-255>	M	Corrects the value of the transfer transformer DC output adjustment (05-221).	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
869	Transfer	Transfer transformer DC correction (L)	ALL	e-STUDIO205L/255/305: 112 e-STUDIO355/455: 108 <0-255>	M	Corrects the value of the transfer transformer DC output adjustment (05-221).	1
870	Separation	Separation transformer DC correction (H)	ALL	128 <0-255>	M	Corrects the value of the separation transformer DC output adjustment (05-234).	1
871	Separation	Separation transformer DC correction (L)	ALL	e-STUDIO205L/255/305: 118 e-STUDIO355/455: 121 <0-255>	M	Corrects the value of the separation transformer DC output adjustment (05-234).	1
872	Laser	Laser power correction (Normal)	PRT	128 <0-255>	M	Corrects the value of the laser power adjustment (05-286).	1
873	Laser	Laser power correction (Text/Photo)	PPC	128 <0-255>	M	Corrects the value of the laser power adjustment (05-286).	1
876	Laser	Laser power correction (Text)	PPC	128 <0-255>	M	Corrects the value of the laser power adjustment (05-286).	1
877	Laser	Laser power correction (Photo)	PPC	128 <0-255>	M	Corrects the value of the laser power adjustment (05-286).	1
884	Laser	Laser power correction (FAX)	FAX	128 <0-255>	M	Corrects the value of the laser power adjustment (05-286).	1
886	Fuser	Temperature drop control setting in ready status (Temperature/ Time)	ALL	e-STUDIO205L/255/305: 2 e-STUDIO355/455: 20 <0-20>	M	0: None 1: Pattern 1 2: Pattern 2 3: Pattern 3 4: Pattern 4 5: Pattern 5 6: Pattern 6 7: Pattern 7 8: Pattern 8 9: Pattern 9 10: Pattern 10 11: Pattern 11 12: Pattern 12 13: Pattern 13 14: Pattern 14 15: Pattern 15 16: Pattern 16 17: Pattern 17 18: Pattern 18 19: Pattern 19 20: Manual adjustment	1

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
896-0	Fuser	Temperature control lower limit (Plain paper/ Low temperature)	Center thermistor	ALL	e-STUDIO205L/255/305: 7 e-STUDIO355/455: 11 <0-12>	M	0: 130°C 1: 135°C 2: 140°C 3: 145°C 4: 150°C 5: 155°C 6: 160°C 7: 165°C 8: 170°C 9: 175°C 10: 180°C 11: 185°C 12: 120°C	4
896-1			Side thermistor	ALL	e-STUDIO205L/255/305: 5 e-STUDIO355/455: 7 <0-12>	M		4
900	Version	System firmware ROM version		ALL	-	-	JPN: TXXXSY0JXXX UC: TXXXSY0UXXX EUR: TXXXSY0EXXX Others: TXXXSY0XXXX	2
903	Version	Engine ROM version		ALL	-	-	470M-XXX	2
905	Version	Scanner ROM version		ALL	-	-	470S-XXX	2
907	Version	RADF ROM version		ALL	-	-	DF-XXXX	2
908	Version	Finisher ROM version		ALL	-	-	SDL-XXX FIN-XXX	2
911	Version	Finisher punch ROM version		ALL	-	-	PUN-XXX	2
915	Version	Fax board ROM version		FAX	-	-	F670-XXX	2
920	Version	FROM basic section software version		ALL	-	-	VX.XX/X.XX	2
921	Version	FROM internal program		ALL	-	-	VXXX.XXX X	2
922	Version	UI data fixed section version		ALL	-	-	VXXX.XXX X	2
923	Version	UI data common section version		ALL	-	-	VXXX.XXX X	2
924	Version	Version of UI data language 1 in HDD		ALL	-	-	VXXX.XXX X	2
925	Version	Version of UI data language 2 in HDD		ALL	-	-	VXXX.XXX X	2
926	Version	Version of UI data language 3 in HDD		ALL	-	-	VXXX.XXX X	2
927	Version	Version of UI data language 4 in HDD		ALL	-	-	VXXX.XXX X	2
928	Version	Version of UI data language 5 in HDD		ALL	-	-	VXXX.XXX X	2
929	Version	Version of UI data language 6 in HDD		ALL	-	-	VXXX.XXX X	2
930	Version	Version of UI data in FROM displayed at power-ON		ALL	-	-	VXXX.XXX X	2
931	Version	Version of UI data language 7 in HDD		ALL	-	-	VXXX.XXX X	2
933	Version	Web data whole version		ALL	-	-	VXXX.XXX X	2
934	Version	Web UI data in HDD Version: Language 1		ALL	-	-	VXXX.XXX X	2
935	Version	Web UI data in HDD Version: Language 2		ALL	-	-	VXXX.XXX X	2

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
936	Version	Web UI data in HDD Version: Language 3	ALL	-	-	VXXX.XXX X	2
937	Version	Web UI data in HDD Version: Language 4	ALL	-	-	VXXX.XXX X	2
938	Version	Web UI data in HDD Version: Language 5	ALL	-	-	VXXX.XXX X	2
939	Version	Web UI data in HDD Version: Language 6	ALL	-	-	VXXX.XXX X	2
944	Version	HDD version	ALL	-	-	JPN: T470HD0JXXX UC: T470HD0UXXX EUR: T470HD0EXXX Others: T470HD0XXXX	2
945	Network	Two-way setting of RawPort 9100	ALL	2 <1-2>	UTY	1: Valid 2: Invalid	12
947	General	Initialization after software version upgrade	ALL	-	-	Perform this code when the software in this equipment has been upgraded.	3
949	General	Automatic interruption page setting during printing	ALL	5 <0-100>	SYS	Sets the number of pages to interrupt the printing automatically. If the setting value is one or more, printing is interrupted when the setting value x 10 is reached, then printing is resumed. 0-100: 0 to 100 pages	1
950	Electronic Filing	Start-up method of Electronic Filing	ALL	0 <0-2>	SYS	Sets the start-up method of the Electronic Filing. 0: Standard 1: Forced start-up (Not recovered) 2: Forced start-up (Recovered)	1
953	User interface	Access code entry for Electronic Filing printing	ALL	0 <0-1>	SYS	0: Renewed automatically 1: Enter every time	1
954	User interface	Clearing timing for files and Electronic Filing Agent	ALL	1 <0-1>	SYS	0: Immediately after the completion of scanning 1: Cleared by Auto Clear	1
969	User interface	Error sound	ALL	1 <0-1>	SYS	0: OFF 1: ON	1
970	User interface	Sound setting when switching to Energy Saving Mode	ALL	JPN: 0 Other: 1 <0-1>	SYS	0: OFF 1: ON	1
971	Image processing	Toner near empty threshold setting	ALL	1 <0-3>	SYS	0: Toner near empty threshold value (long) 1: Toner near empty threshold value (standard) 2: Toner near empty threshold value (short) 3: Toner near-empty detection disabled	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
973	Network	PCL line feed code setting	PRT	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	1
975	General	Job handling when printing is short paid with coin controller	ALL	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
976	Electronic Filing	Equipment name and user name setting to a folder when saving files	ALL	0 <0-2>	SYS	Sets whether or not adding the equipment name and user name to the folder when saving files. 0: Not add 1: Add the equipment name 2: Add the user name	1
978	Network	Raw printing job (Paper feeding drawer)	PRT	0 <0-5>	SYS	0: AUTO 1: Upper drawer 2: Lower drawer 3: PFP upper drawer 4: PFP lower drawer 5: LCF	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
979	Network	Raw printing job (PCL symbol set)	PRT	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	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
983	User interface	Default setting of print menu	ALL	0 <0-3>	SYS	0: Private print menu (Job list displayed regardless of log-in user during user authentication) 1: Hold print menu (Job list displayed regardless of log-in user during user authentication) 2: Private print menu (User list displayed when a user is logged in as a guest during user authentication) 3: Hold print menu (User list displayed when a user is logged in as a guest during user authentication)	1
986	General	Copy function setting	PPC	0 <0-1>	SYS	Sets the copy function to be invalid. 0: Valid 1: Invalid	1
988	Paper feeding	Setting of paper size switching to 13” LG	ALL	0 <0-2>	SYS	0: Not switched 1: LG → 13”LG 2: FOLIO → 13”LG	1
995	Version	Equipment number (serial number) display	ALL	0 <10 digits>	SYS	This code can be also keyed in from the adjustment mode (05-976). 10 digits	11
999	Maintenance	FSMS total counter	ALL	0 <8 digits>	SYS	Refers to values of total counter	1
1002	Network	Selection of NIC board status information	ALL	1 <1-2>	NIC	1: Not printed out when the equipment is restarted 2: Printed out when the equipment is restarted	12
1003	Network	Communication speed and settings of Ethernet	ALL	1 <1-5>	NIC	1: Auto 2: 10MBPS Half Duplex 3: 10MBPS Full Duplex 4: 100MBPS Half Duplex 5: 100MBPS Full Duplex	12
1006	Network	Method for acquiring IP address	ALL	1 <1-3>	NIC	1: Static IP address 2: Dynamic IP address (DHCP) 3: Dynamic IP address (DHCP) without AutoIP	12
1007	Network	Domain name	ALL	-	NIC	Maximum 96 letters	12
1008	Network	IP address	ALL	-	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1009	Network	Subnet mask	ALL	-	NIC	000.000.000.000- 255.255.255.255 (Default value 000.000.000.000)	12
1010	Network	Gateway	ALL	-	NIC	000.000.000.000- 255.255.255.255 (Default value 000.000.000.000)	12
1011	Network	Availability of IPX	ALL	2 <1-2>	NIC	1: Available 2: Not available	12
1012	Network	Network frame type	ALL	1 <1-5>	NIC	1: Automatic 2: IEEE802.3 3: Ethernet II 4: IEEE802.3SNAP 5: IEEE802.2	12
1014	Network	Availability of AppleTalk	ALL	2 <1-2>	NIC	1: Available 2: Not available	12
1015	Network	Zone setting of AppleTalk	ALL	*	NIC	Maximum 32 letters *: Wildcard character	12
1016	Network	Availability of LDAP	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1017	Network	Availability of DNS	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1018	Network	IP address of DNS server (Primary)	ALL	-	NIC	000.000.000.000- 255.255.255.255 (Default value 000.000.000.000)	12
1019	Network	IP address of DNS server (Secondary)	ALL	-	NIC	000.000.000.000- 255.255.255.255 (Default value 000.000.000.000)	12
1020	Network	DDNS Desired level	ALL	3 <1-5>	NIC	1: Invalid 2: Via DHCP 3: Insecure DDNS 4: Secure DDNS 5: Multi-secure DDNS	12
1021	Network	Availability of SLP	ALL	1 <1-2>	NIC	Sets the availability of SLP on NetWare. 1: Enabled 2: Disabled	12
1022	Network	From Name Creation setting in SMTP authentication	ALL	0 <0-2>	SYS	0: Not edited 1: Account name of From Address +Device name 2: LDAP searching	1
1023	Network	NetBios name	ALL	MFP_ serial	UTY	Maximum 15 letters The Network-related serial number of the equipment appears on “serial“	12
1024	Network	Name of WINS server or IP address (Primary)	ALL	-	UTY	000.000.000.000- 255.255.255.255 (Default value 000.000.000.000)	12
1025	Network	Name of WINS server or IP address (Secondary)	ALL	-	UTY	000.000.000.000- 255.255.255.255 (Default value 000.000.000.000)	12
1026	Network	Availability of Bindery	ALL	1 <1-2>	NIC	1: Available 2: Not available	12

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	Board	Contents	Procedure
1027	Network	Availability of NDS	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1028	Network	Directory service context	ALL	-	NIC	Maximum 127 letters	12
1029	Network	Directory service tree	ALL	-	NIC	Maximum 47 letters	12
1030	Network	Availability of HTTP server	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1031	Network	Port number to NIC HTTP server	ALL	80 <1-65535>	NIC		12
1032	Network	Port number to system HTTP server	ALL	8080 <1-65535>	NIC		1
1037	Network	Availability of SMTP client	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1038	Network	FQDN or IP address of SMTP server	ALL	-	NIC	Maximum 128 Bytes	12
1039	Network	TCP port number of SMTP client	ALL	25 <1-65535>	NIC		12
1040	Network	Availability of SMTP server	ALL	1 <1-2>	UTY	1: Available 2: Not available	12
1041	Network	TCP port number of SMTP server	ALL	25 <1-65535>	UTY		12
1042	Network	E-mail box name to SMTP server	ALL	-	UTY	Maximum 192 letters	12
1043	Network	Availability of Offramp	ALL	2 <1-2>	UTY	1: Available 2: Not available	12
1044	Network	Offramp security	ALL	1 <1-2>	UTY	1: Available 2: Not available	12
1045	Network	Printing at Offramp	ALL	1 <1-2>	UTY	1: Available 2: Not available	12
1046	Network	Availability of POP3 clients	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1047	Network	FQDN or IP address of POP3 server	ALL	-	NIC	Maximum 128 Bytes	12
1048	Network	Types of POP3 server	ALL	1 <1-3>	NIC	1: Automatic 2: POP3 3: APOP	12
1049	Network	Login name to POP3 server	ALL	-	NIC	Maximum 96 letters	12
1050	Network	Login password to POP3	ALL	-	NIC	Maximum 96 letters	12
1051	Network	E-mail reception interval	ALL	0 <0-4096>	NIC	Unit: Minute	12
1052	Network	TCP port number of POP3 client	ALL	110 <1-65535>	NIC		12
1055	Network	TCP port number of FTP client	ALL	21 <1-65535>	UTY		12
1059	Network	Availability of FTP server	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1060	Network	TCP port number of FTP server	ALL	21 <1-65535>	NIC		12
1063	Network	MIB function	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1065	Network	Setting of readCommunity	ALL	public	NIC	Maximum 31 letters	12
1066	Network	Setting of readWriteCommunity	ALL	private	NIC	Maximum 31 letters	12
1069	Network	TRAP destination IP address	ALL	-	UTY	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1070	Network	Community setting of TRAP (via IP)	ALL	public	NIC	Maximum 31 letters	12
1073	Network	Availability of Raw/TCP	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1074	Network	TCP port number of Raw	ALL	9100 <1-65535>	NIC		12
1075	Network	Availability of LPD client	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1076	Network	TCP port number of LPD	ALL	515 <1-65535>	NIC		12
1077	Network	LPD queue name	ALL	-	NIC	Maximum 31 letters	12
1078	Network	Availability of IPP	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1079	Network	Availability of IPP port number “80”	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1080	Network	TCP port number of IPP	ALL	631 <1-65535>	NIC		12
1081	Network	IPP printer name	ALL	MFP_ serial	NIC	Maximum 127 letters The Network-related serial number of the equipment appears on “serial“	12
1082	Network	IPP printer location	ALL	-	NIC	Maximum 127 letters	12
1083	Network	IPP printer information	ALL	-	NIC	Maximum 127 letters	12
1084	Network	IPP printer information (more)	ALL	http://www.e-studioseries.com	NIC	Maximum 127 letters	12
1085	Network	Installer of IPP printer driver	ALL	http://www.e-studioseries.com	NIC	Maximum 127 letters	12
1086	Network	IPP printer “Make and Model”	ALL	-	NIC	Maximum 127 letters	12
1087	Network	IPP printer information (more) MFGR	ALL	-	NIC	Maximum 127 letters	12
1088	Network	IPP message from operator	ALL	-	NIC	Maximum 127 letters	12
1089	Network	Availability of FTP print	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1090	Network	Printer user name of FTP	ALL	print	NIC	Maximum 31 letters	12
1091	Network	Print user password of FTP	ALL	-	NIC	Maximum 31 letters	12
1092	Network	TCP port number of FTP print server	ALL	21 <1-65535>	NIC		12
1093	Network	Login name to Novell print server	ALL	MFP_ serial	NIC	Maximum 47 letters The Network-related serial number of the equipment appears at “serial“	12
1094	Network	Login password to Novell print server	ALL	-	NIC	Maximum 31 letters	12
1095	Network	Name of SearchRoot server	ALL	-	NIC	Maximum 31 letters	12
1096	Network	Scan rate setting of print queue	ALL	5 <1-255>	NIC	Unit: Second	12
1097	Network	Page number limitation for printing text of received E-mail	ALL	5 <1-99>	UTY		12
1098	Network	MDN return mail setting when receiving E-mail	ALL	2 <1-2>	UTY	1: Valid 2: Invalid	12

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1099	Network	Trap destination of IPX	ALL	-	UTY	Maximum 24 letters (Valid from 0 to 9 and from A to F)	12
1100	Network	Method of SMTP server authentication	ALL	5 <1-7,10>	NIC	1: Disable 2: Plain 3: Login 4: Cram-MD5 5: Digest MD5 6: Kerberos 7: NTLM 10: Auto	12
1101	Network	Login name for SMTP server authentication	ALL	-	NIC	Maximum 64 letters	12
1102	Network	Login password for SMTP server authentication	ALL	-	NIC	Maximum 64 letters	12
1103	Network	Rendezvous setting	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1104	Network	Link local host name	ALL	MFP_ serial	NIC	Maximum 127 letters The Network-related serial number of the equipment appears on “serial“	12
1105	Network	Service name setting	ALL	TOSHIBA e-STUDIOXXXX_serial	NIC	Maximum 63 letters The Network-related serial number of the equipment appears at “serial“	12
1111	Network	POP Before SMTP setting	ALL	2 <1-2>	NIC	1: Valid 2: Invalid	12
1112	Network	Host name	ALL	MFP_serial	NIC	Maximum 63 letters The Network-related serial number of the equipment appears on “serial“	12
1113	Network	Windows domain No.1 of user authentication	ALL	-	UTY	Maximum 128 letters	12
1114	Network	Sending mail text of InternetFAX	ALL	1 <0-1>	SYS	0: Invalid (Not sending the mail text) 1: Valid (Sending the mail text)	1
1117	Network	SMB time-out period	ALL	60 <1-9999>	SYS	Unit: Second	1
1118	General	Clearing of TAT partition	ALL	-	-		3
1119	Network	Initialization of NIC information	ALL	-	-	Initializes only the information of the Network setting items.	3
1121	Network	PDC (Primary Domain Controller) name	ALL	-	UTY	Maximum 128 letters	12
1122	Network	BDC (Backup Domain Controller) name	ALL	-	UTY	Maximum 128 letters	12
1123	Network	NT domain ON/OFF setting	ALL	4 <3-4>	UTY	3: ON (Domain selected) 4: OFF (Work group selected)	12
1124	Network	Workgroup name	ALL	workgroup	UTY	Maximum 15 letters	12
1125	General	Data writing of address book data import (overwriting method)	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1126	Counter	Validity of interrupt copying when external counters are installed	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
1130	User interface	Job Build Function	ALL	1 <0-1>	SYS	Sets the Job Build Function. 0: Invalid 1: Valid	1
1131	User interface	Maximum number of time job build performed	ALL	1000 <5-2000>	SYS	Sets the maximum number of time a job build has been performed. 5-2000: 5 to 2000 times	1
1133	Paper feeding	Feeding direction setting of envelope	ALL	0 <0-1>	SYS	Sets the feeding direction of envelopes. 0: Envelope flap comes on its trailing edge (front side of the equipment) 1: Envelope flap comes on its leading edge (rear side of the equipment)	1
1135	Paper feeding	Default setting of drawers (Printer/BOX)	PRT	1 <1-5>	SYS	1: LCF 2: Upper drawer 3: Lower drawer 4: PFP upper drawer 5: PFP lower drawer	1
1138	Network	LDAP search method setting	ALL	0 <0-3>	SYS	Sets the search method when performing a LDAP search. 0: Partial match 1: Prefix match 2: Suffix match 3: Full match	1
1140	User interface	Restriction of the template function with the administrator privilege	ALL	0 <0-1>	SYS	Selects the restriction of the template function usage setting. 0: No restriction 1: Only available with the administrator privilege.	1
1141	Network	Display of MAC address	ALL	-	SYS	(**:**:**:**:**:**) The address is displayed as above (6-byte data is divided by a colon at every 1 byte).	2
1145	Maintenance (Remote)	Counter notification Remote FAX setting	ALL	-	SYS	Maximum 32 digits Enter hyphen with the [PAUSE] button.	11
1149	General	Enhanced bold for PCL6	ALL	0 <0-1>	SYS	0:OFF 1:ON	1
1372	Counter	Heater and energizing time accumulating counter Display/0 clearing	ALL	0 <8 digits>	M	Counts up the heater control time accumulated (when power of the equipment is ON) but does not count at the Sleep Mode. When the counter value of the fuser roller is cleared, this counter value is also cleared in sync at the PM support mode.	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	Board	Contents	Procedure
1378	Counter	Counter for period of time fuser unit is at ready temperature	ALL	0 <8 digits>	M	Counts up the heater control time accumulated (when the equipment is at ready status). When the counter value of the fuser roller is reset, this counter is also reset in sync at the PM support mode.	1
1380	Counter	Counter for period of time fuser unit is at printing temperature	ALL	0 <8 digits>	M	Counts up the heater control time accumulated (during printing). When the counter value of the fuser roller is reset, this counter is also reset in sync at the PM support mode.	1
1382	Counter	Counter for period of time fuser unit is at energy saving temperature/Counter reset	ALL	0 <8 digits>	M	Counts up the heater control time accumulated (when the equipment is in the Energy Saving Mode). When the counter value of the fuser roller is reset, this counter is also reset in sync at the PM support mode.	1
1385	Image processing	Number of output pages (Thick paper 1)	ALL	0 <8 digits>	M	Counts up when the registration sensor is ON. When the counter value of the fuser roller is cleared, this counter value is also cleared in sync at the PM support mode.	1
1386	Image processing	Number of output pages (Thick paper 2)	ALL	0 <8 digits>	M	Counts up when the registration sensor is ON. When the counter value of the fuser roller is cleared, this counter value is also cleared in sync at PM support mode.	1
1387	Image processing	Number of output pages (Thick paper 3)	ALL	0 <8 digits>	M	Counts up when the registration sensor is ON. When the counter value of the fuser roller is cleared, this counter value is also cleared in sync at PM support mode.	1
1388	Image processing	Number of output pages (OHP film)	ALL	0 <8 digits>	M	Counts up when the registration sensor is ON. When the counter value of the fuser roller is cleared, this counter value is also cleared in sync at PM support mode.	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1390	Paper feeding	Feeding retry counter (upper drawer)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the upper drawer.	1
1391	Paper feeding	Feeding retry counter (lower drawer)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the lower drawer.	1
1392	Paper feeding	Feeding retry counter (PFP upper drawer)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the PFP upper drawer.	1
1393	Paper feeding	Feeding retry counter (PFP lower drawer)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the PFP lower drawer.	1
1394	Paper feeding	Feeding retry counter (bypass feed)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the bypass tray.	1
1395	Paper feeding	Feeding retry counter (LCF)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the LCF.	1
1396	Paper feeding	Feeding retry counter upper limit value (Upper drawer)	ALL	0 <8 digits>	M	When the number of feeding retry (08-1390 to 08-1395) 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.	1
1397	Paper feeding	Feeding retry counter upper limit value (Lower drawer)	ALL	0 <8 digits>	M		1
1398	Paper feeding	Feeding retry counter upper limit value (PFP upper drawer)	ALL	0 <8 digits>	M		1
1399	Paper feeding	Feeding retry counter upper limit value (PFP lower drawer)	ALL	0 <8 digits>	M		1
1400	Paper feeding	Feeding retry counter upper limit value (Bypass feed)	ALL	0 <8 digits>	M		1
1401	Paper feeding	Feeding retry counter upper limit value (Tandem LCF)	ALL	0 <8 digits>	M		1
1410	Counter	Counter for toner cartridge rotation time	ALL	0 <8 digits>	M	Counts up the period of rotation time of the toner cartridge. The counter value is based on the data of toner cartridge.	1
1411	Counter	Counter for envelope	ALL	0 <8 digits>	M	Counts up when the registration sensor is ON. When the counter value of the fuser roller is reset, this counter is reset in sync at the PM support mode.	1
1412	Counter	Counter for tab paper	ALL	0 <8 digits>	M	Counts up when the registration sensor is ON in the tab paper mode.	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1422	Data overwrite option	HDD data overwriting type setting	ALL	0 <0-2>	SYS	Select the type of the overwriting level; LOW, MEDIUM, or HIGH for deleting HDD data. (This setting is enabled only when the GP-1070 is installed.) 0: LOW 1: MEDIUM 2: HIGH	1
1424	Data overwrite option	HDD data clearing type setting (forcible clearing)	ALL	0 <0-2>	SYS	Select the type of the overwriting level; LOW, MEDIUM, or HIGH for deleting HDD data. (This setting is enabled only when the GP-1070 is installed.) 0: LOW 1: MEDIUM 2: HIGH	1
1426	Data overwrite option	Forcible HDD data clearing	ALL	-	-	HDD data is cleared in the procedure set in 08-1424.	3
1428	Data overwrite option	Forcible SRAM backup data all clearing	ALL	-	-	When this code is performed, the equipment cannot be started up. * This setting is enabled only when the GP-1070 is installed.	3
1429	User interface	Margin width (Top/Bottom, Left/Right)	ALL	Front: 7/ Back: 7 <2-100/-100-100>	SYS	This setting is not reflected in "Right", even if the value less than 2 is set for "Back".	10
1430	User interface	Margin width (Bookbinding margin)	ALL	14 <2-30>	SYS		1
1431	Network	ACC (AT_CASETTE_CHANGE) for Printer/Box printing	ALL	1 <0-2>	SYS	If a value is set in 08-8591, "1" acts as a setting value of this code. If the value "1" is set in 08-8591, only the values "1" and "2" are available in this code. 0: Prohibited 1: Only in the same paper direction 2: In both same direction and different directions	1
1432	Network	Mode only for Private Print	ALL	0 <0-3>	SYS	0: Normal mode 1: Mode for Private Print 2: Mode for Hold Print 3: Mode for Private/ Hold Print	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1435	Network	"Disable private and proof print save" function	ALL	0 <0-1>	SYS	0: Function OFF (no restriction on data saving or other operations) 1: Function ON (Data saving or other operations are restricted)	1
1436	Network	"Disable fax save" function	ALL	0 <0-1>	SYS	0: Function OFF (no restriction on data saving or other operations) 1: Function ON (Data saving or other operations are restricted	1
1437	Paper feeding	Hole punch on tab paper	ALL	0 <0-1>	SYS	0: No hole punch 1: Hole punch	1
1438	Paper feeding	Automatic feed setting of tab paper and insertion sheet (Remote)	ALL	1 <0-1>	SYS	0: Disabled 1: Enabled	1
1440	Network	IP Conflict Detect	ALL	1 <1-2>	-	OFF/ON 1: Valid 2: Invalid	12
1441	Network	SNTP Enable	ALL	2 <1-2>	-	OFF/ON 1: Valid 2: Invalid	12
1442	Network	SNTP Polling rate	ALL	24 <1-168>	-	Data obtaining interval (Unit: Hour)	12
1444	Network	Primary SNTP Address	ALL	-	-	SNTP server IP Address (Primary)	12
1445	Network	Secondary SNTP Address	ALL	-	-	SNTP server IP Address (Secondary)	12
1446	Network	Port number of SNTP	ALL	123 <1-65535>	-		12
1447	Network	IPP administrator name	ALL	-	-	This should be an account which can control all IPP jobs.	12
1448	Network	IPP administrator password	ALL	-	-	This should be the password of an account which can control all IPP jobs.	12
1449	Network	IPP authentication method	ALL	1 <1-2>	-	1: Disabled 2: Basic	12
1450	Network	User name for IPP authentication	ALL	-	-	This should be the account at the time IPP authentication was performed.	12
1451	Network	Password for IPP authentication	ALL	-	-	This should be the password of the account at the time IPP authentication was performed.	12
1470	General	Device authentication function setting	ALL	0 <0-1>	SYS	0: OFF 1: ON	1
1471	General	User authentication method	ALL	0 <0-2>	SYS	0: Local 1: NTLM (NT Domain) 2: LDAP	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1472	General	User data management automatic registration function setting	ALL	0 <0-1>	SYS	0: Disabled 1: Enabled	1
1473	General	User data management limitation setting	ALL	0 <0-1>	SYS	0: Disabled 1: Enabled	1
1474	General	User data management limitation Setting by number of printouts	ALL	0 <7 digits>	SYS	0-9,999,999: 0-9,999,999 sheets	1
1476	Network	Restriction on Address book operation by administrator	ALL	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
1477	Network	Restriction on "To" ("cc") address	ALL	0 <0-4>	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 4: Can be set only from authenticated LDAP server * Can be used when user authentication or Email authentication is enabled.	1
1478	User interface	Display of paper size setting by installation operation of drawers	ALL	JPN/ MJD: 0 Other: 1 <0-1>	SYS	0: Not displayed 1: Displayed	1
1481	General	User data management clearing	ALL	-	-	All the user data in the database and backup files can be deleted.	3
1482	General	User data department management	ALL	0 <0-1>	SYS	0: Invalid 1: Valid * When this code is set to “1” (Valid), the department management setting (08-629) should be “1” (Valid).	1
1483	General	User data recovery	ALL	-	-	The data in the database is overwritten with the data in the backup file.	3
1484	Network	Authentication method of "Scan to Email”	ALL	0 <0-2>	SYS	0: Disable 1: SMTP authentication 2: LDAP authentication	1

Setting mode (08)

Code	Classific ation	Items	Functi on	Default <Acceptable value>	Boa rd	Contents	Proce dure
1485	Network	Setting whether use of Internet FAX is permitted or not when it is given an authentication	ALL	0 <0-1>	SYS	0: Not permitted 1: Permitted	1
1487	Network	"From" address assignment method when it is given an authentication	ALL	0 <0-2>	SYS	0: "User name" + @ + "Domain name" 1: LDAP search 2: Use the address registered in "From" field of E-mail setting	1
1489	Network	Setting for "From" address edit at "Scan to Email”	ALL	0 <0-1>	SYS	0: Not permitted 1: Permitted	1
1491	Network	E-mail domain name	ALL	-	SYS	96+2 (delimiter) character ASCII sequence only	11
1492	Paper feeding	Detection method of 13" LG for single-size document	ALL	0 <0-1>	SYS	0: Disabled 1: Enabled	1
1493	Network	Role Base Access Function	ALL	0 <0-1>	SYS	0: Function off (No restriction on data saving and other operations) 1: Function on (Data saving and other operations have some restrictions)	1
1495	Maintena nce	Service call checking period setting	ALL	6 <0-12>	-	0: No checking period specified (= Calls service technician immediately) 0: 10 minutes 1: 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
1496	General	Operation setting for User authentication/ registration	ALL	1 <0-1>	SYS	0 : Disables operation setting for User authentication/ registration 1 : Enables operation setting for User authentication/ registration	1
1497	Network	e-Filing Access Mode (for Client)	ALL	0 <0-2>	SYS	0: Mode 1 1: Mode 2 2: Mode 3	1
1498	FAX	Inbound FAX function (Forwarding by TSI)		1 <0-1>	SYS	0: OFF (Function disabled) 1: ON (Function enabled)	1

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1530-0	Counter	Number of output pages	1-UP / Duplex printing	PPC	0 <8 digits>	SYS	Counts the number of output pages.	4
1530-1			2-UP / Duplex printing	PPC	0 <8 digits>	SYS	Counts the number of output pages using [2IN1] or [MAGAZINE SORT].	4
1530-2			2-UP / Simplex printing	PPC	0 <8 digits>	SYS	Counts the number of sheets using [2IN1] or [MAGAZINE SORT].	4
1530-3			4-UP / Duplex printing	PPC	0 <8 digits>	SYS	Counts the number of output pages using [4IN1].	4
1530-4			4-UP / Simplex printing	PPC	0 <8 digits>	SYS	Counts the number of sheets using [4IN1].	4
1530-7			1-UP / Simplex printing	PPC	0 <8 digits>	SYS	Counts the number of output pages.	4
1533-0	Counter	Number of output pages of the printer or BOX	1-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages.	4
1533-1			2-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages using [2IN1] or [MAGAZINE SORT]. * When printing is performed using a Windows driver, the 1-UP image will be output.	4
1533-2			2-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of sheets using [2IN1] or [MAGAZINE SORT].	4
1533-3			4-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages using [4IN1].	4
1533-4			4-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of sheets using [4IN1].	4
1533-5			N-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages using [N IN1].	4
1533-6			N-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of sheets using [N IN1].	4
1533-7			1-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages .	4
1535-0	Counter	Number of output pages of the FAX printing (1-UP / Duplex printing)	1-UP / Duplex printing	FAX	0 <8 digits>	SYS	Counts the number of sheets in the default settings.	4
1535-7			1-UP / Simplex printing	FAX	0 <8 digits>	SYS		4
1661	Wireless LAN	Wireless LAN driver SSID		ALL	-	-	Maximum 32 letters	12
1662	Wireless LAN	Wireless LAN driver Network type		ALL	1 <1-2>	-	1: Infrastructure 2: Ad-Hoc	12

Setting mode (08)

Code	Classification	Items	Function	Default <Acceptable value>	Board	Contents	Procedure
1663	Wireless LAN	Wireless LAN driver Security	ALL	4 <1-7>	-	1: 802.1x 2: WPA-PSK 3: WEP 4: NONE 5: WPA 6: WPA2 7: WPA2PSK	12
1664	Wireless LAN	Wireless LAN driver Encryption system	ALL	1 <1-3>	-	1: TKIP 2: AES 3: Dynamic WEP	12
1665	Wireless LAN	Wireless LAN driver Transmission output power	ALL	1 <1-5>	-	1: 100% 2: 50% 3: 25% 4: 12.5% 5: min	12
1666	Wireless LAN	Wireless LAN driver Transmission rate	ALL	1 <1-2>	-	1: Auto 2: Manual	12
1667	Wireless LAN	Wireless LAN driver Transmission rate value	ALL	1 <1-12>	-	1: 1 2: 2 3: 5.5 4: 11 5: 6 6: 9 7: 12 8: 18 9: 24 10: 36 11: 48 12: 54	12
1668	Wireless LAN	Wireless LAN driver Operation channel	ALL	1 <1-2>	-	1: Auto 2: Manual	12
1669	Wireless LAN	Wireless LAN driver Operation channel value	ALL	1 <1-11>	-		12
1670	Wireless LAN	Wireless LAN driver WEP bit number	ALL	1 <1-3>	-	1: 64 2: 128 3: 152	12
1671	Wireless LAN	Wireless LAN driver WEP key entry system	ALL	2 <1-2>	-	1: Hex 2: ASCII	12
1672	Wireless LAN	Wireless LAN driver WEP key value	ALL	-	-	Maximum 32 letters	12
1673	Wireless LAN	Wireless LAN driver WPA-PSK passphrase	ALL	-	-	Maximum 64 letters	12
1674	Wireless LAN	Wireless LAN driver Sleep mode setting	ALL	1 <1-3>	-	1: Off 2: Max 3: Normal	12
1675	Wireless LAN	Wireless LAN driver Slot-time limitation	ALL	1 <1-2>	-	1: Long 2: Short	12
1676	Wireless LAN	Wireless LAN driver Number of times of software retry	ALL	5 <0-1000>	-		12
1677	Wireless LAN	Wireless LAN driver Preamble	ALL	1 <1-2>	-	1: Long 2: Longshort	12
1678	Wireless LAN	Wireless LAN driver Operation mode	ALL	1 <1-3>	-	1: All 2: 11b 3: 11g	12
1679	Wireless LAN	Wireless LAN supplicant Wireless LAN setting	ALL	1 <1-3>	-	This setting is whether the wireless LAN connection is enabled or disabled. 1: Unset 2: Enabled 3: Disabled	12
1681	Wireless LAN	Wireless LAN supplicant Path name for client certificate	ALL	-	-	This should be the path name in full where the client certificate is located. (Maximum 255 letters)	12
1682	Wireless LAN	Wireless LAN supplicant Path name for secret key of client certificate	ALL	-	-	This should be the path name in full where the client certificate is located. (Maximum 255 letters)	12

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1684	Wireless LAN	Wireless LAN supplicant Path name for CA self-certificate	ALL	-	-	This should be the path name in full where the CA self-certificate is located. (Maximum 255 letters)	12
1685	Wireless LAN	Wireless LAN supplicant EAP user name	ALL	-	-	This should be the user name when the EAP-TLS is used.	12
1686	Wireless LAN	Wireless LAN supplicant EAP user name	ALL	-	-	This should be the user name when the PEAP is used.	12
1689	Wireless LAN	Wireless LAN supplicant Authentication interval	ALL	30 <30-65535>	-	This should be the time-out interval between EAP responses. 30: 30 seconds	12
1690	Wireless LAN	Wireless LAN supplicant Holding interval	ALL	60 <60-65535>	-	The EAP authentication will start after having been waited in this period when an EAP failure was received. 60: 60 seconds	12
1691	Wireless LAN	Wireless LAN supplicant EAPOL-Start Number of times of packet retry	ALL	3 <1-65535>	-	When an EAPOL-Start packet has been sent and the request ID cannot be received, this EAPOL-Start packet will be re-sent for the number of times set in this code. 3: 3 times	12
1692	Wireless LAN	Wireless LAN supplicant Session resume	ALL	2 <1-2>	-	This setting is whether the pre-master key should be updated or not upon a TLS re-negotiation. 1: Session is resumed 2: Session is not resumed	12
1693	Wireless LAN	Wireless LAN supplicant MAC Frame size	ALL	1398 <1-1398>	-	This is a MAC frame size used in the wireless LAN connection. The data is fragmented into this size. 1398: 1398 bytes	12
1696	Wireless LAN	Wireless LAN supplicant Device file setting for obtaining random number	ALL	/AGN/dev/random	-	This should be the device file name which can obtain a seed to initialize the WEP PRNG for xsupplicant. (Maximum 255 letters)	12
1697	Wireless LAN	Wireless LAN supplicant CRL directory designation	ALL	-	-	This should be the path name of the directory in full where the CRL file is located. (Maximum 255 letters)	12
1699	Wireless LAN	Wireless LAN supplicant EAP authentication type	ALL	1 <1-3>	-	This setting is for the EAP authentication type which xsupplicant can authenticate. 1: EAP-TLS 2: PEAP 3: EAP-TLS and PEAP	12

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1700	Wireless LAN	Wireless LAN supplicant CN name	ALL	-	-	This should be an authentication server name (basically a domain name in full). (Maximum 255 letters)	12
1701	Wireless LAN	Wireless LAN supplicant CN name check	ALL	1 <1-2>	-	1: NO 2: YES	12
1704	Wireless LAN	Wireless LAN supplicant Update interval of PTK (Pairwise Transient Key)	ALL	0 <0-720>	-	The update interval of a secret key across AP (Access Point) and STA (Station) can be set. This interval is for updating the secret key from STA. 0: Not updated 1-720: 1-720 minutes of interval	12
1705	Wireless LAN	Wireless LAN supplicant Strict packet check	ALL	1 <1-2>	-	The Ack bit and request bit of EAPOL-Key is checked. 1: Not checked 2: Checked	12
1706	Wireless LAN	Wireless LAN supplicant Priority change at 4-way handshake	ALL	1 <1-2>	-	A higher priority is given to the xsupplicant task when a 4-way handshake is started. 1: Priority not changed 2: Priority changed	12
1707	Wireless LAN	Wireless LAN supplicant Security level	ALL	1 <1-3>	-	The encryption capability output in TLS clientHello message can be selected. 1: LOW 2: MIDDLE 3: HIGH	12
1708	User interface	Selectable security level (EAP-TLS)	ALL	1 <1-3>	-	These are the security level which can be selected from the user interface. This setting is not applied in case of PEAP. ("LOW" and "MIDDLE" is mandatory for PEAP) 1: LOW + MIDDLE + HIGH 2: MIDDLE + HIGH 3: HIGH	12
1710	Bluetooth	Bluetooth ON/OFF setting	ALL	1 <0-1>	SYS	0: OFF 1: ON	1
1711	Bluetooth	Bluetooth Device name	ALL	MFP	SYS	Maximum 32 letters	11
1712	Bluetooth	Bluetooth Discovery	ALL	1 <0-1>	SYS	0: Not allowed 1: Allowed	1
1713	Bluetooth	Bluetooth Security	ALL	1 <0-1>	SYS	0: Security function OFF 1: Security function ON	1
1714	Bluetooth	Bluetooth PIN	ALL	0000	SYS	Maximum 8 digits (8-digit sequence) This setting is valid only when the bluetooth security function is ON.	11

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1715	Bluetooth	Bluetooth Data encryption	ALL	1 <0-1>	SYS	0: Not encrypted 1: Encrypted This setting is valid only when the bluetooth security function is ON.	1
1719	Bluetooth	Bluetooth BIP Paper type	ALL	1 <0-3>	SYS	0: Fit page 1: 1/2 size 2: 1/4 size 3: 1/8 size	1
1720	Network	IP address range for IP filter (Minimum area 1)	ALL	-	-	IP filter minimum area 1 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1721	Network	IP address range for IP filter (Maximum area 1)	ALL	-	-	IP filter maximum area 1 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1722	Network	IP address range for IP filter I (Minimum area 2)	ALL	-	-	IP filter minimum area 2 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1723	Network	IP address range for IP filter (Maximum area 2)	ALL	-	-	IP filter maximum area 2 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1724	Network	IP address range for IP filter (Minimum area 3)	ALL	-	-	IP filter minimum area 3 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1725	Network	IP address range for IP filter (Maximum area 3)	ALL	-	-	IP filter maximum area 3 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1726	Network	IP address range for IP filter (Minimum area 4)	ALL	-	-	IP filter minimum area 4 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1727	Network	IP address range for IP filter (Maximum area 4)	ALL	-	-	IP filter maximum area 4 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1728	Network	IP address range for IP filter (Minimum area 5)	ALL	-	-	IP filter minimum area 5 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1729	Network	IP address range for IP filter (Maximum area 5)	ALL	-	-	IP filter maximum area 5 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1730	Network	IP address range for IP filter (Minimum area 6)	ALL	-	-	IP filter minimum area 6 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1731	Network	IP address range for IP filter (Maximum area 6)	ALL	-	-	IP filter maximum area 6 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1732	Network	IP address range for IP filter (Minimum area 7)	ALL	-	-	IP filter minimum area 7 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1733	Network	IP address range for IP filter (Maximum area 7)	ALL	-	-	IP filter maximum area 7 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1734	Network	IP address range for IP filter (Minimum area 8)	ALL	-	-	IP filter minimum area 8 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1735	Network	IP address range for IP filter (Maximum area 8)	ALL	-	-	IP filter maximum area 8 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1736	Network	IP address range for IP filter (Minimum area 9)	ALL	-	-	IP filter minimum area 9 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1737	Network	IP address range for IP filter (Maximum area 9)	ALL	-	-	IP filter maximum area 9 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1738	Network	IP address range for IP filter (Minimum area 10)	ALL	-	-	IP filter minimum area 10 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12
1739	Network	IP address range for IP filter (Maximum area 10)	ALL	-	-	IP filter maximum area 10 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1740	Network	SSL setting HTTP server OFF/ON setting	ALL	2 <1-2>	-	1: Enabled 2: Disabled	12
1741	Network	SSL setting HTTP server port number	ALL	10443 <1-65535>	-	SSL HTTP server port number	12
1742	Network	SSL setting IPP server OFF/ON setting	ALL	2 <1-2>	-	1: Enabled 2: Disabled	12
1743	Network	SSL setting IPP server port number	ALL	443 <1-65535>	-	SSL IPP server port number	12
1744	Network	SSL setting SSL ftp server OFF/ON	ALL	2 <1-2>	-	OFF/ON 1: Valid 2: Invalid	12
1745	Network	SSL setting SSL ftp server Port	ALL	990 <1-65535>	-	Port number to FTP Server	12
1746	Network	SSL setting SSL LDAP Client OFF/ON	ALL	2 <1-3>	-	OFF/ON 1: Valid 2: Invalid 3: Use imported certificate	12
1747	Network	SSL setting SSL LDAP Client Port	ALL	636 <1-65535>	-	Port number to LDAP Server	12
1748	Network	SSL setting SSL POP3 Client OFF/ON	ALL	2 <1-3>	-	OFF/ON 1: Valid 2: Invalid 3: Use imported certificate	12
1749	Network	SSL setting SSL POP3 Client Port	ALL	995 <1-65535>	-	Port number to POP3 Server	12
1750	Network	SSL setting SSL SMTP Client OFF/ON	ALL	2 <2-6>	-	2: Invalid 3: Accept all certificates of SMTP with TLS (STARTTLS) server 4: Accept all certificates of SMTPS (SMTP OverSSL) server 5: Use imported certificates of SMTP with TLS (STARTTLS) server 6: Use imported certificates of SMTPS (SMTP OverSSL) server	12
1755	Network	Enabling server's IP address acquired by DHCP	ALL	1 <1-2>	-	Domain Name Server option (6) 1: Enabled 2: Disabled * This value is used only when DHCP is enabled.	12

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1756	Network	Enabling server's IP address acquired by DHCP	ALL	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
1757	Network	Enabling server's IP address acquired by DHCP	ALL	2 <1-2>	-	The Host Name Vendor Extension option (12) 1: Enabled 2: Disabled * This value is used only when DHCP is enabled.	12
1759	Network	Enabling server's IP address acquired by DHCP	ALL	2 <1-2>	-	SMTP Server Option (69) Simple Mail Server Address 1: Enabled 2: Disabled * This value is used only when DHCP is enabled.	12
1760	Network	Enabling server's IP address acquired by DHCP	ALL	2 <1-2>	-	POP3 Server Option (70) Post Office Server Address 1: Enabled 2: Disabled * This value is used only when DHCP is enabled.	12
1762	Network	Enabling server's IP address acquired by DHCP	ALL	2 <1-2>	-	SNTP Server Option (42) NTP Server Address 1: Enabled 2: Disabled * This value is used only when DHCP is enabled.	12
1764	Wireless LAN	Wireless LAN supplicant Control sequence setting of "Cipher Suite"	ALL	-	-	Maximum 255 letters	12
1765	Wireless LAN	Wireless LAN supplicant Path name for user certificate	ALL	-	-	Maximum 63 letters	12
1766	Wireless LAN	Wireless LAN supplicant Path name entered for CA self-certificate	ALL	-	-	Maximum 63 letters	12
1767	Network	Enabling server's IP address acquired by DHCP	ALL	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
1768	Network	Previous IP address	ALL	-	-	000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1772	General	Card reading device setting	ALL	0 <8 digits>	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: N/A - YY: Authentication 00: No authentication using a noncontact IC card 02: Authentication using a noncontact IC card (KP-2003) 03: Authentication using a noncontact (KP2005) 04: Authentication using a noncontact (KP2004) - ZZZZ: Sub-code 0000: No authentication using a noncontact IC card 0001: Use IDm of a noncontact IC card (YY=02) 0002: Use the Data Area Address Information of a noncontact IC card (YY=02) 0001: Use CSN (Card Serial Number) of a noncontact IC card (YY=03) 0002: Use the Data Area Address Information of a noncontact IC card (YY=03) 0002: Use the CardID (YY=04)	5

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1773	General	Card reader format information 1	ALL	-	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-2003: LLLL: System code (hexadecimal number) MMMM: Service code (hexadecimal number) KP-2005: LLLL : Key information MMMM: Sector number (hexadecimal number) * As this is user information, the settings cannot be output via list printing.	5

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1774	General	Card reader format information 2	ALL	-	SYS	The data of the block number in the noncontact IC is set. KP-2003: <PPQRSSTU (hexadecimal number)> PP:1st block Q: 1st block beginning byte R: 1st block ending byte SS:2nd block T: 2nd block beginning byte U: 2nd block ending byte 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). * As this is user information, the settings cannot be output via list printing.	5
1775	General	Card reader format information 3	ALL	-	SYS	Security key “KKKKKKKKKKKK” (12 digits) <hexadecimal number> in the [Key Information] of the [Sector Number] set in the code 08-1773 should be entered. * As this is user information, the settings cannot be output via list printing.	5

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1776-0	General	Card authentication LDAP server	Card authentication LDAP server 1	ALL	0 <0-100>	SYS	LDAP server number for the card authentication when a noncontact IC card is used should be set.	4
1776-1			Card authentication LDAP server 2	ALL	0 <0-100>	SYS		4
1776-2			Card authentication LDAP server 3	ALL	0 <0-100>	SYS		4
1776-3			Card authentication LDAP server 4	ALL	0 <0-100>	SYS		4
1776-4			Card authentication LDAP server 5	ALL	0 <0-100>	SYS		4
1776-5			Card authentication LDAP server 6	ALL	0 <0-100>	SYS		4
1776-6			Card authentication LDAP server 7	ALL	0 <0-100>	SYS		4
1776-7			Card authentication LDAP server 8	ALL	0 <0-100>	SYS		4
1776-8			Card authentication LDAP server 9	ALL	0 <0-100>	SYS		4
1776-9			Card authentication LDAP server 10	ALL	0 <0-100>	SYS		4
1776-10			Card authentication LDAP server 11	ALL	0 <0-100>	SYS		4

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1776-11	General	Card authentication LDAP server	Card authentication LDAP server 12	ALL	0 <0-100>	SYS	LDAP server number for the card authentication when a noncontact IC card is used should be set.	4
1776-12			Card authentication LDAP server 13	ALL	0 <0-100>	SYS		4
1776-13			Card authentication LDAP server 14	ALL	0 <0-100>	SYS		4
1776-14			Card authentication LDAP server 15	ALL	0 <0-100>	SYS		4
1776-15			Card authentication LDAP server 16	ALL	0 <0-100>	SYS		4
1778	General	Hang-up period of control panel at the 3rd misentry of administrator's password		ALL	1 <0-7>	SYS	0: No hang-up 1: 0.5 minutes (= 30 seconds) 2: 1 minute 3: 3 minutes 4: 5 minutes 5: 10 minutes 6: 15 minutes 7: 30 minutes	1
1779	Network	Default data saving directory of "Scan to File"		ALL	0 <0-2>	SYS	0: Local directory 1: REMOTE 1 2: REMOTE 2	1
1780	User interface	Converting 1-byte katakana into 2 byte-katakana at e-mail transmission		ALL	0 <0-1>	SYS	0: Non-conversion 1: With conversion	1
1781-0	Network	Notification of scan job	When job completed	ALL	0 <0-1>	SYS	Sets the notification method of scan job completion. 0: Invalid 1: Valid	4
1781-1			On error	ALL	0 <0-1>	SYS		4

Setting mode (08)							
Code	**Classific ation**	**Items**	**Functi on**	**Default <Acceptable value>**	**Boa rd**	**Contents**	**Proce dure**
1782	Network	File name format of "Save as file" and Email transmission	ALL	0 <0-6>	SYS	Sets the naming method of the file of "Save as file" and Email transmission. 0: [FileName]-[Data]-[Page] 1: [FileName]-[Page]-[Data] 2: [Data]-[FileName]-[Page] 3: [Data]-[Page]-[FileName] 4: [Page]-[FileName]-[Data] 5: [Page]-[Data]-[FileName] 6: [HostName]_[Data]-[Page]	1
1783	Network	Date display format of the file name of "Save as file" and Email transmission	ALL	0 <0-5>	SYS	Sets the data display format of the file of "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 08-640 (Data display format).	1
1784	Network	Single page data saving directory at "Save as file"	ALL	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
1785	Network	Page number display format of the file of "Save as file" and Email transmission	ALL	4 <3-6>	SYS	Sets the digit of a page number attached on the file. 3-6: 3-6 digits	1
1786	Network	Extension (suffix) format of the file of "Save as file"	ALL	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
1911	Paper feeding	Manual stapling time-out period	ALL	15 <3-30>	M	3-30sec. (In increments of 1sec.)	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1912	Finisher	Finisher model switching setting value	ALL	0 <0-1>	M	When connecting the finisher, the model needs to be set. 0: MJ-1024 MJ-1025 MJ-1031 1: MJ-1101	1
1913	General	Page number addition on multipage file names of "File/Email"	ALL	0 <0-1>	SYS	0: Invalid (Page number not added) 1: Valid (Page number added)	1
1914	General	Maximum number of decimals in extension fields	ALL	2 <0-6>	SYS	0: 0 digit 1: 1 digit 2: 2 digits 3: 3 digits 4: 4 digits 5: 5 digits 6: 6 digits	1
1916	General	Default saving/ attachment files of "File/ Email"	ALL	0 <0-1>	SYS	0: DOCYYMMDD 1: NetBios name	1
1920	Network	Device domain name of device authentication	ALL	-	UTY	Maximum 128 letters	12
1921	Network	Windows domain No. 2 of user authentication	ALL	-	UTY	Maximum 128 letters	12
1922	Network	Windows domain No. 3 of user authentication	ALL	-	UTY	Maximum 128 letters	12
1923	Network	LDAP authentication Server type	ALL	1 <1-2>	NIC	1: Windows Server 2: Not Windows Server	12
1925	Network	Execution of user authentication when the user ID is not entered	ALL	2 <0-2>	SYS	0: Forcible execution 1: Execution impossible (pooled in the invalid queue) 2: Forcible deletion	1
1926	FAX	Tab/cover sheet printing at FAX reception Printing stop function	ALL	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
1927	Network	LDAP server attribute name setting for card authentication	ALL	eBMUserCard	SYS	Up to 32 letters	11
1928	Network	Role Based Access LDAP search index	ALL	0 <0-4294967295>	SYS	This code is used to specify the ID for the LDAP server to implement Role-Based Access Control.	5

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1929	User interface	Keyboard layout for Language 1	ALL	0 <0-2>	SYS	1: QWERTY layout (for Europe) 2: QWERTZ layout 3: AZERTY layout	1
1930	User interface	Keyboard layout for Language 2	ALL	1 <0-2>	SYS		1
1931	User interface	Keyboard layout for Language 3	ALL	EUR:2 Other:0 <0-2>	SYS		1
1932	User interface	Keyboard layout for Language 4	ALL	0 <0-2>	SYS		1
1933	User interface	Keyboard layout for Language 5	ALL	0 <0-2>	SYS		1
1935	User interface	Keyboard layout for Language 7	ALL	0 <0-2>	SYS		1
1936	Network	AppleTalk device name	ALL	MFP_serial	UTY	Maximum 32 letters The Network-related serial number of the equipment appears on "serial".	12
1937	Network	User name and password at user authentication or "Save as file"	ALL	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
1940	General	STAGE port number	SCN	20080 <0-65535>	SYS	Port number used for the remote scanning is set.	1
1941	Bluetooth	Bluetooth BIP Paper size	ALL	EUR: 6 UC: 2 JPN: 6 <0-13>	SYS	0: Ledger 1: Legal 2: Letter 3: Computer 4: Statement 5: A3 6: A4 7: A5 8: A6 9: B4 10: B5 11: Folio 12: Legal13" 13: LetterSquare	1
1950	Network	SMB signature for SMB server	ALL	1 <1-3>	UTY	1: Auto 2: Valid 3: Invalid	12
1951	Network	SMB signature for SMB client	ALL	1 <1-3>	UTY	1: Auto 2: Valid 3: Invalid	12
1952	Network	Device name for device authentication	ALL	-	UTY	Up to 128 letters	12
1953	Network	Password for the device name used for device authentication	ALL	-	UTY	Up to 128 letters	12

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1954	Network	PDC (Primary Domain Controller) name 2 for user authentication	ALL	-	UTY	Up to 128 letters	12
1955	Network	BDC (Backup Domain Controller) name 2 for user authentication	ALL	-	UTY	Up to 128 letters	12
1956	Network	PDC (Primary Domain Controller) name 3 for user authentication	ALL	-	UTY	Up to 128 letters	12
1957	Network	BDC (Backup Domain Controller) name 3 for user authentication	ALL	-	UTY	Up to 128 letters	12
1958	Network	PDC (Primary Domain Controller) name for device authentication	ALL	-	UTY	Up to 128 letters	12
1959	Network	BDC (Backup Domain Controller) name for device authentication	ALL	-	UTY	Up to 128 letters	12
1960	General	KS Filter operation mode	ALL	0 <0-1>	SYS	0: Disabled 1: Enabled	1
1961	General	KS/KSSM setting all clearing	ALL	-	-	Does not reset the value of the code 08-1960 but resets those of the codes 08-1963 to 1994.	3
1963	General	KS Filter Emulation Mode	ALL	0 <0-2>	SYS	0: Auto 1: KS 2: KSSM	1
1964	General	KS Filter Paper Size	ALL	1 <0-5>	SYS	0: A3 1: A4 2: B4 3: B5 4: Letter 5: Legal	1
1965	General	KS Filter Orientation	ALL	0 <0-1>	SYS	0: Portrait 1: Landscape	1
1966	General	KS Filter Copies	ALL	1 <1-999>	SYS		1
1967	General	KS Paper Source	ALL	0 <0-1>	SYS		1
1968	General	KS Duplex Mode	ALL	0 <0-2>	SYS		1
1970	General	KS CPI (English CPI/ Hangle CPI)	ALL	1 <0-10>	SYS	0: (5/10) 1: (6/12) 2: (6.7/13.3) 3: (6.9/13.8) 4: (7.5/15) 5: (8.3/16.7) 6: (9/18) 7: (10/10) 8: (10/20) 9: (12/24) 10: (15/30)	1
1971	General	KS LPI	ALL	60 <30-160>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "45" for a font size 4.5.)	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1972	General	KS Type Face	ALL	0 <0-5>	SYS	0: MYUNGJO 1: GOTHIC 2: GUNGSEO 3: GULLIM 4: GRAPH 5: SAMMUL	1
1973	General	KS Font Size	ALL	96 <96-160>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "100" for a font size 10.0.)	1
1974	General	KS Zoom	ALL	100 <20-400>	SYS		1
1975	General	KS CR/LF Mode	ALL	2 <0-3>	SYS	0: CR->CR, LF->LF 1: CR->CR+LF, LF->LF 2: CR->CR, LF->CR+LF 3: CR->CR+LF, LF->CR+LF	1
1976	General	KS Top Margin	ALL	0 <0-50>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "40" for a font size 4.0.)	1
1977	General	KS Left Margin	ALL	0 <0-50>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "40" for a font size 4.0.)	1
1978	General	KS Auto Wrap	ALL	0 <0-1>	SYS	0: OFF 1: ON	1
1979	General	KS Han Mode	ALL	1 <0-1>	SYS	0: OFF 1: ON	1
1980	General	KS Han Code	ALL	0 <0-1>	SYS	0: Wansung 1: Johap	1
1984	General	KSSM CPI (English CPI/ Hangle CPI)	ALL	1 <0-10>	SYS	0: (5/10) 1: (6/12) 2: (6.7/13.3) 3: (6.9/13.8) 4: (7.5/15) 5: (8.3/16.7) 6: (9/18) 7: (10/10) 8: (10/20) 9: (12/24) 10: (15/30)	1
1985	General	KSSM LPI	ALL	60 <30-160>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "45" for a font size 4.5.)	1
1986	General	KSSM Type Face	ALL	0 <0-5>	SYS	0: MYUNGJO 1: GOTHIC 2: GUNGSEO 3: GULLIM 4: GRAPH 5: SAMMUL	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
1987	General	KSSM Font Size	ALL	96 <96-160>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "100" for a font size 10.0.)	1
1988	General	KSSM Zoom	ALL	100 <20-400>	SYS		1
1989	General	KSSM CR/LF Mode	ALL	2 <0-3>	SYS	0: CR->CR, LF->LF 1: CR->CR+LF, LF->LF 2: CR->CR, LF->CR+LF 3: CR->CR+LF, LF->CR+LF	1
1990	General	KSSM Top Margin	ALL	0 <0-50>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "40" for a font size 4.0.)	1
1991	General	KSSM Left Margin	ALL	0 <0-50>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "40" for a font size 4.0.)	1
1992	General	KSSM Auto Wrap	ALL	0 <0-1>	SYS	0: OFF 1: ON	1
1993	General	KSSM Han Mode	ALL	1 <0-1>	SYS	0: OFF 1: ON	1
1994	General	KSSM Han Code	ALL	0 <0-1>	SYS	0: Wansung 1: Johap	1
2827	Process	Developer bias AC	PPC	1 <0-2>	M	0: ON (all) 1: OFF (between sheets of paper only) 2: OFF (all)	1
2847	Process	Life correction switching of drum reverse rotation amount	PPC	Refer to the contents. <0-30>	M	Makes additional correction of the amount of reverse rotation of the drum during cleaning, when at least a certain amount of paper is fed, to thoroughly clean the drum, even if poor quality paper generating much paper dust is used. Set value x 4m sec. = Drum rotation time <Default> e-STUDIO205L: 4 e-STUDIO255: 4 e-STUDIO305: 4 e-STUDIO355: 2 e-STUDIO455: 2	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
2848	Process	Life correction switching of normal rotation amount after drum reverse rotation	PPC	Refer to the contents. <0-30>	M	Makes additional correction of the amount of normal rotation of the drum during cleaning, when at least a certain amount of paper is fed, to thoroughly clean the drum, even if poor quality paper generating much paper dust is used. Set value x 4m sec. = Drum rotation time <Default> e-STUDIO205L: 8 e-STUDIO255: 8 e-STUDIO305: 8 e-STUDIO355: 9 e-STUDIO455: 9	1
2987	Image processing	Cleaning bias output correction between sheets of paper	ALL	e-STUDIO205L/255/305:110 e-STUDIO355/455:104 <0~255>	M	The transfer cleaning bias is output between sheets of paper during printing so as to prevent the toner on the photoconductive drum from adhering to the transfer roller. This code is used to correct the output between sheets of paper to that adjusted in 05-2084 (Transfer cleaning bias adjustment (negative)). The larger the setting value is, the higher the value of the current (more negative) is. This causes a reduction in the toner adhering between sheets of paper. Note that toner with a different polarity will adhere easily if the setting value is too large. (Recommended range: 125 to 138)	1
3015	Scanner	Pre-scan setting switchover	ALL	0 <0-1>	SYS	0: Not performing pre-scanning 1: Performing pre-scanning	1
3508	General	Maximum number of records in address book	ALL	0 <0~1>	SYS	0: 1000 records 1: 3000 records	1
3612	General	Date of unpacking	ALL	- <13 digits>	SYS	Year/month/date/day/hour/minute/second Example: 03 07 0 13 13 27 48 “Day” - “0” is for “Sunday”. Proceeds Monday through Saturday from “1” to “6”.	11

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
3615	General	List print USB storage setting	ALL	0 <0-1>	SYS	0: Enable (USB storage available) 1: Disable (USB storage not available)	1
3619	General	Clearing of service history list file	ALL	-	SYS	Initializes the service history list file.	3
3623	General	Job filtering setting for real time log notification function	ALL	0 <0-255>	SYS	Changes target type of job for notification in real time log notification function.	1
3624	General	Log item filtering setting for real time log notification function	ALL	2147483921 <1-4294967295>	SYS	Changes target log items for notification in real time log notification function.	5
3625	General	Storage device information	ALL	0 <0-3>	SYS	0: Not connected. 1: HDD 2: SSD 3: Device Memory	5
3626	General	Department information transmission setting for real time log notification function	ALL	0 <0-2>	SYS	0: Department number, name and code 1: Department number and name 2: No department information transmission	1
3630	Maintenance	Default setting automation after remote update	ALL	0 <0-6>	SYS	0: Normal startup 1: Remote update in process 2: Remote update failed 3: Remote update completed 4: Self-diagnostic mode initialization completed (initialization performed) 5: Self-diagnostic mode initialization completed (initialization not performed) 6: Self-diagnostic mode initialization completed (initialization failed)	2
3631	Network	RemoteAccess(SNMP)	ALL	0 <0-1>	SYS	When an SNMP SetRequest PDU is sent, limit operation to a specific OID. 0: Off (ReadOnly operation) 1: On (Read/Write operation)	1
3635	User interface	Trial copy function	ALL	1 <0~1>	SYS	0: Disabled 1: Enabled	1
3722	Network	PDC/BDC timeout value of Windows Domain Authentication (Unit: Seconds)	ALL	60 <1-180>	NIC	Applied to the device authentication	12

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
3723	Network	User authentication PDC/BDC time-out period (Unit: Seconds)	ALL	30 <1-180>	NIC	Applied to the user authentication	12
3724	Network	Windows Domain Authentication method of Windows Domain/User Authentication	ALL	1 <1-3>	NIC	1: Auto 2: Kerberos 3: NTLMv2	12
3725	Network	IPP max connection	ALL	16 <1-16>	NIC		12
3726	Network	IPP active connection	ALL	10 <1-16>	NIC		12
3727	Network	LPD max connection	ALL	10 <1-16>	NIC		12
3728	Network	LPD active connection	ALL	10 <1-16>	NIC		12
3729	Network	ATalk PS max Connection	ALL	10 <1-16>	NIC		12
3730	Network	ATalk PS active Connection	ALL	10 <1-16>	NIC		12
3731	Network	Raw TCP max Connection	ALL	10 <1-16>	NIC		12
3732	Network	Raw TCP active connection	ALL	10 <1-16>	NIC		12
3736	Network	DNS Client Time Out	ALL	60 <1-180>	NIC	Use when a timeout occurred at DNS client connection	12
3737	Network	DDNS Client Time Out	ALL	60 <1-180>	NIC	Use when a timeout occurred at DDNS client connection	12
3738	Network	HTTP Client Time Out (EWB and Satellite)	ALL	60 <1-180>	NIC	Use when a timeout occurred at HTTP client connection	12
3739	Network	FTP Client Time Out (SCAN)	ALL	30 <1-180>	NIC	Use when a timeout occurred at FTP client connection	12
3740	Network	SNTP Client Time Out	ALL	30 <1-180>	NIC	Use when a timeout occurred at SNTP client connection	12
3741	Network	SMTP Client Time Out	ALL	30 <1-180>	NIC	Use when a timeout occurred at SMTP client connection	12
3742	Network	POP3 Client Time Out	ALL	30 <1-180>	NIC	Use when a timeout occurred at POP3 client connection	12
3743	Network	LDAP Client Time Out	ALL	20 <1-180>	NIC	Use when a timeout occurred at LDAP client connection	12
3744	Network	POP3 Authentication method	ALL	1 <1-3>	NIC	POP3 authentication method setting 1: Disable (Default) 2: NTLM 3: Kerberos	12
3745	General	Secure DDNS Primary Login Name	ALL	-	NIC	Login name for login with the Primary DDNS Up to 128 letters	12
3746	General	Secure DDNS Primary Login Password	ALL	- <1-128>	NIC	Login password for login with the Primary DDNS Up to 128 letters	12

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
3747	General	Secure DDNS Secondary Login Name	ALL	-	NIC	Login name for login with the Secondary DDNS Up to 128 letters	12
3748	General	Secure DDNS Secondary Login Password	ALL	-	NIC	Login password for login with the Secondary DDNS Up to 128 letters	12
3749	General	DPWS Friendly Name	ALL	-	NIC	MFP name indicated in DPWS search result <Default value> TOSHIBA e-STUDIOxxx [NIC serial number] Up to 127 letters	12
3750	General	DPWS Printer Name	ALL	-	NIC	Printer name used for installing the printer with DPWS <Default value> TOSHIBA e-STUDIOxxx Printer- [NIC serial number] Up to 127 letters	12
3751	General	DPWS Scanner Name	ALL	-	NIC	Scanner name used for installing the printer with DPWS <Default value> TOSHIBA e-STUDIOxxx Scanner- [NIC serial number] Up to 127 letters	12
3752	General	DPWS Printer Information	ALL	-	NIC	Information regarding DPWS printer <Default value> NULL Up to 127 letters	12
3753	General	DPWS Scanner Information	ALL	-	NIC	Information regarding DPWS scanner <Default value> NULL Up to 127 letters	12
3754	Network	Switching DPWS Printer setting	ALL	1 <1-2>	NIC	DPWS printer /DPWS secure printer function is switched. 1: Enabled 2: Disabled 3: Security enabled	12
3755	Network	Switching DPWS Scanner setting	ALL	1 <1-2>	NIC	DPWS scanner function is switched. 1: Enabled 2: Disabled	12
3757	Network	DPWS Discovery Port Number	ALL	3702 <1-65535>	NIC	Port number used for DPWS Discovery	12
3758	Network	DPWS Metadata Exchange Port Number	ALL	50081 <1-65535>	NIC	Port number used for DPWS Metadata Exchange	12
3759	Network	DPWS Print Port Number	ALL	50082 <1-65535>	NIC	Port number used for DPWS Print	12
3760	Network	DPWS Scan Port Number	ALL	50083 <1-65535>	NIC	Port number used for DPWS Scan	12

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
3765	Network	DPWS Print Max numbers of connection	ALL	10 <1-20>	NIC	Maximum numbers received from more than one connection request in the DPWS print	12
3766	Network	DPWS Print Max numbers of reception	ALL	10 <1-20>	NIC	Maximum numbers of data received from more than one clients in the DPWS print	12
3767	Network	Switching IPv6 setting	ALL	2 <1-2>	NIC	IPv6 function is switched. 1: Enabled 2: Disabled	12
3768	Network	Switching IP(IPv6) Address Acquisition	ALL	2 <1-2>	NIC	IP(IPv6) Address Acquisition setting is switched. 1: Manual 2: Auto configuration	12
3770	Network	IPv6 Address	ALL	0 <0-16>	NIC	DHCPv6 Address in Manual/Auto configuration is displayed.	12
3771	Network	Prefix display setting	ALL	0 <0-128>	NIC	The range of Prefix display is set.	12
3772	Network	Default Gateway setting	ALL	0 <0-16>	NIC	Default Gateway of DHCPv6 Address in Manual/Auto configuration is set.	12
3773	Network	Displaying previous DHCPv6 Address	ALL	0 <0-16>	NIC	The previous DHCPv6 Address is displayed.	12
3774	Network	DHCPv6 Option setting	ALL	2 <1-2>	NIC	DHCPv6 Option is switched when the Manual is set. 1: Enabled 2: Disabled	12
3775	Network	Stateless Address Auto Configuration	ALL	1 <1-2>	NIC	Stateless Address Auto Configuration is switched. 1: Enabled 2: Disabled	12
3776	Network	Stateless Address setting continuation	ALL	2 <1-2>	NIC	When Prefix sent from router is changed, Stateless Address is continued to be set. 1: Enabled 2: Disabled	12
3777	Network	Stateless Address setting	ALL	2 <1-2>	NIC	IP Address is acquired by both Stateless and State full Address. 1: Enabled 2: Disabled	12
3778	Network	Acquiring DHCPv6 Option	ALL	2 <1-2>	NIC	When Stateless Address is selected, an option is acquired from DHCPv6 server. 1: Enabled 2: Disabled	12
3779	Network	State full Address setting	ALL	2 <1-2>	NIC	IP Address is acquired from DHCPv6 server. 1: Enabled 2: Disabled	12

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
3780	Network	State full Option setting	ALL	2 <1-2>	NIC	An option is acquired from DHCPv6 server. 1: Enabled 2: Disabled	12
3781	Network	Primary DNS Server Address Registration	ALL	0 <0-16>	NIC	Registration of Primary DNS Server Address	12
3782	Network	Secondary DNS Server Address Registration	ALL	0 <0-16>	NIC	Registration of Secondary DNS Server Address	12
3783	Network	Selecting SAMBA Protocol	ALL	2 <2-3>	NIC	Either IPv6 or IPv4 is selected to use SAMBA. 2: IPv4 3: IPv6	12
3785	Network	DPWS IPv4 or IPv4 with IPv6	ALL	2 <1-2>	NIC	Either IPv4 only or IPv6 together with it is selected to operate Print, Scan and Security related with DPWS. 1: Multi (IPv4 and IPv6) 2: IPv4	12
3789	Network	SOAP data cloning setting	ALL	1 <1-2>	NIC	1: Enabled 2: Disabled	12
3793	Network	Switching LLTD setting	ALL	1 <1-2>	NIC	LLTD function is switched. 1: Enabled 2: Disabled	12
3796	Network	DPWS event rate	ALL	5 <1-600>	NIC	Sets the value of DPWS event rate from 1 to 600 seconds	12
3797	General	Response to PJL job commands	ALL	1 <0-1>	SYS	During bidirectional communication, the next job will not be accepted until the printing of the sent data (all pages) is finished. If the next job must be accepted during bidirectional communication, set the value at “0: (Solicited)”. 0: (Solicited) - Immediately responds to the host side after the completion of RIP. 1: (Unsolicited) - Responds to the host side after the printing is finished.	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	Board	Contents	Procedure
3802	General	USB media direct printing Paper size	ALL	EUR: 6 UC: 2 JPN: 6 <0-13>	SYS	0: Ledger 1: Legal 2: Letter 3: Computer 4: Statement 5: A3 6: A4 7: A5 8: A6 9: B4 10: B5 11: Folio 12: Legal13" 13: Letter Square	1
3803	General	USB media direct printing function setting	ALL	1 <0-1>	SYS	Sets the USB media direct printing function. 0: Disabled 1: Enabled	1
3804	Scanner	List Analysis Logic of Scan to File (FTP)	ALL	0 <0-1>	SYS	Acquisition of Contents in Host side is switched by Scan to File (FTP). 0: Logic1 1: Logic2	1
3805	Scanner	Department Management setting by Remote Scan	ALL	3 <0-3>	SYS	Department Management is set when Remote Scan is performed. 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	1
3810	Network	Direct SMTP communication setting	ALL	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 on the intranet without using an SMTP server. Since no SMTP server is used, the SSL encryption and SMTP-AUTH function cannot be used for internet Fax transmission. If "1: Enabled" is set in 08-3810, set "1: Enabled" in 08-3812 as well.	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
3811	Network	Image encrypting at the Direct SMTP communication	ALL	0 <0-1>	SYS	When Direct SMTP communication is performed, an attached image is encrypted. 0: Disabled 1: Enabled	1
3812	Scanner	Dummy full mode at the Internet Fax transmission	ALL	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
3815	Scanner	XPS file thumbnail addition	ALL	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
3816	Scanner	XPS file paper size setting	ALL	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
3817	Scanner	PDF file version setting	ALL	4 <0-4>	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
3818	Scanner	DPWS Scan operation mode	ALL	1 <0-1>	SYS	The operation mode in the DPWS Scan function is switched. 0: Batch type 1: Serial type	1
3833	General	Home directory function	ALL	0 <0-1>	SYS	Function to store a file in the user's home directory 0: Disabled 1: Enabled	1
3837	General	Display switching for the machine name/computer name shown in the notification	ALL	0 <0-1>	SYS	The display method of the machine name/ computer name shown in the event-related notification is switched. 0: IP address 1: NetBIOS name/ FQDN	1
3840	General	Electronic License Key Registration	ALL	-	-	Licenses for Electronic License Key are registered.	3
3841	General	License return of one-time dongle	ALL	-	-	Returns the license file in the equipment to the one-time dongle. The license file that has the same ID as the ID in the one-time dongle is returned.	3

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
3842	General	Electronic License Key Display	ALL	-	-	All licenses stored in the ELK jig are displayed.	3
3845	Network	SNMP Trap Enterprise OID mode setting	ALL	0 <0-1>	SYS	Trap Enterprise OID is enabled for existing models. 0: Normal (Not enabling for existing models) 1: Enabled for existing models	1
3846	FAX	Setting for receiving confidential data on each line	FAX	0 <0-1>	SYS	Remotely registers the received confidential fax data into a confidential box provided for each line. 0: OFF 1: ON	1
3847	General	FAX mistransmission prevention	FAX	0 <0-1>	SYS	FAX mistransmission prevention function is switched. 0: OFF (Disabled) 1: ON (Enabled)	1
3848	General	Restriction on Address Book destination setting	FAX	0 <0-1>	SYS	Availability of destination selection from the Address Book is switched as one of FAX mistransmission prevention functions when setting FAX destinations. 0: OFF (Disabled) 1: ON (Enabled)	1
3849	General	Restriction on destination direct entry	FAX	0 <0-1>	SYS	Availability of direct entry is switched as one of FAX mistransmission prevention functions when setting FAX destinations. 0: OFF (Disabled) 1: ON (Enabled)	1
3850	General	Remote Scan User authentication	ALL	0 <0-3>	SYS	User authentication on Remote Scan driver is switched according to the availability of GUI. 0: OFF (No GUI) / OFF (GUI installed) 1: ON (No GUI) / OFF (GUI installed) 2: OFF (No GUI) / ON (GUI installed) 3: ON (No GUI) / ON (GUI installed)	1
3851	General	Template display	ALL	0 <0-1>	SYS	The order of displaying templates on the LCD screen is switched. 0: Order of IDs 1: Alphabetical order	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
3852	User interface	Automatic summer time change	ALL	NAD, MJD: 1 Other: 0 <0-1>	SYS	Automatic summer time change on the day previously set is switched. 0: Disabled 1: Enabled	1
3853	User interface	Summer time mode Offset value	ALL	2 <0-7>	SYS	Summer time is started as follows when 08-3852 is enabled. 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
3854	User interface	Summer time mode Starting month	ALL	NAD, MJD: 3 Other: 1 <1-12>	SYS	The month in which summer time is started is set. 1: January 2: February 3: March 4: April 5: May 6: June 7: July 8: August 9: September 10: October 11: November 12: December	1
3855	User interface	Summer time mode Starting week	ALL	NAD: 2 MJD: 5 Other: 1 <1-5>	SYS	The week in which summer time is started is set. 1: 1st 2: 2nd 3: 3rd 4: 4th 5: Last	1
3856	User interface	Summer time mode Starting day	ALL	0 <0-6>	SYS	The day on which summer time is started is set. 0: Sunday 1: Monday 2: Tuesday 3: Wednesday 4: Thursday 5: Friday 6: Saturday	1
3857	User interface	Summer time mode Starting time	ALL	NAD, MJD: 2 Other: 0 <0-23>	SYS	The time at which summer time is started is set. 00-23	1
3858	User interface	Summer time mode Starting minute	ALL	0 <00-59>	SYS	The minute at which summer time is started is set. 00-59	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
3859	User interface	Summer time mode Ending month	ALL	NAD: 11 MJD: 10 Other: 1 <1-12>	SYS	The month in which summer time is ended is set. 1: January 2: February 3: March 4: April 5: May 6: June 7: July 8: August 9: September 10: October 11: November 12: December	1
3860	User interface	Summer time mode Ending week	ALL	MJD: 5 Other: 1 <1-5>	SYS	The week in which summer time is ended is set. 1: 1st 2: 2nd 3: 3rd 4: 4th 5: Last	1
3861	User interface	Summer time mode Ending day	ALL	0 <0-6>	SYS	The day on which summer time is ended is set. 0: Sunday 1: Monday 2: Tuesday 3: Wednesday 4: Thursday 5: Friday 6: Saturday	1
3862	User interface	Summer time mode Ending time	ALL	NAD: 2 MJD: 3 Other: 0 <0-23>	SYS	The time at which summer time is ended is set. 00-23	1
3863	User interface	Summer time mode Starting minute	ALL	0 <00-59>	SYS	The minute at which summer time is ended is set. 00-59	1
3864	Network	Disclosure of telnet function	ALL	0 <0-1>	SYS	0: Not disclosed 1: Disclosed When this value is set at “1”, the value of code 08-9834 must be “0”. When this value is set at “0”, the value of code 08-3865 must be “0”.	1
3865	Network	Availability of Telnet Server	ALL	2 <1-2>	NIC	Availability of Telnet Server is switched. 1: Enabled 2: Disabled	12
3866	Network	TCP port number of telnet server	ALL	23 <1-65535>	NIC	A port number for Telnet Server is set.	12
3867	Network	Telnet Server Server administrator's user name	ALL	Admin <Maximum 15 letters>	NIC	A user name for the Telnet Server administrator is confirmed.	12
3868	Network	Telnet Server Server administrator's password	ALL	System <Maximum 15 letters>	NIC	A password for the Telnet Server administrator is set.	12

Setting mode (08)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
3869	General	Number of times of EWB display for its restart		ALL	20 <0-256>	SYS	EWB is restarted when the EWB is displayed for the preset number of times. Perform this code when you change the number of times of display for resetting the EWB. EWB (Embedded Web Browser) - Displays a web page on the control panel. For displaying EWB, the External Interface Enabler (GS-1020, optional) is required.	1
3870	General	Display of electronic keys registered in equipment		ALL	-	-	Displays electronic keys registered in the equipment.	3
3871	Network	Setting for RBAC guest user privilege		ALL	0 <0-1>	SYS	0: Does not provide any user with guest user privilege 1: Provides all users with guest user privilege	1
4016-0	Paper feeding	ACC function when a drawer is specified	Copying	ALL	0 <0-1>	SYS	Sets whether the ACC function is enabled only for automatic drawer selection or enabled when a particular drawer is specified as well. If a value is set in 08-8591, "1" acts as a setting value of this code. If the value "1" is set in 08-8591, only the values "1" and "2" are available in this code. 0: Enabled when a drawer is specified 1: Enabled only for automatic drawer selection	4
4016-1			Printing / BOX printing	ALL	0 <0-1>	SYS		4
4549	General	Detection setting of new or old fuser unit		ALL	0 <0-1>	M	0: Enabled 1: Disabled	2
4555	General	Information check of new or old EPU memory		ALL	65280 <0 to 65535>	M	65280 (0xFF00): New EPU 255 (0x00FF): Installed EPU	2
4556	General	Detection setting of new or old EPU		ALL	1 <0-1>	M	0: Disabled 1: Enabled	2
4581	General	SRAM Backup		ALL	-	M	The data in the SRAM is backed up in the EEPROM.	3
4582	General	SRAM copy		ALL	-	M	The data in the EEPROM is copied to the SRAM.	3

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
4621	Paper feeding	Bypass paper size detection setting	PPC/ PRT	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
4622	Paper feeding	Bypass paper size detection counter	PPC/ PRT	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
5000	Image processing	Setting number of sheets for job end cleaning control/Mass printing of small size paper	ALL	0 <0-9>	M	Setting value x 10 = setting number of sheets 0: No execution when the setting number of sheets is reached. (Cleaning bias switching frequency is the same as that of 08-5001-0.) 1 to 9: Executed when the setting number of sheets is reached (10 sheets to 90 sheets)	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
5001-0	Image processing	Print job end cleaning bias polarity switching frequency	ALL	0 <0-9>	M	In the cleaning operation of the transfer roller at the end of printing, the cleaning bias, in which the polarity is switched from positive to negative, is output so that the toner adhering to the transfer roller is returned to the photoconductive drum. This code is used to set the cleaning bias switching frequency. Perform adjustment when there is any stain on the back side of the printed paper (leading edge) caused by the transfer roller. Note that the drum driving time will increase if the setting value of the cleaning bias switching frequency is too large. The setting code differs depending on the operation status of the equipment when there is any stain on the back side of the printed paper. Select the code from 5001 to 5003 according to the operation status. Set this code when there is any stain on the back side of the printed paper (leading edge) caused by the transfer roller in normal printing. 0: Once 1: Twice 2: Three times 3: Four times 4: Five times 5: Six times 6: Seven times 7: Eight times 8: Nine times 9: Ten times	4

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
5001-1	Image processing	Print job end cleaning bias polarity switching frequency (Bypass non-standard)	ALL	3 <0-9>	M	Set this code when there is any stain on the back side of the printed paper (leading edge) caused by the transfer roller in printing non-standard paper from the bypass tray. 0: Once 1: Twice 2: Three times 3: Four times 4: Five times 5: Six times 6: Seven times 7: Eight times 8: Nine times 9: Ten times	4
5001-2	Image processing	Print job end cleaning bias polarity switching frequency (Mass printing of small size paper)	ALL	3 <0-9>	M	Set this code when there is any stain on the back side of the printed paper (leading edge) caused by the transfer roller in printing maximum size paper after printing a large amount of small size paper (1 to 9). 0: Once 1: Twice 2: Three times 3: Four times 4: Five times 5: Six times 6: Seven times 7: Eight times 8: Nine times 9: Ten times	4
5002	Image processing	Job end cleaning bias polarity switching frequency (When not printing)	ALL	3 <0-9>	M	Set this code when there is any stain on the back side of the printed paper (leading edge) caused by the transfer roller after the warming-up, forced toner supply or auto-toner adjustment. 0: Once 1: Twice 2: Three times 3: Four times 4: Five times 5: Six times 6: Seven times 7: Eight times 8: Nine times 9: Ten times	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
5003	Image processing	Job end cleaning bias polarity switching frequency (At jam recovery)	ALL	3 <0-9>	M	Sets when there is any stain on the back side of the printed paper (leading edge) caused by the transfer roller after a paper jam is cleared. 0: Once 1: Twice 2: Three times 3: Four times 4: Five times 5: Six times 6: Seven times 7: Eight times 8: Nine times 9: Ten times	1
5005	Image processing	Switching of positive/ negative polarity for transfer cleaning bias between sheets of paper	PPC	1 <0-1>	M	0: Positive polarity 1: Negative polarity	1
5101	Image processing	Toner cartridge correction table switching	ALL	0 <0-2>	M	Corrects the image density according to the detection value of the sensor. Changing this code varies the correction amount of the image density. Set this code when the density is too high or low. 0: Middle-level correction 1: Low-level correction 2: High-level correction It is hardly corrected at the normal temperature and humidity.	1
5130	Image processing	Developer bias Hi1 correction (hardcopy security printing)	PRT	128 <0-255>	M	Corrects the value of the developer bias adjustment (05-205).	4
5131	Image processing	Main charger bias correction (hardcopy security printing)	PRT	128 <0- 255>	M	Corrects the value of the main charger bias adjustment (05-210).	4
5132	Image processing	Laser output correction (hardcopy security printing)	PRT	128 <0-255>	M	Corrects the value of the laser power adjustment (05-286).	4

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
5285	Fuser	Fusing temperature during printing (Plain paper/Sub)	ALL	e-STUDIO205L/255/305: - e-STUDIO355/455: 9 <0 to 14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
5328	Fuser	Fusing temperature during printing (Thick paper 1/Sub)	ALL	e-STUDIO205L/255/305: - e-STUDIO355/455: 10 <0 to 14>	M		1
5329	Fuser	Fusing temperature during printing (Thick paper 2/Sub)	ALL	e-STUDIO205L/255/305: - e-STUDIO355/455: 10 <0 to 14>	M		1
5330	Fuser	Fusing temperature during printing (Thick paper 3/Sub)	ALL	e-STUDIO205L/255/305: - e-STUDIO355/455: 10 <0 to 14>	M		1
5331	Fuser	Fusing temperature during printing (Overhead transparencies /Sub)	ALL	e-STUDIO205L/255/305: - e-STUDIO355/455: 10 <0 to 14>	M		1
5332	Fuser	Fusing temperature during printing (Envelope/Sub)	ALL	e-STUDIO205L/255/305: - e-STUDIO355/455: 12 <0 to 14>	M		1

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
5333-0	Fuser	Temperature drop during printing (Sub)	The first drop	ALL	e-STUDIO205L/255/305: - e-STUDIO355/455: 0 <0 to 10>	M	Setting value x -5°C: from 0°C to -50°C This code is valid only when "20" is set to 08-535-0.	4
5333-1			The second drop	ALL	e-STUDIO205L/255/305: - e-STUDIO355/455: 4 <0 to 10>	M		4
5333-2			The third drop	ALL	e-STUDIO205L/255/305: - e-STUDIO355/455: 4 <0 to 10>	M		4
5333-3			The forth drop	ALL	e-STUDIO205L/255/305: - e-STUDIO355/455: 4 <0 to 10>	M		4

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
5334-0	Fuser	Temperature drop switching time setting (Sub)	The first drop	ALL	e-STUDIO205L/255/305: - e-STUDIO355/455: 5 <0 to 200>	M	Setting value x 5 seconds: from 0 to 1000 seconds This code is valid only when "20" is set to 08-535-0.	4
5334-1			The second drop	ALL	e-STUDIO205L/255/305: - e-STUDIO355/455: 18 <0 to 200>	M		4
5334-2			The third drop	ALL	e-STUDIO205L/255/305: - e-STUDIO355/455: 24 <0 to 200>	M		4
5334-3			The forth drop	ALL	e-STUDIO205L/255/305: - e-STUDIO355/455: 75 <0 to 200>	M		4

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
5335-0	Fuser	Temperature drop during printing on thick paper (Sub)	The first drop	ALL	e-STUDIO205L/255/305: - e-STUDIO355/455: 0 <0 to 10>	M	Setting value x -5°C: from 0°C to -50°C This code is valid only when "20" is set to 08-535-1.	4
5335-1			The second drop	ALL	e-STUDIO205L/255/305: - e-STUDIO355/455: 4 <0 to 10>	M		4
5335-2			The third drop	ALL	e-STUDIO205L/255/305: - e-STUDIO355/455: 4 <0 to 10>	M		4
5335-3			The forth drop	ALL	e-STUDIO205L/255/305: - e-STUDIO355/455: 4 <0 to 10>	M		4

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
5336-0	Fuser	Temperature drop switching time setting during printing on thick paper (Sub)	The first drop	ALL	e-STUDIO205L/255/305: - e-STUDIO355/455: 5 <0 to 200>	M	Setting value x 5 seconds: from 0 to 1000 seconds This code is valid only when "20" is set to 08-535-1.	4
5336-1			The second drop	ALL	e-STUDIO205L/255/305: - e-STUDIO355/455: 18 <0 to 200>	M		4
5336-2			The third drop	ALL	e-STUDIO205L/255/305: - e-STUDIO355/455: 24 <0 to 200>	M		4
5336-3			The forth drop	ALL	e-STUDIO205L/255/305: - e-STUDIO355/455: 75 <0 to 200>	M		4
5554	Maintenance	PM counter setting value for developer material (K)		ALL	Refer to content <8 digits>	M	Sets the number of printed sheets to display the message that prompts the PM of developer material. <Default> e-STUDIO205L: JPD: 0 Other: 80000 e-STUDIO255: JPD: 0 Other: 100000 e-STUDIO305: JPD: 0 Other: 120000 e-STUDIO355: JPD: 0 Other: 125000 e-STUDIO455: JPD: 0 Other: 150000	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
5555	Maintenance	PM time counter setting value for developer material (K)	ALL	e-STUDIO205L/255/305: 161000 e-STUDIO355/455: 135000 <8 digits>	M	Sets the accumulated driving time to display the message that prompts the PM of developer material.	1
5562	Maintenance	PM counter setting value for part	ALL	Refer to content <8 digits>	M	Sets the number of printed sheets to display the message that prompts the PM of part. <Default> e-STUDIO205L: JPD: 0 Other: 240000 e-STUDIO255: JPD: 0 Other: 200000 e-STUDIO305: JPD: 0 Other: 240000 e-STUDIO355: JPD: 0 Other: 250000 e-STUDIO455: JPD: 0 Other: 300000	1
5563	Maintenance	PM time counter setting value for part	ALL	Refer to content <8 digits>	M	Sets the accumulated driving time to display the message that prompts the PM of part. <Default> e-STUDIO205L: 483000 e-STUDIO255/305: 322000 e-STUDIO355/455: 270000	1
5568	Maintenance	Current value of PM counter for developer material (K)	ALL	0 <8 digits>	M	Displays the current number of printed sheets. Counts up by turning on the registration sensor.	1
5569	Maintenance	Current value of PM time counter for developer material (K)	ALL	0 <8 digits>	M	Displays the current driving time.	1
5576	Maintenance	Current value of PM counter for part	ALL	0 <8 digits>	M	Displays the current number of printed sheets. Counts up by turning on the registration sensor.	1
5577	Maintenance	Current value of PM time counter for part	ALL	0 <8 digits>	M	Displays the current driving time of fuser.	1
5581	Maintenance	Switching of output pages/driving counts at PM/developer material (K)	ALL	0 <0-2>	M	0: Pages 1: driving count 2: Whichever comes faster	1

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
5585	Maintenance	Switching of output pages/driving counts at PM/part		ALL	0 <0-2>	M	0: Pages 1: driving count 2: Whichever comes faster	1
6810-0	Counter	Number of output pages in black mode / Large size	1-UP / Duplex printing	PPC	0 <8 digits>	SYS	Counts the number of output pages.	4
6810-1			2-UP / Duplex printing	PPC	0 <8 digits>	SYS	Counts the number of output pages using [2IN1] or [MAGAZINE SORT].	4
6810-2			2-UP / Simplex printing	PPC	0 <8 digits>	SYS	Counts the number of sheets using [2IN1] or [MAGAZINE SORT].	4
6810-3			4-UP / Duplex printing	PPC	0 <8 digits>	SYS	Counts the number of output pages using [4IN1].	4
6810-4			4-UP / Simplex printing	PPC	0 <8 digits>	SYS	Counts the number of sheets using [4IN1].	4
6810-7			1-UP / Simplex printing	PPC	0 <8 digits>	SYS	Counts the number of output pages.	4
6813-0	Counter	Number of output pages of the printer or BOX / Large	1-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages.	4
6813-1			2-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages using [2IN1] or [MAGAZINE SORT]. * When printing is performed using a Windows driver, the 1-UP image will be output.	4
6813-2			2-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of sheets using [2IN1] or [MAGAZINE SORT].	4
6813-3			4-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages using [4IN1].	4
6813-4			4-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of sheets using [4IN1].	4
6813-5			N-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages using [N IN1].	4
6813-6			N-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of sheets using [N IN1].	4
6813-7			1-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages.	4
6815-0	Counter	Number of output pages of the FAX printing / Large	1-UP / Duplex printing	FAX	0 <8 digits>	SYS	Counts the number of output pages printed only in the full color mode.	4
6815-7			1-UP / Simplex printing	FAX	0 <8 digits>	SYS	Counts the number of output pages printed only in the full color mode.	4

Setting mode (08)								
Code	**Classification**	**Items**		**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
6852-0	Counter	Black job counter		PPC	0 <8 digits>	SYS	Counter for monochrome copy job.	4
6852-1				PRT	0 <8 digits>	SYS	Counter for monochrome print job.	4
6852-2				PPC/ PRT	0 <8 digits>	SYS	Total counter for monochrome copy and print job.	4
6977-0	Counter	Toner cartridge usage history (Lot. No.)	Latest	ALL	0 <1 digit> or<8 digits>	M	1 digit: Production location indicated. • 0: Cartridge not installed • 1: Production location No. (TESS cartridge) • 2: Production location No. (TABS cartridge) • 3: Production location No. (TEIS cartridge) • 6: Cartridge not detected (when the IC chip information cannot be detected) 8 digits: Lot No. indicated	4
6977-1			1 cartridge earlier	ALL	0 <1 digit> or<8 digits>	M		4
6977-2			2 cartridges earlier	ALL	0 <1 digit> or<8 digits>	M		4
6977-3			3 cartridges earlier	ALL	0 <1 digit> or<8 digits>	M		4
6977-4			4 cartridges earlier	ALL	0 <1 digit> or<8 digits>	M		4
7000	Image	Clearing of adjustment values of all image process (PPC) related 05 codes		PPC	-	SYS /M	Clears the gamma correction table values and the adjustment values of the following 05 codes: 05-501, 503, 504, 505, 506, 507, 508, 509, 510, 512, 514, 515, 580, 590-0 to 2, 591-0 to 2, 592-0 to 2, 604, 605, 606, 648, 649, 667-0 to 4, 922, 925, 931, 934, 937, 940, 949-0 to 2, 1675, 7025, 7033, 7034, 7041, 7042, 7043, 7048, 7050, 7051, 7059, 7126, 7129, 7193-0 to 2, 7236, 7237, 7279, 7280, 7283, 7284, 7285, 7286, 7287, 7288, 7289, 7290, 7618 After executing this code, execute 08-4581.	3
7001	Image	Clearing of all gamma correction table values (PPC related areas only)		PPC	-	SYS	Clears all the gamma correction table values in the PPC related areas of the HDD.	3
7010	Image	Destination switching for image processing parameter		PPC	0 <0-1>	SYS	0: Japan 1: Overseas	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
7300	Image	Clearing of adjustment values of all image process (network print) related 05 codes	PRT	-	SYS /M	Clears the adjustment values of the following 05 codes: 05-654, 655, 656, 672-0 to 4, 7315-0 to 2, 7316-0 to 2, 7317-0 to 2, 7318-0 to 2, 7319-0 to 2, 7320-0 to 2, 7351-0 to 4, 7352-0 to 4 After executing this code, execute 08-4581.	3
7400	Image	Clearing of adjustment values of all image process (network scan) related 05 codes	SCN	-	SYS	Clears the adjustment values of the following 05 codes: 05-840, 841, 842, 843, 845, 846, 847, 848, 860, 861, 862, 863, 880-0~2, 881-0 to 2, 882-0 to 2, 883-0 to 2, 1070, 1071, 1072, 1075, 1076, 1077, 1080, 1081, 1082, 1086, 1087, 1088, 7416, 7417, 7418, 7421, 7422, 7423, 7424, 7425, 7426, 7468, 7470, 7475, 7478, 7480-0~2, 8325, 8326, 8327, 8330, 8331, 8332, 8334, 8340, 8341, 8342, 8344, 8345, 8346, 8348, 8349, 8350, 8361, 8362, 8363, 8365, 8370, 8371, 8372, 8373, 8375, 8380, 8381, 8382, 8385, 8386, 8387, 8389, 8390, 8391, 8392, 8394, 8395, 8400, 8402, 8403, 8404, 8405, 8407, 8408, 8409	3
7500	Image	Clearing of adjustment values of all image process (Fax) related 05 codes	FAX	-	SYS /M	Clears the adjustment values of the following codes: 678-0 to 4, 700, 710, 714, 725, 729 After executing this code, execute 08-4581.	3
8504	General	Feeding method of odd page number in duplex printing (Raw print)	ALL	0 <0-1>	SYS	0: One side 1: Both sides	1
8506	General	Forcible mode change in cartridge empty status	ALL	1 <0-2>	SYS	0: SLEEP MODE 1: AUTO POWER SAVE 2: READY	1
8508	General	Controlling method for print image position adjustment in secondary scanning direction	PRT	2 <0-2>	SYS	0: No control 1: Cuts the image 2: Shifts the image	1

Setting mode (08)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
8509	General	Controlling amount for print image position adjustment in secondary scanning direction		PRT	12 <0-36>	SYS	0-36	1
8510	General	Menu display for controlling print image position adjustment in secondary scanning direction		PRT	0 <0-1>	SYS	0: Menu not displayed 1: Menu displayed	1
8511	General	Wide A4 Mode (for PCL)		PRT	0 <0-1>	SYS	0: Disable 1: Enable	1
8512	General	Number of jobs in batch processing		ALL	10 <2-10>	SYS	2-10:From 2 to jobs can be specified	1
8514	General	Threshold value setting for RIP standard paper judgment		ALL	20 <5-30>	SYS	This code is used for changing the range in which the non-standard paper size is judged as standard paper size. If the page size information is within standard paper size ± setting value, the page size is judged as standard paper size when PS/PDF printing. If the page size information is out of the range, the page size is judged as non-standard paper size. The unit of setting value is PS point. 1 PS point is approx. 0.35 mm.	1
8515	General	Outside erase judgement threshold (Default)	PPC	PPC	0 <-3-3>	SYS	The larger the value is, area to be erased increases. The smaller the value is, area to be erased decreases.	1
8516			SCN	SCN	0 <-3-3>	SYS		1
8517	General	Remote Scan User authentication automatic login		ALL	1 <0-1>	SYS	0: OFF (A user always enters manually (current method)) 1: ON (Previous authentication information will be used)	1
8518	General	Overwriting mode for scanned files		ALL	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
8519	General	Scan PDF file Paper size		ALL	1 <0-1>	SYS	0: Equivalent to scan image size 1: Fitted into any standard size	1
8523	Image processing	Toner near-empty status Message display		ALL	0 <0-1>	SYS	0: ON 1: OFF	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
8524	General	No paper Message display	ALL	0 <0-1>	SYS	0: ON 1: OFF	1
8525	General	No paper in the left tray of tandem LCF message	ALL	0 <0-1>	SYS	0: ON 1: OFF	1
8532	General	Control panel Brightness level adjustment	ALL	4 <1-7>	SYS	1-7:Brightness level	1
8535	Network	Storing network logs in the HDD	ALL	2 <1-2>	SYS	Stores the network logs of SRAM in the HDD when network-related trouble occurred. 1: Enabled 2: Disabled	1
8536	Network	Data size when storing network logs in the HDD	ALL	30 <1-30>	SYS	Specifies the size of network logs to be stored in the HDD. 1-30:1-30 MB	1
8537	General	Sorting method for displaying private print jobs	PRT	0 <0-1>	SYS	Changes the sorting order for print jobs on the private print list. 0: Descending order 1: Ascending order	1
8538	Maintenance (Remote)	Notification setting for toner nearly empty	ALL	0 <0-1>	SYS	0: Disabled 1: Enabled	1
8540	Scanner	Date/time format in the Meta Scan XML file	SCN	1 <0-1>	SYS	0: YYYY/MM/DDhh:mm:ss.mmm 1: YYYY-MM-DDThh:mm:ss.mmmTZD	1
8543	General	Transition to the energy saving mode when in the Sleep mode	ALL	1 <0-1>	SYS	0: Disabled 1: Enabled (depending on conditions)	1
8544	General	Interval setting for transition to the Super Sleep mode	ALL	5 <5-600>	SYS	The interval between recovering form the Super Sleep mode and making the transition to the Super Sleep mode again. Unit: seconds.	1
8546	User interface	Input setting of minus value for image shift when copying	PPC	0 <0-1>	SYS	0: Inputting minus value is disabled. 1: Inputting minus value is enabled.	1
8548	Paper feeding	Change of the paper size setting on the touch panel when printing is interrupted by size mismatch	PRT	0 <0-1>	SYS	0: Change of the paper size setting on the touch panel is disabled. 1: Change of the paper size setting on the touch panel is enabled.	1
8549	Counter	Hardware key control when external counter is installed	ALL	0 <0-1>	SYS	0: No control 1: Mode switch key is disabled.	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
8550	User interface	Keyboard layout for Language 8	ALL	0 <0-2>	SYS	1: QWERTY layout (for Europe) 2: QWERTZ layout 3: AZERTY layout	1
8551	User interface	Keyboard layout for Language 9	ALL	0 <0-2>	SYS		1
8552	User interface	Keyboard layout for Language 10	ALL	0 <0-2>	SYS		1
8553	User interface	Keyboard layout for Language 11	ALL	0 <0-2>	SYS		1
8554	User interface	Keyboard layout for Language 12	ALL	0 <0-2>	SYS		1
8555	User interface	Keyboard layout for Language 13	ALL	0 <0-2>	SYS		1
8556	User interface	Keyboard layout for Language 14	ALL	0 <0-2>	SYS		1
8560	Version	Version of UI data language 8 in HDD	ALL	-	-	VXXX.XXX X	2
8561	Version	Version of UI data language 9 in HDD	ALL	-	-	VXXX.XXX X	2
8562	Version	Version of UI data language 10 in HDD	ALL	-	-	VXXX.XXX X	2
8563	Version	Version of UI data language 11 in HDD	ALL	-	-	VXXX.XXX X	2
8564	Version	Version of UI data language 12 in HDD	ALL	-	-	VXXX.XXX X	2
8565	Version	Version of UI data language 13 in HDD	ALL	-	-	VXXX.XXX X	2
8566	Version	Version of UI data language 14 in HDD	ALL	-	-	VXXX.XXX X	2
8570	Version	Web UI data in HDD Version: Language 8	ALL	-	-	VXXX.XXX X	2
8571	Version	Web UI data in HDD Version: Language 9	ALL	-	-	VXXX.XXX X	2
8572	Version	Web UI data in HDD Version: Language 10	ALL	-	-	VXXX.XXX X	2
8573	Version	Web UI data in HDD Version: Language 11	ALL	-	-	VXXX.XXX X	2
8575	Version	Web UI data in HDD Version: Language 13	ALL	-	-	VXXX.XXX X	2
8576	Version	Web UI data in HDD Version: Language 14	ALL	-	-	VXXX.XXX X	2
8584	Maintenance	Selects whether or not to transmit the Subject.	ALL	1 <0-1>	SYS	0: Disabled 1: Enabled	1
8585	Maintenance	Selects the edit setting of the Subject.	ALL	1 <0-1>	SYS	0: Disabled 1: Enabled	1
8586	Maintenance	Selects whether or not to add the date and time to the Subject.	ALL	1 <0-1>	SYS	0: Not added 1: Added	1
8587	Maintenance	Selects the setting of the Subject, by using the fixed string or inputting the specified one.	ALL	0 <0-1>	SYS	0: Fixed string 1: Specified string	1
8588	Maintenance	Selects the transmission setting when the Subject is empty	ALL	0 <0-1>	SYS	0: Email is transmitted by leaving the Subject empty. 1: Email is transmitted by adding "*" to the Subject.	1

Setting mode (08)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
8589	Network	Authentication server automatic search		ALL	0 <0-2>	SYS	0: Disabled (No automatic search) 1: Enabled (Server list is displayed when multiple authentication has succeeded.) 2: Enabled (No server list is displayed when multiple authentication has succeeded.)	1
8590-0	Network	Document or file name display form for the exported log list	Document name	ALL	0 <0-2>	SYS	0: Outputs with the document or file name 1: Blank 2: Outputs with asterisks	4
8590-1			User name	ALL	0 <0-2>	SYS		4
8590-2			Destination/file name	ALL	0 <0-2>	SYS		4
8590-3			Sender name	ALL	0 <0-2>	SYS		4
8590-4			Printing/ Agent type	ALL	0 <0-2>	SYS		4
8591	Maintenance	ACC function switching		ALL	1 <0-1>	SYS	If a value is set in this code, the setting values of 08-4011, 9343 and 4016 are switched to the initial ones. If the value "0" is set in this code, only the value "0" is available in 08-4016. If the value "1" is set in this code, only the values "1" and "2" are available in 08-4011 and 9343. 0: Selectable ACC setting values when the automatic drawer is specified in UI (ACC is disabled when a drawer is specified) 1: Selectable ACC setting values when a drawer is specified in UI (ACC is enabled when a drawer is automatically selected)	1
8594	Maintenance	Switches the message when external options are installed		ALL	1 <0-1>	SYS	0: Disabled 1: Enabled	1
8595	Maintenance	Switches the message when the ID Gate is installed		ALL	1 <0-1>	SYS	0: Disabled 1: Enabled	1
8596	Maintenance	Display in "Status" during image data creation		ALL	0 <0-1>	SYS	0: "Suspend" is displayed. 1: "Process" is displayed.	1
8597	Maintenance	Updates the Private/ Hold Print job list automatically		ALL	0 <0-1>	SYS	0: Disabled 1: Enabled	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
8598	Maintenance	Selects the template icon layout on the touch panel	ALL	0 <0-1>	SYS	0: Pattern 1: 1.2.3.4.5.6. 1: Pattern 2: 1.2.9.10.3.4.	1
8599	Maintenance	Converts spaces of folder name into underscores	ALL	1 <0-1>	SYS	0: Not converted 1: Converted into underscores	1
8600	Maintenance	Selects the default setting for OUTSIDE ERASE	ALL	0 <0-1>	SYS	0: Disabled 1: Enabled	1
8601	Maintenance	Identifies a user who performs Private/Hold Print	ALL	For NAD: 1 For others: 0 <0-1>	SYS	0: Identifies the user as a different one by the difference between a name in lower-case and capital letters 1: Identifies the user as the same one by the difference between a name in lower-case and capital letters	1
8602	Maintenance	Adding "backslash" when creating the files of ScanToFile (Samba)	ALL	0 <0-3>	SYS	0: Backslash not added 1: Backslash added when "file name" is specified 2: Backslash added when "folder and file name" is specified 3: Backslash added when "file name" and "folder and file name" are specified	1
8603	Maintenance	Special usage of external options I/F	ALL	0 <0-2>	SYS	0: None 1: Usage 1 2: Usage 2	1
8604	Maintenance	Setting of Job Status Display	ALL	1 <0-2>	SYS	0: Disabled (Only administrators allowed) 1: Enabled (General users allowed) 2: Setting disabled (Grayed out on TopAccess)	1
8605	Maintenance	Setting of Logs Display	ALL	1 <0-2>	SYS	0: Disabled (Only administrators allowed) 1: Enabled (General users allowed) 2: Setting disabled (Grayed out on TopAccess)	1
8606	Maintenance	Setting of Logs Export	ALL	1 <0-2>	SYS	0: Disabled 1: Enabled 2: Setting disabled (Grayed out on TopAccess)	1
8608	Network	Priority authentication server - Windows	ALL	0 <0-100>	SYS	Index of the authentication server preferentially searched for	1
8609	Network	Priority authentication server - LDAP	ALL	0 <0-100>	SYS	Index of the authentication server preferentially searched for	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
8610	Network	Priority authentication server - Card	ALL	0 <0-100>	SYS	Index of the authentication server preferentially searched for	1
8611	Network	RFC1759(hr. Printer status support printing) support	ALL	Refer to contents <1-2>	SYS	1: Normal mode 2: Special mode 1 <Default value> JPD: 1 NAD: 1 MJD: 2	1
8612	FAX	Time stamp addition of “Received Fax Forward” file name	FAX	1 <0-2>	SYS	0: Disabled 1: Enabled	1
8613	Electronic filing	e-Filing saving data mode setting	ALL	1 <0-2>	SYS	1: Normal mode 2: PDF mode	1
8615	General	Log saving setting	ALL	1 <0-1>	SYS	0: Disabled 1: Enabled	1
8616	General	Department counter / Limitation counter clearing: Reference month	ALL	1 <1-12>	SYS	Specify the reference starting month: Integer from 1 to 12 (month)	1
8617	General	Department counter / Limitation counter clearing: Clearing date	ALL	1 <1-31>	SYS	Specify the date for automatic clearing: Integer from 1 to 31 (day)	1
8618	General	Department counter / Limitation counter clearing: Clearing time	ALL	0 <0-23>	SYS	Specify the time (hour) for automatic clearing: Integer from 0 to 23	1
8619	General	Department counter / Limitation counter clearing: Clearing amount	ALL	0 <0-59>	SYS	Specify the time (minute) for automatic clearing: Integer from 0 to 59	1
8620	General	Department counter / Limitation counter clearing: Specify printing when the limit is over	ALL	0 <0-1>	SYS	0: Printing not possible 1: Printing possible	1
8622	General	Date and time addition setting to file name of Scan to File / Email	ALL	0 <0-1>	SYS	0: Disabled 1: Enabled	1
8624	User interface	Change file name display method	ALL	0 <0-2>	SYS	Change display format for the file name shown in the print job log screen. 0: Display from the head 1: Display the tail 2: Display the head and tail	1
8625	User interface	Change file name export method	ALL	0 <0-2>	SYS	Change display format for the file name exported with print log export / SNMP. 0: Export from the head 1: Export the tail 2: Export the head and tail	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
8626	User interface	Private/Hold print job continuous operation	ALL	0 <0-1>	SYS	Set whether or not to transit to the Private/ Hold print selection screen after required files have been printed (or after unnecessary files have been deleted) during Private/Hold print job operation. 0: Off 1: On (transit to Private/Hold selection screen)	1
8628	General	Device operation when connected to coin controller	ALL	0 <0-1>	SYS	Active if 08-202 is set to “1.” If set to “1: Allow,” transition from the copy screen to the JOB STATUS screen is possible and device operation can be performed during printing. 0: Disallow 1: Allow	1
8632	System	Switching of reboot setting for automatic reboot	ALL	0 <0-1>	SYS	Switches the reboot setting for automatic reboot. 0: Software reboot only 1: Software and hardware reboot	1
8800	Network	Enabling / Disabling of 802.1X	ALL	2 <1-2>	NIC	1: Enabled 2: Disabled	12
8801	Network	802.1X fallbackNumber of retry	ALL	3 <3-10>	NIC	3-10:3-10 times	12
8802	Network	Enabling / Disabling of IPsec	ALL	2 <1-2>	NIC	1: Enabled 2: Disabled	12
8803	Network	Enabling / Disabling of SNMPv3	ALL	2 <1-2>	NIC	1: Enabled 2: Disabled	12
8804	Network	Enabling / Disabling of IP filtering	ALL	2 <1-2>	NIC	1: Enabled 2: Disabled	12
8805	Network	Enabling / Disabling of MAC address filtering	ALL	2 <1-2>	NIC	1: Enabled 2: Disabled	12
8806	Network	SCEP CA Server Address1	ALL	-	NIC	Maximum 128 letters	12
8807	Network	SCEP CA Server Address2	ALL	-	NIC	Maximum 128 letters	12
8808	Network	SCEP CA Server Address3	ALL	-	NIC	Maximum 128 letters	12
8809	Network	SCEP Timeout1	ALL	30 <1-300>	NIC	Timeout period (second)	12
8810	Network	SCEP Timeout2	ALL	30 <1-300>	NIC	Timeout period (second)	12
8811	Network	SCEP Timeout3	ALL	30 <1-300>	NIC	Timeout period (second)	12
8812	Network	SCEP Common Name Address1	ALL	1 <1-2>	NIC	1: IP Address 2: FQDN	12
8813	Network	SCEP Common Name Address2	ALL	1 <1-2>	NIC	1: IP Address 2: FQDN	12
8814	Network	SCEP Common Name Address3	ALL	1 <1-2>	NIC	1: IP Address 2: FQDN	12

Setting mode (08)

Code	Classification	Items	Function	Default <Acceptable value>	Board	Contents	Procedure
8815	Network	Installation method of IPsec certificate	ALL	2 <2-3>	NIC	2: Import(Default) 3: SCEP	12
8816	Network	Installation method of IEEE 802.1X certificate	ALL	2 <2-3>	NIC	2: Import(Default) 3: SCEP	12
8817	Network	Enabling / Disabling of WS Pull Scan when user authentication is enabled	ALL	2 <1-2>	NIC	1: Enable 2: Disable (Default)	12
8818	Network	Enabling / Disabling of WS Pull Scan when department management is enabled	ALL	2 <1-2>	NIC	1: Enable 2: Disable (Default)	12
8819	Network	Enabling / Disabling of 802.1X fallback	ALL	2 <1-2>	NIC	1: Enable 2: Disabled	12
8820	Network	IPsec NAT-Traversal setting	ALL	1 <1-3>	NIC	1: Default (IKEv1: Disabled, IKEv2: Enabled) 2: Enable IKEv1 & IKEv2 3: Disable IKEv1 & IKEv2	12
8821	Network	IPsec CRL setting	ALL	2 <1-2>	NIC	1: Enable CRL 2: Disable CRL	12
8823	Network	Enables/Disables Port 139 for user authentication	ALL	1 <1-2>	NIC	1: Port 139 enabled in MFP 2: Port 139 disabled in MFP	12
9022	General	Easy setup production process flag	ALL	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 the error is canceled and you want to restart the unpacking manual adjustment. 0: Unpacking mode finished (before unpacking is started) 1: Auto-toner adjustment finished (The message prompting the installation of the toner cartridge is displayed.) 2: Toner cartridge is installed 99: All the unpacking adjustments finished Only 0 to 2 and 99 are available for this code.	1

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
9051	User interface	Panel calibration setting value display	ALL	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
9090	General	Printer all clear	ALL	-	M	If the data of the self-diagnosis 05/08 code become abnormal, performing 08-4582 can restore them. If not, perform this code. All data of the self-diagnosis 05/08 code with “M" in the "SRAM" field are initialized, except the destination setting data. Perform this code if the above problem occurs or the data of the self-diagnosis 05/08 code and the backup data are damaged after replacing the LGC board and performing 08-4582. Procedure: 1. Set 08-201. 2. Perform 08-9090. 3. Perform 08-4581. 4. Set 08-203 to "0". If you have got the order wrong, repeat the procedure from step 1. After this code is performed, it is necessary to replace the developer material and to adjust the auto-toner sensor. Since the information of the PM counter is initialized, enter it again as required.	3
9117	General	Raw printing job (Blank page will not be printed)	PRT	0 <0-1>	SYS	0: OFF 1: ON	1

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
9185-0	User interface	Feeding paper media	Copier	ALL	1 <1, 16, 17>	SYS	Sets a media type for APS drawer searching in the copier functions. 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") bit 4: Thick paper 1	4
9185-1	User interface		Printer/ Box	ALL	1 <1, 16, 17>	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. 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") bit 4: N/A (Always set "0")	4
9300	Paper feeding	Drawer 1 Paper information		ALL	0 <0-1>	SYS	0: Plain paper 1: Thick paper 1	1
9301	Paper feeding	Drawer 2 Paper information		ALL	0 <0-1>	SYS	0: Plain paper 1: Thick paper 1	1
9302	Paper feeding	PFP 1 Paper information		ALL	0 <0-1>	SYS	0: Plain paper 1: Thick paper 1	1
9303	Paper feeding	PFP 2 Paper information		ALL	0 <0-1>	SYS	0: Plain paper 1: Thick paper 1	1
9304	Paper feeding	LCF Paper information		ALL	0 <0-1>	SYS	0: Plain paper 8: Recycled paper Only “0” and “8” are acceptable.	1
9305	Paper feeding	Bypass tray Paper information		ALL	0 <0-3, 16, 32>	SYS	0: Plain paper 1: Thick paper 1 2: Thick paper 2 3: Thick paper 3 16: OHP film 32: Envelope	1

Setting mode (08)

Code	Classification	Items	Function	Default <Acceptable value>	Board	Contents	Procedure
9359	User interface	Printing resume after jam releasing	ALL	0 <0-1>	SYS	0: Auto resume 1: Resume by users	1
9379	User interface	AES data encryption function setting (Except for CND)	ALL	0 <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.	1
9384	Network	Default E-mail file format (Color/ACS mode)	ALL	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
9394	Network	Single-page option for storing File and sending Email	ALL	0 <0-1>	SYS	0: Sets 1 page as 1 file 1: Makes a file based on the original	1
9629	Network	Attribute name for LDAP Role Based Access	ALL	eBMUserRole <->	SYS	Up to 32 letters	11
9739	Maintenance	Remote service Toner-end notification	ALL	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
9746	Network	802.1X/Dynamic WEP selecting button display	ALL	0 <0-1>	SYS	Switches whether a selecting button for Security mode 802.1X/ Dynamic WEP is displayed or not. 1: Not displayed 2: Displayed	1
9747	Network	PMK Cache setting	ALL	1 <1-2>	NIC	Sets whether PMK Cache is enabled or disabled when WPA2 is selected. Set “1” (Enable) when the PMK Cache function need to be ON. 1: Disable (Default) 2: Enable	12
9749	Network	WIA Scan Driver	SCN	1 <1-2>	NIC	Selects WIA Scan Driver. 1: TTEC 2: Microsoft	12
9791	Network	FTP data cloning setting	ALL	1 <1-2>	SYS	1: Enabled 2: Disabled	1

Setting mode (08)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
9798	Network	Temporary communication password setting		ALL	-	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
9799	General	Local authentication mode switchover		ALL	0 <0-1>	SYS	Sets the authentication mode when "0: (Internal authentication)" is selected in the code 08-1471. 0: Card ID differs from the User ID 1: Card ID is the same as the User ID	1
9804	Image processing	Forcible mode change in toner empty status		ALL	1 <0-2>	SYS	0: SLEEP MODE 1: AUTO POWER SAVE 2: READY	1
9805	Laser	Polygonal motor standby rotation Shift waiting time at job end		ALL	3 <0-9>	SYS	0: 0 sec. (current setting) (Polygonal motor ready rotation at job end) 1 to 9: Setting value x 5 sec.	1
9811-0	Finisher	Stapling setting Maximum number of sheets acceptable exceeding upper limit / Long size	Plain/ Recycled	ALL	0 <-50-50>	SYS	-50 to 50	4
9811-1			Thick1	ALL	0 <-50-50>	SYS		4
9811-2			Thick2	ALL	0 <-50-50>	SYS		4
9811-3			Thick3	ALL	0 <-50-50>	SYS		4
9814	General	Number of output pages for pausing continuous printing for 2nd transfer resistance detection control	At normal temperatures	ALL	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
9815	General		At low temperatures	ALL	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

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
9819	General	STAGE SSL	ALL	1 <0-1>	SYS	When remote scanning is performed, the SSL communication is carried out. 0: Disabled 1: Enabled (SSL communication)	1
9822	General	STAGE SSL port number	ALL	20443 <0-65535>	SYS	When remote scanning is performed using SSL communication, the SSL port number is set.	1
9825	Image	Image quality of the black part in the ACS mode	ALL	0 <0-1>	SYS	0: Black 1: Gray scale	1
9826	General	Disabling Media File Save	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
9828	General	Remote scanning mode	ALL	1 <0-1>	SYS	0: Batch 1: Sequential	1
9829	General	Department management limitation setting	ALL	0 <0-1>	SYS	Decide the default limitation setting when the new department code is created. 0: No limit 1: Limited	1
9847	Finisher	Hole punching setting	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
9880	General	Total counter transmission date setting (2)	ALL	0 <0-31>	SYS	0 to 31	1
9881	General	Day of total counter data transmission	ALL	0 <0-127>	SYS	1 byte 00000000(0)-01111111(127) From the 2nd bit - Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday	1
9882	Electronic filing	Display mode of the used capacity on the e-Filing administrator page	ALL	1 <0-1>	SYS	0: All files search mode 1: Performance priority mode	1
9883	General	Hardcopy security printing level 1	PPC	0 <0-1>	SYS	Sets whether the hardcopy security printing is enabled or disabled. 0: Disabled 1: Enabled	2
9884	Counter	Count switching of hardcopy security printing level 1	PPC	0 <0-1>	SYS	Sets the way of counting for hardcopy security printing	2
9886	Scanning	Decimal point indication for Enhanced Scan Template	SCN	EUR: 0 Other: 1 <0-1>	SYS	0: Comma 1: Period	1
9888	Scanner	Permission setting for changing the scan parameter when recalling an extension	SCN	0 <0-1>	SYS	0: Prohibited 1: Permitted	1
9889	General	Status display of the USB data cloning permission	ALL	0 <0-1>	SYS	Acceptance of the usage of the USB data cloning tool 0: Accepted 1: Not accepted	2

Setting mode (08)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
9891	User interface	Warning message on the touch panel when PM (Periodic Maintenance) time has come		ALL	1 <0-1>	SYS	0: No warning notification 1: Display warning notification	1
9897	Image	Default value setting of background peak adjustment (Black)		ALL	5 <1-9>	SYS	1: -4 2: -3 3: -2 4: -1 5: 0 6: +1 7: +2 8: +3 9: +4	1
9898	Image	Default value setting of density in the scan mode (Color)		ALL	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
9899	Image	Default value setting of density in the scan mode (Gray)		ALL	6 <1-11>	SYS		1
9929	Version	Processor version display		ALL	-	-	Displays the version of the processor.	2
9933	Network	Domain participation confirmation of printing when LDAP authentication is used		ALL	1 <0-1>	SYS	When LDAP is selected as authentication method for user authentication, checking of domain participation of client computer for print job authentication is set. This function is enabled only when department management is enabled. 0: Disabled 1: Enabled	1
9937-0	Finisher	Stapling setting Acceptable number of sheets exceeding upper limit / Short size	Plain/ Recycled	ALL	0 <-100-100>	SYS	-100 to 100	4
9937-1			Thick1	ALL	0 <-100-100>	SYS		4
9937-2			Thick2	ALL	0 <-100-100>	SYS		4
9937-3			Thick3	ALL	0 <-100-100>	SYS		4
9938-0	Finisher	Stapling Acceptable number of sheets exceeding upper limit / Saddle stitch	Plain/ Recycled	ALL	0 <-15-15>	SYS	-15 to 15	4
9938-1			Thick1	ALL	0 <-15-15>	SYS		4
9938-2			Thick2	ALL	0 <-15-15>	SYS		4
9938-3			Thick3	ALL	0 <-15-15>	SYS		4
9945	Version	Finisher Converter ROM version		ALL	-	-	CNV-XXX	2
9946	General	E-mail transmission retry number		ALL	3 <0-14>	SYS	The number of times of E-mail communication retry for Scan to E-mail and Internet Fax is set.	1

Setting mode (08)

Code	Classification	Items	Function	Default <Acceptable value>	Board	Contents	Procedure
9947	General	E-mail transmission retry interval	ALL	1 <0-15>	SYS	When E-mail transmission retry for Scan to E-mail and Internet Fax is performed, the interval is set. 0 min - 15 min	1
9954	General	Control box counter / job list printing operation (Individual customer)	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
9955	User interface	Name of [EXTENSION] button	ALL	EXTENSION	SYS	Changes the name of [EXTENSION] on the menu screen. "EXTENSION" is displayed if no setting is performed. 2-byte codes (Japanese, Chinese, Korean and Taiwanese) and European special characters are not supported. Maximum 10 letters (10 bytes)	11
9957	Network	E-mail address specifying method	ALL	0 <0-1>	SYS	Selects the E-mail address specifying method on the Email submenu of the Setup menu in TopAccess. 0: To/Cc 1: To/Bcc	1
9958	Network	Bcc address display ON/OFF setting (Job Log / Job Status)	ALL	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
9959	Network	Bcc address display ON/OFF setting (Job Notification)	ALL	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
9960	General	Equipment information (SRAM)	ALL	0 <0-2>	SYS	Displays the equipment information (SRAM: original) 0: Not set 1: Other than SE models 2: SE models	2

Setting mode (08)

Code	Classification	Items		Function	Default <Acceptable value>	Board	Contents	Procedure
9972	General	Blank page judgment at power-ON Default setting		PPC	0 <-3-3>	SYS	The larger the value is, the more the paper is judged as a blank page.The smaller the value is, the less the paper is judged as a blank page.	1
9973	User interface	Blank page judgment Default setting		SCN (color/ black)	0 <-3-3>	SYS	The larger the value is, the more the paper is judged as a blank page.The smaller the value is, the less the paper is judged as a blank page.	1
9975	User interface	Blank page judgment at power-ON (Network scan) Default setting		SCN (color/ black)	2 <-3-3>	SYS	The larger the value is, the more the original is judged as color data. The smaller the value is, the less the original is judged as black data.	1
9980	Network	Receiver's address fixing function at authentication		ALL	0 <0-4>	SYS	Fixes the receiver's address ("To: Destination" field) when the user authentication and E-mail authentication are enabled. 0: Disabled 1: To: is fixed, CC (BCC) cannot be set 2: To: can be set, CC (BCC) is fixed 3: Adding to To: is allowed 4: Adding to CC (BCC) is allowed	1
9981	Network	Sending body text of email		ALL	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
9982	User interface	Switch of display attribute of [EXTENSION] icon		ALL	0 <0-1>	SYS	0: Touch is invalid when authentication is not completed. 1: Touch is valid when authentication is not completed.	1
9984-0	General	Document or file name display form for the PRINT screen, JOB STATUS screen, Job Status tab and Logs tab	Document name	ALL	0 <0-2>	SYS	0: Displays with the document or file name 1: Blank 2: Displays with asterisks.	4
9984-1			User name	ALL	0 <0-2>	SYS		4
9984-2			Destination/file name	ALL	0 <0-2>	SYS		4
9984-3			Sender name	ALL	0 <0-2>	SYS		4
9984-4			Printing/ Agent type	ALL	0 <0-2>	SYS		4

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**Board**	**Contents**	**Procedure**
9985	Maintenance	Setting screen allocated when the MENU button is pressed	ALL	0 <0-2>	SYS	0: Menu screen 1: EWB screen 2: Meta Scan screen	1
9986	Maintenance	Template default setting screen	ALL	1 <0-2>	SYS	0: Registration screen. 1: Recalling screen. 2: Meta Scan screen	1
9987	Maintenance	Retains the settings after a FAX is sent	ALL	0 <0-3>	SYS	0: All cleared (Returned when the department/user authentication is enabled) 1: All cleared (Returned to the authentication screen when the department/ user authentication is enabled) 2: Only the recipient cleared 3: All kept	1

2.7.3 Pixel counter and its related code

Pixel counter

1. Outline
   Pixel counter is a function that counts the number of dots emitted by the laser 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 4 factors mentioned in the previous page and toner consumption per output page in the Copier Function are as follows:

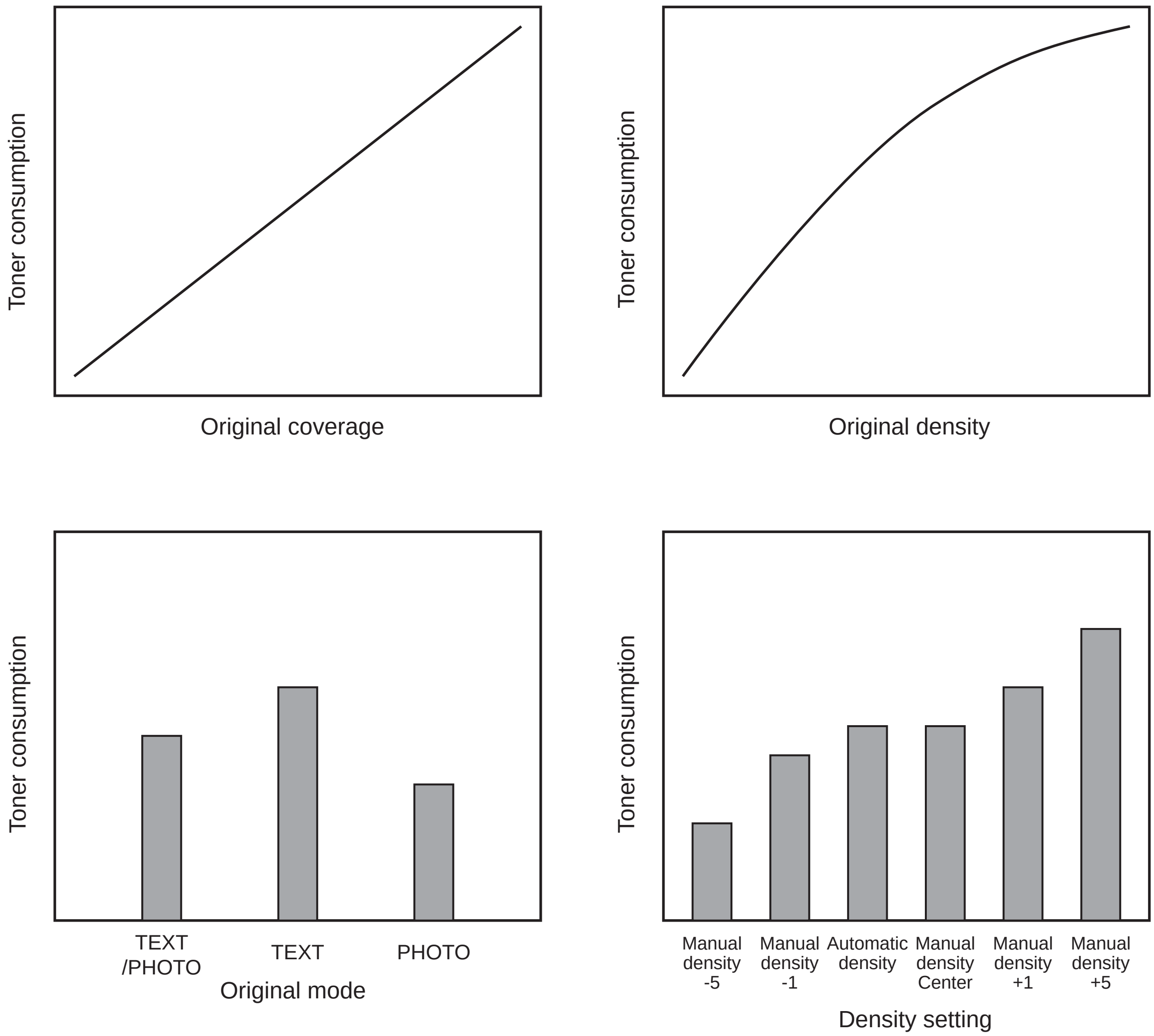


Fig. 2-13 Factors affecting toner consumption and the tendency

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 empty has exceeded the threshold.
     The threshold to be used is selectable in the setting mode (08-1506) between the pixel count and output pages (0: Output pages 1: Pixel counter). The threshold of pixel count is set in the setting mode (08-1508) and that of output pages is set in the setting mode (08-1507). 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 (08-1503).

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 (08-1502).

- 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 (08-1500).
  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 laser emitting pixels to all pixels on standard paper.
  The examples of pixel count are as follows:

Note:
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 (Laser emits to all pixels.)
→ Pixel count: 100%, Print count: 5

Printing 5 pages on A4/LT size with blank copy (Laser never emits.)
→ Pixel count: 0%, Print count: 5

Printing 2 pages on A4/LT size with solid copy (Laser emits to all pixels.)
Printing 2 pages on A4/LT size with blank copy (Laser never emits.)
→ Pixel count: 50%, Print count: 4

Printing 3 pages on A4/LT size with 6% of laser emission
Printing 1 page on A4/LT size with 2% of laser emission
→ Pixel count: 5%, Print count: 4

Printing 2 pages on A3/LD size with solid copy (Laser emits to all pixels.)
→ Pixel count: 100%, Print count: 4

Printing 2 pages on A3/LD size with 6% of laser 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, the data of pixel count is calculated for each function.
  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.

○: With data
—: Without data

	Toner cartridge reference	Service technician reference
Copier function	○	○
Printer function	○	○
FAX function	○	○
Total	○	○

Table 2-201 Type of calculated 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 (08-1500).

  Pixel counter display setting
  Whether or not to display the pixel counter on the LCD screen is selected (08-1504).

  Display reference setting
  The reference when displaying the pixel counter on the LCD screen (toner cartridge reference or service technician reference) is selected (08-1505).

  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:
  08-1501: All information related to the pixel count is cleared.
  08-1502: All information related to the service technician reference pixel count is cleared.
  08-1503: 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:

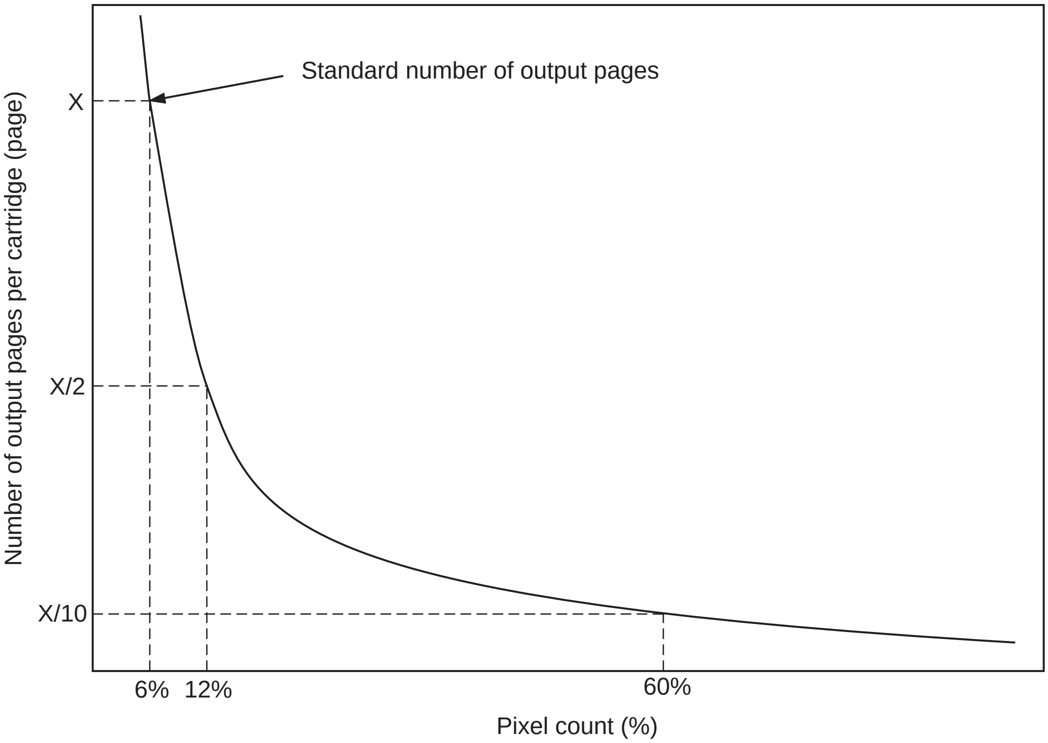
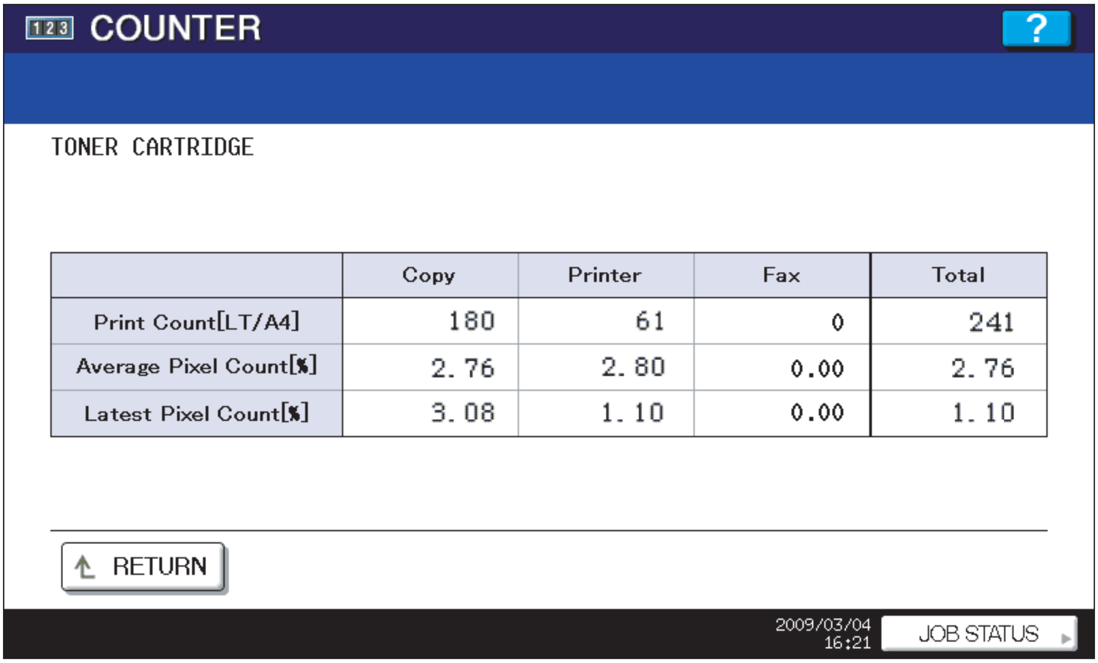


Fig. 2-14 Pixel count and number of output pages per cartridge

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 (08-1504), 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 (08-1505).

     The following screen is displayed when the buttons, [USER FUNCTIONS], [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 following screen is displayed when the toner cartridge reference is selected in the setting mode (08-1505).



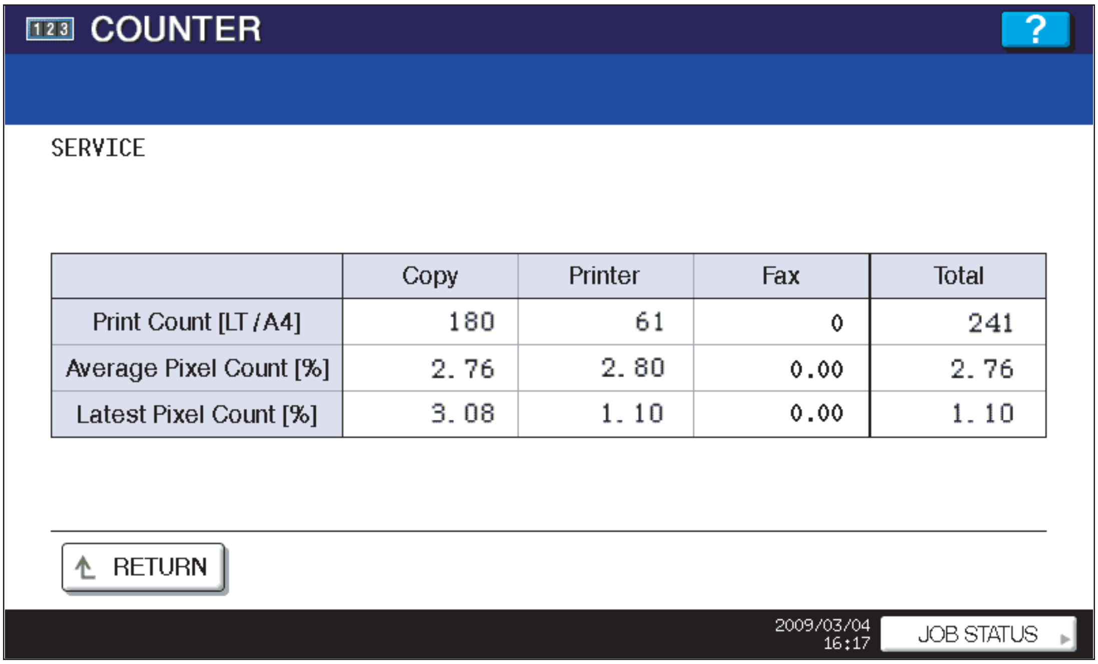
TONER CARTRIDGE

	Copy	Printer	Fax	Total
Print Count[LT/A4]	180	61	0	241
Average Pixel Count[%]	2.76	2.80	0.00	2.76
Latest Pixel Count[%]	3.08	1.10	0.00	1.10

2009/03/04
16:21

Fig. 2-15 Information screen of toner cartridge reference

The following screen is displayed when the service technician reference is selected in the setting mode (08-1505).



SERVICE

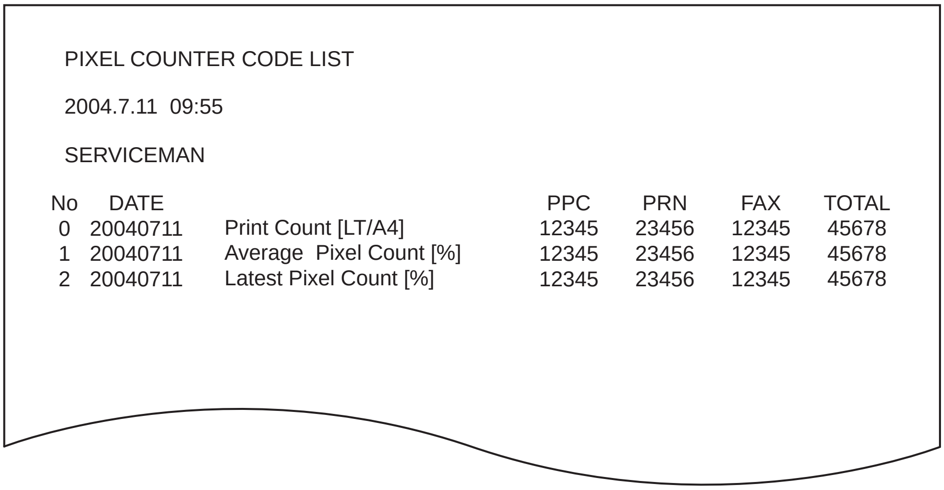
	Copy	Printer	Fax	Total
Print Count [LT/A4]	180	61	0	241
Average Pixel Count [%]	2.76	2.80	0.00	2.76
Latest Pixel Count [%]	3.08	1.10	0.00	1.10

Fig. 2-16 Information screen of service technician reference

- 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

2004.7.11  09:55

TONERCARTRIDGE

No   DATE                                      PPC     PRN     FAX    TOTAL
 0  20040711    Print Count [LT/A4]           12345   23456   12345   45678
 1  20040711    Average  Pixel Count [%]      12345   23456   12345   45678
 2  20040711    Latest Pixel Count [%]        12345   23456   12345   45678
```

Fig. 2-17 Data list of toner cartridge reference



```
PIXEL COUNTER CODE LIST

2004.7.11  09:55

SERVICEMAN

No   DATE                                           PPC     PRN     FAX    TOTAL
 0  20040711   Print Count [LT/A4]                12345   23456   12345    45678
 1  20040711   Average  Pixel Count [%]           12345   23456   12345    45678
 2  20040711   Latest Pixel Count [%]             12345   23456   12345    45678
```

Fig. 2-18 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 📖 P.2-63 "2.7 Setting Mode (08)".

Print count, pixel count

		Toner cartridge reference	Service technician reference
Copier function	Print count (page)	1553	1548
	Average pixel count (%)	1613	1592
	Latest pixel count (%)	1639	1606
Printer function	Print count (page)	1555	1550
	Average pixel count (%)	1619	1593
	Latest pixel count (%)	1640	1607
FAX function	Print count (page)	1556	1551
	Average pixel count (%)	1625	1594
	Latest pixel count (%)	1634	1608
Total	Average pixel count (%)	1624	1595

Table 2-202 Pixel count code table

Pixel count distribution

	Pixel count distribution (page)
Copier function	1649
Printer function	1650
FAX function	1651

Table 2-203 Pixel count code table

Note:

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. (08-1566)

Toner cartridge reference count started date
The toner cartridge reference count started date is displayed. (08-1518)

Service technician reference cleared date
The service technician reference cleared date is displayed.(08-1510)
The date (08-1502 was performed) is stored.

Toner cartridge reference cleared date
The toner cartridge reference cleared date is displayed.
The date (08-1503 was performed) is stored.

Pixel counter related code

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1500	Pixel counter	Standard paper size setting	ALL	NAD: 1 Other: 0 <0-1>	SYS	Selects the standard paper size to convert it into the pixel count (%). 0: A4 1: LT	1
1501	Pixel counter	Pixel counter all clearing	ALL	-	SYS	Clears all information related to the pixel counter.	3
1502	Pixel counter	Service technician reference counter clearing	ALL	-	SYS	Clears all information related to the service technician reference pixel counter.	3
1503	Pixel counter	Toner cartridge reference counter clearing	ALL	-	SYS	Clears all information related to the toner cartridge reference pixel counter.	3
1504	Pixel counter	Pixel counter display setting	ALL	1 <0-1>	SYS	Selects whether or not to display the pixel counter on the LCD screen. 0: Displayed 1: Not displayed	1
1505	Pixel counter	Displayed reference setting	ALL	0 <0-1>	SYS	Selects the reference when displaying the pixel counter on the LCD screen. 0: Service technician reference 1: Toner cartridge reference	1
1506	Pixel counter	Counter setting for toner empty	ALL	0 <0-1>	SYS	0: Number of sheets 1: Value of pixel counter	1
1507	Pixel counter	Number of sheets for toner empty	ALL	800 <0-999>	SYS	Sets the number of sheets for toner empty.	1
1508	Pixel counter	Pixel counter value for toner empty	ALL	35100 <0-60000>	SYS	Sets the pixel counter value for toner empty.	1
1509	Pixel counter	Pixel counter clear flag/ Service technician reference	ALL	0 <0-1>	SYS	Becomes “1” when 08-1502 is performed.	2
1510	Pixel counter	Service technician reference cleared date	ALL	-	SYS	Displays the date on which 08-1502 was performed.	2
1514	Pixel counter	Toner cartridge reference cleared date	ALL	-	SYS	Displays the date on which 08-1503 was performed.	2
1518	Pixel counter	Toner cartridge reference count started date	ALL	-	SYS	Displays the date on which 08-1503 was performed.	2
1548	Pixel counter	Number of output pages (Service technician reference)	PPC	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the copy function and service technician reference. [Unit. page]	2

Setting mode (08)							
Code	**Classification**	**Items**	**Function**	**Default <Acceptable value>**	**RAM**	**Contents**	**Procedure**
1550	Pixel counter	Number of output pages (Service technician reference)	PRT	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the printer function and service technician reference. [Unit. page]	2
1551	Pixel counter	Number of output pages (Service technician reference)	FAX	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the FAX function and service technician reference. [Unit. page]	2
1553	Pixel counter	Number of output pages (Toner cartridge reference)	PPC	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the copy function and toner cartridge reference. [Unit. page]	2
1555	Pixel counter	Number of output pages (Toner cartridge reference)	PRT	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the printer function and toner cartridge reference. [Unit. page]	2
1556	Pixel counter	Number of output pages (Toner cartridge reference)	FAX	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the FAX function and toner cartridge reference. [Unit. page]	2
1566	Pixel counter	Toner cartridge replacement counter	ALL	<3 digits>	SYS	Counts the number of time of the toner cartridge replacement.	2
1592	Pixel counter	Average pixel count (Service technician reference)	PPC	0 <0-10000>	SYS	Displays the average pixel count in the copy function and service technician reference. [Unit: 0.01%]	2
1593	Pixel counter	Average pixel count (Service technician reference)	PRT	0 <0-10000>	SYS	Displays the average pixel count in the printer function and service technician reference. [Unit: 0.01%]	2
1594	Pixel counter	Average pixel count (Service technician reference)	FAX	0 <0-10000>	SYS	Displays the average pixel count in the FAX function and service technician reference. [Unit: 0.01%]	2
1595	Pixel counter	Average pixel count (Service technician reference)	PPC/ PRT/ FAX	0 <0-10000>	SYS	Displays the average pixel count in the copy/ printer/FAX function and service technician reference. [Unit: 0.01%]	2

Setting mode (08)

Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
1606	Pixel counter	Latest pixel count (Service technician reference)		PPC	0 <0-10000>	SYS	Displays the latest pixel count in the copy function and service technician reference. [Unit: 0.01%]	2
1607	Pixel counter	Latest pixel count (Service technician reference)		PRT	0 <0-10000>	SYS	Displays the latest pixel count in the printer function and service technician reference. [Unit: 0.01%]	2
1608	Pixel counter	Latest pixel count (Service technician reference)		FAX	0 <0-10000>	SYS	Displays the latest pixel count in the FAX function and service technician reference. [Unit: 0.01%]	2
1613	Pixel counter	Average pixel count (Toner cartridge reference)		PPC	0 <0-10000>	SYS	Displays the average pixel count in the copy function and toner cartridge reference. [Unit: 0.01%]	2
1619	Pixel counter	Average pixel count (Toner cartridge reference)		PRT	0 <0-10000>	SYS	Displays the average pixel count in the printer function, and toner cartridge reference. [Unit: 0.01%]	2
1624	Pixel counter	Average pixel count (Toner cartridge reference)		PPC/ PRT/ FAX	0 <0-10000>	SYS	Displays the average pixel count in the copy/ printer/FAX function and toner cartridge reference. [Unit: 0.01%]	2
1625	Pixel counter	Average pixel count (Toner cartridge reference)		FAX	0 <0-10000>	SYS	Displays the average pixel count in the FAX function and toner cartridge reference. [Unit: 0.01%]	2
1634	Pixel counter	Latest pixel count (Toner cartridge reference)		FAX	0 <0-10000>	SYS	Displays the latest pixel count in the FAX function and toner cartridge reference. [Unit: 0.01%]	2
1639	Pixel counter	Latest pixel count/black (Toner cartridge reference)		PPC	0 <0-10000>	SYS	Displays the latest pixel count in the copy function and toner cartridge reference. [Unit: 0.01%]	2
1640	Pixel counter	Latest pixel count/black (Toner cartridge reference)		PRT	0 <0-10000>	SYS	Displays the latest pixel count in the printer function and toner cartridge reference. [Unit: 0.01%]	2
1649-0	Pixel counter	Pixel count distribution	0-5%	PPC	<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 are displayed. [Unit: page]	14
1649-1			5.1-10%	PPC	<8 digits>	SYS		14
1649-2			10.1-15%	PPC	<8 digits>	SYS		14
1649-3			15.1-20%	PPC	<8 digits>	SYS		14
1649-4			20.1-25%	PPC	<8 digits>	SYS		14
1649-5			25.1-30%	PPC	<8 digits>	SYS		14
1649-6			30.1-40%	PPC	<8 digits>	SYS		14
1649-7			40.1-60%	PPC	<8 digits>	SYS		14
1649-8			60.1-80%	PPC	<8 digits>	SYS		14
1649-9			80.1-100%	PPC	<8 digits>	SYS		14

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
1650-0	Pixel counter	Pixel count distribution	0-5%	PRT	<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 are displayed. [Unit: page]	14
1650-1			5.1-10%	PRT	<8 digits>	SYS		14
1650-2			10.1-15%	PRT	<8 digits>	SYS		14
1650-3			15.1-20%	PRT	<8 digits>	SYS		14
1650-4			20.1-25%	PRT	<8 digits>	SYS		14
1650-5			25.1-30%	PRT	<8 digits>	SYS		14
1650-6			30.1-40%	PRT	<8 digits>	SYS		14
1650-7			40.1-60%	PRT	<8 digits>	SYS		14
1650-8			60.1-80%	PRT	<8 digits>	SYS		14
1650-9			80.1-100%	PRT	<8 digits>	SYS		14
1651-0	Pixel counter	Pixel count distribution	0-5%	FAX	<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 are displayed. [Unit: page]	14
1651-1			5.1-10%	FAX	<8 digits>	SYS		14
1651-2			10.1-15%	FAX	<8 digits>	SYS		14
1651-3			15.1-20%	FAX	<8 digits>	SYS		14
1651-4			20.1-25%	FAX	<8 digits>	SYS		14
1651-5			25.1-30%	FAX	<8 digits>	SYS		14
1651-6			30.1-40%	FAX	<8 digits>	SYS		14
1651-7			40.1-60%	FAX	<8 digits>	SYS		14
1651-8			60.1-80%	FAX	<8 digits>	SYS		14
1651-9			80.1-100%	FAX	<8 digits>	SYS		14

2.7.4 PM support mode related code

The management items at PM support mode can also be operated at setting mode (08).
The following items are displayed or set by using sub-codes at PM management setting in the table below.

Sub-codes

0: Present number of output pages
  - Means the present number of output pages.
1: Recommended number of output pages for replacement
  - Means the recommended number of output pages for replacement.
2: Number of output pages at the last replacement
  - Means the number of output pages at the last replacement.
3: Present driving counts
  - Means the present drive counts (1 count = 2 seconds).
4: Recommended driving counts to be replaced
  - Means the recommended drive counts for replacement (1 count = 2 seconds).
5: Driving counts at the last replacement
  - Means the drive counts at the last replacement.
6: Present output pages for control
  - Means the present number of output pages for controlling.
7: Present driving counts for control
  - Means the present drive counts for controlling (1 count = 2 seconds).
8: Number of times replaced
  - Counts up when clearing the counter of each unit in the PM Support Mode Screen.

Notes:

- Sub-code 3 is equivalent to sub-code 7.
- When the value of sub-code 3 is changed, the value of sub-code 7 is also updated and vice versa.
- When "0" is set at one of sub-codes 0, 3, 6 and 7, the rest of them are automatically updated to "0".

Items	PM management setting <Procedure 4> *Indicated in 8 digits	Date of previous replacement <Procedure 2>	Remarks
Photoconductive drum	1150-0 to 8	1151	<Default values of code 1150 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0/0 Sub-code 1: 80,000/100,000/120,000/ 125,000/150,000 Sub-code 4: 161,000/161,000/161,000/ 135,000/135,000
Drum cleaning blade	1158-0 to 8	1159	<Default values of code 1158 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0/0 Sub-code 1: 80,000/100,000/120,000/ 125,000/150,000 Sub-code 4: 161,000/161,000/161,000/ 135,000/135,000
Drum separation finger	1172-0 to 8	1173	<Default values of code 1172 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0/0 Sub-code 1: 80,000/100,000/120,000/ 125,000/150,000 Sub-code 4: 161,000/161,000/161,000/ 135,000/135,000
Charger grid	1174-0 to 8	1175	<Default values of code 1174 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0/0 Sub-code 1: 80,000/100,000/120,000/ 125,000/150,000 Sub-code 4: 161,000/161,000/161,000/ 135,000/135,000
Charger (Wire)	1182-0 to 8	1183	<Default values of code 1182 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0/0 Sub-code 1: 80,000/100,000/120,000/ 125,000/150,000 Sub-code 4: 161,000/161,000/161,000/ 135,000/135,000
Ozone filter	1198-0 to 8	1199	<Default values of code 1198 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0/0 Sub-code 1: 240,000/200,000/240,000/ 250,000/300,000 Sub-code 4: 483,000/322,000/322,000/ 270,000/270,000
Developer material	1200-0 to 8	1201	<Default values of code 1200 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0/0 Sub-code 1: 80,000/100,000/120,000/ 125,000/150,000 Sub-code 4: 161,000/161,000/161,000/ 135,000/135,000

Items	PM management setting <Procedure 4> *Indicated in 8 digits	Date of previous replacement <Procedure 2>	Remarks
Transfer (wire/belt/ roller)	1214-0 to 8	1215	<Default values of code 1214 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0/0 Sub-code 1: 80,000/100,000/120,000/ 125,000/150,000 Sub-code 4: 161,000/161,000/161,000/ 135,000/135,000
Fuser roller	1246-0 to 8	1247	<Default values of code 1246 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0/0 Sub-code 1: 240,000/200,000/240,000/ 250,000/300,000 Sub-code 4: 483,000/322,000/322,000/ 270,000/270,000
Pressure roller	1250-0 to 8	1251	<Default values of code 1250 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0/0 Sub-code 1: 240,000/200,000/240,000/ 250,000/300,000 Sub-code 4: 483,000/322,000/322,000/ 270,000/270,000
Fuser roller separation finger	1268-0 to 8	1269	<Default values of code 1268 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0/0 Sub-code 1: 80,000/100,000/120,000/ 125,000/150,000 Sub-code 4: 161,000/161,000/161,000/ 135,000/135,000
Pickup roller (RADF)	1282-0,1,2,8	1283	<Default values of code 1282 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 8: 0/0/0/0/0 Sub-code 1: 120,000/120,000/120,000/ 120,000/120,000
Feed roller (RADF)	1284-0,1,2,8	1285	<Default values of code 1284 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 8: 0/0/0/0/0 Sub-code 1: 120,000/120,000/120,000/ 120,000/120,000
Separation roller (RADF)	1286-0,1,2,8	1287	<Default values of code 1286 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 8: 0/0/0/0/0 Sub-code 1: 120,000/120,000/120,000/ 120,000/120,000
Pickup roller (Upper drawer of equipment)	1290-0,1,2,8	1291	<Default values of code 1290 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 8: 0/0/0/0/0 Sub-code 1: 80,000/80,000/80,000/ 80,000/80,000
Pickup roller (Lower drawer of equipment)	1292-0,1,2,8	1293	<Default values of code 1292 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 8: 0/0/0/0/0 Sub-code 1: 80,000/80,000/80,000/ 80,000/80,000
Pickup roller (Optional LCF)	1294-0,1,2,8	1295	<Default values of code 1294 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 8: 0/0/0/0/0 Sub-code 1: 160,000/160,000/160,000/ 160,000/160,000

Items	PM management setting <Procedure 4> *Indicated in 8 digits	Date of previous replacement <Procedure 2>	Remarks
Feed roller (Upper drawer of equipment)	1298-0,1,2,8	1299	<Default values of code 1298 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 8: 0/0/0/0/0 Sub-code 1: 80,000/80,000/80,000/ 80,000/80,000
Feed roller (Lower drawer of equipment)	1300-0,1,2,8	1301	<Default values of code 1300 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 8: 0/0/0/0/0 Sub-code 1: 80,000/80,000/80,000/ 80,000/80,000
Feed roller (Optional LCF)	1302-0,1,2,8	1303	<Default values of code 1302 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 8: 0/0/0/0/0 Sub-code 1: 160,000/160,000/160,000/ 160,000/160,000
Separation roller (Upper drawer of equipment)	1306-0,1,2,8	1307	<Default values of code 1306 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 8: 0/0/0/0/0 Sub-code 1: 80,000/80,000/80,000/ 80,000/80,000
Separation roller (Lower drawer of equipment)	1308-0,1,2,8	1309	<Default values of code 1308 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 8: 0/0/0/0/0 Sub-code 1: 80,000/80,000/80,000/ 80,000/80,000
Separation roller (Optional LCF)	1310-0,1,2,8	1311	<Default values of code 1310 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 8: 0/0/0/0/0 Sub-code 1: 160,000/160,000/160,000/ 160,000/160,000
Separation roller (Upper drawer of PFP)	1312-0,1,2,8	1313	<Default values of code 1312 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 8: 0/0/0/0/0 Sub-code 1: 80,000/80,000/80,000/ 80,000/80,000
Separation roller (Lower drawer of PFP)	1314-0,1,2,8	1315	<Default values of code 1314 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 8: 0/0/0/0/0 Sub-code 1: 80,000/80,000/80,000/ 80,000/80,000
Separation roller (Bypass unit)	1316-0,1,2,8	1317	<Default values of code 1316 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 8: 0/0/0/0/0 Sub-code 1: 80,000/80,000/80,000/ 80,000/80,000
Feed roller (Upper drawer of PFP)	1320-0,1,2,8	1321	<Default values of code 1320 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 8: 0/0/0/0/0 Sub-code 1: 80,000/80,000/80,000/ 80,000/80,000
Feed roller (Lower drawer of PFP)	1322-0,1,2,8	1323	<Default values of code 1322 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 8: 0/0/0/0/0 Sub-code 1: 80,000/80,000/80,000/ 80,000/80,000
Feed roller (Bypass unit)	1324-0,1,2,8	1325	<Default values of code 1324 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 8: 0/0/0/0/0 Sub-code 1: 80,000/80,000/80,000/ 80,000/80,000

Items	PM management setting <Procedure 4> *Indicated in 8 digits	Date of previous replacement <Procedure 2>	Remarks
Pickup roller (Upper drawer of PFP)	1328-0,1,2,8	1329	<Default values of code 1328 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 8: 0/0/0/0/0 Sub-code 1: 80,000/80,000/80,000/ 80,000/80,000
Pickup roller (Lower drawer of PFP)	1330-0,1,2,8	1331	<Default values of code 1330 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 8: 0/0/0/0/0 Sub-code 1: 80,000/80,000/80,000/ 80,000/80,000
Recovery blade	1336-0 to 8	1337	<Default values of code 1336 (e-STUDIO205L/255/305/355/455)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0/0 Sub-code 1: 80,000/100,000/120,000/ 125,000/150,000 Sub-code 4: 161,000/161,000/161,000/ 135,000/135,000

2.8 Classification List of Adjustment Mode (05)/Setting Mode (08)

Classification	Adjustment Mode (05)	Setting Mode (08)
User interface		[Date/Time] 200, 638, 640 [Timer] 204, 205, 206, 260 [Screen] 207, 602, 8624, 8625, 8626, 1132, 9984, 9985, 9986 [File] 209, 218, 219, 264, 288 [Language] 220, 221 [Administrator] 263 [Scanning] 265, 266, 273, 274 [Filing] 267, 270, 950, 976 [HDD] 271 [E-mail] 272, 1097, 1098 [Default setting] 276, 277, 278, 280, 281, 282, 283, 284, 285, 286, 289, 331, 480, 503, 550, 603, 604, 607, 618, 642, 986, 1135 [Raw printing] 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 973, 978, 979, 9117 [Copy volume] 300 [Original counter] 302 [AMS] 605 [Sound] 610, 969, 970 [Book duplexing] 611 [Summer time] 3852, 3853, 3854, 3855, 3856, 3857, 3858, 3859, 3860, 3861, 3862, 3863 [Paper size] 613 [Department management] 617 620, 621, 622, 623, 624, 629, 672, 9829 [Sorting] 627, 634, 641, 649 [Original direction] 628 [Image shift] 636, 1429, 1430, 8546 [Edit copying] 645, 646 [Box printing] 953, 954 [X in 1] 650 [Annotation] 651, 657 [Automatic transfer] 660, 661 [Indicator] 671 [Priority drawer] 689 [Job Build] 1130, 1131 [Displaying number of original pages] 342 [Paper size setting (drawers)] 1478 [Selectable security level] 1708 [Keyboard layout] 1929, 1930, 1931, 1932, 1933, 1935, 8550, 8551, 8552, 8553, 8554, 8555, 8556 [Panel calibration] 9051 [Feeding paper media] 9185-0 to 1 [EXTENSION button] 9955 [JOB STATUS] 983 [Jam releasing] 9359 [PM] 9891 [Trial copy] 3635 [Icon] 9982
Scanner	[Position] 305, 306 [Distortion] 308 [Reproduction ratio] 340 [Carriage position] 359, 360 [Shading position] 350, 351 [Log table] 361, 362 [Characteristic value] 363, 364	[Enhanced template] 9886, 9888 [Pre-scan] 3015 [Date/time] 8540

Classification	Adjustment Mode (05)	Setting Mode (08)
Image	[ACS] 1675 [RGB] 1080, 1081, 1082, 8372 [Image density] 501, 503, 504, 505, 506, 507, 508, 509, 510, 512, 514, 515, 700, 710, 714, 725, 729, 845, 846, 847, 848, 860, 861, 862, 863, 931, 934, 937, 940, 7126, 7129, 7475, 7478, 8340, 8341, 8342, 8344, 8345, 8346, 8348, 8349, 8350, 8380, 8381, 8382 [Gamma adjustment] 580 [Gamma balance] 590-0 to 2, 591-0 to 2, 592-0 to 2, 949-0 to 2, 880-0 to 2, 881-0 to 2, 882-0 to 2, 883-0 to 2, 7193-0 to 2, 7315-0 to 2, 7316-0 to 2, 7317-0 to 2, 7318-0 to 2, 7319-0 to 2, 7320-0 to 2, 7380-1 to 2, 7480-0 to 2 [Black density adjustment] 1075, 1076, 1077, 8371 [Saturation] 8325, 8326, 8327, 8373 [Background processing] 1070, 1071, 1072, 7025, 7033, 7034, 7041, 7042, 7043, 7048, 7050, 7051, 7279, 7280, 7468, 8370, 8385, 8386, 8387, 8389, 8390, 8391, 8392, 8394, 8395, 8400, 8402, 8403, 8404, 8405, 8407, 8408, 8409 [Sharpness] 604, 605, 606, 840, 841, 842, 843, 922, 1086, 1087, 1088, 7059, 7470, 8375 [Smudged/faint text] 648, 649, 654, 655, 656, 925 [Blank page judgment] 7618 [Setting beam level conversion] 667-0 to 4, 672-0 to 4, 678-0 to 4, 7351-0 to 4, 7352-0 to 4 [Image void correction] 7489 [Range correction] 7236, 7237, 7283, 7284, 7285, 7286, 7287, 7288, 7289, 7290, 7416, 7417, 7418, 7419, 7421, 7422, 7423, 7424, 7425, 7426, 8330, 8331, 8332, 8334, 8361, 8362, 8363, 8365 [Margin] 430, 431, 432, 433, 434-0 to 1, 435, 436, 437, 438 [Background processing] 9104, 9107	[All clearing] 7000, 7001, 7300, 7400, 7500 [Destination switching for image processing] 7010 [Error diffusion / Dither] 502, 509 [Custom mode] 508, 580, 590 [Default setting] 1149, 9897, 9898, 9899 [Blank page judgment] 9972, 9973, 9975 [ACS] 9825 [Correction table switching] 5101
Drive	[Main motor] 421, 422 [Exit motor] 424, 425	
Paper feeding	[Aligning amount] 448-0 to 2, 449-0 to 2, 450-0 to 2, 452-0 to 2, 455-0 to 2, 457, 458-0 to 2, 460-0 to 2, 461-0 to 2, 462-0 to 3, 463-0 to 2, 464-0 to 2, 469-0 to 5, 470-0 to 2, 471-0 to 2, 472-0 to 2, 473, 474-0 to 2 [Paper pushing amount] 466-0 to 1, 466-3 to 7	[paper dimension] 210, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 247, 248, 249, 337, 338, 339, 340, 341, 471 [Paper feeding] 254, 255, 481, 619, 658, 659, 988, 1133 [Retry] 463-0 to 1, 464-0 to 1, 465-0 to 1, 466-0 to 1, 467-0 to 1,468-0 to 1, 482, 1390, 1391, 1392, 1393, 1394, 1395, 1396, 1397, 1398, 1399, 1400, 1401 [Paper size] 224, 225, 226, 227, 228, 247, 248, 249, 256, 4621, 4622, 8548 [Blank copying prevention] 625 [Incorrect paper size jam] 449 [Tab paper] 1437, 1438 [Detection method of 13" LG] 1492 [Automatic drawer selection] 4016-0 to 1 [Paper information] 9300, 9301, 9302, 9303, 9304, 9305 [Paper pushing amount] 849 [ACC] 8591
Laser	[Laser power] 286 [Polygonal motor] 401, 405 [Write starting] 410, 411, 440, 441, 442, 443, 444, 445, 498-0 to 1 [Sideways deviation] 497-0 to 5	[Polygonal motor] 478, 479, 483, 484, 485, 486, 488, 489, 490, 9805 [Power correction] 872, 873, 876, 877, 884 [Output correction] 5132

Classification	Adjustment Mode (05)	Setting Mode (08)
Development	[Auto-toner] 200, 201	[Auto-toner] 414, 455 [Toner near-empty] 971, 8523, 9804 [Toner cartridge] 499
High-voltage transformer	[Main charger] 210, 248 [Developer] 205 [Transfer] 221, 2083, 2084 [Separation bias] 234	[Transfer] 491, 492, 493, 830, 868, 869, 2987, 5000, 5001-0 to 2, 5002, 5003, 9814, 9815 [Main charger] 805, 807, 808, 809, 864, 865, 866, 867, 5131 [Developer] 833, 835, 836, 837, 857, 860, 861, 862, 863, 5130 [Separation] 831, 870, 871
Fuser		[Status counter] 400 [Temperature] 404-0 to 3, 405-0 to 3, 407, 409, 410, 411, 412, 413, 424-0 to 3, 425-0 to 3, 433-0 to 1, 437, 438, 448, 450, 451, 452, 453, 476-0 to 3, 515, 516, 517, 518, 520, 521, 525-0 to 3, 527-0 to 3, 535-0 to 1, 536-0 to 3, 537-0 to 3, 539-0 to 3, 540-0 to 3, 541-0 to 3, 800-0 to 1, 801-0 to 1, 802-0 to 1, 803-0 to 1, 804-0 to 1, 886, 896-0 to 1, 5285, 5328, 5329, 5330, 5331, 5332, 5333-0 to 3, 5334-0 to 3, 5335-0 to 3, 5336-0 to 3 [Pre-running] 417, 439, 440, 441, 523, 526
RADF	[Aligning amount] 354, 355 [Transporting] 357, 358, 365, 366	[Switchback] 462
Finisher	[Folding / Binding position] 468-0 to 2	[Tray reset] 648 [Cascade] 652, 653 [Interruption of stapling operation (no staple)] 704-0 to 1 [Hole punching] 9847 [Model switching] 1912 [Stapling] 1911, 9811-0 to 3, 9937-0 to 3, 9938-0 to 3
Processing	[Temperature/humidity] 247, 270	[Life correction] 2847, 2848

Classification	Adjustment Mode (05)	Setting Mode (08)
Network		[NIC] 1002, 1003, 1119, 3789, 8823 [IP address] 1006, 1007, 1008, 1009, 1010 [IPv6] 3767, 3768, 3770, 3775, 3776, 3777 [IPX] 1011, 1099 [Frame type] 1012 [AppleTalk] 1014, 1015, 1936, 3729, 3730 [LDAP] 1016, 1138, 3743, 9629, 9933 [DNS] 1017, 1018, 1019, 3736, 3781, 3782 [DDNS] 1020, 3737, 3745, 3746, 3747, 3748 [DPWS] 3749, 3750, 3751, 3752, 3753, 3754, 3755, 3757, 3758, 3759, 3760, 3765, 3766, 3785, 3796 [NetBios] 1023 [WINS] 1024, 1025 [Bindery] 1026 [NDS] 1027 [Directory] 1028, 1029 [HTTP] 1030, 1031, 1032, 3738 [SMTP] 1022, 1037, 1038, 1039, 1040, 1041, 1042, 1100, 1101, 1102, 1111, 3741 [Direct SMTP] 3810, 3811 [Offramp] 1043, 1044, 1045 [POP3] 1046, 1047, 1048, 1049, 1050, 1051, 1052, 3742, 3744 [FTP] 1055, 1059, 1060, 1089, 1090, 1091, 1092, 3739 [MIB] 1063, 8611 [Community] 1065, 1066 [TRAP] 1069, 1070 [Raw/TCP] 945, 1073, 1074 [LPD] 1075, 1076, 1077, 3727, 3728 [IPP] 1078, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1087, 1088, 1447, 1448, 1449, 1450, 1451, 3725, 3726 [Novell] 1093, 1094 [SearchRoot] 1095 [Print queue] 1096 [Rendezvous] 1103 [SMB] 1117, 1950, 1951 [Link local host name] 1104 [Service name] 1105 [Host name] 1112 [Internet FAX] 1114, 1485, 3812 [Workgroup name] 1124 [Samba] 1464, 3783, 3833 [Private print] 1432 [Scan to E-mail] 1484 [From Address] 1487, 1489 [E-mail] 1780, 3837, 9384, 9946, 9947, 9957, 9958, 9959, 9980, 9981 [E-mail domain] 1491 [User authentication] 1113, 1471, 1496, 1921, 1922, 1925, 1937, 1954, 1955, 1956, 1957, 3723, 9799 [PDC] 1121 [BDC] 1122 [NT domain] 1123 [Address book] 1125, 1476, 1477 [MAC address] 1141, 8805 [ACC] 1431 [Disable print save] 1435 [Disable fax save] 1436 [IP Confilct] 1440 [SNTP] 1441, 1442, 1444, 1445, 1446, 3740 [Device authentication] 1470, 1920, 1952, 1953, 1958, 1959, 3722, 3724

Classification	Adjustment Mode (05)	Setting Mode (08)
Network		[IP Filter] 1720, 1721, 1722, 1723, 1724, 1725, 1726, 1727, 1728, 1729, 1730, 1731, 1732, 1733, 1734, 1735, 1736, 1737, 1738, 1739, 8804 [SSL setting] 1740, 1741, 1742, 1743, 1744, 1745, 1746, 1747, 1748, 1749, 1750, 9819, 9822 [DHCP] 1755, 1756, 1757, 1759, 1760, 1762, 1767, 3772, 3773, 3774, 3778, 3779, 3780 [Previous IP address] 1768 [Card authentification] 1776-0 to 15, 1927 [Scan to File] 1779, 1784, 1786, 8622 [Notification of scan job] 1781-0 to 1 [Save as file and Email transmission] 1782, 1783, 1785, 9394 [Network scanning] 1940, 3804, 3805, 3815, 3816, 3817, 3818 [LDAP authentication] 1923 [SLP] 1021 [Role Based Access] 1493, 1928 [Prefix] 3771 [LLTD] 3793 [Telnet] 3864, 3865, 3866, 3867, 3868 [Network log] 8535, 8536 [Domain] 8589 [802.1x] 8800, 8801, 8816, 8819, 9746 [IPsec] 8802, 8815, 8820, 8821 [SNMP] 3631, 3845, 8803 [SCEP] 8806, 8807, 8808, 8809, 8810, 8811, 8812, 8813, 8814 [WS Pull Scan] 8817, 8818 [PMK] 9747 [WIA Scan Driver] 9749 [Temporary communication password] 9798 [RBAC] 3871 [Authentication] 8608, 8609, 8610
Wireless LAN		[Driver] 1661, 1662, 1663, 1664, 1665, 1666, 1667, 1668, 1669, 1670, 1671, 1672, 1673, 1674, 1675, 1676, 1677, 1678 [Supplicant] 1679, 1681, 1682, 1684, 1685, 1686, 1689, 1690, 1691, 1692, 1693, 1696, 1697, 1699, 1700, 1701, 1704, 1705, 1706, 1707, 1764, 1765, 1766
Bluetooth		[Bluetooth] 1710, 1711, 1712, 1713, 1714, 1715, 1716, 1941

Classification	Adjustment Mode (05)	Setting Mode (08)
Counter		[External counter] 202, 381, 683, 975, 1126, 8549 [Paper size] 305-0 to 23, 306-0 to 23, 307-0 to 23, 308-0 to 23, 310-0 to 23, 312-0 to 23, 313-0 to 23, 314-0 to 23, 315-0 to 23, 316-0 to 23, 6078-0 to 2 [Large/Small size] 320-0 to 2, 321-0 to 2, 322-0 to 2, 323-0 to 2, 325-0 to 2, 327-0 to 2, 328-0 to 2, 329-0 to 2, 330-0 to 2, 332-0 to 2, 333-0 to 2, 334-0 to 2, 335-0 to 2 [Double count] 344, 345, 346, 347, 348, 349, 352, 353, 9884 [Paper source] 356, 357, 358, 359, 360, 370, 372, 374 [HDD] 390, 391, 392, 393 [Fuser unit] 1372, 1378, 1380, 1382 [Toner cartridge] 1410, 6977-0 to 4 [Media type] 1385, 1386, 1387, 1388, 1411, 1412 [Number of output pages] 1530-0 to 7, 1533-0 to 7, 1535-0 to 7, 6810-0 to 7, 6813-0 to 7, 6815-0 to 7 [Pixel counter] 1500, 1501, 1502, 1503, 1504, 1505, 1506, 1507, 1508, 1509, 1510, 1514, 1518, 1548, 1550, 1551, 1553, 1555, 1556, 1566, 1592, 1593, 1594, 1595, 1606, 1607, 1608, 1613, 1619, 1624, 1625, 1634, 1639, 1640, 1649-0~9, 1650-0~9, 1651-0~9 [Job] 6852-0 to 2 [Department counter] 8616, 8617, 8618, 8619, 8620
Version		[System firmware] 900, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 933, 934, 935, 936, 937, 938, 939, 944, 8560, 8561, 8562, 8563, 8564, 8565, 8566, 8570, 8571, 8572, 8573, 8575, 8576 [Engine firmware] 903, 905, 907 [FAX] 915 [Finisher] 908, 911, 9945 [Processor] 9929

Classification	Adjustment Mode (05)	Setting Mode (08)
Maintenance	[Equipment number] 976 [Machine status] 9960	[PM counter] 223, 251, 252, 375, 376, 5554, 5555, 5562, 5563, 5568, 5569, 5576, 5577, 5581, 5585 [Telephone] 250 [Error history] 253 [FSMS] 999 [Service notification] 702, 703, 707, 715, 716, 717, 718, 719, 720, 721, 723, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 796, 1145, 8538, 9739, 9880, 9881 [HTTP] 726, 727, 728, 729, 730, 731 [Supply order] 732, 733, 734, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 758, 759, 760, 761, 762, 763, 765, 794, 795 [Emergency Mode] 710, 711 [Service call checking period] 1495 [Remote update] 3630 [PM support mode] 1150-0 to 8, 1151, 1158-0 to 8, 1159, 1172-0 to 8, 1173, 1174-0 to 8, 1175, 1182-0 to 8, 1183, 1198-0 to 8, 1199, 1200-0 to 8, 1201, 1214-0 to 8, 1215, 1246-0 to 8, 1247, 1250-0 to 8, 1251, 1268-0 to 8, 1269, 1282-0 to 2, 1282-8, 1283, 1284-0 to 2, 1284-8, 1285, 1286-0 to 2, 1286-8, 1287, 1290-0 to 2, 1290-8, 1291, 1292-0 to 2, 1292-8, 1293, 1294-0 to 2, 1294-8, 1295, 1298-0 to 2, 1298-8, 1299, 1300-0 to 2, 1300-8, 1301, 1302-0 to 2, 1302-8, 1303, 1306-0 to 2, 1306-8, 1307, 1308-0 to 2, 1308-8, 1309, 1310-0 to 2, 1310-8, 1311, 1312-0 to 2, 1312-8, 1313, 1314-0 to 2, 1314-8, 1315, 1316-0 to 2, 1316-8, 1317, 1320-0 to 2, 1320-8, 1321, 1322-0 to 2, 1322-8, 1323, 1324-0 to 2, 1324-8, 1325, 1328-0 to 2, 1328-8, 1329, 1330-0 to 2, 1330-8, 1331, 1336-0 to 8, 1337 [Email] 8584, 8585, 8586, 8587, 8588 [Log export] 8590-0 to 4 [External counter] 8594 [ID gate] 8595 [Image data] 8596 [Private print] 8597 [Panel template] 8598 [Folder name] 8599 [Outside erase] 8600 [Private/Hold print] 8601 [ScanToFile(samba)] 8602 [External option] 8603 [Job status display] 8604 [Log Display] 8605 [Log export] 8606 [Log saving setting] 8615 [FTP] 9791 [Machine status] 9960 [Retains the settings after a FAX is sent] 9987

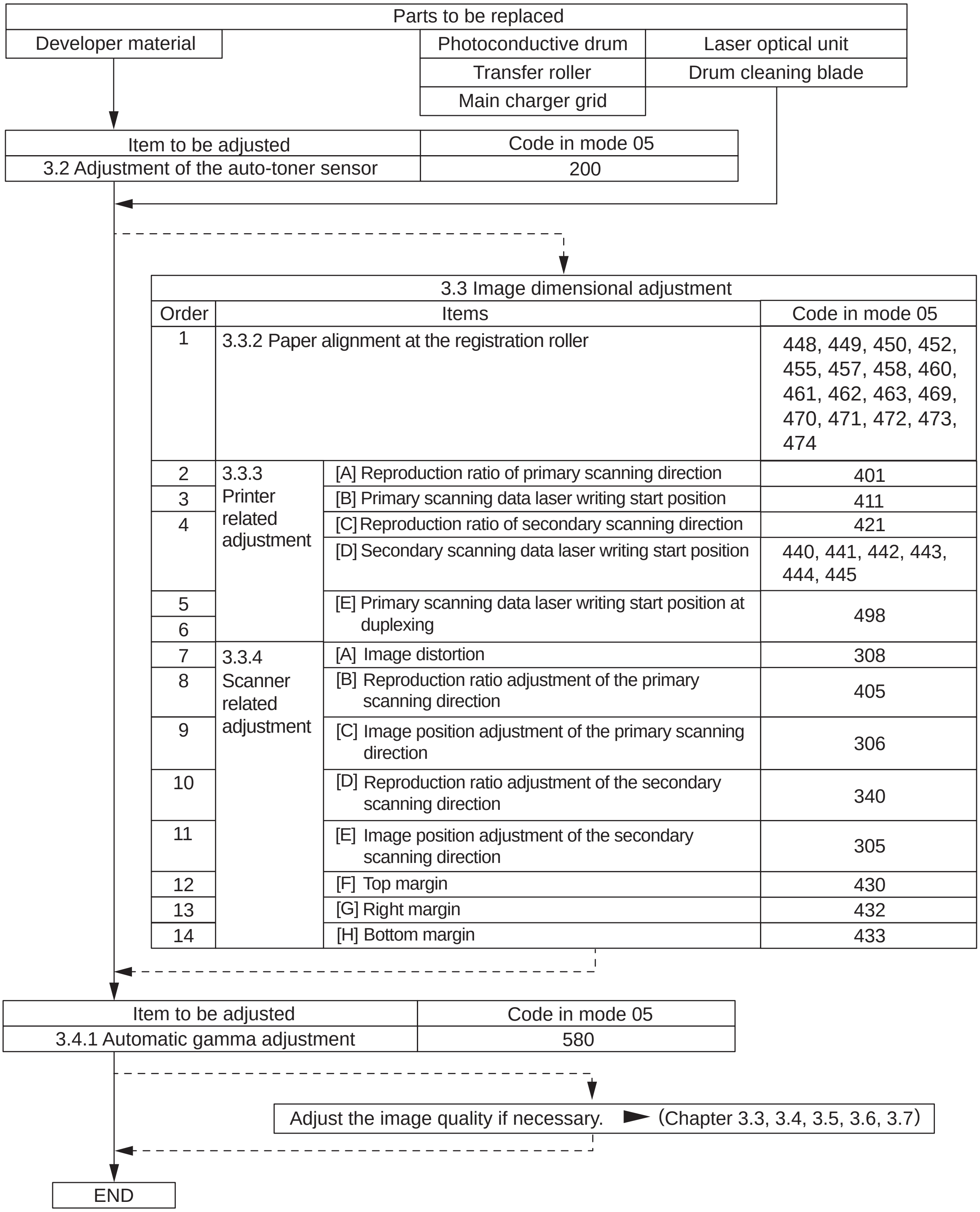
Classification	Adjustment Mode (05)	Setting Mode (08)
General	[Production line process] 9096	[Destination] 201, 701 [Line] 203 [Data cloning] 9889 [Unpacking date] 3612 [Service history] 3619 [Storage device information] 3625 [PJL] 3797 [USB] 3615, 3802 [Direct printing] 3803 [EWB] 3869 [Raw printing] 8504 [Cartridge empty] 8506 [Print image position adjustment in secondary scanning direction] 8508, 8509, 8510 [Wide A4 Mode (PCL)] 8511 [Number of jobs in batch processing] 8512 [RIP standard paper judgment] 8514 [Outside erase] 8515, 8516 [Scan setting] 8517, 8518, 8519 [No paper Message] 8524, 8525 [Private printing] 8537 [Easy setup] 9022 [Counter/job list printing] 9954 [Address book] 1125, 1476, 1477, 3508 [New/old detection] 4549, 4555, 4556 [SRAM] 1428, 4581, 4582 [Power saving] 8543, 8544 [Real time log notification] 3623, 3624, 3626

Classification	Adjustment Mode (05)	Setting Mode (08)
Other	[Toner recycle] 280	[Trial and private] 259 [Local I/F] 614 [Partition] 662, 666, 667 [Trial period] 673, 695, 798, 799 [Banner] 678, 679, 680, 681 [Database] 684, 685, 686 [HDD] 670, 690, 691, 694, 1422, 1424, 1426, 9379 [Control panel] 692, 8532, 9051 [Equipment number] 995 [Toner recycle] 838 [Temperature/humidity] 839 [Initialization] 693, 947, 9090 [Mode setting] 949 [Template] 1140, 3851 [SRAM] 1428 [TAT partition] 1118 [Enhanced bold] 1149 [User data management] 1472, 1473, 1474, 1481, 1482, 1483 [Limitation] 9829 [e-Filing Access Mode] 1497 [Inbound FAX] 1498 [Card reader] 1772, 1773, 1774, 1775 [Administrator's password] 1778 [FAX reception] 1926 [File/Email] 1913, 1916 [Extension fields] 1914 [KS/KSMM setting] 1961 [KS] 1960, 1963, 1964, 1965, 1966, 1967, 1968, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980 [KSSM] 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994 [Remote scanning] 3850, 9828 [Filling box] 8613, 9882 [Data cloning] 9889 [Electronic licence key] 3840, 3841, 3842, 3870 [FAX function] 3846, 3847, 3848, 3849, 8612 [Hardcopy security printing] 9883 [Disabling Media File Save] 9826 [Controler] 8628

3. ADJUSTMENT

3.1 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	Laser optical unit
	Transfer roller	Drum cleaning blade
	Main charger grid	

Item to be adjusted	Code in mode 05
3.2 Adjustment of the auto-toner sensor	200

3.3 Image dimensional adjustment			
Order	Items		Code in mode 05
1	3.3.2 Paper alignment at the registration roller		448, 449, 450, 452, 455, 457, 458, 460, 461, 462, 463, 469, 470, 471, 472, 473, 474
2	3.3.3 Printer related adjustment	[A] Reproduction ratio of primary scanning direction	401
3		[B] Primary scanning data laser writing start position	411
4		[C] Reproduction ratio of secondary scanning direction	421
		[D] Secondary scanning data laser writing start position	440, 441, 442, 443, 444, 445
5		[E] Primary scanning data laser writing start position at duplexing	498
6			
7	3.3.4 Scanner related adjustment	[A] Image distortion	308
8		[B] Reproduction ratio adjustment of the primary scanning direction	405
9		[C] Image position adjustment of the primary scanning direction	306
10		[D] Reproduction ratio adjustment of the secondary scanning direction	340
11		[E] Image position adjustment of the secondary scanning direction	305
12		[F] Top margin	430
13		[G] Right margin	432
14		[H] Bottom margin	433

Item to be adjusted	Code in mode 05
3.4.1 Automatic gamma adjustment	580

Adjust the image quality if necessary. ► (Chapter 3.3, 3.4, 3.5, 3.6, 3.7)

END

Fig. 3-1

3.2 Adjustment of Auto-Toner Sensor

When the developer material is replaced, adjust the auto-toner sensor in the following procedure.

<Procedure> (Adjustment Mode (05-200))

(1) Install the process unit into the equipment.

(2) While pressing [0] and [5] simultaneously, turn the power ON.
The following message will be displayed.

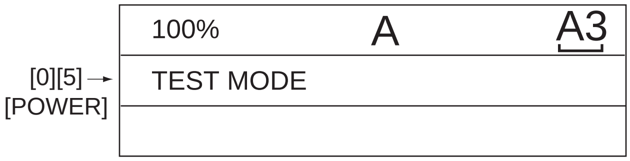

100%
A
A3
[0][5]
[POWER]
TEST MODE

Fig. 3-2

(3) Key in code [200] and press the [START] button.
The display changes as follows.

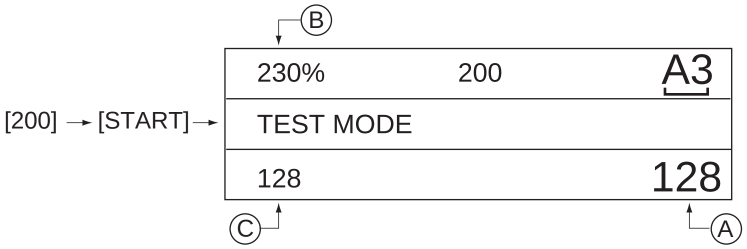

Ⓑ
230%
200
A3
[200] → [START]
TEST MODE
128
128
Ⓒ
Ⓐ

Fig. 3-3

Notes:

- A indicates the controlled value of the auto-toner sensor output. Press the Up or Down button to change the value.
- B indicates the output voltage of the auto-toner sensor (2.30 V in the above case).
  The drum, developer unit, etc. are in operation.
- C indicates the latest adjustment value.

(4) After about two minutes, the value B automatically starts changing.

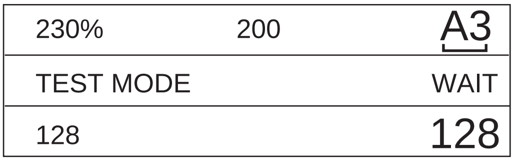

230%
200
A3
TEST MODE
WAIT
128
128

Fig. 3-4

(5) After a short time, the value B becomes stable and the display changes as follows.

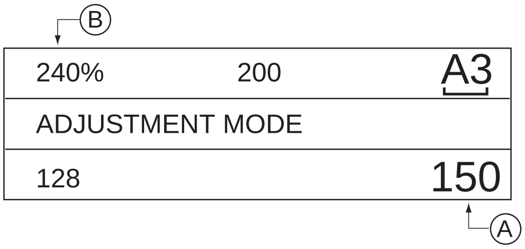


Fig. 3-5

(6) Check if the value B is within the range of 234 to 246 (the output voltage range of the auto-toner sensor is 2.34 V to 2.46 V).

(7) If the value B is not within the range of 234 to 246, press the Up or Down button to adjust the value manually.

Note:

The relation between the button and the values A and B is as follows.

Button to be pressed	Value A	Value B
Up	Increased	Increased
Down	Decreased	Decreased

(8) Press the [ENTER] or [INTERRUPT] button.
The drum, developer unit, etc. are stopped and the following is displayed.

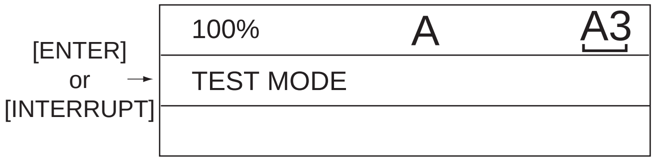


Fig. 3-6

(9) Turn the power OFF.

(10) Install the toner cartridge.

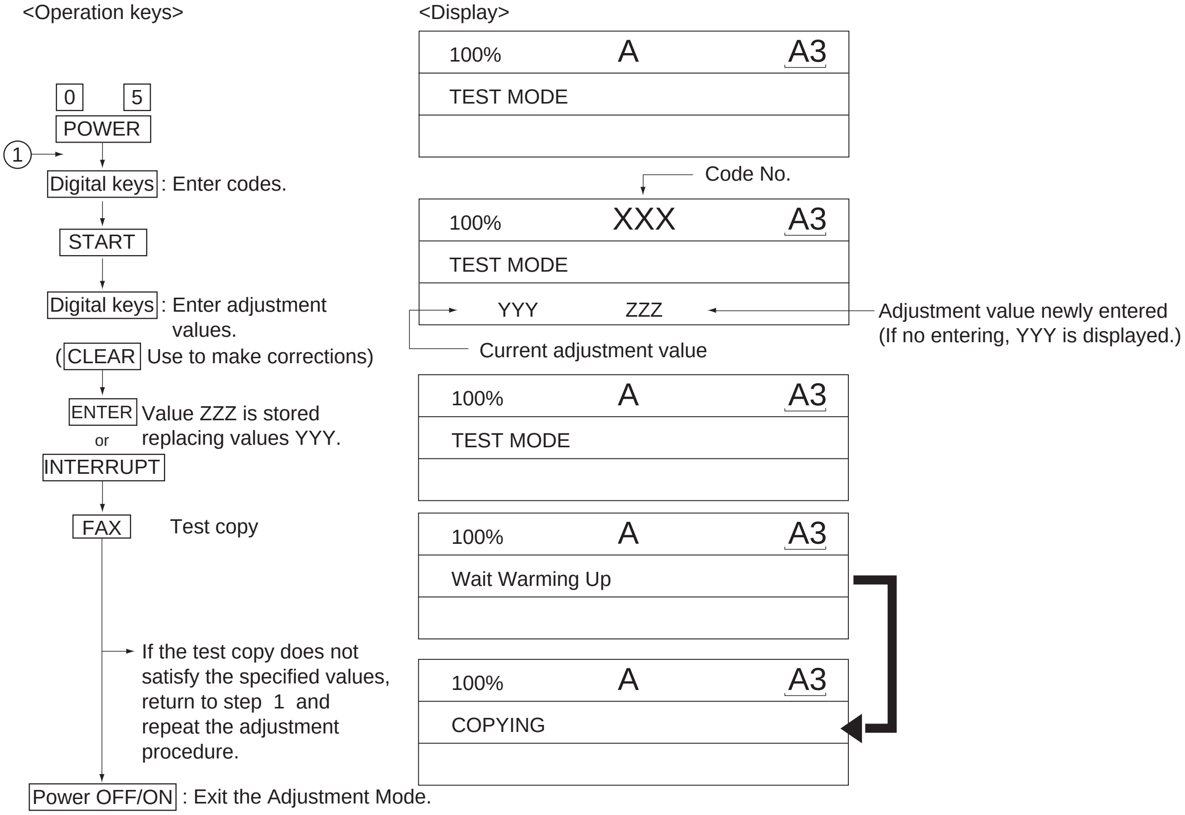
3.3 Image Dimensional Adjustment

3.3.1 General description

There are several adjustment items in the image dimensional adjustment, as listed below. 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		448, 449, 450, 452, 455, 457, 458, 460, 461, 462, 463, 469, 470, 471, 472, 473, 474
2 Printer related adjustment	(a) Reproduction ratio of primary scanning direction (Fine adjustment of polygonal motor rotation speed)	401
	(b) Primary scanning data laser writing start position	411
	(c) Reproduction ratio of secondary scanning direction (Fine adjustment of main motor rotation speed)	421
	(d) Secondary scanning data laser writing start position	441, 440, 444, 443, 442, 445
	(e) Primary scanning data laser writing start position at duplexing	498
3 Scanner related adjustment	(a) Image distortion	–
	(b) Reproduction ratio of primary scanning direction	405
	(c) Image location of primary scanning direction	306
	(d) Reproduction ratio of secondary scanning direction	340
	(e) Image location of secondary scanning direction	305
	(f) Top margin	430
	(g) Right margin	432
	(h) Bottom margin	433

[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
①
Digital keys : Enter codes.
START
Digital keys : Enter adjustment values.
(CLEAR Use to make corrections)
ENTER Value ZZZ is stored
or replacing values YYY.
INTERRUPT
FAX Test copy
If the test copy does not satisfy the specified values, return to step 1 and repeat the adjustment procedure.
Power OFF/ON : Exit the Adjustment Mode.
100% A A3
TEST MODE
Code No.
100% XXX A3
TEST MODE
YYY ZZZ
Adjustment value newly entered
(If no entering, YYY is displayed.)
Current adjustment value
100% A A3
TEST MODE
100% A A3
Wait Warming Up
100% A A3
COPYING

Fig. 3-7

3.3.2 Paper alignment at the registration roller

The aligning amount is adjusted by using the following codes in Adjustment Mode (05).

Paper type	Weight	Upper drawer	Lower drawer	PFP upper drawer	PFP lower drawer	LCF	ADU	Bypass feed
Plain paper	64 - 80 g/m^2 17 - 20 lb. Bond	450 (*1)	452 (*1)	448 (*1)	449 (*1)	457	455 (*1)	458 (*1)
Thick paper 1	81 - 105g/m^2 21 - 28 lb. Bond	469 (*1)	470 (*1)	471 (*1)	472 (*1)	473	474 (*1)	460 (*1)
Thick paper 2	106 - 163g/m^2 29 lb. Bond - 90 lb. Index	-	-	-	-	-	-	461 (*1)
Thick paper 3	164 - 209g/m^2 91 - 110 lb. Index	-	-	-	-	-	-	462 (*2)
OHP	-	-	-	-	-	-	-	463 (*3)

Sub-code

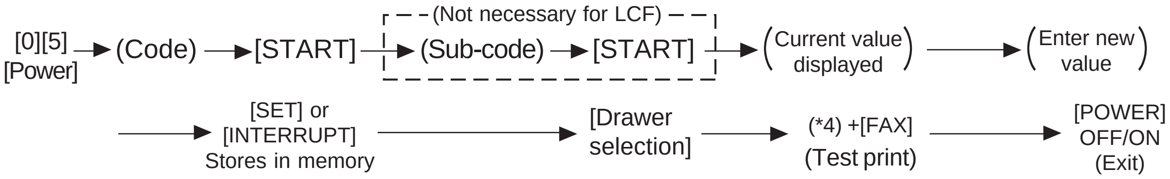
(*1) 0: Long size 1: Middle size 2: Short size
(*2) 0: Long size 1: Middle size 2: Short size 3: Post card
(*3) 0: Long size of OHP film 1: Middle size of OHP film 2: Short size of OHP film

Notes:

1. Long size: 330 mm or longer (13.0 inches or longer)
   Middle size: 220-239 mm (8.7-12.9 inches)
   Short size: 219 mm or shorter (8.6 inches or shorter)
2. The adjustment of “Post card” is for Japan only.

<Procedure>

(1) Perform the test print according to the following procedure.


[0][5]
[Power]
(Code)
[START]
(Not necessary for LCF)
(Sub-code)
[START]
(Current value displayed)
(Enter new value)
[SET] or
[INTERRUPT]
Stores in memory
[Drawer selection]
(*4) +[FAX]
(Test print)
[POWER]
OFF/ON
(Exit)

(*4) 1: Single-sided grid pattern 3: Double-sided grid pattern

(2) Check if any transfer void is occurring. If there is a transfer problem, try the values in descending order as “31” → “30” → “29”··· until the transfer void disappears. At the same time, confirm if any paper jam occurs. Also, when the aligning amount has been increased, this may increase the scraping noise caused by the paper and the Mylar sheet as it is transported by the registration roller. If this scraping noise is annoying, try to decrease the value.

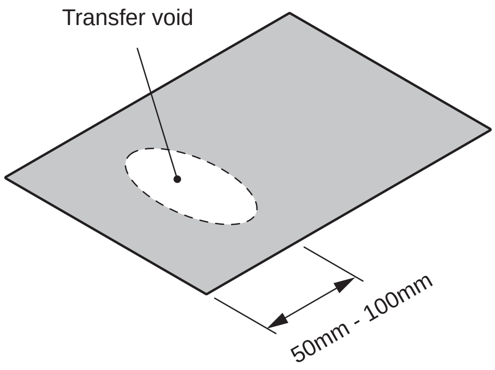

Transfer void
50mm - 100mm

Fig. 3-8

(3) Perform the same procedure for all paper sources.

Note:

When paper thinner than specified is used, paper jams may occur frequently at the registration section. In this case, it is advisable to change (or reduce) the aligning amount.
However, if the aligning amount is reduced too much, this may cause the shift of leading edge position. So, when adjusting the aligning amount, try to choose the appropriate amount while confirming the leading edge position is not shifted.

* As a tentative countermeasure, the service life of the feed roller can be extended by increasing the aligning amount.

3.3.3 Printer related adjustment

The printer related adjustment is performed by using the printed out grid pattern.

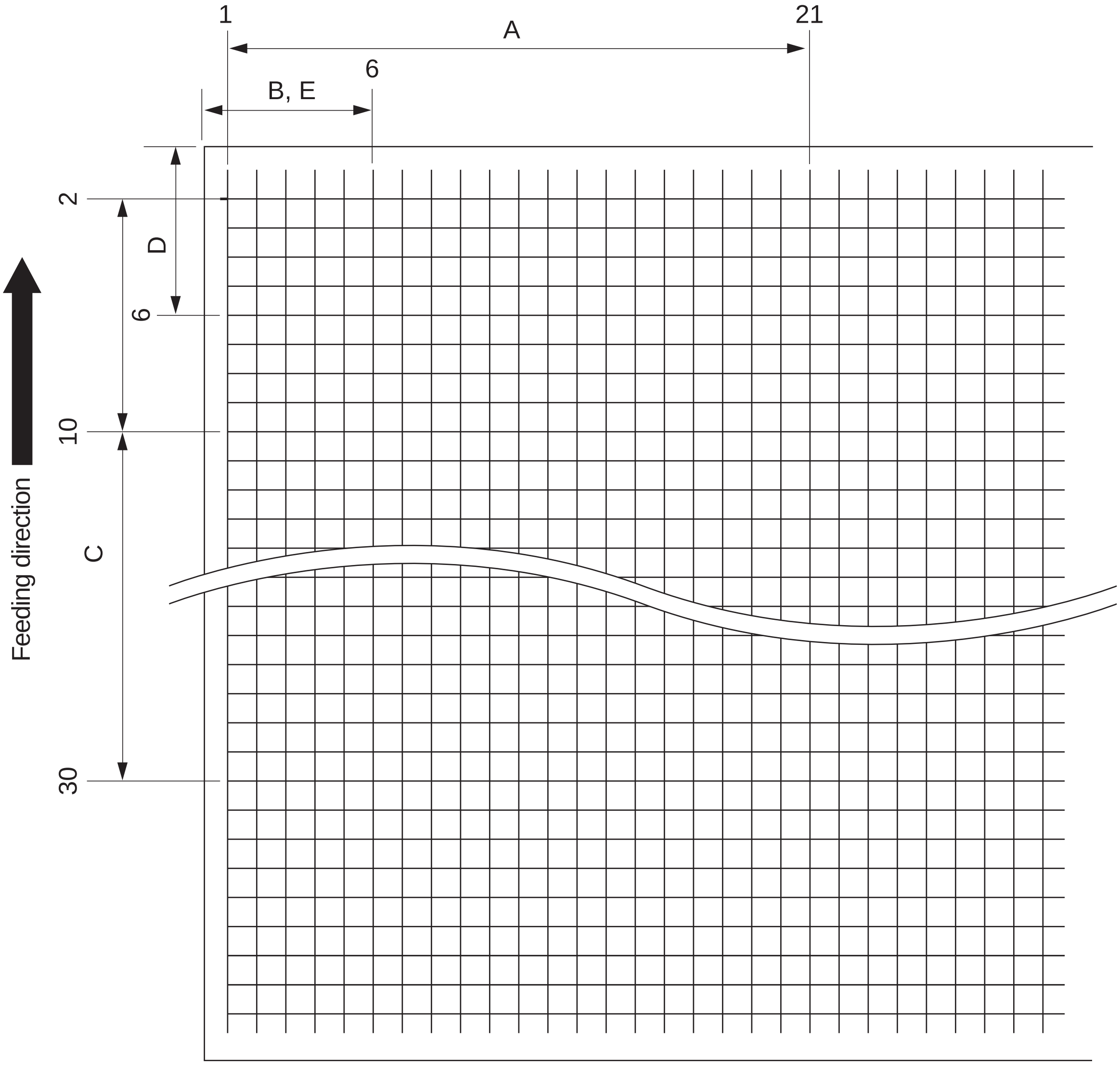


Fig. 3-9 Grid pattern

	Adjustment Tolerance	Detail of adjustment
A	200 ± 0.5mm	🕮 P.3-9 "[A] Reproduction ratio of primary scanning direction (Fine adjustment of polygonal motor rotation speed (Printer))"
B	52 ± 0.5mm	🕮 P.3-9 "[B] Primary scanning data laser writing start position (Printer)"
C	200 ± 0.5mm	🕮 P.3-10 "[C] Reproduction ratio of secondary scanning direction (Fine adjustment of main motor rotation speed (Copier/Printer))"
D	52 ± 0.5mm	🕮 P.3-11 "[D] Secondary scanning data laser writing start position"
E	52 ± 0.5mm	🕮 P.3-12 "[E] Primary scanning data laser writing start position at duplexing"

[A] Reproduction ratio of primary scanning direction (Fine adjustment of polygonal motor rotation speed (Printer))

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)

(2) Press [1] → [FAX]. (A grid pattern with 10 mm squares is printed out. Use A3/LD from the lower drawer (Refer to *).

(3) Check the grid pattern on the test chart printed out and measure the distance A from the 1st line to the 21st line of the grid pattern.

(4) Check if the distance A is within 200±0.5 mm.

(5) If not, use the following procedure to change values and measure the distance A again.

(Adjustment Mode) → (Key in code [401]) → [START]
→ (Key in a value (acceptable values: 0 to 255))
→ [ENTER] or [INTERRUPT] (Stored in memory)
→ “100% A” is displayed
→ Press [1] → [FAX] → (A grid pattern is printed out.)
* The larger the adjustment value is, the longer the distance A becomes (approx. 0.125 mm/step).

[B] Primary scanning data laser writing start position (Printer)

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)

(2) Press [1] → [FAX]. (A grid pattern with 10 mm squares is printed out. Use A3/LD from the lower drawer (Refer to *).

(3) Check the grid pattern on the test chart printed out and measure the distance B from the left edge of the paper to the 6th line of the grid pattern.

(4) Check if the distance B is within 52±0.5 mm.

(5) If not, use the following procedure to change values and measure the distance B again.

(Adjustment Mode) → (Key in the code [411]) → [START]
→ (Key in a value (acceptable values: 0 to 255))
→ [ENTER] or [INTERRUPT] (Stored in memory)
→ “100% A” is displayed
→ Press [1] → [FAX] → (A grid pattern is printed out.)
* The larger the adjustment value is, the longer the distance B becomes (approx. 0.05 mm/step).

(6) After the adjustment for the code 411 is completed, apply the same adjustment value for the code 410.

(Adjustment Mode) → (Key in the code [410]) → [START]
→ (Key in the same value in the step 5 above)
→ Press [ENTER] or [INTERRUPT] (Stored in memory).

Note:
Make sure the first line of the grid pattern is printed out since the line is occasionally vanished.

[C] Reproduction ratio of secondary scanning direction (Fine adjustment of main motor rotation speed (Copier/Printer))

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment mode)

(2) Press [1] → [FAX]. (A grid pattern with 10 mm squares is printed out. Use A3/LD from the lower drawer (Refer to *).

(3) Check the grid pattern on the test chart printed out and measure the distance C from the 10th line at the leading edge of the paper to the 30th line of the grid pattern.
* Normally, the 1st line of the grid pattern is not printed.

(4) Check if the distance C is within 200±0.5 mm.

(5) If not, use the following procedure to change values and measure the distance C again.

(Adjustment Mode) → (Key in code [421]) → [START]
→ (Key in a value (acceptable values: 0 to 255))
→ [ENTER] or [INTERRUPT] (Stored in memory)
→ “100% A” is displayed
→ Press [1] → [FAX] → (A grid pattern is printed out.)
* The larger the adjustment value is, the longer the distance C becomes (approx. 0.125 mm/step).

[D] Secondary scanning data laser writing start position

This adjustment has to be performed for each paper source. (If there is no paper source, skip this step.) The following table shows the order of the paper source to be adjusted, code, paper size and acceptable values.

Order for adjustment	Paper source	Code	Paper size	Acceptable value	Remarks
1	Lower drawer	441	A3/LD	0 to 40	
2	Upper drawer	440	A4/LT	0 to 15	
3	PFP or LCF	444/443	A4/LT	0 to 15	
4	Bypass feed	442	A4/LT	0 to 15	
5	Duplexing	445	A3/LD	0 to 15	Paper fed from the lower drawer

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)

(2) Press [1] ([3] for duplexing) → [FAX]. (A grid pattern with 10 mm squares is printed out.)

(3) Check the grid pattern on the test chart printed out and measure the distance D 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 D is within 52±0.5 mm.

(5) If not, use the following procedure to change values and measure the distance D again.

(Adjustment Mode) → (Key in the code shown above) → [START]
→ (Key in an acceptable value shown above)
→ [ENTER] or [INTERRUPT] (Stored in memory)
→ “100% A” is displayed
→ Press [1] ([3] for duplexing)→ [FAX] → (A grid pattern is printed out.)
* The larger the adjustment value is, the longer the distance D becomes (approx. 0.4 mm/step).

[E] Primary scanning data laser writing start position at duplexing

Note:
Make sure the first line of the grid pattern is printed out since the line is occasionally vanished.

[E-1] Adjustment for long-sized paper

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)

(2) Press [3] → [FAX]. (A grid pattern with 10 mm squares is printed out. Use A3/LD from the lower drawer (Refer to *).

(3) Check the grid pattern on the test print and measure the distance E from the left edge of the paper to the 6th line of the grid pattern.

(4) Check if the distance E is within 52±0.5 mm.

(5) If not, use the following procedure to change values and measure the distance E again.

(Adjustment Mode) → (Key in code [498]) → [START] → [0] → [START]
→ (Key in a value (acceptable values: 0 to 255))
→ [ENTER] 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 E becomes (approx. 0.05 mm/step).

[E-2] Adjustment for short-sized paper

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)

(2) Press [3] → [FAX]. (A grid pattern with 10 mm squares is printed out. Use A4/LT from the upper drawer.)

(3) Check the grid pattern on the test print and measure the distance E from the left edge of the paper to the 6th line of the grid pattern.

(4) Check if the distance E is within 52±0.5 mm.

(5) If not, use the following procedure to change values and measure the distance E again.

(Adjustment Mode) → (Key in the code [498]) → [START] → [1] → [START]
→ (Key in a value (acceptable values: 0 to 255))
→ [ENTER] 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 E becomes (approx. 0.05 mm/step).

<Adjustment procedure summarization for A to E>

When the value is 1.
[0] [5] [Power ON] → [1] ([3](05-445, 498) for duplexing) → [FAX]

A: 05-401 (Lower drawer, A3/LD) → 200±0.5 mm (0.125 mm/step)
B: 05-411 (Lower drawer, A3/LD) → 52±0.5 mm (0.05 mm/step)
→ Key in the same value for 05-410.
C: 05-421 (Lower drawer, A3/LD) → 200±0.5 mm (0.125 mm/step)
D: 05-440 (Lower drawer, A3/LD), 441 (Lower drawer, A4/LT), 444 (PFP, A4/LT), 443 (LCF, A4/LT), 442 (Bypass feed, A4/LT), 445 (Duplexing, A3/LD)
→ 52±0.5 mm(0.4 mm/step)
E: 05-498-0 (Lower drawer, A3/LD), 498-1 (Lower drawer, A4/LT)) → 52±0.5 mm (0.05 mm/step)

Remark:

When the adjustment (05-421) is performed, the same adjustment for FAX (05-422) is automatically and consecutively performed.

3.3.4 Scanner related adjustment

[A] Image distortion

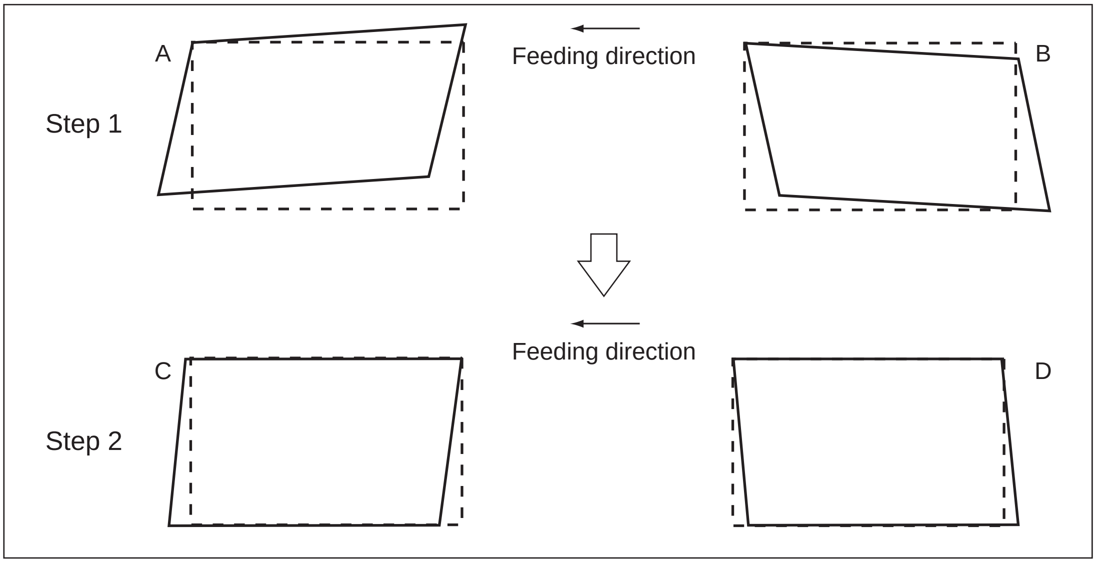

A
Feeding direction
B
Step 1
C
Feeding direction
D
Step 2

Fig. 3-10

<Procedure>

(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 [308] 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 (CW).
  - In case of B:
    Loosen the mirror-3 adjustment screw (CCW).
- Step 2
  - In case of C:
    Tighten the mirror-1 adjustment screw (CW).
  - In case of D:
    Loosen the mirror-1 adjustment screw (CCW).

(5) Apply the screw locking agents to the adjustment screws. (2 areas)
- Recommended screw lock agent
  Manufacturer: Three Bond
  Product name: 1401E

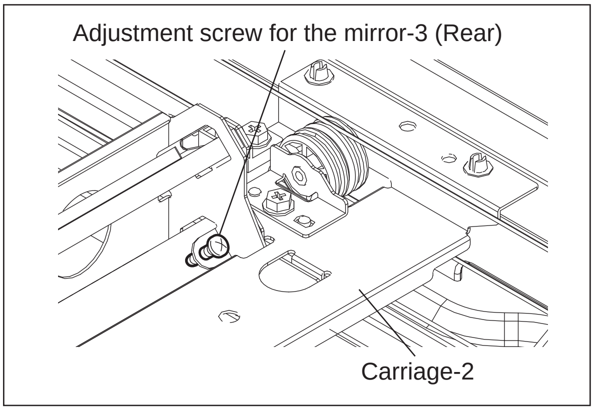

Adjustment screw for the mirror-3 (Rear)
Carriage-2

Fig. 3-11

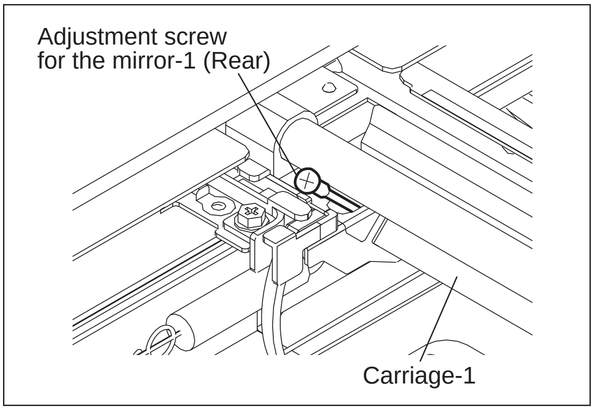

Adjustment screw
for the mirror-1 (Rear)
Carriage-1

Fig. 3-12

[B] Reproduction ratio adjustment of the primary scanning direction

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON → (Adjustment Mode)

(2) Place a ruler on the original glass (along the direction from the rear to the front of the equipment).

(3) Press [FAX] to make a copy at the mode of A3 (LD), 100% and the lower drawer (Refer to *).

(4) Measure the distance A from 10 mm to 270 mm of the copied image of the ruler.

(5) Check if the distance A is within the range of 260±0.5 mm.

(6) If not, use the following procedure to change values and repeat the steps (3) to (5) above.
(Adjustment Mode) → (Key in the code [405]) → [START]
→ (Key in a value (acceptable values: 0 to 255))
→ Press the [ENTER] or the [INTERRUPT] button (stored in memory).
→ ("100% A" is displayed.)
* The larger the adjustment value is, the higher the reproduction ratio and the longer the distance A become (approx. 0.125 mm/step).

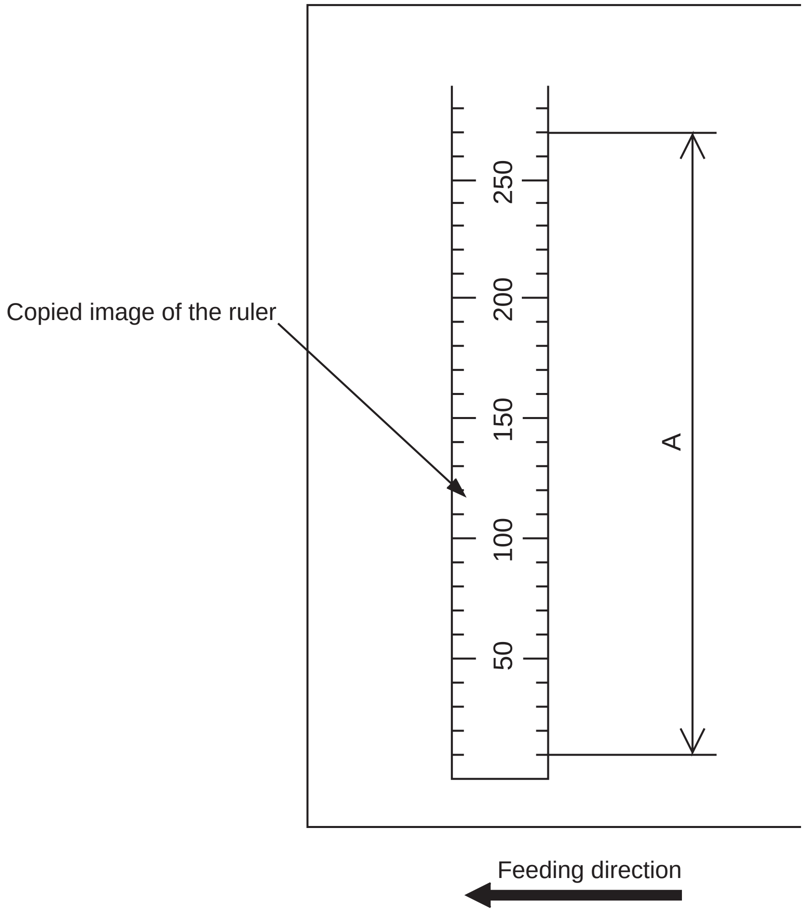


Fig. 3-13

[C] Image position adjustment of the primary scanning direction

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)

(2) Place a ruler on the original glass with its leading edge pushed against the rear side and its side along the original scale on the left.

(3) Press [FAX] to make a copy at the mode of A3 (LD), 100% and the lower drawer (Refer to *).

(4) Measure the distance B from the left edge of the paper to 10 mm of the copied image of the ruler.

(5) Check if the distance B is within the range of 10±0.5 mm.

(6) If not, use the following procedure to change values and repeat the steps (3) to (5) above.

(Adjustment Mode) → (Key in the code [306]) → [START]
→ (Key in a value (acceptable values: 0 to 255))
→ Press the [ENTER] or the [INTERRUPT] button (stored in memory).
→ (“100% A” is displayed.)
* The smaller the adjustment value is, the more the image is shifted to the left and the distance B becomes narrower (0.042 mm/step).

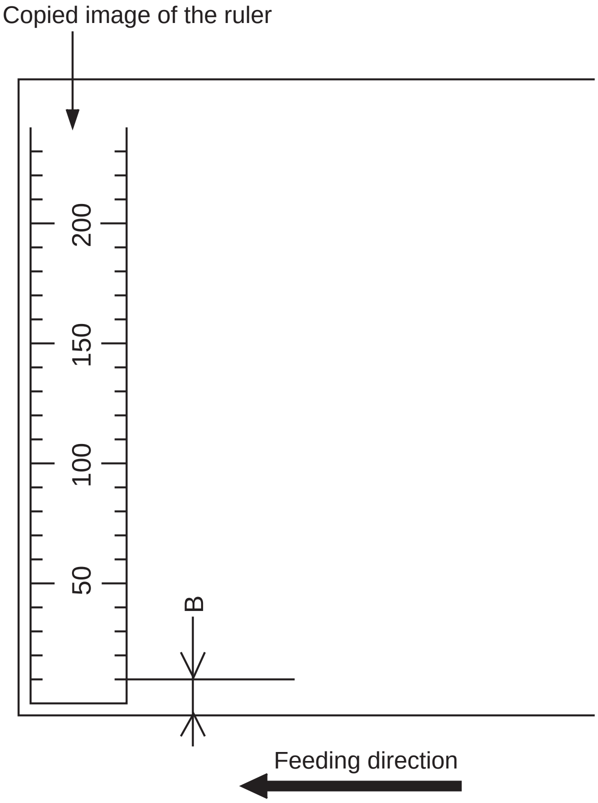


Fig. 3-14

[D] Reproduction ratio adjustment of the secondary scanning direction

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)

(2) Place a ruler on the original glass with its leading edge pushed against the original scale on the left.

(3) Press [FAX] to make a copy at the mode of A3 (LD), 100% and the lower drawer (Refer to *).

(4) Measure the distance C from 200 mm to 400 mm of the copied image of the ruler.

(5) Check if the distance C is within the range of 200±0.5 mm.

(6) If not, use the following procedure to change values and repeat steps (3) to (5) above.

(Adjustment Mode) → (Key in the code [340]) → [START]
→ (Key in a value (acceptable values: 63 to 193))
→ Press the [ENTER] or the [INTERRUPT] button (stored in memory).
→ (“100% A” is displayed.)

* The smaller the adjustment value is, the lower the reproduction ratio becomes (0.05 mm/step).

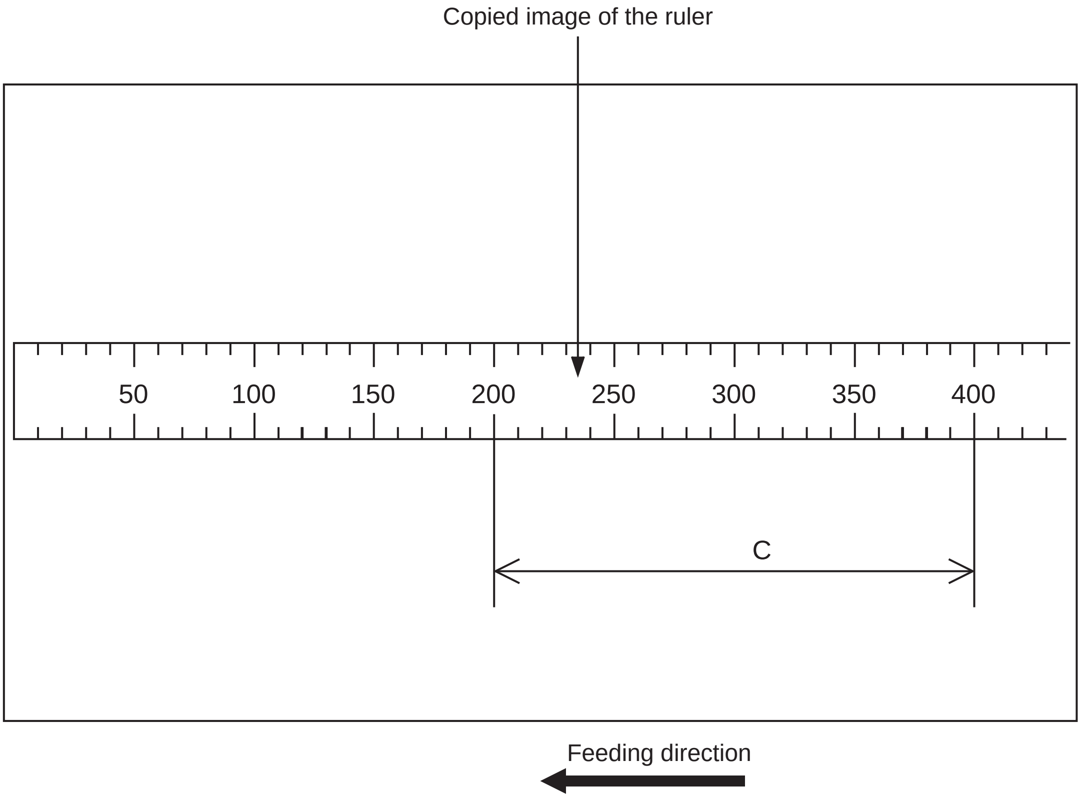


Fig. 3-15

[E] Image position adjustment of the secondary scanning direction

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)

(2) Place a ruler on the original glass with its leading edge pushed against the original scale on the left.

(3) Press [FAX] to make a copy at the mode of A3 (LD), 100% and the lower drawer (Refer to *).

(4) Measure the distance D from the leading edge of the paper to 10 mm of the copied image of the ruler.

(5) Check if the distance D is within the range of 10±0.5 mm.

(6) If not, use the following procedure to change values and repeat the steps (3) to (5) above.

(Adjustment Mode) → (Key in the code [305]) → [START]
→ (Key in a value (acceptable values: 90 to 166))
→ Press the [ENTER] or the [INTERRUPT] button (stored in memory).
→ ("100% A" is displayed.)

* The larger the adjustment value is, the more the image is shifted to the trailing edge (0.13 mm/step).

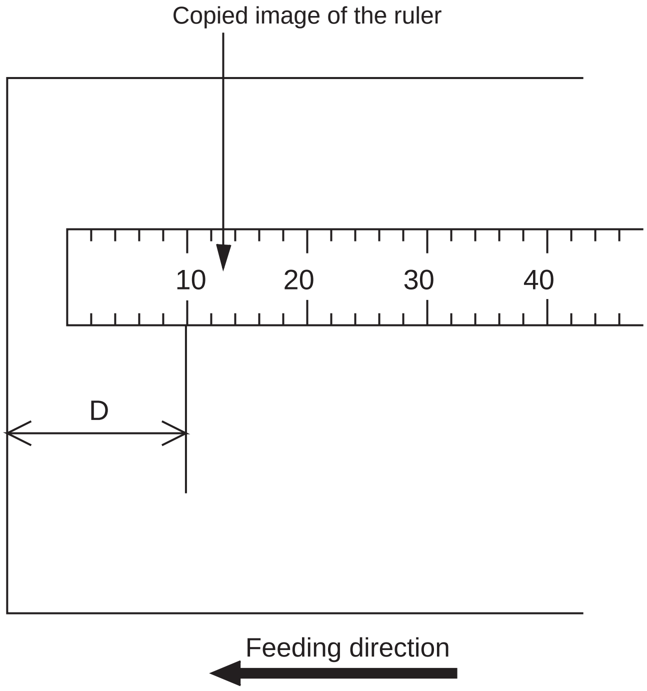


Fig. 3-16

[F] Top margin

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)

(2) Open the original cover or RADF.

(3) Press [FAX] to make a copy at the mode of A3/LD, 100%, Text/Photo and the lower drawer (Refer to *).

(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 of 3 ± 0.5 mm.

(6) If not, use the following procedure to change values and repeat the steps (3) to (5) above.

(Adjustment Mode) → (Key in the code [430]) → [START]
→ (Key in a value (acceptable values: 0 to 255))
→ Press the [ENTER] or the [INTERRUPT] button (stored in memory).
→ (“100% A” is displayed.)

* The larger the adjustment value is, the wider the blank area becomes (approx. 0.04 mm/step).

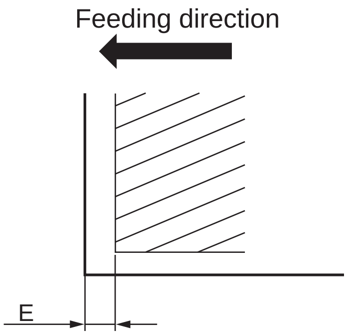


Fig. 3-17

[G] Right margin

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)

(2) Open the original cover or RADF.

(3) Press [FAX] to make a copy at the mode of A3/LD, 100%, Text/Photo and the lower drawer (Refer to *).

(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 of 2±1.0 mm.

(6) If not, use the following procedure to change values and repeat the steps (3) to (5) above.

(Adjustment Mode) → (Key in the code [432]) → [START]
→ (Key in a value (acceptable values: 0 to 255))
→ Press the [ENTER] or the [INTERRUPT] button (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).

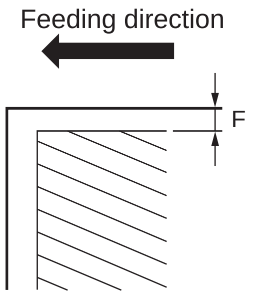


Fig. 3-18

[H] Bottom margin

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)

(2) Open the original cover or RADF.

(3) Press the [FAX] to make a copy at the mode of A3/LD, 100%, Text/Photo and the lower drawer (Refer to *).

(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 of 2±1.0 mm.

(6) If not, use the following procedure to change values and repeat the steps (3) to (5) above.

(Adjustment Mode) → (Key in the code [433]) → [START]
→ (Key in value (acceptable values: 0 to 255))
→ Press the [ENTER] or the [INTERRUPT] button (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).

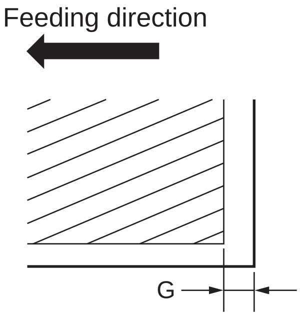


Fig. 3-19

3.4 Image Quality Adjustment (Copying Function)

3.4.1 Automatic gamma adjustment

When the reproduction of gradation is not appropriate, it can be corrected by performing this automatic gamma adjustment. At the parts replacement and in case the gradation reproduction of the image is not satisfactory, make this adjustment as described below.

(1) When unpacking or any of the following parts has been replaced, be sure to make this adjustment:

- Photoconductive drum
- Transfer roller
- Main charger grid
- Developer material
- Drum cleaning blade
- SRAM board
- Laser optical unit

(2) Be sure to perform this adjustment when changing the system ROM.

<Adjustment Mode (05)>

Code	Item to be adjusted	Contents
580	Automatic gamma adjustment	When the reproduction of gradation is not appropriate, it can be corrected by performing this automatic gamma adjustment.

<Procedure>

(1) While pressing [0] and [5] simultaneously, turn the power ON. → Adjustment Mode

(2) Select the A4/LT drawer. Key in “10” and press the [FAX] button to print a “Patch chart for gamma adjustment”.

(3) Place the patch chart for adjustment printed in step (2) face down on the original glass. Place the chart aligning its black side of the gradation pattern against the original scale.

(4) Key in a code and press the [START] button.

(5) When the adjustment has finished normally, “ENTER” is shown. Press the [ENTER] 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.

3.4.2 Density adjustment

The center density and the density variation controlled by density adjustment keys can be adjusted as follows.

< Adjustment Mode (05) >

Original mode					**Item to be adjusted**	**Remarks**
Text/ Photo	**Photo**	**Text**	**User Custom**	**Color Document**		
503	501	504	931	7126	Manual density mode center value	The larger the value is, the darker the image becomes. Acceptable values: 0 to 255 (Default: 128)
505	506	507	934	-	Manual density mode light step value	The larger the value is, the lighter the light side becomes. Acceptable values: 0 to 255 (Default: 20)
508	509	510	937	-	Manual density mode dark step value	The larger the value is, the darker the dark side becomes. Acceptable values: 0 to 255 (Default: 20)
514	512	515	940	7129	Automatic density mode	The larger the value is, the darker the image becomes. Acceptable values: 0 to 255 (Default: 128)

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using 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 an adjustment value.

(To correct the keyed-in value, press the [CLEAR] button.)

(4) Press the [ENTER] or [INTERRUPT] button to store the value. → The equipment goes back to the ready state.

(5) Press the [FAX] button and then the [START] button. Then perform test copying.

(6) If the desired image density has not been attained, repeat step (2) to (5).

3.4.3 Background adjustment

The density of the background can be adjusted as follows.

< Adjustment Mode (05) >

Original mode					Item to be adjusted	Remarks
Text/ Photo	Photo	Text	User Custom	Color Document		
7033	7043	7034	7279	7050	Automatic density mode	The larger the value is, the lighter the background becomes. Acceptable values:0 to 255 (Default: 128)
7041	7048	7042	7280	7051	Manual density mode	

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure.

<Procedure>

Procedure is same as that of 🕮 P.3-23 "3.4.2 Density adjustment".

3.4.4 Sharpness adjustment

If you want to make copy images look softer or sharper, perform the following adjustment.

< Adjustment Mode (05) >

* The values in “( )” are the adjustment codes of the Custom Mode.

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure.

Original mode					Item to be adjusted	Remarks
Text/ Photo	Photo	Text	User Custom	Color Document		
604	606	605	922	7059	Sharpness adjustment	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)

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure.

<Procedure>

Procedure is same as that of 🕮 P.3-23 "3.4.2 Density adjustment".

3.4.5 Setting range correction

The values of the background peak in the range correction 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 affect the reproduction of the background density.

< Adjustment Mode (05) >

Original mode					Item to be adjusted	Remarks
Text/ Photo	**Photo**	**Text**	**User Custom**	**Color Document**		
7283	7285	7284	7236	7289	Automatic density mode	0: Background peak / fixed 1: Background peak / varied
7286	7288	7287	7237	7290	Manual density mode	

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure.

<Procedure>
Procedure is same as that of 📖 P.3-23 "3.4.2 Density adjustment".

3.4.6 Adjustment of smudged/faint text

The smudged/faint text can be set at the following codes.

< Adjustment Mode (05) >

Original mode			Item to be adjusted	Remarks
Text/ Photo	**Text**	**User custom**		
648	649	925	Adjustment of smudged/ faint spotted text	When the value increases, the smudged text is improved. When the value decreases, the faint text is improved. Acceptable values: 0 to 4 (Default: 2) **Note:** 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>
Procedure is same as that of 📖 P.3-23 "3.4.2 Density adjustment".

3.4.7 Gamma balance adjustment

The density is adjusted by adjusting the gamma balance. The adjustment is performed by selecting its density area from the following: low density, medium density and high density.

< Adjustment Mode (05) >

Language and screen					**Item to be adjusted**	**Remarks**
Text/ Photo	**Photo**	**Text**	**User custom**	**Color Document**		
590-0	592-0	591-0	949-0	7193-0	Low density	The larger the value is, the density of the item to be adjusted becomes darker. Acceptable values: 0 to 255. (Default: 128)
590-1	592-1	591-1	949-1	7193-1	Medium density	
590-2	592-2	591-2	949-2	7193-2	High density	

Note:

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 for an item to be adjusted and then press the [START] button.

(3) Key in a number for the density area to be adjusted (0, 1 or 2), and then press the [START] button.
0: Low density 1: Medium density 2: High density

(4) Key in an adjustment value.
(To correct the keyed-in value, press the [CLEAR] button.)

(5) Press the [ENTER] 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) Press the [FAX] button and then the [START] button. Then perform test copying.

(8) If the desired image density has not been attained, repeat step (2) to (7).

3.4.8 Adjustment of image density

The image density level can be set at the following codes.

< Adjustment Mode (05) >

Code	Item to be adjusted	Remarks
667-0 to 4	Adjustment of image density	When the value is decreased, text becomes lighter. Acceptable values: 0 to 10 **Notes:** 1. Set not to reverse the large and small number of the setting value corresponding to the sub code. Ex.) When the image density level for 667-0, 667-1, 667-2, 667-3, and 667-4 is assumed to be "A","B", "C", "D", and "E" respectively, they should have the following correlation: A ≤ B ≤ C ≤ D ≤ E 2. Remember that 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>

(1) While pressing [0] and [5] simultaneously, turn the power ON.

(2) Key in the code “667” and press the [START] button.

(3) Key in the sub code (0, 1, 2, 3 or 4), and press the [START] button.

(4) Key in an adjustment value.
(To correct the keyed-in value, press the [CLEAR] button.)

(5) Press the [ENTER] 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) Press the [FAX] button and then the [START] button. Then perform test copying.

(8) If the desired image density has not been attained, repeat step (2) to (7).

3.4.9 Background offsetting adjustment for RADF

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)>

Code	Remarks
7025	The larger the value is, the lower the background density becomes. Acceptable values: 0 to 255 (Default: 128)

<Procedure>
Procedure is same as that of 🕮 P.3-23 "3.4.2 Density adjustment".

3.5 Image Quality Adjustment (Printing Function)

3.5.1 Adjustment of smudged/faint text

The smudged/faint text can be set at the following codes.

< Adjustment Mode (05) >

Language			Remarks
PS	**PCL**	**XPS**	
654	655	656	When the value increases, the smudged text is improved. When the value decreases, the faint text is improved. Acceptable values: 0 to 9 (Default: 5)

<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 keyed-in value, press the [CLEAR] button.)

(4) Press the [ENTER] or [INTERRUPT] button to store the value. The equipment goes back to the ready state.

(5) Turn the power OFF and then back ON to perform printing job.

(6) If the desired text density has not been attained, repeat step (2) to (5).

3.5.2 Adjustment of image density

The image density level can be set at the following codes.

< Adjustment Mode (05) >

Toner mode			Item to be adjusted	Remarks
General	**Toner save**	**Hardcopy security printing**		
672-0 to 4	7352-0 to 4	7351-0 to 4	Adjustment of image density	When the value is decreased, text becomes lighter. Acceptable values: 0 to 10 **Notes:** 1. Set not to reverse the large and small number of the setting value corresponding to the sub code. Ex.) When the image density level for 672-0, 672-1, 672-2, 672-3, and 672-4 is assumed to be "A","B", "C", "D", and "E" respectively, they should have the following correlation: A ≤ B ≤ C ≤ D ≤ E 2. Remember that 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>

(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 sub code (0, 1, 2, 3 or 4), and press the [START] button.

(4) Key in an adjustment value.
(To correct the keyed-in value, press the [CLEAR] button.)

(5) Press the [ENTER] 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 the power OFF and then back ON to perform printing job.

(8) If the desired image density has not been attained, repeat step (2) to (7).

3.5.3 Gamma balance adjustment

The density is adjusted by adjusting the gamma balance. The adjustment is performed by selecting its density area from the following: low density, medium density and high density.

<Adjustment Mode (05)>

Color mode	Language and screen						Item to be adjusted	Remarks
	Smooth (PS)	Detail (PS)	Smooth (PCL)	Detail (PCL)	Smooth (XPS)	Detail (XPS)		
Black	7315-0	7316-0	7317-0	7318-0	7319-0	7320-0	Low density	The larger the value is, the density of the item to be adjusted becomes darker. Acceptable values: 0 to 255 (Default: 128)
	7315-1	7316-1	7317-1	7318-1	7319-1	7320-1	Medium density	
	7315-2	7316-2	7317-2	7318-2	7319-2	7320-2	High density	

Note:

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
(4) Key in the adjustment value. (To correct the value once keyed in, press the [CLEAR] button.)
(5) Press the [ENTER] 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 the power OFF and then back ON. Then perform printing.
(8) If the image density has not been attained, repeat step (2) to (7).

3.6 Image Quality Adjustment (Scanning Function)

3.6.1 Gamma balance adjustment

The density is adjusted by adjusting the gamma balance. 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**	**User custom**			
880-0	881-0	882-0	7480-0	883-0	Low density	The larger the value is, the density of the item to be adjusted becomes darker. Acceptable values: 0 to 255 (Default: 128)
880-1	881-1	882-1	7480-1	883-1	Medium density	
880-2	881-2	882-2	7480-2	883-2	High density	

Note:

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 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 [ENTER] 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 the power OFF and then back ON. Then perform scanning.
(8) If the desired image has not been attained, repeat step (2) to (7).

3.6.2 Density adjustment

Adjusts the center density and the variation of density adjustment buttons.

<Adjustment Mode (05)>

Color Mode	Original mode				Item to be adjusted	Remarks
	Text	Photo	Printed image	User custom		
Color	8340	8341	8342	8380	Manual density center value	The larger the value is, the darker the image becomes. Acceptable values: 0 to 255 (Default: 128)
	8344	8345	8346	8381	Manual density light step value	Sets the changing amount by 1 step at the density adjustment on the control panel. The larger the value is, the lighter the light side becomes. Acceptable values: 0 to 255 (Default: 20)
	8348	8349	8350	8382	Manual density dark step value	Sets the changing amount by 1 step at the density adjustment on the control panel. The larger the value is, the darker the dark side becomes. Acceptable values: 0 to 255 (Default: 20)

<Adjustment Mode (05)>

Black				Gray Scale	Item to be adjusted	Remarks
Original mode						
Text/ Photo	Text	Photo	User custom			
845	846	847	7475	848	Manual density center value	The larger the value is, the darker the image becomes. Acceptable values: 0 to 255 (Default: 128)
860	861	862	7478	863	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 [ENTER] or [INTERRUPT] button to store the value in memory. → The equipment goes back to the ready state.
(5) Turn the power OFF and then back ON. Then perform scanning.
(6) If the desired image quality has not been attained, repeat step (2) to (5).

3.6.3 Judgment threshold for ACS

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.

<Adjustment Mode (05)>

Code	Item to be adjusted	Contents
1675	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.3-32 "3.6.2 Density adjustment".

3.6.4 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
1086	Full Color	Text	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 (Defaullt : 128)
1087		Printed Image	
1088		Photo	
8375		User custom	
840	Black	Text/Photo	
841		Text	
842		Photo	
7470		User custom	
843	Gray Scale	-	

Note:
You have to make adjustment by balancing between moire and sharpness.

<Procedure>
The procedure is the same as that of 📖 P.3-32 "3.6.2 Density adjustment".

3.6.5 Setting range correction

The values of the background peak in the range correction 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)>

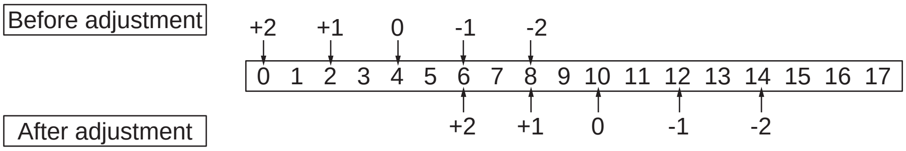
Black				**Gray Scale**	**Item to be adjusted**	**Remarks**
Original mode						
Text/ Photo	**Text**	**Photo**	**User custom**			
7416	7417	7418	7425	7419	Range correction (Automatic density adjustment)	0: Background peak - fixed 1: Background peak - varied
7421	7422	7423	7426	7424	Range correction (Manual density adjustment)	

Color				**Item to be adjusted**	**Remarks**
Original mode					
Text	**Photo**	**Printed Image**	**User custom**		
8330	8331	8332	8334	Range correction (Automatic density adjustment)	0: Background peak - fixed 1: Background peak - varied
8361	8362	8363	8365	Range correction (Manual density adjustment)	

<Procedure>
The procedure is the same as that of 📖 P.3-32 "3.6.2 Density adjustment".

3.6.6 Background adjustment

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.


Before adjustment
+2
+1
0
-1
-2
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
+2
+1
0
-1
-2
After adjustment

<Adjustment Mode (05)>

Code	Original mode	Remarks
1070	Text	The smaller the value is, the background becomes lighter. Acceptable values: 0 to 50 (Default: 50)
1071	Printed Image	
1072	Photo	
8370	User custom	

<Procedure>
The procedure is the same as that of 📖 P.3-32 "3.6.2 Density adjustment".

3.6.7 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
1075	Text	The larger the value is, the black side of the image becomes darker. Acceptable values: 0 to 4 (Default: 0)
1076	Printed Image	
1077	Photo	
8371	User custom	

Note:

Be careful for the value not to be too large since the gradation is reproduced worse in darker side.

<Procedure>
The procedure is the same as that of 🕮 P.3-32 "3.6.2 Density adjustment".

3.6.8 RGB conversion method selection

The color space conversion method of image is decided at color-scanning.

<Adjustment Mode (05)>

Code	Original mode	Remarks
1080	Text	0: sRGB, 1: AppleRGB, 2: ROMMRGB, 3: AdobeRGB (Default: 0)
1081	Printed Image	
1082	Photo	
8372	User custom	

<Procedure>
The procedure is the same as that of 🕮 P.3-32 "3.6.2 Density adjustment".

3.6.9 Adjustment of saturation

The saturation of the scanned image is adjusted for color-scanning.

<Adjustment Mode (05)>

Code	Original mode	Remarks
8325	Text	The larger the value is, the brighter the image becomes. The smaller the value is, the duller the image becomes. Acceptable values: 0 to 255 (Default: 128)
8326	Printed Image	
8327	Photo	
8373	User custom	

<Procedure>
The procedure is the same as that of 🕮 P.3-32 "3.6.2 Density adjustment".

3.6.10 Background processing offset adjustment

The density of background is adjusted.

<Adjustment Mode (05)>

Black				**Item to be adjusted**	**Remarks**
Original mode					
Text/ Photo	**Photo**	**User Custom**	**Gray Scale**		
8400	8402	8404	8403	Background density adjustment / Automatic density adjustment	The larger the value is, the lower the density of the image background (low density section) becomes.The smaller the value is, the higher the density of the image background (low density section) becomes.Acceptable values: 0 to 255 (Default: 128)
8405	8407	8409	8408	Background density adjustment / Manual density adjustment	

Color				**Item to be adjusted**	**Remarks**
Original mode					
Text	**Photo**	**Printed Image**	**User Custom**		
8385	8386	8387	8389	Background density adjustment / Automatic density adjustment	The larger the value is, the lower the density of the image background (low density section) becomes.The smaller the value is, the higher the density of the image background (low density section) becomes. Acceptable values: 0 to 255 (Default: 128)
8390	8391	8392	8394	Background density adjustment / Manual density adjustment	

RADF		**Item to be adjusted**	**Remarks**
Black/ Gray Scale	**Color**		
7468	8395	Background density processing / RADF scanning	Adjusts the density of background for RADF scanning. The larger the value is, the lower the density of the background and the low density section (e.g. light text or lines) becomes. The smaller the value is, the higher the density of them becomes. Acceptable values: 0 to 255 (Default: 128)

<Procedure>

The procedure is the same as that of 📖 P.3-32 "3.6.2 Density adjustment".

3.7 Image Quality Adjustment (FAX Function)

3.7.1 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	714	700	710	Manual density center value	The larger the value is, the darker the image becomes. Acceptable values: 0 to 255 (Default: 128)
	729	-	725	Automatic density mode	

* 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 [ENTER] or [INTERRUPT] button to store the value. → The equipment goes back to the ready state.
(5) To set it again, repeat step (2) to (4).
(6) Turn the power OFF.

<Confirmation>
If possible, perform a Fax transmission and check the adjusted density with the image on the recipient's side.

3.7.2 Adjustment of image density

The image density level can be set at the following codes.

< Adjustment Mode (05) >

Code	Item to be adjusted	Remarks
678-0 to 4	Adjustment of image density	When the value is decreased, text becomes lighter. Acceptable values: 0 to 10 **Notes:** 1. Set not to reverse the large and small number of the setting value corresponding to the sub code. Ex.) When the image density level for 667-0, 678-1, 678-2, 678-3, and 678-4 is assumed to be "A","B", "C", "D", and "E" respectively, they should have the following correlation: A ≤ B ≤ C ≤ D ≤ E 2. Remember that 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>

(1) While pressing [0] and [5] simultaneously, turn the power ON.

(2) Key in the code and press the [START] button.

(3) Key in the sub code and press the [START] button.

(4) Key in an adjustment value.
(To correct the keyed-in value, press the [CLEAR] button.)

(5) Press the [ENTER] 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 the power OFF.

<Confirmation>

If possible, perform a Fax transmission and check the adjusted density with the image on the recipient's side.

3.8 Adjustment of High-Voltage Transformer

When replacing the high-voltage transformer, you must check each output adjustment of the main charger bias, developer bias, transfer bias, transfer cleaning bias (positive), transfer cleaning bias (negative) and separation bias.

3.8.1 Adjustment

[1] Preparation

Items to check		**Developer Bias**	**Main Charger**	**Transfer Bias, Transfer Cleaning Bias(positive), Transfer Cleaning Bias(negative)**	**Separation Charger**
Process Unit		Take the process unit out of the equipment, an then install the high-voltage transformer jig to the unit.			
High-Voltage Transformer Jig		Install the high-voltage transformer jig in the equipment. **Note:** Connect the green cable of the high-voltage transformer jig to ground on the equipment frame. 📖 P.3-41 "[A] Installation of the high-voltage transformer jig".			
Digital Tester	(+) terminal	Connect with the black cable (thick line) of the high-voltage transformer jig.	Connect with the red cable (thick line) of the high-voltage transformer jig.	Connect with the red cable (thin line) of the high-voltage transformer jig.	Connect with the gray cable of the high-voltage transformer jig.
	(–) terminal	Connect with the black cable (thin line) of the high-voltage transformer jig.			
	Function switch	DC			
	Full-scale (range)	1000 V		20 V	
	Remarks	Use a digital tester with an input resistance of 10 MΩ (RMS value) or higher.			
How to turn ON the power		Attach the door switch jig and start with the adjustment mode [05] while the front cover opened.			
Note		📖 P.3-43 "[B] Connection for developer bias adjustment"	📖 P.3-43 "[C] Connection for main charger adjustment"	📖 P.3-44 "[D] Connection the transfer bias, transfer cleaning bias(positive) and transfer cleaning bias(negative) adjustment"	📖 P.3-44 "[E] Connection for separation charger adjustment"

[A] Installation of the high-voltage transformer jig

The high-voltage transformer jig is composed of 2 cables and 1 adapter with a harness.
Attach them to the process unit as shown in the figure.

- * Black cable (thick line): Use the screw for the jig. (M3 x 8)
- * Red cable (thick line): Use the screw for the process unit.
- * Adapter: Use the screw for the process unit.

Note:

The adjustment may damage the drum. Therefore be sure to replace the drum with the one that you brought (or the one for measurement) before starting the adjustment.

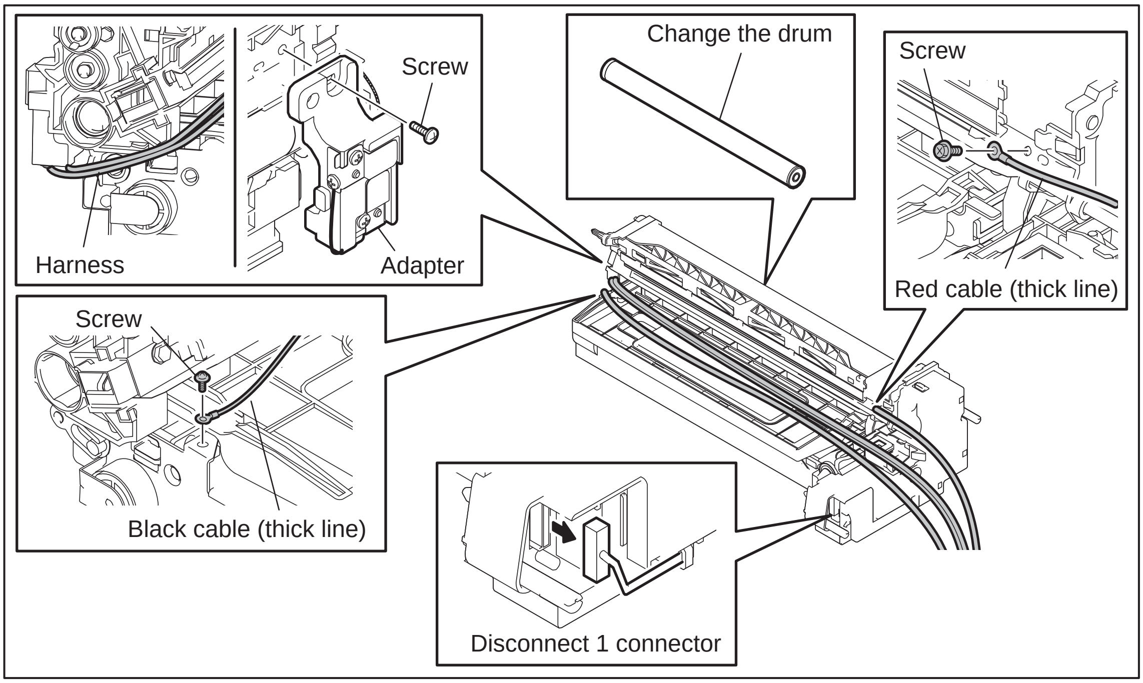

Screw
Harness
Adapter
Change the drum
Screw
Red cable (thick line)
Screw
Black cable (thick line)
Disconnect 1 connector

Fig. 3-20

(1) Open the automatic duplexing unit.
(2) Open the front cover and take off the toner cartridge.
(3) Loosen 2 screws and pull out the process unit.

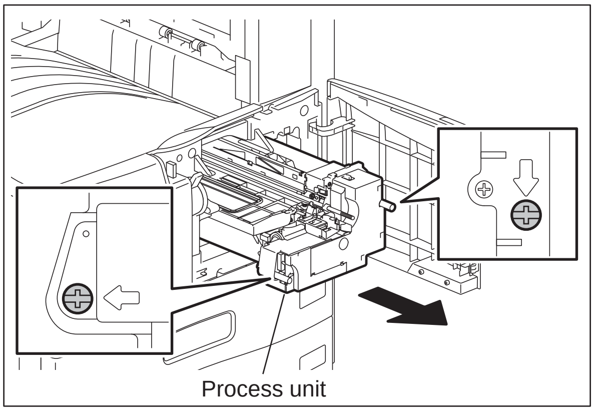

Process unit

Fig. 3-21

(4) Install the high-voltage transformer jig and fix it with 2 screws.

Note:
Be careful not to let the connector and the harness be caught.

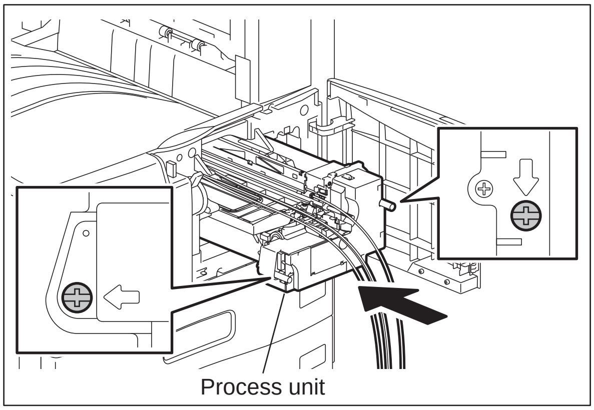


Fig. 3-22

(5) Fix the green cable of the high-voltage transformer jig to the frame of the equipment.

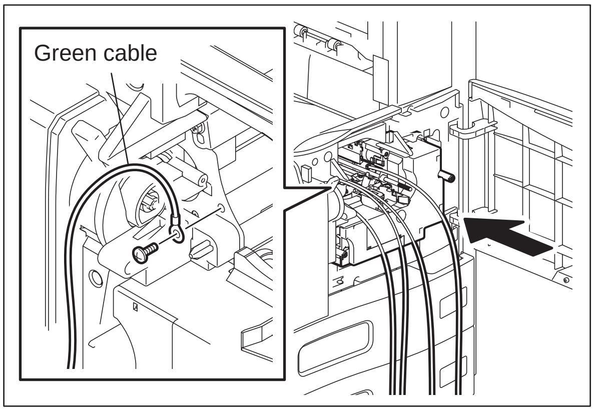


Fig. 3-23

(6) Install the door switch jig.
(7) Take off the transfer roller unit.
(8) Close the automatic duplexing unit.

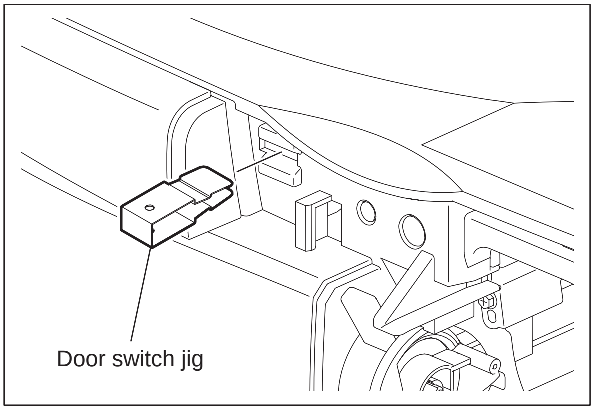


Fig. 3-24

[B] Connection for developer bias adjustment

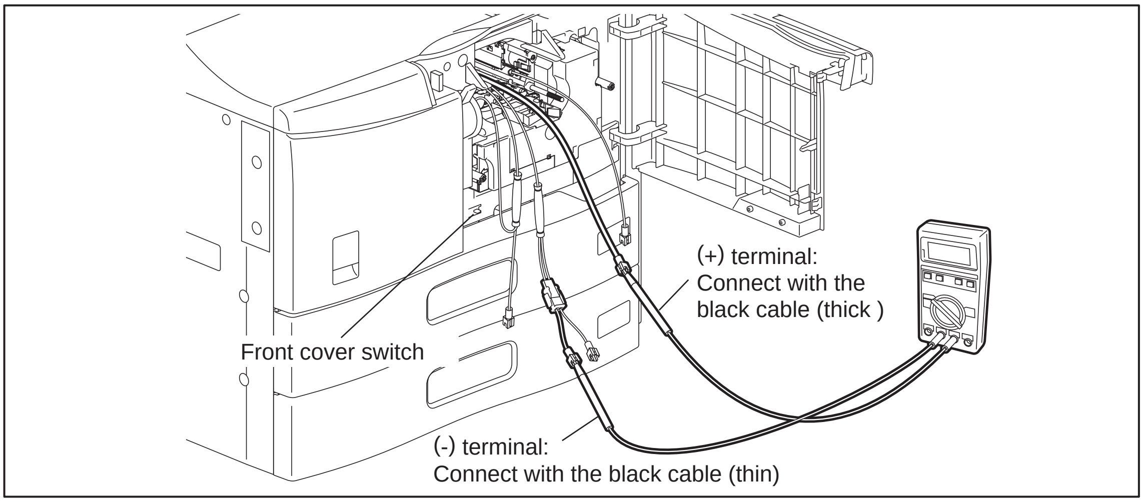

(+) terminal:
Connect with the
black cable (thick)
Front cover switch
(-) terminal:
Connect with the black cable (thin)

Fig. 3-25

[C] Connection for main charger adjustment

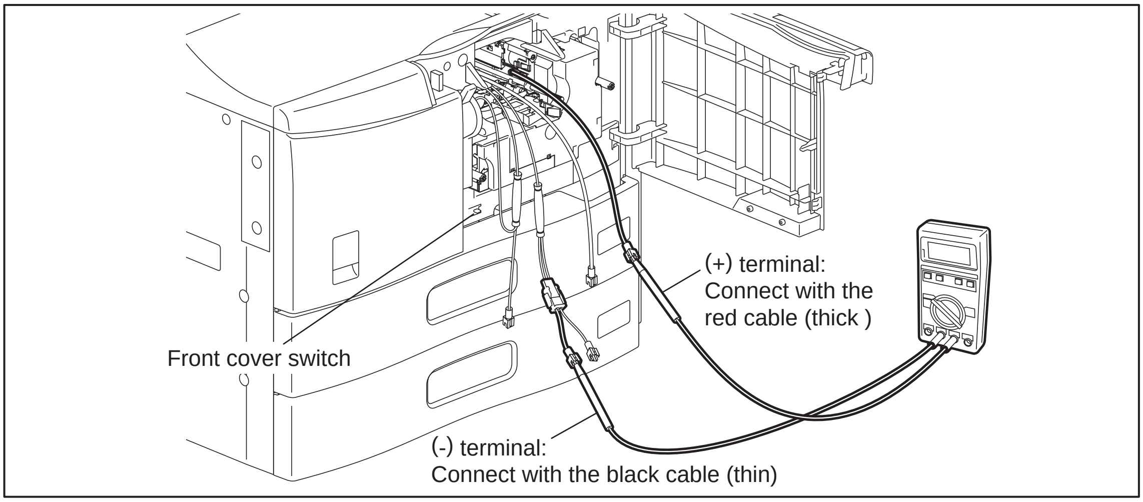

(+) terminal:
Connect with the
red cable (thick)
Front cover switch
(-) terminal:
Connect with the black cable (thin)

Fig. 3-26

[D] Connection the transfer bias, transfer cleaning bias(positive) and transfer cleaning bias(negative) adjustment

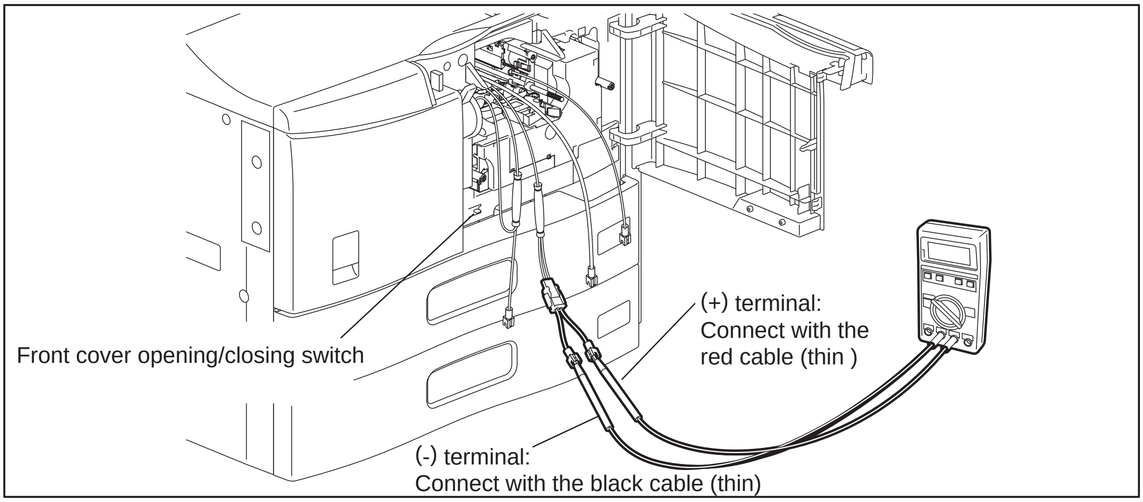

(+) terminal:
Connect with the
red cable (thin)
Front cover opening/closing switch
(-) terminal:
Connect with the black cable (thin)

Fig. 3-27

[E] Connection for separation charger adjustment

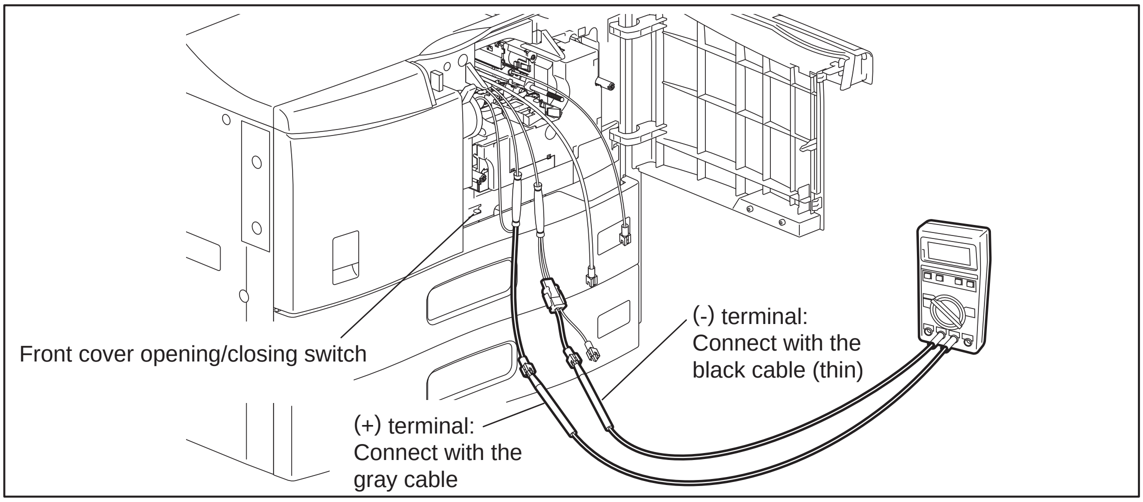

(-) terminal:
Connect with the
black cable (thin)
Front cover opening/closing switch
(+) terminal:
Connect with the
gray cable

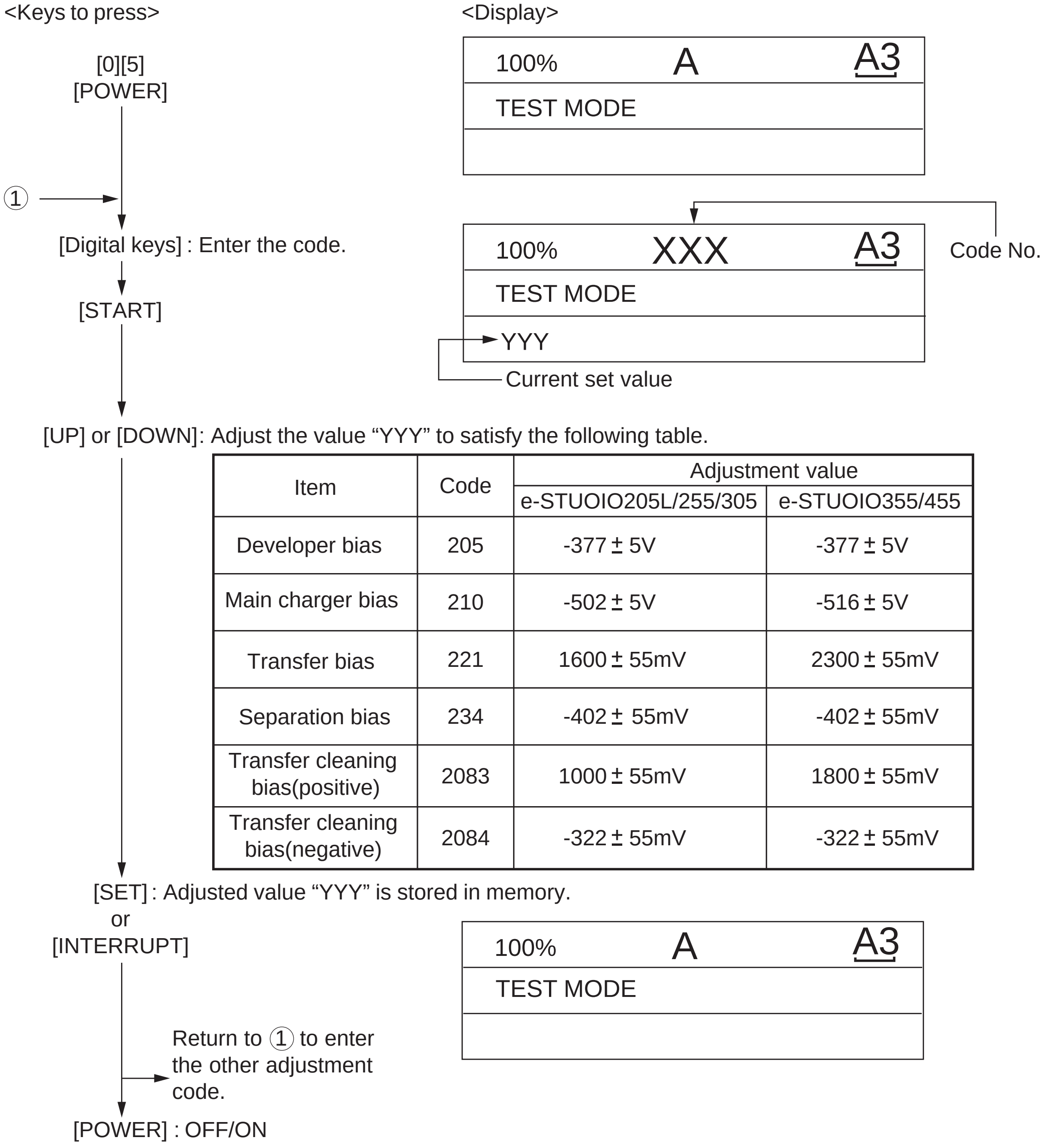
Fig. 3-28

[2] Operation

Note:

When adjusting output of high-voltage transformer, make sure to use the high-voltage transformer jig.

Connect the digital testers as described in “[1] Preparation”, and follow the procedure on the next page to adjust the output from the main charger, developer bias charger, transfer charger and separation charger.


<Keys to press>
<Display>
[0][5]
[POWER]
100% A A3
TEST MODE
①
100% XXX A3
TEST MODE
YYY
Code No.
Current set value
100% A A3
TEST MODE
Return to ① to enter the other adjustment code.

[Digital keys] : Enter the code.

[START]

[UP] or [DOWN]: Adjust the value “YYY” to satisfy the following table.

Item	Code	Adjustment value	
		e-STUOIO205L/255/305	e-STUOIO355/455
Developer bias	205	-377 ± 5V	-377 ± 5V
Main charger bias	210	-502 ± 5V	-516 ± 5V
Transfer bias	221	1600 ± 55mV	2300 ± 55mV
Separation bias	234	-402 ± 55mV	-402 ± 55mV
Transfer cleaning bias(positive)	2083	1000 ± 55mV	1800 ± 55mV
Transfer cleaning bias(negative)	2084	-322 ± 55mV	-322 ± 55mV

[SET] : Adjusted value “YYY” is stored in memory.
or
[INTERRUPT]

[POWER] : OFF/ON

Fig. 3-29

3.8.2 Precautions

[1] Developer bias

Note for adjustment

Adjust the developer bias if fogging occurs over the entire image even though the main charger grid voltage and toner density are appropriate. However, the following may occur if the developer bias is lowered too much:

- Image contrast becomes low.
- Image is patchy or blurred.
- The carrier in the developer material adheres to the photoconductive drum, causing scratches around the cleaner.

[2] Transfer

Items to check before adjustment

Blotched image or poor transfer can be also caused by matters other than defective adjustment of transfer output. Check the following items before adjusting the transfer charger. If there is no problem, adjust the output of the transfer.

- Are the transfer roller unit, transfer roller and power supply spring properly installed? Is there any foreign matter or damage on the transfer roller surface? Is the transfer guide deformed?
- Is the process unit properly installed? Is the developer magnetic brush in contact with the drum? Is the process unit worked correctly? Is the toner density low?
- Is the copy paper fed straight? Is the copy paper abnormally moist?
- Is the rotation of the registration roller normal?
- Is the separation output different from the set value?
- Is the developer bias value an appropriate one?

Note for adjustment

When blotched image appear:

- If blotched image appear in halftone areas, lower the transfer output value. Remember that transfer performance becomes low if the transfer output value is lowered too much.

When poor transfer occurs:

Increase the transfer output value under the following conditions. Remember that blotched image appear if the transfer output value is increased too much.

- Poor transfer occurs although the transfer roller unit, transfer roller and power supply spring are properly installed and no abnormality exists on the appearance of the transfer roller.
- Thick paper has been frequently used.

[3] Separation

Items to check before adjustment

Poor paper separation from the drum can be also caused by matters other than defective adjustment of the separation output. Check the following items before making an adjustment. If there is no problem, adjust the output of the separation charger.

- Are the erasing needle and the power supply bracket dirty or dislocated?
- Is the mode selected properly according to the paper weight?
- Is the process unit installed properly? Is the developer magnetic brush in contact with the drum? Is the process unit worked correctly? Is the toner density low?
- Is the copy paper fed straight? Is the copy paper abnormally moist?
- Is the rotation of the registration roller normal?
- Is the output of the main charger normal?
- Is the developer bias an appropriate value?
- Is the transfer output different from the set value?
- Is the separation finger in contact with the drum surface?

Note for adjustment

When poor paper separation occurs:

Increase the separation output value under the following conditions. Note that poor transfer occurs if the separation output value is too high.

- Poor separation occurs even though the separation needle is not dirty.
- Thin paper has been frequently used.

When poor transfer occurs:

- Decrease the separation output value when poor transfer occurs. Remember that the separation performance becomes low if the separation output value is decreased too much.

3.9 Adjustment of the Scanner Section

3.9.1 Carriages

[A] Installing carriage wires

When replacing the carriage wires, refer illustrations below:

[Front side]

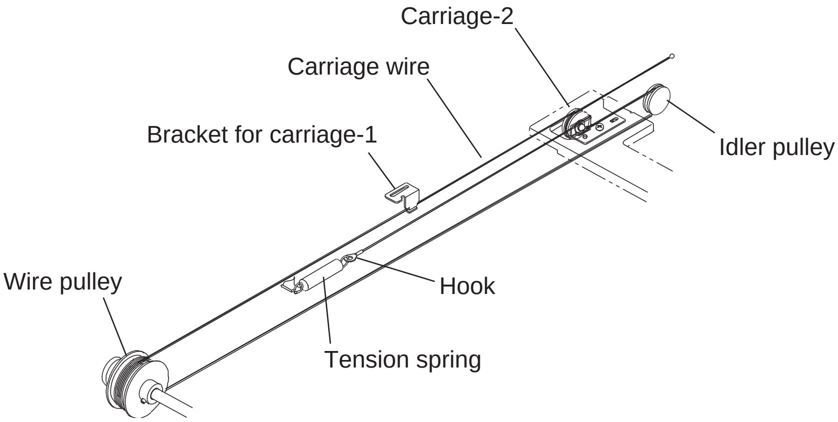

Carriage-2
Carriage wire
Bracket for carriage-1
Idler pulley
Wire pulley
Hook
Tension spring

Fig. 3-30

[Rear side]

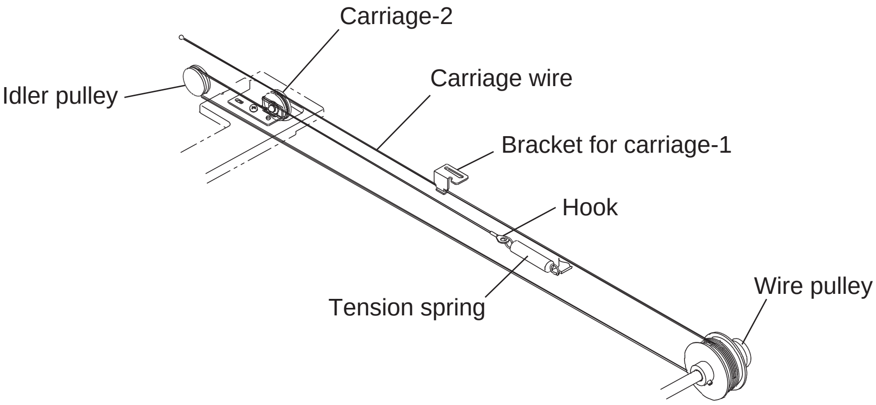

Carriage-2
Idler pulley
Carriage wire
Bracket for carriage-1
Hook
Wire pulley
Tension spring

Fig. 3-31

Adjustment of the carriage wire tension is not necessary since a certain tension is applied to the carriage wires by the tension springs.

Note:
Make sure the tension applied to the wire is normal.

[B] Adjusting carriages-1 and -2 positions

<Procedure>

(1) Move the carriage-2 toward the exit side.

(2) Loosen the screws fixing the front side pulley bracket, make the sections A and B of the carriage-2 touch with the inside of the exit side frame and screw them up.

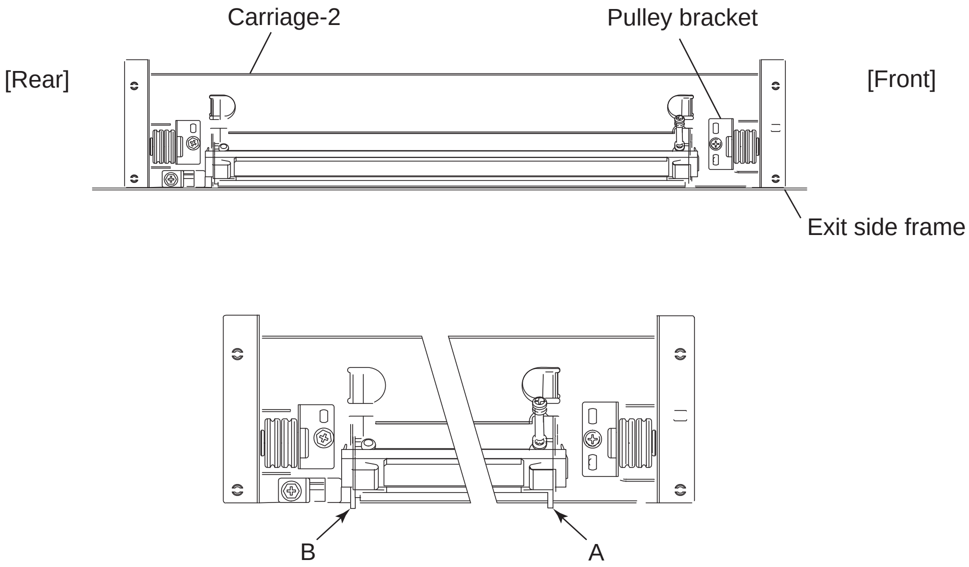

Carriage-2
Pulley bracket
[Rear]
[Front]
Exit side frame
B
A

Fig. 3-32

(3) Put the carriage-1 on the rail, make the sections C and D of it touch with the inside of the exit side frame and screw up the front/rear sides of the bracket to fix it.

Note:
Make sure that the sections A and B of the carriage-2 touch with the exit side frame.

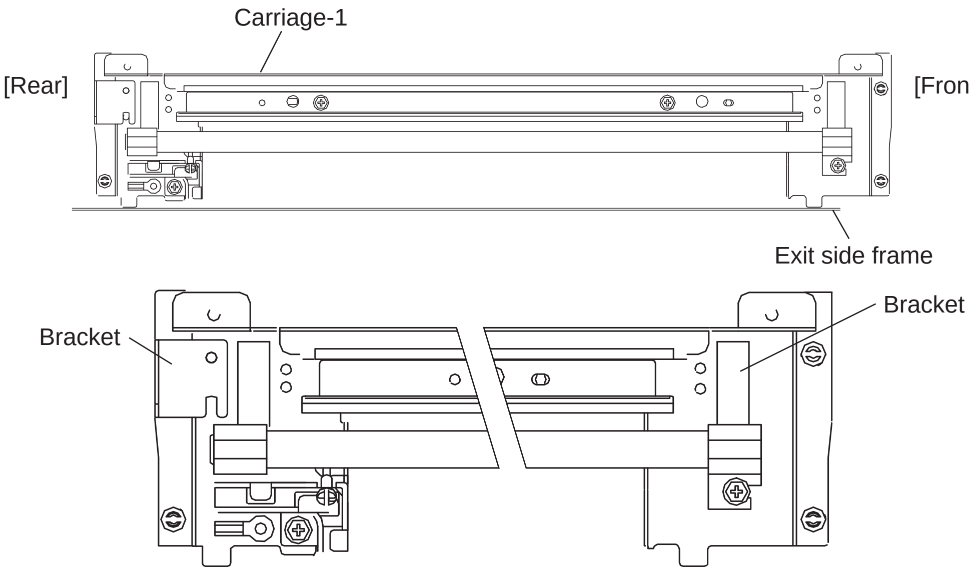

Carriage-1
[Rear]
[Front]
Exit side frame
Bracket
Bracket

Fig. 3-33

[C] Assembling carriage wires (Winding the wire around the wire pulley)

<Procedure>

(1) Pull the Ø3 ball terminal located at the center of the wire into a hole on the wire pulley. One end of the wire with a hook attached comes to the outside.

(2) Wind the wires around the wire pulleys of the front and rear sides. The number of turns to be wound are as follows:
- 3 turns toward the opposite side of the boss
- 3 turns toward the boss side

Note:

Pay attention to the following when the wires are wound around the pulleys:
- 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.

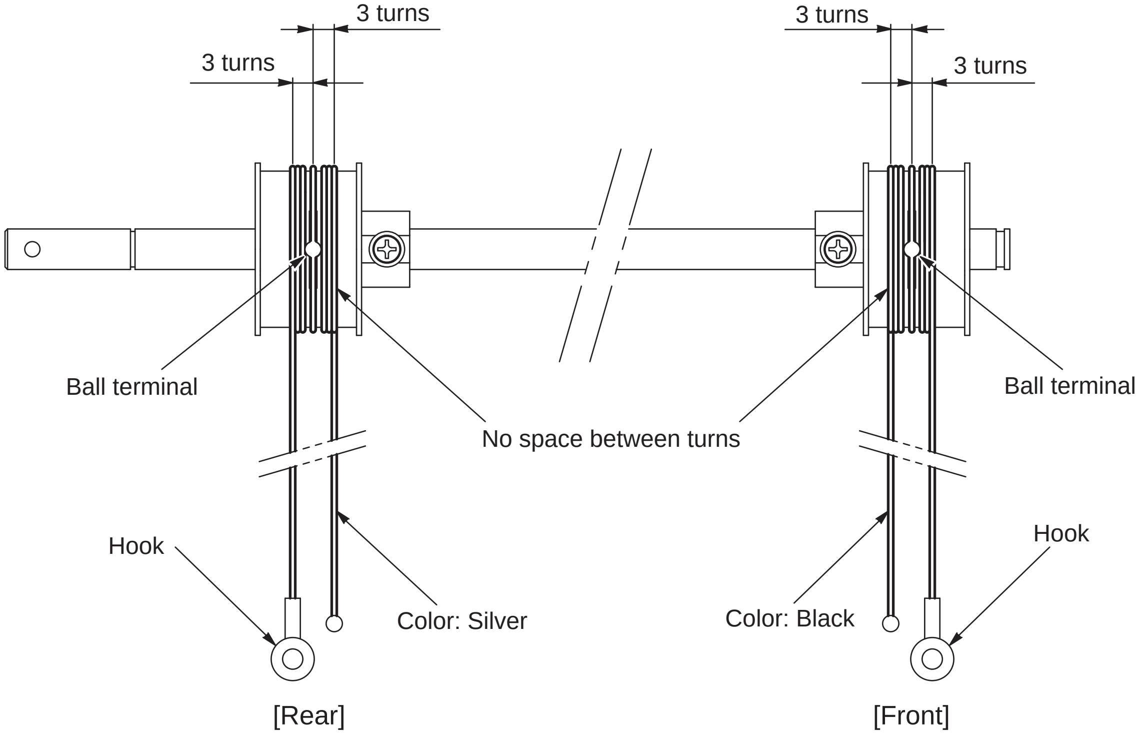

3 turns
3 turns
3 turns
3 turns
Ball terminal
Ball terminal
No space between turns
Hook
Hook
Color: Silver
Color: Black
[Rear]
[Front]

Fig. 3-34

(3) After winding the wires around the pulleys, attach the wire holder jigs not to loosen the wires.

Notes:

- When the wire holder jig is attached, make sure that the wire is not shifted or loosened.
- The wire should come out of the slot of the wire holder jig and be passed through between the arm and the jig.

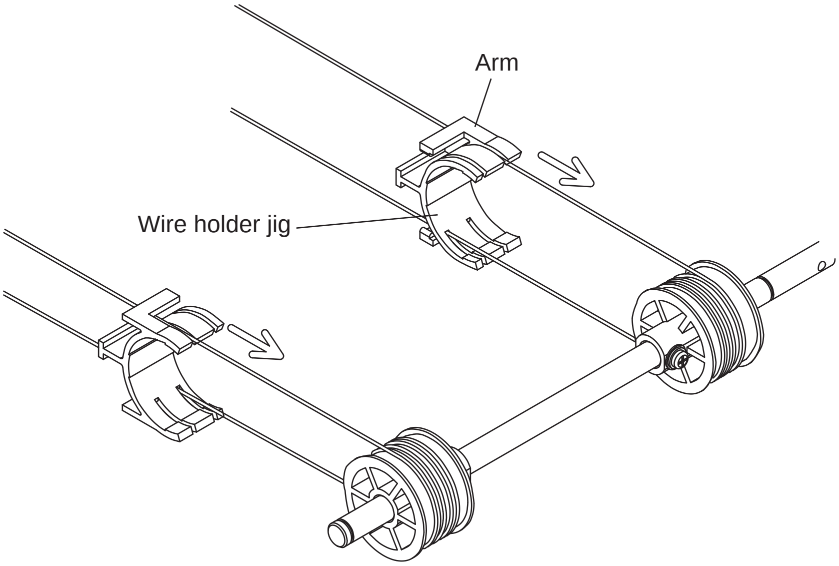


Fig. 3-35

3.9.2 Lens unit

[A] Replacing the lens unit

- The lens unit must not be readjusted and some part of its components must not be replaced in the field since the unit is precisely adjusted. If any of the components is defective, replace the whole unit.
- When replacing the unit, do not loosen or remove the 10 screws indicated with the arrows.

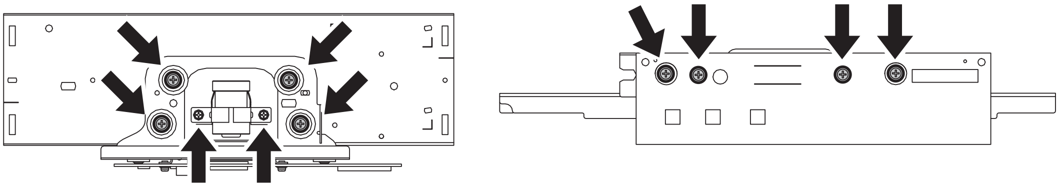


Fig. 3-36

- Handle the unit with care. Do not hold the lens and adjusted part (hold the unit as shown below).

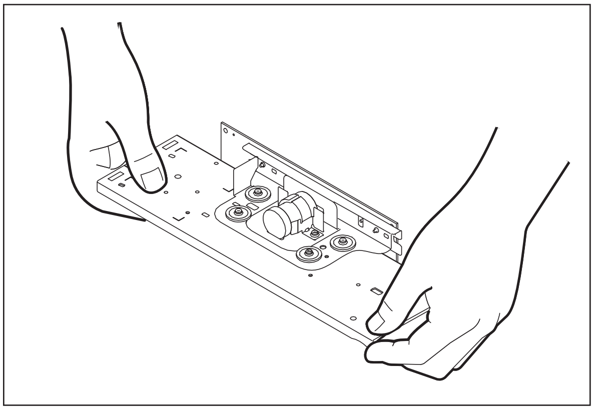


Fig. 3-37

[B] Adjustment of the magnification ratio of the lens

Notes:

- Perform this adjustment only when the lens unit is taken off or replaced.
- Make sure that the primary scanning reproduction ratio (printer section) is correct before this adjustment.

(1) Place a ruler on the original glass (in the primary scanning direction) and make a copy on A4/LT-sized paper at 100% reproduction ratio.

(2) Compare the copied ruler with the actual ruler.

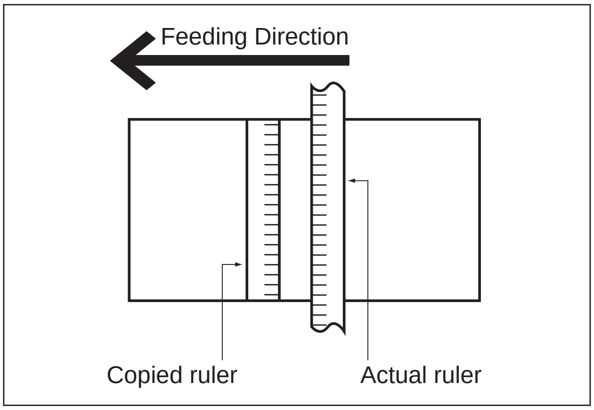


Fig. 3-38

(3) If each mark on the rulers differs, perform the adjustment with the following procedures.

<Procedure>

(1) Take off the original glass and lens cover.

(2) Loosen 4 screws fixing the lens unit.

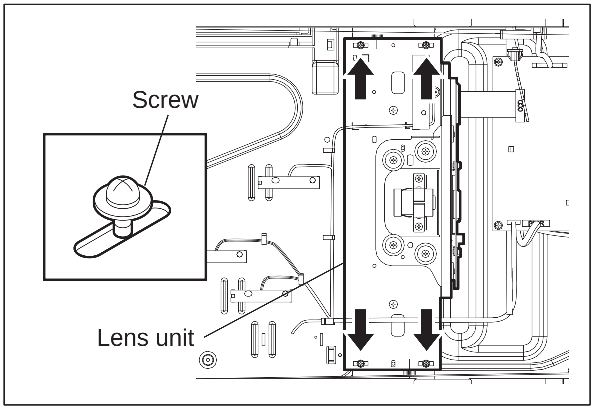


Fig. 3-39

(3) Slide the lens unit to the right or left direction using the marks on the lens base as a guide. (Slide right when the copied ruler is magnified and slide left when the copied ruler is demagnified.)
The following table shows how the reproduction ratio difference between the copied ruler and actual ruler corresponds to the movement amount of the lens unit.

Reproduction-ratio error	Movement amount of unit
0.1%	0.5 mm
0.2%	0.9 mm
0.3%	1.4 mm
0.4%	1.8 mm
0.5%	2.3 mm
0.6%	2.7 mm
0.7%	3.2 mm
0.8%	3.6 mm
0.9%	4.1 mm
1.0%	4.5 mm

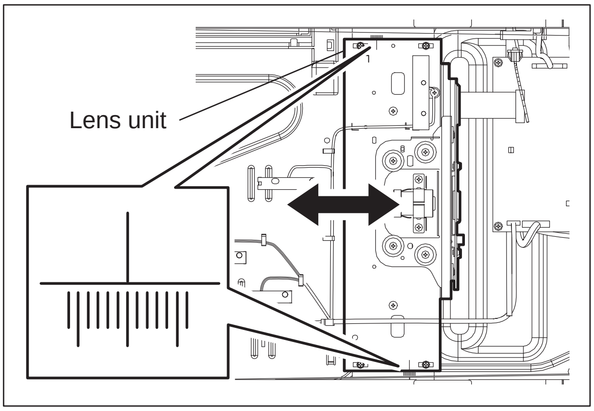


Fig. 3-40

Note:
Fine adjustment can be made in the “Reproduction ratio of primary scanning direction (printer)”. on the copied ruler and actual ruler match.

(4) Tighten 4 screws fixing the lens unit.

(5) Attach the lens cover and original glass. Make a copy to confirm the reproduction ratio.

(6) Repeat the procedure 1 to 5 until the marks on the copied ruler and actual ruler match.

3.10 Adjustment of the Paper Feeding System

Adjust the laser writing start position in the primary scanning direction with the lower drawer. (05-410, 05-411)

If deviation still occurs, perform the following:

3.10.1 Sheet sideways deviation caused by paper feeding

<Procedure>

The center of the printed image shifts to the front side. → Move the guide to the front side (Arrow (A) direction in the lower figure).

The center of the printed image shifts to the rear side. → Move the guide to the rear side (Arrow (B) direction in the lower figure).

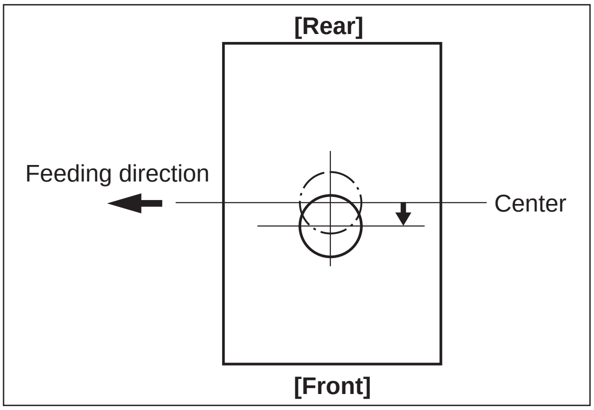


Fig. 3-41

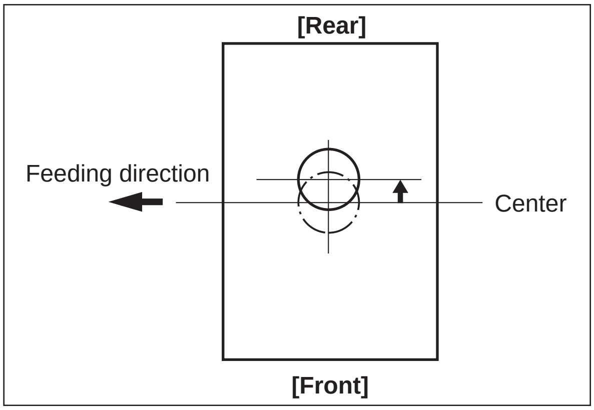


Fig. 3-42

Bypass feeding

(1) Loosen the screw.
(2) Move the entire guide to the front or rear side.
(3) Tighten the screw.

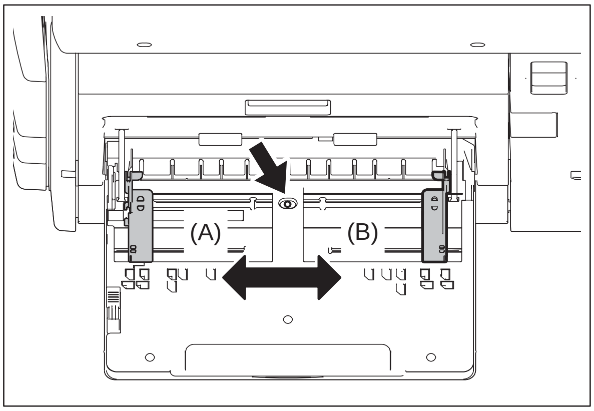


Fig. 3-43

Drawer feeding

(1) Remove 1 screw and the stopper. And then take off the drawer.

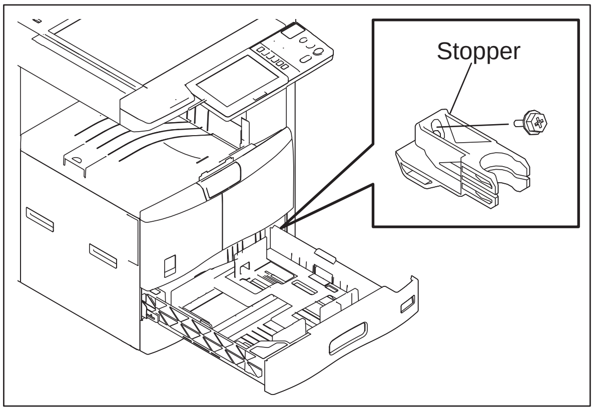


Fig. 3-44

(2) Lift up the drawer paper tray. Take off the drawer tray upward by releasing it from a stopper on the front side.

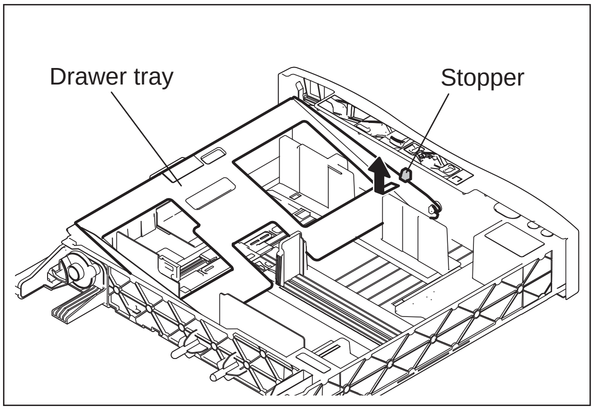


Fig. 3-45

(3) Move 1 screw to a position for the adjustment screw. (If it is already moved, skip this step.)

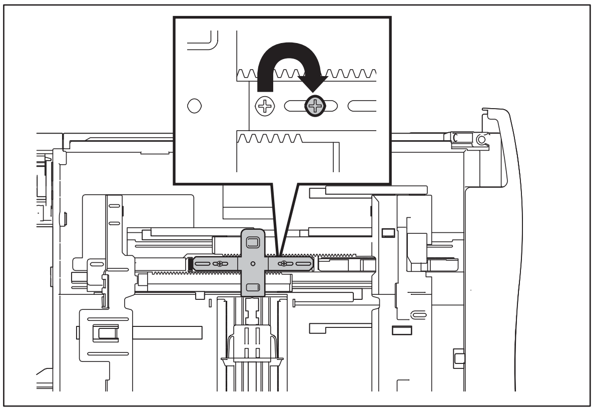


Fig. 3-46

(4) Loosen 2 screws.

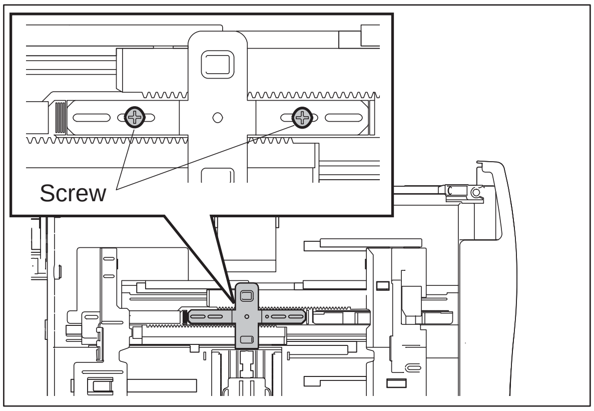


Fig. 3-47

(5) Move the entire guide to the front or rear side. Be sure to move the entire guide until you can see 4 triangles.
(6) Tighten the 2 screws of the adjustment plate.
(7) Install the drawer tray, drawer and stopper.
    * Adjustable range: 3 mm to the front side, 4 mm to the rear side (Unit: 1 mm)

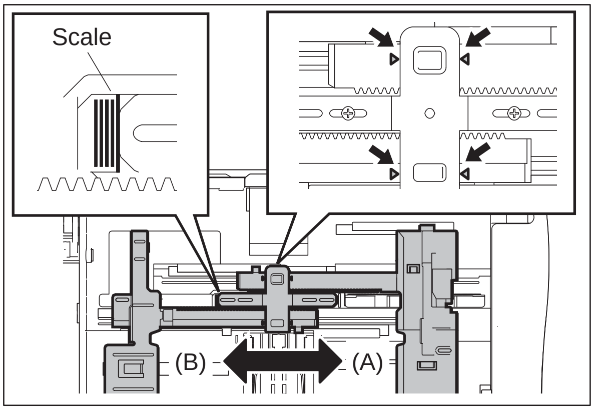


Fig. 3-48

3.11 Adjustment of Developer Unit

3.11.1 Doctor-to-sleeve gap

Adjustment tool to use: Doctor-sleeve jig
<Procedure>

(1) Perform the adjustment code "05-280".

(2) Take out the process unit from the equipment.

(3) Take out the developer unit from the process unit.

(4) Remove 2 screws and take off the developer material cover and discharge the developer material.

Note:
Discharge the developer material from the rear side, being careful not to let it be scattered on the gear.

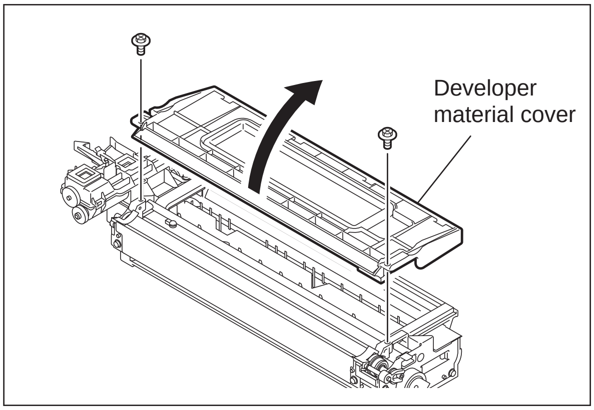


Fig. 3-49

(5) Turn the adjustment screw to widen the gap so that the jig can be inserted in it. (Turning the screw clockwise widens the gap)

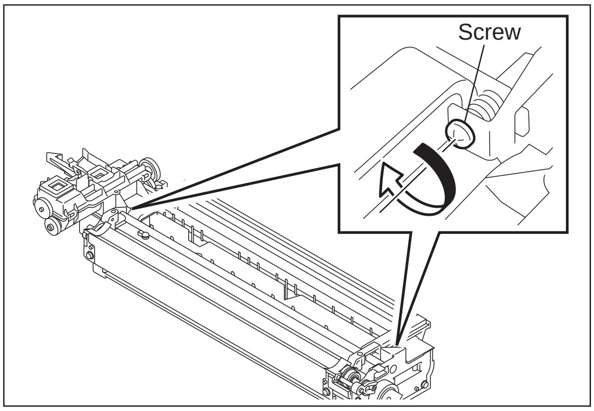


Fig. 3-50

(6) Insert the gauge with the thickness “0.45” of the doctor sleeve jig into the gap between the developer sleeve and doctor blade after lifting up the toner scattering prevention sheet.
Adjust the screws with the doctor blade to push the doctor sleeve jig lightly.

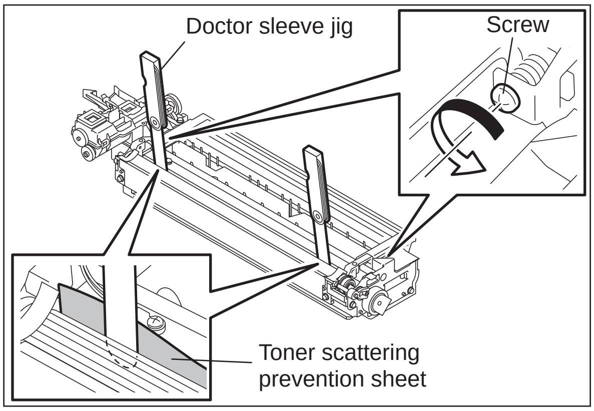

Doctor sleeve jig
Screw
Toner scattering prevention sheet

Fig. 3-51

(7) Insert the gauge “0.40” of the doctor sleeve jig into the gap between the developer sleeve and doctor blade. Confirm that the jig moves smoothly to the front and rear side, and the gauge “0.50” cannot be inserted into the gap.

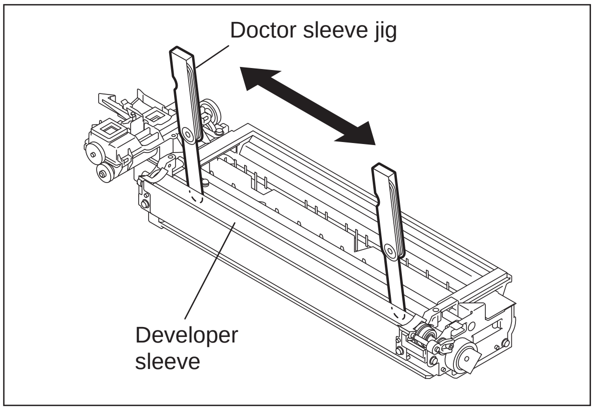

Doctor sleeve jig
Developer sleeve

Fig. 3-52

(8) Confirm that the side seals are attached on the toner scattering prevention sheet.

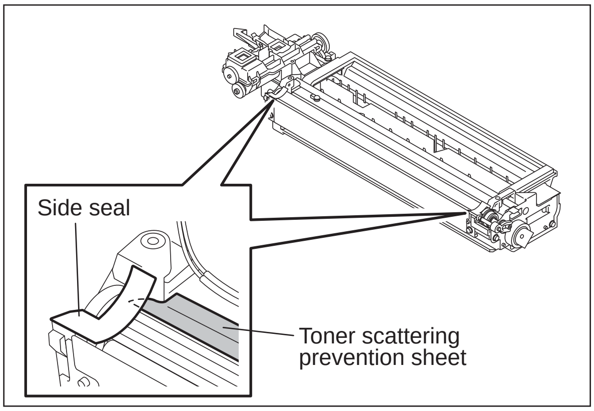

Side seal
Toner scattering prevention sheet

Fig. 3-53

(9) Attach the developer material cover and tighten 2 screws.

Notes:

1. After the developer material has been replaced, adjust the auto-toner sensor. (See 🕮 P.3-2 "3.2 Adjustment of Auto-Toner Sensor".)

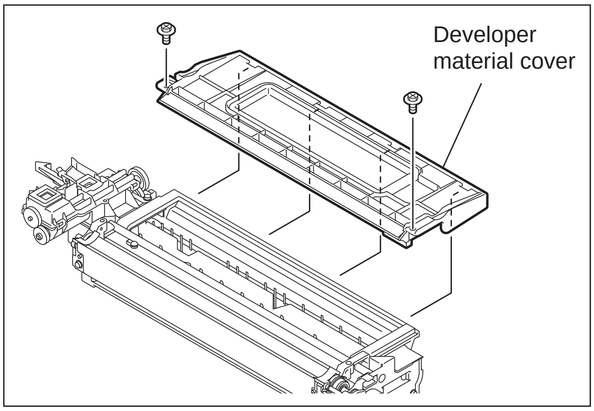

Developer material cover

Fig. 3-54

2. When installing the developer unit upper cover, make sure that the side seal comes between the developer unit upper cover and rubber seal on the cover.

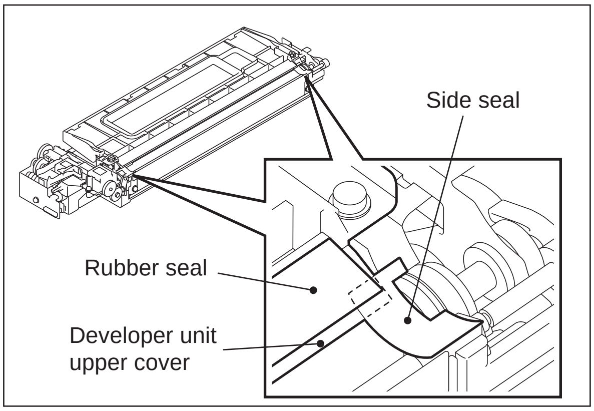

Side seal
Rubber seal
Developer unit upper cover

Fig. 3-55

3.12 Adjustment of the RADF

3.12.1 Adjustment of RADF position

Perform this adjustment when the RADF is not installed in the correct position.

Note:
Check if the image adjustment for the equipment is performed properly before this adjustment of the RADF.

[A] Checking

(1) Open the RADF and install 2 positioning pins (the positioning pins are installed to the back side of the hinge which is on the left side of the RADF).

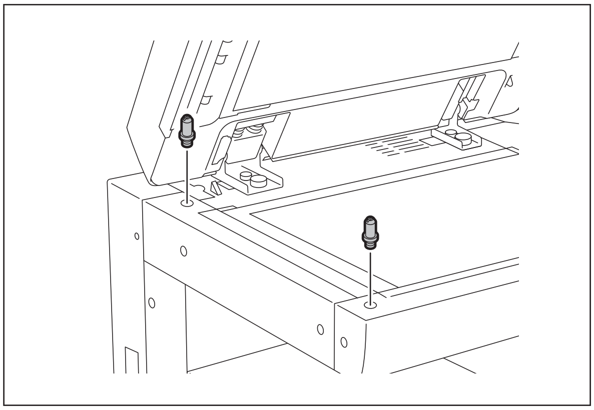


Fig. 3-56

(2) Remove the platen sheet.

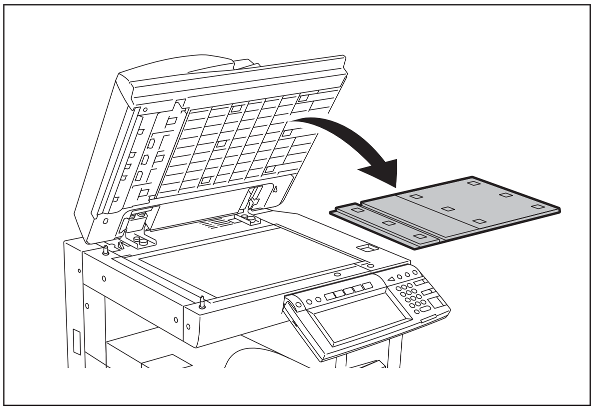


Fig. 3-57

(3) Close the RADF and check if the positioning pins fit the holes on the RADF.

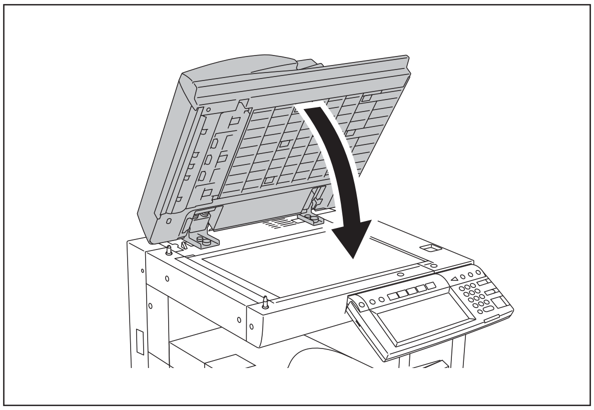


Fig. 3-58

[B] Adjustment

If the pins cannot be fitted into the holes, perform the adjustment according to the following procedure.

(1) Remove the right-hand hinge screw at the rear side.

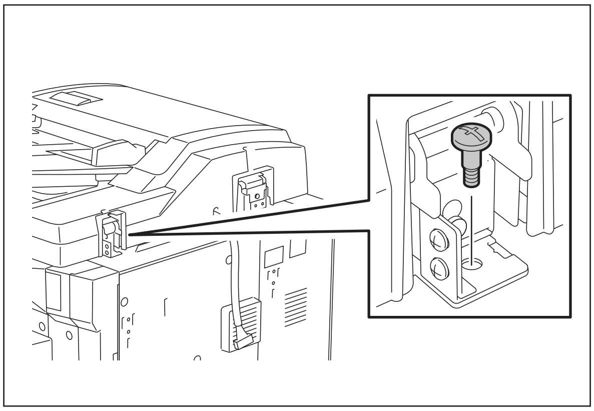


Fig. 3-59

(2) Loosen the left-hand hinge screw at the rear side.

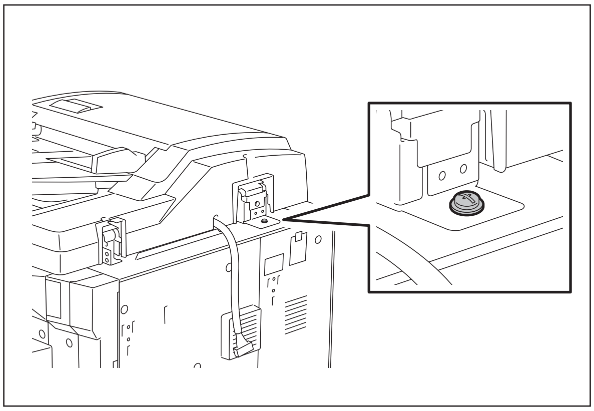


Fig. 3-60

(3) Loosen the hinge screws at the front side.

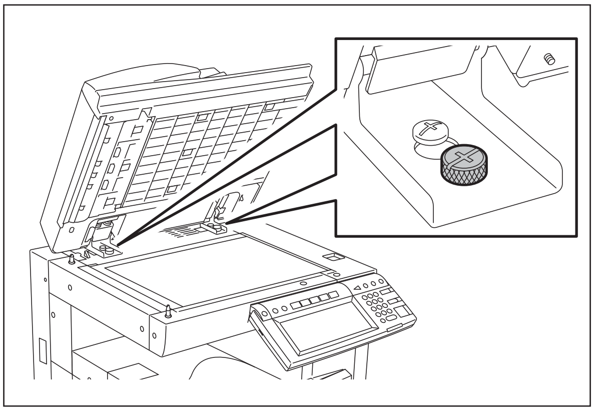


Fig. 3-61

(4) Position the pins with the holes on the RADF by moving it so that the pins fit into the holes when the RADF is closed.

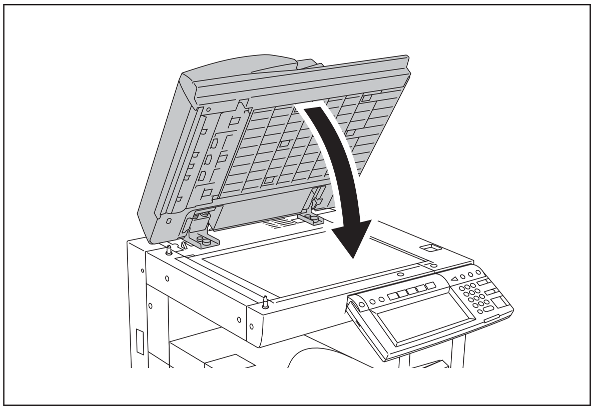


Fig. 3-62

(5) Tighten the left-hand hinge screw at the rear side.

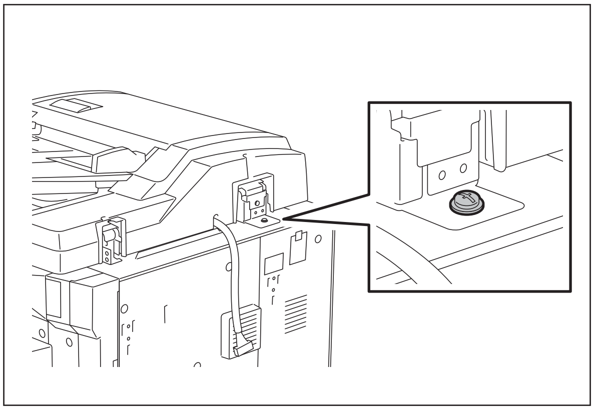


Fig. 3-63

(6) Loosen the hole position adjustment screws on the right hand side.

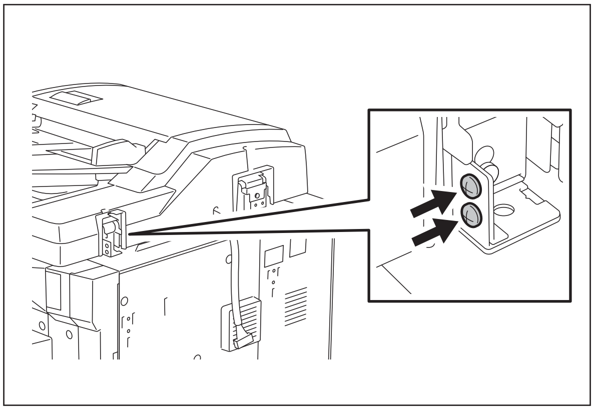


Fig. 3-64

(7) Match the screw hole positions.

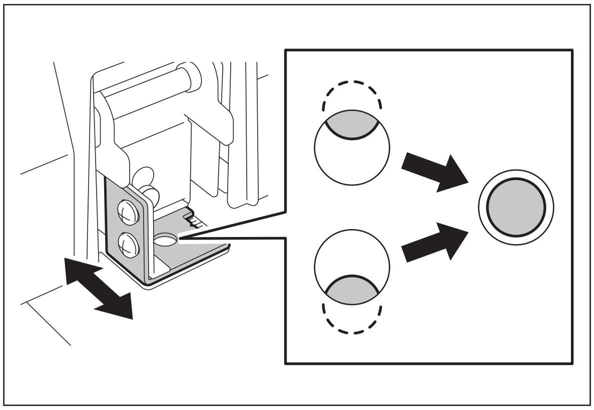


Fig. 3-65

(8) Install the right-hand hinge screw at the rear side.

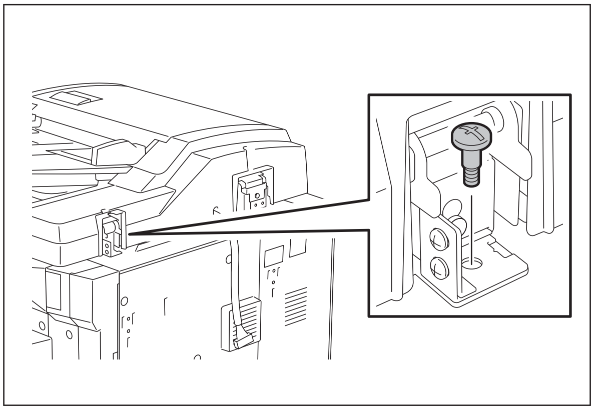


Fig. 3-66

(9) Loosen the hinge screws at the front side.

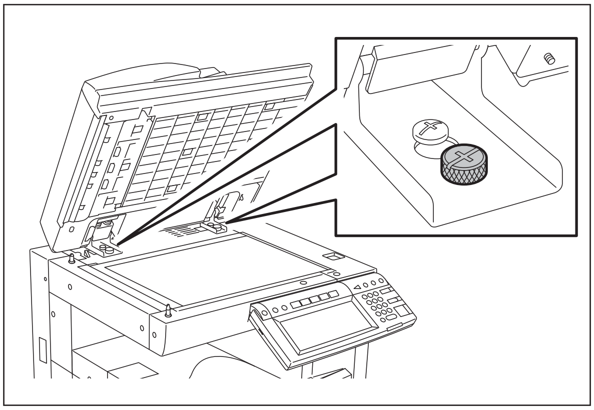


Fig. 3-67

(10) Place the platen sheet on the original glass and align it to the top left corner.
Close the RADF gently and open it to check if the platen sheet is attached properly.

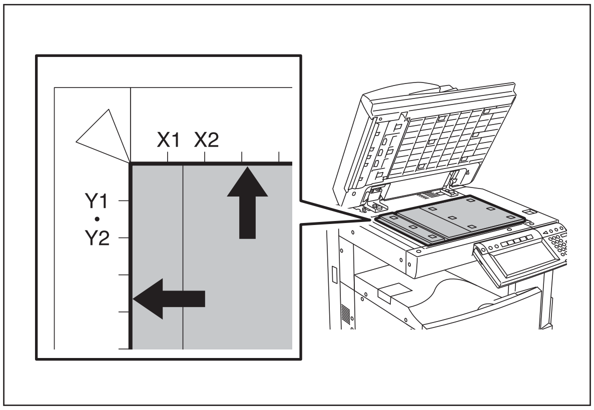


Fig. 3-68

3.12.2 Adjustment of RADF height

Note:
Check if the image adjustment for the equipment is performed properly before this adjustment of the RADF.

[A] Checking

(1) Close the RADF.
(2) Light the exposure lamp.
  - Turn the power ON while pressing [0] and [3] simultaneously.
  - Key in [267] and then press the [START] button. The exposure lamp is turned ON for a given length of time.

(3) Visually check the gap between platen guide holder "A" and upper surface of the original glass "B" from the left hand side of the equipment. If the value is not within the tolerance, perform the adjustment according to the following procedure.

[Tolerance of the gap]
Rear side: 0 - 0.5 mm
Front side: 0 mm

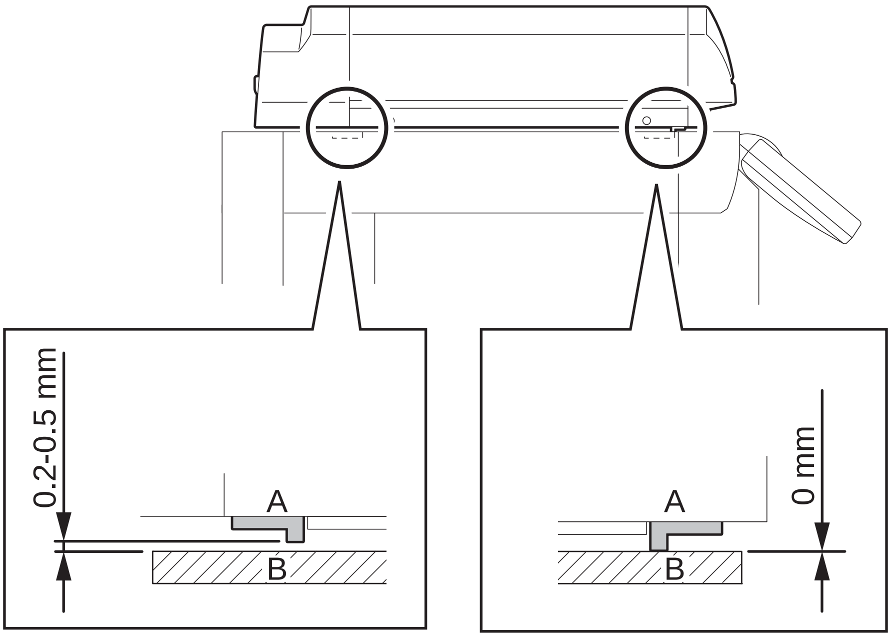


Fig. 3-69

[B] Adjustment

(1) Close the RADF.

(2) Adjust it by turning the adjustment screws on the hinges.

- Adjust the height on the rear side by means of the screw on the hinge on the feed side of the RADF.

Turn it clockwise .... Heightened
Turn it counterclockwise ...... Lowered

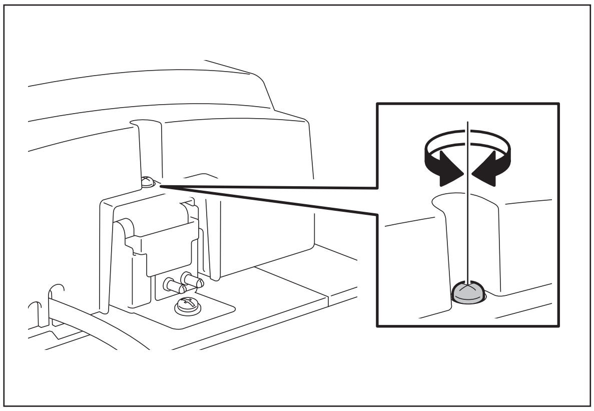


Fig. 3-70

- Adjust the gap on the rear side by means of the screw on the hinge on the feed side of the RADF.

Turn it clockwise .... Lowered
Turn it counterclockwise ...... Heightened

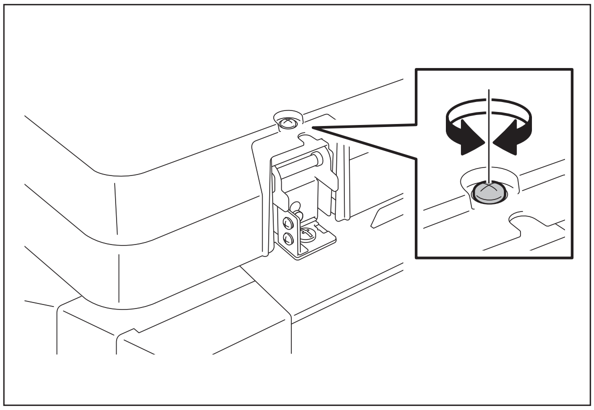


Fig. 3-71

3.12.3 Adjustment of skew

Note:

Check if the image adjustment for the equipment is performed properly before this adjustment of the RADF. Also, the RADF position and height shall be adjusted properly.

[A] Checking

Check the image using the chart (original) with vertical and horizontal lines in the following procedure.

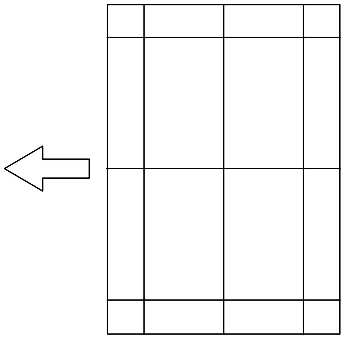


Fig. 3-72 Chart (Original)

Simplex copying:

(1) Place the chart provided as an original with its face up on the original tray of the RADF, select [1 Sided -> 1 Sided] and press the [START] button.
(2) Superimpose the chart on the copy and check the inclination of the copy image.

Duplex copying:

(1) Place the chart provided as an original with its face up on the original tray of the RADF, select [2 Sided -> 2 Sided] and press the [START] button.
(2) Superimpose the chart on the copy and check the inclination of the copy image.

[B] Adjustment

Simplex copying:

(1) Shift the aligning plate with the scale as the guide shown in the figure below to adjust the skew.

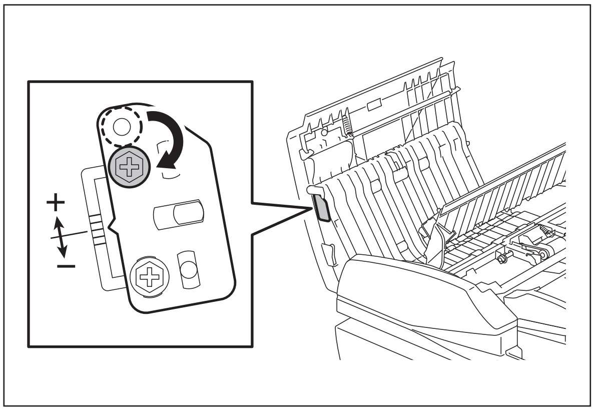


Fig. 3-73

(2) If the image skew is "C" as shown in the figure below, shift the aligning plate in the direction of "+", and if "D", shift it to "-".

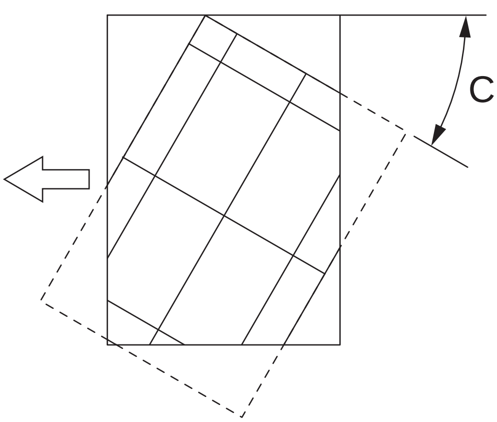


Fig. 3-74

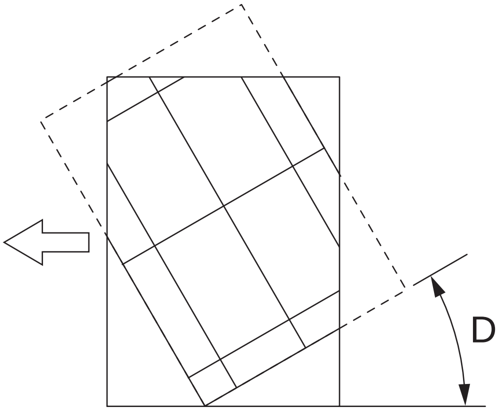


Fig. 3-75

Shift the aligning plate in the direction of "+".

Shift the aligning plate in the direction of "-".

Duplex copying:

(1) Shift the aligning plate with the scale as the guide shown in the figure below to adjust the skew.

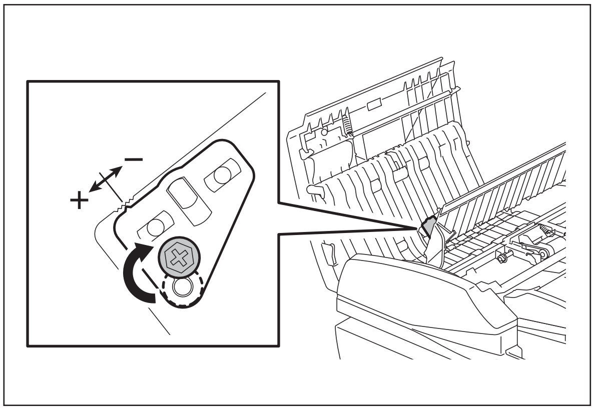


Fig. 3-76

(2) If the image skew is "C" as shown in the figure below, shift the aligning plate in the direction of "-", and if "D", shift it to "+".

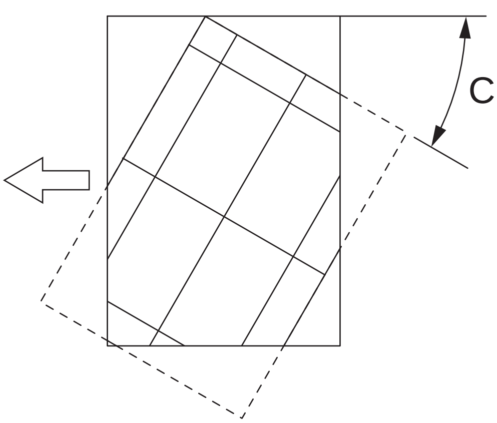


Fig. 3-77

Shift the aligning plate in the direction of "-".

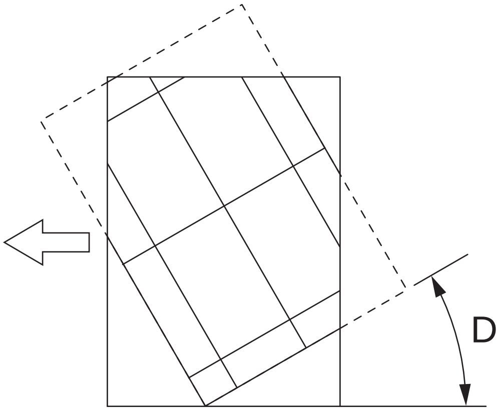


Fig. 3-78

Shift the aligning plate in the direction of "+".

3.12.4 Adjustment of the leading edge position

Note:
Check if the image adjustment for the equipment is performed properly before this adjustment of the RADF. Also, the RADF position and height shall be adjusted properly.

[A] Checking

Check the image using the chart (original) with vertical and horizontal lines in the following procedure.

Simplex copying:

(1) Place the chart provided as an original with its face up on the original tray of the RADF, select [1 Sided -> 1 Sided] and press the [START] button.
(2) Superimpose the chart on the copy and check the leading edge E of the chart and F of the copy.

Duplex copying:

(1) Place the chart provided as an original with its face up on the original tray of the RADF, select [2 Sided -> 2 Sided] and press the [START] button.
(2) Superimpose the chart on the copy and check the leading edge E of the chart and F of the copy.

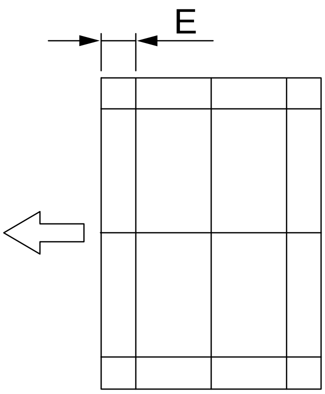


Fig. 3-79 Chart (Original)

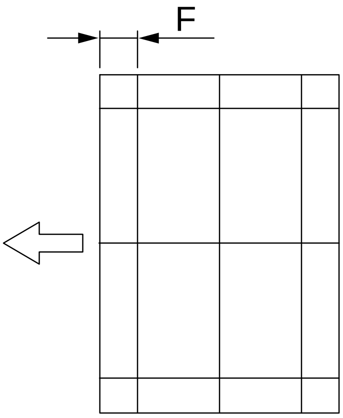


Fig. 3-80 Copy

[B] Adjustment

Simplex copying:

(1) Turn the power ON while pressing [0] and [5] simultaneously, key in [365] and then press the [START] button.

(2) Enter the value.

- If the leading edge (F) margin of the copy image is larger than the (E) margin of the chart, enter a value smaller than the current one.

Note:
Changing one value shifts the copy image by 0.2 mm.

- If the leading edge (F) margin of the copy image is smaller than the (E) margin of the chart, enter a value larger than the current one.

Note:
Changing one value shifts the copy image by 0.2 mm.

(3) Press the [ENTER] button.

Duplex copying:

(1) Turn the power ON while pressing [0] and [5] simultaneously, key in [366] and then press the [START] button.

(2) Enter the value.

- If the leading edge (F) margin of the copy image is larger than the (E) margin of the chart, enter a value smaller than the current one.

Note:
Changing one value shifts the copy image by 0.2 mm.

- If the leading edge (F) margin of the copy image is smaller than the (E) margin of the chart, enter a value larger than the current one.

Note:
Changing one value shifts the copy image by 0.2 mm.

(3) Press the [ENTER] button.

3.12.5 Adjustment of horizontal position

Note:
Check if the image adjustment for the equipment is performed properly before this adjustment of the RADF. Also, the RADF position and height shall be adjusted properly.

[A] Checking

Check the image using the chart (original) with a center line in the following procedure.

(1) Place the chart provided as an original with its face up on the original tray of the RADF.
(2) Press the [START] button.
(3) Fold the copy in half and check if the center line is misaligned.

[B] Adjustment

(1) Turn the power ON while pressing [0] and [5] simultaneously.
(2) Key in [358] and then press the [START] button.
- If the center line of the copy image is shifted to the front side of the equipment, enter a value larger than the current one.

Note:
Changing one value shifts the copy image by 0.042 mm.

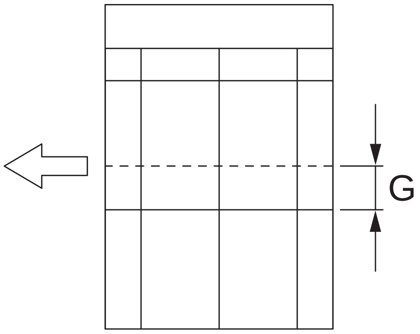


Fig. 3-81

- If the center line of the copy image is shifted to the rear side of the equipment, enter a value smaller than the current one.

Note:
Changing one value shifts the copy image by 0.042 mm.

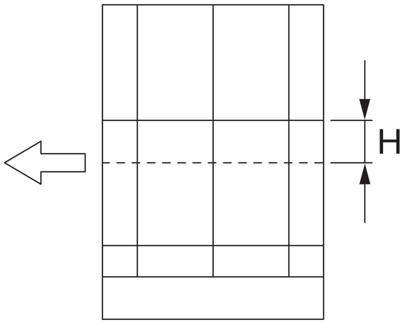


Fig. 3-82

(3) Press the [ENTER] button.

3.12.6 Adjustment of copy ratio

Note:

Check if the image adjustment for the equipment is performed properly before this adjustment of the RADF. Also, the RADF position and height shall be adjusted properly.

[A] Checking

Check the image using the chart (original) with vertical and horizontal lines in the following procedure.

(1) Place the chart provided as an original with its face up on the original tray of the RADF.
(2) Press the [START] button.
(3) Superimpose the chart on the copy and check the image dimension “I”.

[B] Adjustment

(1) Turn the power ON while pressing [0] and [5] simultaneously.
(2) Key in [357] and then press the [START] button.
  - If the copy image dimension “I” is larger than the chart dimension, enter a value smaller than the current one.
  - If the copy image dimension “I” is smaller than the chart dimension, enter a value larger than the current one.

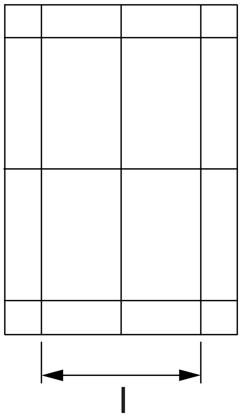


Fig. 3-83

(3) Press the [ENTER] button.

3.12.7 Adjustment of RADF opening/closing sensor

Adjust the bracket position so that the sensor is turned ON when the height “A” becomes 100 mm or less (within the empty weight falling limit).

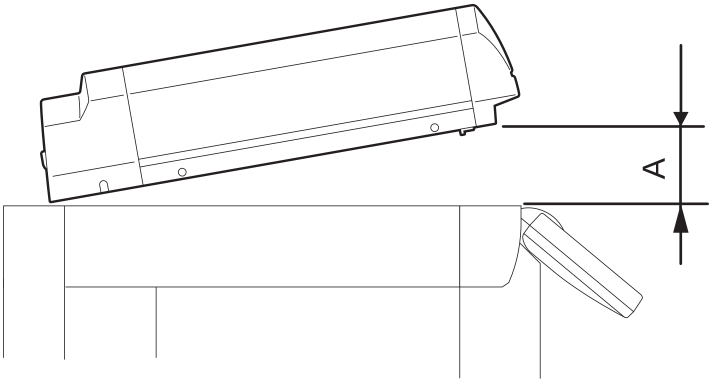


Fig. 3-84

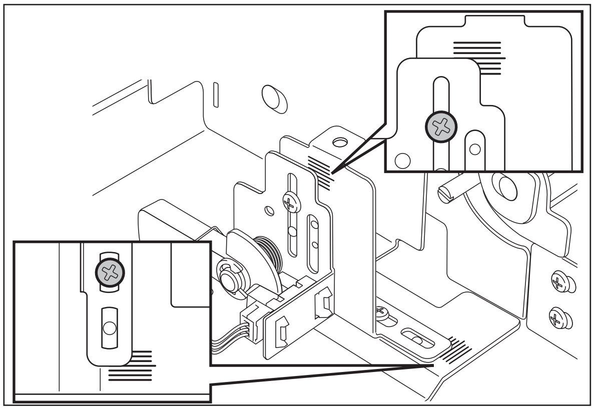


Fig. 3-85

3.13 Adjustment of the Finisher (MJ-1025)

3.13.1 Adjusting the folding position (Electrical system (Finisher/Saddle unit))

The folding position is adjusted by matching it with the stapling position.
If you have replaced the finisher controller PCB, you must transfer the existing settings to the new PCB.
Perform the following if the folding position must be adjusted for some reason.

Note:
Both the folding and stapling positions may deviate for some type of paper.
In such a case, change the "middle stapling position" in the user mode of the host machine.

<Procedure>

(1) Turn OFF the power of the equipment.

(2) Set SW1 on the finisher controller PCB as follows:

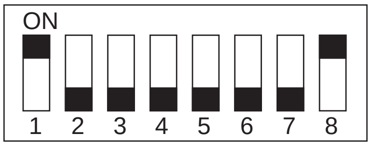


Fig. 3-86

(3) Turn ON the power of the equipment while [0] button and [8] button are pressed simultaneously.

(4) Adjust the folding position by pressing the PSW1 or PSW2 on the finisher controller PCB a required number of times. Pressing the switch once moves the folding position about 0.16 mm.
- To move the folding position in the "-" direction, press the PSW1.
- To move the folding position in the "+" direction, press the PSW2.
- Pressing the PSW1 and PSW2 at the same time clears the adjustment value.

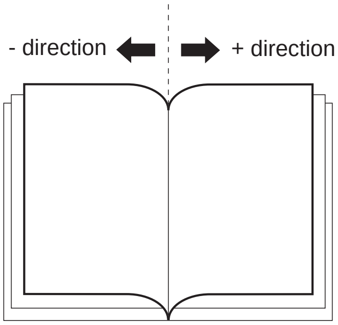


Fig. 3-87

(5) When adjustment of the folding position is complete, set all bits of the SW1 on the finisher controller PCB to OFF.

(6) Enter the bind mode of the host machine and check whether the folding position is adjusted properly. If adjusted improperly, adjust the folding position again.

3.13.2 Adjusting the sensor output (Electrical system (Puncher unit; option))

Perform the following when the punch controller PCB, horizontal registration sensor (photosensor PCB/ LED PCB), or waste full sensor (waste full photosensor PCB/waste full LED PCB) has been replaced.

<Procedure>

(1) Turn OFF the power of the equipment.

(2) Shift bits 1 through 4 on the punch controller PCB as follows:

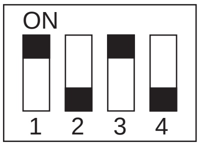


Fig. 3-88

(3) Turn ON the power of the equipment while [0] button and [8] button are pressed simultaneously.

(4) Press SW1002 or SW1003 on the punch controller PCB. A press will automatically adjust the sensor output.
- The adjustment is over when all LEDs on the punch controller PCB are ON: LED 1001, LED1002, LED1003.

(5) Shift all bits of DIPSW1001 to OFF.

3.13.3 Registering the number of punch hole (Electrical system (Puncher unit; option))

Perform the following to register the type of puncher unit (number of holes) used to the IC on the punch controller PCB for identification by the finisher. Be sure to register the type whenever you have replaced the punch controller PCB.

<Procedure>.

(1) Turn OFF the power of the equipment.

(2) Set bits of 1 through 4 on the DIPSW1001 on the punch controller PCB as follows:

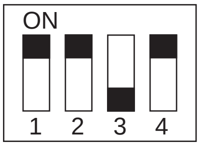


Fig. 3-89

(3) Turn ON the power of the equipment while [0] button and [8] button are pressed simultaneously.

(4) Press SW1002 on the punch controller PCB to select the appropriate number of punch holes.
  - Each press on SW1002 moves the selection through the following (repeatedly from top to bottom).

Number of punch holes	LED1001	LED1002	LED1003
2 holes (E)	ON	OFF	OFF
2/3 holes (N)	ON	ON	OFF
4 holes (F)	OFF	ON	OFF
4 holes (S)	OFF	OFF	ON

(5) Press SW1003 on the punch controller PCB twice. The presses will store the selected number of punch holes on the punch controller PCB.
  - A single press on SW1003 will cause the LED indication to flash; another press on SW1003 will cause the indication to remain ON to indicate the end of registration.

(6) Shift all bits of DIPSW1001 to OFF.

3.13.4 After replacing the EEPROM (IC1002) (Electrical system (Puncher unit; option))

<Procedure>

(1) Turn off the host machine.
(2) Set bits 1 through 4 on the punch controller PCB as follows:

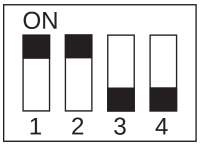


Fig. 3-90

(3) Turn ON the power of the equipment while [0] button and [8] button are pressed simultaneously.

(4) Press SW1002 and SW1003 on the punch controller PCB at the same time.
- The presses will initialize the EEPROM. At the end, all LEDs (LED1001, LED1002, LED1003) will go ON.

(5) Adjust the sensor output, and store the number of punch holes.

3.14 Adjustment of the Finisher (MJ-1024)

Note:

Before performing each adjustment, make sure that all covers (incl. those of the finisher and host machine) are closed. Otherwise, the power is not supplied to the finisher and the adjustment may not be performed properly.

3.14.1 Adjusting the alignment position (Finisher unit)

Perform this adjustment after replacing the finisher controller PC board or when the alignment position must be changed for some reason.

(1) Remove the rear cover of the finisher unit.
(2) Check that the power is OFF and set SW104 on the finisher controller PC board as follows according to the paper used for adjustment.

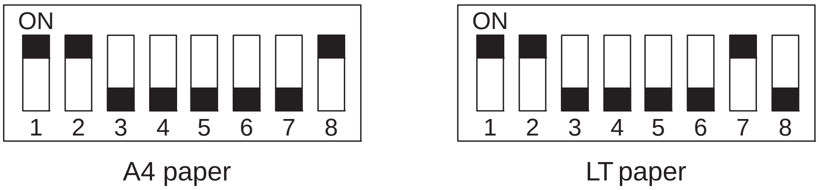


Fig. 3-91

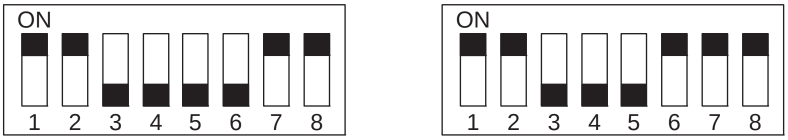
(3) Turn ON the power of the equipment while [0] button and [8] button are pressed simultaneously.

(4) Press SW103 on the finisher controller PC board.
  - When SW103 is pressed, the swing guide opens and the alignment plate moves to prescribed position.
(5) Place ten sheets of A4/LT paper between the alignment plates and push them against the stopper.
(6) Press SW101 or SW102 on the finisher controller PC board and push the alignment plate against the paper.
  - When SW101 is pressed, alignment plate moves 0.42 mm forward.
  - When SW102 is pressed, alignment plate moves 0.42 mm backward.
(7) When adjustment is complete, remove paper and press SW103 on the finisher controller PC board once to store the adjustment in memory.
(8) Turn OFF all bits of finisher controller PC board SW104.
(9) Turn OFF the power and install the rear cover of the finisher unit.

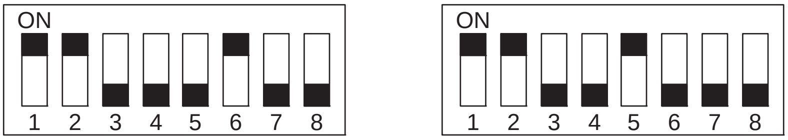
3.14.2 Adjusting the staple position (Finisher unit)

Perform this adjustment after replacing the finisher controller PC board or when the staple position must be changed for some reason. This adjustment adjusts the front/rear stitches with A4/A4-R when the paper used for adjustment is AB type and with LT/LT-R when the paper is INCH type.

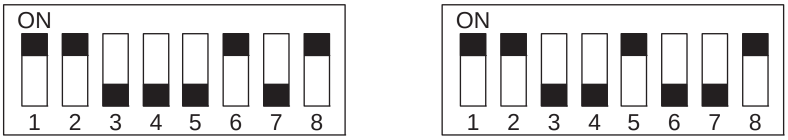
(1) Remove the rear cover of the finisher unit.
(2) Check that the power is OFF and set SW104 on the finisher controller PC board as follows according to paper/stitch position used for adjustment.



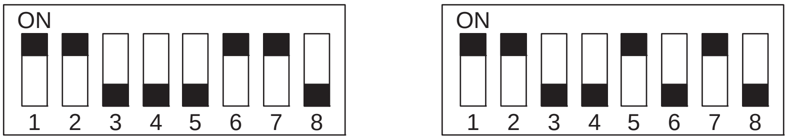
A4/front stitch A4/rear stitch



A4-R/front stitch A4-R/rear stitch



LT/front stitch LT/rear stitch



LT-R/front stitch LT-R/rear stitch

Fig. 3-92

(3) Turn ON the power of the equipment while [0] button and [8] button are pressed simultaneously.

(4) Press SW103 on the finisher controller PC board.
  - When SW103 is pressed, the swing guide opens and the alignment plate moves to prescribed position.

(5) Place a sheet of paper between the alignment plates. Push it against the stopper and push the rear edge of the paper against the rear alignment plate. If the gap between the front alignment plate and front edge of the paper is 1 mm or greater, stop the staple position adjustment and repeat the staple position adjustment after completing alignment plate adjustment.
(6) Press SW103 on the finisher controller PC board once to staple. However, remove the stapled paper manually because the paper is not ejected. Press SW103 on the finisher controller PC board once again.
(7) Verify the staple position. If any adjustment is needed, proceed to the step 8). If no adjustment is needed, proceed to the step 9).
(8) Press SW101 or SW102 on the finisher controller PC board to adjust the staple position.
  - When SW101 is pressed, the staple position shifts 0.49 mm to the front side.
  - When SW102 is pressed, the staple position shifts 0.49 mm to the rear side.

  Repeat the steps 5) to 7).

(9) After confirming that the staple position is adjusted correctly, place a sheet of paper between the alignment plates and push it against the stopper and push the rear edge of the paper against the rear alignment plate. Then press SW103 once. (Stapling is performed and the adjustment value is stored in memory.)
    - The staple position adjustment is completed.

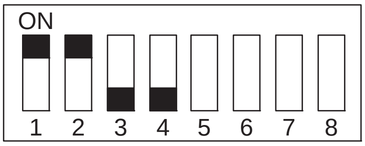
(10) Turn OFF all bits of SW104 on the finisher controller PC board.

(11) Turn OFF the power and install the rear cover of the finisher unit.

3.14.3 Adjusting the folding position (Saddle stitcher unit)

The folding position is adjusted by changing setting of bits 6 through 8 of SW504 on the saddle stitcher controller PC board to match the stitching position (adjusting the distance over which the paper positioning plate is moved to the folding position from the stitching position).
If you have replaced the saddle stitcher controller PC board, be sure to set the new SW504 so that the settings will be the same as those on the old SW504. Perform this adjustment if, for any reason, you must change the folding position.

(1) Check that the power is OFF and separate the finisher from the host machine. If the optional puncher unit is installed, remove it from the finisher.
(2) Remove the PC board cover and set bits 1 through 4 of SW504 on the saddle stitcher controller PC board as follows:



Do not change bits 5 through 8.

Fig. 3-93

(3) Remove the rear cover, open the inlet cover of the saddle stitcher unit and tape the actuator of inlet cover sensor (PI9) and inlet door switch (SW1).
(4) Before inserting the paper, mark the top of the paper. You will be using two sheets of A3 or LD paper.

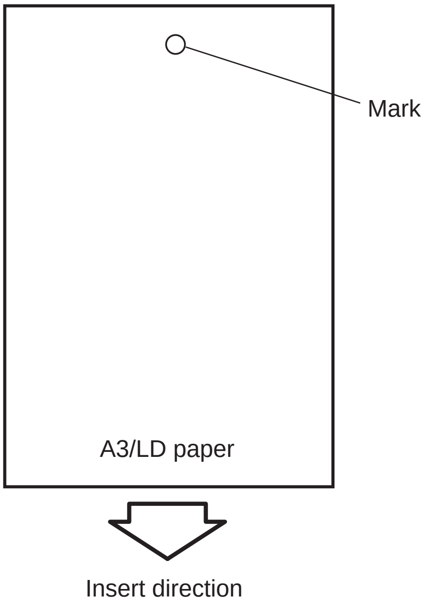
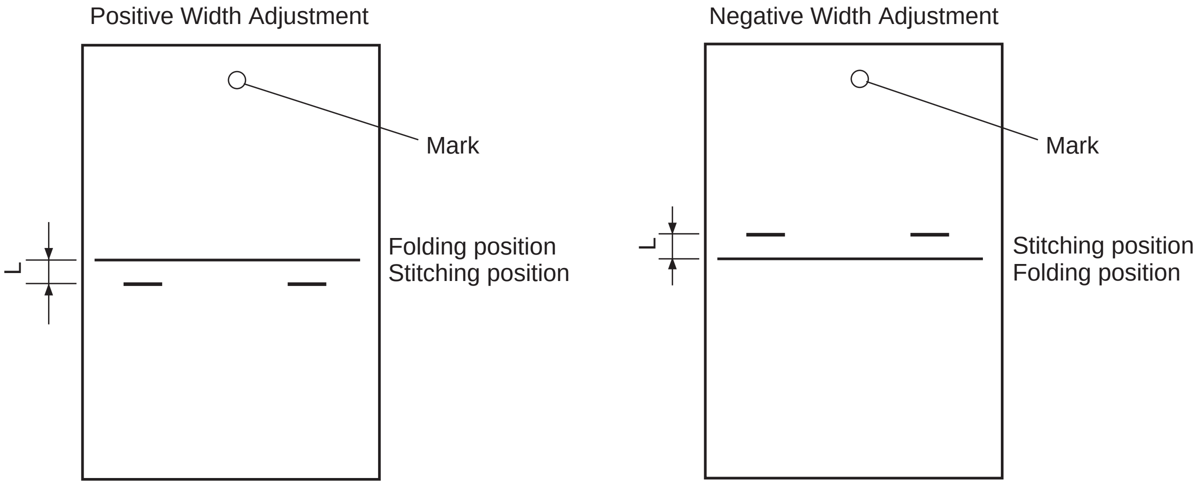


Fig. 3-94

(5) Turn ON the power of the equipment while [0] button and [8] button are pressed simultaneously.

(6) Press SW1 on the saddle stitcher controller PC board so that the feed motor (M1) starts to rotate. (Press SW1 three seconds or more if LD paper is used.)
(7) Open the inlet cover and insert two sheets of paper. Push them in by hand until the front edge of the sheets push against the paper positioning plate.
(8) Close the inlet cover.
(9) Press SW1 on the saddle stitcher controller PC board.
    - The saddle stitcher unit will “stitch” the sheets, and fold and deliver the stack automatically.

(10) Measure the distance (L) between the stitching position and the folding position. Then perform “positive width adjustment” or “negative width adjustment” to suit the relationship between the stitching position and the folding position.
- If the stitching position is below the folding position, perform “positive width adjustment.”
- If the stitching position is above the folding position, perform “negative width adjustment.”



Unit: mm
Example: If L is 1 mm, provide "+1 mm".

Unit: mm
Example: If L is 0.5 mm, provide "-0.5 mm".

Fig. 3-95

(11) Change the settings of bits 6 through 8 on SW504 referring to the following table.
- If the width adjustment is 0
  The stitching position and the folding position match, requiring no change.
- If for “positive width adjustment”
  Set SW504 so that the difference resulting from subtraction of the interval from the appropriate setting in the table below is provided.
  Example: If SW504 is currently set to +2 and the interval is +1 mm, set SW504 to reflect - 2.
- If for “negative width adjustment”
  Set SW504 so that the sum resulting from addition of the interval from the appropriate setting in the table below is provided.
  Example: If SW504 is currently set to -1 and the interval is -0.5mm, set SW504 to reflect +1.

DIPSW1 bit settings			**Setting (in units of 0.5 mm)**
Bit 6	**Bit 7**	**Bit 8**	
OFF	ON	ON	+3
OFF	ON	OFF	+2
OFF	OFF	ON	+1
OFF	OFF	OFF	0
ON	OFF	ON	-1
ON	ON	OFF	-2
ON	ON	ON	-3

Do not use the following setting		
Bit 6	**Bit 7**	**Bit 8**
ON	OFF	OFF

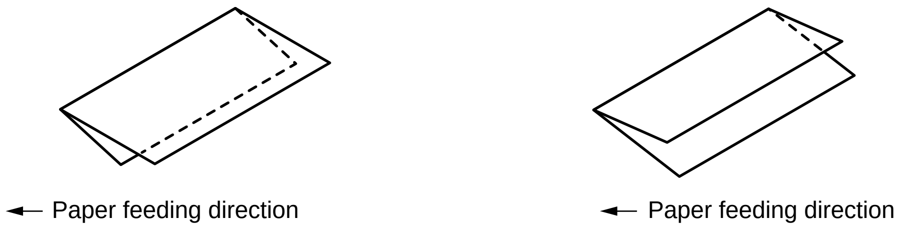
(12) Set SW504 bits 1 to 4 to OFF.

3.14.4 Fine adjustment of binding/folding position (Saddle stitcher unit)

The binding position/folding position can be adjusted in the following (05) codes.

Code	Paper size	Remarks
468-0	A4-R / LT-R	When the value increases, the binding/folding position shifts toward the right page. (0.25mm/step) Acceptable values: -14 to 14 (Default: 0)
468-1	B4	
468-2	A3 / LD	

Increase the adjustment value when the sheet of paper which has exited is "A".
Decrease the adjustment value when the sheet of paper which has exited is "B".


A: When the upper side of the folding is longer than the lower side

B: When the upper side of the folding is shorter than the lower side

Fig. 3-96

3.14.5 Sensor output adjustment (Puncher unit)

Perform this adjustment when replacing the punch controller PC board, transmittance sensor (photosensor PC board/LED PC board), or deflection sensor (scrap full detector PC board unit).

(1) Check that the power is OFF and then remove the rear cover of the puncher.
(2) Set SW601 on the punch controller PC board as shown below.

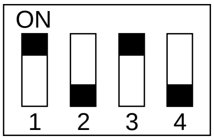


Fig. 3-97

(3) Turn ON the power of the equipment while [0] button and [8] button are pressed simultaneously.

(4) Press SW602 on the punch controller PC board. Sensor output is adjusted automatically when the switch is pressed.
   - Adjustment is complete if LED601 and LED602 on the punch controller PC board blinks alternately.

(5) Press SW602 or SW603 on the punch controller PC board to end the adjustment mode and set all bits of SW601 to OFF.
(6) Turn OFF the power.

3.14.6 Registering the number of punch holes (Puncher unit)

This operation registers which puncher unit is attached to the IC on the punch driver PC board so that the puncher unit can be identified by the finisher. For this reason, this operation must be performed when the punch driver PC board has been replaced.

(1) Check that the power is OFF and then remove the rear cover of the puncher.
(2) Set SW601 on the punch controller PC board as shown below.

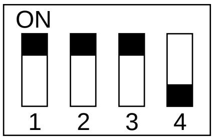


Fig. 3-98

(3) Turn ON the power of the equipment while [0] button and [8] button are pressed simultaneously.

(4) Press SW602 on the punch controller PC board to select the number of punch holes.
- The items in the following table are displayed repeatedly from top to bottom each time SW602 is pressed.

Number of punch holes	LED601/LED602
2 hole (E)	Blinks 1 times per cycle
2/3 hole (N)	Blinks 2 times per cycle
4 hole (F)	Blinks 3 times per cycle
4 hole (S)	Blinks 4 times per cycle

(5) Press SW603 on the punch controller PC board. The number of punch holes is registered to the punch controller PC board each time the switch is pressed.
- Registration is complete if LED601 and LED602 on the punch controller PC board blinks alternately.

(6) Press SW602 or SW603 on the punch controller PC board to end the adjustment mode and set all bits of SW601 to OFF.
(7) Turn OFF the power.

3.15 Adjustment of the Finisher (MJ-1101)

Note:

Before performing each adjustment, make sure that all covers (incl. those of the finisher and host machine) are closed. Otherwise, the power is not supplied to the finisher and the adjustment may not be performed properly.

3.15.1 Adjusting the alignment position

Perform this adjustment after replacing the Finisher control board or when the alignment position must be changed for some reason.

(1) Turn OFF the power of the equipment.

(2) Remove 1 screw and take off the board access cover.

(3) Set the SW1 on the Finisher control board as shown in the figures below.

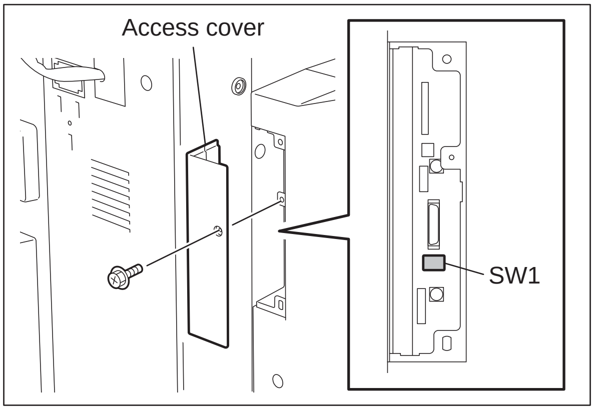


Fig. 3-99

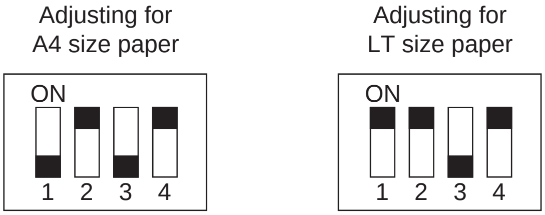


Fig. 3-100

(4) Turn ON the power of the equipment while [0] button and [8] button are pressed simultaneously.
The alignment plate moves to the A4 or LT size position and stops.
(It stops at the position of -5 steps from the center value of the adjustment range.)

(5) Press the [Button1] to adjust the alignment position.
Every time the [Button1] is pressed, the alignment plate shifts 1 step (0.419 mm/step) toward the "+ "direction. (The gap between the alignment plates becomes narrower.)
Adjustment range is from -5 to +5 steps.
If the [Button1] is pressed when the alignment position is at the "+5 step", the plate will return to the home position and then moves to the position of "-5 step".

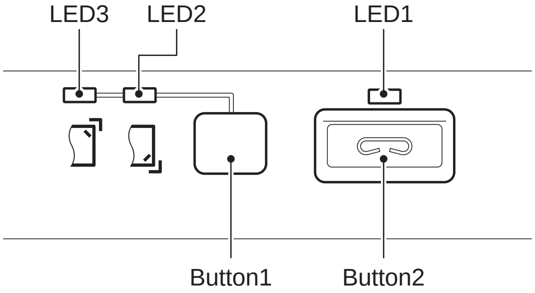


Fig. 3-101

(6) When the adjustment is completed, press the [Button2] on the finisher control panel to store the adjustment value in memory.
When the value is stored normally, the [LED1] on the control panel will blink for a number of times that corresponds to the adjustment value set for the equipment.
See the following table for the number of times the [LED1] blinks and its corresponding adjustment value.

Number of Blinking	Adjustment Value
1	-5
2	-4
3	-3
4	-2
5	-1
6	0
7	+1
8	+2
9	+3
10	+4
11	+5

(7) Turn OFF the power of the equipment.

(8) Turn OFF all bits of the SW1 on the Finisher control board.

(9) Install the board access cover.

3.15.2 Adjusting the stapling position

Perform this adjustment after replacing the Finisher control board or when the stapling position must be changed for some reason.

(1) Turn OFF the power of the equipment.

(2) Remove 1 screw and take off the board access cover.

(3) Set the SW1 on the Finisher control board as shown in the figures below.

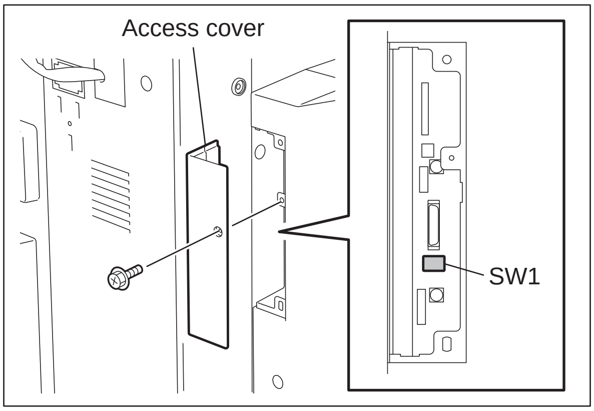
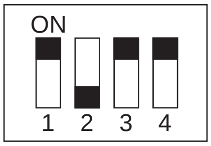
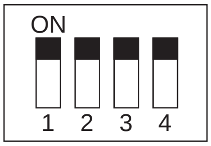


Fig. 3-102

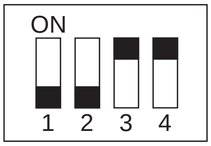
When adjusting the trailing edge side for A4 size paper



When adjusting the trailing edge side for LT size paper



When adjusting the leading edge side for A4 size paper



When adjusting the leading edge side for LT size paper

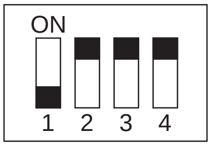


Fig. 3-103

(4) Turn ON the power of the equipment while [0] button and [8] button are pressed simultaneously. The alignment plate moves to the rear or front side stapling position and stops. (It stops at the position of -20 steps from the center value of the adjustment range.)

(5) Press [Button 1] to adjust the stapling position.
Every time [Button 1] is pressed, the alignment plate shifts 4 steps (0.45 mm) toward the "+" direction. (It moves toward the rear side.)
Adjustment range is from -20 to +20 steps. If [Button 1] is pressed when the alignment position is at the “+20 steps”, the plate will return to the home position and then moves to the position of “-20 steps”.

Note:
Stapling for checking the position can be done by pressing [Button 2] with sheets placed on the finishing tray. (stapled on the rear side)

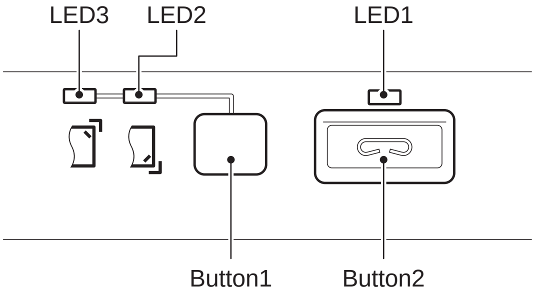


Fig. 3-104

(6) When the adjustment is completed, press [Button 2] on the finisher control panel to store the adjustment value in memory without sheets on the finishing tray.
When the value is stored normally, [LED 1] on the control panel will blink for a number of times that corresponds to the adjustment value set for the equipment.
See the following table for the number of times [LED 1] blinks and its corresponding adjustment value.

Number of blinking	Adjustment value
1	-20
2	-16
3	-12
4	-8
5	-4
6	0
7	+4
8	+8
9	+12
10	+16
11	+20

(7) Turn OFF the power of the equipment.

(8) Turn OFF all bits of the SW1 on the Finisher control board.

(9) Install the board access cover.

3.15.3 B4-size recycled paper mode settings

Set this mode if the trailing edge of the paper gets caught by the exit section of the finisher while B4-size recycled paper is used. This mode increases the paper exiting speed when the paper exits to the movable tray in the sort mode, or to the stationary tray in the non-sort mode.

(1) Turn OFF the power of the equipment.

(2) Remove 1 screw and take off the board access cover.

(3) Set the SW1 on the Finisher control board as shown in the figures below.

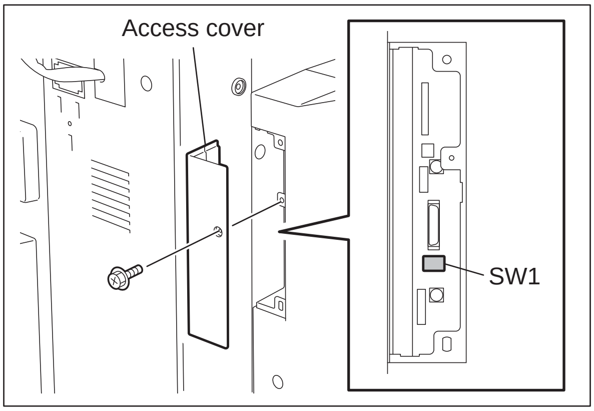


Fig. 3-105

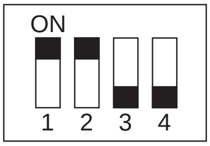


Fig. 3-106

(4) Turn ON the power of the equipment while [0] button and [8] button are pressed simultaneously.

(5) Press [Button1] and [Button2] as described in the following table to set the B4-size recycled paper mode. Press [Button1] and [Button2] on the control panel as below to set the B4-size recycled paper mode.

Note:
Be sure to press [Button1] and [Button2] the correct number of times.
Press [Button1] and [Button2] simultaneously to cancel the operation.

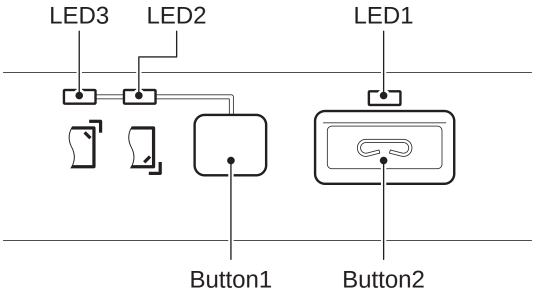


Fig. 3-107

B4-size recycled paper mode

Step	Buttons	Number of pressing	Remarks
1	Button1	1	
2	Button2	1	Confirms the input value
3	Button1	8	
4	Button2	1	Confirms the input value

Note:
To change settings from the B4-size recycled paper mode to the normal mode, perform steps (1) through (4), and then press [Button1] and [Button2] on the control panel as shown below to set the normal mode.

Normal mode

Step	Buttons	Number of pressing	Remarks
1	Button1	1	
2	Button2	1	Confirms the input value
3	Button1	6	
4	Button2	1	Confirms the input value

(6) When the settings are stored normally, [LED1] on the control panel is lit. [LED1] blinks, if an error occurs. In this case, turn the power OFF and make the settings again from step (4).

(7) Turn OFF the power of the equipment.

(8) Turn OFF all bits of the SW1 on the Finisher control board.

(9) Install the board access cover.

3.15.4 Adjusting Paper Exit Speed

[1] Adjusting procedure

[A] DIP switch settings

(1) Turn OFF the power of the equipment.

(2) Remove 1 screw and take off the board access cover.

(3) Set the SW1 on the Finisher control board as shown in the figures below.

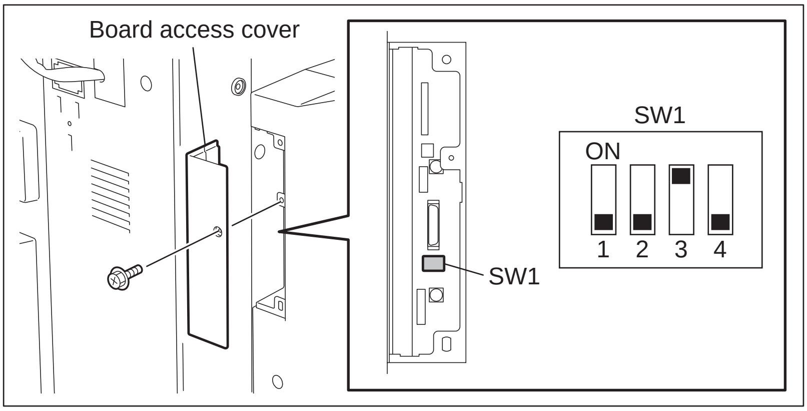


Fig. 3-108

(4) Turn ON the power of the equipment while [0] button and [8] button are pressed simultaneously.

[B] Mode settings / connection model settings / paper type settings

(1) Press [Button1] 11 times and then press [Button2] once.
Check the setting list and press [Button1] as many times as noted for Setting code whose operation you want to check and then press [Button2] once.

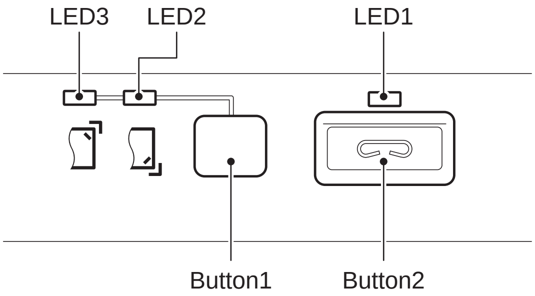


Fig. 3-109

<Setting list>

Mode name	Setting code
Normal paper mode	1
Recycled paper mode	3

* Example of operation
If you want to select the normal paper mode, the number of Setting code is "1”.
Therefore press [Button1] 11 times and then press [Button2] once. Then press [Button1] once and then press [Button2] once. This selects the normal paper mode.

(2) Press [Button1] and [Button2] simultaneously.

(3) Press [Button1] 11 times and then press [Button2] once.
Check the setting list and press [Button1] as many times as noted for Setting code whose model you want to connect and then press [Button2] once.

<Setting list>

Model name	Setting code
e-STUDIO352/452 e-STUDIO353/453 e-STUDIO205L/255/305/355/455	8
e-STUDIO2500c/3500c/3510c e-STUDIO2020C/2330C/2820C/2830C/3520C/3530C/4520C e-STUDIO2040C/2540C/3540C/4540C	9
e-STUDIO281/351/451 e-STUDIO283/353/453	10

* Example of operation
If you want to select e-STUDIO2500c/3500c/3510c, the number of Setting code is "9".
Therefore press [Button1] 11 times and then press [Button2] once. Then press [Button1] 9 times and then press [Button2] once. This selects e-STUDIO2500c/3500c/3510c.

(4) Press [Button1] and [Button2] simultaneously.

(5) Press [Button1] 11 times and then press [Button2] once.
Check the setting list and press [Button1] as many times as noted for Setting code whose paper type you want to select and then press [Button2] once.

<Setting list>

Paper type	Setting code
Plain paper	4
Thick paper 1	5
Thick paper 2	6
Thick paper 3	7

* Example of operation
If you want to select the plain paper, the number of Setting code is "4”.
Therefore press [Button1] 11 times and the press [Button2] once. Then press [Button1] 4 times and then press [Button2] once. This selects plain paper.

(6) Press [Button1] and [Button2] simultaneously.r

[C] Paper size settings

(1) Check the setting list and press [Button1] as many times as noted for Setting code No.1 whose paper size you want to select, and then press [Button2] once. Then check the setting list and press [Button1] as many times as noted for Setting code No.2 whose paper size you want to select, then press [Button2] once.

<Setting list>

Paper size	Setting code No. 1	Setting code No. 2
Others	12	1
A3	12	2
A4	12	3
A4-R	12	4
A5	12	5
A5-R	12	6
A6-R	12	7
B4	12	8
B5	12	9
B5-R	13	1
FOLIO	13	2
LD	13	3
LG	13	4
LT	13	5
LT-R	13	6
ST	13	7
ST-R	13	8
COMP	13	9
13”LG	14	1
8.5”SG	14	2
8K	14	3
16K	14	4
16K-R	14	5
A3 wide	14	7

(2) Press [Button1] and [Button2] simultaneously.

[D] Paper exit speed settings

(1) Check the number of LED blinking times.

The default settings of the number of LED blinking times in the mode setting, media type and paper size, which are set in [B] and [C], are shown in the table below. When A3 and plain paper with the normal paper mode are set in [B] and [C], the number of LED blinking times is 2.

<Normal paper mode>

	Plain paper	**Thick paper 1**	**Thick paper 2**	**Thick paper 3**
Others	2	2	2	2
A3	2	2	2	2
A4	4	4	4	4
A4-R	3	3	3	3
A5	2	2	2	2
A5-R	4	4	4	4
A6-R	2	2	2	2
B4	3	9	9	9
B5	3	3	3	3
B5-R	2	2	2	2
FOLIO	2	2	2	2
LD	5	5	5	5
LG	9	9	9	9
LT	6	6	6	6
LT-R	3	3	3	3
ST	2	2	2	2
ST-R	3	3	3	3
COMP	2	2	2	2
13”LG	2	2	2	2
8.5”SG	2	2	2	2
8K	2	2	2	2
16K	2	2	2	2
16K-R	2	2	2	2
A3 wide	2	2	2	2

<Recycled paper mode>

	Plain paper	Thick paper 1	Thick paper 2	Thick paper 3
Others	2	2	2	2
A3	2	2	2	2
A4	4	4	4	4
A4-R	3	3	3	3
A5	2	2	2	2
A5-R	4	4	4	4
A6-R	2	2	2	2
B4	3	3	3	3
B5	3	3	3	3
B5-R	2	2	2	2
FOLIO	2	2	2	2
LD	5	5	5	5
LG	9	9	9	9
LT	6	6	6	6
LT-R	3	3	3	3
ST	2	2	2	2
ST-R	3	3	3	3
COMP	2	2	2	2
13”LG	2	2	2	2
8.5”SG	2	2	2	2
8K	2	2	2	2
16K	2	2	2	2
16K-R	2	2	2	2
A3 wide	2	2	2	2

*Example
When A3 and plain paper with the recycled paper mode are set in [B] and [C], the number of LED blinking times is 2.

(2) Press [Button1] for the number of LED blinking times you want to set.

Note:
The larger the number you set is, the faster the paper exiting speed becomes.
The smaller the number you set is, the slower the paper exiting speed becomes.
After changing the setting, check the number of LED blinking times.Normally, the number of LED blinking times is increased by 1 from the default. If paper trailing edge still remains, increase the number by 2 from the default.

*Example of operation
To change the number of LED blinking times from 2 to 3, press [Button1] three times.

(3) Press [Button2] once.

(4) Press [Button1] and [Button2] simultaneously.

[E] Paper exit tray switching settings

Set the switching timing of the paper exit from the movable tray to the finishing tray.
If the problem is not suppressed through Steps [A] to [D], perform the following steps.

(1) Turn OFF the power of the equipment.

(2) Remove 1 screw and take off the board access cover.

(3) Set the SW1 on the Finisher control board as shown in the figures below.

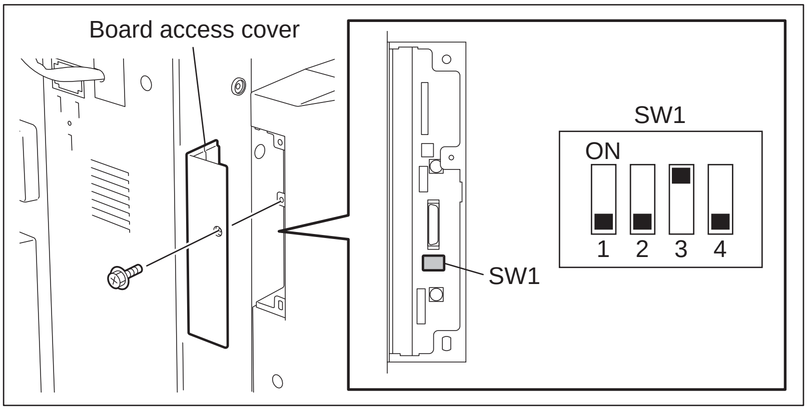


Fig. 3-110

(4) Turn ON the power of the equipment while pressing the [0] button and the [8] button simultaneously.

(5) Press [Button1] 11 times and then press [Button2] once.

(6) Press [Button1] 13 times and then press [Button2] once.

(7) Check the following list and press [Button1] as many times as noted for Adjustment value whose switching timing you want to select.
*The number of blinking times is set to "1" as a default.
If you want to change the adjustment value from "1" to "3", press [Button1] 3 times.

Switching timing	Number of blinking times
Approx. 500 sheets with plain paper	1
0 sheet with plain paper	3

(8) Press [Button2] once.

(9) Press [Button1] and [Button2] simultaneously.

(10) Turn OFF the power of the equipment.

(11) Turn OFF all bits of SW1 on the Finisher control board as shown below.

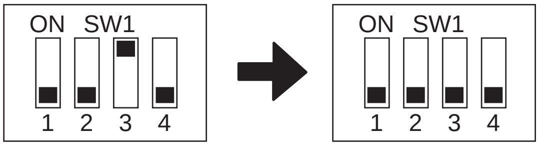


Fig. 3-111

(12) Install the board access cover with 1 screw.

[2] Resetting procedure

The setting values which are set in "[1] Adjusting procedure" can be reset with the following steps.

(1) Turn OFF the power of the equipment.

(2) Remove 1 screw and take off the board access cover.

(3) Set the SW1 on the Finisher control board as shown in the figures below.

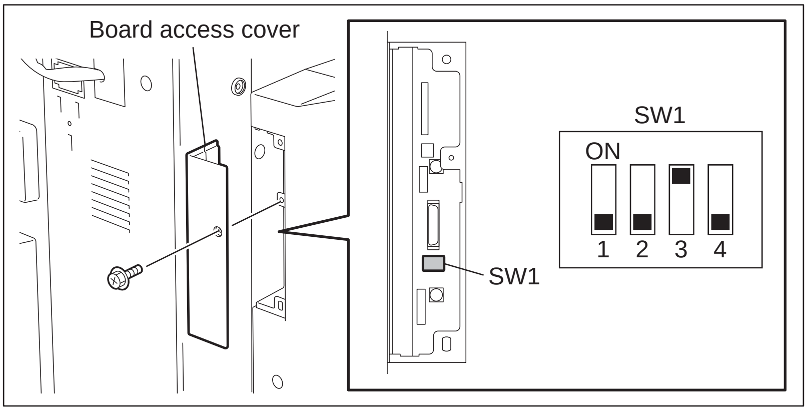


Fig. 3-112

(4) Turn ON the power of the equipment while pressing the [0] button and the [8] button simultaneously.

(5) Press [Button1] 11 times, press [Button2] once, press [Button1] 11 times , and then press [Button2] once.

(6) Press [Button1] and [Button2] simultaneously.

(7) Turn OFF the power of the equipment.

(8) Turn OFF all bits of SW1 on the Finisher control board as shown below.

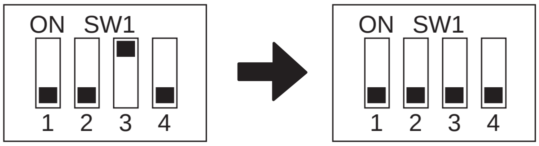


Fig. 3-113

(9) Install the board access cover with 1 screw.

3.16 Adjustment of Dogleg

Dogleg is the name given to an image which is deformed approx. 48 mm of the trailing edge of the output paper.

Since adjustment has usually been performed when the equipment was manufactured, dogleg image should not occur. However, if the following dogleg image A or B does happen to occur, the following adjustment must be performed. An original with a line parallel to the feeding direction is used for the adjustment.

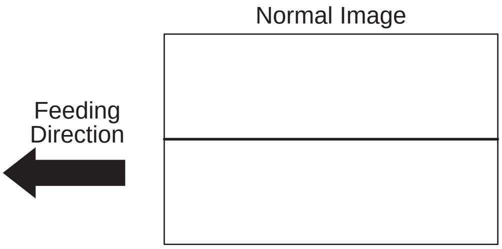

Normal Image
Feeding Direction

Fig. 3-114

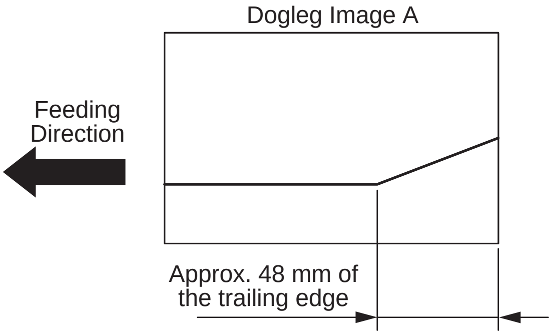

Dogleg Image A
Feeding Direction
Approx. 48 mm of the trailing edge

Fig. 3-115

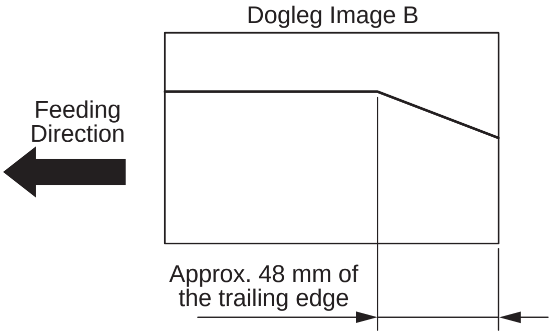

Dogleg Image B
Feeding Direction
Approx. 48 mm of the trailing edge

Fig. 3-116

<Adjustment procedure>

(1) Loosen screw A. Remove screw B and temporarily fix it to position C.

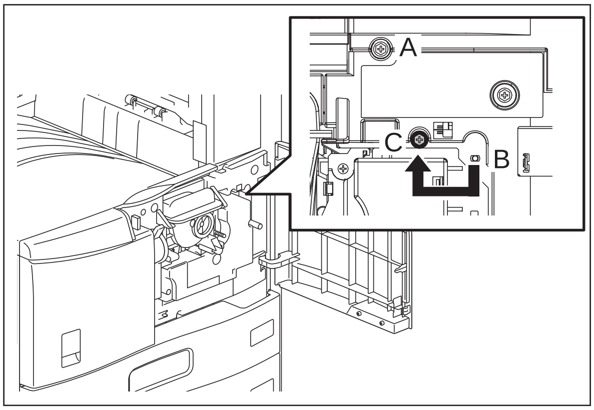


Fig. 3-117

(2) Adjust the position of the stay with the scale according to the dogleg image and tighten screws A and C.

- Dogleg image A
  Perform adjustment so that the stay of the fuser unit comes below the center line of the scale.

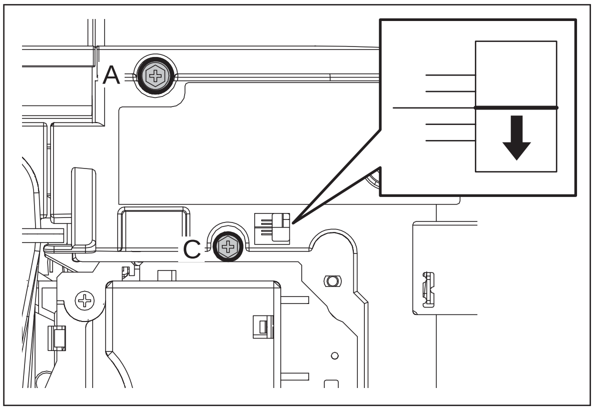


Fig. 3-118

- Dogleg image B
  Perform adjustment so that the stay of the fuser unit comes above the center line of the scale.

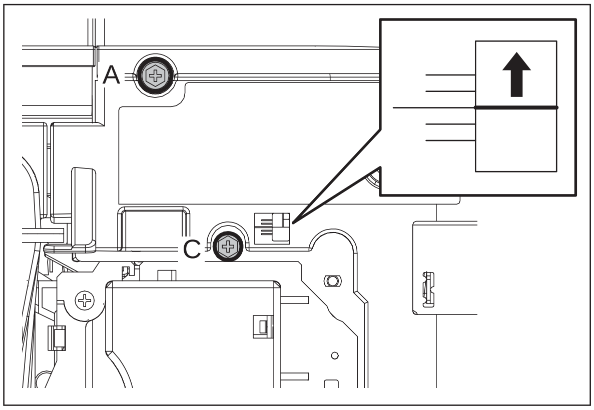


Fig. 3-119

4. BACKUP FUNCTION

To start any of the self-diagnostic modes, turn the power OFF using the main power switch, and then back ON while pressing a digital key corresponding to the mode to be started.

4.1 Data Cloning

4.1.1 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. The types of data to back up or restore are selectable. You can back up or restore all data in a batch, or only the required one separately.

4.1.2 Precautions

1. Programs required for data cloning are as follows:

System ROM version	Storage location	Program file name
---	Root directory	rootusb2 clone_205_455.xxx * xxx is version

2. Be sure to check the "Status display of the USB data cloning permission (08-9889)" before data cloning. When the value of 08-9889 is "1 (Not accepted)", data cloning cannot be performed. Contact and ask the user (machine administrator) to change the setting on the [Data Cloning Function] in TopAccess, or set "0 (Accepted)" in 08-9889
3. 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.
4. 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 medium with a flash memory (to be connected directly to the USB port) having a capacity of 256 MB to 512 MB (or 1 GB) 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)

    - 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.
5. The USB medias compliant with both USB 1.1 and USB 2.0 can be used for this data cloning.
6. 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.
7. 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.
8. 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.
9. Restore data to equipment which has the same options as when the data are backed up.
10. If “Department management” or “User management information” is restored, the counter values are copied as well, so clear all of them. However, the total counter is not copied.
11. Delete the backed up data in the USB media after the data cloning.

4.1.3 Backup files

Data files that are available for backup are limited to user data, setting data and SRAM data. The detailed descriptions for each file are shown below. Note that backup files are encrypted.

1.User data file

The folder “user_data” is created in the root directory and the following files are stored in it.

Data item	folder	File name
Address book	user_data	BACKUP_ADDR.sct
Mailbox	user_data	BACKUP_MBOX.sct
Template	user_data	BACKUP_TEMP.sct
Back up the Address book, Mailbox and Template in a batch	user_data	BACKUP_ALL.sct
Department management information	user_data	BACKUP_Department.sct
User management information	user_data	BACKUP_User.sct
Role information	user_data	BACKUP_Role.sct
Meta Scan information	user_data\metaScan	xxxx.sct * The file name that the user has set for saving this file comes at “XXXX”.

2.Setting data file

The folder “setting_data” is created in the root directory and the following files are stored in it.

Data item	folder	File name
Network / Print service	setting_data	network.sct IPsec.sct*
SaveAsFile / Email / InternetFAX	setting_data	scan.sct
Notification setting	setting_data	notice.sct
Directory Service	setting_data	ldap.sct
FAX setting	setting_data	fax.sct fax08.sct
Wireless LAN setting / Bluetooth setting	setting_data	wl.sct bl.sctt
COPY setting	setting_data	copy.sct**
GENERAL setting	setting_data	general.sct**
User management setting	setting_data	usrmng.sct**

* 1 Enabled when IPSec Enabler (GP-1080) is installed.

* 2 Applicable to TxxxSY0*302 ROM or later.

3.SRAM data file

The folder “sram_data” is created in the root directory and the following files are stored in it.

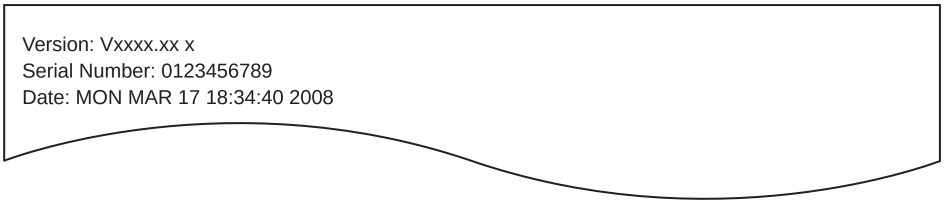
Data item	folder	File name
SRAM	sram_data	sram.sct

Note:

In addition to the backed up data, the following files are created in each folder

Data item	folder	File name
User data	user_data	user_data.txt
Setting data	setting_data	setting_data.txt
SRAM data	sram_data	sram_data.txt

<Contents of file>



Version: Vxxxx.xx x
Serial Number: 0123456789
Date: MON MAR 17 18:34:40 2008

Fig. 4-1

- File format (user_data.txt, setting_data.txt, sram_data.txt: all in common)
  Line 1: Version
  Line 2: Serial number
  Line 3: Date

4.1.4 List for codes available for data cloning

Setting mode (08)

08-204	08-205	08-206	08-209	08-218
08-219	08-221	08-250	08-254	08-259
08-260	08-264	08-272	08-273	08-274
08-288	08-290	08-291	08-292	08-293
08-294	08-295	08-296	08-297	08-298
08-299	08-300	08-302	08-331	08-342
08-503	08-550	08-603	08-610	08-611
08-619	08-634	08-638	08-640	08-642
08-645	08-649	08-650	08-651	08-652
08-653	08-658	08-659	08-671	08-702
08-703	08-707	08-721	08-723	08-726
08-727	08-728	08-729	08-730	08-780
08-781	08-782	08-783	08-784	08-785
08-786	08-787	08-788	08-789	08-790
08-945	08-969	08-970	08-973	08-976
08-978	08-979	08-1002	08-1007	08-1011
08-1012	08-1014	08-1015	08-1016	08-1017
08-1018	08-1019	08-1020	08-1022	08-1024
08-1025	08-1026	08-1027	08-1028	08-1029
08-1030	08-1031	08-1032	08-1037	08-1038
08-1039	08-1040	08-1041	08-1042	08-1043
08-1044	08-1045	08-1046	08-1047	08-1048
08-1049	08-1050	08-1051	08-1052	08-1055
08-1059	08-1060	08-1063	08-1065	08-1066
08-1069	08-1070	08-1073	08-1074	08-1075
08-1076	08-1078	08-1079	08-1080	08-1089
08-1090	08-1091	08-1092	08-1094	08-1095
08-1096	08-1097	08-1098	08-1099	08-1100
08-1101	08-1102	08-1103	08-1111	08-1114
08-1123	08-1125	08-1138	08-1432	08-1440
08-1441	08-1442	08-1444	08-1445	08-1446
08-1447	08-1448	08-1449	08-1450	08-1451
08-1464	08-1661	08-1662	08-1665	08-1666
08-1667	08-1668	08-1669	08-1670	08-1671
08-1672	08-1673	08-1674	08-1675	08-1676

08-1677	08-1678	08-1685	08-1686	08-1689
08-1690	08-1691	08-1692	08-1693	08-1696
08-1697	08-1699	08-1700	08-1701	08-1704
08-1705	08-1706	08-1707	08-1708	08-1710
08-1711	08-1712	08-1713	08-1714	08-1715
08-1719	08-1720	08-1721	08-1722	08-1723
08-1724	08-1725	08-1726	08-1727	08-1728
08-1729	08-1730	08-1731	08-1732	08-1733
08-1734	08-1735	08-1736	08-1737	08-1738
08-1739	08-1740	08-1741	08-1743	08-1744
08-1745	08-1746	08-1748	08-1749	08-1750
08-1755	08-1756	08-1759	08-1760	08-1762
08-1764	08-1765	08-1766	08-1767	08-1772
08-1779	08-1780	08-1781-0	08-1781-1	08-1782
08-1783	08-1784-0	08-1784-1	08-1785	08-1786
08-1920	08-1937	08-1941	08-1950	08-1951
08-1953	08-1958	08-1959	08-3508	08-3722
08-3723	08-3724	08-3736	08-3737	08-3738
08-3739	08-3740	08-3741	08-3742	08-3743
08-3745	08-3746	08-3747	08-3748	08-3754
08-3755	08-3757	08-3758	08-3759	08-3760
08-3767	08-3768	08-3774	08-3775	08-3776
08-3777	08-3778	08-3779	08-3780	08-3781
08-3782	08-3783	08-3785	08-3789	08-3793
08-3796	08-3797	08-3812	08-3833	08-3846
08-3847	08-3848	08-3849	08-3851	08-3852
08-3853	08-3854	08-3855	08-3856	08-3857
08-3858	08-3859	08-3860	08-3861	08-3862
08-3863	08-8504	08-8511	08-8543	08-8580
08-8581	08-8582	08-8583	08-8584	08-8585
08-8586	08-8587	08-8588	08-8589	08-8590-0
08-8590-1	08-8590-2	08-8590-3	08-8590-4	08-8591
08-8592	08-8593	08-8604	08-8605	08-8606
08-8615	08-8616	08-8617	08-8618	08-8619
08-8620	08-8800	08-8801	08-8803	08-8804
08-8805	08-8817	08-8818	08-9117	08-9120
08-9121	08-9122	08-9123	08-9124	08-9125
08-9126	08-9294	08-9384	08-9394	08-9629
08-9746	08-9747	08-9748	08-9791	08-9799
08-9829	08-9889	08-9891	08-9946	08-9947
08-9957	08-9958	08-9980	08-9981	08-9984-0
08-9984-1	08-9984-2	08-9984-3	08-9984-4	

Fax function mode (13)

13-100	13-101	13-102	13-103	13-104
13-105	13-106	13-107	13-108	13-109
13-110	13-111	13-112	13-116	13-117
13-122	13-123	13-125	13-127	13-128
13-129	13-132	13-135	13-137	13-138
13-139	13-140	13-141	13-142	13-143
13-149	13-150	13-151	13-152	13-153
13-200	13-201	13-203	13-206	13-210
13-211	13-213	13-216	13-220	13-221
13-222	13-223	13-224	13-225	13-226
13-227	13-228	13-229	13-230	13-231
13-232	13-236	13-245	13-247	13-249

13-262	13-267	13-268	13-269	13-270
13-271	13-272	13-273	13-279	13-280
13-281	13-282	13-283	13-312	13-313
13-317	13-325	13-328	13-331	13-335
13-338	13-339	13-340	13-346	13-350
13-351	13-355	13-356	13-357	13-359
13-361	13-362	13-363	13-365	13-367
13-368	13-370	13-371	13-372	13-373
13-375	13-377	13-378	13-379	13-382
13-389	13-391	13-394	13-398	13-430
13-433	13-501	13-509	13-510	13-511
13-512	13-517	13-518	13-519	13-564
13-565	13-566	13-567	13-569	13-571
13-574	13-575	13-576	13-577	13-578
13-580	13-581	13-584	13-585	13-586
13-587	13-601	13-602	13-605	13-606
13-607	13-610	13-611	13-612	13-614
13-615	13-616	13-706	13-707	13-709
13-711	13-720	13-722	13-723	13-724
13-725	13-726	13-727	13-728	13-922
13-923	13-924	13-925	13-926	13-927
13-930	13-931	13-940	13-941	13-944
13-955	13-961	13-962	13-970	13-971

4.1.5 Cloning procedure

[A] Backup procedure

(1) Shut down the equipment.

(2) Connect the USB media to the USB port on the right upper cover.

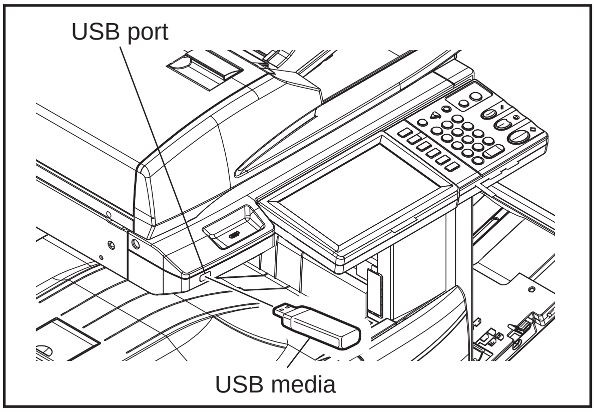
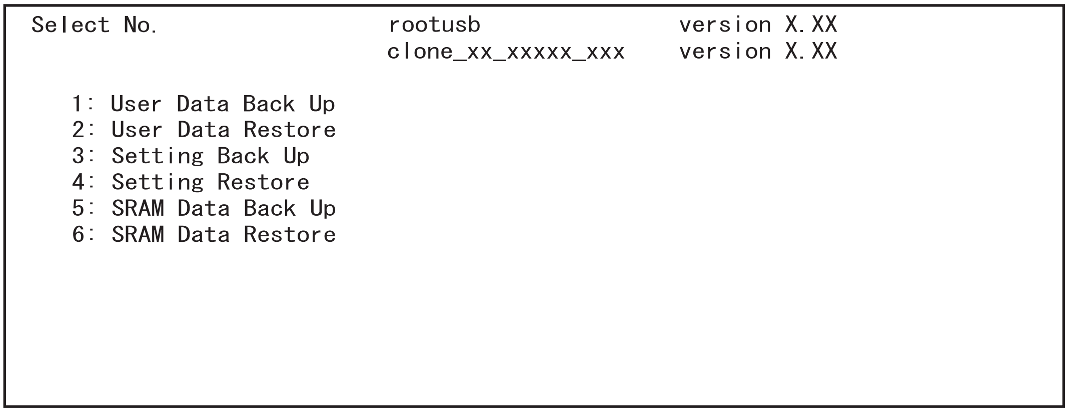


Fig. 4-2

Note:
Backing up cannot be performed with multiple USB media connected at the same time.

(3) Turn the power ON while pressing the [5] and [9] buttons simultaneously.
A screen for selecting items to back up is displayed. Select the number (any of “1”, “3” and “5” for the item to be backed up, and then press the [START] button.

Number	Backup Item
1: User Data Back Up	Backing up User data
3: Setting Back Up	Backing up Setting item
5: SRAM Data Back Up	Backing up SRAM data



```
 Select No.                rootusb              version X.XX
                           clone_xx_xxxxx_xxx   version X.XX

    1: User Data Back Up
    2: User Data Restore
    3: Setting Back Up
    4: Setting Restore
    5: SRAM Data Back Up
    6: SRAM Data Restore
```

Fig. 4-3

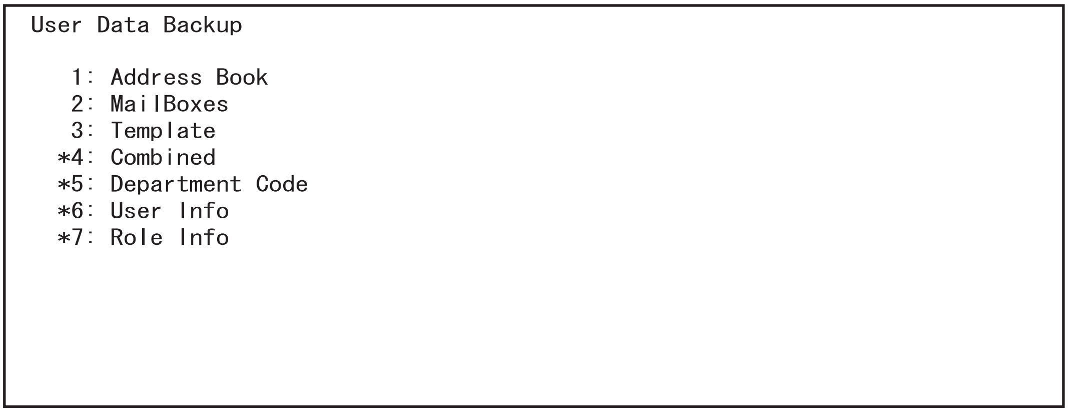
Notes:
- It may take some time for the next screen to appear after you key in the number for the item.
- The screen above is not displayed if the data cloning function is disabled.In this case, ask the user (machine administrator) to enable the data cloning function on the TopAccess menu.
- To clear the selection, press the [CLEAR] or [FUNCTION CLEAR] button.

(4) A certain time after the [START] button is pressed, the following screen is displayed. Select the number of the desired data. The selected item will be displayed with an asterisk.

<When “1: User Data Back Up” is selected>

Number	Backup Item
1: Address Book	Backing up Address book
2: MailBoxes	Backing up Mail box
3: Template	Backing up Template and meta scan definition file
4: Combined	Backing up Address Book, Mail Box, Template, and meta scan definition file in a batch
5: FAX Kit	Backing up Department management
6: User Info	Backing up User management information
7: Role Info	Backing up Role information

* The items “4”, “5”, “6”, and “7” are selected in the screen by default.



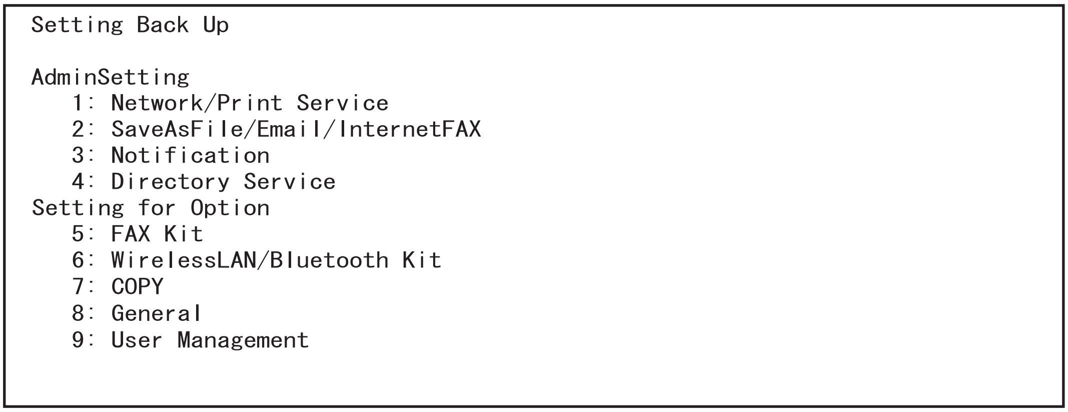
```
User Data Backup

   1: Address Book
   2: MailBoxes
   3: Template
  *4: Combined
  *5: Department Code
  *6: User Info
  *7: Role Info
```

Fig. 4-4

<When “3: Setting Back Up” is selected>

Number	Backup Item
1: Network/Print Service	Backing up TopAccess: Network/Print Service
2: SaveAsFile/Email/InternetFAX	Backing up TopAccess: SaveAsFile/Email/InternetFAX
3: Notification	Backing up TopAccess: Notification
4: Directory Service	Backing up TopAccess: Directory Service
5: FAX Kit	Backing up Option: Fax setting
6: WirelessLAN/Bluetooth Kit	Backing up Option: WirelessLAN/Bluetooth setting
7: Copy	Backing up TopAccess: Copy
8: General	Backing up TopAccess: General
9: User Management	Backing up TopAccess: User Management

* No items are selected in the screen by default.



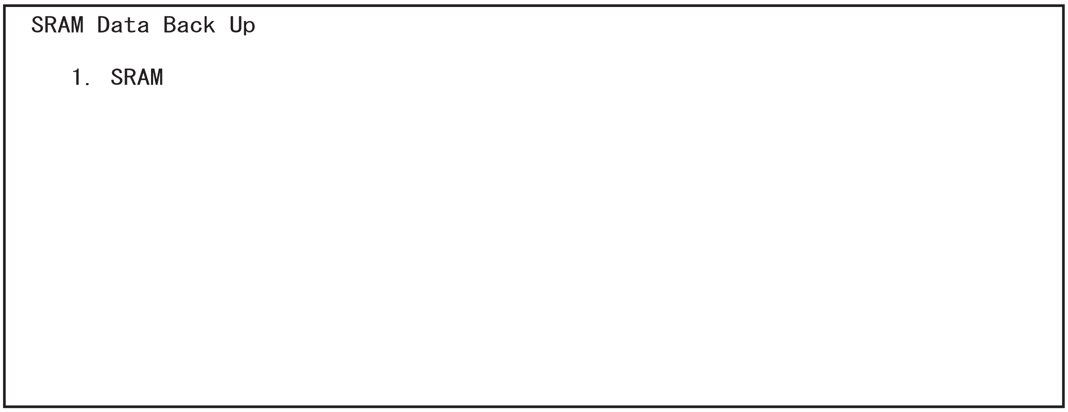
```
Setting Back Up

AdminSetting
   1: Network/Print Service
   2: SaveAsFile/Email/InternetFAX
   3: Notification
   4: Directory Service
Setting for Option
   5: FAX Kit
   6: WirelessLAN/Bluetooth Kit
   7: COPY
   8: General
   9: User Management
```

Fig. 4-5

<When “5: SRAM Data Back Up” is selected>

Number	Backup Item
1. SRAM	Backing up SRAM Data

* No items are selected in the screen by default.



```
SRAM Data Back Up

   1. SRAM
```

Fig. 4-6

(5) Press the [START] button. The backup starts and the backing up status is displayed on the LCD screen.

(6) “Back Up Completed” is displayed on the LCD screen when the backup has been properly completed.

(7) Turn the power OFF and remove the USB media.

[B] Restoring procedure

(1) Shut down the equipment.

(2) Connect the USB media to the USB port on the right upper cover.

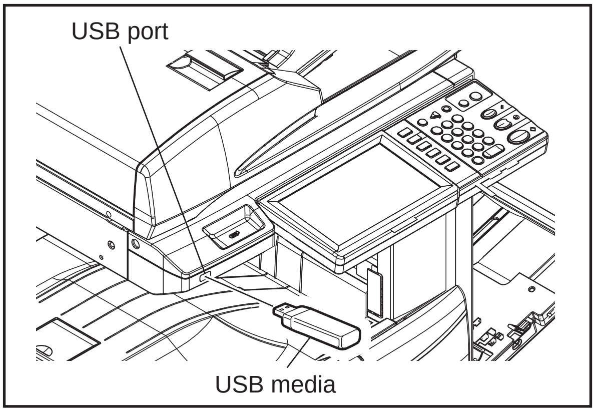


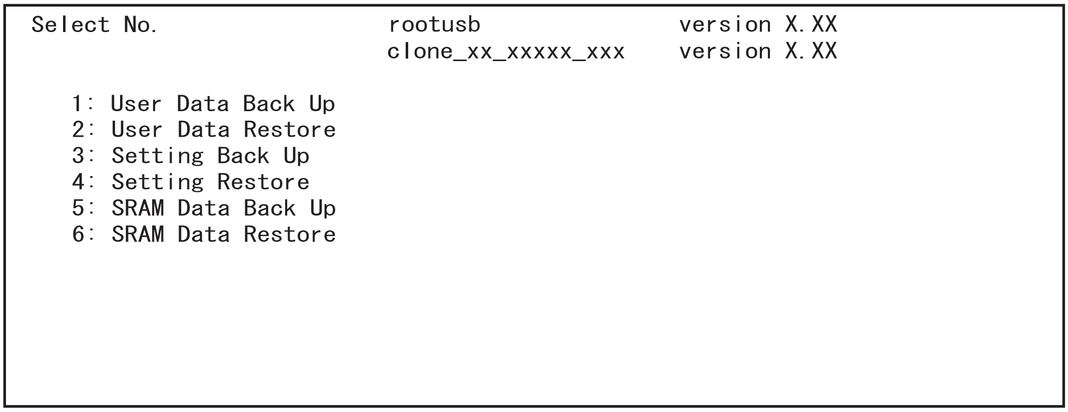
Fig. 4-7

Note:

Restoring cannot be performed with multiple USB medias connected simultaneously.

(3) Turn the power ON while pressing the [5] and [9] buttons simultaneously.
A screen for selecting items to restore is displayed. Select the number (any of “2”, “4” and “6” for the item to be restore, and then press the [START] button.

Number	Restore Item
2: User Data Restore	Restoring up User data
4: Setting Restore	Restoring up Setting item
6: SRAM Data Restore	Restoring up SRAM data



```
Select No.                rootusb              version X.XX
                          clone_xx_xxxxx_xxx   version X.XX

   1: User Data Back Up
   2: User Data Restore
   3: Setting Back Up
   4: Setting Restore
   5: SRAM Data Back Up
   6: SRAM Data Restore
```

Fig. 4-8

Notes:

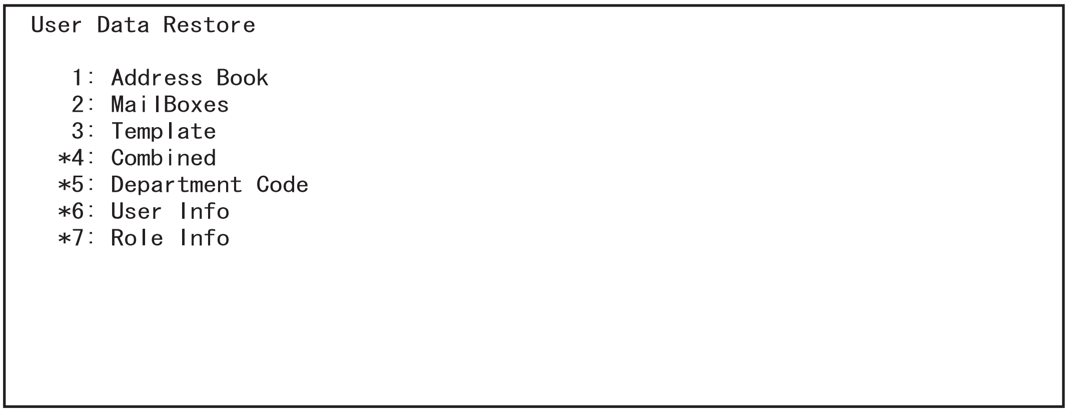
- It may take some time for the next screen to appear after you key in the number for the item.
- The screen above is not displayed if the data cloning function is disabled. In this case, ask the user (machine administrator) to enable the data cloning function on the TopAccess menu, or set "0 (Accepted)" in 08-9889.
- To clear the selection, press the [CLEAR] or [FUNCTION CLEAR] button.

(4) A certain time after the [START] button is pressed, the following screen is displayed. Select the number of the desired data. The selected item will be displayed with an asterisk.

<When “2: User Data Restore” is selected>

Number	Restore Item
1: Address Book	Restoring Address book
2: MailBoxes	Restoring Mail box
3: Template	Restoring Template and meta scan definition file
4: Combined	Restoring Address Book, Mail Box, Template, and meta scan definition file in a batch
5: Department Code	Restoring Department management
6: User Info	Restoring User management information
7: Role Info	Restoring role information

* The items “4”, “5”, “6”, and “7” are selected in the screen by default.



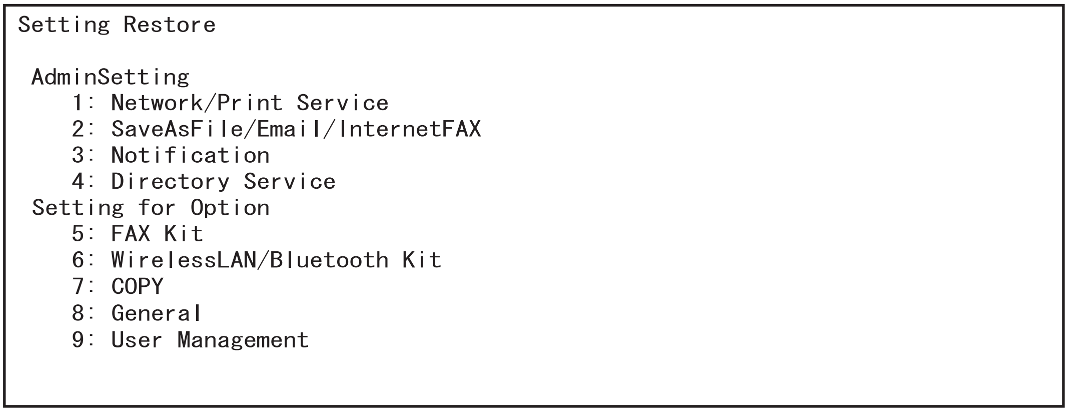
```
User Data Restore

   1: Address Book
   2: MailBoxes
   3: Template
  *4: Combined
  *5: Department Code
  *6: User Info
  *7: Role Info
```

Fig. 4-9

<When “4: Setting Restore” is selected>

Number	Restore Item
1: Network/Print Service	Restoring TopAccess: Network/Print Service
2: SaveAsFile/Email/InternetFAX	Restoring TopAccess: SaveAsFile/Email/InternetFAX
3: Notification	Restoring TopAccess: Notification
4: Directory Service	Restoring TopAccess: Directory Service
5: FAX Kit	Restoring Option: Fax setting
6: WirelessLAN/Bluetooth Kit	Restoring Option: WirelessLAN/Bluetooth setting
7: Copy	Restoring TopAccess: Copy
8: General	Restoring TopAccess: General
9: User Management	Restoring TopAccess: User Management

- * No items are selected in the screen by default.
- * Be sure to restore the same option items in the same condition as when the option items were backed up.



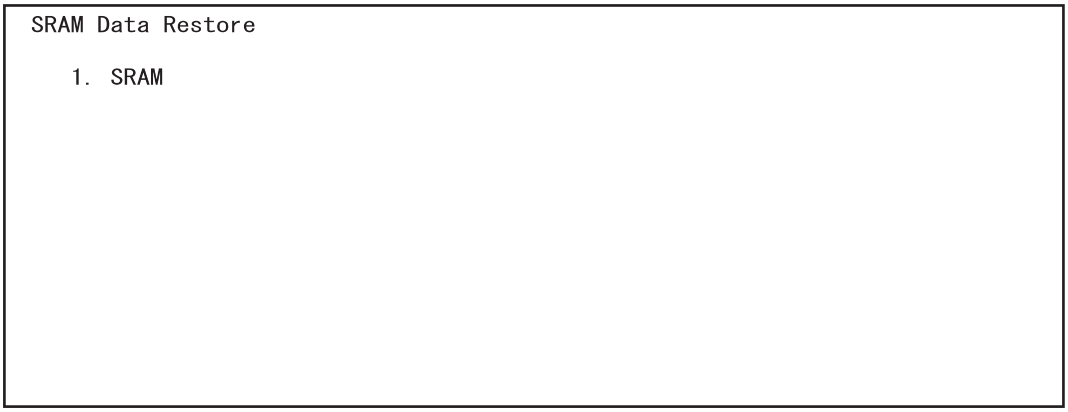
```
Setting Restore

 AdminSetting
    1: Network/Print Service
    2: SaveAsFile/Email/InternetFAX
    3: Notification
    4: Directory Service
 Setting for Option
    5: FAX Kit
    6: WirelessLAN/Bluetooth Kit
    7: COPY
    8: General
    9: User Management
```

Fig. 4-10

<When “6: SRAM Data Restore” is selected>

Number	Restore Item
1. SRAM	Restoring SRAM Data

* No items are selected in the screen by default.



```
 SRAM Data Restore

    1. SRAM
```

Fig. 4-11

(5) Press the [START] button. The restore starts and the restoring status is displayed on the LCD screen.

(6) “Restore Completed” is displayed on the LCD screen when restoring has been properly completed.

(7) Turn the power OFF and remove the USB media.

* When “department management data” or “user management data” are restored, clear their counter values in a procedure below.

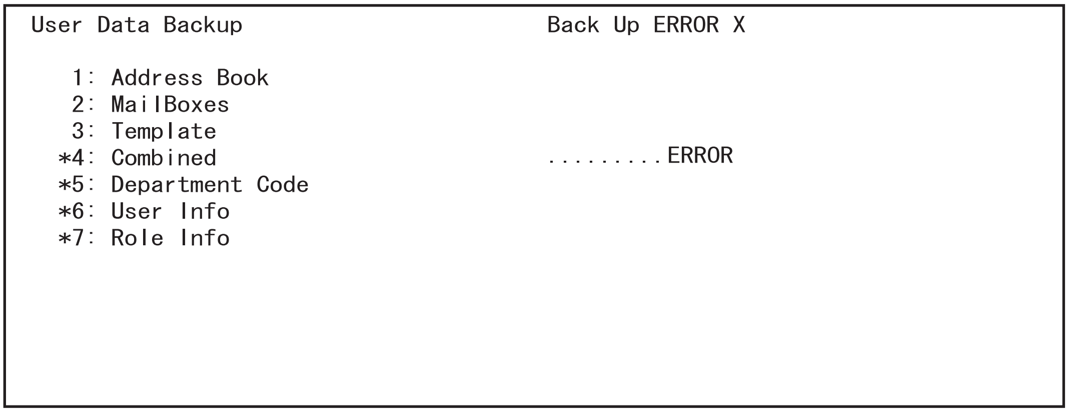
(8) Counter values can be all cleared as the data are copied. Note that the total counter values are not copied.
<Procedure>
Press the buttons as follows: [COUNTER]→[DEPARTMANT MANAGEMENT]→Enter the password→[RESET ALL COUNTERS]

* Enable the department management when the [RESET ALL COUNTERS] buttons is set to be disabled.

[C] Confirmation of the error

“Back Up ERROR X” (X: Error number) is displayed at the top of the LCD screen when the data have not been properly backed up / restored. 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?



```
User Data Backup                       Back Up ERROR X

   1: Address Book
   2: MailBoxes
   3: Template
  *4: Combined                         .........ERROR
  *5: Department Code
  *6: User Info
  *7: Role Info
```

Fig. 4-12

Error number	Error content
ERROR 1	Copy error
ERROR 2	I/F error
ERROR 3	USB memory full error
ERROR 4	Working folder error
ERROR 5	File not found error
ERROR 6	Security error
ERROR 7	Checksum error
ERROR 8	Model check error
ERROR 9	Version check error
ERROR 10	Destination check error
ERROR 11	Serial number check error
ERROR 12	Device is busy

* When data cloning is performed in the following conditions, "ERROR12: Device is Busy" appears.

Back Up	Restore
Control panel is in use	Control panel is in use
JOB is in process	JOB is in process
	Private job has been reserved
	Schedule print job has been reserved
	Proof print job has been reserved
	Hold print job has been reserved
	Invalid job is pending

4.2 AES Data Encryption Function Setting

4.2.1 General description

Data encryption is a function that encrypts data in the HDD to enhance the security.
Note that this function may affect the equipment performance.

4.2.2 Precautions

When the data encryption function is set enabled, data currently stored in the HDD 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 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. A service technician can back up or restore them only when the user (machine administrator) permits it.
- Some data in the HDD cannot be backed up and can be left only on printouts.

4.2.3 Setting procedure

A procedure for setting the data encryption function is shown below.

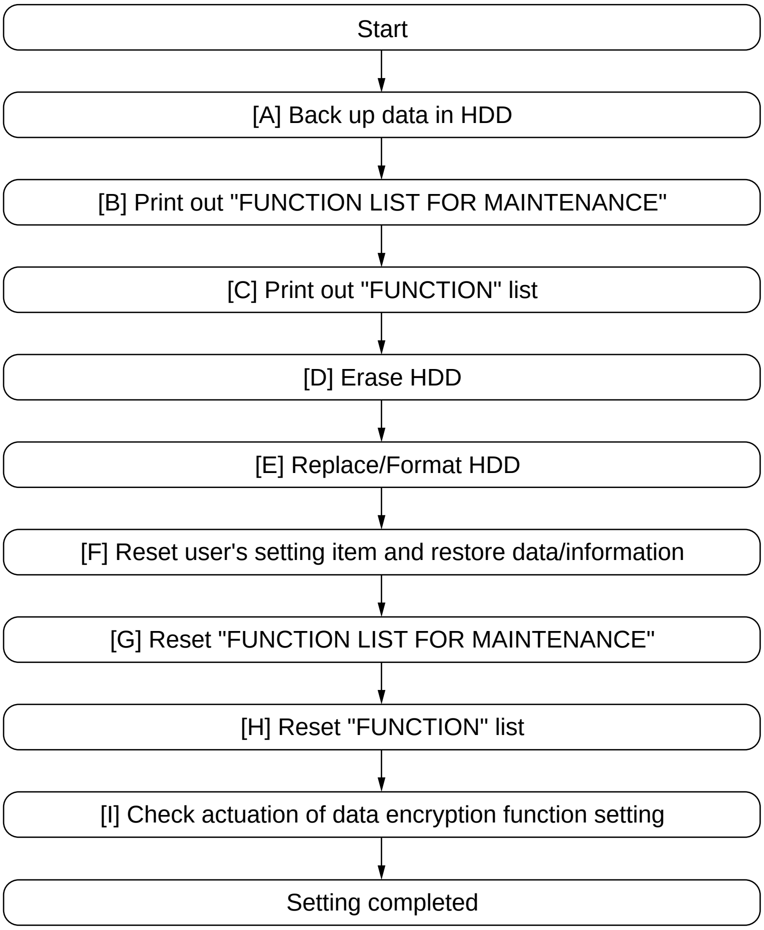

Start
[A] Back up data in HDD
[B] Print out "FUNCTION LIST FOR MAINTENANCE"
[C] Print out "FUNCTION" list
[D] Erase HDD
[E] Replace/Format HDD
[F] Reset user's setting item and restore data/information
[G] Reset "FUNCTION LIST FOR MAINTENANCE"
[H] Reset "FUNCTION" list
[I] Check actuation of data encryption function setting
Setting completed

Fig. 4-13

[A] Back up in HDD

Ask the user (machine administrator) to back up the data in the HDD. 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	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)	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 > [User Confirm/Create/Modify] > [Role Information]
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) Press the [USER FUNCTIONS] button and then the [USER] tab.

(2) Press the [LIST] button.

(3) Key in [*] [#] [*] [*] [3] [3] and then press the [START] button. The “FUNCTION LIST FOR MAINTENANCE” is printed out.

[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.

Note:

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] Format HDD

Perform the code 08-690:2 to format the HDD.

When the FAX Unit (GD-1250) is installed, perform “Fax Set Up (1*-100)” and “Clearing the image data (1*-102)”. Then turn the power OFF.

1. Turn the power ON while pressing the digital keys [1] and [*] simultaneously.
2. Key in [100] and then press the [START] button.
3. Key in [102] and then press the [START] button.
4. Turn the power OFF.

[F] 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]

* 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
Oranization 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

[G] Reset “FUNCTION LIST FOR MAINTENANCE”

(1) Print out the "FUNCTION LIST FOR MAINTENANCE" after the HDD formatting.
📖 P.4-14 "[B] Print out “FUNCTION LIST FOR MAINTENANCE”"

(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.

(4) Turn the power OFF.

[H] Reset “FUNCTION” list

Reset the initial setting of the fax function by referring to the "function list" which has been printed out following the procedure below.
📖 P.4-15 "[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.

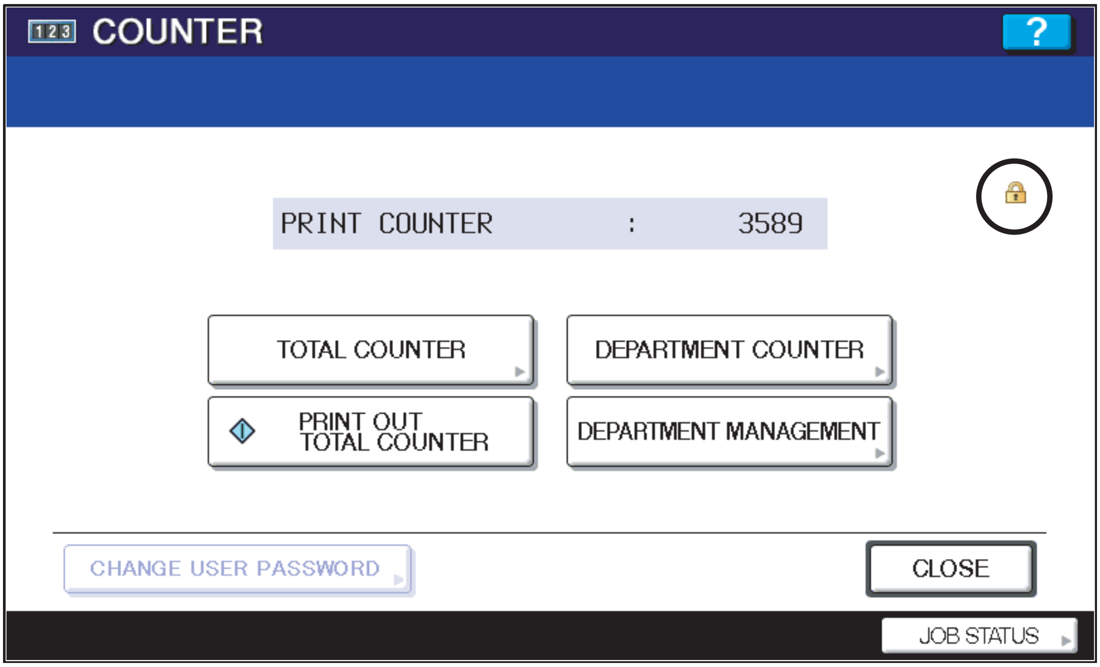
(4) Press the [INITIAL SETUP] button to set each item.

Note:
Explain to the user (machine administrator) about the next operation and ask him/her to enter his/her password.

[I] 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.



PRINT COUNTER : 3589

123
COUNTER
?
TOTAL COUNTER
DEPARTMENT COUNTER
PRINT OUT TOTAL COUNTER
DEPARTMENT MANAGEMENT
CHANGE USER PASSWORD
CLOSE
JOB STATUS

4.2.4 Procedure for disabling data encryption function

The basic setting procedure is the same as the one for enabling this function.
Set the value of 08-9379 to "0" (Invalid) in the following procedure.
📖 P.4-15 "[D] Enable data encryption function"

4.2.5 Procedure for discarding HDD when data encryption function is enabled

Set the data encryption function disabled following the procedure below.
📖 P.4-17 "4.2.4 Procedure for disabling data encryption function"
Then perform 08-1426 (Forcible HDD data clearing) to completely delete the HDD data.

4.3 Assist Mode

4.3.1 Assist mode

This equipment has the Assist Mode to enable the following functions.

(1) Update Error flags clearing (Clear update Error Flags.)
Even if the firmware downloading has been completed normally, the Recovery Mode may accidentally start up 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 / SYS-IMG board, the flags are cleared with this function.

(2) Data storage partition formatting (Format Loader Partition.)
When a defection 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.)

(3) HDD partition creation (All Partition Delete and Create Loader Partition.)
When the HDD is replaced or UI data, etc. are downloaded using the USB storage, it is necessary to format a partition in the HDD before downloading. In this case, the partition is created in the HDD with this function.

Notes:

1. When downloading with a download jig, it is not necessary to format a partition in advance.
2. Perform the HDD partition formatting only when a new HDD is installed since all data in the current HDD are erased by this operation.

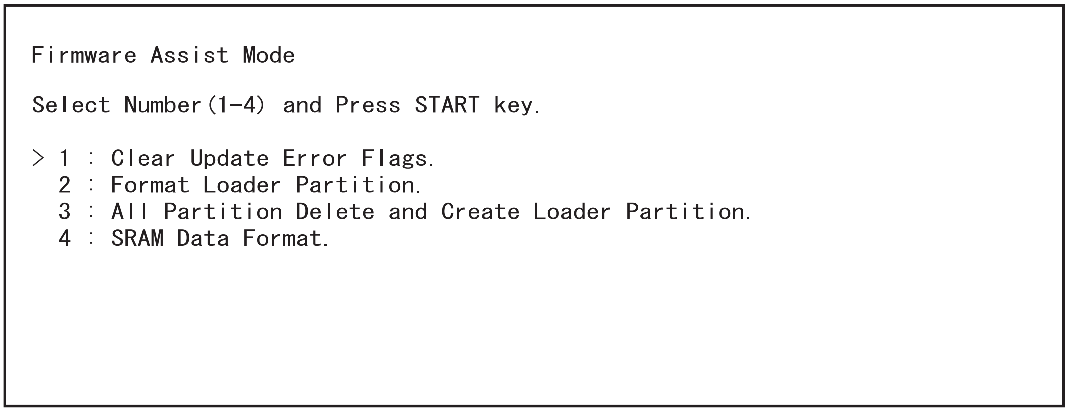
(4) SRAM Data formatting on the SYS board(SRAM Data format.)
When SRAM board is replaced with a new one on the SYS board / SYS-IMG board, abnormal values may be written in the new SRAM. In such cases, SRAM data must be formatted with this function.

Notes:

1. This function is required only when a new SRAM board is installed.
2. Do not perform this function in cases other than the installation of a new SRAM board because all data in the SRAM will be deleted as a result.

4.3.2 Operating procedure of assist mode

(1) Turn ON the power while [3] button and [CLEAR] button are pressed simultaneously.
- The following screen is displayed.



```
Firmware Assist Mode

Select Number(1-4) and Press START key.

> 1 : Clear Update Error Flags.
  2 : Format Loader Partition.
  3 : All Partition Delete and Create Loader Partition.
  4 : SRAM Data Format.
```

Fig. 4-14

(2) Select the item with the digital keys and press the [START] button.

Note:

Explain the user (machine administrator) about the next operation and ask him/her to enter his/her password.

5. PREVENTIVE MAINTENANCE (PM)

5.1 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.
Also to maintain the quality level of the equipment, overhauling is required when a specified number of pages has been printed or when a specified period of time has passed, regardless of the number of output pages.

5.2 PM Display

5.2.1 General description

The maintenance times of the PM parts vary depending on the state of the parts, for example, if one part is replaced due to a problem during the operation, the maintenance time of another part will change accordingly. In this equipment, the optimal maintenance time corresponding to each part is displayed on the control panel LCD.

The [process unit (K)] explained below is a photoconductive drum or a cleaner unit which includes a photoconductive drum. The [developer material (K)] explained below is a developer material or a developer unit which includes a developer material. The [PM part other than the process unit] explained below is a fuser roller or a fuser unit which includes a fuser roller.

5.2.2 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

  Note:
  When “0” is entered as the setting value, PM timing is not displayed.

  08-251 : Setting value of PM counter [process unit (K)]
  08-375 : Setting value of PM time counter [process unit (K)]
  08-5554 : Setting value of PM counter [developer material (K)]
  08-5555 : Setting value of PM time counter [developer material (K)]
  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
  08-252 : Current value of PM counter [process unit (K)]
  08-376 : Current value of PM time counter [process unit (K)]
  08-5568 : Current value of PM counter [developer material (K)]
  08-5569 : Current value of PM time counter [developer material (K)]
  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
  08-223 : Switching of output pages/driving counts at PM [process unit (K)]
  08-5581 : Switching of output pages/driving counts at PM [developer material (K)]
  08-5585 : Switching of output pages/driving counts at PM [parts other than the PM parts of the process unit]

For example, you can set the conditions of the PM display of the [process unit (K)] as follows.

PM display by specifying the number of prints	1. Key in "0" for 08-223 (Switching of output pages/driving counts at PM [process unit (K)]). 2. Key in the value of the number of prints for the PM display other than "0" for 08-251 (Setting value of PM counter [process unit (K)]).
PM display by specifying the driving time	1. Key in "1" for 08-223 (Switching of output pages/driving counts at PM [process unit (K)]). 2. Key in the value of the driving time for the PM display other than "0" for 08-375 (Setting value of PM time counter [process unit (K)]).
PM display by the earlier one: when the number of prints or the driving time reaches the set value	1. Key in "2" for 08-223 (Switching of output pages/driving counts at PM [process unit (K)]). 2. Key in the value of the number of sheets for the PM display other than "0" for 08-251 (Setting value of PM counter [process unit (K)]). 3. Key in the value of the driving time other than "0" for 08-375 (Setting value of PM time counter [process unit (K)]).

If the value of 08-9891 (Warning message on the touch panel when PM time has come) is set to "0: No warning notification", the PM display is not performed regardless of the settings above. (Default value is "1: Display warning notification")

5.2.3 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 developer material (K)	: 0080
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 peripheral parts of the process units (K) and developer material (K) reach the maintenance time, the 4-digit hexadecimal number code will be “0188” in hexadecimal numbers: 0008+0080+0100=0188.

5.2.4 Clearing counter

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.

Note:

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:

- 08-252: Current value of PM counter [process unit (K)]
- 08-376: Current value of PM time counter [process unit (K)]
  When the current value of “CLEANER/DRUM” on the main screen or “DRUM” on the sub-screen in the PM support mode is cleared, the counter is reset.

- 08-5568: Current value of PM time counter [developer material (K)]
- 08-5569: Current value of PM time counter [developer material (K)]
  When the current value of “DEVELOPER” on the main screen or “DEVELOPER” on the sub-screen in the PM support mode is cleared, the counter is 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 “FUSER” on the main screen or “FUSER ROLLER” on the sub screen in the PM support mode is cleared, the counter is reset.

Note:

The following counters are cleared by executing the EPU replacement mode.
08-252: Current value of PM counter [process unit (K)]
08-376: Current value of PM time counter [process unit (K)]
08-5568: Current value of PM counter [developer material (K)]
08-5569: Current value of PM time counter [developer material (K)]

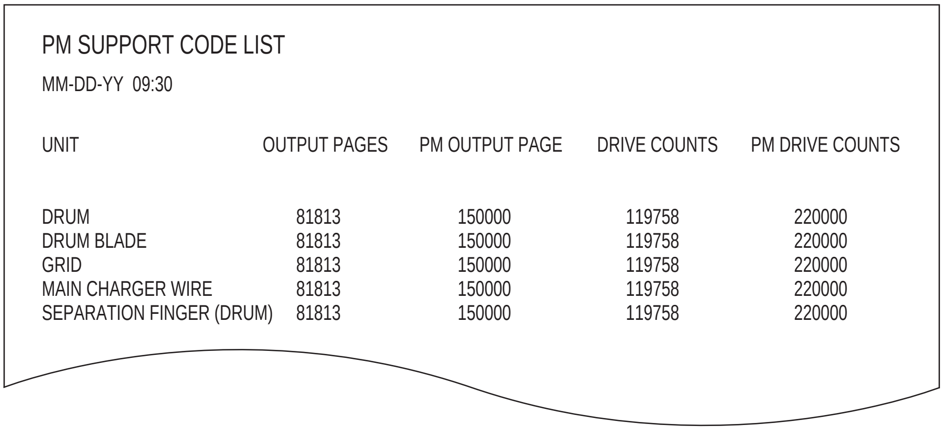
5.3 General Descriptions for PM Procedure

Perform the preventive maintenance in the following timing.

- e-STUDIO205L: every 80,000 sheets
- e-STUDIO255: every 100,000 sheets
- e-STUDIO305: every 120,000 sheets
- e-STUDIO355: every 125,000 sheets
- e-STUDIO455: every 150,000 sheets

(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-2) or list printing mode (9S-103).
  6S-2 : [6] + [START] + [POWER] ON → [2] → [START]
  9S-103 : [9] + [START] + [POWER] ON → [103] → [START]



```
PM SUPPORT CODE LIST
MM-DD-YY  09:30

UNIT                        OUTPUT PAGES   PM OUTPUT PAGE   DRIVE COUNTS   PM DRIVE COUNTS


DRUM                           81813           150000           119758          220000
DRUM BLADE                     81813           150000           119758          220000
GRID                           81813           150000           119758          220000
MAIN CHARGER WIRE              81813           150000           119758          220000
SEPARATION FINGER (DRUM)       81813           150000           119758          220000
```

Fig. 5-1

- 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.

5.4 PM Support Mode

5.4.1 General description

The timing for the parts replacement usually depends on the number of output pages ever printed after they were replaced before. However, the life span of them changes depending on the general use of users and the environment in which the equipment is placed. Therefore, it is necessary to consider not only the number of output pages but also the drive counts when deciding the timing for the parts replacement in order to utilize the parts and materials effectively.
This equipment has the PM support mode, which makes it possible to see the general use of each part (the number of output pages, drive counts) and replacement record and to do a counter clearing operation more efficiently when replacing.

The replacement record can be printed out in the list printing mode (9S-103).

5.4.2 Operational flow and operational screen

[1] Operational flow

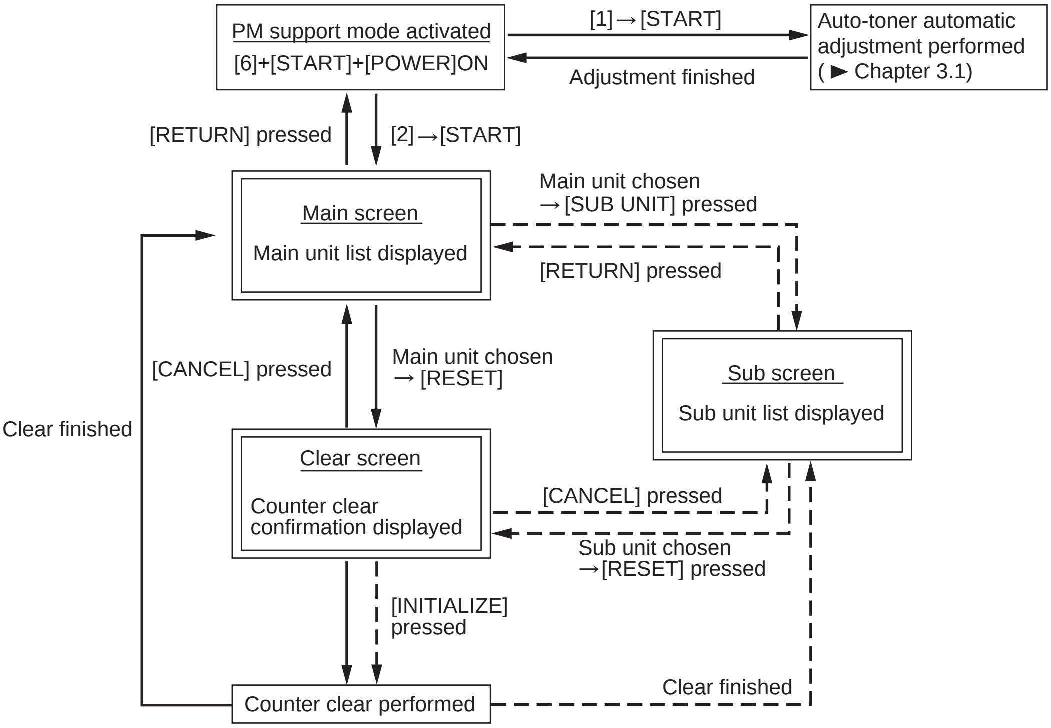
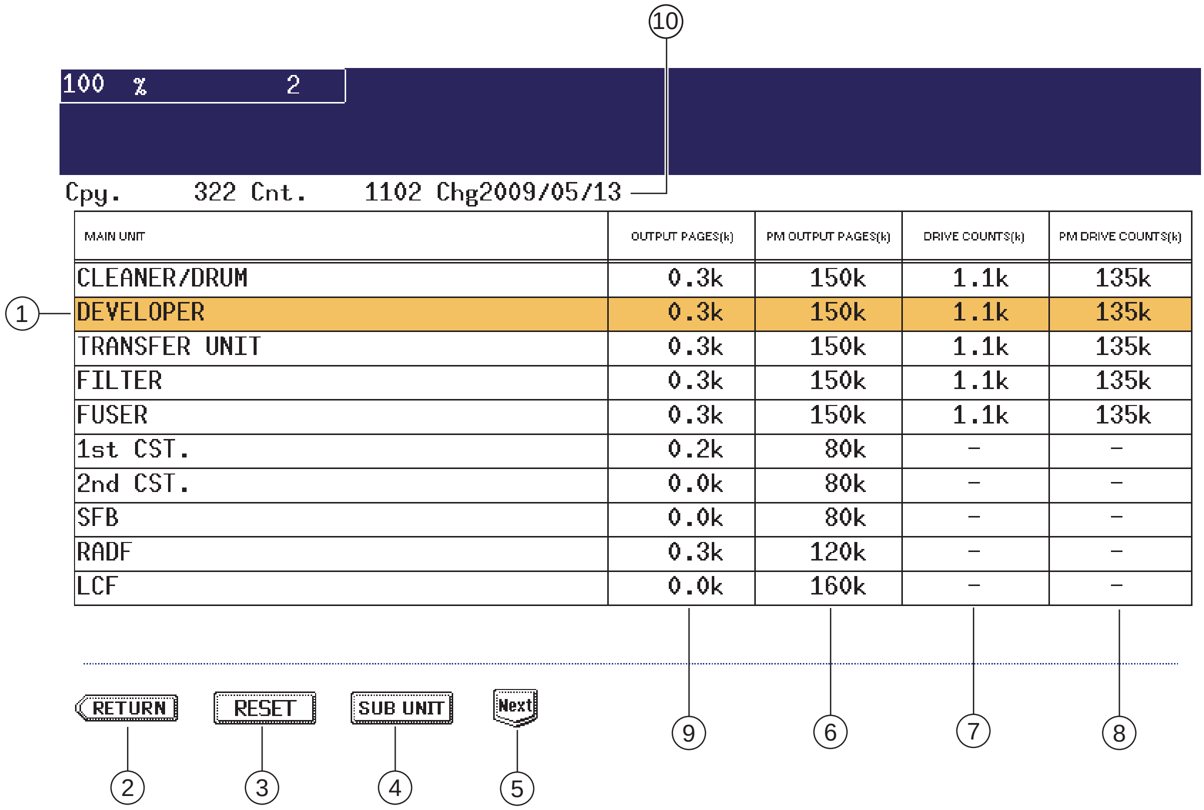

PM support mode activated
[6]+[START]+[POWER]ON
[1]→[START]
Adjustment finished
Auto-toner automatic adjustment performed
(► Chapter 3.1)
[RETURN] pressed
[2]→[START]
Main screen
Main unit list displayed
Main unit chosen
→[SUB UNIT] pressed
[RETURN] pressed
Sub screen
Sub unit list displayed
[CANCEL] pressed
Main unit chosen
→ [RESET]
Clear finished
Clear screen
Counter clear confirmation displayed
[CANCEL] pressed
Sub unit chosen
→[RESET] pressed
[INITIALIZE] pressed
Counter clear performed
Clear finished

Fig. 5-2

* The screen goes back to the main screen when the counter clear is executed 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.

[2] Operational screen

1. Main screen



100 % 2

Cpy. 322 Cnt. 1102 Chg2009/05/13

MAIN UNIT	OUTPUT PAGES(k)	PM OUTPUT PAGES(k)	DRIVE COUNTS(k)	PM DRIVE COUNTS(k)
CLEANER/DRUM	0.3k	150k	1.1k	135k
DEVELOPER	0.3k	150k	1.1k	135k
TRANSFER UNIT	0.3k	150k	1.1k	135k
FILTER	0.3k	150k	1.1k	135k
FUSER	0.3k	150k	1.1k	135k
1st CST.	0.2k	80k	–	–
2nd CST.	0.0k	80k	–	–
SFB	0.0k	80k	–	–
RADF	0.3k	120k	–	–
LCF	0.0k	160k	–	–

Fig. 5-3

① Displaying of the main unit name

② Back to the PM support mode activation screen

③ Clearing of the chosen unit counters (all the sub unit (parts) counters belonging to that unit)
All counters are cleared when the unit is not selected

④ Moving to the sub screen

⑤ Moving to the next/previous page

⑥ Displaying of the standard number of output pages counts (x 1,000) to replace the unit parts

⑦ Displaying of the present drive counts (x 1,000)
"*" is displayed next to the present number when the number of drive counts has exceeded its PM standard number.

⑧ Displaying of the standard number of drive counts (x 1,000) to replace the unit parts

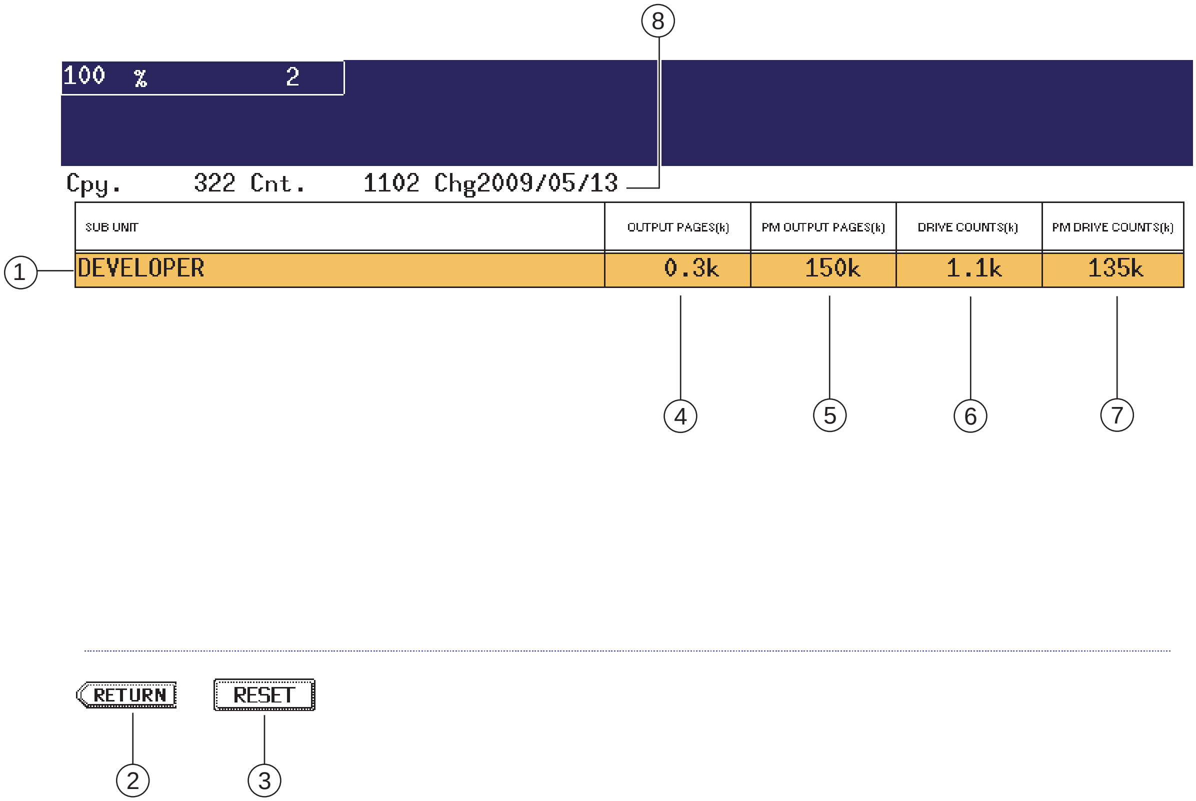
⑨ Displaying of the present number of output pages counts (x 1,000)
When there are differences among the sub units (parts), "_" is displayed and "CHECK SUBUNIT" is displayed at the top
"*" is displayed next to the present number when the number of output pages counts has exceeded its PM standard number.

⑩ Displaying of the number of output pages counts (Cpy.), 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

Notes:

- "—" is always displayed at the drive counts section for the reversing automatic document feeder (RADF) and feed unit.
- The paper source differs depending on the structure of options, however, "0.0k" is displayed in "OUTPUT PAGES (k)" and its standard number of output pages is displayed in "PM OUTPUT PAGES (k)" even for the installed paper source.

2. Sub screen



100 % 2

Cpy. 322 Cnt. 1102 Chg2009/05/13

SUB UNIT	OUTPUT PAGES(k)	PM OUTPUT PAGES(k)	DRIVE COUNTS(k)	PM DRIVE COUNTS(k)
DEVELOPER	0.3k	150k	1.1k	135k

Fig. 5-4

① Displaying of the sub unit (parts) name

② Back to the main screen

③ Clearing of the chosen sub unit (parts) counters

④ Displaying of the present number of output pages counts (x 1,000)
"*" is displayed next to the present number when the number of output pages counts has exceeded its PM standard number.

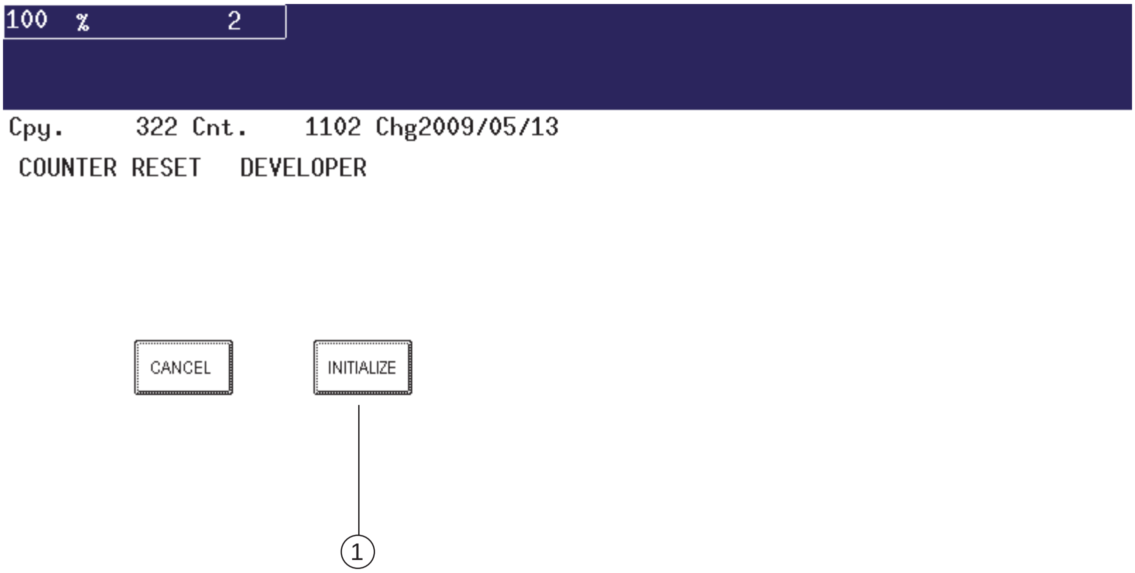
⑤ Displaying of the standard number of output pages counts (x 1,000) to replace the sub unit (parts)

⑥ Displaying of the present drive counts (x 1,000)
"*" is displayed next to the present number when the number of drive counts has exceeded its PM standard number.

⑦ Displaying of the standard number of drive counts (x 1,000) to replace the sub unit (parts)

⑧ Displaying of the number of output pages counts, drive counts and previous replacement date for a chosen sub unit

3. Clear screen



```
100  %          2

Cpy.     322 Cnt.    1102 Chg2009/05/13
 COUNTER RESET   DEVELOPER
```

Fig. 5-5

① When the [INITIALIZE] button is pressed, “Present number of output pages counts” and “Present driving counts” are cleared and “Previous replacement date” is updated.

[3] LCD screen display list

Note:

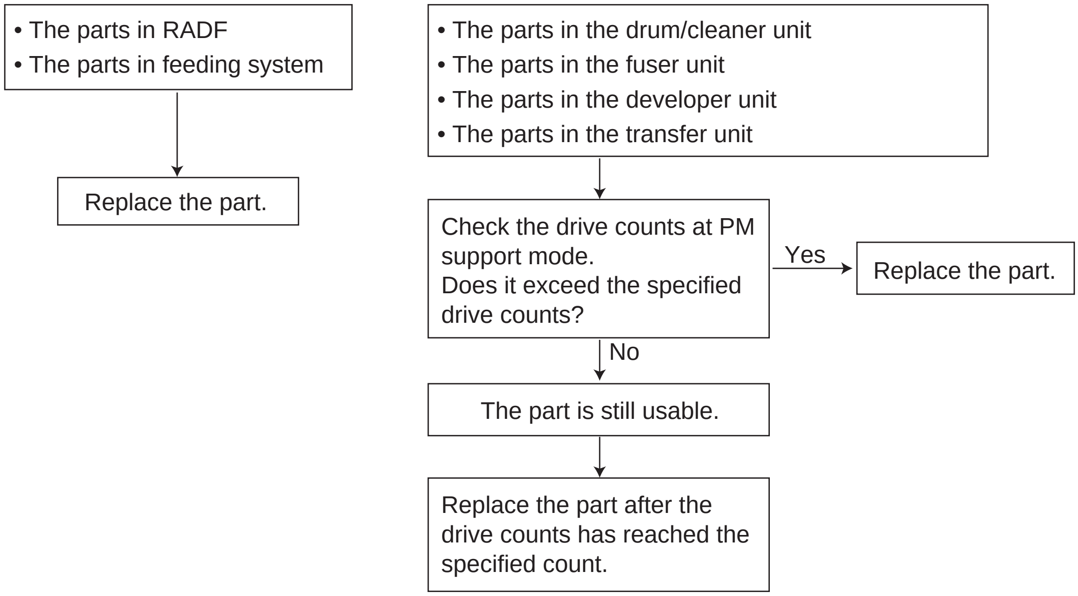
The name inside [ ] is displayed on the LCD screen.

Main screen	Sub-screen
Drum/cleaner unit [CLEANER/DRUM]	Drum [DRUM] Drum cleaning blade [DRUM BLADE] Main charger grid [GRID] Needle electrode [NEEDLE ELECTRODE] Separation finger for drum [SEPARATION FINGER (DRUM)] Recovery blade [RECOVERY BLADE]
Developer unit [DEVELOPER]	Developer [DEVELOPER]
Transfer unit [TRANSFER UNIT]	TRANSFER ROLLER [Transfer Roller]
Filter [FILTER]	Ozone filter [OZONE FILTER]
Fuser unit [FUSER]	Fuser roller [FUSER ROLLER] Pressure roller [PRESS ROLLER] Separation finger for fuser roller [SEPARATION FINGER (FUSER)]
Upper drawer [1st CST.]	Pickup roller [PICK UP ROLLER (1st CST.)] Feed roller [FEED ROLLER (1st CST.)] Separation roller [SEP ROLLER (1st CST.)]
Lower drawer [2nd CST.]	Pickup roller [PICK UP ROLLER (2nd CST.)] Feed roller [FEED ROLLER (2nd CST.)] Separation roller [SEP ROLLER (2nd CST.)]
Bypass unit [SFB]	Feed roller [FEED ROLLER (SFB)] Separation pad [SEP PAD (SFB)]
RADF [RADF]	Pickup roller [PICK UP ROLLER (RADF)] Feed roller [FEED ROLLER (RADF)] Separation roller [SEP ROLLER (RADF)]
LCF [LCF]	Pickup roller [PICK UP ROLLER (LCF)] Feed roller [FEED ROLLER (LCF)] Separation roller [SEP ROLLER (LCF)]
PFP upper drawer [3rd CST.]	Pickup roller [PICK UP ROLLER (3rd CST.)]] Feed roller [FEED ROLLER (3rd CST.)] Separation roller [SEP ROLLER (3rd CST.)]
PFP lower drawer [4th CST.]	Pickup roller [PICK UP ROLLER (4th CST.)] Feed roller [FEED ROLLER (4th CST.)] Separation roller [SEP ROLLER (4th CST.)]

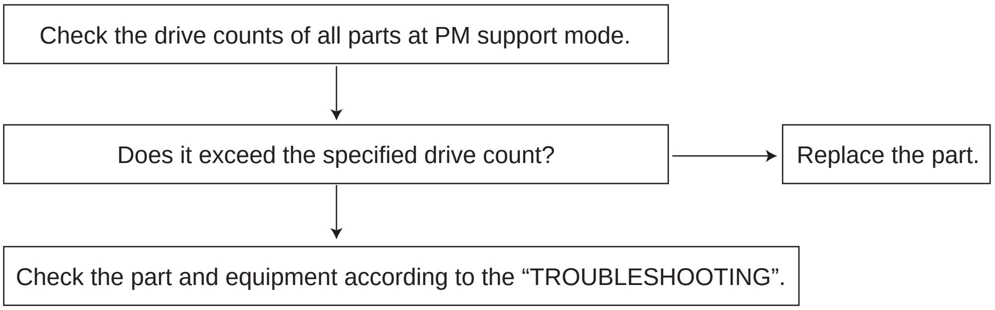
5.4.3 Work flow of parts replacement

The timing for the parts replacement usually depends on the number of output pages ever made after they were replaced before. However, its drive counts time is also to be considered when replacing the parts. Even if the number of output 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 output 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 output pages and the drive counts.

Example 1:
When the number of output pages has reached the specified level


• The parts in RADF
• The parts in feeding system
Replace the part.
• The parts in the drum/cleaner unit
• The parts in the fuser unit
• The parts in the developer unit
• The parts in the transfer unit
Check the drive counts at PM support mode. Does it exceed the specified drive counts?
Yes
Replace the part.
No
The part is still usable.
Replace the part after the drive counts has reached the specified count.

Example 2:
When the image failure occurred before the number of output pages has reached the specified level


Check the drive counts of all parts at PM support mode.
Does it exceed the specified drive count?
Replace the part.
Check the part and equipment according to the “TROUBLESHOOTING”.

5.5 EPU Replacement Mode

5.5.1 General description

As this equipment complies with the ERU (Easy Replacement Unit) rule, the EPUs (drum/cleaner unit, developer unit) of this equipment can be removed or reinstalled easily.
When each EPU is replaced with a new unit at PM, the IC chip in the EPU board installed at the bottom of the developer unit detects whether a new or an old unit is installed. When the IC chip memory judges that the installed unit is a new one, the series of operations required at the replacement (counter reset for supply items in the EPU, auto-toner sensor initial adjustment and automatic gamma adjustment) is smoothly performed.

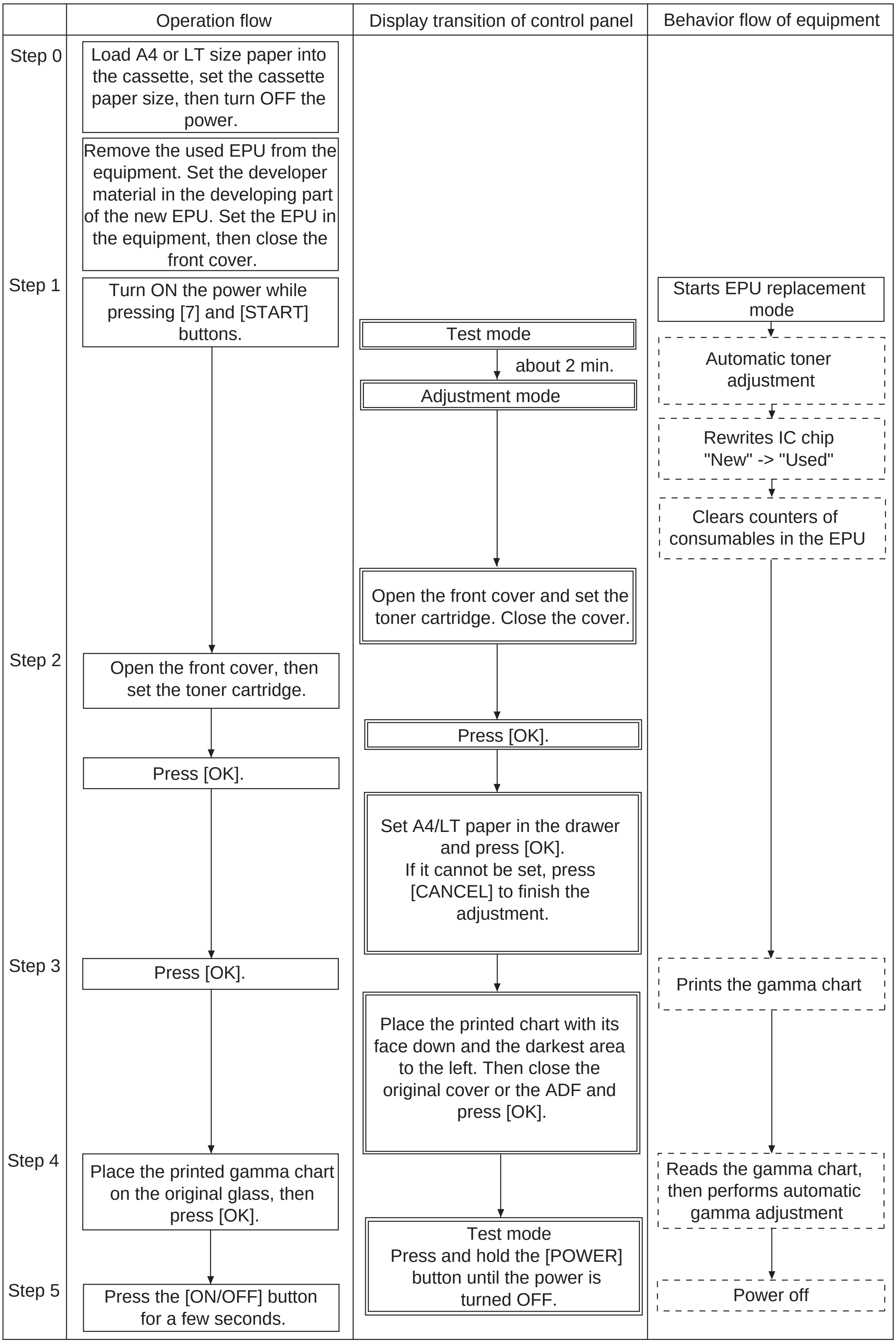
Note:

If only the supply items in the EPU at PM are to be replaced, perform the life counter reset for each supply item; if developer material is to be replaced, perform the auto-toner sensor adjustment and the automatic gamma adjustment in the PM support mode as described in Chapter 5.

5.5.2 Operation flow

The following is the operation flow.

Advance preparation
A4/LT size papers need to be loaded in the cassette for automatic gamma adjustment. Before performing the EPU replacement mode, load the A4/LT size papers into the cassette, then set the cassette paper size.



	Operation flow	Display transition of control panel	Behavior flow of equipment
Step 0	Load A4 or LT size paper into the cassette, set the cassette paper size, then turn OFF the power. Remove the used EPU from the equipment. Set the developer material in the developing part of the new EPU. Set the EPU in the equipment, then close the front cover.		
Step 1	Turn ON the power while pressing [7] and [START] buttons.	Test mode about 2 min. Adjustment mode Open the front cover and set the toner cartridge. Close the cover.	Starts EPU replacement mode Automatic toner adjustment Rewrites IC chip "New" -> "Used" Clears counters of consumables in the EPU
Step 2	Open the front cover, then set the toner cartridge. Press [OK].	Press [OK]. Set A4/LT paper in the drawer and press [OK]. If it cannot be set, press [CANCEL] to finish the adjustment.	
Step 3	Press [OK].	Place the printed chart with its face down and the darkest area to the left. Then close the original cover or the ADF and press [OK].	Prints the gamma chart
Step 4	Place the printed gamma chart on the original glass, then press [OK].		Reads the gamma chart, then performs automatic gamma adjustment
Step 5	Press the [ON/OFF] button for a few seconds.	Test mode Press and hold the [POWER] button until the power is turned OFF.	Power off

Fig. 5-6

5.5.3 Counters to be cleared

- 08-1550: Drum counter
- 08-1158: Drum cleaning blade counter
- 08-1174: Main charger grid counter
- 08-1182: Needle electrode counter
- 08-1172: Drum separation finger counter
- 08-1336: Recovery blade counter
- 08-1200: Developer material counter
- 08-252: K-PM counter current value
- 08-376: K-PM time counter current value
- 08-5568: Developer material-K PM counter current value
- 08-5569: Developer material-K PM time counter current value

5.5.4 Precautions

- When the power is turned ON in the normal mode or during warming-up in the normal mode, the error code C3D1 appears after a new EPU unit (with new IC chip data) is installed. This indicates that the installed EPU unit has not been set up. Turn the power OFF and then back ON while pressing the digital key [7] and the [START] button simultaneously. Then the equipment enters the EPU replacing mode.

- When the power is turned ON while pressing the digital key [7] and the [START] button simultaneously, the error code C3D2 appears after an old EPU unit (with old IC chip data) is installed. This is for preventing the equipment from detecting that the installed unit is a new one and performing wrong operations such as supply item counter reset. In this case, turn the power OFF and then back ON in the normal mode. The equipment returns to its normal operations.

- If IC chip information is not written as “used IC chip” in step 1, an error (C3D0) is displayed. If it occurs, perform the maintenance of each part according to the Troubleshooting.

- If you press [CANCEL] in step 3, the EPU replacement mode ends without automatic gamma adjustment being performed.

- If [Adjustment error Press [OK] to perform the adjustment again or [CANCEL] to finish it.] is displayed in step 4, this means that the automatic gamma adjustment has failed. Check that the original is placed on the original glass in the correct direction, and press [OK] to start the adjustment again. If you press [CANCEL], the adjustment is cancelled and the EPU replacement mode ends.

- If automatic gamma adjustment is not performed in the EPU replacement mode, the default gamma slope angle is used. To obtain optimal image quality, perform the adjustment according to the procedure in the “Automatic gamma adjustment” in the chapter of "Image Quality Adjustment."

- If the EPU replacement mode does not function, check that the value of 08-4556 (Detection setting of new or old EPU) is set to "1: Enabled.” If this value is set to "0: Disabled", the EPU replacement mode does not function.

5.5.5 To allow the equipment to detect a recycled unit as a new one after replacement

To recycle an old EPU after replacement and also let the equipment detect that it is a new one, the supply items in the EPU and the IC chip data in the EPU board must be replaced.
In this case, the EPU board itself must be replaced with a new one (service part) or the IC chip data must be overwritten using a jig.
If the EPUs are replaced in the PM support mode instead of the EPU replacing mode noted in this chapter, the replacement of the EPU board and the overwriting of the IC chip data are not necessary.
Information in the IC chip can be confirmed with 08-4555 (Information check of new or old EPU memory). The display of [0xff00(NEW)] indicates a new IC chip while [0x00ff(OLD)] indicates a used one. A hexadecimal value ending with "-" indicates that invalid data have been entered. In this case, rewriting with a jig is required.

5.6 Fuser Unit Status Detection Mode

5.6.1 General description

As this equipment complies with the ERU provisions (Easy Replacement Unit), the fuser unit can be removed or reinstalled without any problem.
The fuse (service part) for detection of a new fuser unit can be installed in the unit. The circuit determining the fuser unit status judges whether the fuser unit is new or used by detecting the status of the fuse. In addition, when the circuit detects that a new fuser unit is connected, it supplies current to blow out the fuse to clear the fuser-related life counters.

Note:

If only the supply parts in the fuser unit are to be replaced at PM, perform life counter clearing for each one in the PM support mode as described in this chapter.

5.6.2 Operational flow

(1) When replacing supply parts or the fuser unit at PM, install a new fuse in it.

Note:

If a fuser unit with an installed fuse is selected, replace that the fuse with a new one because it will have been blown out.

(2) Install the fuser unit in the equipment.
(3) Turn the power ON. If the fuser unit is then judged determined to be new, the fuser-related life counters are automatically cleared.

5.6.3 Counters to be cleared

- 08-1246: Fuser roller counter
- 08-1250: Pressure roller counter
- 08-1268: Fuser roller separation finger counter
- 08-1372: Heater and energizing time accumulating counter
- 08-1378: Counter for period of time fuser unit is at ready temperature
- 08-1380: Counter for period of time fuser unit is at printing temperature
- 08-1382: Counter for period of time fuser unit is at energy saving temperature
- 08-1385: Number of output pages (Thick paper 1)
- 08-1386: Number of output pages (Thick paper 2)
- 08-1387: Number of output pages (Thick paper 3)
- 08-1388: Number of output pages (OHP film)
- 08-1411: Counter for envelopes
- 08-1412: Counter for tab paper

5.6.4 Precautions

- When the counters are not cleared, though the fuser unit is new, check that the value of the code 08-4549 is set at "0". If the value is "1", change it to "0", turn the power OFF and then back ON. Then check the counter values again.
  08-4549 (Detection setting of new or old fuser unit) 0: Enabled, 1: Disabled

- When the fuse is not blown out, though the fuser unit is new, a C4C0 error occurs. In this case, replace the fuse and turn the power OFF and then back ON, or remove the fuse and clear the counters in the PM support mode.

5.7 Preventive Maintenance Checklist

The following is the check items of each unit at preventive maintenance.

Symbols/Values used in the checklist

Cleaning	Lubrication/Coating	Replacement	Operation check
A: Clean with alcohol B: Clean with soft pad, cloth or vacuum cleaner	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) CG: Conductive grease (KS-660)	Value: Replacement cycle R: Replace if deformed or damaged	○ After cleaning or replacement, confirm there is no problem.

Notes:

- Perform cleaning and lubricating in the following timing. Lubricate the replacement parts according to the replacement cycle.
  - e-STUDIO205L: every 80,000 sheets
  - e-STUDIO255: every 100,000 sheets
  - e-STUDIO305: every 120,000 sheets
  - e-STUDIO355: every 125,000 sheets
  - e-STUDIO455: every 150,000 sheets
- Values under “Replacement” indicate the replacement cycle for the e-STUDIO205L/255/305/355/455.
- 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.

5.7.1 Scanner

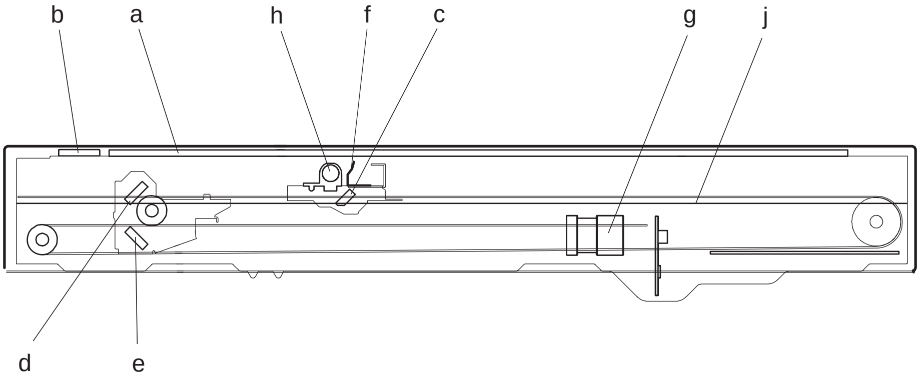


Fig. 5-7

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>
a	Original glass	A or B				22-3
b	ADF original glass	B				22-1
c	Mirror 1	B				
d	Mirror 2	B				
e	Mirror 3	B				
f	Reflector	B				23-5
g	Lens	B				12-13
h	Exposure lamp			R	○	23-3
i	Automatic original detection sensor	B			○	12-16
j	Slide sheet (front and rear)	A or B		R		15-1

* a, b. Original glass/ADF original glass
Clean both sides of the original glass and ADF original glass.

Note:
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.

5.7.2 Laser optical unit

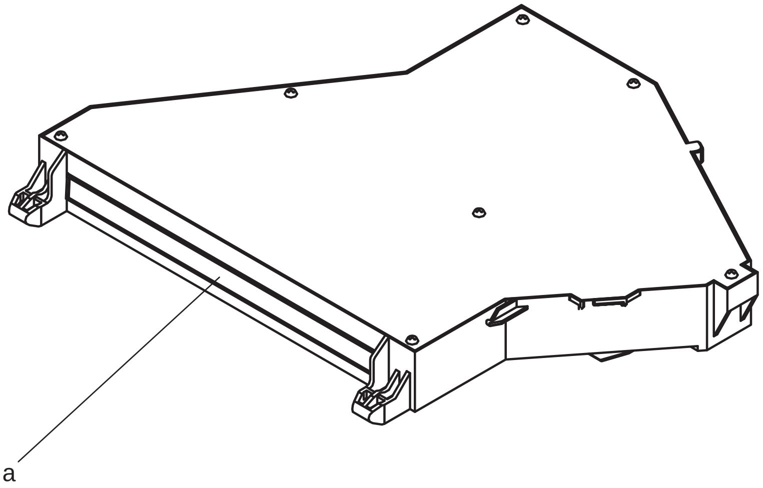


Fig. 5-8

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>
a	Slit glass	B				

5.7.3 Paper feeding section

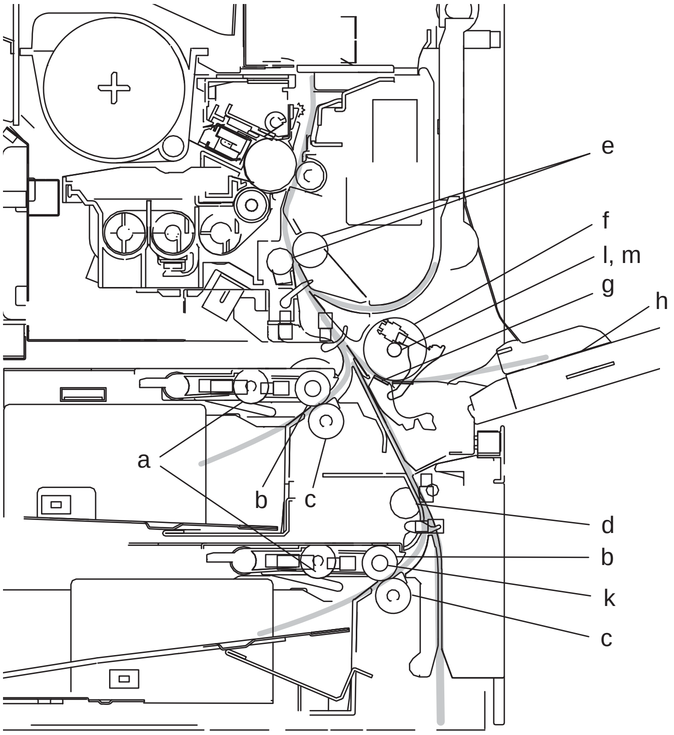


Fig. 5-9

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>
a	Pickup roller			80/80/80/80/80		17-20
b	Feed roller			80/80/80/80/80		17-27
c	Separation roller		AV, W2	80/80/80/80/80		17-6
d	Transport roller (1st/2nd)	A		R		18-3 18-18
e	Registration roller	A		R		13-17 21-1
f	Bypass Feed roller			80/80/80/80/80		20-5
g	Bypass Separation pad		AV, W2	80/80/80/80/80		20-4
h	Bypass tray	B				
i	Paper guide	B				
j	Drive gear (tooth face and shaft)		W1			
k	Plastic bushing bearing		W1			
l	Bypass drive gear (shaft)		W1			
m	Bypass GCB bushing bearing		L			20-8

* c. Separation roller

Apply an even coat of grease (Alvania No.2) to all round the inside of the spring.
When replacing the separation roller, apply adequate amount of white grease (Molykote HP-300) on the places of the holder shown in the figure (4 places).

Note:

Make sure that the grease does not adhere to the roller surface. Wipe it off with alcohol if adhered.

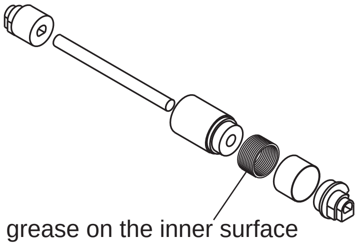

Apply grease on the inner surface

Fig. 5-10

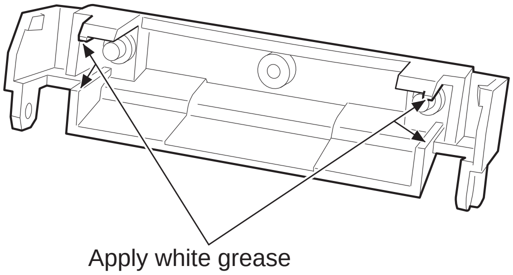

Apply white grease

Fig. 5-11

* e. Registration roller (Pusher)

Apply 2 rice-sized grains of white grease (Molykote EM-30L) to the 2 contact points of the registration roller (rubber) and the pusher.

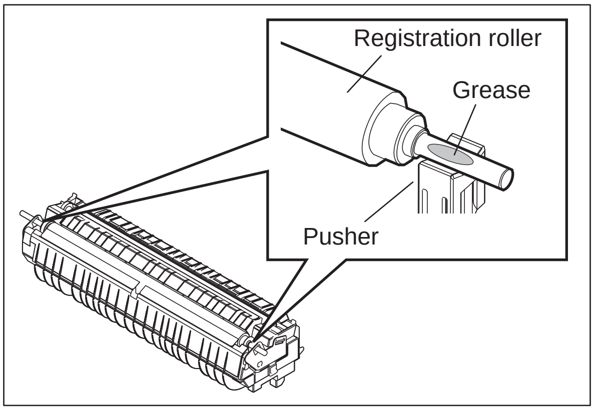

Registration roller
Grease
Pusher

Fig. 5-12

* j, l. Drive gears in the paper feeding section (teeth of gears and shafts)

Apply some white grease (Molykote EM-30L) to the teeth of gears and shafts of the drive gears. When disassembling the driving section and applying grease at PM, follow the notes as below.

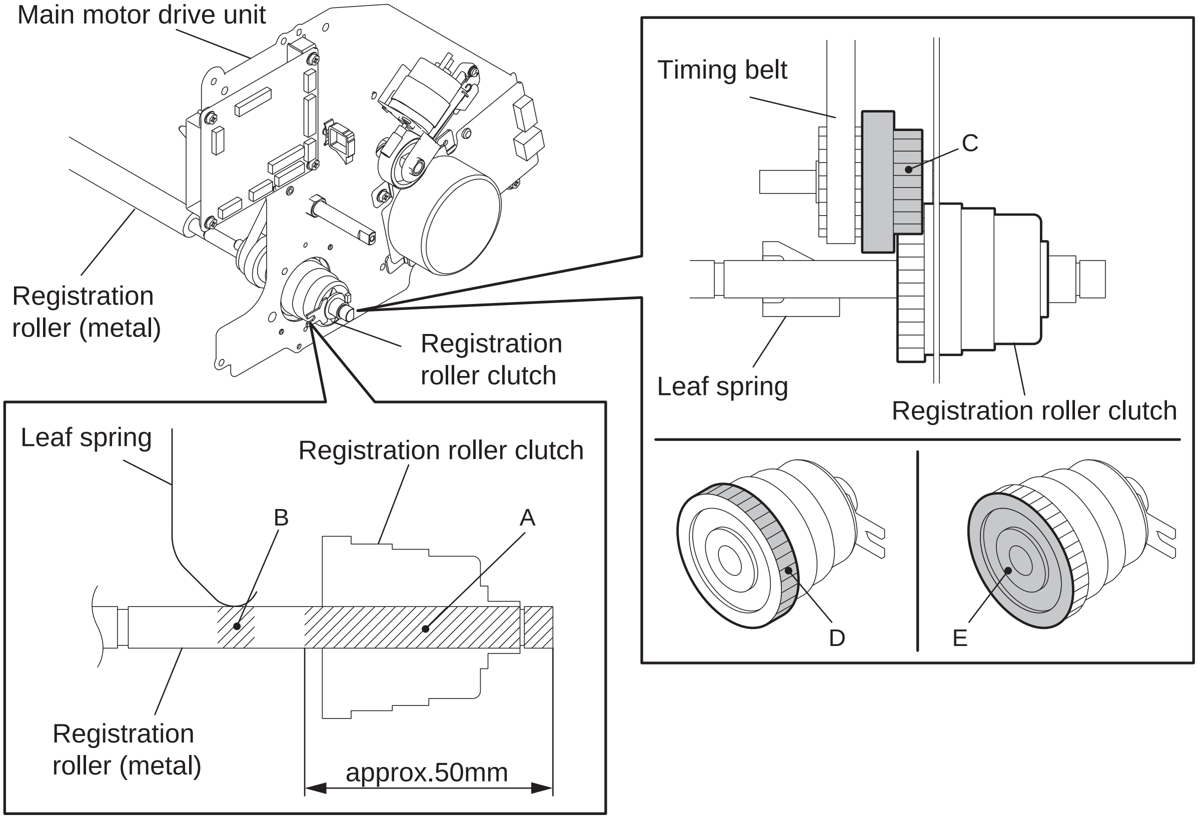

Main motor drive unit
Registration roller (metal)
Registration roller clutch
Timing belt
C
Leaf spring
Registration roller clutch
Leaf spring
Registration roller clutch
B
A
Registration roller (metal)
approx.50mm
D
E

Fig. 5-13

A: Do not apply grease to the installation section of the registration roller clutch. Wipe off any grease.
B: Do not wipe off the conductive grease applied to the contact section of the leaf spring and the registration roller (metal).
C: Do not apply grease to gear teeth which contact the registration roller clutch gear.
D: Apply a blob of grease (the size of a rice grain) to the gear teeth of the registration roller clutch. Be careful not to use too much.
E: Do not apply grease to the side of the registration roller clutch gear. Wipe off any grease.

Note:

Make sure that oil is not running over or scattered around as the gear is rotated coming into the clutch after applying Molykote to the gear which is located near the clutch. The quantity of Molykote should be smaller than that to be applied to the other parts.

5.7.4 Drum related section

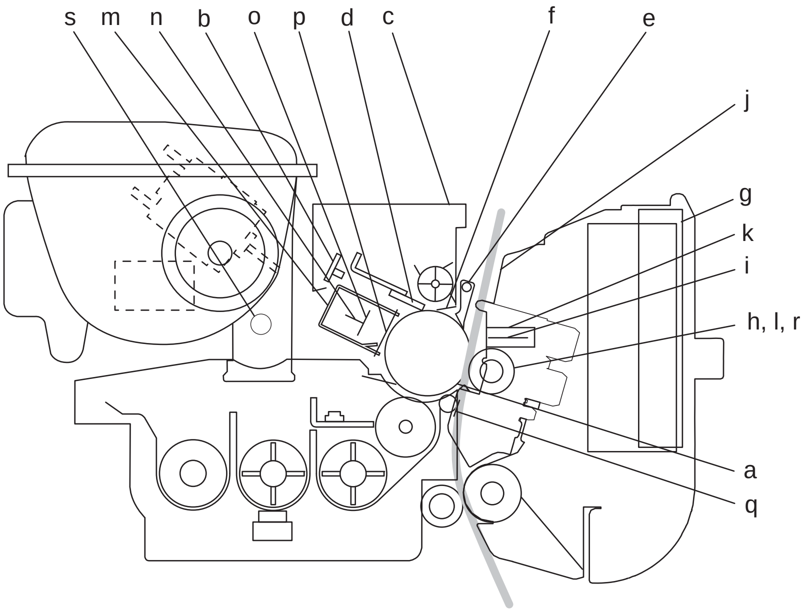


Fig. 5-14

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>
a	Photoconductive drum			80/100/120/125/ 150		
b	Discharge LED	B				
c	Whole cleaner unit	B				
d	Drum cleaning blade			80/100/120/125/ 150		27-8
e	Separation finger for drum			80/100/120/125/ 150		27-12
f	Recovery blade	B		80/100/120/125/ 150		27-10
g	Ozone filter			240/200/240/250/ 300		13-14
h	Transfer roller			80/100/120/125/ 150		26-5
i	Separation needle	B		R		26-11
j	Transfer guide	B				
k	Separation cover	B				26-12
l	Transfer roller guide roller	B				26-8
m	Main charger case	B				
n	Needle electrode			80/100/120/125/ 150		25-6
o	Main charger wire cleaner			R	○	27-8
p	Main charger grid			80/100/120/125/ 150		25-11

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>
q	Front-transfer guide	B				
r	Transfer roller gear	B				26-9
s	Toner cartridge drive gear shaft		W1			
t	Contact point of terminals	B				

* d. Drum cleaning blade

Since the edge of the blade is vulnerable and can be easily damaged by factors such as the adherence of paper dust. Replace the cleaning blade with new ones if poor images are printed due to the damaged blade regardless of the number of output pages if which have been made.

* e. Separation fingers for drum

The paper jam may be caused if the tip of the separation finger is damaged or deformed. 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.
If any mark which was made by the finger appears on the printed image, clean the tip of the finger.

Notes:

- Wipe the tip of the finger lightly with a dry cloth trying not to deform it.
  Do not leave the lint on the tip.
- Apply patting powder to the tip of the fingers and drum surface after replacing or cleaning them to reduce the load on the drum surface by the finger.

* f. Recovery blade

Replace the recovery blade regardless the number of output pages if the edge of the blade get damaged.

When cleaning the inside of the cleaner unit, be careful of the following in order not to damage the Mylar attached on the toner recovery auger:

- Do not use an air blower for cleaning (Use a vacuum cleaner).
- When using a vacuum cleaner, be careful not to hit the nozzle of the vacuum cleaner to the Mylar.
- When rotating the toner recovery auger, rotate it only in the same direction as that for transporting toner.

* h. Transfer roller

If there is damage on the roller, replace it even if the replacement time has not come.

* i. Separation needle

When cleaning the separation needle, be careful not to bend the needlepoint or leave lint on the needlepoint. If removing the dust is difficult, use brush to remove it.

* j. Transfer guide

If there is paper dust in the whole transfer unit including the transfer guide, wipe them with a dry cloth. If the transfer guide is removed, clean the wall inside the unit.

* m, n. Main charger case/Needle electrode

Clean the main charger case with a cloth soaked in water and squeezed tightly, and then wipe them with a dry cloth.
Clean the needle electrode only with the main charger cleaner.
Replace the needle electrode with a new one if it is damaged regardless of the number of output pages which have been mode.

Note:

Do not touch the needle electrode with your bare hand when attaching the needle electrode.

5.7.5 Developer section

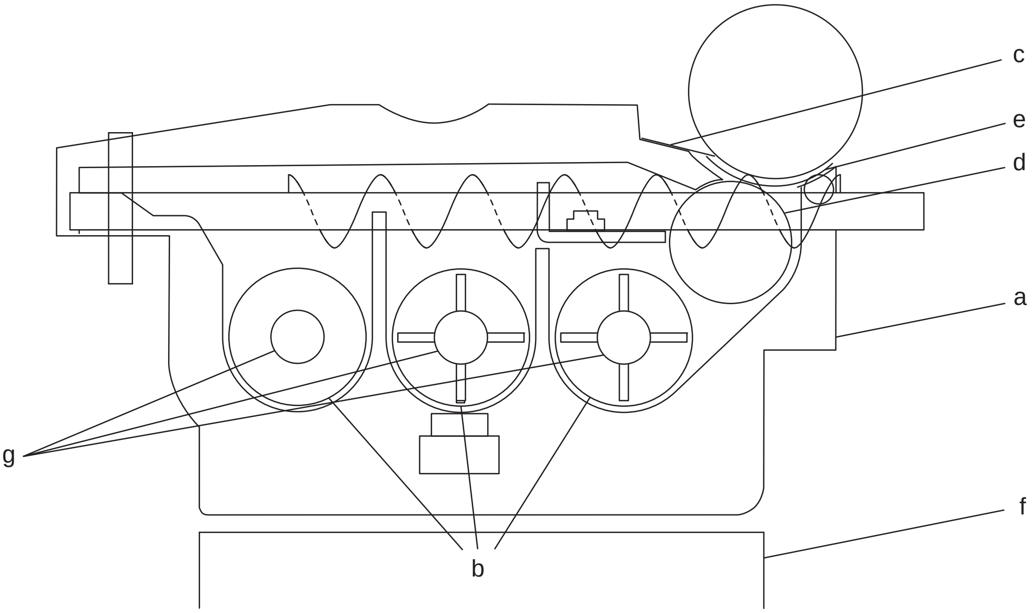


Fig. 5-15

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>
a	Whole developer unit	B				
b	Developer material			80/100/120/125/ 150		
c	Front shield	B		R		28-32
d	Guide roller	B				29-17
e	Side shield	B		R		28-30 28-31
f	Developer unit lower stay	B				
g	Oil seal (6 pcs.)		AV	480/600/720/750/ 900		28-1 29-8 29-12

* a. Do not use alcohol for cleaning the developer unit.

* b. Developer material

After replacing the developer material, be sure to perform the auto-toner adjustment.

📖 P.3-2 "3.2 Adjustment of Auto-Toner Sensor"

* g. Oil seal

Mixer unit (Shafts of mixers 1, 2 and 3) 6 pcs.

During replacement, coat the oil seal with grease (Alvanian No.2).

(1) Push in a new oil seal parallel to the mounting hole section of the developer frame or outside of the holder.
  - * Pay attention to the direction in which the oil seal is attached. (See figure on right.)

(2) Apply an even coat of grease to the inside of the oil seal.
  - Amount: About two small drops

(3) Wipe off any grease the exudes from the inside.

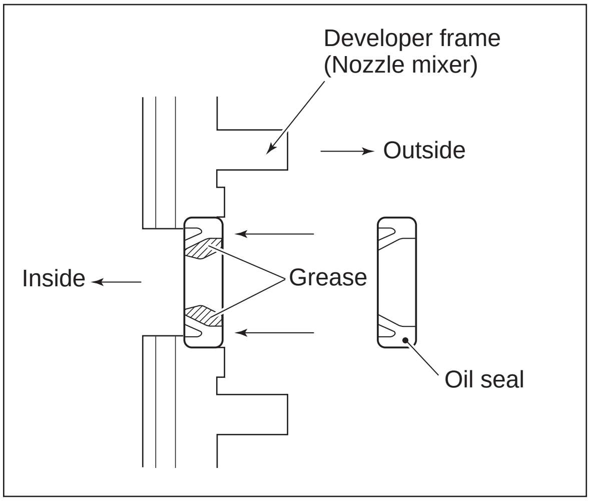

Developer frame
(Nozzle mixer)
Outside
Inside
Grease
Oil seal

Fig. 5-16

5.7.6 Fuser unit

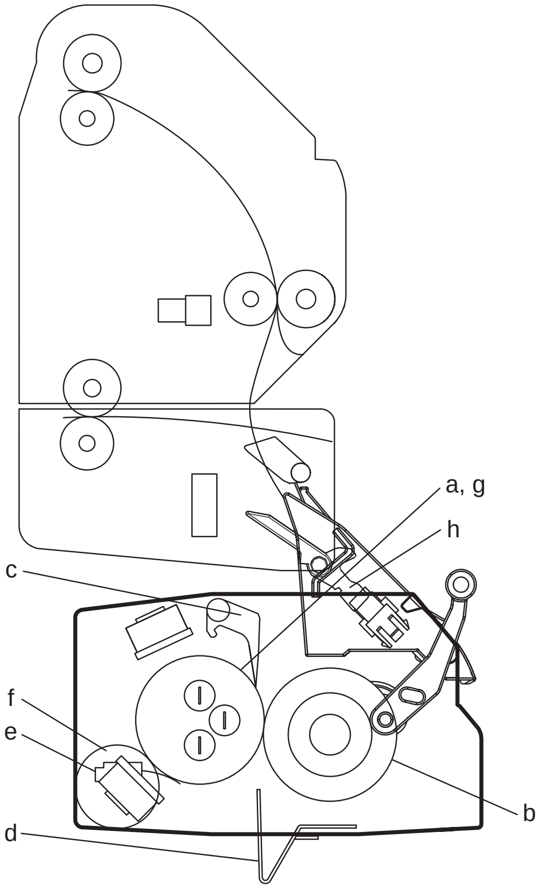


Fig. 5-17

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>
a	Fuser roller		W2	240/200/240/250/300		31-15
b	Pressure roller			240/200/240/250/300		32-8
c	Separation finger for fuser roller	A		80/100/120/125/150		31-22
d	Fuser unit entrance guide	A				32-11
e	Thermistor (3 pcs.)	A		R		31-12 31-13
f	Drive gear (tooth face and shaft)		W2	R		31-11
g	Fuser roller gear			R		31-18
h	Exit sensor actuator	A				32-25

* a. Fuser roller

When replacing the fuser roller, apply small amount of grease on the inside of fuser roller bearings.

* c. Separation fingers for fuser roller

The paper jam may be caused if the tip of the finger is damaged or deformed. 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.

* e. Thermistor

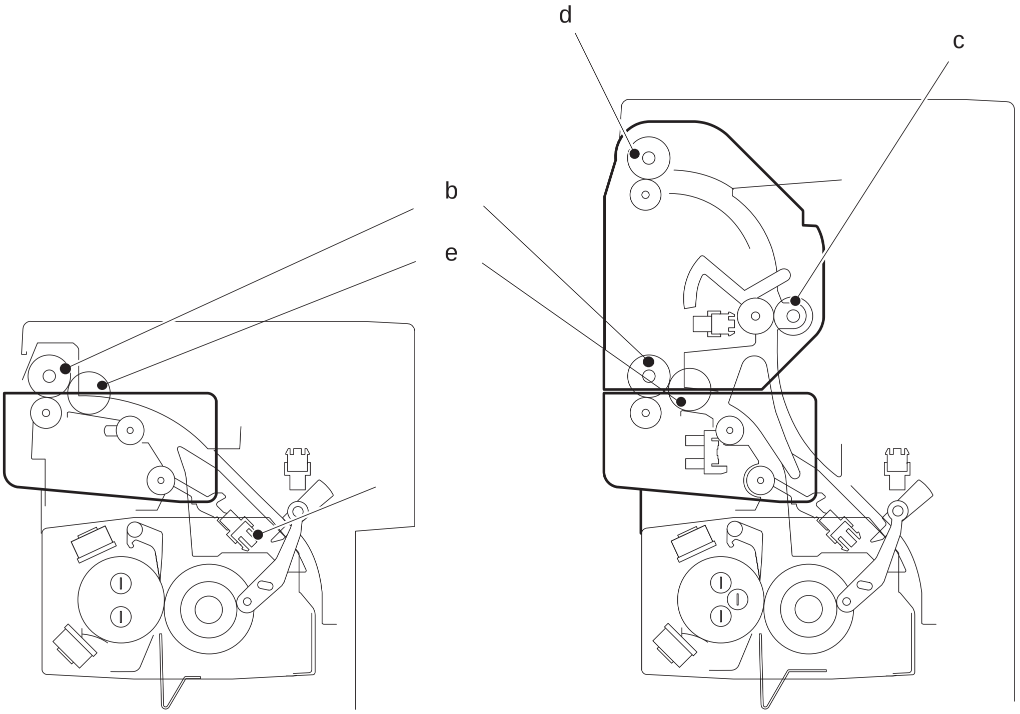
Clean the thermistor with alcohol if the toner or dirt is sticking to it when the fuser roller is replaced.

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.

* h. Exit sensor actuator

If toner has adhered, wipe it off with alcohol.

5.7.7 Paper exit section / Reverse section



[e-STUDIO205L/255/305]   [e-STUDIO355/455]

Fig. 5-18

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>
a	Exit/reverse guide	A				
b	Exit roller	A		R		33-3
c	Transport roller	A		R		34-8
d	Reverse roller	A		R		34-15
e	Drive gear		SI			33-19
f	Conductive bushing		CG			33-6

* c, d. e-STUDIO355/455 only

5.7.8 Automatic duplexing unit

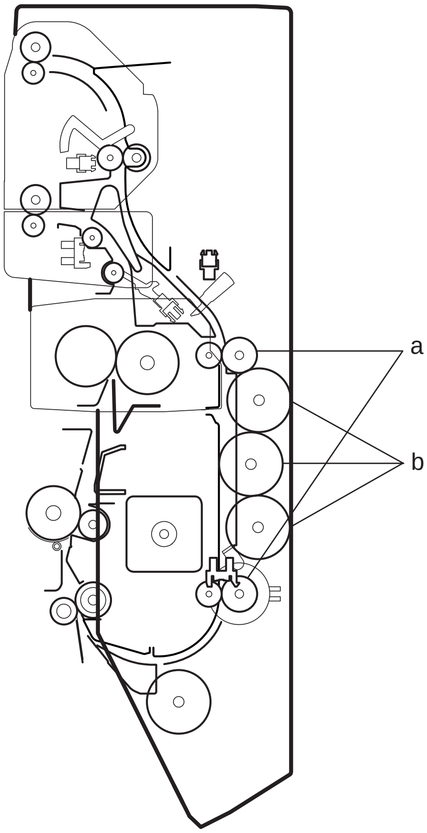


Fig. 5-19

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>
a	Transport roller (upper and lower)	A		R		35-2 35-3
b	Drive gear		W1			35-17 35-18

5.7.9 PFP (KD-1025)

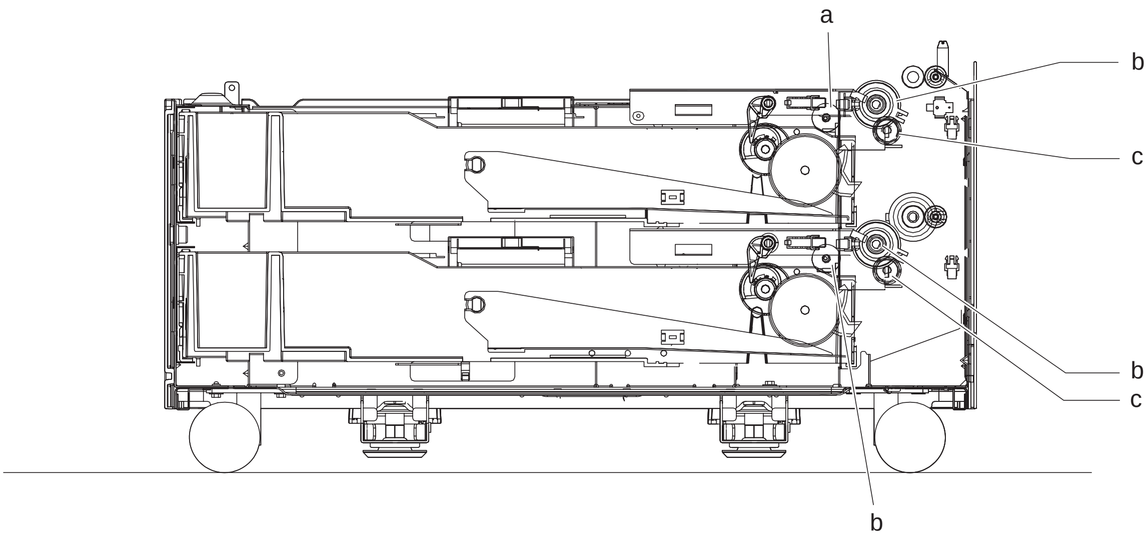


Fig. 5-20

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>
a	Pickup roller (upper/lower)	A		80/80/80/80/80		6-20
b	Feed roller (upper/lower)	A		80/80/80/80/80		6-27
c	Separation roller (upper/ lower)	A	AV, W2	80/80/80/80/80		6-6
d	Drive gear (tooth face)		W1			

* c. Separation roller

Apply an even coat of grease (Alvania No.2) to all round the inside of the spring.
When replacing the separation roller, apply adequate amount of white grease (Molykote HP-300) on the places of the holder shown in the figure (4 places).

Note:

Make sure that the grease does not adhere to the roller surface. Wipe it off with alcohol if adhered.

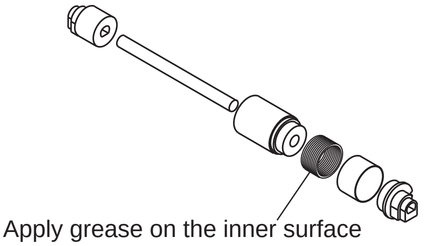


Fig. 5-21

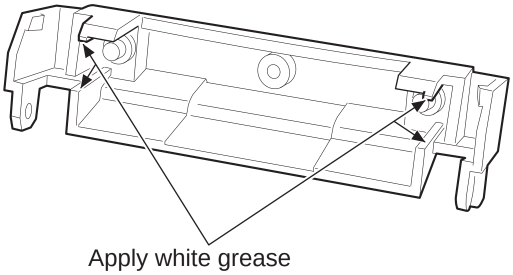


Fig. 5-22

5.7.10 LCF (KD-1026)

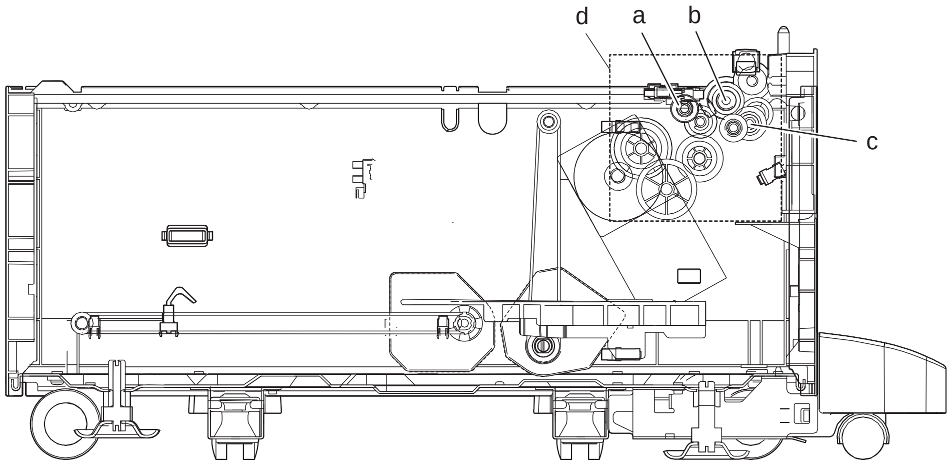


Fig. 5-23

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>
a	Pickup roller	A		160/160/160/160/ 160		
b	Feed roller	A		160/160/160/160/ 160		
c	Separation roller	A		160/160/160/160/ 160		
d	Drive gear		W1			

5.7.11 Job separator (MJ-5004)

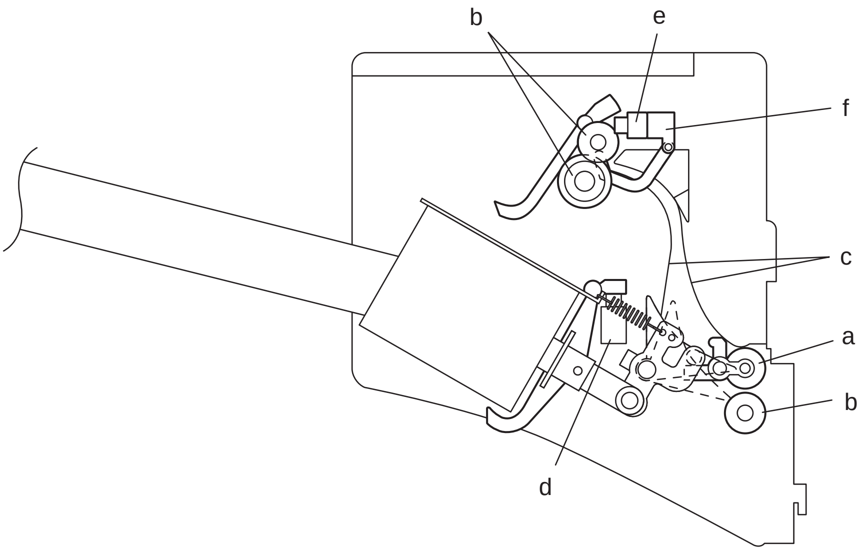


Fig. 5-24

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>
a	Idling roller	A or B	W1			
b	Other rollers	A or B				
c	Paper guide	A or B				
d	JSP upper stuck sensor	B			○	1-51
e	JSP lower stuck sensor	B			○	1-12
f	JSP paper jam sensor	B			○	

* a. Idling roller

Apply one-rice-grain-amount of white grease (Molykote EM-30L) to each part A in the figure below.

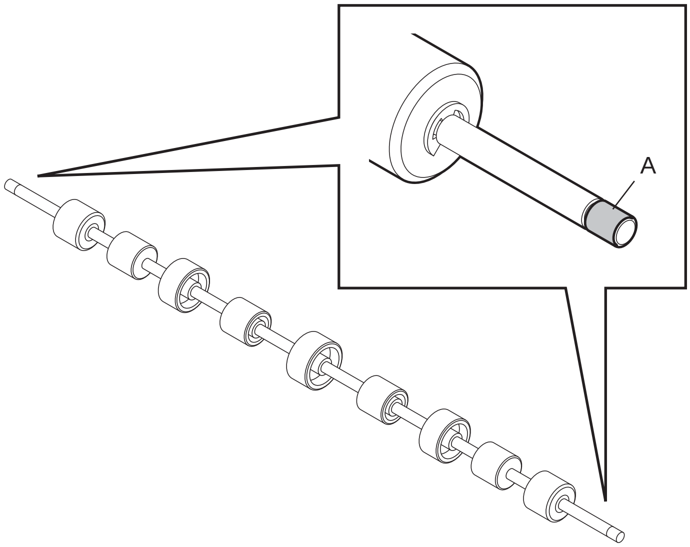


Fig. 5-25

5.7.12 Offset tray (MJ-5005)

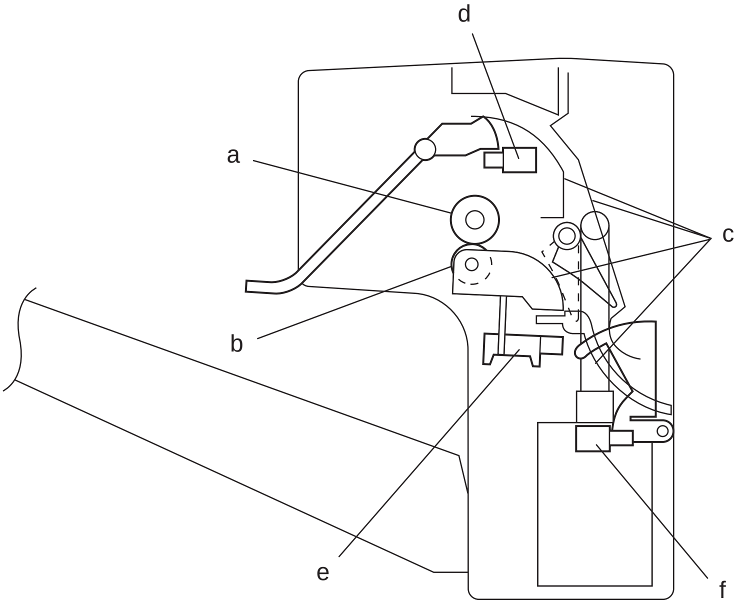


Fig. 5-26

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>
a	OCT separator roller	A or B	W1, FL			2-22
b	Other rollers	A or B				2-39
c	Paper guide	A or B				
d	OCT stuck sensor	B			○	1-13
e	OCT home position sensor	B			○	
f	OCT feed sensor	B			○	

* a. OCT separator roller

Apply one-rice-grain-amount of FLOIL (GE-334C) to the part A in the figure below. Also apply three-rice-grain-amount of white grease (Molykote EM-30L) to each part B.

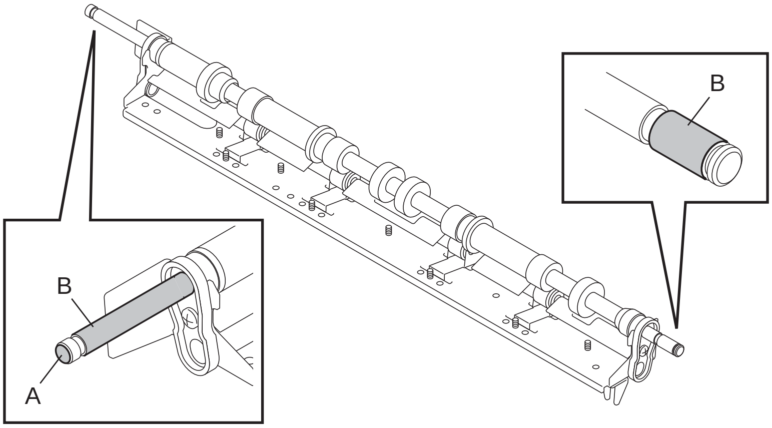


Fig. 5-27

5.7.13 RADF (MR-3021/3022)

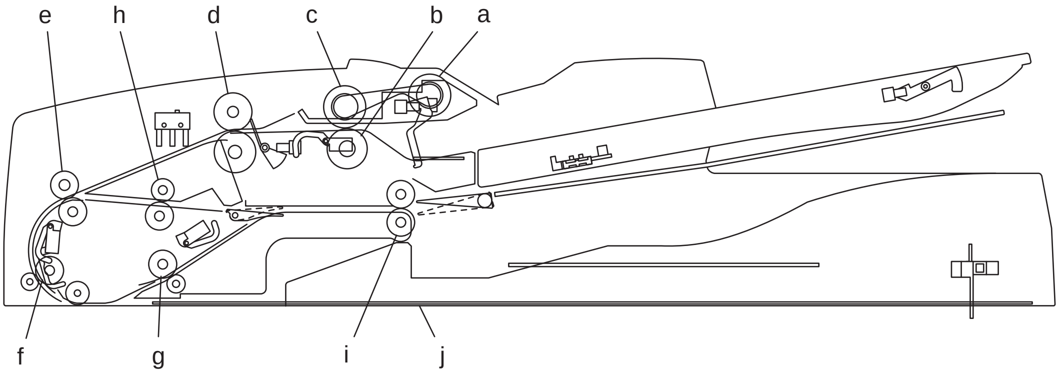


Fig. 5-28

Items to check		Cleaning	Lubrication/ Coating	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>
a	Pickup roller	A		120		5-1
b	Separation roller	A		120		4-10
c	Feed roller	A		120		5-1
d	Registration roller	A				
e	Intermediate transfer roller	A				
f	Front read roller	A				
g	Rear read roller	A				
h	Reverse registration roller	A				
i	Exit/reverse roller	A				
j	Platen sheet	A or B				

5.7.14 Hole punch unit (MJ-6004)

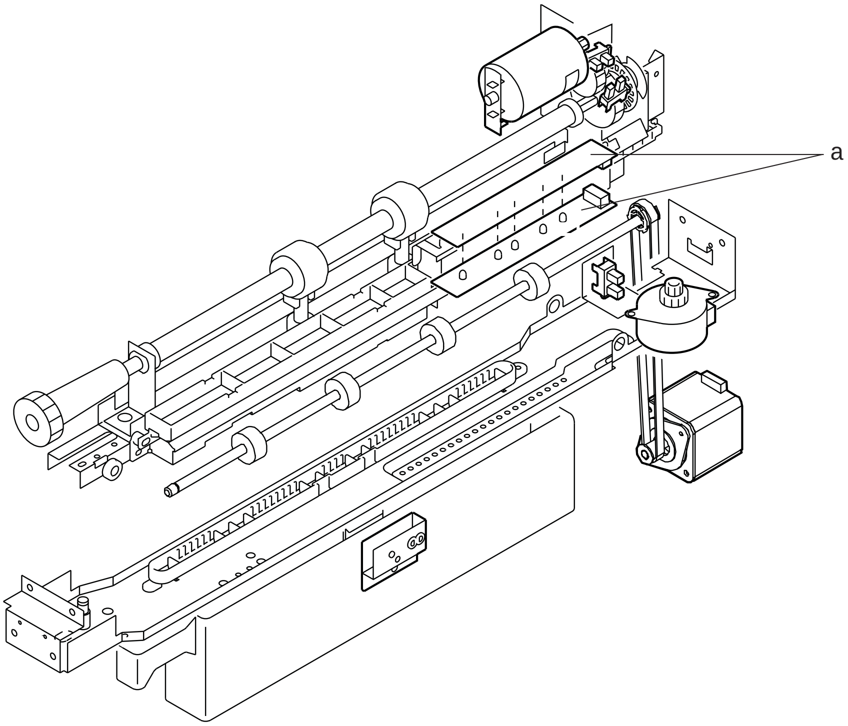


Fig. 5-29

Items to check		Cleaning	Lubrication/ Coating	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>
a	Transmittance sensor	B				

5.7.15 Finisher (MJ-1025)

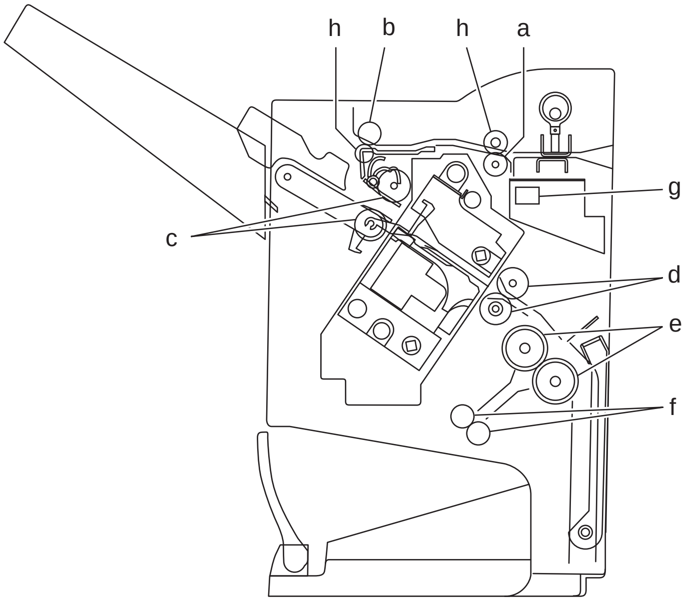


Fig. 5-30

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>
a	Feed roller	A or B				
b	Delivery roller	A or B				
c	Stack delivery roller	A or B				
d	Stack feed roller	A or B				
e	Paper fold roller	A or B				
f	Bind delivery roller	A or B				
g	Waste full detection sensor	B				
h	Feeding assembly member	A or B				
i	Paper guide	A or B				

5.7.16 Finisher (MJ-1031)

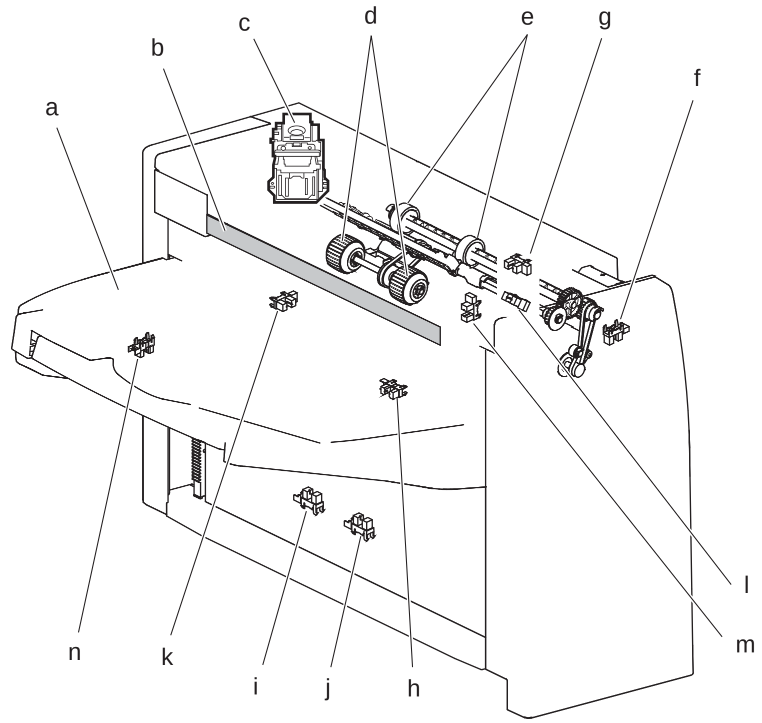


Fig. 5-31

Items to check		Cleaning	Lubrication	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>
a	Stack tray	B				
b	Discharge brush	B				
c	Stapler	B		R		
d	Offset roller	A		R		
e	Feed roller	A				
f	Offset HP sensor	B		R		
g	Inlet sensor	B		R		
h	Tray paper sensor	B		R		
i	Tray 500 sensor	B		R		
j	Tray lower limit sensor	B		R		
k	Paper surface sensor	B		R		
l	Handing tray paper sensor	B		R		
m	Stack slide HP sensor	B		R		
n	Tray clock sensor	B		R		

5.7.17 Finisher (MJ-1101)

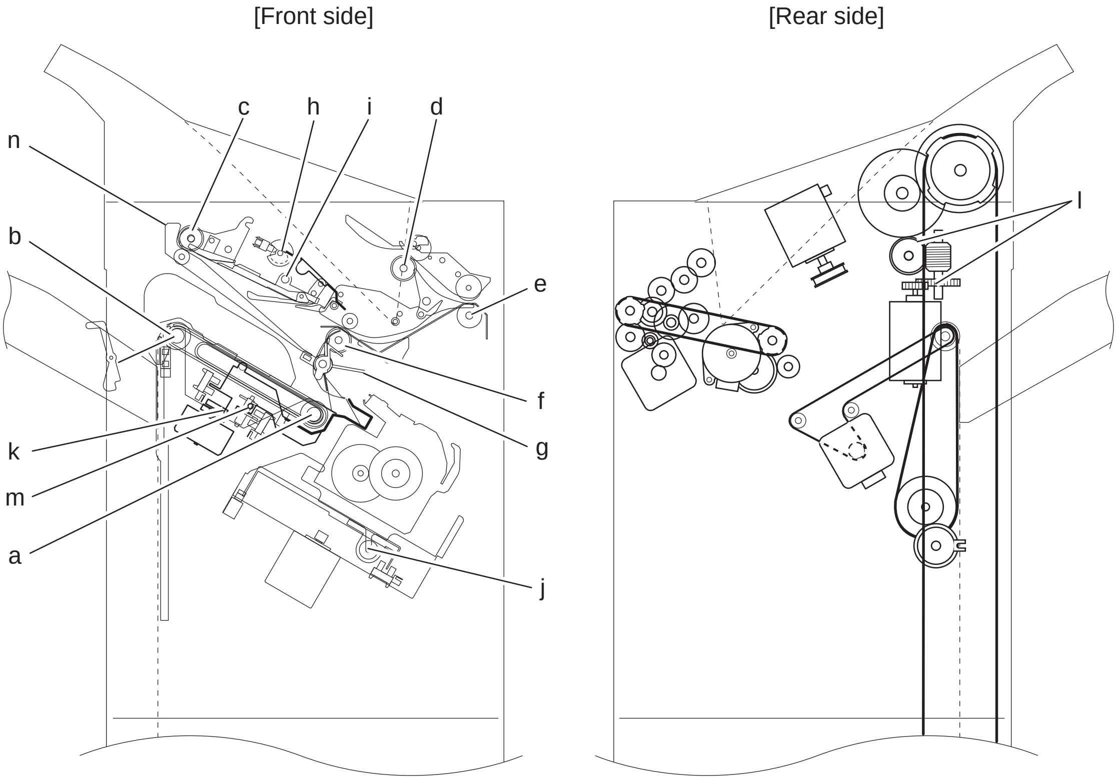


Fig. 5-32

Items to check		Cleaning	Lubrication	Replacement (x1,000)	Operation check	Parts list (P-I)
a	Stack transport roller-1	A				
b	Stack transport roller-2	A				
c	Buffer roller	A				
d	Exit roller	A				
e	Entrance roller	A				
f	Transport roller	A				
g	Paddle			1,000		
h	Paper holder cam		W3			
i	Buffer tray shaft		W3			
j	Stapler carrier shaft		W3			
k	Rack & pinion gear (Aligning plate)		W3			
l	Movable tray drive gear		W3			
m	Buffer tray guide		W3			
n	Finishing tray shaft		W3			

*h. Paper holder cam

Apply an adequate amount of white grease (Molykote EM-30L) all around the paper holder cam.

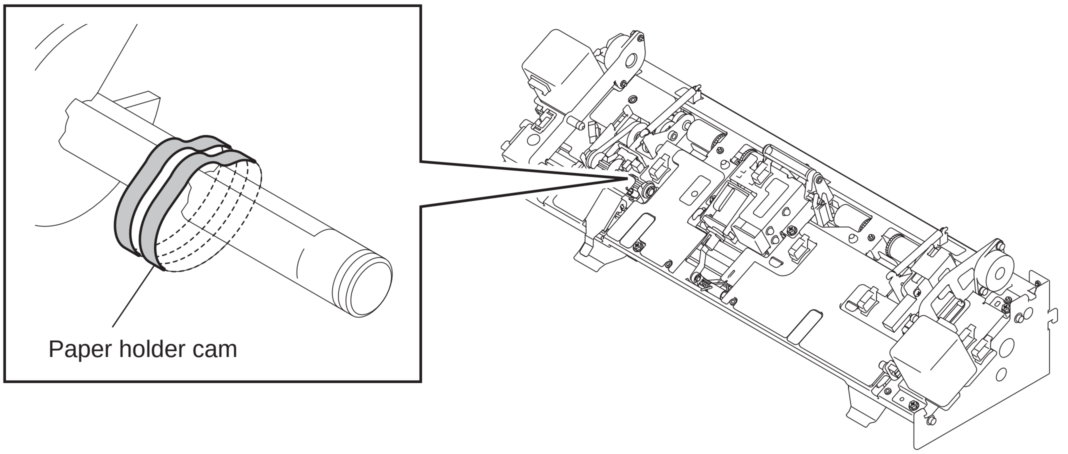

Paper holder cam

Fig. 5-33

*i. Buffer tray shaft

Apply an adequate amount of white grease (Molykote EM-30L) to the entire buffer tray shaft.

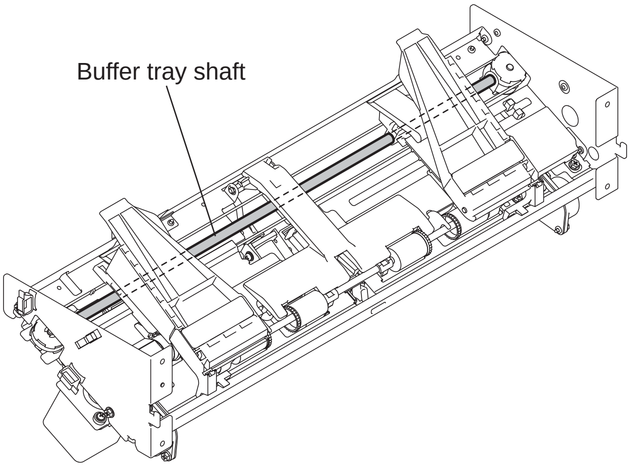

Buffer tray shaft

Fig. 5-34

*j. Stapler carrier shaft

Apply an adequate amount of white grease (Molykote EM-30L) to the entire stapler carrier shaft.

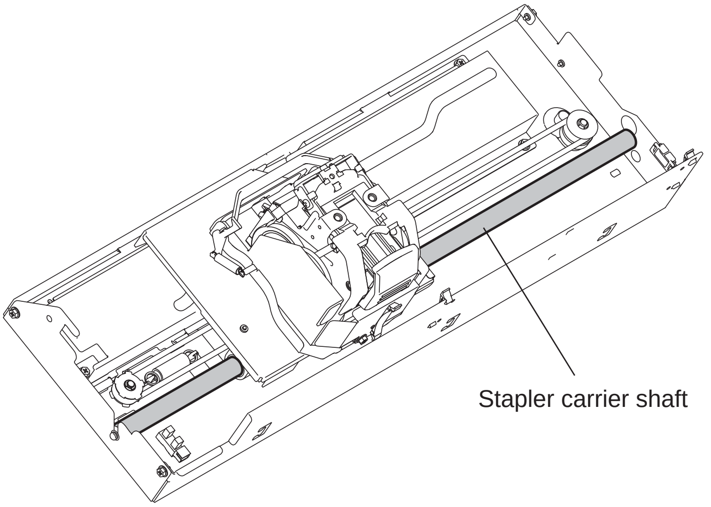


Fig. 5-35

*k. Rack gear, pinion gear (Aligning plate)

*l. Movable tray drive gear

Apply an adequate amount of white grease (Molykote EM-30L) to the gear teeth of the gear-A and gear-B.

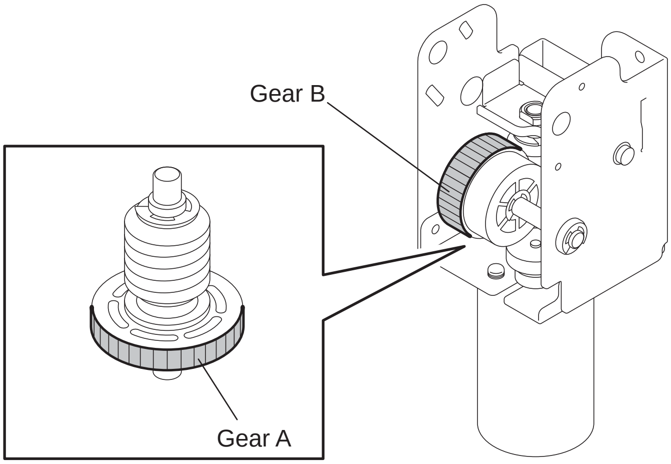


Fig. 5-36

*m. Buffer tray guide

Apply an adequate amount of white grease (Molykote EM-30L) to the entire buffer tray guide (inside of the folded section of the plate).

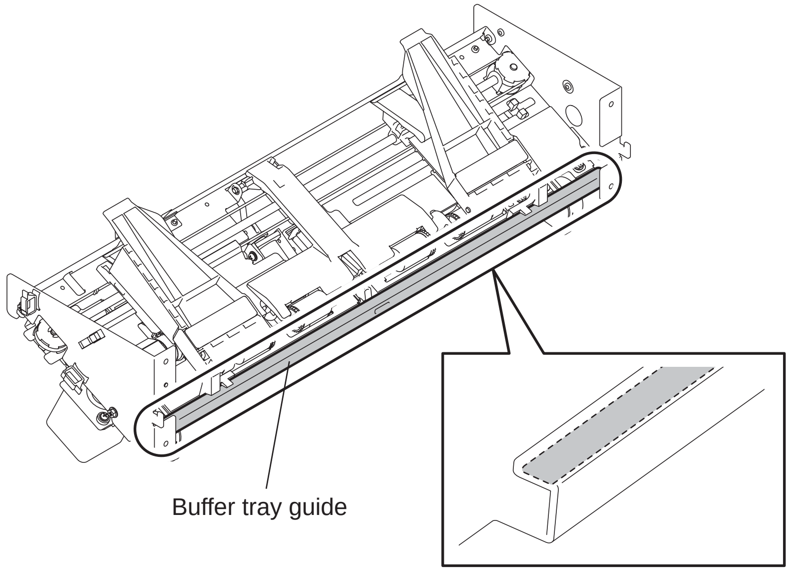


Fig. 5-37

*n. Finishing tray shaft

1. Take off the metal shield plate. If the hole punch unit is installed, take it off beforehand.
2. Apply oil as follows through the opening which shows up when the metal shield plate has been removed.

Apply an adequate amount of white grease (Molykote EM-30L) to the gear teeth of the rack and pinion gears which drive the aligning plate, and the entire finishing tray shaft.

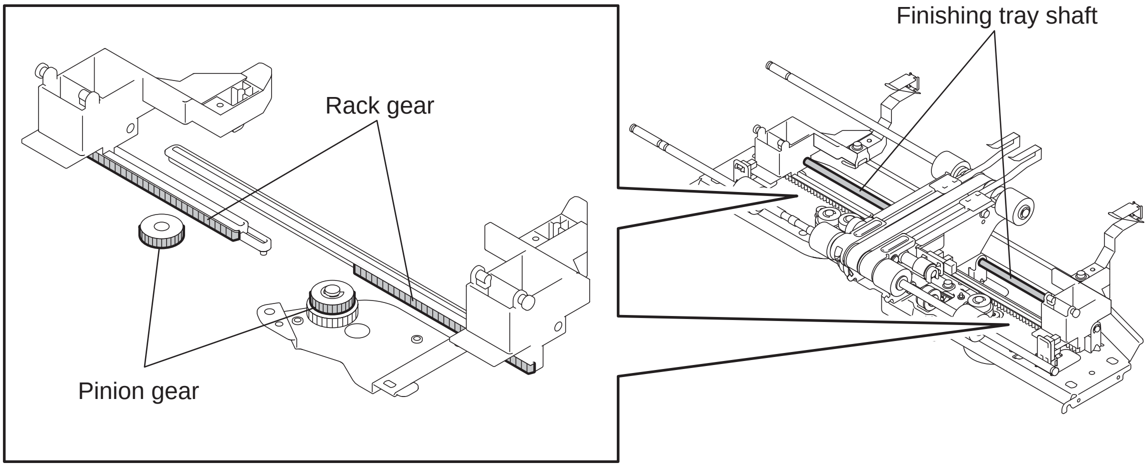


Fig. 5-38

5.8 Precautions for Storing and Handling Supplies

5.8.1 Precautions for storing TOSHIBA supplies

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
   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. Fuser roller / Pressure roller
   Avoid places where the rollers may be subjected to high humidity, chemicals and/or their fumes.

5. Paper
   Avoid storing 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.

6. Transfer roller
   Transfer roller should be stored in a place where the ambient temperature is between 10°C to 35°C (no condensation). Be sure to avoid places where transfer roller may be subjected to high humidity, chemicals and/or their fumes.

5.8.2 Checking and cleaning of photoconductive drum

1. Use of gloves
   If fingerprints or oil adhere to the drum surface, the property of the photoconductive drum may degrade, affecting the quality of the print image. So, do not touch the drum surface with your bare hands.

2. Handling precautions
   As the photoconductive drum surface is very sensitive, be sure to handle the drum carefully when installing and removing it so as not damage its surface.
   Be sure to apply “patting powder” (lubricant) to the entire surface of the drum (including both ends of the drum where OPC is not coated) when replacing the drum. When the drum has been replaced with a new one, the drum counter (the Setting Mode 08-1150-0, 3, 6 and 7) must be cleared to 0 (zero).
   This clearing can be performed in the PM Support Mode.

   Notes:
   - Application of patting powder is for reducing the friction between the drum and cleaning blade. If the application of patting powder is neglected, the drum and cleaning blade may be damaged.
   - When paper fibers or thread adhere to the cleaning blade edge, they may reduce the cleaning efficiency and, in addition, may damage the blade and the drum. Be sure to remove any fibers found adhering to the blade.

3. Installation of the equipment and storage of drum
   Avoid installing the equipment where it may be subjected to high temperature, high humidity, chemicals and/or their fumes.
   Do not place the light 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.

4. Cleaning the drum
   At preventive maintenance calls, wipe the entire surface of the drum clean using the designated cleaning cotton. 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.

5. Scratches on photoconductive drum surface
   If the surface is scratched in such a way that the aluminum substrate is exposed, no print image will be produced on this area. In addition, the cleaning blade will be damaged so replacement with a new drum will be necessary.

6. Collecting used photoconductive drums
   Regarding the recovery and disposal of used photoconductive drums, we recommend following the relevant local regulations or rules.

5.8.3 Checking and cleaning of drum cleaning blade

1. 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.

2. Cleaning procedure
   Clean the blade edge with a cloth moistened with water and squeezed lightly.

   Note:

   - Remove the cleaning and recovery blades before sucking the dirt from the cleaner.
   - It should be cleaned by suction since the PET sheet attached to the toner recovery auger may be damaged if air blowing is used. Be careful not to allow the suction nozzle to contact with the PET sheet. This may damage the PET sheet.

5.8.4 Checking and cleaning of fuser roller and pressure roller

1. Handling precautions
   - Fuser roller
     Do not leave any oil (fingerprints, etc.) on the fuser roller.
     Be careful not to allow any hard object to hit or rub against the fuser roller, or it may be damaged, possibly resulting in poor cleaning.

   - Pressure roller
     Do not leave any oil (fingerprints, etc.) on the pressure roller.

2. Checking
   - Check for stain and damage on the fuser and pressure rollers, and clean if necessary.
   - Check the separation guide and fingers and check for chipped tips.
   - Check the thermistors for proper contact with the pressure roller.
   - Check the fused and fixed condition of the toner.
   - Check the gap between the entrance guide and pressure roller.
   - Check the fuser roller for proper rotation.

3. Cleaning procedure
   When fuser roller and pressure roller become dirty, they will cause jamming. If this happens, wipe the surface clean with a piece of soft cloth. For easier cleaning, clean the roller white they are still warm.

   Note:

   Be careful not to rub the fuser roller and pressure roller surface with your nails or hard objects because it can be easily damaged. Do not use silicone oil on the fuser roller and pressure roller.

5.8.5 Checking and replacing the transfer roller

1. Handling precautions
   - Wear gloves to avoid touching the drum surface with your bare hands.
   - Do not allow oil or fingerprints to come in contact with the surface.
   - Do not hit or scratch the surface.
   - Make sure you do not get any bits of thread, etc. on the surface.
   - Do not allow solvent, such as thinner, to come in contact with the surface.
   - Keep away from a source of heat.

2. Cleaning procedure
   If bits of thread or similar adhere to the surface, remove them with gloves or a pair of tweezers. Be careful that the roller surface is not damaged by the points of the tweezers.

5.9 PM KIT

A PM kit is a package that includes replacement parts for each unit.

Item	Product name	Part name		Qty.
		e-STUDIO205L/255/305	e-STUDIO355/455	
DEV-KIT-4530	Drum cleaning blade	BL-2320D		1
	Recovery blade	BLADE-REC		1
	Separation finger for drum	SCRAPER-371		2
	Main charger grid	GRID-CH-M-371		1
	Needle electrode	-	CH-M-470	1
		CH-M	-	1
	Transfer roller	CR-4530TR		1
	Developer material	D-4530		1
FR-KIT-4590	Fuser roller	-	HR-4530-U	1
	Pressure roller	-	HR-4530-L	1
	Separation finger for fuser roller	-	SCRAPER-16X	5
	Ozone filter	-	FILTER-OZONE-F470	1
FR-KIT-3020	Fuser roller	HR-4530-U	-	1
	Pressure roller	HR-3000-L	-	1
	Separation finger for fuser roller	SCRAPER-16X	-	5
	Ozone filter	FILTER-OZONE-H160	-	1
PM-KIT-ROLLER *1	Feed roller	ROLLER-PICK-AT		1
	Transport roller	ASYS-ROLL-SPT		1
	Separation roller	K-ROLL-SPT		1
DF-KIT-3018 *2	Pickup roller	ASYS-ROL-FEED		1
	Feed roller	ASYS-ROL-FEED		1
	Separation roller	ASYS-ROL-RET		1
ROL-KIT-1026 *3	Pickup roller	ASYS-ROL-PICK-KD1026		1
	Feed roller	ASYS-ROL-FEED-KD1026		1
	Separation roller	ASYS-ROL-RET-KD1026		1

* 1. For KD-1025 (PFP) and MY-1033 (Drawer Module)

* 2. For MR-3021/3022 (RADF)

* 3. For KD-1026 (LCF)

5.10 Maintenance Part List

The parts used for the maintenance of this equipment are as follows.

No.	Item	Purpose	Parts list <P-I>
1	Door switch jig	Used to adjust high-voltage transformer.	101-1
2	Brush	Cleaning inside of the equipment	101-2
3	Doctor sleeve jig	Measuring the gap between the development sleeve and the doctor blade	101-3
4	Developer material nozzle	Pouring the developer material (attached to the developer bottle)	101-4
5	Wire holder jig	Fixing the wire at the assembly of the carriage wire	101-5
6	Belt tension jig	Adjusting the belt tension at the installation of the scan motor	101-6
7	High-voltage transformer jig	Used to adjust high-voltage transformer.	101-7
8	Downloading jig (DLM board)	Updating the scanner/options ROM	102-1
9	Download JIG-2 (6 Flash ROMs)	Updating the system/engine ROM	102-2
10	ROM writer adapter (For 1881)	Writing the data of PWA-DWNLD-350-JIG2	102-4
11	ROM writer adapter (For 1931)	Writing the data of PWA-DWNLD-350-JIG2	102-5

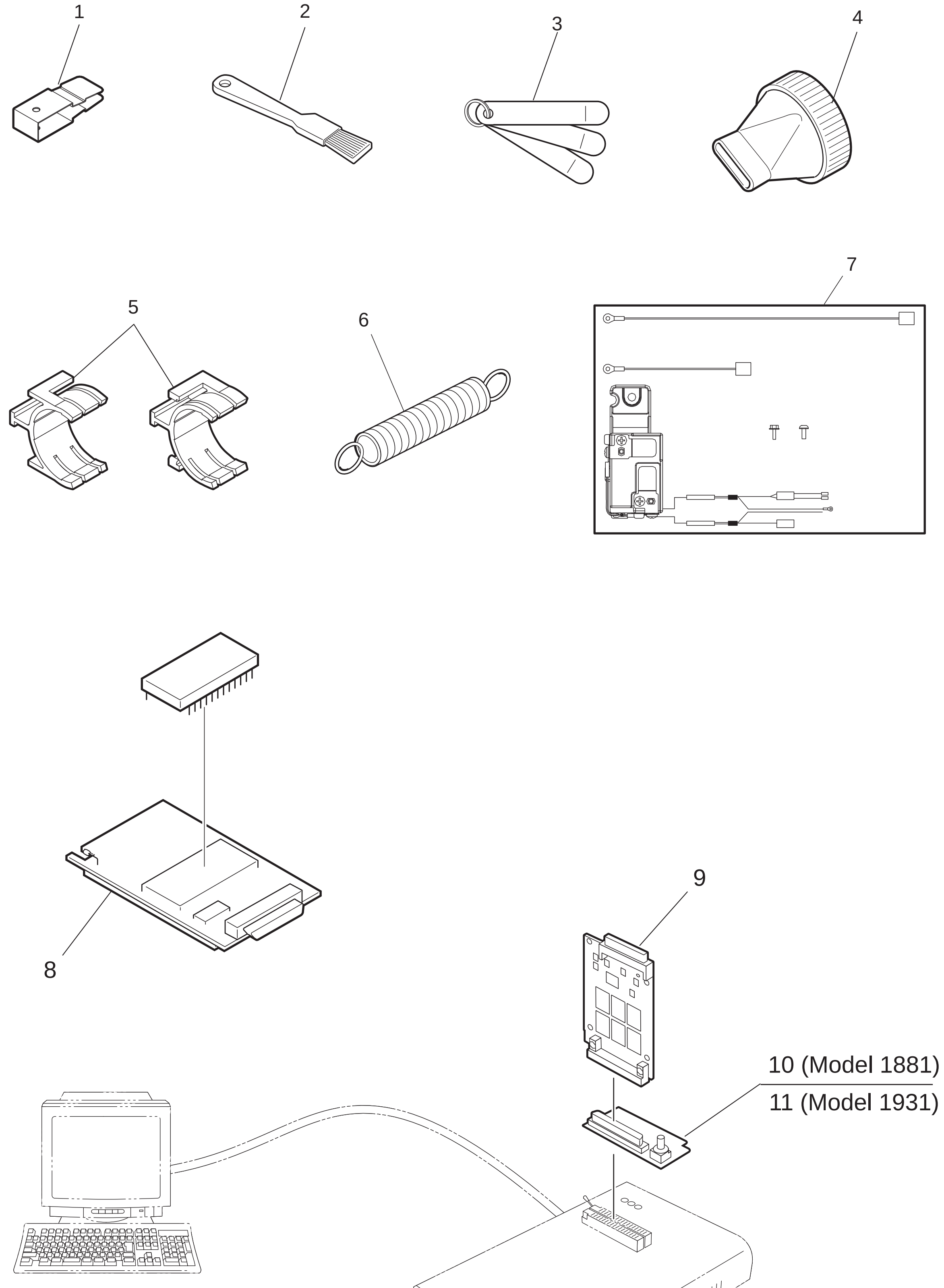

1
2
3
4
5
6
7
8
9
10 (Model 1881)
11 (Model 1931)

Fig. 5-39

5.11 Grease List

The greases used for the maintenance of this equipment are as follows.

Grease name		Volume	Container	Parts list <P-I>
SI	Silicon oil	25cc	Bottle	101-16
L	Launa 40	100cc	Oiler	101-11
W2	White grease (Molykote HP-300)	10g	Bottle	101-12B
AV	Alvania No.2	100g	Tube	101-13
W1	White grease (Molykote EM-30L)	100g	Tube	101-14
FL	Floil (GE-334C)	20g	Bottle	101-15

5.12 Operational Items in Overhauling

Overhaul each equipment in the following timing.

- e-STUDIO205L: When the number of output pages has reached 240,000 or 2.5 years have passed from the start of use (Whichever comes earlier)
- e-STUDIO255: When the number of output pages has reached 300,000 or 2.5 years have passed from the start of use (Whichever comes earlier)
- e-STUDIO305: When the number of output pages has reached 360,000 or 2.5 years have passed from the start of use (Whichever comes earlier)
- e-STUDIO355: When the number of output pages has reached 375,000 or 2.5 years have passed from the start of use (Whichever comes earlier)
- e-STUDIO455: When the number of output pages has reached 450,000 or 2.5 years have passed from the start of use (Whichever comes earlier)

(1) Replace all the supplies.
(2) Check the components in the drive section (gears, pulleys, timing belts, etc.). Replace them with new ones if they are damaged.
(3) Check all the adhesives such as tape and Mylar if they are damaged or have become unstuck. Replace them with new ones if necessary.
(4) Check the performance of all the switches and sensors. Replace them with new ones if necessary.
(5) Clean inside the equipment thoroughly.

6. ERROR CODE AND TROUBLESHOOTING

6.1 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“6.2 Error Code List” to figure out the classification and contents of the error, and then refer to “6.3 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 “6.4 Troubleshooting for the Image” to remove its cause.

The cause of a trouble in the equipment may be a minor failure. Check the items below first.

1. Is there any problem with the power cable?

* Check if the power cable is inserted securely. When it is almost removed or not inserted securely, power voltage may become unstable, causing a trouble in the equipment.

2. Are the connectors connected securely?

* Reconnect them securely. Even if they are apparently inserted, there may be a contact failure. Carefully check if the connection is secured especially after the disassembly or replacement of parts.

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“7.1 Precautions, Procedures and Settings for Replacing PC Boards and HDD”.

6.1.1 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 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.

6.2 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.

6.2.1 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. 6-28
E020		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. 6-28
E030	Other paper jam	Power-ON jam: The paper is remaining on the paper transport path when power is turned ON.	P. 6-29
E061		Incorrect paper size setting for upper drawer: The size of paper in the 1st drawer differs from size setting of the equipment.	P. 6-29
E062		Incorrect paper size setting for lower drawer: The size of paper in the 2nd drawer differs from size setting of the equipment.	P. 6-29
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. 6-29
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. 6-29
E065		Incorrect paper size setting for bypass tray: The size of paper in the bypass tray differs from size setting of the equipment.	P. 6-29
E090		HDD abnormality causes jam: Image data to be printed cannot be prepared.	P. 6-30
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. 6-40
E120		Bypass misfeeding (Paper not reaching the 1st transport sensor): The paper fed from the bypass tray does not reach the 1st transport sensor.	P. 6-40
E130		Upper drawer misfeeding (Paper not reaching the 1st transport sensor): The paper fed from the upper drawer does not reach the 1st transport sensor.	P. 6-41
E140		Lower drawer misfeeding (Paper not reaching the 2nd transport sensor): The paper fed from the lower drawer does not reach the 2nd transport sensor.	P. 6-42
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. 6-42
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. 6-43
E190		LCF misfeeding (Paper not reaching the LCF feed sensor): The paper fed from the LCF does not reach the LCF feed sensor.	P. 6-45

Error code	Classification	Contents	Troubleshooting
E200	Paper transport jam	Upper drawer transport jam (Paper not reaching the registration sensor): The paper does not reach the registration sensor after it has passed the 1st transport sensor.	P. 6-30
E210		Lower drawer transport jam (Paper not reaching the registration sensor): The paper does not reach the registration sensor after it has passed the 1st transport sensor.	P. 6-30
E220		Lower drawer transport jam (Paper not reaching the 1st transport sensor): The paper does not reach the 1st transport sensor after it has passed the lower drawer feed sensor.	P. 6-31
E270		Bypass transport jam (paper not reaching the registration sensor): The paper does not reach the registration sensor after it has passed the 1st transport sensor.	P. 6-31
E280		ADU transport jam (paper not reaching the registration sensor): The paper which has passed through ADU and the 1st transport sensor does not reach the registration sensor during duplex printing.	P. 6-31
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 transport sensor.	P. 6-30
E310		PFP upper drawer transport jam (Paper not reaching the 1st transport sensor): The paper does not reach the 1st transport sensor after it has passed the 2nd transport sensor.	P. 6-31
E320		PFP upper drawer transport jam (Paper not reaching the 2nd transport sensor): The paper does not reach the 2nd transport sensor after it has passed the PFP upper drawer feed sensor.	P. 6-32
E330		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 transport sensor.	P. 6-30
E340		PFP lower drawer transport jam (Paper not reaching the 1st transport sensor): The paper does not reach the 1st transport sensor after it has passed the PFP lower drawer feed sensor.	P. 6-31
E350		PFP lower drawer transport jam (Paper not reaching the 2nd transport sensor): The paper does not reach the 2nd transport sensor after it has passed the PFP upper drawer feed sensor.	P. 6-32
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. 6-33
E3C0		LCF transport jam (Paper not reaching the registration sensor): The paper does not reach the registration sensor after it has passed the 1st transport sensor.	P. 6-30
E3D0		LCF transport jam (Paper not reaching the 1st transport sensor): The paper does not reach the 1st transport sensor after it has passed the 2nd transport sensor.	P. 6-31
E3E0		LCF transport jam (Paper not reaching the 2nd transport sensor): The paper does not reach the 2nd transport sensor after it has passed the LCF feed sensor.	P. 6-32

Error code	Classification	Contents	Troubleshooting
E410	Cover open jam	Front cover open jam: The front cover has opened during printing.	P. 6-46
E420		PFP side cover open jam: The PFP side cover has opened during printing.	P. 6-46
E430		ADU open jam: The ADU has opened during printing.	P. 6-47
E440		Feed cover open jam: The feed cover has opened during printing.	P. 6-47
E450		LCF side cover open jam: The LCF side cover has opened during printing.	P. 6-48
E480		Bridge unit open jam: The bridge unit has opened during printing.	P. 6-48
E490		Job separator cover open jam: The job separator cover has opened during printing.	P. 6-49
E491		Offset tray cover open jam: The offset tray cover has opened during printing.	P. 6-49
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. 6-34
E520		Stop jam in the ADU: The paper does not reach the ADU exit sensor after it has passed the ADU entrance sensor.	P. 6-34
E550	Other paper jam	Paper remaining jam on the transport path: The paper is remaining on the transport path when printing is finished (caused by a multiple paper feeding).	P. 6-35
E570	Paper transport jam	Jam not reaching the reverse sensor: The paper which has passed the exit sensor does not reach the reverse sensor.	P. 6-36
E580		Stop jam at the reverse sensor: The trailing edge of the paper does not pass the reverse sensor after its leading edge has reached this sensor.	P. 6-36
E712	RADF jam	Jam not reaching the registration sensor: The original fed from the original feeding tray does not reach the registration sensor.	P. 6-50
E714		Feed signal reception jam: The feed signal is received even no original exists on the original feeding tray.	P. 6-50
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. 6-50
E722		Jam not reaching the exit sensor (during scanning): The original which passed the read sensor does not reach the exit sensor when it is transported from the scanning section to exit section.	P. 6-50
E724		Stop jam at the registration sensor: The trailing edge of the original does not pass the registration sensor after its leading edge has reached this sensor.	P. 6-50
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. 6-51
E731		Stop jam at the exit sensor: The trailing edge of the original does not pass the exit sensor after its leading edge has reached this sensor.	P. 6-51
E860		RADF jam access cover open: The RADF jam access cover has opened during RADF operation.	P. 6-51

Error code	Classification	Contents	Troubleshooting
E870	RADF jam	RADF open jam: RADF has opened during RADF operation.	P. 6-51
E871		Cover open jam in the read ready status: Jam caused by opening of the RADF jam access cover or front cover while the RADF is waiting for the scanning start signal from the equipment.	P. 6-51
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. 6-52
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. 6-52
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. 6-52
E940		Stop 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-2.	P. 6-52
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. 6-36
E951		Stop jam at the job separator transport sensor: The trailing edge of the paper does not pass the job separator transport sensor.	P. 6-37
E960	Offset tray jam	Jam not reaching the offset tray transport sensor: The paper has passed through the exit sensor does not reach the offset tray transport sensor.	P. 6-37
E961		Stop jam at the offset tray transport sensor: The trailing edge of the paper does not pass the offset tray transport sensor.	P. 6-37
E9F0	Finisher jam (Puncher unit)	Punching jam: Punching is not performed properly. [MJ-1025 (When MJ-6005 is installed)] Punching jam: Punching is not performed properly. [MJ-1024 (when MJ-6004 is installed)] [MJ-1101 (when MJ-6101 is installed)]	P. 6-53

Error code	Classification	Contents	Troubleshooting
EA10	Finisher jam (Finisher unit)	Paper transport delay jam: The paper which has passed the bridge unit does not reach the inlet sensor. Paper transport delay jam: The paper which has passed the bridge unit does not reach the inlet sensor. [MJ-1024/1031/1101]	P. 6-54
EA20		Paper transport stop jam: The paper does not pass through the inlet sensor. [MJ-1025/MJ-1031] Paper transport stop jam: The paper has passed through the inlet sensor but does not reach or pass the feed path sensor or processing tray sensor. [MJ-1024] Paper transport delay jam: The paper which has passed through the inlet sensor does not reach the transport sensor. [MJ-1101]	P. 6-54
EA21		Paper size error jam: Paper does not reach the sensor because the paper is shorter than spec.	P. 6-55
EA22		Paper transport jam (Finisher paper punching edge detection sensor):]	P. 6-55
EA23		Paper transport jam (exit sensor)	P. 6-56
EA24		Paper transport jam (between entrance and exit sensors)	P. 6-56
EA25		Paper transport jam (after paper stack exit)	P. 6-56
EA26		Paper transport jam (stop command request)	P. 6-56
EA27		Paper transport jam (paper not inserted)	P. 6-56
EA28		Paper transport jam (assisting arm operation delay)	P. 6-56
EA29		Paper transport jam (stack transport delay)	P. 6-56
EA30		Power-ON jam: Paper exists at the inlet sensor when power is turned ON.	P. 6-56
EA31		Transport path paper remaining jam	P. 6-56
EA32		Exit paper remaining jam	P. 6-57
EA40		Door open jam: The Finisher is released from the equipment or any of the staple door and top cover is opened during printing. [MJ-1025] Door open jam: Any of the upper cover and front cover of the Finisher or any of the upper door and front door of the Hole Punch Unit is opened during printing. [MJ-1024] Joint open jam: The joint is released during printing or in the standby status. [MJ-1031]	P. 6-57
EA50		Stapling jam: Stapling is not performed properly.	P. 6-58
EA60		Early arrival jam: The inlet sensor detects the paper earlier than a specified timing.	P. 6-59
EA70		Stack delivery jam: It cannot deliver the stack of paper on the intermediary process tray to the stack tray. [MJ-1025] Stack slider home position error: The stack slider is not at the home position. [MJ-1031]	P. 6-60

Error code	Classification	Contents	Troubleshooting
EA80	Finisher jam (Saddle Stitcher section)	Stapling jam: Stapling is not performed properly. [MJ-1024]	P. 6-61
EA90		Door open jam: The delivery cover or inlet cover has opened during printing [MJ-1024/MJ-1101].	P. 6-61
EAA0		Power-ON jam: Paper exists at No.1 paper sensor, No. 2 paper sensor, No.3 paper sensor, vertical path paper sensor or delivery sensor when power is turned ON. [MJ-1024/MJ-1101]	P. 6-61
EAB0		Saddle paper transport stop jam: The paper which passed through the inlet sensor does not reach or pass through the folding position sensor. [MJ-1025]	P. 6-62
EAC0		Saddle transport delay jam: The paper which has reached the inlet sensor does not pass through this sensor. [MJ-1025/MJ-1024]	P. 6-63
EAD0	Other paper jam	Print end command time-out jam: The printing has not finished normally because of the communication error between the SYS board / SYS-IMG board and LGC board at the end of printing.	P. 6-64
EAE0	Finisher jam	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. 6-64
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. 6-64
EB50	Paper transport jam	Paper remaining on the transport path: The multiple feeding of preceding paper caused the misfeeding of upcoming paper.	P. 6-37
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. 6-38
ED10	Finisher jam	Skew adjustment motor home position detection abnormality: The Skew adjustment motor is not at the home position. [MJ-1101 (when MJ-6101 is installed)]	P. 6-64
ED11		Sideways adjustment motor home position detection error: The Sideways adjustment motor is not at the home position. [MJ-1101 (when MJ-6101 is installed)]	P. 6-64
ED12		Shutter home position error: The shutter is not at the home position. [MJ-1101]	P. 6-65
ED13		Front alignment plate home position error: The front alignment plate is not at the home position. [MJ-1101]	P. 6-65
ED14		Rear alignment plate home position error: The rear alignment plate is not at the home position. [MJ-1101]	P. 6-65
ED15		Paddle home position error: The paddle is not at the home position. [MJ-1101]	P. 6-65
ED16		Buffer tray home position error: The buffer tray is not at the home position. [MJ-1101]	P. 6-65

6.2.2 Service call

Error code	Classification	Contents	Troubleshooting
C010	Drive system related service call	Main motor abnormality: The main motor is not rotating normally.	P. 6-66
C040	Paper feeding system related service call	PFP motor abnormality: The PFP motor is not rotating normally.	P. 6-67
C130		Upper drawer tray abnormality: The upper drawer tray motor is not rotating or the upper drawer tray is not moving normally.	P. 6-67
C140		Lower drawer tray abnormality: The lower drawer tray motor is not rotating or the lower drawer tray is not moving normally.	P. 6-67
C150		PFP upper drawer tray abnormality: The PFP upper drawer tray motor is not rotating or the PFP upper drawer tray is not moving normally.	P. 6-68
C160		PFP lower drawer tray abnormality: The PFP lower drawer tray motor is not rotating or the PFP lower drawer tray is not moving normally.	P. 6-68
C180		LCF tray-up motor abnormality: The LCF tray-up motor is not rotating or the LCF tray is not moving normally.	P. 6-69
C1A0		LCF end fence motor abnormality: The LCF end fence motor is not rotating or the LCF end fence is not moving normally.	P. 6-69
C1B0		LCF transport motor abnormality: The LCF transport motor is not rotating normally.	P. 6-70
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. 6-71
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 period of time.	P. 6-71
C280		Carriage home position sensor not turning ON within a specified period of time: The carriage does not reach to its home position in a specified period of time.	P. 6-71
C3D0	Process related service call	EPU board memory overwriting error: The overwriting of the EPU board memory fails.	P. 6-73
C3D1		EPU board memory new parts detection error: The EPU board detects the process unit as a new unit when the equipment is started in the normal mode.	P. 6-73
C3D2		EPU board memory old parts detection error: The EPU board cannot detect the new process unit when the equipment is started in the EPU replacement mode ([7] + [START]).	P. 6-73
C410	Fuser unit related service call	Thermistor or heater abnormality at power-ON: Abnormality of service call 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. 6-73
C430		Thermistor abnormality: Abnormality of the thermistor is detected after a specified period of time has passed from power-ON (including ready state).	P. 6-74
C440		Fuser roller abnormality: The temperature of the fuser roller has exceeded the range of control or does not even reach the range.	P. 6-74
C450		Thermistor abnormality during printing: Abnormality of the thermistor is detected during printing.	P. 6-75
C4C0		Fuser unit new/old detection fuse abnormality	P. 6-73

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. 6-76
C551		Document feeder model detection error: An optional document feeder that is not compatible to this equipment is installed.	P. 6-76
C570		Communication error between Engine-CPU and IPC board	P. 6-76
C580		Communication error between IPC board and finisher	P. 6-76
C5A0	Circuit related service call	EEPROM communication abnormality (LGC board)	P. 6-76
C8E0		ADF communication abnormality: The system has to be stopped because the control abnormality occurred	P. 6-76
C940		Engine-CPU abnormality	P. 6-103
C970	Process related service call	High-voltage transformer abnormality: Leakage of the main charger is detected.	P. 6-103
CA10	Laser optical unit related service call	Polygonal motor abnormality: The polygonal motor is not rotating normally.	P. 6-78
CA20		H-Sync detection error: H-Sync detection PC board cannot detect laser beams.	P. 6-78
CB00	Finisher related service call	Finisher not connected	P. 6-79
CB01		Finisher communication error	P. 6-79
CB10		Transport motor abnormality: The transport motor or stack transport roller is not rotating normally. [MJ-1025]	P. 6-79
CB11		Standby side tray drive motor abnormality	P. 6-79
CB12		Turning roller drive motor abnormality	P. 6-79
CB20		Delivery motor abnormality: Delivery motor or delivery roller is not rotating normally.]	P. 6-80
CB30		Tray lift motor abnormality: The tray lift motor is not rotating normally or the delivery tray is not moving normally. [MJ-1025] Tray 1/Tray 2 shift motor abnormality: Tray 1/Tray 2 shift motor is not rotating or delivery tray is not moving normally. [MJ-1024] Movable tray shift motor abnormality: The movable tray shift motor is not rotating or the movable tray is not moving normally. [MJ-1101]	P. 6-81
CB31		Movable tray stack height detection abnormality	P. 6-79
CB40		Rear aligning plate motor abnormality: Rear aligning plate motor is not rotating or aligning plate is not moving normally. [MJ-1024] Front alignment motor abnormality: The front alignment motor is not rotating or the front alignment plate is not moving normally. [MJ-1101]	P. 6-79
CB50		Staple motor (staple/fold) abnormality: The staple motor is not rotating normally or the stapler is not moving normally. [MJ-1025] Staple motor abnormality: Staple motor is not rotating or stapler is not moving normally. [MJ-1024] Staple unit abnormality: Staple unit is not moving normally. [MJ-1031] Stapler home position error: The stapler home position sensor does not work. [MJ-1101]	P. 6-84
CB51		Stapler shift home position detection error	P. 6-79
CB60		Stapler unit shift motor abnormality: The stapler unit shift motor is not rotating normally or the Stapler Unit is not moving normally. [MJ-1025] Stapler shift motor abnormality: Stapler shift motor is not rotating or staple unit is not moving normally. [MJ-1024/ 1101]	P. 6-87

Error code	Classification	Contents	Troubleshooting
CB80	Finisher related service call	Backup RAM data abnormality: 1. Abnormality of checksum value on finisher controller board is detected when the power is turned on. [MJ-1025/MJ-1024/MJ-1031] 2. Abnormality of checksum value on punch controller board is detected when the power is turned on. [MJ-1025 (when MJ-6005 is installed), MJ-1024 (when MJ-6004 is installed)]	P. 6-88
CB81		Flash ROM abnormality: Abnormality of checksum value on finisher controller PC board is detected when the power is turned ON. [MJ-1101]	P. 6-79
CB90		Paper pushing plate motor abnormality: Paper pushing plate motor is not rotating or paper pushing plate is not moving normally. [MJ-1024]	P. 6-79
CBA0		Stitch motor (front) abnormality: Stitch motor (front) is not rotating or rotary cam is not moving normally. [MJ-1024]	P. 6-79
CBB0		Stitch motor (rear) abnormality: Stitch motor (rear) is not rotating or rotary cam is not moving normally. [MJ-1024]	P. 6-79
CBC0		Alignment motor abnormality: Alignment motor is not rotating or aligning plate is not moving normally. [MJ-1024]	P. 6-79
CBD0		Guide motor abnormality: Guide motor is not rotating or guide is not moving normally. [MJ-1024]	P. 6-79
CBE0		Paper folding motor abnormality: Paper folding motor or paper folding roller is not rotating normally. [MJ-1024]	P. 6-79
CBF0		Paper positioning plate motor abnormality: Paper positioning plate motor is not rotating or paper positioning plate is not moving normally. [MJ-1024]	P. 6-79
CC00		Sensor connector abnormality: Connector of guide home position sensor, paper pushing plate home position sensor or paper pushing plate top position sensor is disconnected. [MJ-1024]	P. 6-79
CC10		Micro switch abnormality: With all covers closed, inlet door switch, delivery door switch or front cover switch is open. [MJ-1024]	P. 6-79
CC20		Communication error between finisher and saddle stitcher: Communication error between finisher controller PC board and saddle stitcher controller board [MJ-1024]	P. 6-79
CC30		Paddle motor abnormality: The paddle motor is not rotating normally or the swing guide is not moving normally. [MJ-1025] Stack transport motor abnormality: The stack transport motor is not rotating or the stack transport belt is not moving normally. [MJ-1101] Stack delivery motor abnormality: The stack delivery motor is not rotating normally. [MJ-1031]	P. 6-91
CC31		Transport motor abnormality: The transport motor is not rotating or the stack transport roller -1 and -2 is not rotating normally. [MJ-1101]	P. 6-79
CC40		Swing motor abnormality: Swing motor is not rotating or swing unit is not moving normally. [MJ-1024]	P. 6-79
CC41		Paper holder cam home position abnormality: The paper holder cam is not at the home position. [MJ-1101]	P. 6-79
CC50		Horizontal registration motor abnormality: The horizontal registration motor is not rotating normally or the puncher is not moving normally. [MJ-1025 (when MJ-6005 is installed)] Horizontal registration motor abnormality: Horizontal registration motor is not rotating or puncher is not shifting normally. [MJ-1024 (when MJ-6004 is installed)]	P. 6-92
CC51		Sideways adjustment motor abnormality	P. 6-79
CC52		Skew adjustment motor abnormality	P. 6-79

Error code	Classification	Contents	Troubleshooting
CC60	Finisher related service call	Punch motor abnormality: The punch motor is not rotating normally or the puncher is not moving normally. [MJ-1025 (when MJ-6005 is installed)] Punch motor abnormality: Punch motor is not rotating or puncher is not shifting normally. [MJ-1024 (when MJ-6004 is installed)]	P. 6-94
CC61		Punch motor home position detection error	P. 6-79
CC71		Punch ROM checksum error	P. 6-79
CC72		Punch RAM read/write error	P. 6-79
CC80		Alignment motor (front) abnormality: The alignment motor (front) is not rotating normally or the front alignment plate is not moving normally. Front aligning plate motor abnormality: Front aligning plate motor is not rotating or aligning plate is not moving normally. [MJ-1024] Rear alignment motor abnormality: The rear alignment motor is not rotating or the rear alignment plate is not moving normally. [MJ-1101]	P. 6-96
CC90		Upper stack tray lift motor abnormality: The upper stack tray lift motor is not rotating or the upper stack tray is not moving normally. Tray shift motor abnormality: The tray shift motor is not rotating or the stack tray is not moving normally. [MJ-1031]	P. 6-97
CCB0		Alignment motor (rear) abnormality: The alignment motor (rear) is not rotating normally or the rear alignment plate is not moving normally. [MJ-1025] Offset motor abnormality: The offset motor is not rotating normally. [MJ-1031]	P. 6-97
CCD0		Stack ejection motor abnormality: Stack ejection motor or stack ejection roller is not rotating normally. [MJ-1024]	P. 6-98
CCE0		Paper trailing edge assist motor abnormality: Paper trailing edge assist motor is not rotating or paper trailing edge assist is not moving normally. [MJ-1024]	P. 6-98
CCF0		Gear changing motor abnormality: Gear changing motor is not rotating normally. [MJ-1024]	P. 6-98
CCF1		Tray safety switch abnormality - (1) The tray safety switch turned on during tray operation (moving up or down). (2) The tray operated with the tray safety switch turned on. [MJ-1031]	P. 6-99
CDC0		Punch power failure abnormality: 24 V is not applied to the punch controller board. [MJ-1025 (when MJ-6005 is installed)]	P. 6-99
CDD0		Folding position sensor abnormality: Automatic adjustment of the folding position sensor can not be performed properly. [MJ-1025]	P. 6-99
CDE0		Paddle motor abnormality: The paddle motor does not rotate properly. [MJ-1025]	P. 6-100
CDF0	Offset tray related service call	Initialization error of the offset tray: The home position of the separator cannot be detected when the power is turned ON.	P. 6-103
CE00	Finisher related service call	Communication error between finisher unit and puncher unit: Communication error between the finisher controller PC board and punch controller PC board. [MJ-1025 (when MJ-6005 is installed)] Communication error between finisher and punch unit: Communication error between finisher controller PC board and punch controller PC board [MJ-1024 (when MJ-6004 is installed)] [MJ-1101 (when MJ-6101 is installed)]	P. 6-101
CE50	Circuit related service call	Temperature/humidity sensor abnormality: The output value of this sensor is out of a specified range.	P. 6-101

Error code	Classification	Contents	Troubleshooting
CE90	Process related service call	Drum thermistor abnormality: The output value of the drum thermistor-K is out of a specified range.	P. 6-101
CF10	Finisher related service call	Communication module SRAM reading failure. [MJ-1101]	P. 6-101
F070	Communication related service call	Communication error between System-CPU and Engine-CPU	P. 6-77
F090	Other service call	SRAM abnormality on the SYS board / SYS-IMG board	P. 6-104
F100		HDD format error: HDD cannot be initialized normally.	P. 6-104
F101		HDD unmounted: Connection of HDD cannot be detected.	P. 6-104
F102		HDD start error: HDD cannot become ‘Ready’ state.	P. 6-104
F103		HDD transfer time-out: Reading/writing cannot be performed in the specified period of time.	P. 6-104
F104		HDD data error: Abnormality is detected in the data of HDD.	P. 6-104
F105		HDD other error	P. 6-104
F106		Point and Print partition damage	P. 6-105
F107		/SHR partition damage	P. 6-105
F108		/SHA partition damage	P. 6-105
F110	Communication related service call	Communication error between System-CPU and Scanner-CPU	P. 6-77
F111		Scanner response abnormality	P. 6-77
F120	Other service call	Database abnormality: Database is not operating normally.	P. 6-105
F130		Invaid MAC address	P. 6-105
F200		Data Overwrite option (GP-1070) disabled	P. 6-105
F350	Circuit related service call	SLG board abnormality	P. 6-105
F400		SYS board cooling fan abnormality	P. 6-105

6.2.3 Error in Internet FAX / Scanning Function

1. Internet FAX related error

Error code	Contents	Troubleshooting
1C10	System access abnormality	P. 6-106
1C11	Insufficient memory	P. 6-106
1C12	Message reception error	P. 6-106
1C13	Message transmission error	P. 6-106
1C14	Invalid parameter	P. 6-106
1C15	Exceeding file capacity	P. 6-106
1C20	System management module access abnormality	P. 6-106
1C21	Job control module access abnormality	P. 6-106
1C22	Job control module access abnormality	P. 6-106
1C30	Directory creation failure	P. 6-106
1C31	File creation failure	P. 6-106
1C32	File deletion failure	P. 6-106
1C33	File access failure	P. 6-106
1C40	Image conversion abnormality	P. 6-107
1C60	HDD full failure during processing	P. 6-107
1C61	Address Book reading failure	P. 6-107
1C62	Memory acquiring failure	P. 6-107
1C63	Terminal IP address unset	P. 6-107
1C64	Terminal mail address unset	P. 6-107
1C65	SMTP address unset	P. 6-107
1C66	Server time time-out error	P. 6-107
1C69	SMTP server connection error	P. 6-107
1C6A	HOST NAME error	P. 6-107
1C6B	Terminal mail address error	P. 6-108
1C6C	Destination mail address error	P. 6-108
1C6D	System error	P. 6-107
1C70	SMTP client OFF	P. 6-108
1C71	SMTP authentication error	P. 6-108
1C72	POP before SMTP error	P. 6-108
1C80	Internet FAX transmission failure when processing E-mail job received	P. 6-108
1C81	Onramp Gateway transmission failure	P. 6-108
1C82	Internet FAX transmission failure when processing FAX job received	P. 6-108
1CC0	Job canceling	-
1CC1	Power failure	P. 6-108

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. 6-109
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. 6-109
2503	Bad sequence of commands	Destination mail address error (RFC: 503)	P. 6-109
2504	Command parameter not implemented	HOST NAME error (RFC: 504)	P. 6-109
2550	Mailbox unavailable	Destination mail address error (RFC: 550)	P. 6-109
2551	User not local	Destination mail address error (RFC: 551)	P. 6-109
2552	Insufficient system storage	Terminal/Destination mail address error (RFC: 552)	P. 6-109
2553	Mailbox name not allowed	Destination mail address error (RFC: 553)	P. 6-109

3. Electronic Filing related error

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
2B10	There was no applicable job.	No applicable job error in job control module	P. 6-110
2B11	Job status failed.	JOB status abnormality	P. 6-110
2B20	Failed to access file.	File library function error	P. 6-110
2B21	Message size exceeded limit or maximum size	Exceeding file capacity	P. 6-110
2B30	Insufficient disk space.	Insufficient disk space in /SHR partition	P. 6-110
2B31	Failed to access Electronic Filing.	Status of specified Electronic Filing or folder is undefined or being created/ deleted	P. 6-110
2B32	Failed to print Electronic Filing document.	Electronic Filing printing failure: Specified document can not be printed because of client's access (being edited, etc.).	P. 6-110
2B50	Failed to process image.	Image library error	P. 6-110
2B51	Failed to process print image.	List library error	P. 6-110
2B60	The folder was renamed. A folder of the same name already existed.	A folder with the same name exists in the box.	-
2B70	The document was renamed. A document of the same name already existed.	A document with the same name exists in the box or folder.	-
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 /SHR partition is nearly full (90%).	-
2B90	Insufficient Memory.	Insufficient memory capacity	P. 6-110
2BA0	Invalid Box password specified.	Invalid Box password	P. 6-111
2BA1	Incorrect paper size	A Paper size not supported in the Electronic Filing function is being selected.	P. 6-111
2BB0	Job canceled	Job canceling	-
2BB1	Power failure occurred	Power failure	P. 6-111
2BC0	System fatal error.	Fatal failure occurred.	P. 6-110
2BC1	Failed to acquire resource.	System management module resource acquiring failure	P. 6-110
2BD0	Power failure occurred during e-Filing restoring.	Power failure occurred during restoring of Electronic Filing	P. 6-111
2BE0	Failed to get machine parameter.	Machine parameter reading failure	P. 6-111
2BF0	Maximum number of pages has been exceeded (list Maximum)	Exceeding maximum number of pages	P. 6-111
2BF1	Maximum number of documents has been exceeded (list Maximum)	Exceeding maximum number of documents	P. 6-111
2BF2	Maximum number of folders has been exceeded (list Maximum)	Exceeding maximum number of folders	P. 6-111

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. 6-111
2A40	System fatal error	System error	P. 6-111
2A50	Job canceling	Job canceling	-
2A51	Power failure	Power failure	P. 6-111

5. E-mail related error

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
2C10	Illegal Job status	System access abnormality	P. 6-112
2C11	Not enough memory	Insufficient memory	P. 6-112
2C12	Illegal Job status	Message reception error	P. 6-112
2C13	Illegal Job status	Message transmission error	P. 6-112
2C14	Invalid parameter specified	Invalid parameter	P. 6-112
2C15	Message size exceeded limit or maximum size	Exceeding file capacity	P. 6-112
2C20	Illegal Job status	System management module access abnormality	P. 6-112
2C21	Illegal Job status	Job control module access abnormality	P. 6-112
2C22	Illegal Job status	Job control module access abnormality	P. 6-112
2C30	Failed to create directory	Directory creation failure	P. 6-112
2C31	Failed to create file	File creation failure	P. 6-112
2C32	Failed to delete file	File deletion failure	P. 6-112
2C33	Failed to create file	File access failure	P. 6-112
2C40	Failed to convert image file format	Image conversion abnormality	P. 6-112
2C43	Encryption error. Failed to create file.	Encryption error	P. 6-112
2C44	Creating the image file was not permitted.	Encryption PDF enforced mode error	P. 6-112
2C60	Failed to process your Job. Insufficient disk space.	HDD full failure during processing	P. 6-113
2C61	Failed to read AddressBook	Address Book reading failure	P. 6-113
2C62	Not enough memory	Memory acquiring failure	P. 6-112
2C63	Invalid Domain Address	Terminal IP address unset	P. 6-113
2C64	Invalid Domain Address	Terminal mail address unset	P. 6-113
2C65	Failed to connect to SMTP server	SMTP address unset	P. 6-113
2C66	Failed to connect to SMTP server	Server time time-out error	P. 6-113
2C69	Failed to connect to SMTP server	SMTP server connection error	P. 6-113
2C6A	Failed to send E-Mail message	HOST NAME error (No RFC error)	P. 6-113
2C6B	Invalid address specified in From: field	Terminal mail address error	P. 6-113
2C6C	Invalid address specified in To: field	Destination mail address error (No RFC error)	P. 6-113
2C6D	NIC system error	System error	P. 6-113
2C70	SMTP service is not available	SMTP client OFF	P. 6-114
2C71	Failed SMTP Authentication	SMTP authentication error	P. 6-114
2C72	POP Before SMTP Authentication Failed	POP before SMTP error	P. 6-114
2C80	Failed to process received E-mail job	E-mail transmission failure when processing E-mail job received	P. 6-114
2C81	Failed to process received Fax job	Process failure of FAX job received	P. 6-114
2CC0	Job canceled	Job canceling	-
2CC1	Power failure occurred	Power failure	P. 6-114

6. File sharing related error

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
2D10	Illegal Job status	System access abnormality	P. 6-115
2D11	Not enough memory	Insufficient memory	P. 6-115
2D12	Illegal Job status	Message reception error	P. 6-115
2D13	Illegal Job status	Message transmission error	P. 6-115
2D14	Invalid parameter specified	Invalid parameter	P. 6-115
2D15	There are too many documents in the folder. Failed in creating new document.	Exceeding document number	P. 6-115
2D20	Illegal Job status	System management module access abnormality	P. 6-115
2D21	Illegal Job status	Job control module access abnormality	P. 6-115
2D22	Illegal Job status	Job control module access abnormality	P. 6-115
2D30	Failed to create directory	Directory creation failure	P. 6-115
2D31	Failed to create file	File creation failure	P. 6-115
2D32	Failed to delete file	File deletion failure	P. 6-115
2D33	Failed to create file	File access failure	P. 6-115
2D40	Failed to convert image file format	Image conversion abnormality	P. 6-115
2D43	Encryption error. Failed to create file.	Encryption error	P. 6-116
2D44	Creating the image file was not permitted.	Encryption PDF enforced mode error	P. 6-116
2D60	Failed to copy file	File library access abnormality	P. 6-115
2D61	Invalid parameter specified	Invalid parameter	P. 6-115
2D62	Failed to connect to network destination. Check destination path	File server connection error	P. 6-116
2D63	Specified network path is invalid. Check destination path	Invalid network path	P. 6-116
2D64	Logon to file server failed. Check username and password	Login failure	P. 6-116
2D65	There are too many documents in the folder. Failed in creating new document.	Exceeding documents in folder: Creating new document is failed.	P. 6-116
2D66	Failed to process your Job. Insufficient disk space.	HDD full failure during processing	P. 6-116
2D67	FTP service is not available	FTP service not available	P. 6-116
2D68	File Sharing service is not available	File sharing service not available	P. 6-116
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.	-
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. 6-115

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
2DA7	Failed to acquire resource.	Resource acquiring failure	P. 6-115
2DA8	The HDD is running out of capacity for the shared folder.	Hard disk space in /SHA partition is nearly full (90%).	-
2DC0	Job canceled	Job canceling	-
2DC1	Power failure occurred	Power failure	P. 6-116

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. 6-117
3A11	MIME Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 6-117
3A12	MIME Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 6-117
3A20	Analyze Error has been detected in the received mail.	E-mail analysis error	P. 6-117
3A21	Analyze Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 6-117
3A22	Analyze Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 6-117
3A30	Whole partial mails were not reached by timeout.	Partial mail time-out error	P. 6-117
3A40	Partial Mail Error has been detected in the received mail.	Partial mail related error	P. 6-117
3A50	HDD Full Error has been occurred in this mail.	Insufficient HDD capacity error	P. 6-117
3A51	HDD Full Error has been occurred in this mail. This mail has been transferred to the administrator.		P. 6-117
3A52	HDD Full Error has been occurred in this mail. This mail could not be transferred to the administrator.		P. 6-117
3A60	HDD Full Warning has been occurred in this mail.	Warning of insufficient HDD capacity	P. 6-117
3A61	HDD Full Warning has been occurred in this mail. This mail could not be transferred to the administrator.		P. 6-117
3A62	HDD Full Warning has been occurred in this mail. This mail could not be transferred to the administrator.		P. 6-117
3A70	Receiving partial mail was aborted since the partial mail setting has been changed to Disable.	Warning of partial mail interruption	P. 6-117
3A80	Partial mail was received during the partial mail setting is disabled.	Partial mail reception setting OFF	P. 6-117
3A81	Partial mail was received during the partial mail setting is disabled. This mail has been transferred to the administrator.		P. 6-117
3A82	Partial mail was received during the partial mail setting is disabled. This mail could not be transferred to the administrator.		P. 6-117

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
3B10	Format Error has been detected in the received mail.	E-mail format error	P. 6-117
3B11	Format Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 6-117
3B12	Format Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 6-117
3B20	Content-Type Error has been detected in the received mail.	Content-Type error	P. 6-118
3B21	Content-Type Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 6-118
3B22	Content-Type Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 6-118
3B30	Charset Error has been detected in the received mail.	Charset error	P. 6-118
3B31	Charset Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 6-118
3B32	Charset Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 6-118
3B40	Decode Error has been detected in the received mail.	E-mail decode error	P. 6-117
3B41	Decode Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 6-117
3B42	Decode Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 6-117
3C10	Tiff Analyze Error has been detected in the received mail.	TIFF analysis error	P. 6-118
3C11	Tiff Analyze Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 6-118
3C12	Tiff Analyze Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 6-118
3C13	Tiff Analyze Error has been detected in the received mail.		P. 6-118

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
3C20	Tiff Compression Error has been detected in the received mail.	TIFF compression error	P. 6-118
3C21	Tiff Compression Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 6-118
3C22	Tiff Compression Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 6-118
3C30	Tiff Resolution Error has been detected in the received mail.	TIFF resolution error	P. 6-118
3C31	Tiff Resolution Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 6-118
3C32	Tiff Resolution Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 6-118
3C40	Tiff Paper Size Error has been detected in the received mail.	TIFF paper size error	P. 6-118
3C41	Tiff Paper Size Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 6-118
3C42	Tiff Paper Size Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 6-118
3C50	Offramp Destination Error has been detected in the received mail.	Offramp destination error	P. 6-118
3C51	Offramp Destination Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 6-118
3C52	Offramp Destination Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 6-118
3C60	Offramp Security Error has been detected in the received mail.	Offramp security error	P. 6-119
3C61	Offramp Security Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 6-119
3C62	Offramp Security Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 6-119
3C70	Power Failure has been occurred in E-mail receiving.	Power failure error	P. 6-119
3D10	SMTP Destination Error has been detected in the received mail. This mail was deleted.	Destination address error	P. 6-119
3D20	Offramp Destination limitation Error has been detected in the received mail.	Offramp destination limitation error	P. 6-119

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. 6-119
3E10	POP3 Connection Error has been occurred in the received mail.	POP3 server connection error	P. 6-119
3E20	POP3 Connection Timeout Error has been occurred in the received mail.	POP3 server connection time-out error	P. 6-119
3E30	POP3 Login Error has been occurred in the received mail.	POP3 login error	P. 6-119
3E40	POP3 Login Error occurred in received mail.	POP3 login method error	P. 6-119
3F00	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. 6-119
3F10			P. 6-119
3F20			P. 6-119
3F30			P. 6-119
3F40			P. 6-119

6.2.4 Printer function error

Following codes are displayed at the end of the user name on the print job log screen

Error code	Contents	Troubleshooting
4030	No Printer Kit / Printer Kit function disabled: The Printer Kit or the Printer/ Scanner Kit is not installed. Or network printing of an XPS file is performed, or network printing is performed after the termination of a trial period.	P. 6-120
4031	HDD full during print: Large quantity image data by private print or invalid network print are saved in HDD.	P. 6-120
4032	Private-print-only error: Jobs other than Private print jobs cannot be performed.	P. 6-120
4033	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. 6-120
4034	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. 6-120
4035	Local file storing limitation error: Network FAX or Internet FAX cannot be sent when "Local" is selected for the destination of the file to save.	P. 6-120
4036	User authentication error: The user who intended to print a document is not registered as a user.	P. 6-120
4037	Hardcopy security printing error: hardcopy security printing job is performed when the function is restricted.	P. 6-120
4038	Restriction error (only for hold print jobs)	P. 6-120
4039	Restriction error (only for private/hold print jobs)	P. 6-120
4040	Not being authorized to perform JOB	P. 6-120
4050	Problem in LDAP server connection or LDAP server authorization settings	P. 6-120
4300	USB direct printing: Job execution error due to functional restrictions - Printing with he USB direct printing function restricted	P. 6-120
4301	USB direct printing: File conversion error - Printing a file whose format is not supported, or an invalid file	P. 6-121
4310	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. 6-121
4311	Printing not permitted: Printing is not permitted or only printing in a low resolution level is permitted due to the encryption language of the encrypted PDF file. * Permitted only when a user password is entered.	P. 6-121
4312	Password mismatching: The entered password is neither matched with a user password nor an owner password.	P. 6-121
A221	Print job cancellation: Print job (copy, list print, network print) is deleted from the print job screen.	P. 6-121
A222	Print job power failure: The power of the equipment is turned OFF during print job (copy, list print, network print).	P. 6-121
A290	Limit over error: The numbers of output pages have exceeded those specified with both of the department code and the user code at the same time.	P. 6-121
A291	Limit over error: The number of output pages has exceeded the one specified with the user code.	P. 6-121
A292	Limit over error: The number of output pages has exceeded the one specified with the department code.	P. 6-121

6.2.5 TopAccess related error

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
5110	Toner Not Recognized - Please Check Toner.	Toner cartridge detection error	P. 6-122
5BD0	Power failure occurred during restore	Power supply is cut off during the restoration of database sent from TopAccess	P. 6-122
5C10	FAX Unit is not attached.	Network FAX is disabled because the FAX Unit is not attached	P. 6-122
5C11	Security error on Address Book.	The network FAX job failed because the specified address is not registered in the Address Book	P. 6-122
5C20	The file has been imported	Displayed when data have been imported from TopAccess (Not an error message)	P. 6-122
5C21	Failed to import the file - Invalid file format	Data import from TopAccess failed due to invalid file format	P. 6-122
5C22	Failed to import the file - Internal error	Data import from TopAccess failed due to an internal error, the cause of which is unknown	P. 6-122

6.2.6 Error history

In the setting mode (08-253), the latest twenty groups of error data will be displayed.

Display example

EA10	01234567	04 07 11 17 57 32	064	064	2362_1000_0000_0
Error code	Total counter	YY MM DD HH MM SS	MMM	NNN	ABCD_EFHI_JLOP_Q
4 digits	8 digits	12 digits (Year is indicated with its last two digits.)	3 digits	3 digits	13 digits

A	Paper source
	0: Not selected 1: Bypass feed 2: LCF 3: Upper drawer 4: Lower 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: Postcard J: 8.5SQ K: Unused L: Unused M: 8K N: 16K-R O: 16K P: Envelope COM10 Q: Envelope DL R: Envelope Monarch S: Envelope (lengthwise, No. 3) T: Envelope (lengthwise, No. 4) U: Unused V: Unused 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
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
	Copy: 0: Single-sided/Single-sided 1: Book 2: Double-sided/Single-sided 4: Double-sided/Duplex copying 8: Single-sided/Duplex copying Printer 0: Single-sided 8: Double-sided FAX 0: Single-sided 8: Double-sided e-Filing 0: Single-sided 8: Double-sided List printing 0: Single-sided -
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: Positive/negative reverse 5: Unused
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	Mode
	0: Auto color 1: Full color 2: Black 3: Unused 4: Unused 5: Gray scale 6: Unused 7: Unused
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 Z: Unused
Q	RADF size mixed
	0: Unused 1: Single-size document 2: Size mixed

6.3 Diagnosis and Prescription for Each Error Code

6.3.1 Paper transport jam

[E010] Leading edge of paper not reaching the exit sensor

[E020] Trailing edge of paper not passing the exit sensor

Open the Automatic duplexing unit. Is there any paper on the transport path?

↓ YES → Remove the paper.

NO

Is the exit sensor working? (Perform the input check in the test mode: 03-[FAX]ON/[9]/[B])

| NO →

1. Check if the connector of the exit sensor is disconnected.
2. Check if the connector CN309 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the exit sensor.
6. Replace the LGC board.

↓

YES

Is the registration roller clutch working?
(Perform the output check in the test mode: 03-108/158)

| NO →

1. Check if the connector of the registration roller clutch is disconnected.
2. Check if the connector CN315 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the registration roller clutch.
6. Replace the LGC board.

↓

YES

Check the registration roller. Replace it if it is worn out.

[E030] Paper remaining inside the equipment at power-ON

Open the cover of the unit/area whose picture is blinking on the control panel. Is there any paper on the transport path? (Refer to the following table.)

↓ YES → Remove the paper.

NO

Is the sensor in the jamming area working? (Perform the input check in the test mode: refer to the following table.)

| NO →
1. Check if the connector of the sensor is disconnected.
2. Check if any of the connectors on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the sensor.
6. Replace the LGC board.

↓

YES

Replace the LGC board.

Relation between the jamming area and the corresponding sensors and covers
(If a jam is occurring in the ADU, LCF, PFP, JSP or OCT check the board in each unit.)

Jamming area	Cover	Sensor	Test mode / Input check
Registration area	Automatic duplexing unit	Registration sensor	03-[FAX]ON/[9]/[A]
		1st transport sensor	03-[FAX]OFF/[6]/[A]
Exit area	Automatic duplexing unit	Exit sensor	03-[FAX]ON/[9]/[B]
ADU	ADU	ADU entrance sensor	03-[FAX]OFF/[1]/[D]
		ADU exit sensor	03-[FAX]OFF/[1]/E]
Feeding area (Main unit)	Feed cover	2nd transport sensor	03-[FAX]OFF/[7]/[A]
LCF	LCF side cover	LCF feed sensor	03-[FAX]OFF/[4]/[C]
PFP	PFP side cover	PFP upper drawer feed sensor	03-[FAX]OFF/[2]/[B]
		PFP lower drawer feed sensor	03-[FAX]OFF/[3]/[B]
Bridge unit	Bridge unit	Bridge unit transport sensor-1	03-[FAX]ON/[4]/[G] 03-[FAX]ON/[3]/[G]
		Bridge unit transport sensor-2	03-[FAX]ON/[4]/[F] 03-[FAX]ON/[3]/[G]
JSP	JSP cover	JSP feed sensor	03-[FAX]ON/[3]/G]
OCT	OCT cover	OCT feed sensor	03-[FAX]ON/[3]/[G]

[E061] Incorrect paper size setting for upper drawer
[E062] Incorrect paper size setting for lower 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] Paper jam by HDD abnormality

(1) Check if the error is cleared by turning the power OFF and then back ON.
(2) Check if the connectors of the HDD are disconnected.
(3) Check if the connector pins are disconnected and the harnesses are open circuited.
(4) Replace the HDD.
(5) Replace the SYS board / SYS-IMG board.

[E200] Paper fed from the upper drawer not reaching the registration sensor
[E210] Paper fed from the lower drawer not reaching the registration sensor
[E300] Paper fed from the PFP upper drawer not reaching the registration sensor
[E330] Paper fed from the PFP lower drawer not reaching the registration sensor
[E3C0] Paper fed from the LCF not reaching the registration sensor

Open the Automatic duplexing unit. Is there paper in front of the registration sensor?

↓ YES → Remove the paper.

NO

Is the registration sensor working?
(Perform the input check in the test mode: 03-[FAX]ON/[9]/[A]

NO →
1. Check if the connector of the registration sensor is disconnected.
2. Check if the connector CN316 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the registration sensor.
6. Replace the LGC board.

↓

YES

Are the (high-speed/low-speed) clutches working?
(Perform the output check in the test mode: 03-203, 205)

NO →
1. Check if the connectors of the (high-speed/low-speed) transport clutches are disconnected.
2. Check if the connector CN316 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the (high-speed/low-speed) transport clutches.
6. Replace the LGC board.

↓

YES

1. Check the condition of the feed roller, separation roller and pickup roller of each paper source, and replace them if they are worn out.
2. Check the transport roller. Replace it if it is worn out.

[E220] Paper fed from the lower drawer not reaching the 1st transport sensor
[E310] Paper fed from the PFP upper drawer not reaching the 1st transport sensor
[E340] Paper fed from the PFP lower drawer not reaching the 1st transport sensor
[E3D0] Paper fed from the LCF not reaching the 1st transport sensor

Open the Automatic duplexing unit. Is there paper in front of the 1st transport sensor?

↓ YES → Remove the paper.

NO

Is the 1st transport sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[6]/[A])

| NO →
1. Check if the connector of the 1st transport sensor is disconnected.
2. Check if the connector CN316 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the 1st transport sensor.
6. Replace the LGC board.

↓

YES

Are the (high-speed/low-speed) transport clutches working?
(Perform the output check in the test mode: 03-203, 205)

| NO →
1. Check if the connectors of the (high-speed/low-speed) transport clutches are disconnected.
2. Check if the connector CN316 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the (high-speed/low-speed) transport clutches.
6. Replace the LGC board.

↓

YES

1. Check the condition of the feed roller, separation roller and pickup roller of each paper source, and replace them if they are worn out.
2. Check the transport roller. Replace it if it is worn out.

[E270] Bypass transport jam (Paper not reaching the registration sensor)
[E280] ADU transport jam (Paper not reaching the registration sensor)

Open the Automatic duplexing unit. Is there paper in front of the registration sensor?

↓ YES → Remove the paper.

NO

Is the registration sensor working?
(Perform the input check in the test mode: 03-[FAX]ON/[9]/[A]

↓ NO →
1. Check if the connector of the registration sensor is disconnected.
2. Check if the connector CN316 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the registration sensor.
6. Replace the LGC board.

YES

Is the bypass feed clutch/ADU clutch working?
(Perform the output check in the test mode: 03-204/222)

↓ NO →
1. Check if the connector of the bypass feed clutch/ADU clutch is disconnected.
2. Check if the connector CN311 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the bypass feed clutch/ADU clutch.
6. Replace the LGC board.

YES

Check the registration roller. Replace it if it is worn out.

[E320] Paper fed from the PFP upper drawer not reaching the 2nd transport sensor

[E350] Paper fed from the PFP lower drawer not reaching the 2nd transport sensor

[E3E0] Paper fed from the LCF not reaching the 2nd transport sensor

Open the side cover. Is there paper in front of the 2nd transport sensor?

↓ YES → Remove the paper.

NO

Is the 2nd transport sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[7]/[A]

↓ NO →
1. Check if the connector of the 2nd transport sensor is disconnected.
2. Check if the connector CN316 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the 2nd transport sensor.
6. Replace the LGC board.

YES

Is the PFP transport clutch working? (Perform the output check in the test mode: 03-225)

NO →
1. Check if the connector of the PFP transport clutch is disconnected.
2. Check if any of the connectors CN241 and CN244 on the PFP board is disconnected.
3. Check if the connector CN318 on the LGC board is disconnected.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
6. Replace the PFP transport clutch.
7. Replace the PFP board.
8. Replace the LGC board.

↓

YES

1. Check the condition of the feed roller, separation roller and pickup roller of each paper source, and replace them if they are worn out.
2. Check the transport roller. Replace it if it is worn out.

[E360] Paper fed from the PFP lower drawer not reaching the PFP upper drawer feed sensor

Open the PFP side cover. Is there any paper in front of the PFP upper drawer feed sensor?

↓ YES → Remove the paper.

NO

Is the PFP upper drawer feed sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[7]/[A])

NO →
1. Check if the connector of the PFP upper drawer feed sensor is disconnected.
2. Check if either of the connectors CN241 or CN243 on the PFP board is disconnected.
3. Check if the connector CN318 on the LGC board is disconnected.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
6. Replace the PFP upper drawer feed sensor.
7. Replace the PFP board.
8. Replace the LGC board.

↓

YES

Is the PFP feed clutch working? (Perform the output check in the test mode: 03-226)

NO →
1. Check if the connector of the PFP transport clutch is disconnected.
2. Check if any of the connectors CN241 and CN247 on the PFP board is disconnected.
3. Check if the connector CN318 on the LGC board is disconnected.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
6. Replace the PFP transport clutch.
7. Replace the PFP board.
8. Replace the LGC board.

↓

YES

1. Check the condition of the feed roller, separation roller and pickup roller of each paper source, and replace them if they are worn out.
2. Check the PFP transport roller. Replace it if it is worn out.

[E510] ADU stack jam (paper not reaching the ADU entrance sensor

Open the ADU. Is there any paper in front of the ADU entrance sensor?

↓ YES → Remove the paper.

NO

Is the ADU entrance sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[1]/[D])

| NO →
1. Check if the connector of the ADU entrance sensor is disconnected.
2. Check if the connector CN311 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor patterns on the LGC board are short circuited or open circuited.
5. Replace the ADU entrance sensor.
6. Replace the LGC board.

↓

YES

Is the exit motor (rotating in reverse) working?
(Perform the output check in the test mode: 03-121/171)

| NO →
1. Check if the connector of the exit motor is disconnected.
2. Check if the connector CN402 and CN405 on the exit board is disconnected.
3. Check if the connector CN303 on the LGC board is disconnected.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor pattern on the LGC board and exit board is short circuited or open circuited.
6. Replace the exit motor.
7. Replace the ADU exit sensor.
8. Replace the exit board.
9. Replace the LGC board.

↓

YES

Check the rollers in the ADU and the exit roller of the equipment. Replace them if they are worn out.

[E520] ADU transport jam (paper not reaching the ADU exit sensor

Open the ADU. Is there any paper in front of the ADU exit sensor?

↓ YES → Remove the paper.

NO

Is the ADU exit sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[1]/[E])

NO →
1. Check if the connector of the ADU exit sensor is disconnected.
2. Check if the connector CN311 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor patterns on the LGC board are short circuited or open circuited.
5. Replace the ADU exit sensor.
6. Replace the LGC board.

↓

YES

Is the ADU motor working? (Perform the output check in the test mode: 03-119)

NO →
1. Check if the connector of the ADU motor is disconnected.
2. Check if the connector CN402 and CN404 on the MOT/MOT2 board is disconnected.
3. Check if the connector CN303 on the LGC board is disconnected.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor pattern on the LGC board is short circuited or open circuited.
6. Replace the ADU exit sensor.
7. Replace the MOT/MOT2 board.
8. Replace the LGC board.

↓

YES

Check the rollers in the ADU. Replace them if they are worn out.

[E550] Paper remaining on the transport path

Open the cover of the unit/area whose picture is blinking on the control panel. Is there any paper on the transport path?

↓ YES → Remove the paper.

NO

Is the sensor in the jamming area working? (Perform the input check in the test mode: refer to the following table)

NO→
1. Check if the connector of the sensor is disconnected.
2. Check if any of the connectors on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the sensor.
6. Replace the LGC board.

↓

YES

Replace the LGC board.

Relation between the jamming area and the corresponding sensors/covers

(If a jam is occurring in the ADU, LCF, PFP, JSP or OCT check the board in each unit.)

Jamming area	Cover	Sensor	Test mode/Input check
Registration area	Automatic duplexing unit	Registration sensor	03-[FAX]ON/[9]/[A]
		1st transport sensor	03-[FAX]OFF/[6]/[A]
Exit area	Automatic duplexing unit	Exit sensor	03-[FAX]ON/[9]/[B]
ADU	ADU	ADU entrance sensor	03-[FAX]OFF/[1]/[D]
		ADU exit sensor	03-[FAX]OFF/[1]/[E]
Feeding area (Main unit)	Feed cover	2nd transport sensor	03-[FAX]OFF/[7]/[A]
LCF	LCF side cover	LCF feed sensor	03-[FAX]OFF/[4]/[C]
PFP	PFP side cover	PFP upper drawer feed sensor	03-[FAX]OFF/[2]/[B]
		PFP lower drawer feed sensor	03-[FAX]OFF/[3]/[B]
Bridge unit	Bridge unit	Bridge unit transport sensor-1	03-[FAX]ON/[4]/[G] 03-[FAX]ON/[3]/[G]
		Bridge unit transport sensor-2	03-[FAX]ON/[4]/[F] 03-[FAX]ON/[3]/[G]
JSP	JSP cover	JSP feed sensor	03-[FAX]ON/[3]/[G]
OCT	OCT cover	OCT feed sensor	03-[FAX]ON/[3]/[G]
Finisher	Finisher door	Sensors in the finisher	-

[E570] Jam not reaching the reverse sensor
[E580] Stop jam at the reverse sensor

1. Open the ADU and remove paper if there is any on the transport path.
   * If the error still occurs, check the following:
2. Is the reverse sensor working? (Perform the input check in the test mode: 03-[FAX]ON/[9]/[C])
   * If it is working normally, go to step 6. If it is not, check 3 to 5.
3. Check if the connector pins are disconnected or the harnesses are open circuited between the reverse sensor and the connector CN304 on the LGC board. Correct if there is any abnormality.
4. Replace the reverse sensor.
5. Replace the LGC board.
6. Is the reverse motor working? (Perform the output check in the test mode: 03-123/173)
   * If it is working normally, go to step 11. If it is not, check 7 to 10.
7. Check if the connector pins are disconnected or the harnesses are open circuited between the reverse motor and the connector CN304 on the LGC board (and also the connectors CN401 and CN406 on the MOT2 board). Correct if there is any abnormality.
8. Replace the reverse motor.
9. Replace the MOT2 board.
10. Replace the LGC board.
11. Check the exit roller. Replace it if it is worn out.

[E950] Jam not reaching the JSP feed sensor

[E951] Stop jam at the JSP feed sensor

Open the JSP cover. Is there any paper on the transport path?

↓ YES → Remove the paper.

NO

Is the JSP feed sensor working?
(Perform the input check in the test mode: 03-[FAX]ON/[3]/[D])

NO →
1. Check if the connector of the JSP feed sensor is disconnected.
2. Check if either of the connectors CN260 or CN262 on the JSP board is disconnected.
3. Check if the connector CN302 on the LGC board is disconnected.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor patterns on the JSP board and LGC board are short circuited or open circuited.
6. Replace the JSP feed sensor.
7. Replace the JSP board.
8. Replace the LGC board.

↓

YES

1. Replace the JSP board.
2. Replace the LGC board.

[E960] Jam not reaching the OCT feed sensor
[E961] Stop jam at the OCT feed sensor

Open the OCT cover. Is there any paper on the transport path?

↓ YES → Remove the paper.

NO

Is the OCT feed sensor working?
(Perform the input check in the test mode: 03-[FAX]ON/[3]/[G])

NO →
1. Check if the connector of the OCT feed sensor is disconnected.
2. Check if either of the connectors CN260 or CN262 on the OCT board is disconnected.
3. Check if the connector CN302 on the LGC board is disconnected.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor patterns on the OCT board and LGC board are short circuited or open circuited.
6. Replace the OCT feed sensor.
7. Replace the OCT board.
8. Replace the LGC board.

↓

YES

1. Replace the OCT board.
2. Replace the LGC board.

[EB50]Paper left on the transport path due to multiple feeding

When the paper is fed from the upper drawer:

1. Open the ADU and remove paper if there is any on the transport path.
2. Is the registration sensor working? (Perform the input check: 03-[FAX]/ON/[9]/[A])
   * If it is working normally, go to step 8. If it is not, check 3 to 7.
3. Check if the connector CN316 on the LGC board is disconnected.
4. Check if the connector pins are disconnected or the harnesses are open circuited.
5. Check if the conductor patterns on the LGC board are short circuited or open circuited.
6. Replace the registration sensor.
7. Replace the LGC board.
8. Check the rollers. Replace them if they are worn out

When the paper is fed from the bypass tray:

1. Open the ADU and remove paper if there is any on the transport path.
2. Is the 1st transport sensor working? (Perform the input check: 03-[FAX]/OFF/[6]/[A])
   * If it is working normally, go to step 8. If it is not, check 3 to 7.
3. Check if the connector CN316 on the LGC board is disconnected.
4. Check if the connector pins are disconnected or the harnesses are open circuited.
5. Check if the conductor patterns on the LGC board are short circuited or open circuited.
6. Replace the 1st transport sensor.
7. Replace the LGC board.
8. Is the registration sensor working? (Perform the input check in the test mode: 03-[FAX]ON/[9]/[A])
   * If it is working normally, go to step 14. If it is not, check 9 to 13.
9. Check if the connector CN316 on the LGC board is disconnected.
10. Check if the connector pins are disconnected or the harnesses are open circuited.
11. Check if the conductor patterns on the LGC board are short circuited or open circuited.
12. Replace the registration sensor.
13. Replace the LGC board.
14. Check the rollers. Replace them if they are worn out

When the paper is fed from the lower drawer:

1. Open the ADU and remove paper if there is any on the transport path.
2. Is the registration sensor working? (Perform the input check: 03-[FAX]/ON/[9]/[A])
   * If it is working normally, go to step 8. If it is not, check 3 to 7.
3. Check if the connector CN316 on the LGC board is disconnected.
4. Check if the connector pins are disconnected or the harnesses are open circuited.
5. Check if the conductor patterns on the LGC board are short circuited or open circuited.
6. Replace the registration sensor.
7. Replace the LGC board.
8. Check the rollers. Replace them if they are worn out

When the paper is fed from the PFP or LCF

1. Open the feed cover and remove paper if there is any on the transport path.
2. Is the 2nd transport sensor working? (Perform the input check: 03-[FAX]/OFF/[7]/[A])
   * If it is working normally, go to step 8. If it is not, check 3 to 7.
3. Check if the connector CN316 on the LGC board is disconnected.
4. Check if the connector pins are disconnected or the harnesses are open circuited.
5. Check if the conductor patterns on the LGC board are short circuited or open circuited.
6. Replace the 2nd transport sensor.
7. Replace the LGC board.
8. Check the rollers. Replace them if they are worn out

[EB60] Paper left on the transport path due to multiple feeding

Open the Automatic duplexing unit. Is there any paper in front of the registration sensor?

↓ YES → Remove the paper.

NO

Is the registration sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[6]/[E])

| NO →
1. Check if the connector of the registration sensor is disconnected.
2. Check if the connector CN316 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the registration sensor.
6. Replace the LGC board.

↓

YES

Check the rollers. Replace them if they are worn out.

6.3.2 Paper misfeeding

[E110] ADU misfeeding

Open the Automatic duplexing unit. Is there any paper in front of the registration sensor?

↓ YES → Remove the paper.

NO

Is the registration sensor working?
(Perform the input check in the test mode: 03-[FAX]ON/[9]/[A])

NO →

1. Check if the connector of the 1st transport sensor is disconnected.
2. Check if the connector CN316 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the 1st registration sensor.
6. Replace the LGC board.

↓

YES

Is the ADU clutch working? (Perform the output check in the test mode: 03-222)

NO →

1. Check if the connector of the ADU clutch is disconnected.
2. Check if the connector CN304 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the ADU clutch.
6. Replace the LGC board.

↓

YES

Check the rollers in the ADU. Replace them if they are worn out.

[E120] Bypass misfeeding

Open the Automatic duplexing unit. Is there any paper in front of the 1st transport sensor?

↓ YES → Remove the paper.

NO

Is the 1st transport sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[6]/[A])

NO →

1. Check if the connector of the 1st transport sensor is disconnected.
2. Check if the connector CN316 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the 1st transport sensor.
6. Replace the LGC board.

↓

YES

Is the bypass feed clutch working? (Perform the output check in the test mode: 03-204)
Is the bypass paper sensor working? (Perform the input check in the test mode: 03-[FAX]OFF/[1]/[D])

NO →
1. Check if the connector of the bypass feed clutch and bypass paper sensor are disconnected.
2. Check if the connector CN311 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the bypass feed clutch and bypass paper sensor.
6. Replace the LGC board.

↓

YES

Check the bypass feed roller and separation pad. Replace them if they are worn out.

[E130] Upper drawer misfeeding (paper not reaching the 1st transport sensor

Open the Automatic duplexing unit. Is there any paper in front of the 1st transport sensor?

↓ YES → Remove the paper.

NO

Is the 1st transport sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[6]/[A])

NO →
1. Check if the connector of the 1st transport sensor is disconnected.
2. Check if the connector CN316 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the 1st transport sensor.
6. Replace the LGC board.

↓

YES

Is the upper drawer feed clutch working?
(Perform the output check in the test mode: 03-201)

NO →
1. Check if the connector of the upper drawer feed clutch is disconnected.
2. Check if the connector CN315 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the upper drawer feed clutch.
6. Replace the LGC board.

↓

YES

Check the upper drawer feed roller, separation roller and pickup roller.
Replace them if they are worn out.

[E140] Lower drawer misfeeding (paper not reaching the 2nd transport sensor

Open the feed cover. Is there any paper in front of the 2nd transport sensor?

↓ YES → Remove the paper.

NO

Is the 2nd transport sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[7]/[A])

NO →
1. Check if the connector of the 2nd transport sensor is disconnected.
2. Check if the connector CN316 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the 2nd transport sensor.
6. Replace the LGC board.

↓

YES

Is the lower drawer feed clutch working?
(Perform the output check in the test mode: 03-202)

NO →
1. Check if the connector of the lower drawer feed clutch is disconnected.
2. Check if the connector CN315 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the lower drawer feed clutch.
6. Replace the LGC board.

↓

YES

Check the lower drawer feed roller, separation roller and pickup roller. Replace them if they are worn out.

[E150] PFP upper drawer misfeeding (paper not reaching the PFP upper drawer feed sensor)

Open the PFP side cover. Is there any paper in front of the PFP upper drawer feed sensor?

↓ YES → Remove the paper.

NO

Is the PFP upper drawer feed sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[2]/[B])

NO →
1. Check if the connector of the PFP upper drawer feed sensor is disconnected.
2. Check if either of the connectors CN241 or CN243 on the PFP board is disconnected.
3. Check if the connector CN318 on the LGC board is disconnected.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
6. Replace the PFP upper drawer feed sensor.
7. Replace the PFP board.
8. Replace the LGC board.

↓

YES

Is the PFP upper drawer feed clutch working?
(Perform the output check in the test mode: 03-226)

NO →
1. Check if the connector of the PFP upper drawer feed clutch is disconnected.
2. Check if any of the connectors CN241 and CN247 on the PFP board is disconnected.
3. Check if the connector CN318 on the LGC board is disconnected.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
6. Replace the PFP upper drawer feed clutch.
7. Replace the PFP board.
8. Replace the LGC board.

↓

YES

Check the PFP upper drawer feed roller, separation roller and pickup roller.
Replace them if they are worn out.

[E160] PFP lower drawer misfeeding (paper not reaching the PFP lower drawer feed sensor)

Open the PFP side cover. Is there any paper in front of the PFP lower drawer feed sensor?

↓ YES → Remove the paper.

NO

Is the PFP lower drawer feed sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[3]/[B])

NO →
1. Check if the connector of the PFP lower drawer feed sensor is disconnected.
2. Check if either of the connectors CN241 or CN243 on the PFP board is disconnected.
3. Check if the connector CN318 on the LGC board is disconnected.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
6. Replace the PFP lower drawer feed sensor.
7. Replace the PFP board.
8. Replace the LGC board.

↓

YES

Is the PFP lower drawer feed clutch working?
(Perform the output check in the test mode: 03-228)

NO →

1. Check if the connector of the PFP lower drawer feed clutch is disconnected.
2. Check if any of the connectors CN241 and CN248 on the PFP board is disconnected.
3. Check if the connector CN318 on the LGC board is disconnected.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
6. Replace the PFP lower drawer feed clutch.
7. Replace the PFP board.
8. Replace the LGC board.

↓

YES

Check the PFP lower drawer feed roller, separation roller and pickup roller.
Replace them if they are worn out.

[E190] LCF misfeeding (paper not reaching the LCF feed sensor)

Open the LCF side cover. Is there any paper in front of the LCF feed sensor?

↓ YES → Remove the paper.

NO

Is the LCF feed sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[4]/[C])

NO →
1. Check if the connector of the LCF feed sensor is disconnected.
2. Check if either of the connectors CN1 or CN7 on the LCF board is disconnected.
3. Check if the connector CN318 on the LGC board is disconnected.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor patterns on the LCF board and LGC board are short circuited or open circuited.
6. Replace the LCF feed sensor.
7. Replace the LCF board.
8. Replace the LGC board.

↓

YES

Is the LCF feed clutch working? (Perform the output check in the test mode: 03-209)

NO →
1. Check if the connector of the LCF feed clutch is disconnected.
2. Check if any of the connectors CN1 and CN6 on the LCF board is disconnected.
3. Check if the connector CN318 on the LGC board is disconnected.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor patterns on the LCF board and LGC board are short circuited or open circuited.
6. Replace the LCF feed clutch.
7. Replace the LCF board.
8. Replace the LGC board.

↓

YES

Check the LCF feed roller, separation roller and pickup roller.
Replace them if they are worn out.

6.3.3 Cover open jam

[E410] Front cover opened during printing

Is the front cover open?

↓ YES → Close the cover.

NO

Is the front cover opening/closing switch working?
(Perform the input check in the test mode: 03-[FAX]ON/[9]/[D])

| NO →
1. Check if the connector of the front cover opening/closing switch is disconnected.
2. Check if the connector CN310 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the front cover opening/closing switch.
6. Replace the LGC board.

↓

YES

Is the voltage of 24V being supplied from the power supply unit?
(Perform the input check in the test mode: 03-[FAX] ON/[2]/[A])

| NO →
1. Check if the connector for 24 V power supply is disconnected.
2. Check if the connector CN301 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the LGC board.

↓

YES

Replace the LGC board.

[E420] PFP side cover opened during printing

Is the PFP side cover open?

↓ YES → Remove the paper if there is any, then close the cover.

NO

Is the PFP side cover opening/closing switch working?
(Perform the input check in the test mode: 03-[FAX]OFF/[2]/[A])

| NO →
1. Check if the connector of the PFP side cover opening/closing switch is disconnected.
2. Check if either of the connectors CN241 or CN243 on the PFP board is disconnected.
3. Check if the connector CN318 on the LGC board is disconnected.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
6. Replace the PFP side cover opening/closing switch.
7. Replace the PFP board.
8. Replace the LGC board.

↓

YES

1. Replace the PFP board.
2. Replace the LGC board.

[E430] ADU opened during printing

Is the ADU open?

↓ YES → Remove the paper if there is any, then close the ADU.

NO

Is the ADU opening/closing switch working?
(Perform the input check in the test mode: 03-[FAX]ON/[9]/[F])

| NO →
1. Check if the connector of the ADU opening/closing switch is disconnected.
2. Check if the connector CN311 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor patterns on the LGC board are short circuited or open circuited.
5. Replace the ADU opening/closing switch.
6. Replace the LGC board.

↓

YES

1. Replace the LGC board.

[E440] Feed cover opened during printing

Is the feed cover open?

↓ YES → Remove the paper if there is any, then close the cover.

NO

Is the feed cover opening/closing detection sensor working?
(Perform the input check in the test mode: 03-[FAX]ON/[9]/[E])

| NO →
1. Check if the connector of the feed cover opening/closing detection sensor is disconnected.
2. Check if the connector CN311 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the feed cover opening/closing detection sensor.
6. Replace the LGC board.

↓

YES

Replace the LGC board.

[E450] LCF side cover opened during printing

Is the LCF side cover open?

↓ YES → Remove the paper if there is any, then close the cover.

NO

Is the LCF side cover opening/closing switch working?
(Perform the input check in the test mode: 03-[FAX]OFF/[4]/[B])

NO →
1. Check if the connector of the LCF side cover opening/closing switch is disconnected.
2. Check if either of the connectors CN1 or CN7 on the LCF board is disconnected.
3. Check if the connector CN318 on the LGC board is disconnected.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor patterns on the LCF board and LGC board are short circuited or open circuited.
6. Replace the LCF side cover opening/closing switch.
7. Replace the LCF board.
8. Replace the LGC board.

↓

YES

1. Replace the LCF board.
2. Replace the LGC board.

[E480] Bridge unit opened during printing

Is the bridge unit open?

↓ YES → Remove the paper if there is any, then close the unit.

NO

Is the bridge unit opening/closing switch working?
(Perform the input check in the test mode: 03-[FAX]ON/[3]/[E] / 03-[FAX]ON/[4]/[E])

NO →
1. Check if the connector of the bridge unit opening/closing switch is disconnected.
2. Check if the connector CN302 / CN400 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the bridge unit opening/closing switch.
6. Replace the LGC board.

↓

YES

Replace the LGC board.

[E490] JSP cover opened during printing

Is the JSP cover open?

↓ YES → Remove the paper if there is any, then close the cover.

NO

Is the JSP cover switch working?
(Perform the input check in the test mode: 03-[FAX]ON/[3]/[E])

NO →
1. Check if the connector of the JSP cover switch is disconnected.
2. Check if either of the connectors CN260 or CN261 on the JSP board is disconnected.
3. Check if the connector CN302 on the LGC board is disconnected.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor patterns on the JSP board and LGC board are short circuited or open circuited.
6. Replace the JSP cover switch.
7. Replace the JSP board.
8. Replace the LGC board.

↓

YES

1. Replace the JSP board.
2. Replace the LGC board.

[E491] OCT cover opened during printing

Is the OCT cover open?

↓ YES → Remove the paper if there is any, then close the cover.

NO

Is the OCT cover switch working?
(Perform the input check in the test mode: 03-[FAX]ON/[3]/[E])

NO →
1. Check if the connector of the OCT cover switch is disconnected?
2. Check if either of the connectors CN260 or CN261 on the OCT board is disconnected.
3. Check if the connector CN302 on the OCT board is disconnected.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor patterns on the OCT board and LGC board are short circuited or open circuited.
6. Replace the OCT cover switch.
7. Replace the OCT board.
8. Replace the LGC board.

↓

YES

1. Replace the OCT board.
2. Replace the LGC board.

6.3.4 RADF jam

[E712] Jam not reaching the original registration sensor

1. Clean the pickup roller, feed roller and separation roller if they are stained.
2. Flatten the original if it is folded or excessively curled and place it again.
3. Is the original registration sensor working? (Perform the input check: 03-[FAX]ON/[7]/[H])
   - * If it is working properly, proceed to 7. If not, check 3 to 6.
4. Check if the connector CN74 on the RADF board is disconnected from the original registration sensor or the harnesses are open circuited. Correct if any.
5. Replace the original registration sensor.
6. Replace the RADF board.
7. Replace the pickup roller, feed roller and separation roller if they are worn out.

[E714] Feed signal reception jam

1. Is the empty sensor working? (Perform the input check: 03-[FAX]ON/[7]/[B])
2. Check if the lever of empty sensor is working normally.
3. Check if the connector CN75 on the RADF board is disconnected from the empty sensor or the harnesses are open circuited. Correct if any.
4. Replace the empty sensor.
5. Replace the RADF board.

[E721] Jam not reaching the read sensor

1. Clean the registration roller and the read roller if they are stained.
2. Is the read sensor working? (Perform the input check: 03-[FAX]ON/[7]/[G])
   - * If it is working properly, proceed to 6. If not, check 3 to 5 below.
3. Check if the connector CN76 on the RADF board is disconnected from the read sensor or the harnesses are open circuited. Correct if any.
4. Replace the read sensor.
5. Replace the RADF board.
6. Replace the registration roller and the read roller if they are worn out.

[E722] Jam not reaching the exit sensor (during scanning)

1. Clean the read roller if it is stained.
2. Is the original exit/reverse sensor working? (Perform the input check: 03-[FAX]ON/[7]/[E])
   - * If it is working properly, proceed to 6. If not, check 3 to 5 below.
3. Check if the connector CN75 on the RADF board is disconnected from the original exit/reverse sensor or the harnesses are open circuited. Correct if any.
4. Replace the original exit/reverse sensor
5. Replace the RADF board.
6. Replace the read roller if it is worn out.

[E724] Stop jam at the registration sensor

1. Clean the registration roller if it is stained.
2. Is the registration sensor working? (Perform the input check: 03-[FAX]ON/[7]/[H])
   - * If it is working properly, proceed to 6. If not, check 3 to 5 below.
3. Check if the connector CN74 on the RADF board is disconnected from the registration sensor or the harnesses are open circuited. Correct if any.
4. Replace the registration sensor.
5. Replace the RADF board.
6. Replace the registration roller if it is worn out.

[E725] Stop jam at the read sensor

1. Clean the read roller if it is stained.
2. Is the read sensor working? (Perform the input check: 03-[FAX]ON/[7]/[G])
   - * If it is working properly, proceed to 6. If not, check 3 to 5 below.
3. Check if the connector CN75 on the RADF board is disconnected from the read sensor or the harnesses are open circuited. Correct if any.
4. Replace the read sensor.
5. Replace the RADF board.
6. Replace the read roller if it is worn out.

[E731] Stop jam at the exit sensor

1. Clean the exit roller if it is stained.
2. Is the exit/reverse sensor working? (Perform the input check: 03-[FAX]ON/[7]/[E])
   - * If it is working properly, proceed to 6. If not, check 3 to 5 below.
3. Check if the connector CN4 on the RADF board is disconnected from the exit/reverse sensor or the harnesses are open circuited. Correct if any.
4. Replace the exit/reverse sensor.
5. Replace the RADF board.
6. Replace the exit roller if it is worn out.

[E860] RADF jam access cover open

1. Close the RADF jam access cover if it is opened. Remove if there is any original before closing it.
2. Is the RADF jam access cover switch working? (Perform the input check: 03-[FAX]ON/[7]/[C])
   - * If it is working properly, proceed to 6. If not, check 3 to 5 below.
3. Check if the connector CN8 on the RADF board is disconnected from the RADF jam access cover switch or the harnesses are open circuited. Correct if any.
4. Replace the RADF jam access cover switch.
5. Replace the RADF board.

[E870] RADF open jam

1. Close the RADF if it is opened. Remove if there is any original before closing it.
2. Is the RADF opening/closing sensor working? (Perform the input check: 03-[FAX]ON/[7]/[D])
   - * If it is working properly, proceed to 6. If not, check 3 to 5 below.
3. Check if the connector CN75 on the RADF board is disconnected from the RADF opening/closing sensor or the harnesses are open circuited. Correct if any.
4. Replace the RADF opening/closing sensor.
5. Replace the RADF board.
6. Is the RADF opening/closing sensor adjusted within the specified range?

[E871] Cover open jam in the read ready status

1. Close the RADF jam access cover or the front cover if they are opened in the read ready status.
2. Is the RADF jam access cover sensor working? (Perform the input check: 03-[FAX]ON/[7]/[C])
3. Check if the connector CN75 on the RADF board is disconnected from the RADF jam access cover sensor or the harnesses are open circuited. Correct if any.
4. Replace the RADF jam access cover sensor.
5. Replace the RADF board.

6.3.5 Finisher jam

[1] Jam in bridge unit

[E910] Paper not reaching the bridge unit transport sensor-1
[E920] Paper stopping at the bridge unit transport sensor-1

1. Check if there is any paper in the bridge unit and remove it if there is.
2. Is the bridge unit transport sensor-1 working? (Perform the input check:03-[FAX]OFF/[3]/[F]) / 03-[FAX]OFF/[4]/[F])
   * If it is working properly, proceed to 6. If not, check 3 to 5 below.
3. Check if the connector CN302 on the LGC board is disconnected from the bridge unit transport sensor-1 (entrance sensor) or the harnesses are open circuited. Check if the connector J681 of the bridge unit is disconnected. Correct if any.
4. Replace the bridge unit transport sensor-1.
5. Replace the LGC board.
6. Is the bridge unit gate solenoid working? (Perform the output check: 03-232)
   * If it is working properly, proceed to 10. If not, check 7 to 9 below.
7. Check if the connector CN302 on the LGC board is disconnected from the bridge unit gate solenoid or the harnesses are open circuited. Check if the connector J681 of the bridge unit is disconnected. Correct if any.
8. Replace the bridge unit gate solenoid.
9. Replace the LGC board.
10. Does the transport roller of the bridge unit work when the fuser motor is rotated? (Perform the output check: 03-113/163)
    * If it is working properly, proceed to 12. If not, check 11 below.
11. Check the drive system of the equipment and bridge unit.
12. Check if the rollers in the exit roller, the pressure spring and the bridge unit are worn out.

[E930] Paper not reaching the bridge unit transport sensor-2
[E940] Paper stopping at the bridge unit transport sensor-2

1. Check if there is any paper in the bridge unit and remove it if there is.
2. Is the bridge unit transport sensor-2 working? (Perform the input check:03-[FAX]OFF/[5]/[D])
   * If it is working properly, proceed to 6. If not, check 3 to 5 below.
3. Check if the connector CN334 on the LGC board is disconnected from the bridge unit transport sensor-2 (exit sensor) or the harnesses are open circuited. Check if the connector J523 of the bridge unit is disconnected. Correct if any.
4. Replace the bridge unit transport sensor-2.
5. Replace the LGC board.
6. Does the transport roller of the bridge unit work when the fuser motor is rotated? (Perform the output check: 03-113/163)
   * If it is working properly, proceed to 8. If not, check 7 below.
7. Check the drive system of the equipment and bridge unit.
8. Check if the rollers in the exit roller, the pressure spring and the bridge unit are worn out.

[2] Paper jam in puncher unit

[E9F0] Punching jam

MJ-1025

Is there any paper remaining on the transport path in the finisher or equipment?

↓ YES → Remove the paper.

NO

Is the connector J1006 on the punch controller PC board disconnected?
Is the harness connecting the punch controller PC board and punch home position sensor (PI1P) open circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the punch home position sensor working properly?

| NO → 1. Connect the connector of the punch home position sensor securely.
↓ 2. Replace the punch home position sensor.

YES

Replace the punch controller PC board.

MJ-1024 (when MJ-6004 is installed)

1. Check if there is any paper in the finisher or the on the transport path of the equipment. Remove it if there is.
2. Is the connector J605A on the punch controller PC board disconnected?
3. Check if the connector on the punch controller PC board is disconnected from the punch home position sensor (PI63) or the harnesses are open circuited. Correct if any.
4. Check if the punch home position sensor (PI63) is working properly.
5. Replace the punch home position sensor.
6. Replace the punch controller PC board.

MJ-1101 (when MJ-6101 is installed)

1. Check if there is any paper in the finisher, saddle stitcher or the on the transport path of the equipment. Remove it if there is.
2. Rotate the punch motor (M3) and fix its mechanism if it does not rotate smoothly.
3. Check if the harnesses and the punch HP sensor (S4) are connected properly. Correct if any.
4. Check if the wiring of the hole punch controller PC board (HP board) and the punch motor (M3) is proper. Correct if any.
5. Replace the punch motor (M3).
6. Replace the hole punch control PC board.

[3] Paper jam in finisher section

[EA10] Paper transport delay jam

MJ-1025

1. Check if there is any paper remaining in the Finisher or on the transport path of the equipment. Remove if there is.
2. Check if the connector pins are disconnected or the harnesses are open circuited between the inlet sensor and the connector on the finisher controller PC board. Correct if there is any abnormality.
3. Check if the inlet sensor is working normally. (Correct if the actuator does not return normally or if it is deformed or removed.)
4. Replace the sensor.
5. Replace the finisher controller PC board.

MJ-1024

1. Check if there is any paper in the finisher or on the transport path of the equipment and remove it if there is.
2. Check if the connector J708 on the finisher controller PC board is disconnected from the inlet sensor (P133) or the harnesses are open circuited. Correct if any.
3. Is the inlet sensor working properly? (Check the movement of the actuator.)
4. Replace the inlet sensor.
5. Replace the finisher controller PC board.

MJ-1031

1. Check if there is any paper in the finisher or on the transport path of the equipment and remove it if there is.
2. Check if the connector J104 on the finisher controller PC board is disconnected from the inlet sensor (SR2) or the harnesses are open circuited. Correct if any.
3. Is the inlet sensor working properly? (Check the movement of the actuator.)
4. Replace the inlet sensor.
5. Replace the finisher controller PC board.

MJ-1101

1. Check if there is any paper in the finisher or on the transport path of the equipment and remove it if there is.
2. Is there a disconnection of the connector, incorrect installation or breakage of the entrance sensor (S1)?
3. Is the gap between the flapper and entrance roller shaft other than 0.60?0.20mm when the gate solenoid (SOL2) is pulled?.
4. Is the harness between the entrance motor (M1) and the finisher control PC board (CN7) disconnected or open circuited?
5. Is the harness between the gate solenoid (SOL2) and the finisher control PC board (CN22) disconnected or open circuited?
6. Replace the finisher controller PC board.

[EA20] Paper transport stop jam

MJ-1025

Is there any paper remaining on the transport path in the finisher?

↓ YES → Remove the paper.

NO

Is the connector CN16 (inlet sensor) on the finisher controller PC board disconnected?
Is the harness connecting the finisher controller PC board and inlet sensor open-circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the inlet sensor working normally? (Check the movement of the actuator.)

| NO → 1. Attach the actuator securely if its shaft is out of place.
↓ 2. Replace the sensor.

YES

Replace the finisher controller PC board.

MJ-1024

1. Check if there is any paper in the finisher or on the transport path of the equipment and remove it if there is.
2. Check if the connectors J707, J708 and J722B on the finisher controller PC board are disconnected from the corresponding sensors(inlet sensor [P133], transport path sensor [P134] and processing tray sensor [P138]) or the harnesses are open circuited. Correct if any.
3. Attach the actuators securely if their shafts are out of place.
4. Replace the sensors.
5. Replace the finisher controller PC board.

MJ-1031

1. Check if there is any paper in the finisher or on the transport path of the equipment and remove it if there is.
2. Check if the connector J104 on the finisher controller PC board is disconnected from the inlet sensor (SR2) or the harnesses are open circuited. Correct if any.
3. Is the inlet sensor working properly? (Check the movement of the actuator.)
4. Replace the inlet sensor.
5. Replace the finisher controller PC board.

MJ-1101

1. Check if there is any paper in the finisher or on the transport path of the equipment and remove it if there is.
2. Check if the connector on the finisher controller PC board is disconnected from the transport sensor (S2) or the harnesses are open circuited. Correct if any.
3. Replace the sensor.
4. Replace the finisher controller PC board.

[EA21] Paper size error jam (outlet sensor)
[EA22] Paper size error jam (punch paper edge sensor)
MJ-1101

1. Check if there is any paper in the finisher or on the transport path of the equipment and remove it if there is.
2. Is the paper size used shorter than the size specified in the specifications?
3. Check if the connectors CN7 and CN22 on the finisher controller PC board are disconnected from the entrance sensor (S1) and the transport sensor (S2), or the harnesses are open circuited. Correct if any.
4. Replace the sensor.
5. Replace the finisher controller PC board.

[EA23] Paper transport stop jam (transport sensor)
[EA24] Paper transport stop jam (between entrance & transport sensor)
[EA25] Paper transport stop jam (after paper stack exit)
[EA26] Paper transport stop jam (stop command request)
[EA27] Paper transport stop jam (paper not inserted)
[EA28] Paper transport stop jam (paper holder plate operation delay)
[EA29] Paper transport stop jam (stack transport delay)

MJ-1101

1. Check if there is any paper in the finisher or on the transport path of the equipment and remove it if there is.
2. Check if the connectors CN7 and CN22 on the finisher controller PC board are disconnected from the entrance sensor (S1) and the transport sensor (S2), or the harnesses are open circuited. Correct if any.
3. Replace the sensor.
4. Replace the finisher controller PC board.

[EA30] Power-ON jam

MJ-1025

1. Check if there is any paper remaining in the Finisher or the Saddle Stitch Finisher or on the transport path of the equipment. Remove if there is.
2. Check if the connector pins are disconnected or the harnesses are open circuited between the inlet sensor and the connector on the finisher controller PC board. Correct if there is any abnormality.
3. Check if the harnesses are open circuited between the punch controller PC board and the photosensor PC board. Correct if there is any abnormality.
4. Are the inlet sensor, folding position sensor and photosensor PC board working properly? (Correct if the actuator does not return normally or if it is deformed
5. Replace the sensors.
6. Replace the finisher controller PC board.
7. Replace the punch controller PC board.

MJ-1024

1. Check if there is any paper in the finisher or on the transport path of the equipment and remove it if there is.
2. Check if the connectors J707, J708 and J722B on the finisher controller PC board are disconnected from the corresponding sensor (inlet sensor [P133], transport path sensor [P134] and processing tray sensor [P138]) or the harnesses are open circuited. Correct if any.
3. Is each of the sensors (the inlet sensor, the transport path sensor and the processing tray sensor) working properly? (Check the movement of the actuator.)
4. Replace the sensors.
5. Replace the finisher controller PC board.

MJ-1031

1. Check if there is any paper in the finisher or on the transport path of the equipment and remove it if there is.
2. Check if the connector J104 on the finisher controller PC board is disconnected from the inlet sensor (SR2) or the harnesses are open circuited. Correct if any.
3. Is the inlet sensor working properly? (Check the movement of the actuator.)
4. Replace the inlet sensor.
5. Replace the finisher controller PC board.

[EA31] Transport path paper remaining jam

1. Check if there is any paper in the finisher or on the transport path of the equipment and remove it if there is.
2. Check if the connector CN22 on the finisher controller PC board is disconnected from the transport sensor (S2) or the harnesses are open circuited. Correct if any.

3. Check if the connectors CN7 and CN22 on the finisher controller PC board are disconnected from the inlet sensor (S1) and the transport sensor (S2), or the harnesses are open circuited. Correct if any.
4. Replace the sensor.
5. Replace the finisher controller PC board.

[EA32] Exit paper remaining jam

1. Check if there is any paper in the finisher or on the transport path of the equipment and remove it if there is.
2. Check and correct the mechanism.
3. Check if the connector CN11 on the finisher controller PC board is disconnected from the finishing tray paper detection sensor (S12) or the harnesses are open circuited. Correct if any.
4. Replace the sensor.
5. Replace the finisher controller PC board.

[EA40] Finisher front door open jam

MJ-1025

Is the finisher connected with the equipment?
Are the upper cover and front door of the finisher closed?

| YES → 1. Connect the finisher with the equipment.
↓ 2. Close the cover and door of the finisher.

NO

Is any of the connectors CN4 (upper cover sensor and front door sensor) and CN8 (joint switch) on the finisher controller PC board disconnected?
Is the harness connecting the finisher controller PC board and each sensor (upper cover sensor or front door sensor) open-circuited?
Is the harness connecting the finisher controller PC board and joint switch (MS2) open-circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Are the joint switch, upper cover sensor and front door sensor working properly?

↓ NO → 1. Attach the actuator securely if its shaft is out of place.
2. Replace the switch or sensor.

YES

Replace the finisher controller PC board.

MJ-1024

1. Check if there is any paper in the finisher or on the transport path of the equipment and remove it if there is.
2. Close the upper or front cover of the finisher if any of them is opened.
3. Check if the connectors J707 and J708 on the finisher controller PC board are disconnected from the upper cover opening sensor (P131) and the front cover opening sensor (P132) , or the harnesses are open circuited. Correct if any.
4. Replace the upper/front cover opening sensor.
5. Check if the connector J719 on the finisher controller PC board is disconnected from the front cover switch (MS31) or the harnesses are open circuited. Correct if any.
6. Replace the front cover switch (MS31).
7. Is the connector J601/J602 on the punch controller PC board disconnected?
8. Is the harness connecting the punch controller PC board and upper door switch (MSW61) open circuited?

9. Is the harness connecting the punch controller PC board and front door switch (MSW62) open circuited?
10. Are the upper and front door switches working properly?
11. Reconnect or replace the connector of the upper cover switch or the front cover switch.
12. Replace the finisher controller PC board.

MJ-1031

1. Check if there is any paper in the finisher or on the transport path of the equipment and remove it if there is.
2. Check if the connector J110 on the finisher controller PC board is disconnected from the Joint switch (SW1) or the harnesses are open circuited. Correct if any.
3. Replace the Joint switch.
4. Replace the finisher controller PC board.

MJ-1101

1. Close the front cover or the stationary tray cover if they are opened.
2. Replace the handle cover installed inside of the front cover if it is broken.
3. Reinstall the stationary tray opening/closing switch if it is incorrectly installed.
4. Check if the connector CN16 on the finisher controller PC board is disconnected from the front cover switch (SW1) and the stationary tray opening/closing switch (SW2) or the harnesses are open circuited. Correct if any.
5. Replace the sensors.
6. Replace the finisher controller PC board.

[EA50] Stapling jam

MJ-1025

Is there any paper remaining on the stapling tray?

↓ YES → Remove the paper.

NO

Open the front door. Is the stapler home position mark blue?

↓ YES → Rotate the stapler opening dial until the home position mark turns blue.

NO

Is any of the connectors CN11 (slide home position sensor), CN8 (stapler safety switch) and CN6 (staple/fold motor) on the finisher controller PC board disconnected?
Is the stapler unit installed securely?
Is the harness connecting the finisher controller PC board and slide home position sensor open-circuited?
Is the harness connecting the finisher controller PC board and stapler safety switch open-circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Are the slide home position sensor and stapler safety switch working properly?

| NO → 1. Replace the stapler unit.
↓ 2. Replace the stapler safety switch.

YES

Replace the finisher controller PC board.

MJ-1024

1. Check if there is any paper in the finisher or on the transport path of the equipment or on the stapling tray. Remove it if there is.

2. Is the jam cleared by taking off the staple cartridge from the finisher and removing the staple sheet slid from the staple case?
3. Is the connector J717 on the finisher controller PC board disconnected?
4. Is the harness connecting the finisher controller PC board and staple home position sensor (PI50) open circuited?
5. Is the staple home position sensor working properly?
6. Reconnect or replace the connector of the staple home position sensor.
7. Replace the finisher controller PC board.

MJ-1031

1. Check if there is any paper in the finisher or stapler and remove it if there is.
2. Is the jam cleared by taking off the staple cartridge from the finisher and removing the staple sheet slid from the staple case?
3. Check if the connectors J112, J113 on the finisher controller PC board is disconnected from the stapler) or the harnesses are open circuited. Correct if any.
4. Check if the connectors on the stapler is disconnected or the harnesses are open circuited. Correct if any.
5. Replace the stapler.
6. Replace the finisher controller PC board.

MJ-1101

1. Check if there is any paper in the finisher or on the transport path of the equipment or on the finishing tray. Remove it if there is.
2. Is the jam cleared by taking off the staple cartridge from the finisher and removing the staple sheet slid from the staple case?
3. Check if the actuator of the stapler interference sensor (S11) moves smoothly.
4. Check if the connector CN2 on the finisher controller PC board is disconnected from the stapler or the harnesses are open circuited. Correct if any.
5. Check the harnesses in the stapler are disconnected or open circuited. Correct if any.
6. Replace the finisher controller PC board.

[EA60] Early arrival jam

MJ-1024

1. Check if there is any paper in the finisher or on the transport path of the equipment or on the stapling tray. Remove it if there is.
2. Check if the connector on the finisher controller PC board is disconnected from the inlet sensor (P133) or the harnesses are open circuited. Correct if any.
3. Check if the inlet sensor (P133) is working (or if the actuator returns) properly.
4. Replace the inlet sensor.
5. Replace the finisher controller PC board.

MJ-1031

1. Check if there is any paper in the finisher or on the transport path of the equipment and remove it if there is.
2. Check if the connector J104 on the finisher controller PC board is disconnected from the inlet sensor (SR2) or the harnesses are open circuited. Correct if any.
3. Is the inlet sensor working properly? (Check the movement of the actuator.)
4. Replace the inlet sensor.
5. Replace the finisher controller PC board.

MJ-1101

1. Check if there is any paper in the finisher or on the transport path of the equipment or on the finishing tray. Remove it if there is.
2. Check if there is any disconnection, incorrect installation or breakage on the entrance sensor (S1). Correct if any.
3. Check if the connector CN7 on the finisher controller PC board is disconnected from the entrance sensor (S1) and the harnesses are disconnected or open circuited. Correct if any.

4. Replace the entrance sensor.
5. Replace the finisher controller PC board.

[EA70] Stack delivery jam / Stack exit belt home position error / Stack slider home position error

MJ-1025

Is there any paper remaining on the stapling tray?

↓ YES → Remove the paper.

NO

Are the paper on the stack tray and the latches of the stack delivery belt contacting each other?

↓ YES → Remove the paper on the stack tray.

NO

Is any of the connectors CN5 (delivery belt home position sensor), CN13 (delivery motor) on the finisher controller PC board disconnected?
Is the harness connecting the finisher controller PC board and delivery belt home position sensor open-circuited?
Is the harness connecting the finisher controller PC board and delivery motor open-circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the delivery belt home position sensor working properly?

↓ NO → Replace the sensor.

YES

Is the delivery motor working properly?

↓ NO → Replace the motor.

YES

Rotate the delivery motor by hand. Is there any mechanical problem with the rotation of the stack delivery belt?
Are the latches of the stack delivery belt damaged?

↓ YES → Fix the mechanism.

NO

Replace the finisher controller PC board.

MJ-1101

1. Check if the connector CN11 on the finisher controller PC board is disconnected from the stack belt exit home position sensor (S9) and the harnesses are open circuited. Correct if any.
2. Is the harness between the stack transport motor (M5) and the finisher control PC board (CN10) disconnected or open circuited?
3. Replace the sensor.
4. Replace the finisher controller PC board.

MJ-1031

1. Check if the connector J111 on the finisher controller PC board is disconnected from the stack edging HP sensor (SR8) or the harnesses are open circuited. Correct if any.
2. Check if the connector J111 on the finisher controller PC board is disconnected from the stack slide motor (M4) or the harnesses are open circuited. Correct if any.
3. Replace the stack slider HP sensor.
4. Replace the stack slide motor.
5. Replace the finisher controller PC board.

[4]   Paper jam in saddle stitcher section

[EA80] Stapling jam

MJ-1024

1. Check if there is any paper in the finisher, saddle stitcher, or on the transport path of the equipment, or on the stapling tray. Remove it if there is.
2. Remove the staple cartridge from the finisher and remove staples stuck in the stapling unit.
3. Check if the connector J8 on the saddle stitcher controller PC board is disconnected from the stitcher home position switches (rear: SW5, front: SW7) or the harnesses are open circuited. Correct if any.
4. Check if the stitcher home position switches are working properly.
5. Replace the stitcher home position switch.
6. Replace the finisher controller PC board.

[EA90] Door open jam

MJ-1024

1. Check if there is any paper in the finisher, saddle stitcher or on the transport path of the equipment. Remove it if there is.
2. Check if the saddle stitcher door is closed.
3. Check if the connectors J10 and J11 on the saddle stitcher controller PC board are disconnected from any of the cover opening switches (the delivery cover sensor [P13] and the inlet cover sensor [P19]) or the harnesses are open circuited. Correct if any.
4. Check if the cover opening switches noted above are working properly.
5. Replace the sensor.
6. Replace the saddle stitcher controller PC board.

[EAA0] Power-ON jam

MJ-1024

1. Check if there is any paper on the transport path of the saddle stitcher or the finisher. Remove it if there is.
2. Is any of the connectors J9, J10 and J13 on the saddle stitcher controller PC board disconnected?
3. Check if the connectors on the saddle stitcher controller PC board are disconnected from the No. 1 paper sensor (PI18), No. 2 paper sensor (PI19), No. 3 paper sensor (PI20), vertical path paper sensor (PI17) and delivery sensor (PI11), or the harnesses are open circuited. Correct if any.
4. Is each of the sensors (No.1 paper sensor, No.2 paper sensor, No.3 paper sensor, the vertical path paper sensor, and the delivery sensor) working properly? (Check the movement of the actuator.)
5. Replace the sensor.
6. Replace the saddle stitcher controller PC board.

[EAB0] Saddle paper transport stop jam

MJ-1025

Is there any paper remaining on the paper transport path in the saddle stitcher section in the finisher?

↓ YES → Remove the paper.

NO

Is the connector CN16 (folding position sensor) on the finisher controller PC board disconnected?
Is the harness connecting the finisher controller PC board and folding position sensor open-circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the folding position sensor working properly?

↓ NO → Replace the sensor.

YES

Replace the finisher controller PC board.

MJ-1024

1. Check if there is any paper in the finisher, saddle stitcher or the on the transport path of the equipment. Remove it if there is.
2. Is either of the connectors J9, J10, J13, J21 on the saddle stitcher controller PC board disconnected?
3. Is the harness between the saddle stitcher controller PC board and each sensor (saddle inlet sensor [PI22], vertical path paper sensor [PI17], No.1 paper sensor [PI18], No.2 paper sensor [PI19], No.3 paper sensor [PI20] and the delivery sensor [PI11]) open circuited?
4. Is each of the sensors (the saddle inlet sensor, No.1 paper sensor, No.2 paper sensor, No.3 paper sensor, vertical path paper sensor and the delivery sensor) working properly? (Check the movement of the actuator.)
5. Replace the sensor.
6. Replace the saddle stitcher controller PC board.

[EAC0] Saddle transport delay jam

MJ-1025

Is there any paper remaining on the paper transport path in the saddle stitcher section in the finisher?

↓ YES → Remove the paper.

NO

Is the connector CN16 (folding position sensor) on the finisher controller PC board disconnected?
Is the harness connecting the finisher controller PC board and folding position sensor open-circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the folding position sensor working properly?

↓ NO → Replace the sensor.

YES

Replace the finisher controller PC board.

MJ-1024

1. Check if there is any paper in the finisher, saddle stitcher or the on the transport path of the equipment. Remove it if there is.
2. Is the connector J21 on saddle stitcher controller PC board disconnected?
3. Is the harness between the saddle stitcher controller PC board and saddle inlet sensor [PI22] open circuited?
4. Is the saddle inlet sensor working properly? (Check the movement of the actuator.)
5. Replace the sensor.
6. Replace the saddle stitcher controller PC board.

[5] Other paper jam

[EAD0] Print end command time-out jam

Is the main motor rotating normally?

↓

NO

1. Replace the SYS board / SYS-IMG board.
2. Replace the LGC board.

[EAE0] Receiving time time-out jam

Is the finisher working?

↓ YES → Replace the finisher controller PC board.

NO

1. Check if the voltage (24V) is being supplied to the finisher.
2. Check the connection of the LGC board and IPC board.
3. Check if the harness connecting the IPC board and finisher I/F connector of the equipment side is open circuited.
4. Check if the harness connecting the I/F connector of the finisher side and finisher controller PC board is open circuited.
5. Replace the finisher controller PC board.

[EB30] Ready time-out jam

1. Check if there is any paper in the equipment. Remove it if there is.
2. Check if the connector on the equipment is disconnected from the finisher or the harnesses are open circuited. Correct if any.
3. Replace the IPC board.
4. Replace the LGC board.
5. Replace the finisher controller PC board.

[ED10] Skew adjustment motor (M1) home position detection abnormality

MJ-1101 (when MJ-6101 is installed)

1. Check if there is any paper in the finisher or the on the transport path of the equipment. Remove it if there is.
2. Rotate skew adjustment motor and fix its mechanism if it does not rotate smoothly.
3. Check if the connectors on the hole punch controller PC board (HP board) are disconnected from the skew HP sensor (S2) and the skew adjustment motor, or the harnesses are open circuited. Correct if any.
4. Replace the skew adjustment motor.
5. Replace the hole punch control PC board.

[ED11] Sideways adjustment motor (M2) home position detection error

MJ-1101 (when MJ-6101 is installed)

1. Check if there is any paper on the transport path and remove it if there is.
2. Rotate sideways adjustment motor and fix its mechanism if it does not rotate smoothly.
3. Check if the connectors on the hole punch controller PC board (HP board) are disconnected from the sideways deviation HP sensor (S3)and the sideways adjustment motor, or the harnesses are open circuited. Correct if any.
4. Replace the sideways adjustment motor.
5. Replace the hole punch control PC board.

[ED12] Shutter home position error

MJ-1101

1. Open and close the shutter. If there is any mechanical problem, fix its mechanism.
2. Check if the connectors on the finisher controller PC board are disconnected from the shutter opening/closing sensor (S4) and the shutter clutch (CLT1), or the harnesses are open circuited. Correct if any.
3. Replace the shutter clutch (CLT1).
4. Replace the shutter opening/closing sensor (S4).
5. Replace the finisher controller PC board.

[ED13] Front alignment plate home position error

MJ-1101

1. Move the front alignment plate. If there is any mechanical problem, fix its mechanism.
2. Check if the connectors on the finisher controller PC board are disconnected from the front alignment plate home position sensor (S7) and the front alignment motor (M9), or the harnesses are open circuited. Correct if any.
3. Replace the front alignment motor (M9).
4. Replace the front alignment plate home position sensor (S7).
5. Replace the finisher controller PC board.

[ED14] Rear alignment plate home position error

MJ-1101

1. Move the rear alignment plate. If there is any mechanical problem, fix its mechanism.
2. Check if the connectors on the finisher controller PC board are disconnected from the rear alignment plate home position sensor (S8) and the rear alignment motor (M10), or the harnesses are open circuited. Correct if any.
3. Replace the rear alignment motor (M10).
4. Replace the rear alignment plate home position sensor (S8).
5. Replace the finisher controller PC board.

[ED15] Paddle home position error

MJ-1101

1. Rotate the paddle. If there is any mechanical problem, fix its mechanism.
2. Check if the connectors on the finisher controller PC board are disconnected from the paddle home position sensor (S3) and the paddle motor (M8), or the harnesses are open circuited. Correct if any.
3. Replace the paddle motor (M8).
4. Replace the paddle home position sensor (S3).
5. Replace the finisher controller PC board.

[ED16] Buffer tray home position error

MJ-1101

1. Open and close the buffer tray guide. If there is any mechanical problem, fix its mechanism.
2. Check if the connectors on the finisher controller PC board are disconnected from the buffer tray home position sensor (S5) and the buffer tray guide motor (M3), or the harnesses are open circuited. Correct if any.
3. Replace the buffer tray guide motor (M3).
4. Replace the buffer tray home position sensor (S5).
5. Replace the finisher controller PC board.

6.3.6 Drive system related service call

[C010] Main motor is abnormal

Is the main motor working? (Perform the output check in the test mode: 03-101/151)

NO →
1. Check if the connector CN1 of the main motor is disconnected.
2. Check if the connector CN308 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor patterns on the main motor board and LGC board are short circuited or open circuited.
5. Replace the main motor.
6. Replace the LGC board.

↓

YES

Are there any damage or scratches on the main motor board?

NO →
1. Check if the connector pins are disconnected and the harnesses are open circuited.
2. Check if the conductor patterns on the main motor board and LGC board are short circuited or open circuited.
3. Replace the main motor.
4. Replace the LGC board.

↓

YES

1. Check if the PLL lock signal CN308-8 output from the LGC board is always level “L”?
2. Check if the voltage supplied to the CPU input terminal IC22-98 is always “L”?
3. Replace the LGC board.

6.3.7 Paper feeding system related service call

[C040] PFP motor is abnormal

Is the PFP motor working? (Perform the output check in the test mode: 03-109/159)

NO →

1. Check if the signal line connector CN506 of the PFP motor is disconnected.
2. Check if the connector CN246 on the PFP board is disconnected.
3. Check if the connector CN241 on the PFP board is disconnected.
4. Check if the connector CN318 on the LGC board is disconnected.
5. Check if the connector pins are disconnected and the harnesses are open circuited.
6. Check if the conductor patterns on the PFP motor board, PFP board and LGC board are short circuited or open circuited.
7. Replace the PFP motor.
8. Replace the PFP board.
9. Replace the LGC board.

↓

YES

Is the LED on the PFP motor board lit without flickering?

NO →

1. Check if the connector pins are disconnected and the harnesses are open circuited.
2. Check if the conductor patterns on the PFP motor board, PFP board and LGC board are short circuited or open circuited.
3. Replace the PFP motor.
4. Replace the PFP board.
5. Replace the LGC board.

↓

YES

1. Check if the PLL lock signal CN246-7 output from the PFP board is always “L” level.
2. Check if the voltage supplied to the microcomputer input terminal IC5-17 is always “L” level.
3. Replace the PFP board.
4. Replace the LGC board.

[C130] Upper drawer tray is abnormal

[C140] Lower drawer tray is abnormal

Does the tray go up? (Perform the output check in the test mode: 03-242/243)

NO →

1. Check if the connector of the tray-up motor is disconnected.
2. Check if the connector CN316 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the LGC board.

↓

YES

Is the tray-up sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[6]/[B], /[7]/[B])

NO →

1. Check if the connector of the sensor is disconnected.
2. Check if the connector CN315 on the LGC board is disconnected.
3. Check if the slit reaches the sensor.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor pattern on the LGC board is short circuited or open circuited.
6. Replace the LGC board.

↓

YES

1. Check if the conductor pattern on the LGC board is short circuited or open circuited.
2. Replace the LGC board.

[C150] PFP upper drawer tray is abnormal

[C160] PFP lower drawer tray is abnormal

Does the tray go up? (Perform the output check in the test mode: 03-278/280)

NO →

1. Check if the connector of the tray-up motor is disconnected.
2. Check if any of the connectors CN241 and CN244 on the PFP board is disconnected.
3. Check if the connector CN318on the LGC board is disconnected.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
6. Replace the PFP board.
7. Replace the LGC board.

↓

YES

Is the tray-up sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[2]/[D], /[3]/[D])

NO →

1. Check if the connector of the sensor is disconnected.
2. Check if any of the connectors CN241, CN247 and CN248 on the PFP board is disconnected.
3. Check if the connector CN318 on the LGC board is disconnected.
4. Check if the slit reaches the sensor.
5. Check if the connector pins are disconnected and the harnesses are open circuited.
6. Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
7. Replace the PFP board.
8. Replace the LGC board.

↓

YES

1. Check if the conductor pattern on the LGC board is short circuited or open circuited.
2. Replace the LGC board.

[C180] LCF tray-up motor is abnormal

Does the tray move? (Perform the output check in the test mode: 03-271)

NO →
1. Check if the connector of the LCF tray-up motor is disconnected.
2. Check if any of the connectors CN1 and CN5 on the LCF board is disconnected.
3. Check if the connector CN318 on the LGC board is disconnected.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor patterns on the LCF board and LGC board are short circuited or open circuited.
6. Replace the LCF board.
7. Replace the LGC board.

YES

Are the LCF tray bottom sensor and LCF tray-up sensor working?
(Perform the input check in the test mode: 03-[FAX]OFF/[5]/[A], /[5]/[B])

NO →
1. Check if the connectors of the sensors are disconnected.
2. Check if any of the connectors CN1, CN2 and CN6 on the LCF board is disconnected.
3. Check if the connector CN318 on the LGC board is disconnected.
4. Check if the slit reaches the sensors.
5. Check if the connector pins are disconnected and the harnesses are open circuited.
6. Check if the conductor patterns on the LCF board and LGC board are short circuited or open circuited.
7. Replace the LCF board.
8. Replace the LGC board.

YES

1. Check if the conductor pattern on the LGC board is short circuited or open circuited.
2. Replace the LGC board.

[C1A0] LCF end fence motor is abnormal

Is the LCF end fence motor working? (Perform the output check in the test mode: 03-207)

NO →
1. Check if the connector of the LCF end fence motor is disconnected.
2. Check if any of the connectors CN1 and CN5 on the LCF board is disconnected.
3. Check if the connector CN318 on the LGC board is disconnected.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor patterns on the LCF board and LGC board are short circuited or open circuited.
6. Replace the LCF board.
7. Replace the LGC board.

YES

Are the LCF end fence home/stop position sensors working?
(Perform the input check in the test mode: 03-[FAX]OFF/[5]/[D], /[5]/[C])

NO →
1. Check if the connectors of the sensors are disconnected.
2. Check if either of the connectors CN1 or CN4 on the LCF board is disconnected.
3. Check if the connector CN318 on the LGC board is disconnected.
4. Check if the slit reaches the sensors.
5. Check if the connector pins are disconnected and the harnesses are open circuited.
6. Check if the conductor patterns on the LCF board and LGC board are short circuited or open circuited.
7. Replace the LCF board.
8. Replace the LGC board.

↓

YES

1. Check if the conductor pattern on the LGC board is short circuited or open circuited.
2. Replace the LGC board.

[C1B0] LCF transport motor is abnormal

Is the LCF transport motor working? (Perform the output check in the test mode: 03-122/172)

NO →
1. Check if the connector of the LCF transport motor is disconnected.
2. Check if the connector CN1, CN3 on the LCF board is disconnected.
3. Check if the connector CN318 on the LGC board is disconnected.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor patterns on the LCF transport motor board, LCF board and LGC board are short circuited or open circuited.
6. Replace the LCF transport motor.
7. Replace the LCF board.
8. Replace the LGC board.

↓

YES

1. Check if the connector pins are disconnected and the harnesses are open circuited.
2. Check if the conductor patterns on the LCF transport motor board, LCF board and LGC board are short circuited or open circuited.
3. Check if the PLL lock signal CN3-10 output from the LCF board is always “L” level.
4. Check if the voltage supplied to the microcomputer input terminal IC103-17 is always “L” level.
5. Replace the LCF transport motor.
6. Replace the LCF board.
7. Replace the LGC board.

6.3.8 Scanning system related service call

[C260] Peak detection error

Does the exposure lamp light? (Perform the output check in the test mode: 03-267)

YES →
1. Check if the connectors on the CCD and SLG boards are disconnected.
2. Check if the shading correction plate is dirty.
3. Check if the conductor pattern on the CCD board is short circuited or open circuited.
4. Check if the conductor pattern on the SLG board is short circuited or open circuited.
5. Replace the lens unit.
6. Replace the SLG board.

↓

NO

1. Check if the connectors of the exposure lamp and inverter are disconnected.
2. Check the SLG board if the connector pin CN12 is disconnected and the harness is short circuited or open circuited.
3. Check if the conductor pattern on the SLG board is short circuited or open circuited.
4. Replace the SLG board.
5. Replace the inverter.
6. Replace the exposure lamp.

[C270] Carriage home position sensor not going OFF within a fixed time

[C280] Carriage home position sensor not going ON within a fixed time

Remove the original glass and move the carriages to the paper feeding side. Turn ON the power and check the following items.

[C270] Are the carriages slightly moved to the feeding direction? Are the carriages staying at a position other than home position?

YES →
1. Check if the connector of the scan motor is disconnected.
2. Check if the connector pin is disconnected and the harness is short circuited or open circuited.
3. Replace the SLG board.

↓

NO

1. Check if the connector pin is disconnected and the harness is short circuited or open circuited.
2. Check if the conductor pattern on the SLG board is short circuited or open circuited.
3. Replace the SLG board.

[C280] Do the carriages make a big noise after they arrive at the home position?

| YES → The carriage home position sensor is not turned ON.
| 1. Check if the connector of the sensor is disconnected.
| 2. Replace the carriage home position sensor.
↓ 3. Replace the SLG board.

NO

The carriages are stopped at the home position and do not move.

1. Check if the connector pins are disconnected and the harnesses are short circuited or open circuited.
2. Check if the conductor pattern on the SLG board is short circuited or open circuited.
3. Replace the SLG board.

6.3.9 Fuser unit related service call

CAUTION
Be sure to turn OFF the power and unplug the power cable beforehand when checking the heater.
The fuser unit itself or the part of the unit remains heated and the capacitors are still charged after a while the power cable is unplugged. So make sure the unit is cooled down enough before checking.

[C3D0] EPU board memory overwriting error

(1) Check if the process unit is properly installed, and check if the connector pins that are connected to the equipment are disconnected or have any abnormality such as deformation.
(2) Check if the harness connected to the connector J451 on the EPU board has any abnormality.
(3) Replace the EPU memory board.
(4) Replace the LGC board.

[C3D1] EPU board memory new parts detection error

(1) If the process unit has been replaced with a new one before the equipment is started, turn the power OFF and then back ON in the EPU replacement mode ([7] + [START]).
(2) If the process unit has not been replaced, check the following.
(3) Check if the process unit is properly installed, and check if the connector pins that are connected to the equipment are disconnected or have any abnormality such as deformation.
(4) Check if the harness connected to the connector J451 on the EPU board has any abnormality.
(5) Replace the EPU memory board.
(6) Replace the LGC board.

[C3D2] EPU board memory old parts detection error

(1) Check if the process unit is a new one. If it is a new one, check the following:
(2) Check if the process unit is properly installed, and check if the connector pins that are connected to the equipment are disconnected or have any abnormality such as deformation.
(3) Check if the harness connected to the connector J451 on the EPU board has any abnormality.
(4) Replace the EPU memory board.
(5) Replace the LGC board.

[C410] Thermistor or heater is abnormal at power ON

1. Check the thermistors

(1) Check if the connectors are disconnected.
(2) Check if the center, side and edge thermistors are in contact with the surface of the fuser roller properly?
(3) Check if the center, side and edge thermistors are not deformed or dirty.
(4) Check if the harnesses of the center, side and edge thermistors are open circuited.

2. Check the heater

(1) Check if the heater lamp is broken.
(2) Check if the connector of the heater lamp is disconnected.
(3) Check if the harnesses are connected properly to the terminals of the heater lamp.

(4) Check if the thermostat is blown.

3. Check the LGC board

(1) Check if the connectors CN308 are disconnected.
(2) Check if the conductor pattern on the LGC board is short circuited or open circuited.
(3) Replace the LGC board.

4. Clear the status counter
After repairing the matter which caused the error [C410], perform the following:

(1) Turn ON the power while [0] and [8] are pressed simultaneously.
(2) Key in “400”, then press [START].
(3) Change the current status counter value “1” or “2” to “0”, then press [ENTER] or [INTERRUPT] (to cancel [C410]).
(4) Turn the power OFF and then back ON. Make sure that the equipment enters the normal ready state.

[C430] Thermistor abnormality
[C440] Fuser roller abnormality

1,2,3. Check the thermistors, Heater and LGC board
Check the above components following the procedures 1, 2 and 3 for [C410].

4. Check the ground connection of the heat roller
(1) Check if the fuser unit is tightly screwed to the equipment with no gap.

Notes:
- Tighten the screws while pressing the fuser unit with your hand.
- Using a driver is recommended to fix the fuser unit.

(2) Check if the grounding leaf spring in the fuser unit is in contact due to deformation.

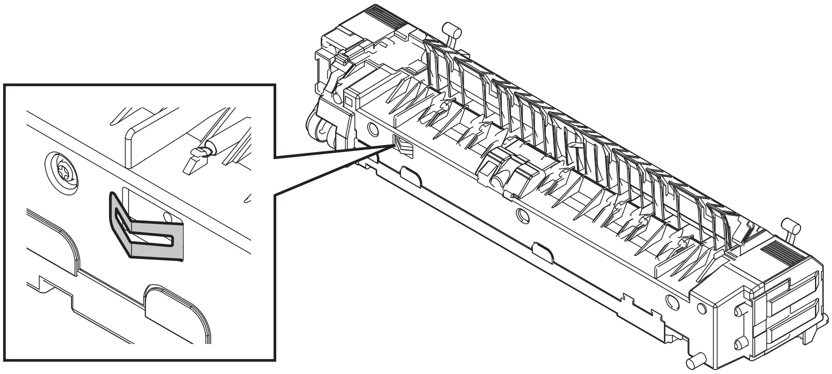


Fig. 6-1

5. Check the power supply
(1) Replace the switching regulator.

6. Clear the status counter
Change the current status counter value (08-400) “4” to “0” for [C430] and “5”, “7” or “9” to “0” for [C440], taking the same procedure as that for [C410].

* The status counter value is as follows in the following cases. Change them to “0” respectively.
- The error occurred during warming-up: “4” or “5”
- The error occurred after the equipment has become ready: “7”
- The temperature detected by the center thermistor is 240°C or higher: “9”
- The temperature detected by the side thermistor is 240°C or higher: “9”

- The temperature detected by the edge thermistor is 240°C or higher: “9” only during printing.

[C450] Thermistor abnormality during printing

1. Check the edge thermistor

(1) Check if the connector is disconnected.
(2) Check if the edge thermistor is in contact with the surface of the fuser roller properly.
(3) Check if the harness of the edge thermistor is open circuited.

2. Check the LGC board

(1) Check if the connector CN308 is disconnected.
(2) Check if the conductor pattern on the board is short circuited or open circuited.
(3) Replace the LGC board.

3. Clear the status counter
Change the current status counter value (08-400) “6” to “0”.

[C4C0] Fuser unit new/old detection fuse abnormality

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.

6.3.10 Communication related service call

[C550] RADF I/F error

1. Check if the harness connecting the RADF board and SLG board is disconnected or open circuited.
2. Check if the conductor pattern on the RADF board is short circuited or open circuited.
3. Check if the conductor pattern on the SLG board is short circuited or open circuited.
4. Replace the RADF board.
5. Replace the SLG board.

[C551] Document feeder model detection error

1. Check if the installed RADF is an option exclusively set for the model.
2. Replace the RADF with the one exclusively set for the model.

[C570] Communication error between main CPU and IPC board

1. Check if the LGC board and IPC board are connected properly.
2. Check if the conductor pattern on the IPC board is short circuited or open circuited.
3. Check if the conductor pattern on the LGC board is short circuited or open circuited.
4. Replace the IPC board.
5. Replace the LGC board.

[C580] Communication error between IPC board and finisher

1. Confirm the setting of 08 Code 1912.
2. Check if the harness connecting the IPC board and the finisher controller PC board is disconnected or open circuited.
3. Check if the conductor pattern on the IPC board is short circuited or open circuited.
4. Check if the conductor pattern on the finisher controller PC board is short circuited or open circuited.
5. Replace the IPC board.
6. Replace the finisher controller PC board.

[C5A0] EEPROM communication abnormality (LGC board)

1. Check if the EEPROM is installed properly.
2. Replace the EEPROM.
3. If the error still occurs, replace the LGC board.

[C8E0] ADF communication protocol abnormality

1. Turn the power OFF and then back ON to check if the equipment operates normally.

[F070] Communication error between system CPU and main CPU

1. Check if the jumper pin setting on the SYS board / SYS-IMG board is correct. (Check if a jumper pin is inserted between Pin 1 and Pin 2 of the CN 103 and the CN115.) Confirmation is not necessary for the SYS-IMG board.
2. Check if the harness connecting the SYS board / SYS-IMG board (CN131) and LGC board (CN312) is disconnected or open circuited.
3. Check the version of the system ROM on the SYS board / SYS-IMG board.
4. Check the version of the engine ROM version on the LGC board.
5. Replace the SYS board / SYS-IMG board.
6. Replace the LGC board.

[F110] Communication error between system CPU and scanner CPU
[F111] Scanner response abnormality

1. Check if the jumper pin setting on the SYS board / SYS-IMG board is correct. (Check if a jumper pin is inserted between Pin 1 and Pin 2 of the CN 103 and the CN115.)
2. Check if the harness connecting the SYS board / SYS-IMG board and SLG board is disconnected or open circuited.
3. Check the version of the system ROM on the SYS board / SYS-IMG board.
4. Check the version of the scanner ROM version on the SLG board.
5. Replace the SYS board / SYS-IMG board.
6. Replace the SLG board.

6.3.11 RADF related service call

No service call for the RADF.

6.3.12 Laser optical unit related service call

[CA10] Polygonal motor is abnormal

Is the polygonal motor rotating?

↓ NO →

1. Check if the connector of the harness is disconnected between LGC board (CN314) and the laser optical unit. Reconnect it securely if so. Even if the connector is not apparently disconnected, it may be connected loosely. Therefore check carefully that it is secure.
2. Check if the harness is open circuited and the connector pin is disconnected.
3. Check if the conductor pattern on the LGC board is short circuited or open circuited.
4. Replace the laser optical unit.
5. Replace the LGC board.

YES

1. Check if the conductor pattern on the LGC board is short circuited or open circuited.
2. Replace the LGC board.
3. Replace the laser optical unit.

[CA20] H-Sync detection error

Are the harness open circuited and the connectors disconnected between the LGC board (CN313) and the laser optical unit?

↓ YES → Even if the connector is not apparently disconnected, it may be connected loosely. Therefore check carefully that it is secure.

NO

1. Replace the LGC board.
2. Replace the laser optical unit.

6.3.13 Finisher related service call

[CB00] Finisher not connected

MJ-1101

1. Check if the MJ-1101 is set as the specified finisher on the equipment.
2. Check if the harness connecting the converter PC board and the finisher controller PC board is disconnected or open circuited.
3. Check if the conductor pattern on the converter PC board is open circuited or short circuited.
4. Check if the conductor pattern on the finisher controller PC board is open circuited or short circuited.
5. Replace the converter PC board.
6. Replace the finisher control PC board.

[CB01] Finisher communication error

MJ-1101

1. Check if the MJ-1101 is set as the specified finisher on the equipment.
2. Check if the harness connecting the converter PC board and the finisher controller PC board is disconnected or open circuited.
3. Check if the conductor pattern on the converter PC board is open circuited or short circuited.
4. Check if the conductor pattern on the finisher controller PC board is open circuited or short circuited.
5. Replace the converter PC board.
6. Replace the finisher control PC board.

[CB10] Transport motor abnormality

MJ-1025

MJ-1025

Is the stack feed roller (upper) home position sensor (PI12) working properly?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and feed motor (M1) correct?

↓ NO → Correct the wiring.

YES

Try turning the stack feed roller (upper) shaft by hand. Does the stack feed roller (upper) move up/down normally?

↓ NO → Fix the mechanism.

YES

Try replacing the feed motor (M1). Is the problem corrected?

↓ YES → End.

NO

Replace the finisher controller PC board.

MJ-1101

Is there any mechanical problem when the entrance roller is rotated?

↓ →YES Fix the mechanism.

NO

Is the harness between the entrance motor (M1) and the finisher control PC board (CN7) disconnected or open circuited?

| →YES
- Reconnect the connector securely.
- Replace the harness.

↓

NO

1. Replace the entrance motor (M1).
2. Replace the finisher control PC board.

[CB11] Standby side tray drive motor abnormality

*** You receive a [CB11] error when the [ED16] error occurs three times in succession.**

MJ-1101

Is there any mechanical problem when the buffer tray guide is opened/closed while the buffer roller is lifted up?

↓ →YES Fix the mechanism.

NO

Is the harness between the buffer tray guide motor (M3) and the finisher control PC board (CN18) disconnected or open circuited?

| →YES
- Reconnect the connector securely.
- Replace the harness.

↓

NO

1. Replace the buffer tray guide motor (M3).
2. Replace the finisher control PC board.

[CB12] Turning roller drive motor abnormality

MJ-1101

Is there any mechanical problem when the buffer roller is rotated?

↓ →YES Fix the drive mechanism.

NO

Is the harness between the buffer roller drive motor (M6) and the finisher control PC board (CN18) disconnected or open circuited?

| →YES
- Reconnect the connector securely.
- Replace the harness.

↓

NO

1. Replace the buffer roller drive motor (M6).
2. Replace the finisher control PC board.

[CB20] Delivery motor abnormality

MJ-1025

Is the delivery belt home position sensor (PI7) working properly?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and delivery motor (M3) correct?

↓ NO → Correct the wiring.

YES

Rotate the stack delivery roller by hand. Does it rotate smoothly?

↓ NO → Fix the mechanism.

YES

Try replacing the delivery motor (M3). Is the problem corrected?

↓ YES → END.

NO

Replace the finisher controller PC board.

[CB30] Tray lift motor abnormality

MJ-1025

[Procedure 1]

Is the paper surface sensor (PI9) working properly?

↓ NO → Replace the sensor.

YES

Is the tray up/down mechanism working properly?

↓ NO → Fix the mechanism.

YES

Is 24 VDC supplied from the finisher controller PC board to the shift motor as soon as the tray is driven?

↓ NO → Replace the finisher controller PC board.

YES

Is the wiring between the finisher controller PC board and shift motor (M6) correct?

↓ YES → Replace the shift motor.

NO

Correct the wiring.

[Procedure 2]

Is the tray as far as the shift upper limit sensor?

↓ YES → Lower the position of the tray.

NO

Is the shift upper limit sensor (PI15) working properly?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and shift upper limit sensor (PI15) correct?

↓ YES → Replace the finisher controller PC board.

NO

Correct the wiring.

[Procedure 3]

Does the tray go up?

NO → Is 24 VDC supplied from the finisher controller PCB to the shift motor as soon as the tray is driven?

↓ NO → Replace the finisher controller PC board.

YES

Is there any problem with the tray up/down mechanism?

↓ YES → Fix the lift mechanism.

NO

↓ Replace the shift motor.

YES

Is the shift motor clock sensor (PI7) working properly?

↓ YES → Replace the finisher controller PC boar

NO

Replace the sensor.

[CB30] Tray 1/2 shift motor abnormality

MJ-1024

Are the tray 1 shift area sensors 1-3 and tray 2 shift area sensors 1-3 normal?
↓ NO → Replace the tray 1/2 shift area sensor boards.
YES
Are the wirings between the finisher controller PC board and the tray 1/2 shift motors (M37/M38) correct?
↓ NO → Correct the wirings.
YES
Is there any problem with the tray lift mechanism?
↓ NO → Fix the lift mechanism.
YES

1. Replace the tray 1/2 shift motors.
2. Replace the finisher controller PC board.

[CB30] Movable tray shift motor abnormality

MJ-1101

Is there any mechanical problem when the movable tray is moved?
↓ →YES Fix the mechanism.

NO

Is the harness between the movable tray shift motor (M7) and the finisher control PC board (CN8) disconnected or open circuited?
| →YES • Reconnect the connector securely.
↓ • Replace the harness.
NO
Is there a disconnection of the connector, incorrect installation or breakage of the movable tray position A, B, and C sensors (S13, S14, and S15)?
| →YES • Replace the harness.
↓ • Reinstall the sensor correctly.
• Replace the sensor.
NO
1. Replace the movable tray shift motor (M7).
2. Replace the finisher control PC board.

[CB31] Movable tray paper-full detection error

MJ-1101
Is there any mechanical problem when the actuator of the movable tray paper-full detection sensor (S17) is moved?
↓ →YES Fix the mechanism.
NO
Is there a disconnection of the connector, incorrect installation or breakage of the movable tray paper-full detection sensor (S17)?
| →YES • Connect the connector securely.
| • Reinstall the sensor correctly.
↓ • Replace the sensor.
NO
Is the harness between the movable tray paper-full detection sensor (S17) and the finisher control PC board (CN13) disconnected or open circuited?
| →YES • Reconnect the connector securely.
↓ • Replace the harness.
NO
Replace the finisher control PC board.

[CB40] Rear aligning plate motor abnormality

MJ-1024
Is the rear aligning plate home position sensor (PI37) normal?
↓ NO → Correct the wiring.
YES
Is there any mechanical problem with the path of aligning plate?
↓ NO → Fix the mechanism.
YES
1. Replace the rear aligning plate motor.
2. Replace the finisher controller PC board.

[CB40] Front alignment motor abnormality

*** You receive a [CB40] error when the [ED13] error occurs three times in succession.**

MJ-1101
Is there any mechanical problem when the front alignment plate is moved?
↓ →YES Fix the mechanism.
NO

Is the harness between the front alignment motor (M9) and the finisher control PC board (CN10) disconnected or open circuited?

| →YES • Reconnect the connector securely.
↓ • Replace the harness.

NO

Replace the front alignment motor (M9).

[CB50] Staple motor abnormality

MJ-1025

[Procedure 1]

Is the wiring between the finisher controller PC board and the staple/fold motor normal?

↓ NO → Correct the wiring.

YES

Try to rotate the staple jam releasing dial. Is there mechanical trapping?

↓ YES → Fix the mechanism.

NO

Try replacing the staple/fold motor (M7). Is the problem corrected?

↓ YES → End.

NO

Replace the finisher controller PC board.

[Procedure 2]

Is the staple/fold motor clock sensor (PI14) working properly?

↓ NO → Replace the sensor.

YES

Does the staple/fold motor operate at the appropriate timing?

↓ YES → Replace the finisher controller PC board.

NO

Is the stapler unit drive mechanism working properly?

↓ NO → Fix the mechanism.

YES

Try replacing the staple/fold motor (M7). Is the problem corrected?

↓ YES → End.

NO

Replace the finisher controller PC board.

[Procedure 3]

Is the folding home position sensor (PI11) working properly?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and the staple/fold motor normal?

↓ NO → Correct the wiring.

YES

Try to rotate the fold jam releasing dial. Is there mechanical trapping?

↓ YES → Fix the mechanism.

NO

Try replacing the staple/fold motor (M7). Is the problem corrected?

↓ YES → End.

NO

Replace the finisher controller PC board.

[Procedure 4]

Is the staple/fold motor clock sensor (PI14) working properly?

↓ NO → Replace the sensor.

YES

Does the staple/fold motor operate at the appropriate timing?

↓ YES → Replace the finisher controller PC board.

NO

Is the saddle stitch unit drive mechanism working properly?

↓ NO → Fix the mechanism.

YES

Try replacing the staple/fold motor (M7). Is the problem corrected?

↓ YES → End.

NO

Replace the finisher controller PC board.

MJ-1024

Is the wiring between the stapler and finisher controller PC board correct?

↓ NO → Correct the wiring.

YES

1. Replace the stapler.
2. Replace the finisher controller PC board.

MJ-1031

1. Check if the connectors J112, J113 on the finisher controller PC board is disconnected from the stapler) or the harnesses are open circuited. Correct if any.
2. Replace the staple unit.
3. Replace the finisher control PC board.

[CB50] Stapler home position error

*** You receive a [CB50] error when the [EA50] error occurs three times in succession.**

MJ-1101

Is the harness between the stapler and the finisher control PC board (CN2) disconnected or open circuited?

| →YES • Reconnect the connector securely.
↓ • Replace the harness.

NO

Are the harnesses in the stapler disconnected or open circuited?

| →YES • Reconnect the connector securely.
↓ • Replace the harness.

NO

Replace the finisher control PC board.

[CB51] Stapler shift home position error

MJ-1101

Is there any mechanical problem when the stapler is moved?

↓ →YES Fix the mechanism.

NO

Is there a disconnection of the connector, incorrect installation or breakage of the stapler unit home position sensor (S10)?

| →YES • Connect the connector securely.
| • Reinstall the sensor correctly.
↓ • Replace the sensor.

NO

Is the harness between the stapler unit home position sensor (S10) and the finisher control PC board (CN1) disconnected or open circuited?

| →YES • Reconnect the connector securely.
↓ • Replace the harness.

NO

Is the harness between the stapler unit shift motor (M4) and the finisher control PC board (CN5) disconnected or open circuited?

| →YES • Reconnect the connector securely.
↓ • Replace the harness.

NO

Replace the finisher control PC board.

[CB60] Stapler unit shift motor abnormality

MJ-1025

Is the slide home position sensor (PI18) working properly?

↓ NO → Replace the sensor controller PC board.

YES

Is the wiring between the finisher controller PC board and slide motor correct?

↓ NO → Correct the wiring.

YES

Is there any mechanical problem with the stapler stand motion path?

↓ YES → Fix the mechanism.

NO

Try replacing the slide motor (M8). Is the problem corrected?

↓ YES → End.

NO

Replace the finisher controller PC board.

MJ-1024

Is the stapler shift home position sensor (PI40) working normally?
↓ NO → Replace the sensor.
YES
Is the wiring between the finisher controller PC board and the stapler shift motor (M35) correct?
↓ NO → Correct the wiring.
YES
Is there any mechanical problem with the stapler stand motion path?
↓ YES→ Fix the lift mechanism.
NO

1. Replace the stapler shift motor.
2. Replace the finisher controller PC board.

MJ-1101

Is there any mechanical problem when the stapler is moved?
↓ →YES Fix the mechanism.

NO
Is the harness between the stapler unit shift motor (M4) and the finisher control PC board (CN5) disconnected or open circuited?
| →YES
- Reconnect the connector securely.
- Replace the harness.

↓

NO

1. Replace the stapler unit shift motor (M4).
2. Replace the finisher control PC board.

[CB80] Backup RAM data abnormality

MJ-1024

Is the problem solved by turning the power of the equipment OFF and ON?

↓ YES → End.

NO

1. Replace the finisher controller PC board.
2. Replace the punch controller PC board.

MJ-1024

Is the problem solved by turning the power of the equipment OFF and ON?

↓ YES→ End.

NO

1. Replace the finisher controller PC board.
2. Replace the punch controller PC board.

MJ-1031

Is the problem solved by turning the power of the equipment OFF and ON?

↓ YES→ End.

NO

Replace the finisher controller PC board.

MJ-1101

Is the error recovered when the power of the equipment is turned OFF and then back ON?

↓ →YES End.

NO

Replace the finisher control PC board.

[CB81] Flash ROM abnormality

MJ-1101

Is the error recovered when the power of the equipment is turned OFF and then back ON?

↓ →YES End.

NO

1. Check if the conductor pattern on the finisher controller PC board is open circuited or short circuited.
2. Replace the finisher control PC board.

[CB90] Paper pushing plate motor abnormality

MJ-1024

Are the paper pushing plate home position sensor (PI14), paper pushing plate top position sensor (PI15) and paper pushing plate motor clock sensor (PI1) working normally?

↓ NO → Replace the sensor.

YES

Is the paper pushing plate drive mechanism normal?

↓ NO → Fix the mechanism.

YES

1. Replace the paper pushing plate motor (M8).
2. Replace the saddle stitcher controller PC board.

[CBA0] Stitch motor (front) abnormality
[CBB0] Stitch motor (rear) abnormality

MJ-1024

Are the front and rear stitchers and their stands installed properly?

↓ NO → Install them properly.

YES

Are the stitcher home position switches (SW7/SW5) and stitcher motors (M7/M6) on the front and rear stitchers working normally?

↓ NO → Replace the front or rear stitcher.

YES

Replace the saddle stitcher controller PC board.

[CBC0] Alignment motor abnormality

MJ-1024

Is the alignment plate home position sensor (PI5) working normally?

↓ NO → Replace the sensor.

YES

Is the alignment plate drive mechanism normal?

↓ NO → Fix the mechanism.

YES

1. Replace the alignment motor (M5).
2. Replace the saddle stitcher controller PC board.

[CBD0] Guide motor abnormality

MJ-1024

Is the guide home position sensor (PI13) working normally?

↓ NO → Replace the sensor.

YES

Is the guide plate drive mechanism normal?

↓ NO → Fix the mechanism.

YES

1. Replacing the guide motor (M3).
2. Replace the saddle stitcher controller PC board.

[CBE0] Paper folding motor abnormality

MJ-1024

Are the paper folding motor clock sensor (PI4) and paper folding home position sensor (PI21) working normally?

↓ NO → Replace the sensors.

YES

Is the paper folding roller drive mechanism normal?

↓ NO → Fix the mechanism.

YES

1. Replacing the paper folding motor (M2).
2. Replace the saddle stitcher controller PC board.

[CBF0] Paper positioning plate motor abnormality

MJ-1024

Is the paper positioning plate home position sensor (PI7) working normally?

↓ NO → Replace the sensor.

YES

Is the paper positioning plate drive mechanism normal?

↓ NO → Fix the mechanism.

YES

1. Replacing the paper positioning plate motor (M4).
2. Replace the saddle stitcher controller PC board.

[CC00] Sensor connector abnormality

MJ-1024

Are the guide home position sensor (PI13), paper pushing plate home position sensor (PI14) and paper pushing plate top position sensor (PI15) connected to the saddle stitcher controller PC board?

↓ NO → Connect them to the board.

YES

Is the wiring between the sensors and the saddle stitcher correct?

↓ NO → Correct the wiring.

Is 5V DC being supplied from the connector pins J9-7, -10 and -13 on the saddle stitcher controller PC board?

↓ NO → Replace the saddle stitcher controller PC board.

YES

Are the connector pins J9-8, -11 and -14 on the saddle stitcher controller PC board correctly connected to the ground?

↓ NO → Replace the saddle stitcher controller PC board.

YES

End.

[CC10] Microswitch abnormality

MJ-1024

Are the front cover switch (MS31), inlet door switch (SW1) and delivery door switch (SW3) normal?

↓ NO → Replace the switches.

YES

Measure the voltage between J704-1 (+) and J704-2 (-) on the finisher controller PC board. Is it 24V?

↓ NO → Replace the finisher controller PC board.

Is the wiring between J704 on the finisher controller PC board and J1 on the saddle stitcher controller PC board correct?

↓ NO → Correct the wiring.

YES

Replace the saddle stitcher controller PC board.

[CC20] Communication error between finisher and saddle stitcher

MJ-1024

Is the problem solved by turning OFF and ON the main power switch of the equipment?

↓ YES→ End.

NO

Is the wiring between the finisher controller PC board and the saddle stitcher controller PC board connected?

↓ NO → Connect the wiring.

YES

1. Replace the finisher controller PC board.
2. Replace the saddle stitcher controller PC board.

[CC30] Paddle motor abnormality

MJ-1025

Is the paddle home position sensor (PI2) working properly?

↓ NO → Replace the sensor.

YES

Is the swing guide home position sensor (PI3) working properly?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and paddle motor (M2) correct?

↓ NO → Correct the wiring.

YES

Try turning the paddle motor counterclockwise by hand. Is there mechanical trapping in the up/down movement of the swing guide?

↓ YES → Fix the mechanism.

NO

Try replacing the paddle motor. Is the problem corrected?

↓ YES → End.

NO

Replace the finisher controller PC board.

[CC30] Stack processing motor abnormality

MJ-1031

1. Check if the connector J111 on the finisher controller PC board is disconnected from the stack edging HP sensor (SR8) or the harnesses are open circuited. Correct if any.
2. Check if the connector J111 on the finisher controller PC board is disconnected from the stack slide motor (M4) or the harnesses are open circuited. Correct if any.
3. Replace the stack edging HP sensor.
4. Replace the stack slide motor.
5. Replace the finisher control PC board.

*** You receive a [CC30] error when the [EA70] error occurs three times in succession.**

MJ-1101

Is there any mechanical problem when the stack transport belt is moved?

↓ →YES Fix the mechanism.

NO

Is the harness between the stack transport motor (M5) and the finisher control PC board (CN10) disconnected or open circuited?

| →YES
- Reconnect the connector securely.
- Replace the harness.

↓

NO

1. Replace the stack transport motor (M5).
2. Replace the finisher control PC board.

[CC31] Transport motor abnormality

*** You receive a [CC31] error when the [ED12] error occurs three times in succession.**

MJ-1101

Is there any mechanical problem when the stack transport roller -1 and -2 are rotated?
↓ →YES Fix the mechanism.
NO
Is the harness between the transport motor (M2) and the finisher control PC board (CN5) disconnected or open circuited?
| →YES • Reconnect the connector securely.
↓ • Replace the harness.
NO
1. Replace the transport motor (M2).
2. Replace the finisher control PC board.

[CC40] Swing motor abnormality

MJ-1024

Is the swing unit home position sensor (PI35) normal?
↓ NO → Replace the sensor.
YES
Is the wiring between the finisher controller PC board and the swing motor (M36) correct?
↓ NO → Correct the wiring.
YES
Is the swing mechanism normal?
↓ NO → Fix the mechanism.
YES
1. Replace the swing motor.
2. Replace the finisher controller PC board.

[CC41] Paper holder cam home position abnormality

MJ-1101

Is there any mechanical problem when the paper holder cam is rotated?
↓ →YES Fix the mechanism.
NO
Is the harness between the paper holder home position sensor (S6) and the finisher control PC board (CN17) disconnected or open circuited?
| →YES • Reconnect the connector securely.
↓ • Replace the harness.
NO
1. Replace the paper holder home position sensor (S6).
2. Replace the finisher control PC board.

[CC50] Horizontal registration motor abnormality

MJ-1025 (when MJ-6005 is installed)

Is the horizontal registration home position sensor (PI2P) working properly?
↓ NO → Replace the sensor.
YES

Is the wiring between the finisher controller PC board and the horizontal registration home position sensor (PI2P) correct?

↓ NO → Correct the wiring.

YES

Is there any problem with the horizontal registration mechanism?

↓ YES → Fix the mechanism.

NO

Replace the horizontal registration motor (M2P).

Try replacing the punch controller PC board. Is the problem corrected?

↓ YES → End.

NO

Replace the finisher controller PC board.

MJ-1024 (when MJ-6004 is installed)

Is the horizontal registration home position sensor (PI61) working normally?

↓ NO → Replace the sensor.

YES

Is the wiring between the horizontal registration home position sensor and finisher controller PC board correct?

↓ NO → Correct the wiring.

YES

Is the horizontal registration mechanism normal?

↓ NO → Fix the mechanism.

YES

1. Replace the horizontal registration motor (M62).
2. Replace the punch controller PC board.
3. Replace the finisher controller PC board.

[CC51] Sideways adjustment motor (M2) abnormality

*** The [CC51] error will be displays when the [ED11] error occurs three times in succession or during the initial operation.**

MJ-1101 (When MJ-6101 is installed)

Is there any paper remaining on the transport path?

↓ →YES Remove the paper.

NO

Rotate the sideways adjustment motor (M2). Does it rotate smoothly?

↓ →NO Fix the mechanism.

YES

Are the sideways deviation home position sensor (S3) and its wiring correct?

↓ →NO Replace the sensor. Correct the wiring.

YES

Is the wiring between the hole punch control PC board (HP) and sideways adjustment motor (M2) correct?

↓ →NO Correct the wiring.

YES

1. Replace the punch sideways adjustment motor (M2).
2. Replace the hole punch control PC board (HP).

[CC52] Skew adjustment motor (M1) abnormality

*** The [CC52] error will be displays when the [ED10] error occurs three times in succession or during the initial operation.**

MJ-1101 (When MJ-6101 is installed)

Is there any paper remaining on the transport path?

↓ →YES Remove the paper.

NO

Rotate the skew adjustment motor (M1). Does it rotate smoothly?

↓ →NO Fix the mechanism.

YES

Are the skew home position sensor (S2) and its wiring correct?

↓ →NO Replace the sensor. Correct the wiring.

YES

Is the wiring between the hole punch control PC board (HP) and skew adjustment motor (M1) correct?

↓ →NO Correct the wiring.

YES

1. Replace the skew adjustment motor (M1).
2. Replace the hole punch control PC board (HP).

[CC60] Punch motor abnormality

MJ-1025 (when MJ-6005 is installed)

Is the punch home position sensor (PI1P) working properly?

↓ NO → Replace the sensor.

YES

Is the punch motor clock sensor (PI3P) working properly?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and sensor correct?

↓ NO → Correct the wiring.

YES

Is there any problem with the punching mechanism?

↓ YES → Fix the mechanism.

NO

Replace Punch motor (M1P)

Try replacing the punch controller PC board. Is the problem corrected?

↓ YES → End.

NO

Replace the finisher controller PC board.

MJ-1024 (when MJ-6004 is installed)

Are the punch home position sensor (PI63) and punch motor clock sensor (PI62) working normally?

↓ NO → Replace the sensors.

YES

Is the wiring between the sensors and punch controller PC board correct?

↓ NO → Correct the wiring.

YES

Is the punching mechanism normal?

↓ NO → Fix the mechanism.

YES

1. Replace the punch motor (M61).
2. Replace the punch controller PC board.
3. Replace the finisher controller PC board.

[CC61] Punch motor (M3) home position detection error

*** The [CC61] error will be displays when the [E9F0] error occurs three times in succession or during the initial operation.**

MJ-1101 (When MJ-6101 is installed)

Is there any paper remaining on the transport path?

↓ →YES Remove the paper.

NO

Rotate the punch motor (M3). Does it rotate smoothly?

↓ →NO Fix the mechanism.

YES

Are the punch home position sensor (S4) and its wiring correct?

↓ →NO Replace the sensor. Correct the wiring.

YES

Is the wiring between the hole punch control PC board (HP) and punch motor (M3) correct?

↓ →NO Correct the wiring.

YES

1. Replace the punch motor (M3).
2. Replace the hole punch control PC board (HP).

[CC71] Punch ROM checksum error

MJ-1101 (When MJ-6101 is installed)

Is the conductor pattern on the hole punch control PC board (HP) open circuited or short circuited?

↓ →YES Replace the hole punch control PC board (HP).

NO

Replace the finisher control PC board.

[CC72] Punch RAM read/write error

MJ-1101 (When MJ-6101 is installed)

Is the conductor pattern on the hole punch control PC board (HP) open circuited or short circuited?

↓ →YES Replace the hole punch control PC board (HP).

NO

Replace the finisher control PC board.

[CC80] Alignment motor (front) abnormality

MJ-1025 (Alignment motor (front) abnormality)

Is the aligning plate home position sensor (front) (PI4) working properly?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and alignment motor (front) (M4) correct?

↓ NO → Correct the wiring.

YES

Is there any mechanical problem with the path of aligning plate?

↓ YES → Fix the mechanism.

NO

Try replacing the alignment motor (front) (M4). Is the problem corrected?

↓ YES → End.

NO

Replace the finisher controller PC board.

MJ-1024 (Front aligning plate motor abnormality)

Is the front aligning plate home position sensor (PI36) normal?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and the front aligning plate motor (M33) correct?

↓ NO → Correct the wiring.

YES

Is there any mechanical problem with the path of aligning plate?

↓ NO → Fix the mechanism.

YES

1. Replace the front aligning plate motor.
2. Replace the finisher controller PC board.

*** You receive a [CC80] error when the [ED14] error occurs three times in succession.**

MJ-1101

Is there any mechanical problem when the rear alignment plate is moved?

↓ →YES Fix the mechanism.

NO

Is the harness between the rear alignment motor (M10) and the finisher control PC board (CN10) disconnected or open circuited?

| →YES
- Reconnect the connector securely.
- Replace the harness.

↓

NO

1. Replace the rear alignment motor (M10).
2. Replace the finisher control PC board.

[CC90] Tray shift motor abnormality

MJ-1031

Is the wiring between the finisher controller PC board and tray shift motor (M2) correct?

↓ NO → Correct the wiring.

YES

Are the front and rear sides of the stack tray leveled?

↓ NO → Level them.

YES

Is the tray clock sensor (SR9) working properly?

↓ NO → Replace the sensor.

YES

Are the tray lower limit sensor (SR5), tray 500 sensor (SR4) and tray safety switch (SW2) working properly?

↓ NO → Replace the sensor or sensor controller PC board.

YES

Does the voltage between the pins J114-1 and -2 on the finisher controller PC board become 24V when the tray shift motor starts rotating?

↓ NO → Replace the finisher controller PC board.

YES

Check the wiring between the tray shift motor and finisher controller PC board. If there is no problem, replace the tray shift motor.

[CCB0] Alignment motor (rear) abnormality

MJ-1025

Is the aligning plate home position sensor (rear) (PI5) working properly?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and aligning plate home position sensor (rear) correct?

↓ NO → Correct the wiring.

YES

Is there any mechanical problem with the path of aligning plate?

↓ YES → Fix the mechanism.

NO

Try replacing the alignment motor (rear) (M5). Is the problem corrected?

↓ YES → End.

NO

Replace the finisher controller PC board.

[CCB0] Offset motor abnormality

MJ-1031

1. Check if the connector J104 on the finisher controller PC board is disconnected from the offset HP sensor (SR1) or the harnesses are open circuited. Correct if any.
2. Check if the connector J107 on the finisher controller PC board is disconnected from the offset motor (M5) or the harnesses are open circuited. Correct if any.
3. Replace the offset HP sensor.
4. Replace the offset motor.
5. Replace the finisher control PC board.

[CCD0] Stack ejection motor abnormality

MJ-1024

Is the shutter home position sensor (PI45) normal?

↓ NO → Replace the sensor.

YES

Are the wirings between the finisher controller PC board and the stack ejection motor (M32)/ shutter clutch (CL31) correct?

↓ NO → Correct the wirings.

YES

Is there any problem with the shutter mechanism?

↓ YES→ Fix the shutter mechanism.

NO

1. Replace the stack ejection motor and shutter clutch.
2. Replace the finisher controller PC board.

[CCE0] Rear end assist motor abnormality

MJ-1024

Is the rear end assist guide home position sensor (PI39) normal?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and the rear end assist motor (M39) correct?

↓ NO → Correct the wiring.

YES

Is there any problem with the rear end assist mechanism?

↓ YES→ Fix the rear end assist mechanism.

NO

1. Replace the rear end assist motor.
2. Replace the finisher controller PC board.

[CCF0] Gear change motor abnormality

MJ-1024

Is the gear change home position sensor (PI49) normal?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and the gear change motor (M40) correct?

↓ NO → Correct the wiring.

YES

Is there any problem with the gear change mechanism?

↓ YES→ Fix the gear change mechanism.

NO

1. Replace the gear change motor.
2. Replace the finisher controller PC board.

[CCF1] Tray safety switch abnormality

MJ-1024

1. Check if the connector J110 on the finisher controller PC board is disconnected from the tray safety switch (SW2) or the harnesses are open circuited. Correct if any.
2. Check if the connector J114 on the finisher controller PC board is disconnected from the stack tray shift motor (M2) or the harnesses are open circuited. Correct if any.
3. Replace the tray safety switch
4. Replace the stack tray shift motor.
5. Replace the finisher control PC board.

[CDC0] Punch power failure occurred abnormality

MJ-1025

Is the problem solved by turning the power of the equipment OFF and ON?

↓ YES → End

NO

Is the wiring between the finisher controller PC board and punch controller PC board correct?

↓ NO → Correct the wiring.

YES

Does the voltage between the CN14-5 (+) and CN14-3 (-) on the finisher controller PC board become 24 V?

↓ YES → Replace the punch controller PC board.

NO

Replace the finisher controller PC board.

[CDD0] Folding sensor abnormality

MJ-1025

Is the folding position sensor (PI10) working properly?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and folding position sensor (PI10) correct?

↓ NO → Correct the wiring.

YES

Is there any mechanical problem with the fold jam releasing dial?

↓ YES → Fix the mechanism.

NO

1. Replace the staple/fold motor (M7).
2. Replace the finisher controller PC board.

[CDE0] Paddle motor abnormality

MJ-1025

Is the paddle home position sensor (PI2) working properly?

↓ NO → Replace the sensor.

YES

Is the Swing guide home position sensor (PI3) working properly?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and Paddle motor (M2) correct?

↓ NO → Correct the wiring.

YES

Try to rotate the paddle motor (M2) clockwise and counterclockwise by hand. Is there mechanical trapping in the rotation of the paddle or the up/down movement of the swing guide?

↓ YES → Fix the mechanism.

NO

1. Replace the paddle motor (M2)
2. Replace the finisher controller PC board.

*** You receive a [CDE0] error when the [ED15] error occurs three times in succession or during the initial operation.**

MJ-1101

Is there any mechanical problem with the paddle is rotated?

↓ →YES Fix the mechanism.

NO

Is the harness between the paddle motor (M8) and the finisher control PC board (CN6) disconnected or open circuited?

| →YES
- Reconnect the connector securely.
- Replace the harness.

↓

NO

1. Replace the paddle motor (M8).
2. Replace the finisher control PC board.

[CE00] Communication error between finisher and puncher unit

MJ-1025 (when MJ-6005 is installed)

Is the problem solved by turning the power of the equipment OFF and ON?

↓ YES → End.

NO

Is the wiring between the finisher controller PC board and the punch controller PC board correct?

↓ NO → Correct the wiring.

YES

Measure the voltage between CN14-5 (+) and CN14-3 (-) on the finisher controller PC board 24 V?

↓ NO → Replace the finisher controller PC board.

YES

Replace the punch controller PC board.

MJ-1024 (When MJ-6004 is installed)

Is the problem solved by turning OFF and ON the power of the equipment?

↓ YES→ End.

NO

Is the wiring between the finisher controller PC board and punch controller PC board correct?

↓ NO → Correct the wiring.

YES

1. Replace the finisher controller PC board.
2. Replace the punch controller PC board.

MJ-1101 (When MJ-6101 is installed)

Is the harness between the hole punch control PC board (HP) and the finisher control PC board disconnected or open circuited?

↓ →YES Replace the harness. Correct the wiring.

NO

Is the conductor pattern on the hole punch control PC board (HP) open circuited or short circuited?

↓ →YES Replace the hole punch control PC board (HP).

NO

Replace the finisher control PC board.

[CF10] Finisher related abnormality

MJ-1101

1. Is the error recovered when the power of the equipment is turned OFF and then back ON?
2. Check if the MJ-1101 is set as the specified finisher on the equipment.
3. Check if the harness connecting the converter PC board and the finisher controller PC board is disconnected or open circuited.
4. Check if the conductor pattern on the converter PC board is open circuited or short circuited.
5. Check if the conductor pattern on the finisher controller PC board is open circuited or short circuited.
6. Replace the converter PC board.
7. Replace the finisher control PC board.

MJ-1101 (When MJ-6101 is installed)

1. Is the error recovered when the power of the equipment is turned OFF and then back ON?
2. Check if the MJ-1101 is set as the specified finisher on the equipment.
3. Check if the harness connecting the converter PC board and the finisher controller PC board is disconnected or open circuited.
4. Check if the harness connecting the hole punch control PC board and the finisher control PC board is disconnected or open circuited.
5. Check if the conductor pattern on the converter PC board is open circuited or short circuited.
6. Check if the conductor pattern on the finisher controller PC board is open circuited or short circuited.
7. Check if the conductor pattern on the hole punch control PC board is open circuited or short circuited.
8. Replace the converter PC board.
9. Replace the finisher control PC board.
10. Replace the hole punch control PC board.

6.3.14 Service call for others

[C940] Engine-CPU is abnormal

Is the “Call for Service” displayed even after the power is turned OFF and back ON?

↓ NO → Leave it and see what happens.

YES

1. Check if the circuit pattern between the Engine-CPU and FROM is short circuited or open circuited.
2. Replace the LGC board if this error occurs frequently.

[C970] High-voltage transformer abnormality

(1) Is the main charger installed securely?
(2) Check if the spring of high-voltage supply contact point is deformed.
(3) Check if the needle electrode is broken or the main charger grid is deformed.
(4) Check if any foreign matters is on the needle electrode or the main charger grid.
(5) Check if the transfer roller and the separation needle are installed securely.
(6) Check if the transfer roller or the separation needle is removed.
(7) Check if there is any foreign matter attached on the transfer roller or the separation needle.

[CDF0] Initialize error of the offset tray (e-STUDIO205L/255/305)

(1) Check if each connector between the OCT motor and OCT board (CN261) is disconnected.
(2) Check if each connector between the OCT board (CN261) and LGC board (CN302) is disconnected.
(3) Check if each connector pin is removed or the harness is broken.
(4) Check if any conductor pattern on the OCT board and LGC board is short circuited or open circuited.
(5) Replace the OCT motor.
(6) Replace the OCT board.
(7) Replace the LGC board.

[CDF0] Initialize error of the offset tray (e-STUDIO355/455)

(1) Check if each connector between the offset gate motor and MOT2 board (CN406) is disconnected.
(2) Check if each connector between the MOT2 board (CN406) and LGC board (CN302) is disconnected.
(3) Check if each connector pin is removed or the harness is broken.
(4) Check if any conductor pattern on the MOT2 board and LGC board is short circuited or open circuited.
(5) Replace the offset gate motor.
(6) Replace the MOT2 board.
(7) Replace the LGC board.

[CE50] Temperature/humidity sensor abnormality

Is the connector CN317 on the LGC board or the connector of the temperature/humidity sensor disconnected?
Is the harness between the LGC board and the temperature/humidity sensor disconnected?

↓ YES→ Connect the connector securely. Replace the harness.

NO

1. Replace the temperature/humidity sensor.
2. Replace the LGC board.

[CE90] Drum thermistor abnormal

1. Check if there is any abnormality on the connector between the equipment and the process unit.
2. Is the harness between the LGC board and the drawer connector for process unit disconnected?
3. Is the harness inside of the process unit and the harness of the drum thermistor disconnected?
4. Is the connector CN310 on the LGC board, or the connector of the drum thermistor disconnected?
5. Replace the drum thermistor.
6. Replace the EPU memory board.
7. Replace the LGC board.

[F090] SRAM abnormality on the SYS board / SYS-IMG board

1. Turn the power OFF and start up the Setting Mode (08).
2. When “SRAM ERROR DOES IT INITIALIZE” 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.
3. After the confirmation message is displayed on the LCD, press the [INTERRUPT] button (to initialize the SRAM).
4. Perform the panel calibration (08-692).
5. Perform the initialization after the software version upgrade (08-947).
6. Enter the serial number (08-995). Be sure that the serial number is the same as that on the identification label attached on the rear cover of the equipment.
7. Initialize the NIC information (08-693).
8. Turn the power OFF and then start up with the Adjustment mode (05).
9. Perform “Data transfer of characteristic value of scanner” (05-364).
10. Turn the power OFF and then back ON. If the error is not recovered, replace the SRAM on the SYS board / SYS-IMG board.

[F100] HDD Initialization error

1. Check if the HDD is mounted.
2. Check if the specified HDD is mounted.
3. Check if the connector pins of the HDD are bent.
4. Check if the power supply connector is disconnected.
5. Check if the connector J109 on the SYS board / SYS-IMG board is disconnected.
6. Replace the harness.
7. Initialize the HDD. (Key in “2” at 08-690.)
8. Replace the HDD.
9. Replace the SYS board / SYS-IMG board.

[F101] HDD unmounted
[F102] HDD start error
[F103] HDD transfer time-out
[F104] HDD CRC error
[F105] HDD other error

1. Check if the connectors of the HDD are disconnected.
2. Check if the connector pins are disconnected or the wires of harnesses are broken.
3. Perform the bad sector check (08-694). If the check result is OK, recover the data in the HDD. If the check result is failed, replace the HDD.
4. Replace the SYS board / SYS-IMG board.

[F106] Point and Print partition damage

1. Turn the power OFF and start up the Setting Mode (08).
2. Key in “662” and press the [START] button. (Partition clearing is performed.)
3. Restart the equipment.
4. Access TopAccess. Click the [Administration] tab, and then click the Maintenance Menu to open. Then install the “Point and Print” driver.

[F107] /SHR partition damage

Initialize the Electronic Filing using the Setting Mode (08-666).

[F108] /SHA partition damage

Initialize the shared folder using the Setting Mode (08-667).

[F120] Database abnormality

1. Rebuild the databases. (Perform 08-684.)
2. If the error is not recovered, initialize the HDD. (Key in “2” at 08-690.)

[F130] Invalid MAC address

Compare the serial number of the equipment with a number displayed in 08-995. If they are different, enter the correct serial number at 08-995.

[F200] Data overwrite option (GP-1070) disabled

Perform firmware installation (any of OS, HDD, system firmware, PFC firmware, main firmware engine ROM and scanner firmware) using USB media.

* When the function of the Data Overwrite option (GP-1070) is deleted from the equipment, the service call “F200” occurs.

[F350] SLG board abnormality

1. Check if the conductor pattern on the SLG board is short circuited or open circuited.
2. If there is no problem found in the check (1) above, check the combination of the firmware version of the system ROM, engine ROM and scanner ROM. Reinstall the scanner ROM firmware.
3. If an error occurs after step (2) above has been performed, replace the SLG board.

[F400] SYS/HDD cooling fan abnormality

1. Check if the fan is rotating properly.
2. If not, check if any foreign object is adhered.
3. Is the connector CN112 of the SYS board / SYS-IMG board connected securely?
4. Replace the SYS/HDD cooling fan.
5. Replace the SYS board / SYS-IMG board.

6.3.15 Error in Internet FAX / Scanning Function

Notes:

1. **When initializing the Electronic Filing (Setting Mode (08-666)), all data in the Electronic Filing are erased. Back up the data in the Electronic Filing by using the Electronic Filing Function of TopAccess before the initialization.**
2. **When initializing the shared folder (Setting Mode (08-667)), all data in the shared folder are erased. Back up the data in the shared folder by using Explorer before the initialization.**
3. **When formatting the HDD (Setting Mode (08-690)), 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 (Page 5-1).**

[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 (08-690).

[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.

[1C20] System management module access abnormality
[1C21] Job control module access abnormality
[1C22] 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 (08-690).
If the recovery is still not completed, replace the SYS board / SYS-IMG board.

[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
Reduce the number of pages of the job in error and perform the job 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.

[1C62] Memory acquiring failure
Check if there is any job being performed and perform the job in error again.
Turn the power OFF and then back ON. Perform the job in error again.
Replace the main memory 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 time-out error
Check if the SMTP server is operating properly.

[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 / SYS-IMG board.

[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.

[1C6A] HOST NAME error
Check if there is an illegal character in the device name.
Delete the illegal character and reset the appropriate device name.

[1C6B] Terminal mail address error
Check if the SMTP authentication method is correct.
Check if there are any illegal characters in the Terminal mail address.
Select the correct SMTP authentication method. Delete the illegal characters and reset the mail address. Then try 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.

[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.

[1C80] Internet FAX transmission failure when processing E-mail job received
Reset the “Received InternetFax Forward”.

[1C81] Onramp Gateway transmission failure
Reset the mail box.

[1C82] Internet FAX transmission failure when processing FAX job received
Reset the “Received Fax Forward”.

[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 / SYS-IMG board.

[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)
Check the capacity of the mail box in the mail server.
Select “Text “of the original modes for the original data or lower the resolution level and then retransmit.
Or divide the original data into several pieces and retransmit them.

[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

[2B10] No applicable job error in Job control module
[2B11] JOB status abnormality
[2B20] File library function error
[2B30] Insufficient disk space in /SHR partition
[2BC0] Fatal failure occurred
[2BC1] System management module resource acquiring failure
Erase some data in the Electronic Filing and perform the job in error again (in case of [2B30]).
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 (08-690).
If the recovery is still not completed, replace the SYS board / SYS-IMG board.

[2B21] 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.

[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.
Perform the job in error again.
Check if there are no other running jobs and initialize the Electronic Filing using the Setting Mode (08-666).

[2B31] Status of specified Electronic Filing or folder is undefined or being created/deleted
Check if the specified Electronic Filing or folder exists. (If no, this error would not occur.)
Delete the specified Electronic Filing or folder.
Perform the job in error again.
If the specified Electronic Filing or folder can not be deleted, initialize the Electronic Filing using the Setting Mode (08-666).

[2B32] Electronic Filing printing failure: Specified document can not be printed because of client's access (being edited, etc.)
Check if the specified document exists. (If no, this error would not occur.)
Delete the specified document.
Perform the job in error again.
If the specified document can not be deleted, initialize the Electronic Filing using the Setting Mode (08-666).

[2B51] List library error
Check if the Function List can be printed out.
If it can be printed out, perform the job in error again.
If it can not be printed out, replace the main memory.
If the recovery is still not completed, perform the HDD formatting (08-690).

[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.
If the recovery is still not completed or in case of invalid password for the operation other than printing (opening the file, etc.), initialize the Electronic Filing using the Setting Mode (08-666).

[2BA1] A paper size not supported in the Electronic Filing function is being selected
Check the paper size.

[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 inserting pages and perform the job again.

[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.

[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.

[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 (08-690).

[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 “Message size limitation” 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 (08-690).
If the recovery is still not completed, replace the SYS board / SYS-IMG 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.

[2C60] HDD full failure during processing
Reduce the number of pages of the job in error and perform the job again.
Check if the server or local disk has a sufficient space in disk capacity.

[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 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 if the SMTP authentication method is correct.
Check if there are any illegal characters in the Terminal mail address.
Select the correct SMTP authentication method. Delete the illegal characters and reset the mail address. Then try 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.

[2C6D] 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 / SYS-IMG board.

[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.

[2C80] E-mail transmission failure when processing E-mail job received
Reset the “Received InternetFax Forward”.

[2C81] Process failure of FAX job received
Reset the setting of the mail box or “Received InternetFax Forward”.

[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
[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 (08-690).

[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
[2D61] 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 document number
Delete some documents in the folder, and then perform the job in error again.

[2D20] System management module access abnormality
[2D21] Job control module access abnormality
[2D22] Job control module access abnormality
[2D60] File library access abnormality
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.
Check if there are no other running jobs and perform the HDD formatting (08-690).
If the recovery is still not completed, replace the SYS board / SYS-IMG board.

[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.
If the error still occurs, first, check if there are no jobs existing and then initialize the shared folder using the Setting Mode (08-667).

[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.

[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] HDD full failure during processing
Reduce the number of pages of the job in error and perform the job again.
Check if the server or local disk has a sufficient space in disk capacity.

[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.

[2DC1] Power failure
Check if the power cable is connected properly and it is inserted securely.
Check if the power voltage is unstable.

[7] E-mail reception related error

[3A10] E-mail MIME error
[3A11] E-mail MIME error
[3A12] 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
[3A21] E-mail analysis error
[3A22] E-mail analysis error
[3B10] E-mail format error
[3B11] E-mail format error
[3B12] E-mail format error
[3B40] E-mail decode error
[3B41] E-mail decode error
[3B42] 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
[3A51] Insufficient HDD capacity error
[3A52] Insufficient HDD capacity error
[3A60] Warning of insufficient HDD capacity
[3A61] Warning of insufficient HDD capacity
[3A62] Warning of insufficient HDD capacity
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
[3A81] Partial mail reception setting OFF
[3A82] 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
[3B21] Content-Type error
[3B22] 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.

[3B30] Charset error
[3B31] Charset error
[3B32] Charset error
These errors occur when the standard of the Charset is other than ISO-8559-1 or ISO-8559-2.
Request the sender to reformat the Charset into either of the standards described above and then retransmit the mail.

[3C10] TIFF analysis error
[3C11] TIFF analysis error
[3C12] TIFF analysis error
[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
[3C21] TIFF compression error
[3C22] 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
[3C31] TIFF resolution error
[3C32] 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
[3C41] TIFF paper size error
[3C42] 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.

[3C50] Offramp destination error
[3C51] Offramp destination error
[3C52] 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
[3C61] Offramp security error
[3C62] 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.

[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.

[3F00] File I/O error
[3F10] File I/O error
[3F20] File I/O error
[3F30] File I/O error
[3F40] 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.

6.3.16 Printer function error

[4030] No printer kit/Invalid
Install the print kit and perform the job again.
Register it officially and perform the job again.

[4031] HDD full failure during printing
Reduce the number of pages of the job in error and perform the job again.
Check if the server or local disk has a sufficient space in disk capacity.

[4032] Private-print-only error
Select “Private”, and then perform the printing again.

[4033] Printing data storing limitation error
Select “Normal Print”, and then perform the printing again.

[4034] e-Filing storing limitation error
Select “Normal Print”, and then perform the printing again.

[4035] Local file storing limitation error
Select “Remote” (SMB/FTP) for the destination of the file to save.

[4036] User authentication error
Perform the authentication or register as a user, and then perform the printing again.

[4037] Hardcopy security printing error
Hardcopy security printing cannot be performed because the function is restricted in the self-diagnosis mode.

[4038] Restriction error (only for hold print jobs)
Select [Hold Print] to retry

[4039] Restriction error (only for private/hold print jobs)
Select [Private Print] or [Hold Print] to retry

[4040] Not being authorized to perform JOB
Confirm the administrator for the JOB authorization.

[4050] Problem in LDAP server connection or LDAP server authorization settings
Confirm the administrator for the LDAP server connection or LDAP server authorization settings.

[4300] Job execution error due to functional restrictions
USB direct printing cannot be performed because the function is restricted by the self-diagnosis. Check the self-diagnosis setting.

[4301] File conversion error
The format of this file (other than PDF and JPEG) is not supported in USB direct printing, or the file is invalid. Check the file.

[4310] 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.

[4311] Printing not permitted
This file cannot be printed using this function due to the encrypted PDF file not permitting printing or permitting it only with a low resolution.

[4312] Password mismatching
The entered password is neither matched with a user password nor an owner password. Check the password again.

[A221] Print job cancellation
This message appears when deleting the job on the screen.

[A222] 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.

[A290] Limit over error
[A291] Limit over error
[A292] Limit over error
Clear the limit counter.

6.3.17 TopAccess related error

[5110] Toner cartridge detection error

1. Check if the toner cartridge is installed properly.
2. Check if the toner cartridge detection sensor operates properly.

[5BD0] Power failure during restoration

1. Check if the power cable is connected properly and is inserted securely.
2. Check if the power voltage is unstable.
3. Reattempt the restoration of the database (Address Book, templates, F-code (Mailbox) or user information).

[5C10] FAX Unit attachment error

1. Check if the FAX Unit is attached.
2. Check if there is any damage or abnormality on the FAX board.
3. Check if the connector on the FAX board is connected properly.

[5C11] Network FAX transmission error

The address specified for the network FAX is not registered on the Address Book. Register it.

[5C20] Data import from TopAccess succeeded

Data (Address book, department or user information) have been imported successfully. No troubleshooting is required.

[5C21] Error in data import from TopAccess

Data import failed because the specified file (Address Book, department or user information) is incorrect or damaged. Check if the file is incorrect or damaged, and then reattempt the import.

[5C22] Error on data import from TopAccess

1. Data import failed because the specified file (Address Book, department or user information) is incorrect or damaged. Check if the file is incorrect or damaged, and then reattempt the import.
2. Check that no jobs remain and rebuild the databases (Perform 08-684).
3. If the error is not recovered, initialize the HDD (Key in "2" at 08-690).

Notes:

- If you rebuild the databases with a job remaining, delete it after finishing.
- When "Rebuilding all databases (08-684)" is performed, all the data in the Address Book and Mailbox are deleted. If you back up the data in advance, they will be recovered by restoring them after rebuilding the database.

6.4 Troubleshooting for the Image

6.4.1 Abnormality of image density / Gray balance

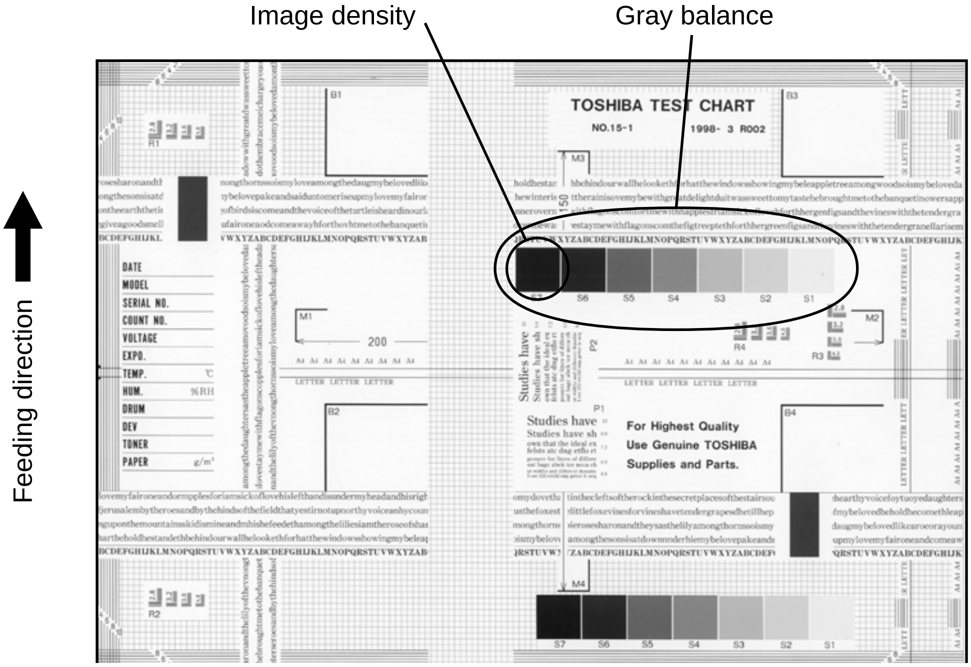


Image density
Gray balance
Feeding direction
TOSHIBA TEST CHART
NO.15-1
1998- 3 R002
For Highest Quality
Use Genuine TOSHIBA
Supplies and Parts.
S7
S6
S5
S4
S3
S2
S1

Fig. 6-2

Defective area	Step	Check items	Prescription
Density/Gray balance	1	Check the density/gray balance.	Adjust the density.
Printer section	2	Check test print image (04-114).	Go to step 4 if there is any problem on image.
Scanner	3	Are the original glass, mirrors and lens dirty?	Clean them.
Printed image	4	Is the image faded?	Perform troubleshooting for faded image.
	5	Is background fogging occurring?	Perform troubleshooting for background fogging.
	6	Is there a blotch on the image?	Perform troubleshooting for blotched image.
	7	Is the image transferred normally?	Perform troubleshooting for abnormal transfer.

6.4.2 Background fogging

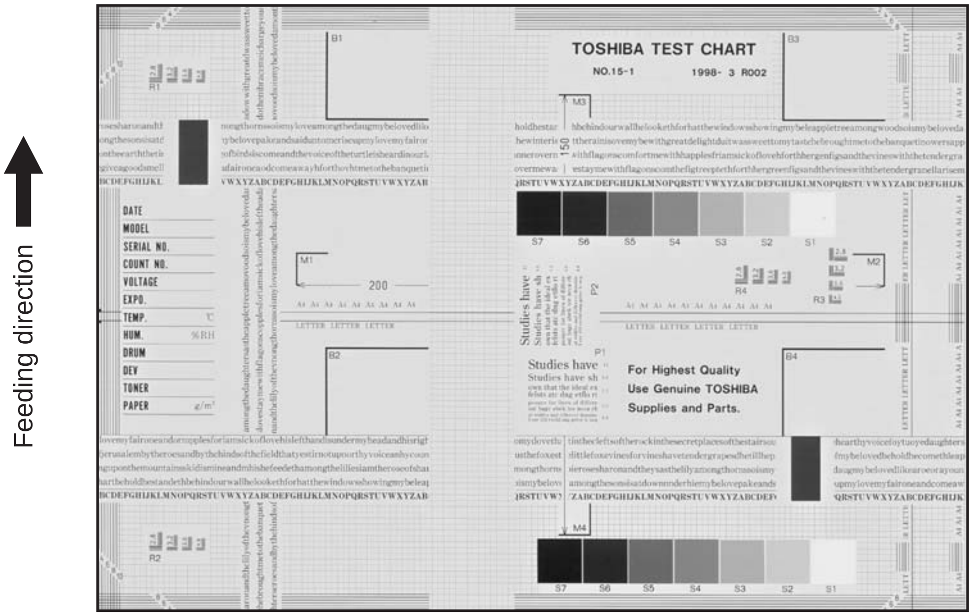


Fig. 6-3

Defective area	Step	Check items	Prescription
Density reproduction	1	Check the reproduction of the image density.	Adjust the density.
Background reproduction	2	Check the background reproduction.	Adjust the background.
Printer section	3	Check test print image (04-114).	Go to step 4 if there is any problem on image.
Scanner	4	Are the original glass, mirrors and lens dirty?	Clean them.
Auto-toner	5	Is the auto-toner sensor normal?	Check the performance of the auto-toner sensor and readjust.
	6	Is the toner supplied normally?	Check the motor and circuits.
High-voltage transformer (Main charger / Developer bias)	7	Is the high-voltage transformer output defective?	Adjust the output, or replace the transformer.
Developer unit	8	Is the contact between the drum and developer material normal?	Adjust the doctor-sleeve gap and polarity.
Developer material/Toner/ Drum	9	Using the specified developer material, toner and drum?	Use the specified developer material, toner and drum.
	10	Have the developer material and drum reached their PM life?	Replace the developer material and drum.
	11	Is the storage environment of the toner cartridge 35°c less without dew?	Use the toner cartridge stored in the environment within specification.
Drum cleaning blade	12	Is the drum cleaned properly?	Check the pressure of the drum cleaning blade.
Toner dusting	13	Is toner heaped on the seal of the developer unit?	Remove the toner and clean the developer unit.

6.4.3 Moire/lack of sharpness

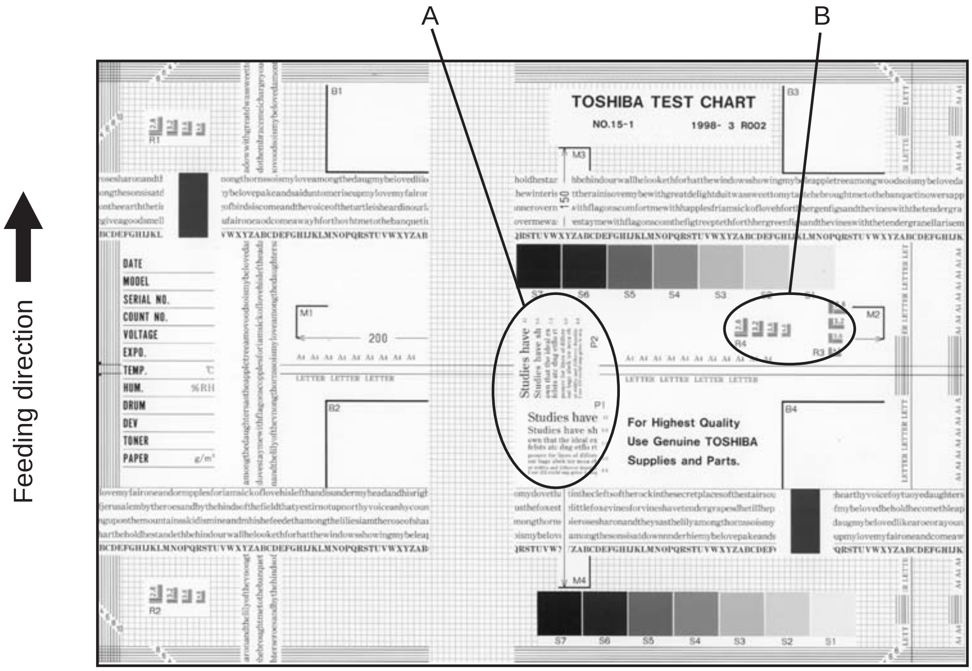

A
B
Feeding direction
TOSHIBA TEST CHART
NO.15-1
1998- 3 R002
For Highest Quality
Use Genuine TOSHIBA
Supplies and Parts.

Fig. 6-4

Moire

Defective area	Step	Check items	Prescription
Density reproduction	1	Check the reproduction of the image density.	Adjust the density.
Parameter adjustment value	2	Check the image processing parameters.	Check the adjustment value for sharpness.
Printer section	3	Check test print image (04-114).	When defects occur, perform the corresponding troubleshooting procedure.

Lack of sharpness

Defective area	Step	Check items	Prescription
Density reproduction	1	Check the reproduction of the image density.	Adjust the density.
Parameter adjustment value	2	Check the image processing parameters.	Check the adjustment value for sharpness.
Printer section	3	Check test print image (04-114).	When defects occur, perform the corresponding troubleshooting procedure.
	4	Check the image processing parameters.	Check the encircled areas A and B in the image, and change the sharpness intensity in the sharpness adjustment mode.

6.4.4 Toner offset

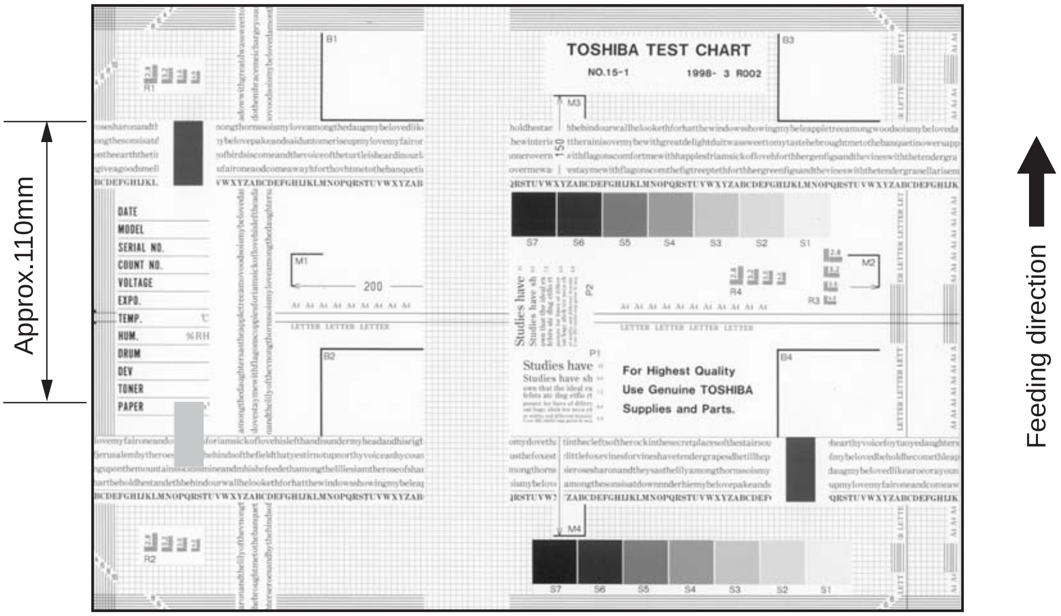


Fig. 6-5

Toner offset (Shadow image appears approx.110mm toward the dark image.)

Defective area	Step	Check items	Prescription
Density	1	Is the density too high?	Adjust the density.
Fuser unit	2	Is the pressure of the fuser roller normal?	Check the pressure releasing parts and pressurization mechanism.
	3	Is the thermistor in contact with the fuser roller?	Contact the thermistor with the fuser roller.
	4	Is there a scratch on the fuser roller surface?	Replace the fuser roller.
	5	Has the fuser roller reached its PM life?	Replace the fuser roller.
	6	Is the setting temperature of the fuser roller normal?	Check the adjustment values of fuser roller temperature? 08-407, 410, 411, 450, 515, 516 (08-5285: Only e-STUDIO355/455)
	7	Is the power supplied between the fuser unit entrance guide and the registration roller on the equipment side?	Check if the power supply bracket of the fuser unit is installed properly.
Paper	8	Has the appropriate paper type been selected?	Select a proper mode.
	9	Is the setting temperature of the fuser roller in each paper type normal?	Check the setting and correct it. (08-412, 413, 437, 438, 451, 452, 453, 518, 520, 521) (08-5328, 5329, 5330, 5331, 5332: Only e-STUDIO355/455)
	10	Using the recommended paper?	Use the recommended paper.
Developer material	11	Using the specified developer material?	Use the specified developer material and toner.
Scanner	12	Are the original glass (especially the position of shading correction plate), mirror and lens dirty?	Clean them.

6.4.5 Blurred image

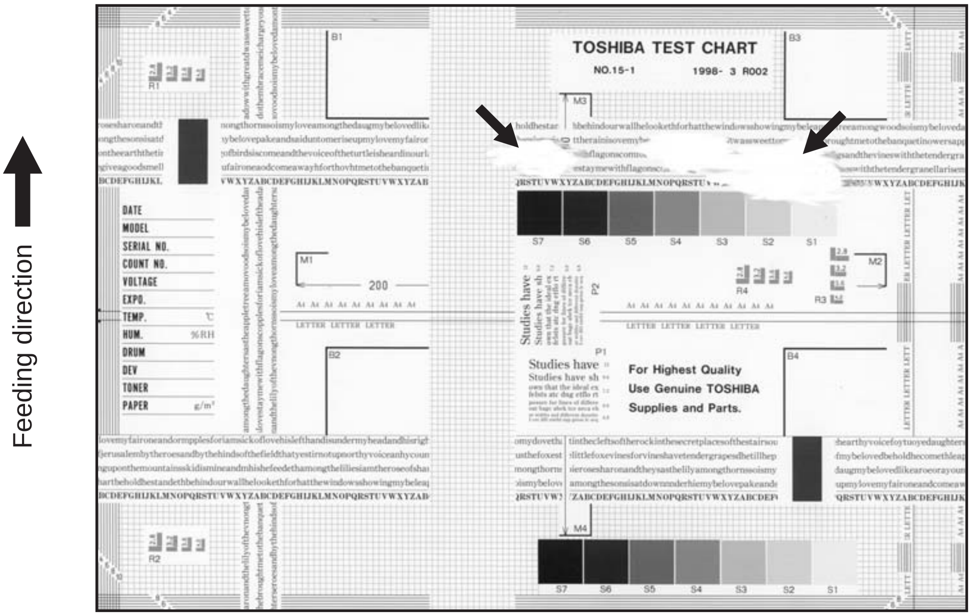

Feeding direction
TOSHIBA TEST CHART
NO.15-1
1998- 3 R002
B1
B2
B3
B4
M1
M2
M3
M4
R1
R2
R3
R4
P1
P2
200
S7
S6
S5
S4
S3
S2
S1
DATE
MODEL
SERIAL NO.
COUNT NO.
VOLTAGE
EXPO.
TEMP.
HUM.
DRUM
DEV
TONER
PAPER
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Fig. 6-6

Defective area	Step	Check items	Prescription
Paper	1	Is the paper in the drawer or LCF damp?	Change paper. Avoid storing paper in damp place.
Bedewed scanner	2	Is the scanner bedewed?	Clean the scanner.
Drum	3	Is the drum surface wet or dirty?	Wipe the drum with a piece of dry cloth. * Do not use alcohol or other organic solvents.
Ozone exhaust	4	Is the exhaust fan operating properly?	Check the connection of connector. Replace the ozone exhaust fan.
	5	Is the ozone filter stained or damaged?	Replace the ozone filter.

6.4.6 Poor fusing

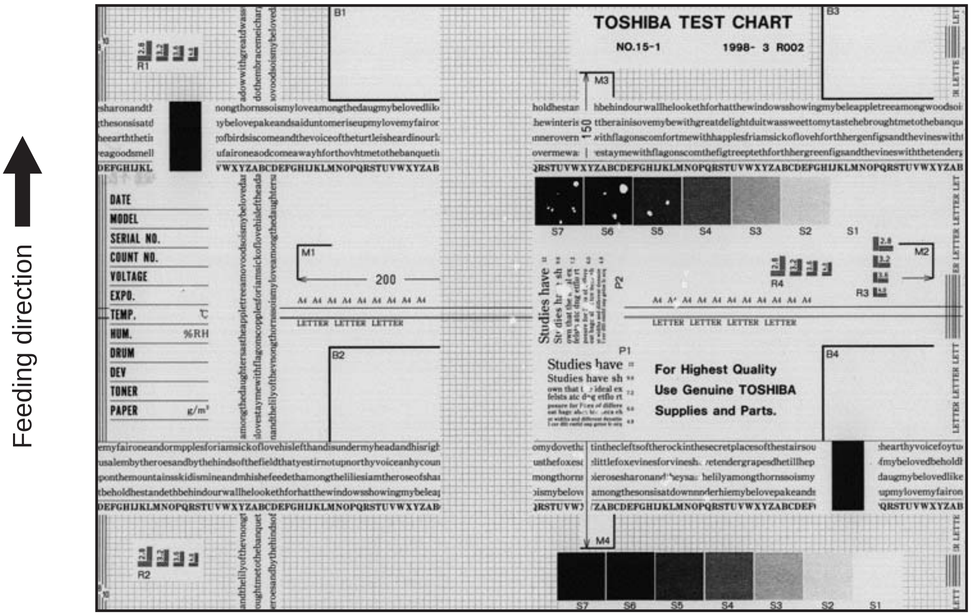
Feeding direction
TOSHIBA TEST CHART
NO.15-1
1998- 3 R002
DATE
MODEL
SERIAL NO.
COUNT NO.
VOLTAGE
EXPO.
TEMP.
HUM.
DRUM
DEV
TONER
PAPER
For Highest Quality
Use Genuine TOSHIBA
Supplies and Parts.
S7 S6 S5 S4 S3 S2 S1
B1 B2 B3 B4
M1 M2 M3 M4
R1 R2 R3 R4
P1 P2
200
150

Fig. 6-7

Defective area	Step	Check items	Prescription
Heater electric power	1	Check if the connector contacts properly.	Correct it.
	2	Is the heater shorted or broken?	Replace the heater.
Pressure between fuser roller and pressure roller	3	Are the pressure springs working properly?	Check and adjust the pressure springs.
Fuser roller temperature	4	Is the temperature of the fuser roller normal?	Check the setting and correct it. 08-407, 410, 411, 450, 515, 516, (5285: e-STUDIO355/455)
Developer material/Toner	5	Using the specified developer material and toner?	Use the specified developer material and toner.
Paper	6	Is the paper in the drawer or LCF damp?	Avoid storing paper in damp place.
	7	Is the paper type corresponding to its mode?	Use the proper type of paper or select the proper mode.
	8	Is the setting temperature of the fuser roller in each paper type normal?	Check the setting and correct it. 08-412, 413, 437, 438, 451, 452, 453, 518, 520, 521 (5328, 5329, 5330, 5331, 5332: e-STUDIO355/455)
	9	Using the recommended paper?	Use the recommended paper.

6.4.7 Blank copy

Feeding direction

Fig. 6-8

Defective area	Step	Check items	Prescription
Transfer roller unit	1	Is the power supplying spring of the transfer roller installed securely? (Is it almost detached?)	Check the power supplying spring and reinstall it.
High-voltage transformer (Transfer roller unit, Developer bias)	2	Is the high-voltage transformer output defective?	Adjust the output, or replace the transformer.
	3	Are the connectors of the high-voltage harness securely connected? Is the harness open circuited?	Reconnect the harness securely. Replace the high-voltage harness.
Developer unit	4	Is the developer unit installed properly?	Check and correct the engaging condition of the developer unit gears.
	5	Do the developer sleeve and mixers rotate?	Check and fix the drive system of the developer unit.
	6	Is the developer material smoothly transported?	Remove the foreign matter from the developer material.
	7	Has the magnetic brush phase been shifted?	Adjust the developer polarity.
	8	Is the doctor blade positioned properly?	Adjust it using the doctor-sleeve jig.
Drum	9	Is the drum rotating?	Check the drive system of the drum.
CCD, SLG, SYS/SYS-IMG, LGC boards and harnesses	10	Are the connectors securely connected? Check if the harnesses connecting the boards are open circuited.	Connect the connectors securely. Replace the harness.

6.4.8 Solid copy

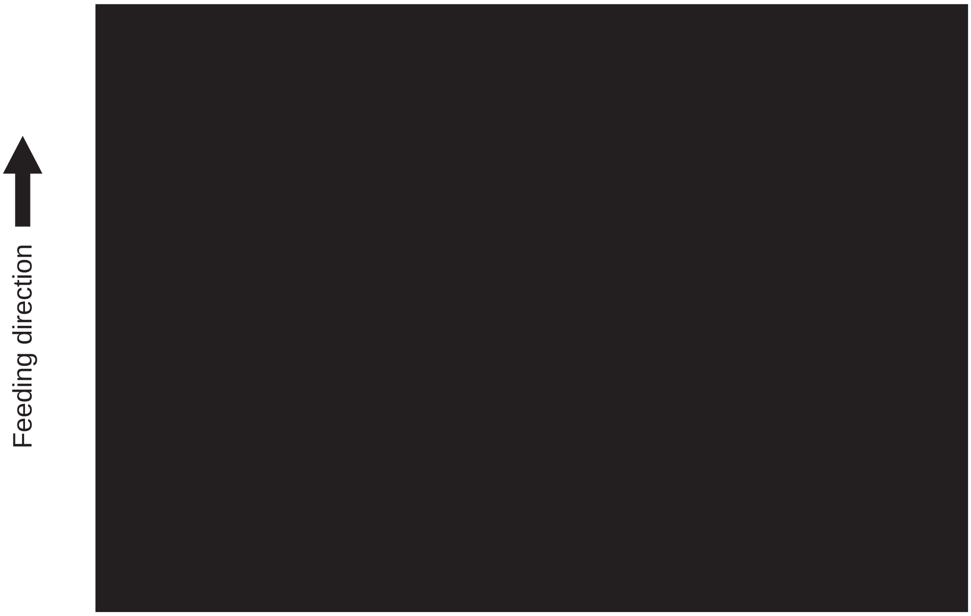

Fig. 6-9

Defective area	Step	Check items	Prescription
Exposure lamp and inverter	1	Does the exposure lamp light?	Check if the connector contacts with the exposure lamp terminal. Replace the defective inverter.
Scanner	2	Is there any foreign matter on the light path?	Remove it.
Bedewed scanner and drum	3	Is the scanner or drum bedewed?	Clean the mirrors, lens and drum. Keep the power cord plugged in all trough the day and night. (For the model with damp heater)
Main charger	4	Is the main charger securely installed?	Install it securely.
	5	Is the needle electrode broken?	Replace the needle electrode.
High-voltage transformer (Main charger)	6	Is the high-voltage transformer output defective?	Adjust the output, or replace the transformer.
	7	Are the connectors of the high-voltage harness securely connected? Is the harness open circuited?	Reconnect the harness securely. Replace the high-voltage harness.
CCD, SLG, SYS/SYS-IMG, LGC boards and harnesses	8	Are the connectors securely connected? Check if the harnesses connecting the boards are open circuited.	Connect the connectors securely. Replace the harness.

6.4.9 White banding or white void(in the feeding direction)

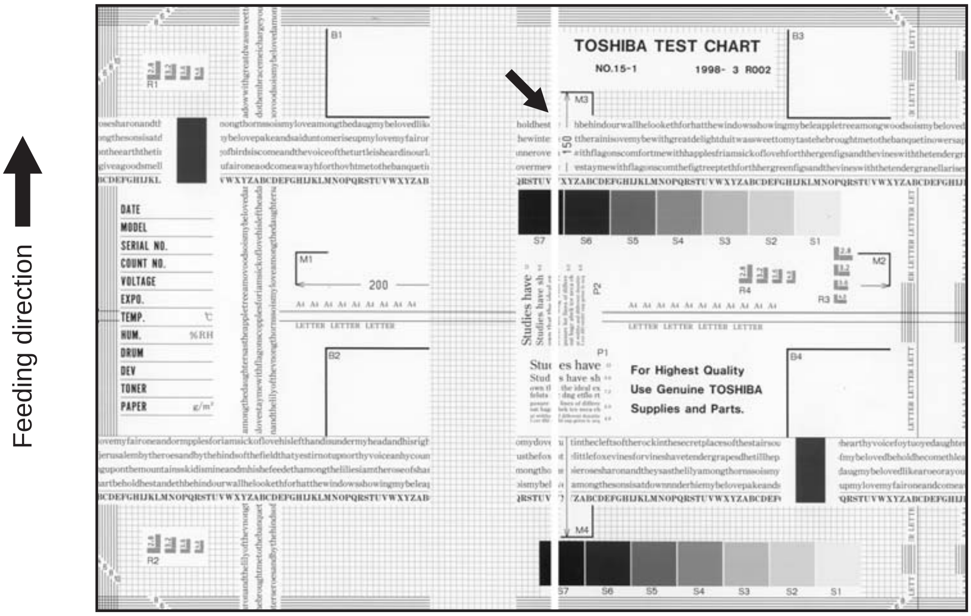

Fig. 6-10

Defective area	Step	Check items	Prescription
Laser optical unit	1	Is there a foreign matter or stain on the slit glass?	Remove the foreign matter or stain.
Main charger grid	2	Is there a foreign matter or dew on the charger grid?	Remove the foreign matter.
Toner cartridge	3	Is the adhered foreign matter blocking the laser light path?	Remove the foreign matter.
Developer unit	4	Is the floated lid of the developer bottle blocking the laser light path?	Check the lid and place it properly.
	5	Is the developer material transported properly?	Remove the foreign matter if there is any. *1)
	6	Is there a foreign matter or dew on the drum seal?	Remove the foreign matter or dew.
	7	Is the upper drum seal of the developer unit in contact with the drum?	Correct the position of the drum seal or replace it.
Drum	8	Is there a foreign matter on the drum surface?	Replace the drum. If there is a convex foreign matter adhering to the drum surface, it indicates that the blade edge at this area is worn out. In this case, replace both the drum and the drum cleaning blade.
Transport path	9	Does the toner image contact with any foreign matter before the paper enters the fusing section after the separation?	Remove the foreign matter.
Discharge LED	10	Is any of the discharge LEDS off?	Replace the discharge LED.
Scanner	11	Is there a foreign matter on the light path?	Remove the foreign matter.
	12	Are the original glass (especially the position of shading correction plate) mirror and lens dirty?	Clean them.

Defective area	Step	Check items	Prescription
Cleaner	13	Is there any foreign matter, which contacts the drum on the cleaner stay?	Remove the foreign matter.

*1) Prescription for foreign matter in the doctor sleeve gap

- Pull the doctor blade in the direction of the arrow.
- Rotate the gear.
- Remove the foreign matter that has come out on the developer sleeve.

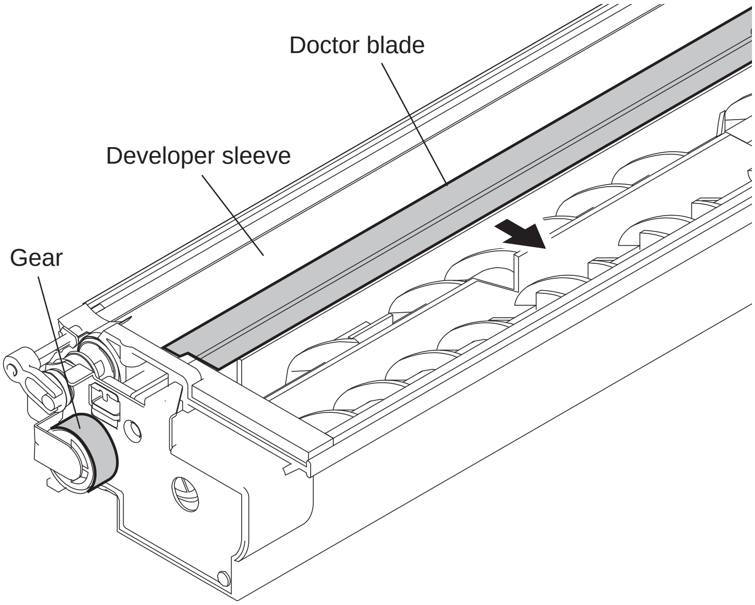

Fig. 6-11

6.4.10 White banding (at right angle with the feeding direction)

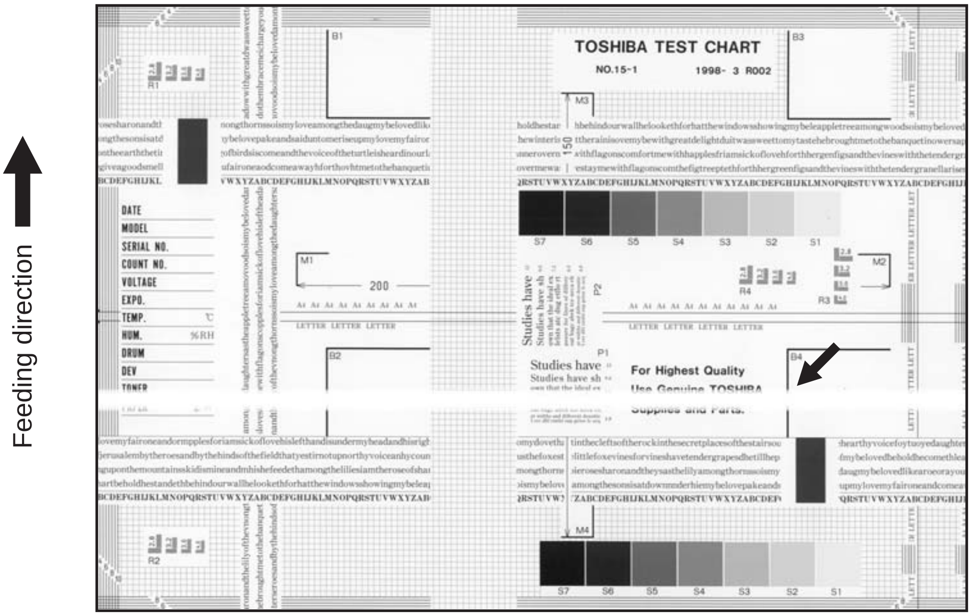

Fig. 6-12

Defective area	Step	Check items	Prescription
Main charger	1	Is there a foreign matter on the charger?	Remove the foreign matter.
	2	Is the connector in proper contact with the terminal?	Clean or adjust the terminal.
Drum	3	Is there any abnormality on the drum surface?	Replace the drum.
Discharge LED	4	Does the discharge LED light normally?	Replace the discharge LED or check the harness and the circuit.
Developer unit	5	Is the developer sleeve rotating normally? Is there any abnormality on the sleeve surface?	Check the drive system of the developer unit, or clean the sleeve surface.
Drive system	6	Are the drum and scanner jittering?	Check each drive system.
High-voltage transformer (Main charger / Developer bias / Transfer roller unit)	7	Is the high-voltage transformer output defective?	Adjust the output, or replace the transformer.
Transfer roller unit	8	Is there any foreign matter adhering to the transfer roller? Is there any abnormality in the appearance of the roller? Has the number of output pages exceeded the threshold for the life of the transfer roller?	Remove the foreign matter from the roller surface. Replace the roller if there is any abnormality in its appearance. Also replace the roller if the number of output pages has exceeded the threshold of its life.
Feed system	9	Is the aligning amount proper?	Adjust the aligning amount.

6.4.11 Skew (inclined image)

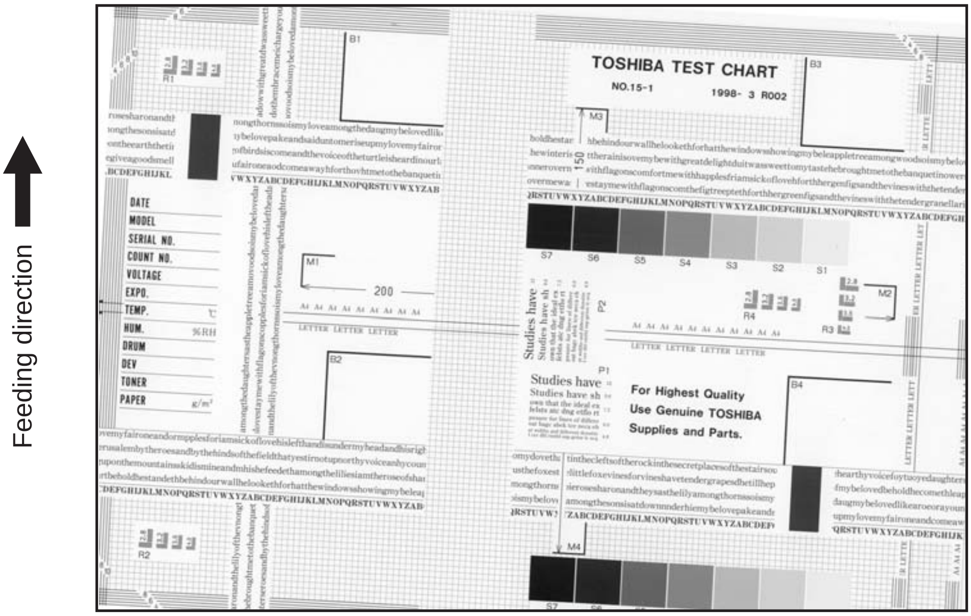
Feeding direction
TOSHIBA TEST CHART
NO.15-1
1998- 3 R002
For Highest Quality
Use Genuine TOSHIBA
Supplies and Parts.
DATE
MODEL
SERIAL NO.
COUNT NO.
VOLTAGE
EXPO.
TEMP.
HUM.
DRUM
DEV
TONER
PAPER
S7
S6
S5
S4
S3
S2
S1
B1
B2
B3
B4
M1
M2
M3
M4
R1
R2
R3
R4
P1
P2
200
150

Fig. 6-13

Defective area	Step	Check items	Prescription
Drawers LCF	1	Is the drawer or LCF properly installed?	Install the drawer or LCF properly.
	2	Is there too much paper in the drawer or LCF?	Reduce paper to 550 or fewer sheets in the drawer. Reduce paper to 1000 or fewer sheets in the feeding side tray and the standby side tray of LCF, respectively.
	3	Is the corner of the paper folded?	Change the direction of the paper and set it again.
	4	Are the side guides of the drawer or LCF properly installed?	Adjust the position of the side guides.
Feed roller	5	Is the surface of the feed roller dirty?	Clean the feed roller surface with alcohol, or replace the roller.
Rollers	6	Are the roller and shaft secured?	Check and tighten the E-rings, pins, clips and setscrews.
Registration roller	7	Is the spring detached from the registration roller?	Attach the spring correctly. Clean the roller if it is dirty.
Pre-registration guide	8	Is the pre-registration guide properly installed?	Correct it.
Scanner	9	Is the carriage-1 slanted?	Adjust the carriage-1.

6.4.12 Black banding (in the feeding direction)

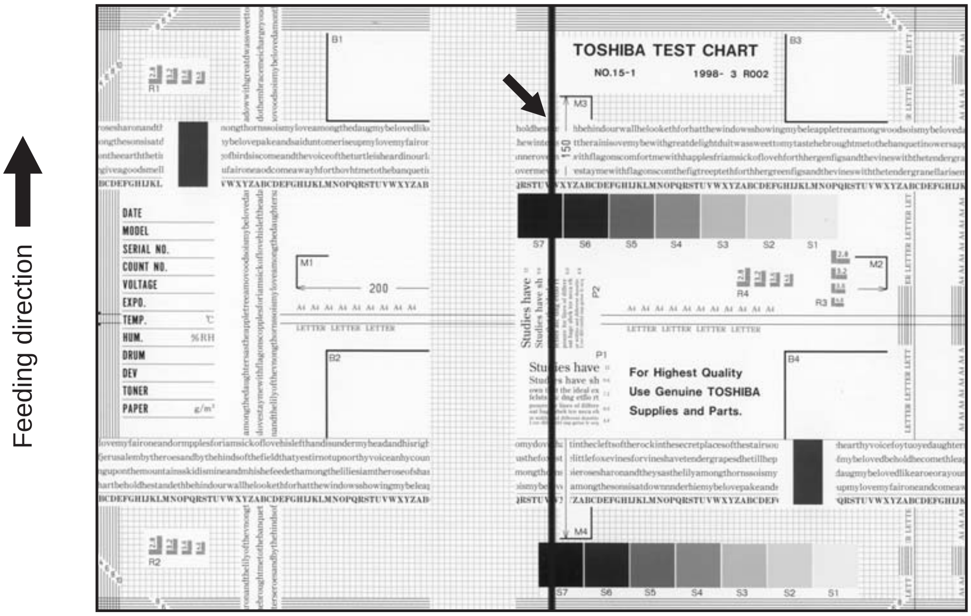

Fig. 6-14

Defective area	Step	Check items	Prescription
Scanner	1	Is there a foreign matter on the light path?	Clean the slit, lens and mirrors.
Shading correction plate	2	Is there dust or stains on part of the original glass where the shading correction plate is placed.	Clean the plate.
Main charger	3	Is there a foreign matter on the main charger grid?	Remove the foreign matter.
	4	Is the main charger grid dirty or deformed?	Clean or replace the main charger grid.
	5	Is there a foreign matter on the main charger?	Remove the foreign matter.
	6	Is the needle electrode dirty or deformed?	Clean or replace the needle electrode.
	7	Is there a foreign matter inside the main charger case?	Remove the foreign matter.
	8	Is the inside of the main charger case dirty?	Clean the inside of the main charger case.
Cleaner	9	Is there paper dust sticking to the drum cleaning blade edge?	Clean or replace the cleaning blade.
	10	Is the drum cleaning blade working properly?	Check the pressurization of the drum cleaning blade.
	11	Has the used toner been recovered properly?	Clean the toner recovery auger.
Fuser unit	12	Is the fuser roller surface dirty or damaged?	Clean or replace the fuser roller.
	13	Is the thermistor dirty?	Clean the thermistor.
Drum	14	Are there scratches on the drum surface?	Replace the drum.
Laser optical unit	15	Is there a foreign matter or stain on the slit glass?	Remove the foreign matter or the stain.

6.4.13 Black banding (at right angle with the feeding direction)

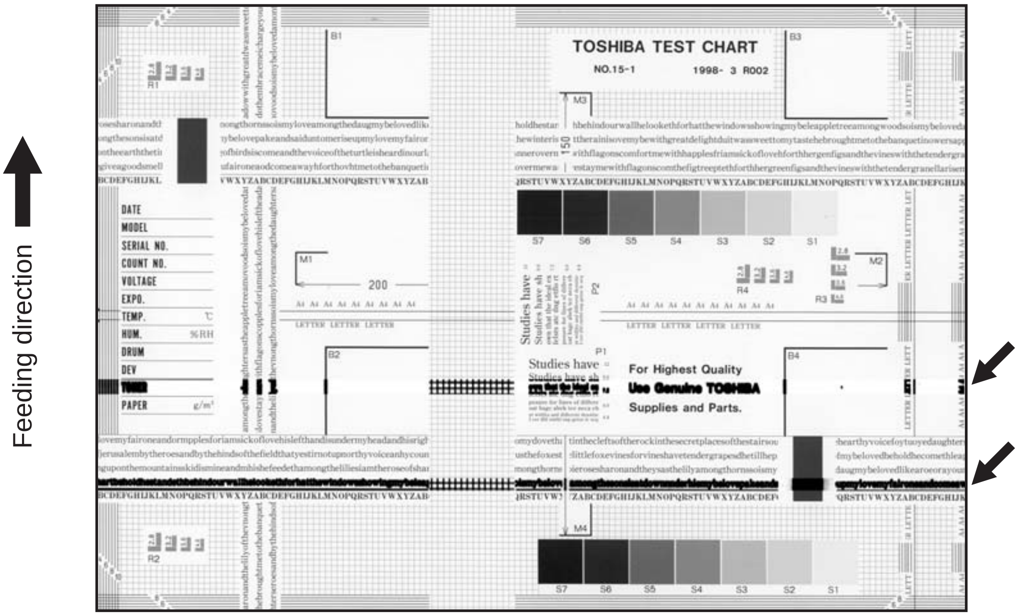
Feeding direction
TOSHIBA TEST CHART
NO.15-1
1998- 3 R002
For Highest Quality
Use Genuine TOSHIBA
Supplies and Parts.
DATE
MODEL
SERIAL NO.
COUNT NO.
VOLTAGE
EXPO.
TEMP.
HUM.
DRUM
DEV
TONER
PAPER

Fig. 6-15

Defective area	Step	Check items	Prescription
Main charger	1	Is the needle electrode dirty or deformed?	Clean or replace the needle electrode.
Fuser unit	2	Are the fuser roller, separation finger for fuser roller and thermistor dirty?	Clean them.
	3	Has the fuser roller and separation finger for fuser roller reached their PM life?	Replace them.
High-voltage transformer (Main charger / Developer bias / Transfer roller unit)	4	Is the high-voltage transformer output defective?	Adjust the output, or replace the transformer.
Drum	5	Is there a deep scratch on the drum surface?	Replace the drum if the scratch has reached the aluminum base.
	6	Is there thin scratch (drum pitting) on the drum surface?	Check and adjust the contact condition of the cleaning blade and recovery blade.
Scanner	7	Is there a foreign matter on the carriage rail?	Remove the foreign matter.

6.4.14 White spots

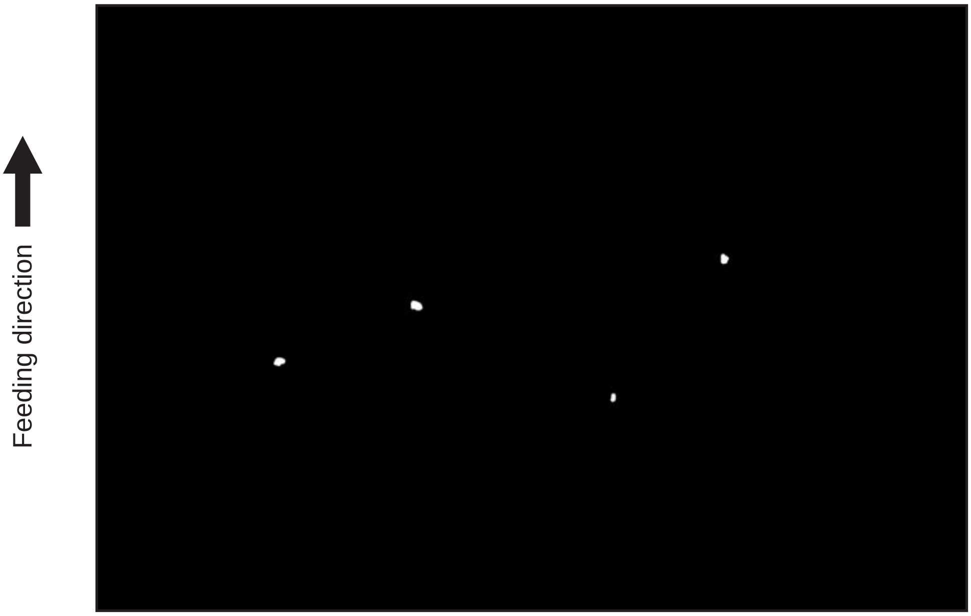

Fig. 6-16

Defective area	Step	Check items	Prescription
Developer unit, Toner cartridge	1	Is the toner density in the developer material appropriate?	Check and correct the auto-toner sensor and toner supply operation. Check if the amount of the toner is sufficient in the toner cartridge.
	2	Is the doctor-sleeve gap proper?	Adjust the doctor-sleeve 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 35°c or less without dew?	Use the toner cartridge stored in the environment with specification.
	6	Is there any dent on the drum surface?	Replace the drum.
	7	Is there any film forming on the drum?	Clean or replace the drum.
Main charger	8	Is there any foreign matter on the charger?	Remove it.
	9	Is the needle electrode dirty or deformed?	Clean or replace the needle electrode.
High-voltage transformer (Main charger / Developer bias / Transfer roller unit)	10	Is the high-voltage transformer output defective?	Adjust the output, or replace the transformer.
Transfer roller unit	11	Is there any foreign matter such as fiber in the paper transport area of the transfer roller unit?	Clean the transfer roller unit.
	12	Is there any foreign matter on the transfer roller? Is there any abnormality on its appearance?	Remove the foreign matter or replace the transfer roller.

6.4.15 Poor image transfer

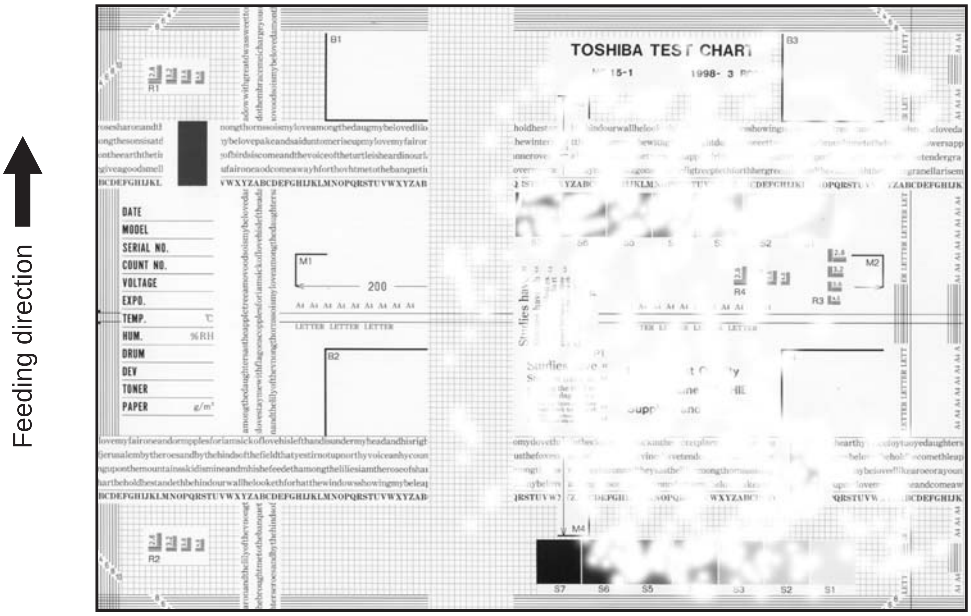
Feeding direction
TOSHIBA TEST CHART

Fig. 6-17

Defective area	Step	Check items	Prescription
Paper	1	Is the paper in the drawer or LCF/ PFP curled?	Reinsert the paper with the reverse side up or change the paper.
	2	Is the paper in the drawer or LCF damp?	Avoid storing paper in damp place.
	3	Is the paper type corresponding to its mode?	Select the proper mode.
	4	Using the recommended paper?	Use the recommended paper.
Transfer roller unit	5	Is the transfer roller contacting with the drum? Are the charger pushing-spring and the transfer roller pressure spring installed properly?	Check them and reinstall if required.
Registration roller	6	Is there any abnormality related to the registration roller or with the roller itself?	Clean the roller if it is dirty. Securely attach the springs if they are detached. Replace the clutch if it is defective. Adjust the rotation speed of the roller.
High-voltage transformer (Transfer roller unit)	7	Is the high-voltage transformer output defective?	Adjust the output, or replace the transformer.

6.4.16 Uneven image density

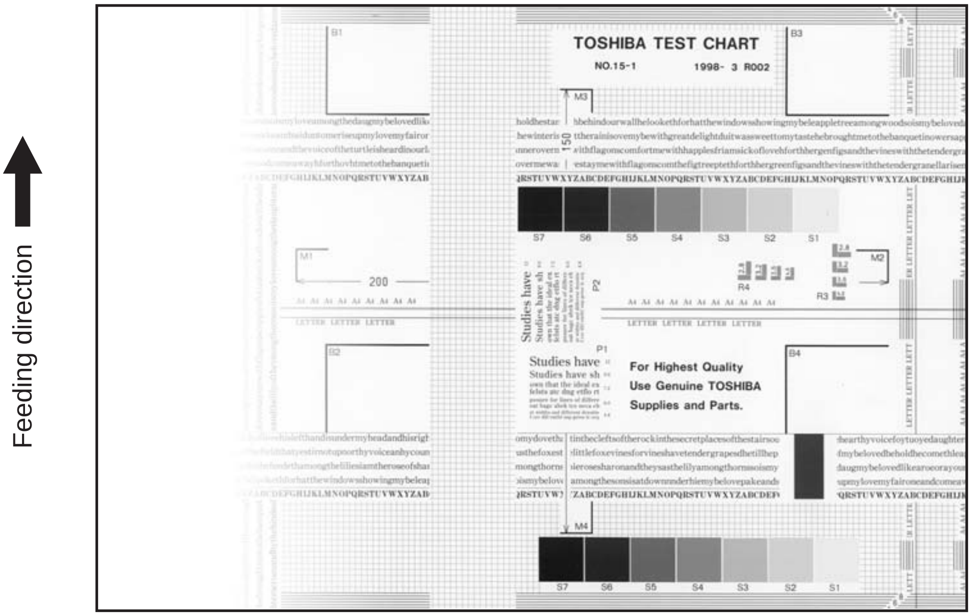

Fig. 6-18

Defective area	Step	Check items	Prescription
Main charger	1	Is the main charger dirty?	Clean or replace the needle electrode and main charger grid.
Transfer roller unit	2	Is the transfer roller contacting with the drum? Are the charger pushing-spring and the transfer roller pressure spring installed properly?	Check them and reinstall if required.
Laser optical unit	3	Is there any foreign matter or stain on the slit glass?	Remove the foreign matter or stain.
Discharge LED	4	Are the connectors of discharge LED harness securely connected?	Reconnect the harness securely.
	5	Is the discharge LED dirty?	Clean the discharge LED.
	6	Is any of the discharge LEDs off?	Replace the discharge LED.
Developer unit	7	Is the magnetic brush in proper contact with the drum?	Adjust the doctor-sleeve gap.
	8	Is the developer sleeve pressurization mechanism working?	Check the mechanism.
	9	Is the developer material transported normally?	Remove foreign matters if there is any.
Scanner	10	Is the original cover or RADF opened?	Close the original cover or RADF.
	11	Are the original glass (especially the position of shading correction plate), mirror and lens dirty?	Clean them.

6.4.17 Faded image (low density, abnormal gray balance)

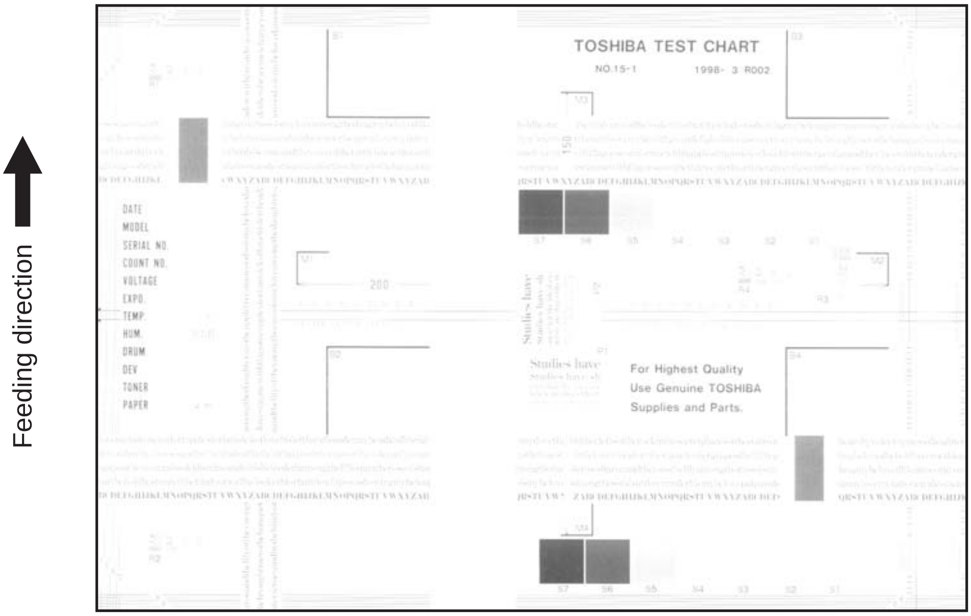

Fig. 6-19

Defective area	Step	Check items	Prescription
Toner empty	1	Is “ADD TONER” symbol lit?	Replace the toner cartridge.
Auto-toner circuit	2	Is there enough toner in the cartridge?	Check the performance of the auto-toner circuit.
	3	Is the toner density in the developer material too low?	
Toner motor	4	Is the toner motor working normally?	Check the toner motor and the motor drive.
Toner cartridge	5	Is there any problem with the toner cartridge?	Replace the toner cartridge.
Developer material	6	Has the developer material reached its PM life?	Replace the developer material.
Developer unit	7	Is the magnetic brush in proper contact with the drum?	Check the installation of the developer unit. Adjust the doctor-sleeve gap and polarity.
	8	Is the developer sleeve pressurization mechanism working?	Check the mechanism.
Main charger	9	Is the main charger dirty?	Clean it or replace the needle electrode and main charger grid.
Drum	10	Is “film-forming” occurring on the drum surface?	Clean or replace the drum.
	11	Has the drum reached its PM life?	Replace the drum.
Transfer roller unit	12	Is the transfer roller contacting with the drum? Is the transfer roller pressure spring installed properly?	Check them and reinstall if required.
High-voltage transformer	13	Is the setting for the high-voltage transformer proper?	Adjust the output from the high-voltage transformer.
	14	Are the connectors of the high-voltage harness securely connected? Is the harness open circuited?	Reconnect the harness securely. Replace the high-voltage harness.
Discharge LED	15	Are the connectors of discharge LED harness securely connected?	Reconnect the harness securely.

6.4.18 Image dislocation in feeding direction

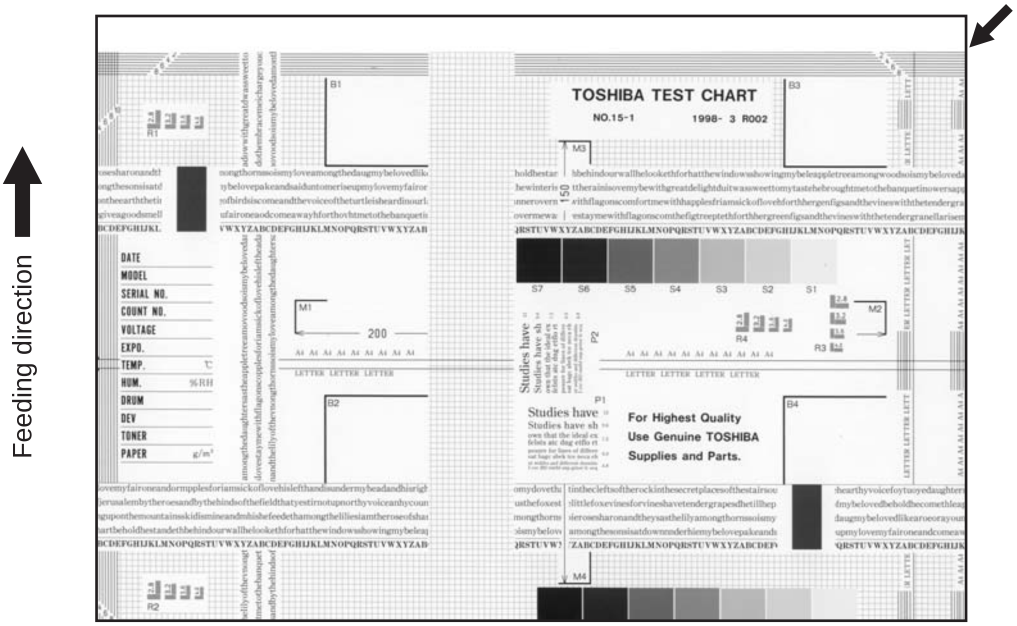
Feeding direction
TOSHIBA TEST CHART
NO.15-1 1998- 3 R002
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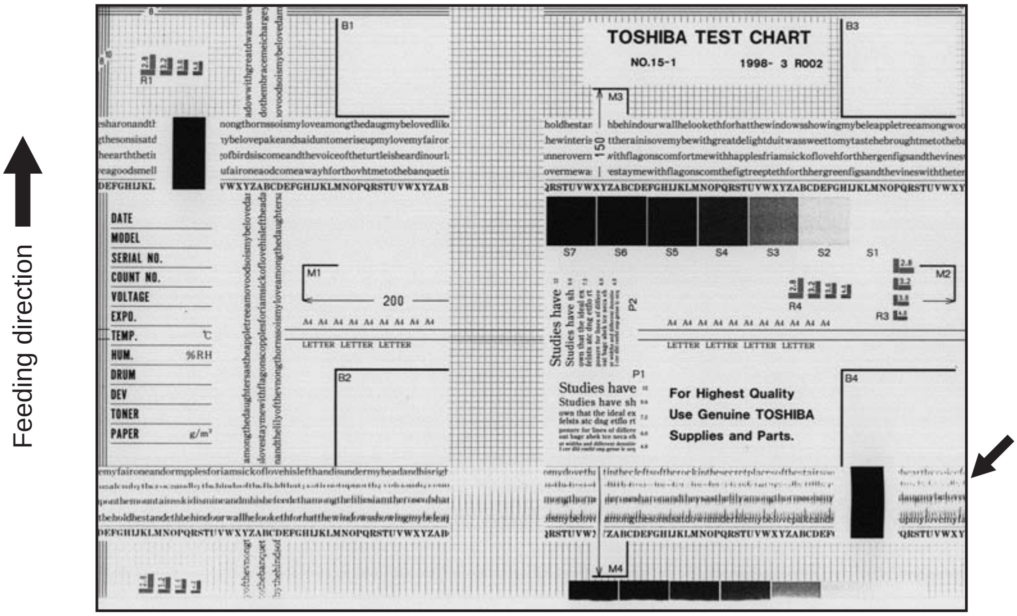
Fig. 6-20

Defective area	Step	Check items	Prescription
Scanner/Printer adjustment	1	Have the printed images been dislocated in the same manner?	Adjust the position of the leading edge of paper in the Adjustment Mode.
Registration roller	2	Is the registration roller dirty, or the spring detached?	Clean the registration roller with alcohol. Securely attach the springs.
	3	Is the registration roller working properly?	Adjust or replace the gears if they are not engaged properly.
Feed clutch	4	Is the feed clutch working properly?	Check the circuit or feed clutch, and replace them if necessary.
Pre-registration guide	5	Is the pre-registration guide installed properly?	Install the guide properly.

6.4.19 Jittering image


Feeding direction
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NO.15-1
1998- 3 R002
B1
B2
B3
B4
M1
M2
M3
M4
R1
R3
R4
P1
P2
S7
S6
S5
S4
S3
S2
S1
200
150
DATE
MODEL
SERIAL NO.
COUNT NO.
VOLTAGE
EXPO.
TEMP.
HUM.
DRUM
DEV
TONER
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Fig. 6-21

Defective area	Step	Check items	Prescription
—	1	Is the toner image on the drum normal?	If normal, perform steps 2 to 4. Perform step 5 and followings in case the image is abnormal.
Registration roller	2	Is the registration roller rotating normally?	Check the registration roller area and springs for installation condition.
Fuser roller and pressure roller	3	Are the fuser roller and pressure roller rotating normally?	Check the fuser roller area. Replace the rollers if necessary.
Drum	4	Is there a big scratch on the drum?	Replace the drum.
Operation of carriage	5	Is there any problem with the slide sheet?	Replace the slide sheet.
	6	Is there any problem with the carriage foot?	Replace the carriage foot.
	7	Is the tension of the timing belt normal?	Adjust the tension.
	8	Is there any problem with the drive system of the carriage?	Check the drive system of the carriage.
Scanner	9	Is the mirror secured?	Secure it.
Drum drive system	10	Is there any problem with the drive system of the drum?	Check the drive system of the drum. Clean or replace the gears if they have stains or scratches.

6.4.20 Poor cleaning

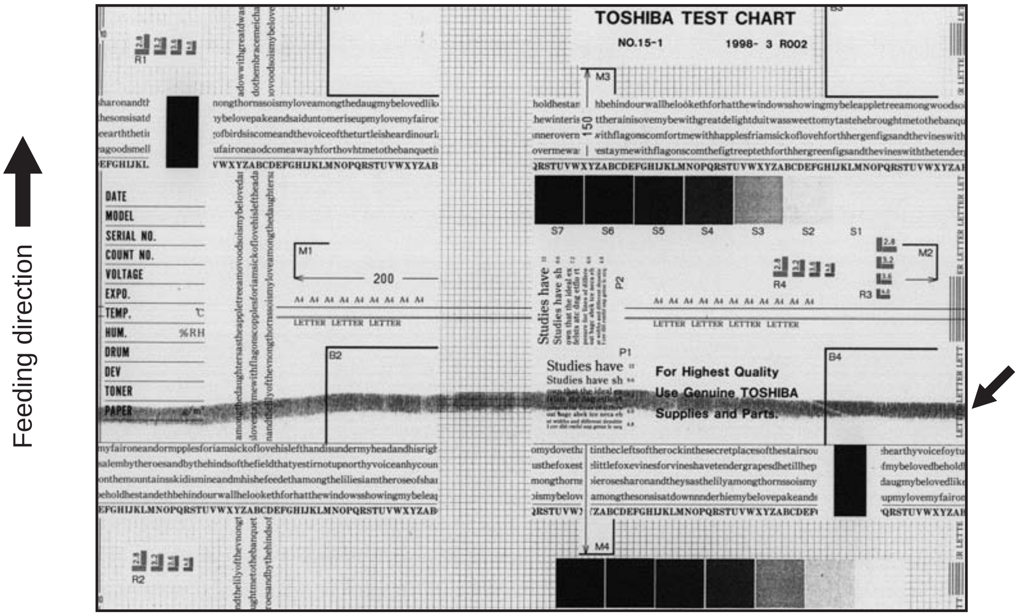


Fig. 6-22

Defective area	Step	Check items	Prescription
Developer material	1	Using the specified developer material?	Use the specified developer material and toner.
Cleaner	2	Is the cleaning blade in proper contact with the drum?	Check the cleaning blade.
	3	Has the cleaning blade been turned up?	Replace the cleaning blade. Check and replace drum if necessary.
Toner recovery auger	4	Is the toner recovered normally?	Clean the toner recovery auger. Check the pressure of the cleaning blade. Check if the toner recovery auger is rotated properly.
Fuser unit	5	Are there bubble-like scratches on the fuser roller (94 mm pitch on the image), (110mm: e-STUDIO355/ 455)?	Replace the fuser roller. Check and adjust the temperature control circuit.
	6	Has the fuser roller reached its PM life?	Replace the fuser roller.
	7	Is the pressure of the fuser roller normal?	Check and adjust the mechanism.
	8	Is the setting temperature of the fuser roller normal?	Check the setting and correct it. 08-407, 410, 411, 450, 515, 516 (5285: e-STUDIO355/455)

6.4.21 Uneven light distribution

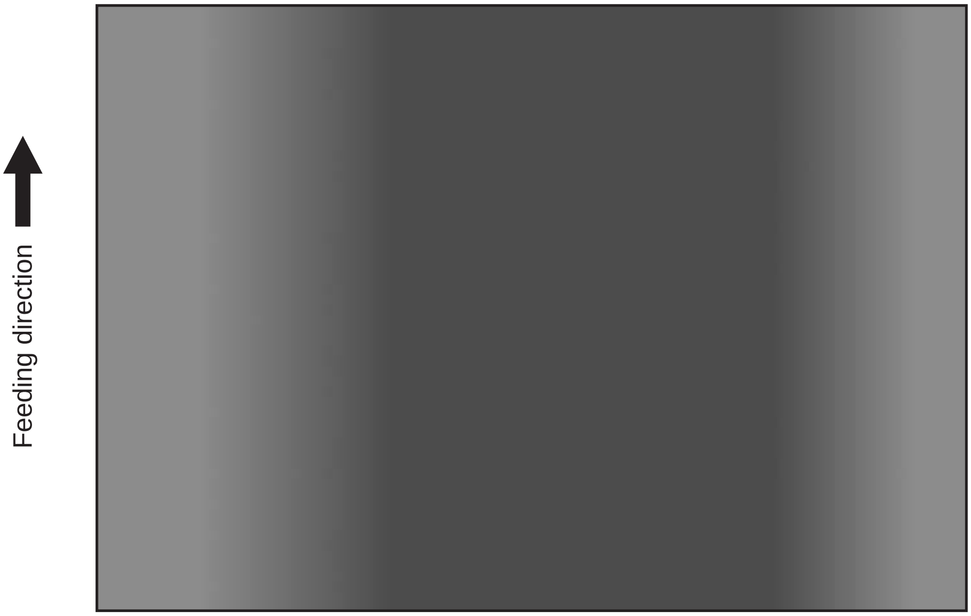


Fig. 6-23

Defective area	Step	Check items	Prescription
Original glass	1	Is the original glass dirty?	Clean the original glass.
Main charger	2	Are the needle electrode, main charger grid and main charger case dirty?	Clean or replace them.
Discharge LED	3	Is the discharge LED dirty?	Clean the discharge LED.
	4	Is any of the discharge LEDs off?	Replace the discharge LED.
Scanner	5	Are the reflector, exposure lamp, mirrors, lens, and original glass (especially the position of shading correction plate) dirty?	Clean them.
Exposure lamp	6	Is the exposure lamp tilted?	Adjust the position of the exposure lamp.
	7	Is the exposure lamp discolored or degraded?	Replace the exposure lamp.

6.4.22 Blotched image

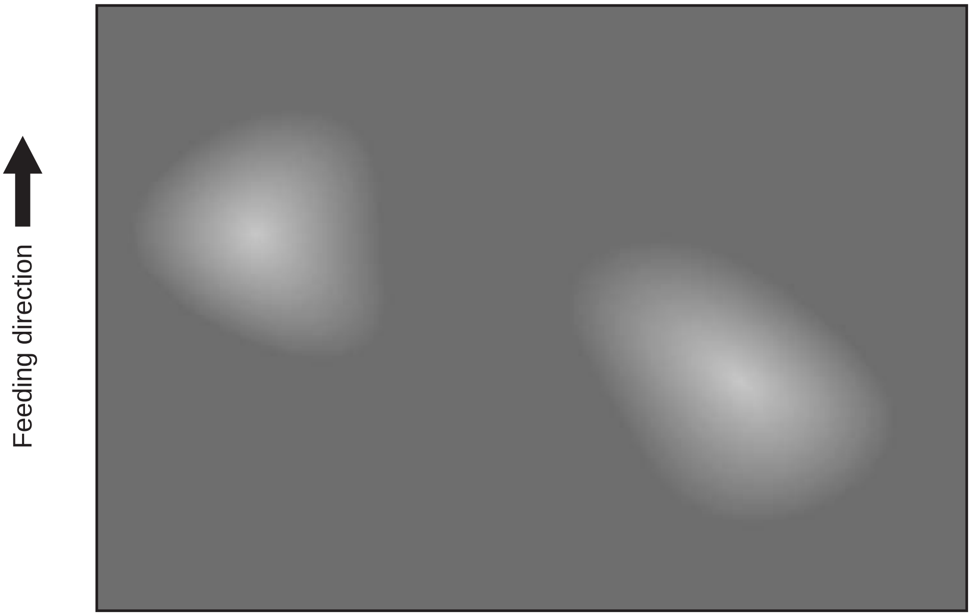


Fig. 6-24

Defective area	Step	Check items	Prescription
Paper	1	Is the paper type corresponding to its mode?	Check the paper type and mode.
	2	Is the paper too dry?	Change the paper.
Transfer roller unit	3	Is the power supplying spring of the transfer roller installed securely? (Is it almost detached?)	Check the power supplying spring and reinstall it.
High-voltage transformer (Transfer roller unit)	4	Is the output from the high-voltage transformer normal?	Adjust the output. Replace the transformer if necessary.
Separation	5	Is the output from the separation charger too high?	Adjust the output, from the separation charger.

6.4.23 Black streaks on image leading edge during scanning

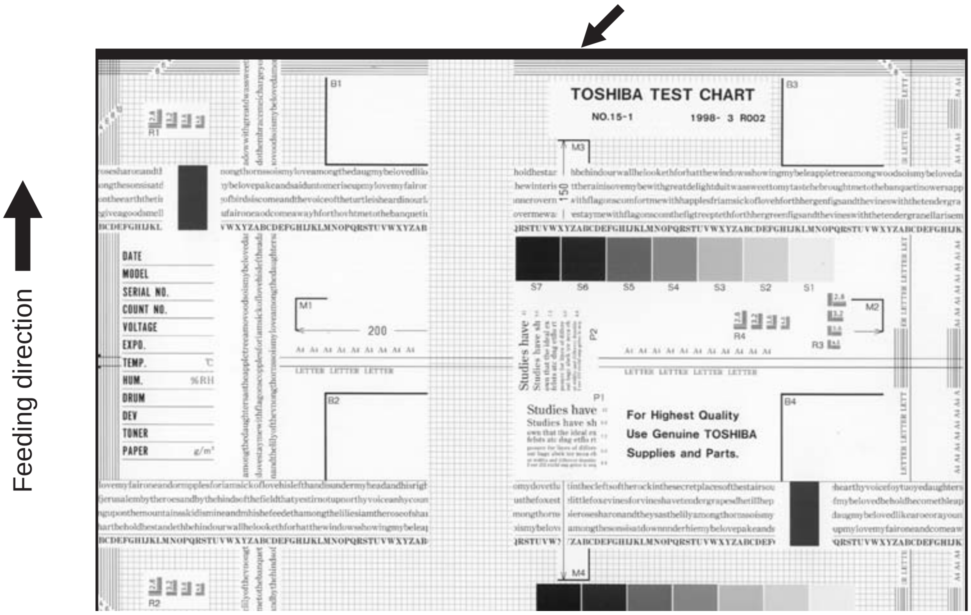

Feeding direction
TOSHIBA TEST CHART
NO.15-1
1998- 3 R002
B1
B2
B3
B4
M1
M2
M3
M4
R1
R2
R3
R4
P1
P2
S7
S6
S5
S4
S3
S2
S1
200
150
DATE
MODEL
SERIAL NO.
COUNT NO.
VOLTAGE
EXPO.
TEMP. ℃
HUM. %RH
DRUM
DEV
TONER
PAPER g/m²
For Highest Quality
Use Genuine TOSHIBA
Supplies and Parts.

Fig. 6-25

Defective area	Step	Check items	Prescription
Scanner	1	Amount of surrounding void (network scanning)	Perform 05-7489 to adjust the amount of the surrounding void during network scanning.

6.5 Other Errors

6.5.1 When “SET FUSER UNIT” is displayed

When the signal for installing the fuser unit cannot be detected with the LGC board, "SET FUSER UNIT" appears.
In this case, check the following.

1. Check that the screw fixing the fuser unit is not loose.
2. Remove CN309 and check if the circuit between 1 pin and 7 pin is electrically conducted.
3. Replace the LGC board.

7. REPLACEMANT OF HDD/PC BOARDS

7.1 Precautions and Procedures for Replacing PC Boards and HDD

7.1.1 Precautions when replacing PC boards

- If more than one LGC board, IMG board or SYS (or SYS-IMG) board requires replacement, do so by 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.
    5. Repeat steps 2 to 4.

- The IMG board can be replaced without other settings.

- To replace the HDD, see the following procedure.
  📖 P.7-4 "7.1.3 Precautions and procedures when replacing the HDD"

- To replace the SYS board / SYS-IMG board, see the following procedure.
  📖 P.7-9 "7.1.4 Precautions and Procedures when replacing the SYS board / SYS-IMG board"

- To replace the LGC board, see the following procedure.
  📖 P.7-11 "7.1.5 Procedures when replacing the LGC board"

- To replace the SLG board, see the following procedure.
  📖 P.7-12 "7.1.7 Procedures when replacing the SLG board"

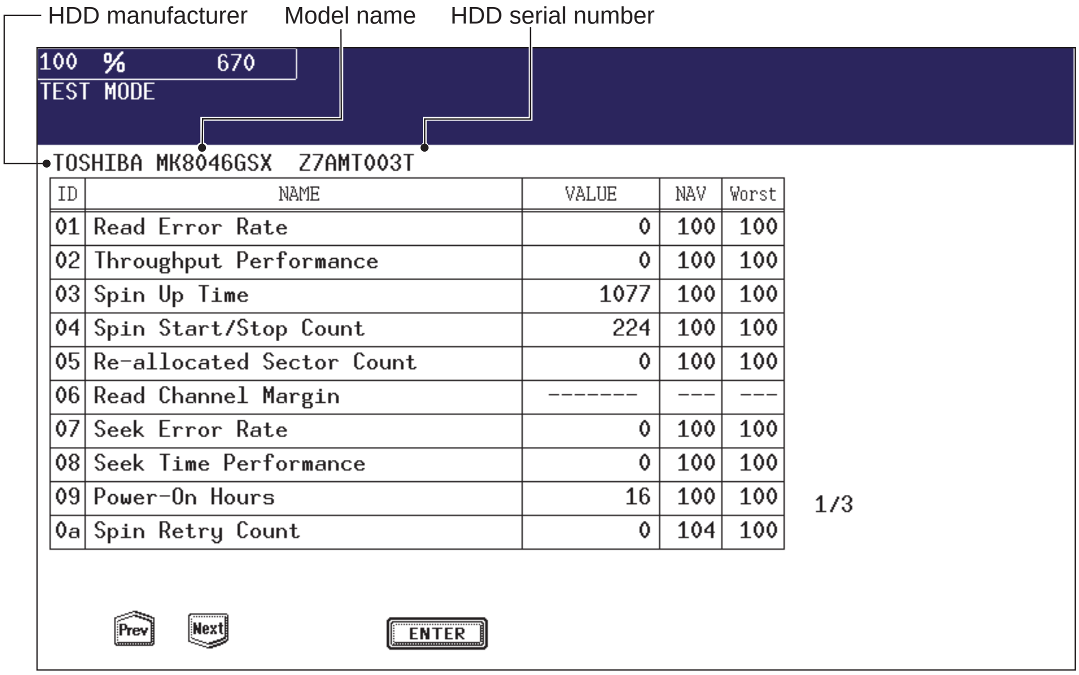
- To replace the SRAM board, see the following procedures.
  📖 P.7-14 "7.1.8 Precautions and Procedures when replacing SRAM board"

- To replace the EEPROM, see the following procedures.
  📖 P.7-18 "7.1.9 Procedures when replacing EEPROM"

7.1.2 HDD fault diagnosis

This code displays the HDD operation history, which is recorded in the HDD, on the control panel. HDD failure can be diagnosed or predicted with the information displayed.

1. Display
   The following screen is displayed with setting code 08-670.



100 % 670
TEST MODE

TOSHIBA MK8046GSX Z7AMT003T

ID	NAME	VALUE	NAV	Worst
01	Read Error Rate	0	100	100
02	Throughput Performance	0	100	100
03	Spin Up Time	1077	100	100
04	Spin Start/Stop Count	224	100	100
05	Re-allocated Sector Count	0	100	100
06	Read Channel Margin	--------	---	---
07	Seek Error Rate	0	100	100
08	Seek Time Performance	0	100	100
09	Power-On Hours	16	100	100
0a	Spin Retry Count	0	104	100

1/3

- Items supported differ depending on the HDD 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 has a physical failure when HDD failure is suspected (service call F100-108 or 120 occurred).

Result		Description	Diagnosis
ID	**VALUE**		
05	0	Low possibility of physical failure	HDD replacement is not required.
c5	0		
05	From 1 to 999	Defective sector has been reassigned and HDD is recovered.	HDD 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 replacement is recommended.
c5	1 or more		
05	Either one is at least 1000.	High possibility of physical failure	HDD replacement is recommended.
c5			
05	All values are displayed as “-------”.	High possibility of physical failure (A HDD connector, harness or SYS board / SYS-IMG board may be one of the causes.)	HDD 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 failure.
c5	Current Pending Sector Count	The number of candidate sectors to be reassigned	This value tends to increase at HDD 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.
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.
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.

Note:

"Over-range" appears when the digits of the numbers obtained from HDD exceed the acceptable limit for being displayed on the touch panel. This is not shown as a failure.

7.1.3 Precautions and procedures when replacing the HDD

Notes:

- When the HDD is replaced, it is necessary to back up the data in the HDD 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. 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.
- When 08-690 is performed, the HDD self-certificate is not available, so the SSL-related setting becomes disabled.
- Do not replace the HDD and the SRAM board together.

A procedure for replacing the HDD is shown below.

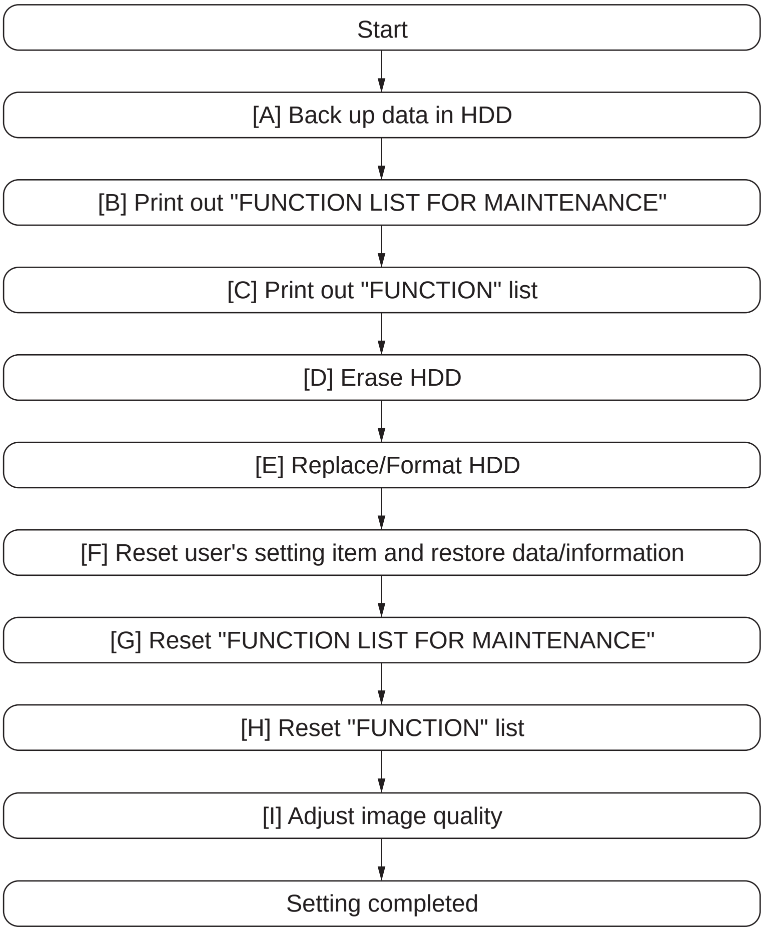

Start
[A] Back up data in HDD
[B] Print out "FUNCTION LIST FOR MAINTENANCE"
[C] Print out "FUNCTION" list
[D] Erase HDD
[E] Replace/Format HDD
[F] Reset user's setting item and restore data/information
[G] Reset "FUNCTION LIST FOR MAINTENANCE"
[H] Reset "FUNCTION" list
[I] Adjust image quality
Setting completed

Fig. 7-1

[A] Back up in HDD

Ask the user (machine administrator) to back up the data in the HDD. 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	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)	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.)
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) Press the [USER FUNCTIONS] button and then the [USER] button.

(2) Press the [LIST] button.

(3) Key in [*] [#] [*] [*] [3] [3] and then press the [START] button. The “FUNCTION LIST FOR MAINTENANCE” is printed out.

[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.

Note:

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 is printed out.

[D] Erase HDD

When the Data Overwrite Enabler (GP-1070) is installed, be sure to perform 08-1426 (forcible HDD data clearing) and confirm that deleting of the HDD data is completed.
🕮 P.7-20 "7.2.1 Precautions for Installation of GP-1070 and Disposal of HDD/Board"

[E] Replace / Format HDD

(1) Confirm that the main power switch is turned OFF.

(2) Replace the HDD. For the details, see the following page.
Service Manual Chap.2

(3) Clear 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: All Partition Delete and Create Loader Partition.” and then press the [START] button.
   3. When “Initialize completed.” is displayed on the LCD, clearing of the partitions is completed.

(4) Turn the power OFF.

(5) Update the master data using the USB media.
🕮 P.8-5 "8.1 Firmware Updating with USB Media"

(6) Start up with the Setting Mode (08).

(7) Format the HDD (08-690).
   - When “REBOOT THE MACHINE” is displayed on the LCD, formatting of the HDD is completed.

(8) Turn the power OFF.

(9) When the Fax Unit (GD-1250) 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) Check the version of the HDD (08-944).
   - Confirm the version displayed on the LCD, and then press the [ENTER] button.

(12) Turn the power OFF.

[F] 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 “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

[G] Reset “FUNCTION LIST FOR MAINTENANCE”

(1) Print out the "FUNCTION LIST FOR MAINTENANCE" after the HDD formatting.
📖 P.7-5 "[B] Print out “FUNCTION LIST FOR MAINTENANCE”"

(2) While pressing [1] and [3] simultaneously, turn the main power switch 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.

(4) Turn the power OFF.

[H] Reset “FUNCTION” list

Reset the initial setting of the fax function by referring to the "function list" which has been printed out.
📖 P.7-5 "[C] Print out “FUNCTION” list"

(1) Turn the power ON.

(2) Press the [USER FUNCTIONS] button.

(3) Press the [ADMIN] button, enter the password, and then press the [ENTER] button.

Note:
Explain the user (machine administrator) about the next operation and ask him/her to enter his/her password.

(4) Press the [FAX] button and then the [TERMINAL ID] button to set each item.

(5) Press the [INITIAL SETUP] button to set each item.

[I] Adjust image quality

(1) Start up with the Adjustment mode (05).

(2) Perform “Automatic gamma adjustment” <PPC> (05-580).
📖 P.3-22 "3.4.1 Automatic gamma adjustment"

(3) Turn the power OFF.

7.1.4 Precautions and Procedures when replacing the SYS board / SYS-IMG board

Note:

Since the data to be used in other models are included in the SYS board, rewrite them as new data by means of the following procedure.

A procedure for SYS board / SYS-IMG board replacement is shown below.

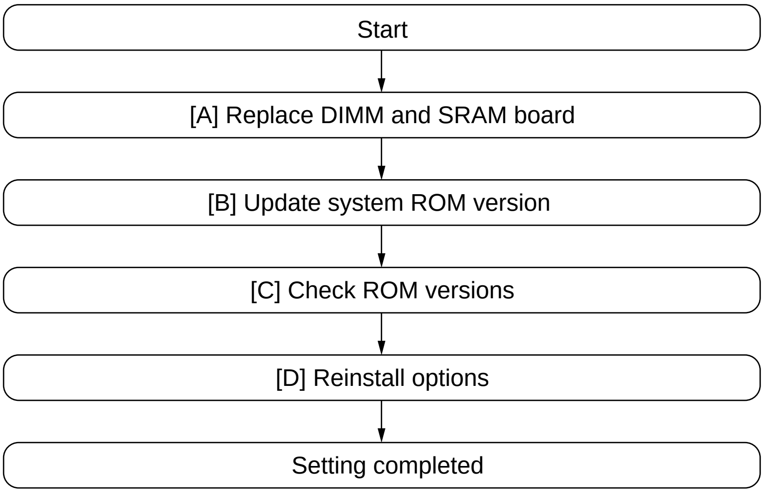
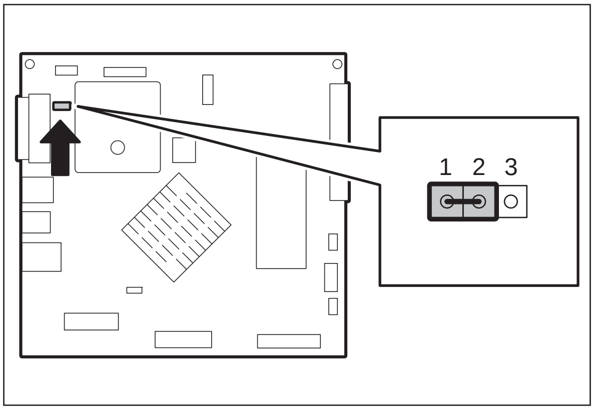

Start
[A] Replace DIMM and SRAM board
[B] Update system ROM version
[C] Check ROM versions
[D] Reinstall options
Setting completed

Fig. 7-2

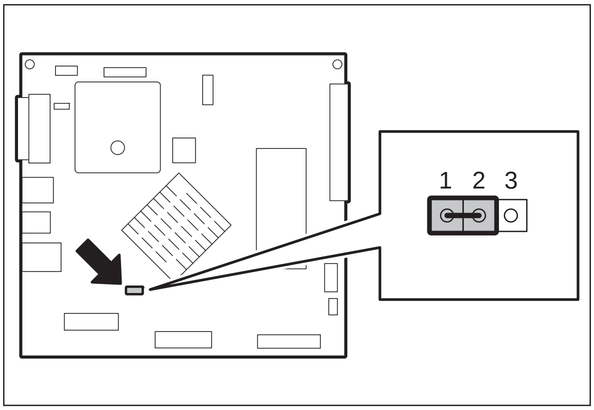
Important:

Before replacing the SYS board with the one provided as a service part, be sure to set the jumper line on the board as shown below.
This setting is not needed for the SYS-IMG board.

1. CN103



2. CN115



[A] Replace DIMM and SRAM boards

Note:

Before replacing the SYS board / SYS-IMG board, perform the following procedure.
📖 P.7-1 "7.1.1 Precautions when replacing PC boards"

(1) Confirm that the main power switch is turned OFF.

(2) Replace the SYS board / SYS-IMG board.

(3) Install DIMM (main memory) to the new SYS board / SYS-IMG board (from the old SYS board / SYS-IMG board).

(4) Install SRAM board to the new SYS board / SYS-IMG board (from the old SYS board / SYS-IMG board).

[B] Update system ROM version

Update the version of system ROMs (OS data, UI data, System Firmware) with the USB media.
📖 P.8-5 "8.1 Firmware Updating with USB Media"

[C] Check ROM versions

Turn ON the main power switch and perform the following codes.

- System firmware ROM version (08-900)
- FROM basic section software version (08-920)
- FROM Internal program (08-921)
- Version of UI data in FROM displayed at power-ON (08-930)

[D] Reinstall options

When any of the options below was installed, reinstall a license for the corresponding option following its unpacking instructions.

- Meta Scan Enabler (GS-1010)
- External Interface Enabler (GS-1020)
- Data Overwrite Enabler (GP-1070)
- IPSec Enabler (GP-1080)

Remark:

Reinstallation is possible with the USB media used for installing the corresponding option before the SYS board / SYS-IMG board is replaced.

When GP-1070 (Data Overwrite Enabler) has been installed, "F200" service call occurs. In this case, perform cancelling the "F200" service call (installing any of the OS / HDD SYS / PFC Firmware / Engine MainFirmware / Scanner Firmware using the USB media), and then install GP-1070 (Data Overwrite Enabler) again.

7.1.5 Procedures when replacing the LGC board

Note:

Before replacing the LGC board, perform the following procedure.
🕮 P.7-1 "7.1.1 Precautions when replacing PC boards"
Depending on the status of equipment, the code setting values of step (1) could not be obtained. In this case, start from step (2). In another method, if there are previously output data, you can input them. In case that the SRAM data are damaged, obtain the code setting values in advance such as when equipment is installed.

(1) Start up the equipment with the setting mode (08) and make a note of the setting values in the following codes, or start up the list print mode (9S) and store them in the USB or print them.
08-1150-7
08-1200-6
08-1200-7
08-1246-6
08-1246-7
08-4622
08-6977-0
08-6977-1
08-6977-2
08-6977-3
08-6977-4

(2) Turn the main power switch OFF and take off the LGC board.
Service Manual Chap.2

(3) Attach a battery to the new LGC board. Do not install EEPROM.

(4) Install the new LGC board in the equipment. For the details, refer to Chapter 2 in the Service Manual.

(5) Start up the equipment with the setting mode (08) and initialize SRAM (08-9090).

Note:

For 5 seconds after the [INITIALIZE] button is pressed, do not turn the main power switch OFF. Do not enter or set another code after the initialization.

(6) Turn the main power switch OFF.

(7) Install the removed LGC board's EEPROM into the new LGC board's IC 29.

(8) Start up the equipment with the setting mode (08) and copy the data in the EEPROM to the SRAM (08-4582).

(9) Enter the setting values which were noted or output in (1).

(10) Turn the main power switch OFF.

(11) Update the engine ROM with the USB media.
🕮 P.8-5 "8.1 Firmware Updating with USB Media"

(12) Start up the equipment with the setting mode (08) and check the engine ROM version (08-903).

(13) Turn the main power switch OFF.

Note:

If the equipment does not work properly after the LGC board was replaced, perform printer all clear in accordance with the procedure explained in the contents of 08-9090 in "2.7.2 Setting codes".

7.1.6 Procedure when replacing the battery on LGC board

Note:

Depending on the status of equipment, the code setting values of step (1) could not be obtained. In this case, start from step (2). In another method, if there are previously output data, you can input them. In case that the SRAM data are damaged, obtain the code setting values in advance such as when equipment is installed.

(1) Start up the equipment with the setting mode (08) and make a note of the setting values in the following codes, or start up the list print mode (9S) and store them in the USB or print them.
08-1150-7
08-1200-6
08-1200-7
08-1246-6
08-1246-7
08-4622
08-6977-0
08-6977-1
08-6977-2
08-6977-3
08-6977-4

(2) Turn the main power switch OFF and take off the battery and EEPROM from the LGC board.

(3) Attach a battery to the new LGC board. Do not install EEPROM.

(4) Start up the equipment with the setting mode (08) and initialize SRAM (08-9090).

Note:

For 5 seconds after the [INITIALIZE] button is pressed, do not turn the main power switch OFF. Do not enter or set another code after the initialization.

(5) Turn the main power switch OFF and install the removed EEPROM.

(6) Start up the equipment with the setting mode (08) and copy the data in the EEPROM to the SRAM (08-4582).

(7) Enter the setting values which were noted or output in (1).

(8) Turn the main power switch OFF.

7.1.7 Procedures when replacing the SLG board

Note:

Before replacing the SLG board, perform the following procedure.
🕮 P.7-1 "7.1.1 Precautions when replacing PC boards"

When the SLG board has been replaced, make sure to follow the procedure below.

(1) Confirm that the main power switch is turned OFF.

(2) Replace the SLG board. For the retails, see the following page.
Service Manual Chap.2

(3) Update the scanner ROM using the USB media.
🕮 P.8-5 "8.1 Firmware Updating with USB Media"

(4) Turn ON the main power switch and perform “Data transfer of characteristic value of scanner / SYS board / SYS-IMG board -> SLG board (05-363)”.

(5) Turn the power OFF.

(6) Turn the main power switch ON and start up with the Setting Mode (08).

(7) Check the version of the scanner ROM (08-905).

(8) Turn the power OFF.

7.1.8 Precautions and Procedures when replacing SRAM board

Note:

Do not replace the HDD and the SRAM board together.
Be careful not to damage the board when replacing the SRAM board.
When you replace the SRAM board while the data encryption function is enabled, readout of the user data/information stored in the HDD becomes impossible.
When disposing of the SRAM board, perform the following procedure.
📖 P.7-20 "7.2.3 Precautions when disposing of the SRAM board"

A procedure for replacing the SRAM board is shown below.

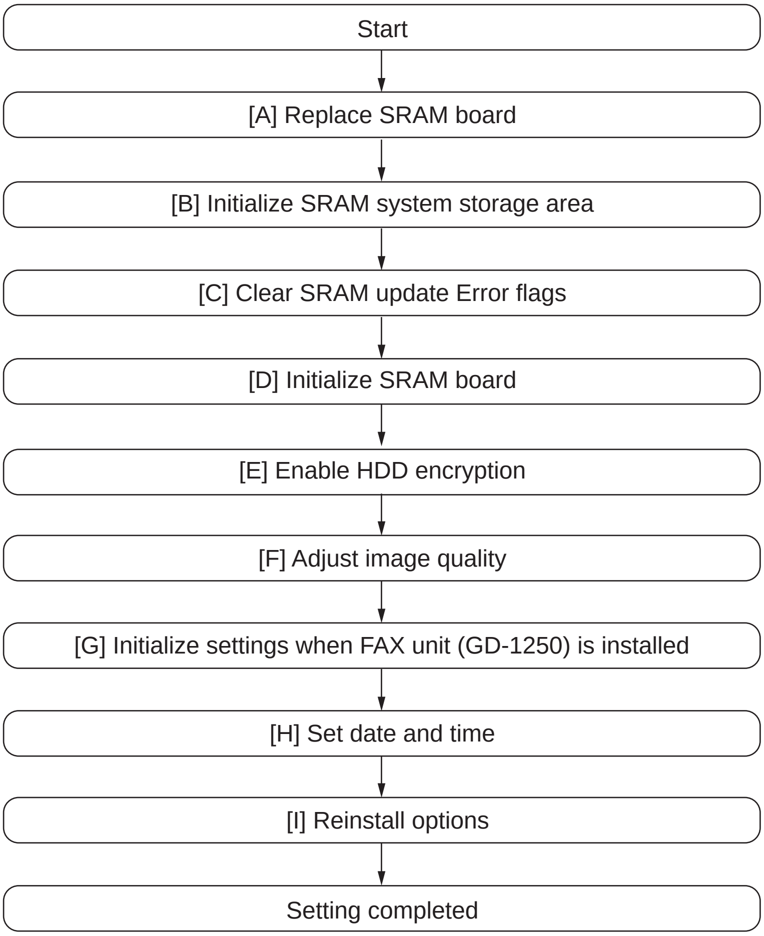

Start
[A] Replace SRAM board
[B] Initialize SRAM system storage area
[C] Clear SRAM update Error flags
[D] Initialize SRAM board
[E] Enable HDD encryption
[F] Adjust image quality
[G] Initialize settings when FAX unit (GD-1250) is installed
[H] Set date and time
[I] Reinstall options
Setting completed

Fig. 7-3

[A] Replace SRAM board

(1) Confirm that the main power switch is turned OFF.

(2) Take off the Fax Unit (GD-1250) if it is installed.

(3) Replace the SRAM board. For the details, see the following page.
Service Manual Chap.2

[B] Initialized SRAM system storage area

(1) Turn the main power switch ON while pressing [3] and [CLEAR] simultaneously.

(2) When “Firmware Assist Mode” appears on the LCD, check that “4: SRAM Data Format.” is marked and then press the [START] button. If not marked, key in [4] and then press the [START] button.

(3) When “SRAM Data Format Complete.” is displayed on the LCD, the formatting is completed.

(4) Turn the power OFF.

[C] Clear SRAM update Error flags

(1) Turn the power ON while pressing [3] and the [CLEAR] button simultaneously.

(2) After “Firmware Assist Mode” is displayed on the LCD, check that “1: Clear SRAM update Error flags.” is marked and press the [START] button.
If not, key in [1] and then press the [START] button.

(3) When “SRAM update Error flags cleared.” is displayed on the LCD, clearing the flag is completed.

(4) Turn the power OFF.

[D] Initialize SRAM board

(1) Start up with the Setting Mode (08).

(2) Initialize the SRAM error.
1. When “SRAM ERROR DOES IT INITIALIZE” 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 (08-692).
1. Touch the center of “+” mark displayed on the upper left of the LCD.
2. Touch the center of “+” mark displayed on the lower right of the LCD.

(4) Perform the initialization at the software version upgrade (08-947).

(5) Initialize the NIC information (08-693).

(6) Enter the serial number (08-995).
Key in the serial number on the label attached to the rear cover, and then press the [OK] button.

(7) Turn the power OFF.

[E] Enable HDD encryption

If the HDD encryption function has been set, perform the following procedure.

(1) Start up with the Setting mode (08).

(2) Enable the HDD encryption function (08-9379).

(3) Format the HDD (08-690).

(4) Turn the power OFF.

[F] Adjust image quality

(1) Start up with the Adjustment mode (05).

(2) Perform “Data transfer of characteristic value of scanner” (05-364).

(3) Perform “Automatic gamma adjustment” <PPC> (05-580).
📖 P.3-22 "3.4.1 Automatic gamma adjustment"

(4) Turn the power OFF.

[G] Initialize settings when FAX Unit (GD-1250) is installed

(1) Install the FAX Unit (GD-1250).

(2) Start up with the Setting mode (08).

(3) Set the destination of FAX (08-701).

(4) Turn the power OFF.

(5) Start up with the FAX Clearing Mode (1*).

(6) Perform the FAX Set Up (1*-100).

(7) Turn the power OFF and then back ON.

(8) Set the dial type according to these buttons: [USER FUNCTIONS] -> [ADMIN] -> [FAX] -> [INITIAL SETUP]

[H] Set date and time

Set the date and time according to these buttons.
[USER FUNCTIONS] → [ADMIN] → [GENERAL] → [CLOCK] → [DATE/TIME]

[I] Reinstall options

When any of the options below was installed, reinstall a license for the corresponding option following its unpacking instructions.

- Meta Scan Enabler (GS-1010)
- External Interface Enabler (GS-1020)
- Data Overwrite Enabler (GP-1070)
- IPSec Enabler (GP-1080)

Remark:
Reinstallation is possible with the USB media used for installing the corresponding option before the SYS board / SYS-IMG board is replaced.

When GP-1070 (Data Overwrite Enabler) has been installed, "F200" service call occurs. In this case, perform cancelling the "F200" service call (installing any of the OS / HDD SYS / PFC Firmware / Engine MainFirmware / Scanner Firmware using the USB media), and then install GP-1070 (Data Overwrite Enabler) again.

7.1.9 Procedures when replacing EEPROM

A procedure for replacing the EEPROM is shown below.

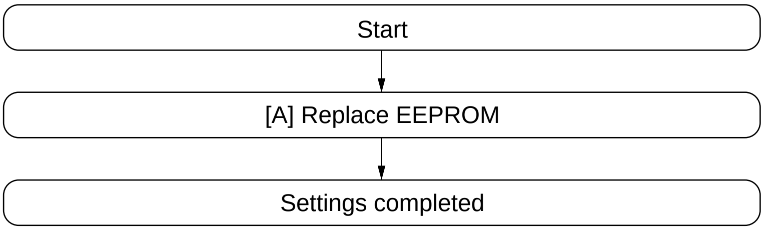


Fig. 7-4

[A] Replace EEPROM

(1) Confirm that the main power switch is turned OFF.

(2) Replace the EEPROM.

(3) Back up the data in the SRAM to the EEPROM (08-4581).

(4) Turn the power OFF.

7.1.10 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 HDD/UI data	08-944	HDD Version
	08-924	Version of UI data language 1 in HDD
Updating System ROM	08-900	System firmware ROM version
	08-921	System firmware ROM internal program version
Updating OS	08-920	FROM basic section software version
Updating Engine ROM	08-903	Engine ROM version
Updating Scanner ROM	08-905	Scanner ROM version
Updating RADF ROM	08-907	RADF ROM version
Updating Finisher ROM	08-908	Finisher ROM version
	08-911	Hole punch unit ROM version (MJ-6101 only)
	08-9945	Converter ROM version
Updating FAX ROM	08-915	FAX ROM version

The installed ROM versions and the registered optional Electronic License Keys can be confirmed in the list print mode following the procedure below.

(1) Turn the power ON using the main power switch while pressing the digital key [9] and the [START] button simultaneously.

(2) Key in “1” three times, and then press the [START] button.

(3) “VERSION LIST” is printed out.
   * It is recommended to keep this list for future reinstallation such as the replacement of the SYS board / SYS-IMG board.

(4) Keep pressing the [ON/OFF] button until you hear a sound to shut down the equipment.

7.1.11 Re-registration of the Electronic License Key with the one-time dongle

[1] Re-registration method

The Electronic License Key registered using the one-time dongle can be re-registered only in the same equipment.
When the SYS board / SYS-IMG board or the SRAM board is replaced, follow the procedures of the re-registration below.

1. After the SYS board / SYS-IMG board or SRAM board is replaced, set up the equipment referring to the following procedures.
   📖 P.7-9 "7.1.4 Precautions and Procedures when replacing the SYS board / SYS-IMG board"
   📖 P.7-14 "7.1.8 Precautions and Procedures when replacing SRAM board"
2. Perform 08-3840 with the one-time dongle previously used for registering the Electronic key.
3. When the authentication succeeds, the re-registration screen appears and the available re-registration numbers are displayed after the option names.
4. Perform the registration in the same manner as a regular one.

Note:
This procedure is available only for the one-time dongle used for the first registration so that the information of the model is re-registered using the same one.
When the Electronic License Key is registered, identify the combination of the one-time dongle and the equipment registered using it.

[2] Re-registration when the equipment is replaced due to malfunction

When the equipment has to be replaced due to a malfunction, return the Electronic key registered in the equipment to the one-time dongle and register it to the new equipment following the procedure below.

Note:
The Electronic key of the IPSec option (GP-1080) cannot be re-registered.

1. Start up with the Setting mode (08).
2. Perform 08-3870 and check the registered Electronic key.
3. Connect the one-time dongle used for registering the Electronic key to the USB port of the equipment.

Note:
The Electronic key is deleted from the equipment and is stored in the one-time dongle.

4. Perform 08-3841. The Electronic keys which can be returned to the one-time dongle are displayed.
5. Select one and press the [RETURN] button.

Note:
The Electronic key is deleted from the equipment and is stored in the one-time dongle.

6. After the equipment is replaced, start up with the Setting mode (08).
7. Connect the one-time dongle to the USB port and perform 08-3840.
8. Perform the re-registration in the same manner as a regular one.

7.2 Precautions for Installation of GP-1070 and Disposal of HDD/ Board

7.2.1 Precautions for Installation of GP-1070 and Disposal of HDD/ Board

When installing the Data Overwrite Enabler (GP-1070), perform the following setting:

08-1422: HDD data overwriting type setting
This setting is the overwriting method complying with DoD 5220.22-M.

0: LOW: This is the standard overwriting method. (This method is used normally.)
1: MEDIUM: This overwriting method is more secure than LOW. The erasing time is between LOW and HIGH.
2: HIGH: This is the most secure overwriting method. It takes the longest time to erase data

If disposing of the HDD when the Data Overwrite Enabler (GP-1070) has been installed, perform the following settings for security.
📖 P.2-63 "2.7 Setting Mode (08)"

08-1424: HDD data clearing type setting (forcible clearing)
This setting is the overwriting method complying with DoD 5220.22-M.

0: LOW: This is the standard overwriting method. (This method is used normally.)
1: MEDIUM: This overwriting method is more secure than LOW. The erasing time is between LOW and HIGH.
2: HIGH: This is the most secure overwriting method. It takes the longest time to erase data.

08-1426: Forcible HDD data clearing
HDD data are cleared according to the setting of 08-1424

Note:

The process is displayed as a percentage during forcible HDD data clearing. Never turn the power OFF until 100% is displayed and the process is completed.

7.2.2 Precautions when disposing of the SYS board / SYS-IMG board

When disposing of the SYS board / SYS-IMG board, data clearing is not required since important data, such as user information, etc. are stored in the SRAM board.

7.2.3 Precautions when disposing of the SRAM board

When disposing of the SRAM board, perform 08-1428 (Forcible SRAM backup data all clearing) for security reasons.

Note:

If these codes are performed, the equipment cannot be started up.

8. 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.

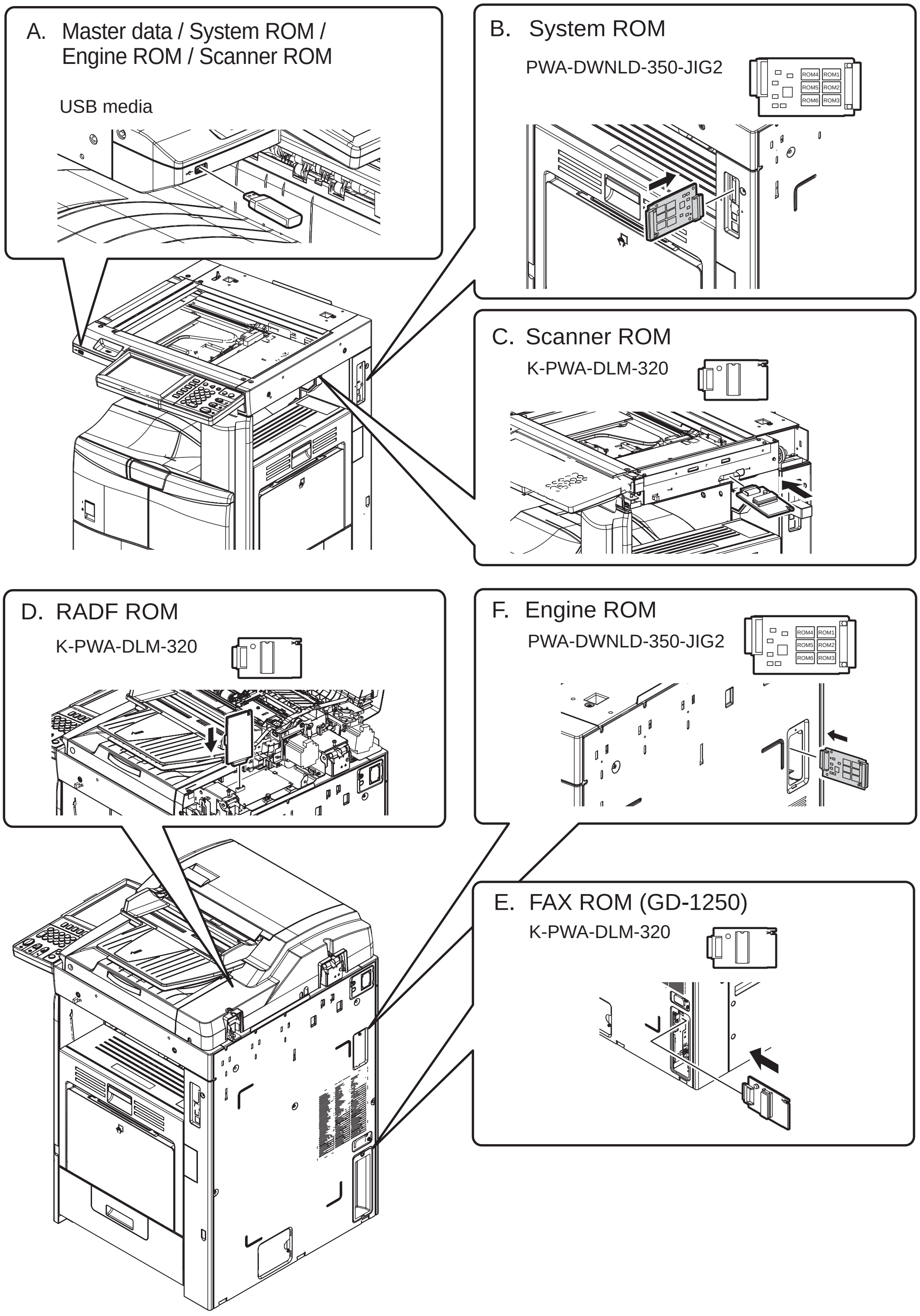
Equipment

Firmware	Updating method
Master data (HDD program data, System firmware, UI data)	USB media
System ROM (OS data)	USB media
	Download jig (PWA-DWNLD-350-JIG2)
Engine ROM (Main firmware)	USB media
	Download jig (PWA-DWNLD-350-JIG2)
Scanner ROM (Scanner firmware)	USB media
	Download jig (K-PWA-DLM-320)

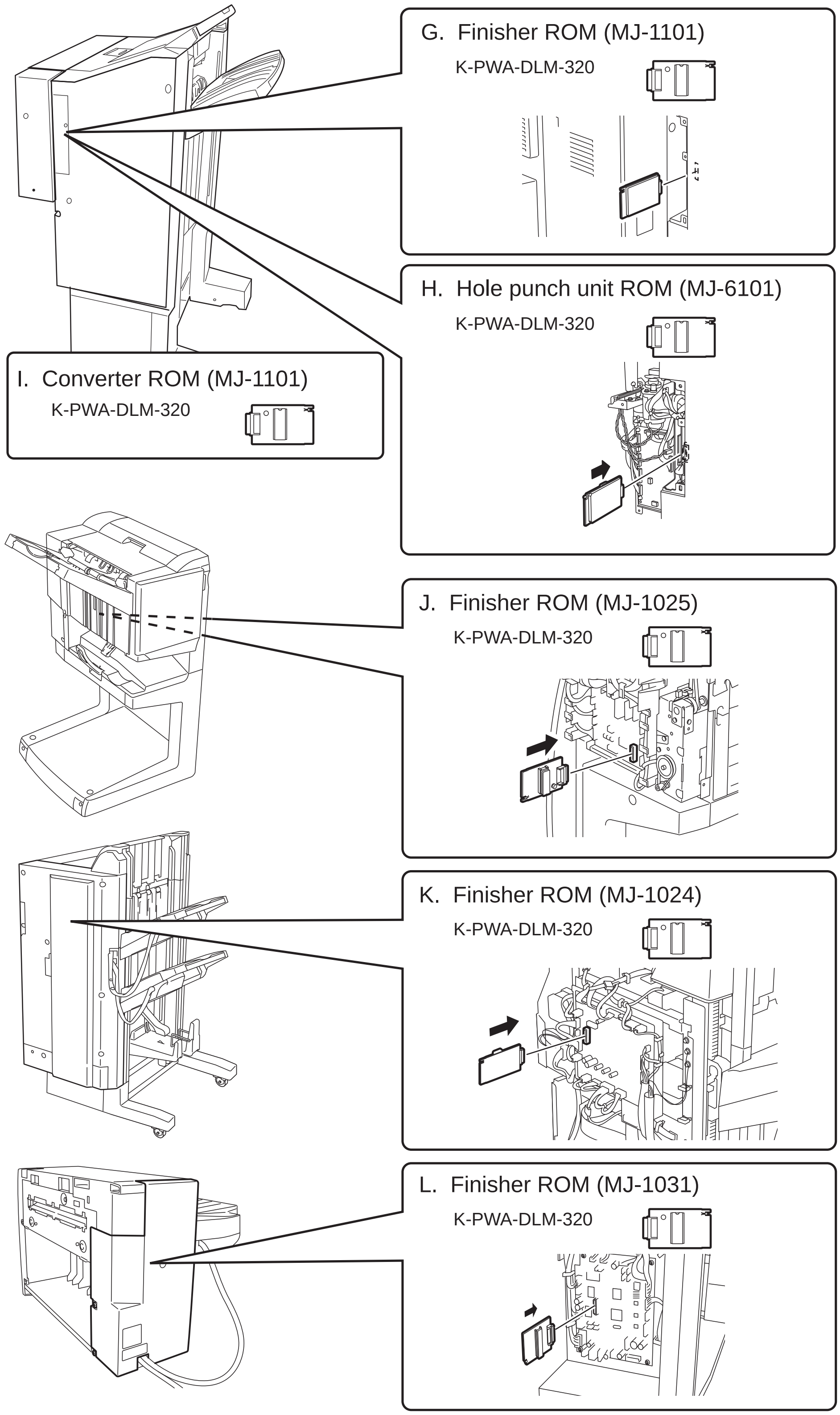
Options

Model name	Firmware	Updating method
Reversing Automatic Document Feeder (RADF) (MR-3021/3022)	RADF firmware	Download jig (K-PWA-DLM-320)
Hole Punch Unit (MJ-6101)	Hole punch unit firmware	
Saddle Stitch Finisher (MJ-1025)	Finisher firmware	
Saddle Stitch Finisher (MJ-1024)	Finisher firmware	
	Saddle stitcher firmware	
Hanging Finisher (MJ-1031)	Finisher firmware	
Finisher (MJ-1101)	Finisher firmware	
	Converter firmware*	
Fax Unit (GD-1250)	FAX firmware	

* The harness jig for board connection (HRNS-CNV-DL-JIG) is necessary.


A. Master data / System ROM / Engine ROM / Scanner ROM
USB media
B. System ROM
PWA-DWNLD-350-JIG2
ROM4 ROM1
ROM5 ROM2
ROM6 ROM3
C. Scanner ROM
K-PWA-DLM-320
D. RADF ROM
K-PWA-DLM-320
F. Engine ROM
PWA-DWNLD-350-JIG2
ROM4 ROM1
ROM5 ROM2
ROM6 ROM3
E. FAX ROM (GD-1250)
K-PWA-DLM-320

A	Master data, System ROM, Engine ROM, Scanner ROM	P. 8-7
B	System ROM	P. 8-20
C	Scanner ROM	P. 8-25
D	RADF ROM	P. 8-27
E	FAX ROM (GD-1250)	P. 8-47
F	Engine ROM	P. 8-22


G. Finisher ROM (MJ-1101)
K-PWA-DLM-320
H. Hole punch unit ROM (MJ-6101)
K-PWA-DLM-320
I. Converter ROM (MJ-1101)
K-PWA-DLM-320
J. Finisher ROM (MJ-1025)
K-PWA-DLM-320
K. Finisher ROM (MJ-1024)
K-PWA-DLM-320
L. Finisher ROM (MJ-1031)
K-PWA-DLM-320

G	Finisher ROM (MJ-1101)	P. 8-38
H	Hole punch unit ROM (MJ-6101)	P. 8-29
I	Converter ROM (MJ-1101)	P. 8-40
J	Finisher ROM (MJ-1025)	P. 8-33
K	Saddle stitcher (MJ-1024)	P. 8-35
L	Finisher ROM (MJ-1031)	P. 8-44

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, finisher control PC board and saddle stitcher 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 firmware (master data) is not installed on the hard disk 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 ROM 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 ROMS. A normal power on must be performed.

8.1 Firmware Updating with USB Media

Firmware can be updated by storing update programs and firmware data files in the USB media.

Note:

When the update is performed, use the latest program.

Program necessary for updating

Update program	Data file name	Remarks
Update program loader	mentusb2.o	An error occurs at a time of the [4] + [9] startup, unless this program is stored in the USB media. * Be sure to save this data file to the root directory of the USB media.
Model specific update program	dlFirmWare_205_455	An error occurs at a time of the [4] + [9] startup, unless this program is stored in the USB media.

Firmware type and data file name for updating

Equipment

Firmware	Stored	Data file name	Remarks
System ROM	System control PC board (SYS board / SYS-IMG board)	firmImage0.bin	OS data
Master data	Hard disk	hdd.bin	HDD program data, System firmware, UI data
Engine ROM	Logic PC board (LGC board)	T470MWW.xxx * xxx is version.	Main firmware
Scanner ROM	Scanning section control PC board (SLG board)	T471SLGWW.xxx T471SLGWW.xxN * x is version.	Scanner firmware

Store the update program loader (mentusb2.o) in the root directory, and store the model specific update program (dlFirmWare_205_455) and the data file for updating in the model specific folder.

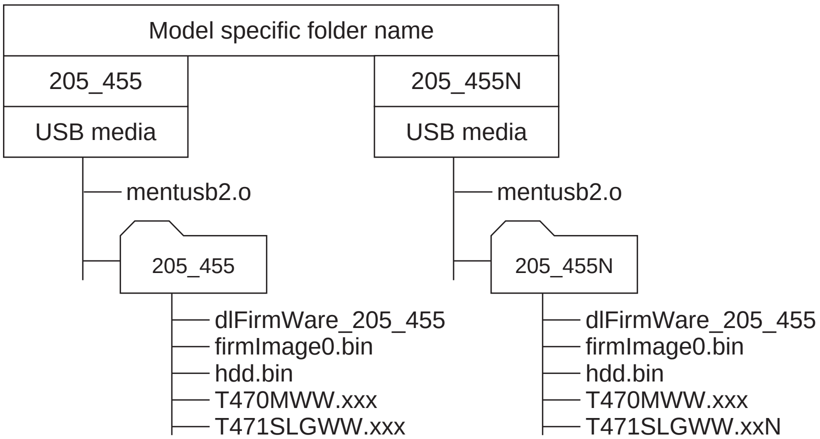

Model specific folder name
205_455
205_455N
USB media
USB media
mentusb2.o
mentusb2.o
205_455
205_455N
dlFirmWare_205_455
firmImage0.bin
hdd.bin
T470MWW.xxx
T471SLGWW.xxx
dlFirmWare_205_455
firmImage0.bin
hdd.bin
T470MWW.xxx
T471SLGWW.xxN

Fig. 8-1

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 media.

Important:

- Only the USB media 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 media with a flash memory (to be connected directly to the USB port) and its capacity is between 256 MB and 512 MB (or 1 GB).
  - Operation of the USB media used for updating has been confirmed at the input check of this equipment (Test mode 03).
    (🕮 P.2-4 "2.2 Input Check (Test Mode 03)")
  - USB media 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 media 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 media complying with USB1.1 and 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 media. 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.

8.1.1 Master data/System ROM/Engine ROM/Scanner ROM

Important:

- The file system of USB media should be formatted in the FAT or FAT32 format. Be careful since the devices formatted in NTFS format will not be able to be operated. The file system can be confirmed on the 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)

[A] Update procedure

(1) Connect the USB media to the PC and write the model specific folder in which the data file is stored.
Store the update program loader (mentusb2.o) in the root directory, and store the model specific update program (dlFirmWare_205_455) and 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 and turn the power OFF using the main power switch.

(3) Connect the USB media to the USB port on the right upper cover.

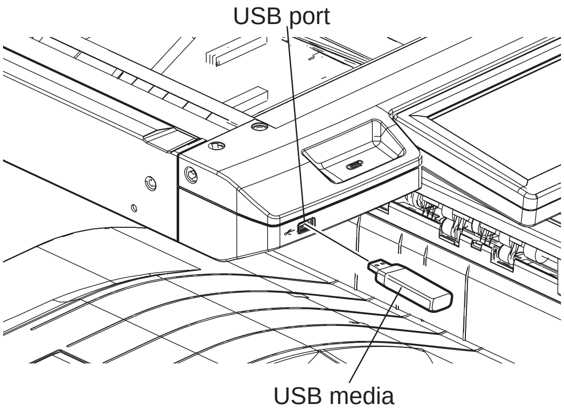
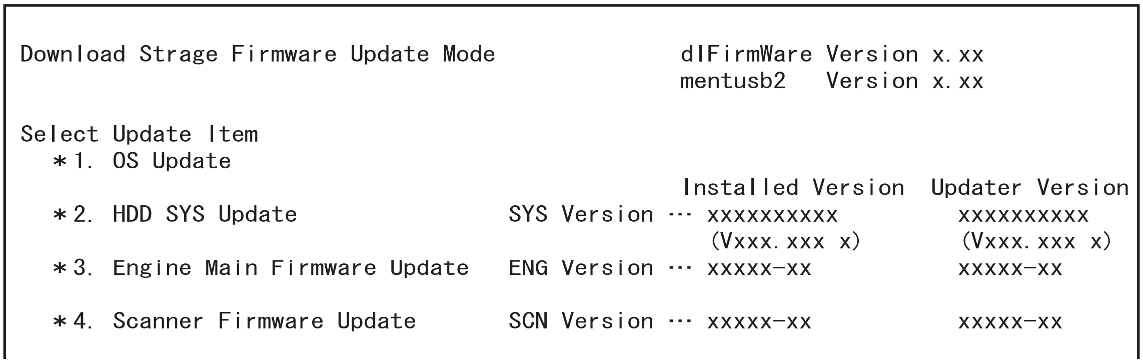


Fig. 8-2

Note:
Updating cannot be performed with multiple USB media connected at the same time.

(4) Turn the power ON using the main power switch while simultaneously holding down the [4] and [9] buttons.
Data in the USB media are checked and the checking status is displayed on the screen.

The screen for selecting items to be updated is displayed after approx. 1 minutes.
On this screen, the current firmware version of this equipment and the firmware version of data to be updated are displayed.



```
Download Strage Firmware Update Mode            dlFirmWare Version x.xx
                                                mentusb2   Version x.xx

Select Update Item
  ＊1. OS Update
                                                 Installed Version  Updater Version
  ＊2. HDD SYS Update            SYS Version ･･･ xxxxxxxxxx         xxxxxxxxxx
                                                  (Vxxx.xxx x)       (Vxxx.xxx x)
  ＊3. Engine Main Firmware Update   ENG Version ･･･ xxxxx-xx           xxxxx-xx

  ＊4. Scanner Firmware Update       SCN Version ･･･ xxxxx-xx           xxxxx-xx
```

Fig. 8-3

Notes:

- The display of items on this screen varies depending on the types of data written on the USB media. Each item is displayed only when each data file is written on the USB media in the following conditions.

Item	Condition
1. OS Update	firmImage0.bin is written.
2. HDD SYS Update	hdd.bin is written.
3. Engine Main Firmware Update	T470MWW.xxx is written. * xxx is version.
4. Scanner Firmware Update	T471SLGWW.xxx is written. * xxx is version.

- For "2. HDD SYS Update", "3. Engine Main Firmware Update" and "4. Scanner Firmware Update", an asterisk (*) indicating that the item to be installed is not displayed next to one already installed in the same version as that of the update data for the purpose of efficiency, and this will not happen in the standard setting. If you want to install it, select it manually before starting the update.
- If the USB media are not recognized properly, “Set Correct USB Storage Device” message is displayed. In this case, disconnect the USB media 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 update program or the data file in the USB media is correct. Then repeat the procedure from (4).

Error number	Error message	Cause
-	There is no mentusb2.o	Update program loader (mentusb2.o) is not stored.
01	There is no dlFirmWare_205_455 in the storage device.	Model specific update program (dlFirmWare_205_455) is not stored.
01	There is no dlFirmWare_xxx_xxx in the storage device. * The model name comes at “xxx_xxx”.	The jumper line on the SYS board is set for another model.
02	Error Loadmodule	Module loading failed.
03	Machine Model Get Error	Model information was not downloaded.
04	Please Change USB Storage or Please Check ROMDATA	Checking of data file failed.
05	Other models ROMDATA Vxxxx.xxx x * The version name comes at “xxxx.xxx.x”.	Master data of other model (hdd.bin) are stored.

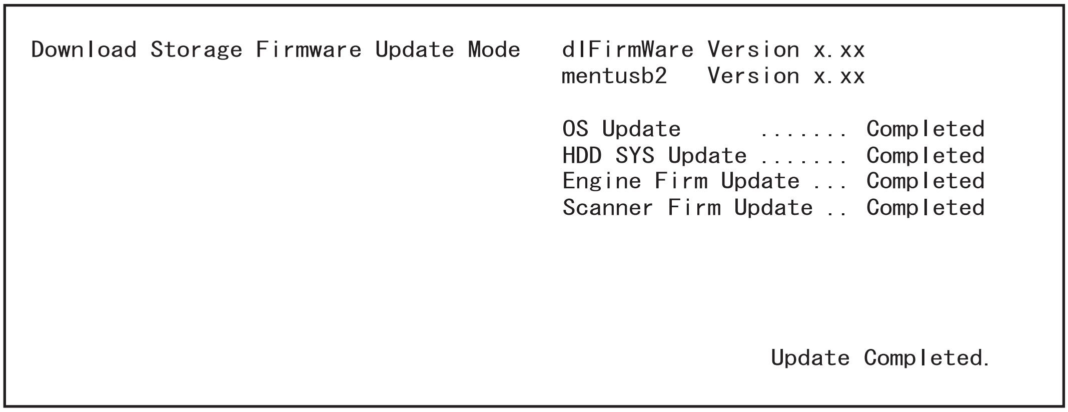
(5) Select the item with the digital keys.
"*" is displayed next to the selected item. Display or delete the "*" by pressing the number of the item.

Item	Remarks
1. OS Update	Updating OS data
2. HDD SYS Update	Updating Master data and System data
3. Engine Main Firmware Update	Updating Engine ROM
4. Scanner Firmware Update	Updating Scanner ROM

(6) 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
OS Update.......................... FROM write	OS Update.......................... Completed
HDD SYS Update .... Copy file	HDD SYS Update .... Completed
Engine Firm Update........... Flash Update	Engine Firm Update........... Completed
Scanner Firm Update ....Flash Update	Scanner Firm Update ....Completed

(7) "Update Completed." is displayed at the bottom of the LCD screen after the updating is completed properly.



```
Download Storage Firmware Update Mode   dlFirmWare Version x.xx
                                        mentusb2   Version x.xx

                                        OS Update      ....... Completed
                                        HDD SYS Update ....... Completed
                                        Engine Firm Update ... Completed
                                        Scanner Firm Update .. Completed




                                                       Update Completed.
```

Fig. 8-4

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 after all the updates are stopped (when either "Completed" or "Failed" is displayed for each item), and then check the following.
  - Do the USB media meet the conditions to be used for updating?
  - Is the data file written properly on the USB media?
  - Are the USB media installed properly?
  - Do the USB media and equipment operate properly?
- When an error occurred and the update failed, "Update Failed" or "Failed" appears on the screen and an error code appears next to the message. The content of each error code is shown below.

OS update Error	
Error number	**Error content**
O01	FROM writing failed
O02	FROM verification error
O03	File operation error
O04	SRAM flag set error
O06	Device error

HDD update Error	
Error number	**Error content**
H01	File creation error
H02	File decompression error
H03	Partition mount error
H00	Other errors

Engine 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 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

(8) Press the [ON/OFF] button on the control panel to shut down the equipment, and then remove the USB media.

Note:

When the equipment has been shut down normally, the LCD screen and LEDs (green and red) go OFF.

When OS data have been updated and the equipment has been shut down immediately after the update, the LEDs (green and red) may not go OFF even if the LCD screen goes OFF. This indicates that the equipment is not shut down normally. Press the [ON/OFF] button on the control panel for more than 5 seconds, and then turn the main switch OFF. Then remove the USB media.

(9) Perform the initialization of the updating data.

- Press the [ON/OFF] button on the control panel while [0] button and [8] button are pressed simultaneously.
- Key in “947”, 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.

📖 P.8-50 "8.4 Confirmation of the updated data"

[C] Display during the update

Update is performed in parallel as shown in the transition diagram below.

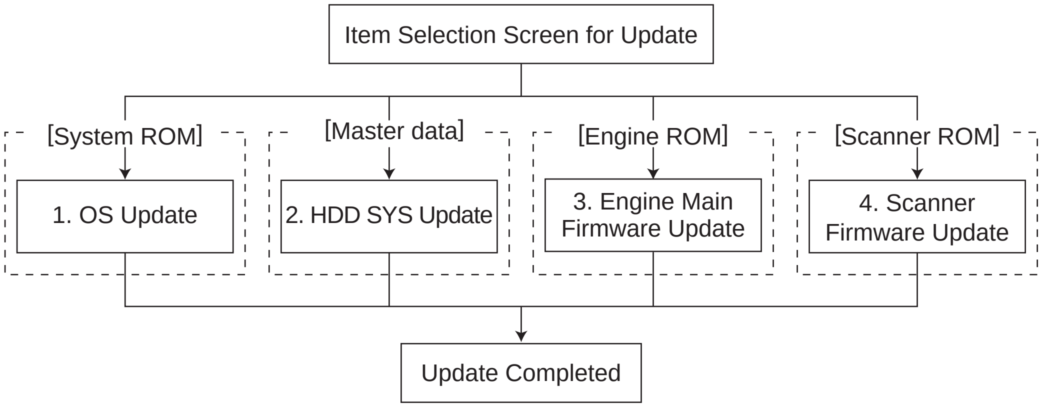
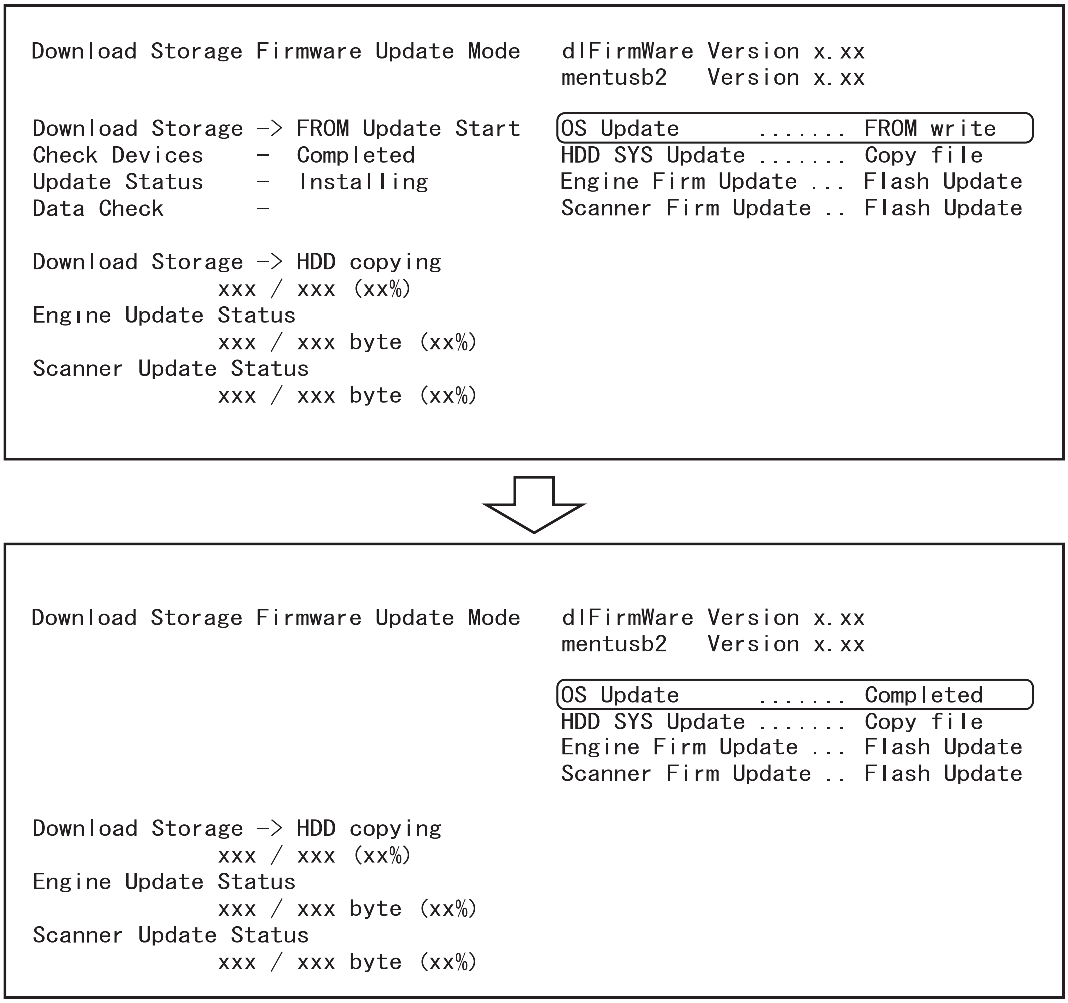

Item Selection Screen for Update
[System ROM]
[Master data]
[Engine ROM]
[Scanner ROM]
1. OS Update
2. HDD SYS Update
3. Engine Main Firmware Update
4. Scanner Firmware Update
Update Completed

Fig. 8-5

Below is an example of the changes of the LCD screen during update.

System ROM

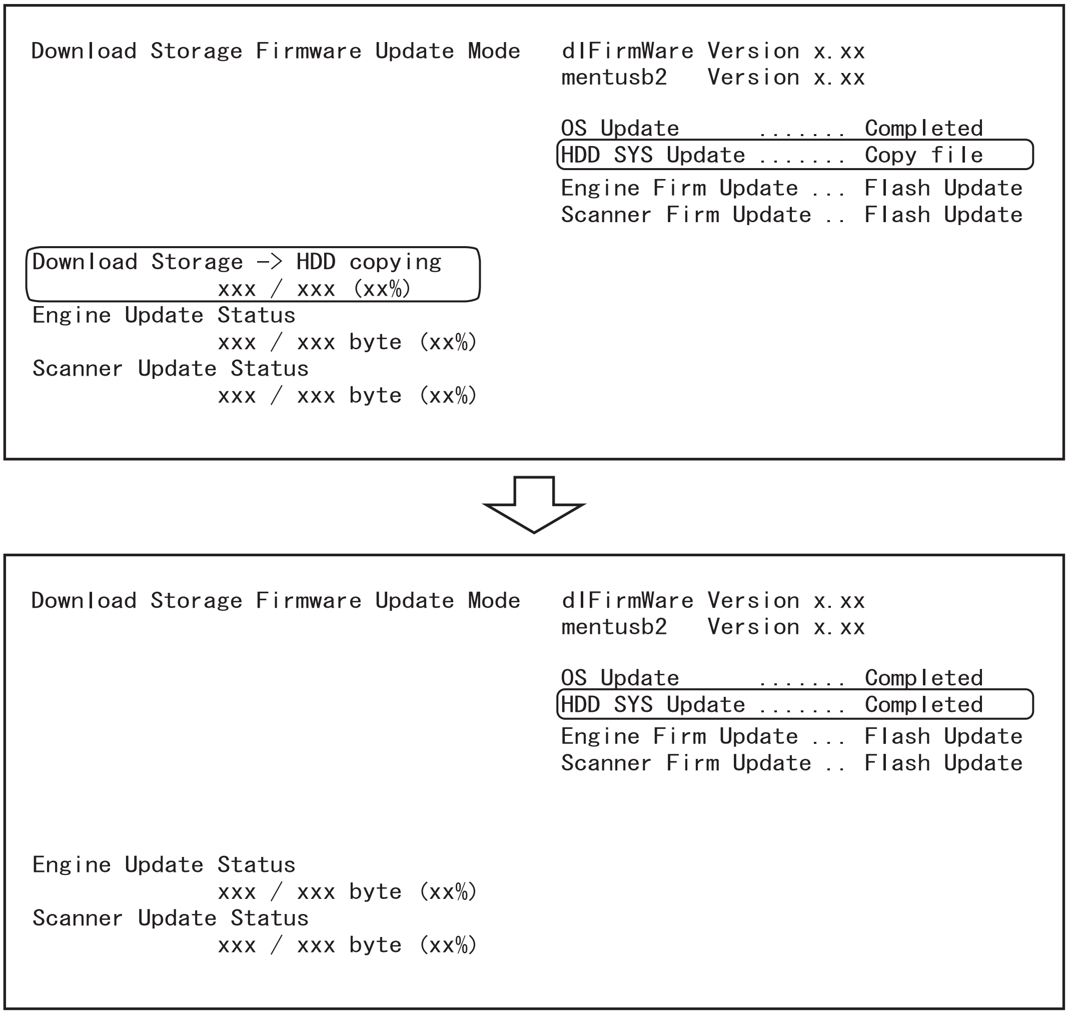


```
Download Storage Firmware Update Mode   dlFirmWare Version x.xx
                                        mentusb2   Version x.xx

Download Storage -> FROM Update Start   OS Update      ....... FROM write
Check Devices    -  Completed           HDD SYS Update ....... Copy file
Update Status    -  Installing          Engine Firm Update ... Flash Update
Data Check       -                      Scanner Firm Update .. Flash Update

Download Storage -> HDD copying
              xxx / xxx (xx%)
Engine Update Status
              xxx / xxx byte (xx%)
Scanner Update Status
              xxx / xxx byte (xx%)
```

```
Download Storage Firmware Update Mode   dlFirmWare Version x.xx
                                        mentusb2   Version x.xx

                                        OS Update      ....... Completed
                                        HDD SYS Update ....... Copy file
                                        Engine Firm Update ... Flash Update
                                        Scanner Firm Update .. Flash Update

Download Storage -> HDD copying
              xxx / xxx (xx%)
Engine Update Status
              xxx / xxx byte (xx%)
Scanner Update Status
              xxx / xxx byte (xx%)
```

Fig. 8-6

Master data

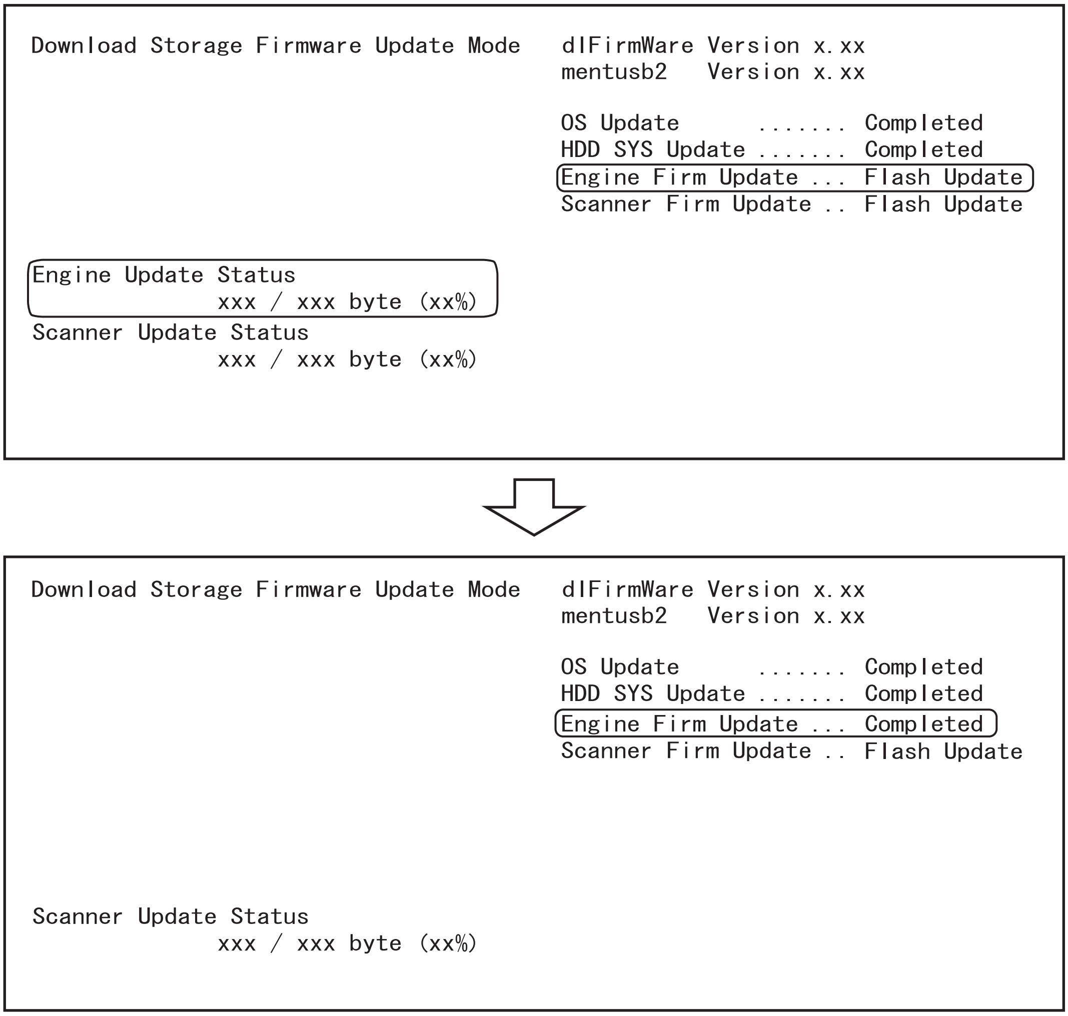


```
Download Storage Firmware Update Mode   dlFirmWare Version x.xx
                                        mentusb2   Version x.xx

                                        OS Update      ....... Completed
                                        HDD SYS Update ....... Copy file
                                        Engine Firm Update ... Flash Update
                                        Scanner Firm Update .. Flash Update

Download Storage -> HDD copying
              xxx / xxx (xx%)
Engine Update Status
              xxx / xxx byte (xx%)
Scanner Update Status
              xxx / xxx byte (xx%)
```

```
Download Storage Firmware Update Mode   dlFirmWare Version x.xx
                                        mentusb2   Version x.xx

                                        OS Update      ....... Completed
                                        HDD SYS Update ....... Completed
                                        Engine Firm Update ... Flash Update
                                        Scanner Firm Update .. Flash Update



Engine Update Status
              xxx / xxx byte (xx%)
Scanner Update Status
              xxx / xxx byte (xx%)
```

Fig. 8-7

Engine ROM

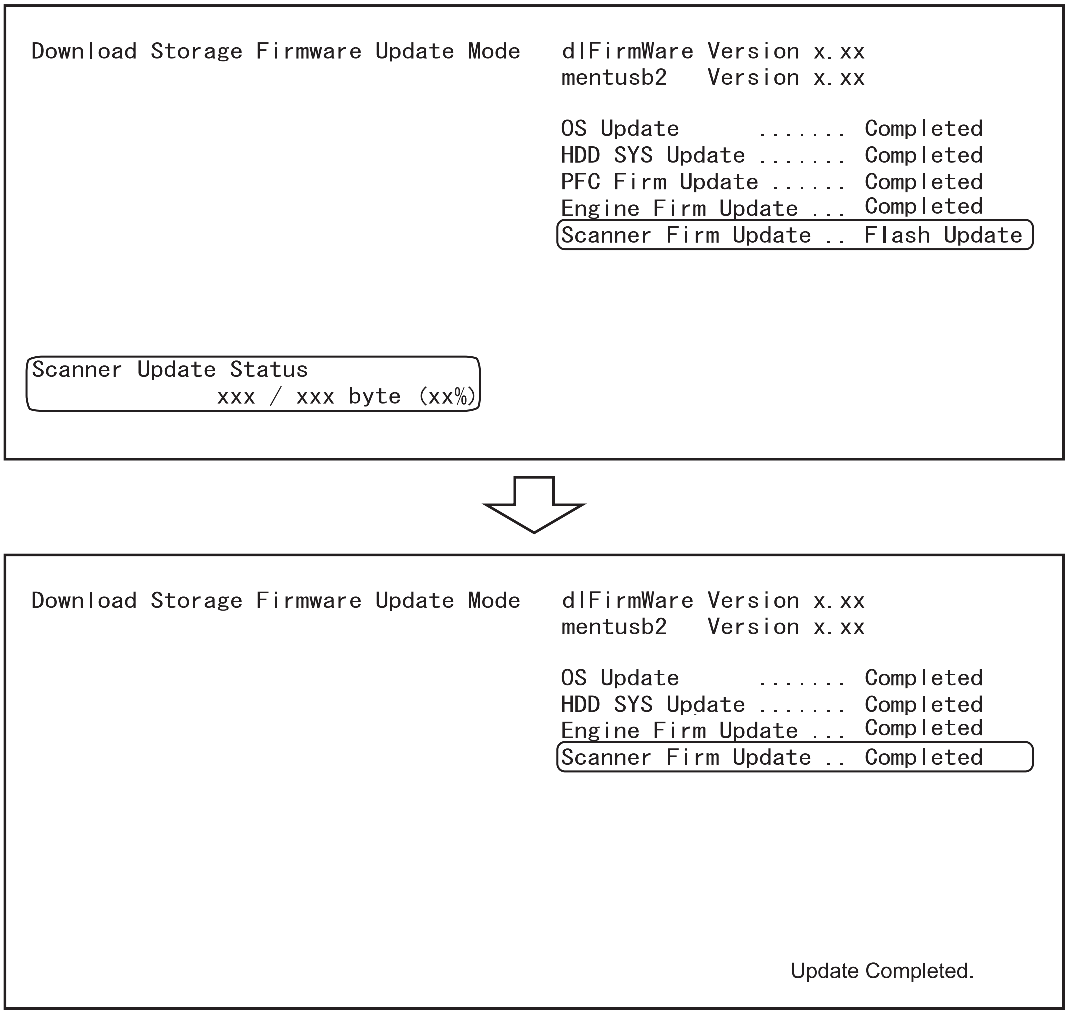


```
Download Storage Firmware Update Mode   dlFirmWare Version x.xx
                                        mentusb2   Version x.xx

                                        OS Update      ....... Completed
                                        HDD SYS Update ....... Completed
                                        Engine Firm Update ... Flash Update
                                        Scanner Firm Update .. Flash Update


Engine Update Status
              xxx / xxx byte (xx%)
Scanner Update Status
              xxx / xxx byte (xx%)
```

```
Download Storage Firmware Update Mode   dlFirmWare Version x.xx
                                        mentusb2   Version x.xx

                                        OS Update      ....... Completed
                                        HDD SYS Update ....... Completed
                                        Engine Firm Update ... Completed
                                        Scanner Firm Update .. Flash Update




Scanner Update Status
              xxx / xxx byte (xx%)
```

Fig. 8-8

Scanner ROM



```
Download Storage Firmware Update Mode   dlFirmWare Version x.xx
                                        mentusb2   Version x.xx

                                        OS Update      ....... Completed
                                        HDD SYS Update ....... Completed
                                        PFC Firm Update ...... Completed
                                        Engine Firm Update ... Completed
                                        Scanner Firm Update .. Flash Update

Scanner Update Status
              xxx / xxx byte (xx%)
```

```
Download Storage Firmware Update Mode   dlFirmWare Version x.xx
                                        mentusb2   Version x.xx

                                        OS Update      ....... Completed
                                        HDD SYS Update ....... Completed
                                        Engine Firm Update ... Completed
                                        Scanner Firm Update .. Completed

                                                  Update Completed.
```

Fig. 8-9

8.2 Firmware Updating with PWA-DWNLD-350-JIG2

The data to be overwritten by this update are as follows.
Update the ROM data written on each board according to the need such as the case of replacing the system control PC board, logic PC board or scanning section control PC board.

Equipment

Firmware	Stored
System ROM (OS data)	SYS board / SYS-IMG board
Engine ROM (Main firmware)	Logic PC board (LGC board)

PWA-DWNLD-350-JIG2 (48MB)

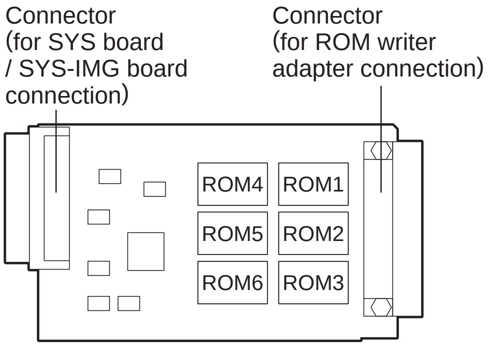

Connector
(for SYS board
/ SYS-IMG board
connection)
Connector
(for ROM writer
adapter connection)
ROM4
ROM1
ROM5
ROM2
ROM6
ROM3

Fig. 8-10 Jig board: PWA-DWNLD-350-JIG2 (48 MB)

Important:
The download jig (PWA-DWNLD-350-JIG2) 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.

8.2.1 Writing the data to the download jig (PWA-DWNLD-350-JIG2)

The download jig (PWA-DWNLD-350-JIG) is the jig 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 download procedure, instruction manual of each ROM writer, or others.

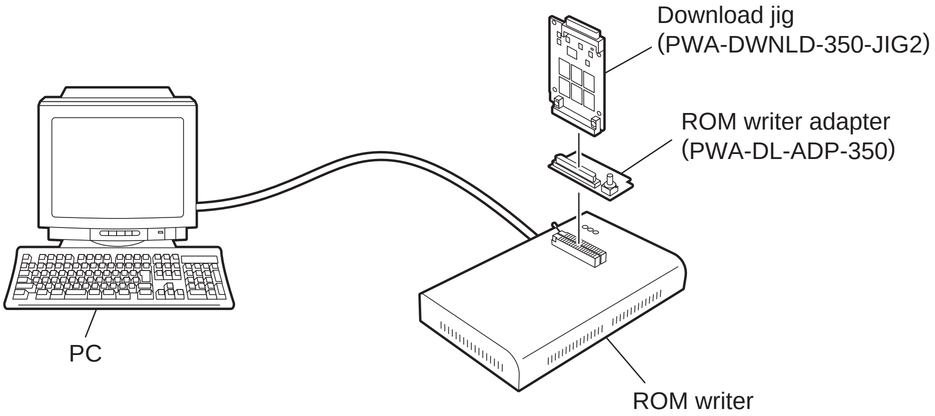
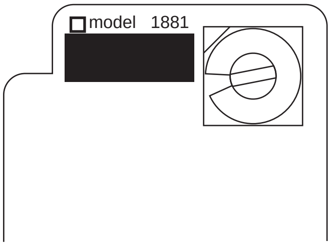


Fig. 8-11

Note:

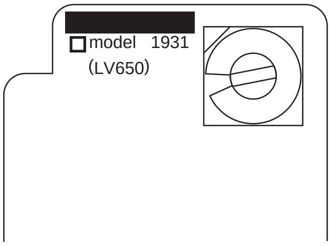
There are two types of the ROM writer adapter. Use the proper one according to the ROM writer to be used. Applicable type of the adapter for the ROM writer can be confirmed by the model name indicated on the board. Confirm that the adapter is available for the ROM writer to be used before connecting 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 (model 1931)



[PWA-DL-ADP-350-1881]

Fig. 8-12



[PWA-DL-ADP-350-1931]

Fig. 8-13

[A] Precautions when writing the the System ROM 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 ROM

Rotary Switch	File Name	Flash ROM
1	firmImage_jig0.bin	ROM1
2	firmImage_jig1.bin	ROM2
3	N/A	ROM3
4	N/A	ROM4
5	N/A	ROM5
6	N/A	ROM6

Note:

Be sure not to confuse different ROM Versions since the file name is identical although the ROM version is different.

[B] Precautions when writing the Engine ROM data

- Clear the buffer of the ROM writer by means of the following settings.

From Address	To Address	Code
0	800000	FF
800000	8000FF	00

- 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	300000
Buffer Size	800000
Clear Buffer Before Loading the file	Clear buffer with blank state

[B-1] Engine ROM

Engine ROM		
Rotary Switch	**File Name**	**Flash ROM**
1	T470MWW.xxx	ROM1
2	N/A	ROM2
3	N/A	ROM3
4	N/A	ROM4
5	N/A	ROM5
6	N/A	ROM6

8.2.2 System ROM

The firmware of the system ROM can be updated by using PWA-DWNLD-350-JIG2.

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-350-JIG2).

(2) Turn the power OFF using the main power switch on the right-hand surface of the equipment.

(3) Take off the cover plate.

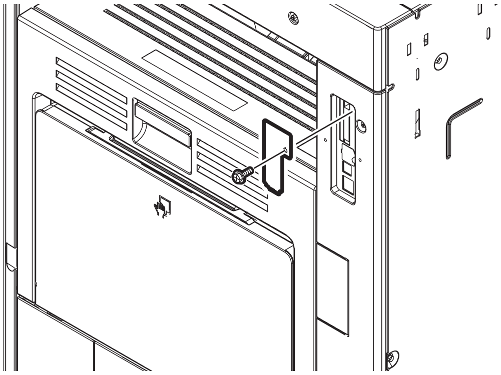


Fig. 8-14

(4) Connect the download jig with the jig connector on the SYS board / SYS-IMG board.

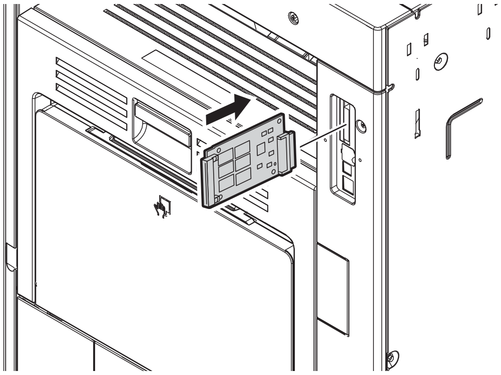


Fig. 8-15

(5) Turn the power ON using the main power switch while simultaneously holding down the [8] and [9] buttons.

(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. All items are selected in the default settings.

(7) Press the [START] button.
Updating starts and the processing status is displayed on the LCD screen.

(8) “Update Completed.” is displayed at the bottom of the LCD screen after the updating is completed properly.

Note:

“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?

(9) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch.
Remove the download jig and install the cover plate.

Note:

When the equipment has been shut down normally, the LCD screen and LEDs (green and red) go OFF.
When OS data have been updated and the equipment has been shut down immediately after the update, the LEDs (green and red) may not go OFF even if the LCD screen does. This indicates that the equipment has not shut down normally. Press the [ON/OFF] button on the control panel for more than 5 seconds, and then turn the main switch OFF. Then remove the download jig.

(10) Perform the initialization of the updating data.

- Turn the power ON using the main power switch while pressing the [0] and [8] buttons simultaneously.
- Key in “947”, 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.

📖 P.8-50 "8.4 Confirmation of the updated data"

8.2.3 Engine ROM

The firmware of the engine ROM can be updated individually by using PWA-DWNLD-350-JIG2.

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.
- When servicing the equipment with the power cable plugged in, be sure not to touch live sections or motors, etc.

[A] Update Procedure

(1) Write the ROM data to be updated to the download jig (PWA-DWNLD-350-JIG2).

(2) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch.

(3) Take off the cover plate.

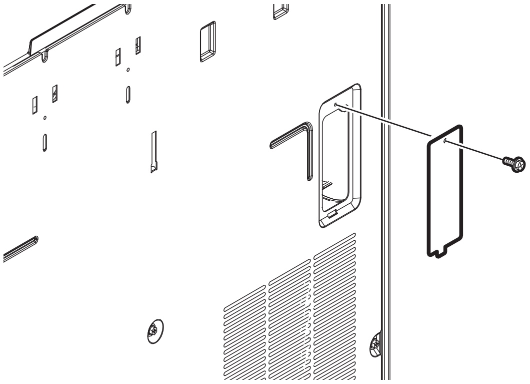


Fig. 8-16

(4) Connect the download jig with the jig connector (CN319) on the logic PC board (LGC board).

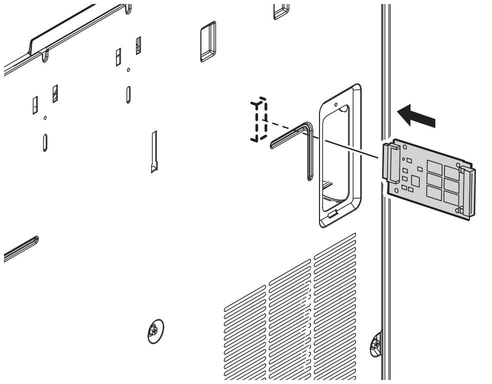


Fig. 8-17

(5) Open the front cover.

(6) Turn the power ON using the main power switch while simultaneously holding down the [0] and [8] buttons.
Updating starts automatically and the LED on the download jig lights.

(7) When the update is completed properly, the LED (END) on the download jig blinks.
The LED starts blinking approx. 15 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 updating data written on the ROM of the download jig properly?
- Do the download jig and the equipment operate properly?

(8) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch.

(9) Remove the download jig.

(10) Install the cover plate and then close the front cover.

[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.8-50 "8.4 Confirmation of the updated data"

8.3 Firmware Updating with K-PWA-DLM-320

The firmware of the equipment (engine ROM, scanner ROM) and the option (RADF ROM, Finisher ROM, FAX ROM) can be updated individually by using K-PWA-DLM-320. Update the ROM data written on each board according to the need such as the case of replacing the board.

Equipment

Firmware	Stored
Scanner ROM (Scanner firmware)	Scanning section control PC board (SLG board)

Options

Model name	Firmware	Stored
Reversing Automatic Document Feeder (RADF) (MR-3021/3022)	RADF firmware	RADF control PC board
Hole Punch Unit (MJ-6101)	Hole punch unit firmware	Hole punch control PC board
Finisher (MJ-1025)	Finisher firmware	Finisher control PC board
Saddle Stitch Finisher (MJ-1024)	Finisher firmware	Finisher control PC board
	Saddle stitcher firmware	
Finisher (MJ-1101)	Finisher firmware	Finisher control PC board
	Converter firmware	Converter PC board
Hanging Finisher (MJ-1031)	Finisher firmware	Finisher control PC board
Fax Unit (GD-1250)	Fax unit firmware	FAX board

K-PWA-DLM-320

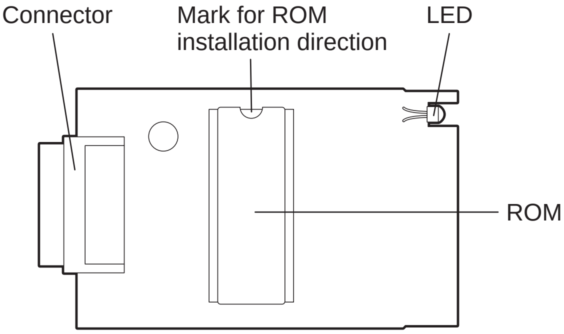


Fig. 8-18 Jig board: K-PWA-DLM-320

Important:
Pay attention to the direction of the ROM.

8.3.1 Scanner ROM

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.

Note:

Since the update data for the MR-3021 and the MR-3022 differ, be sure to install the correct ROM according to the model.

[A] Update Procedure

(1) Install the ROM to the download jig (K-PWA-DLM-320).
Make sure the direction is correct.

(2) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch.

(3) Take off the right upper cover.

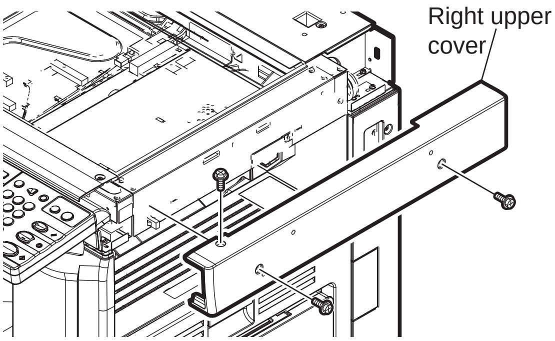


Fig. 8-19

(4) Take off the cover plate.

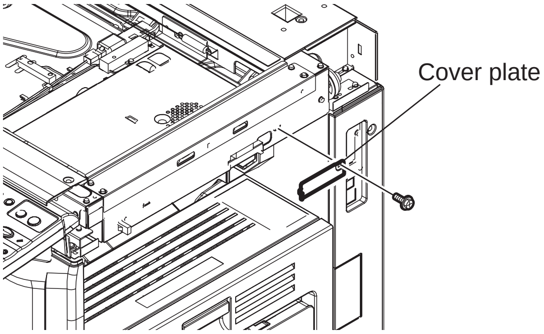


Fig. 8-20

(5) Connect the download jig with the jig connector (CN6) on the scanning section control PC board (SLG board).

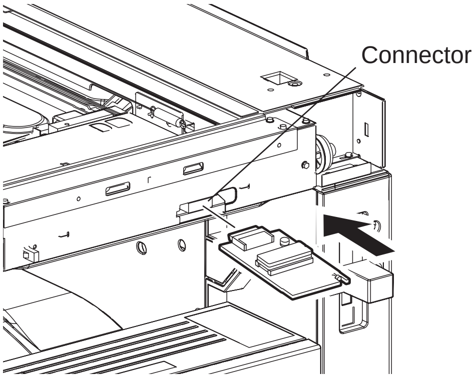


Fig. 8-21

(6) Turn the power ON using the main power switch while simultaneously holding down the [0] and [8] buttons.
Updating starts automatically and the LED on the download jig lights.

(7) After the update is completed properly, the LED on the download jig blinks.
The LED starts blinking approx. 20 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?

(8) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch.
Remove the download jig, and then install the cover plate and right upper cover.

[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.8-50 "8.4 Confirmation of the updated data"

8.3.2 RADF firmware (MR-3021/3022)

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) Install the ROM to the download jig (K-PWA-DLM-320).
Make sure the direction is correct.

(2) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch.

(3) Take off the RADF rear cover.

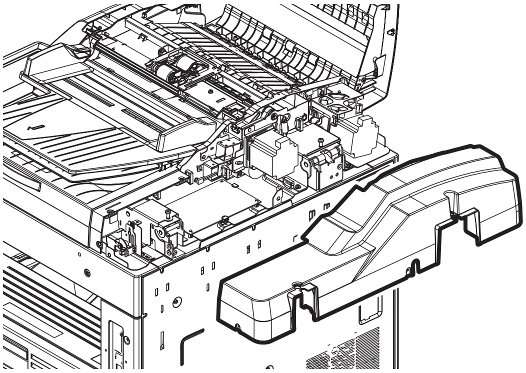


Fig. 8-22

(4) Connect the download jig with the jig connector on the RADF control PC board.

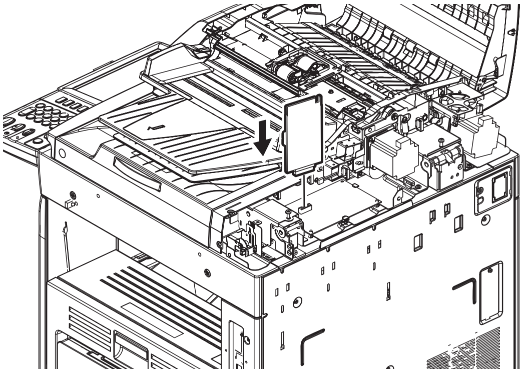


Fig. 8-23

(5) Open the front cover.

(6) Turn the power ON using the main power switch while simultaneously holding down the [0] and [8] buttons.
Updating starts automatically and the LED on the download jig lights.

(7) After the update is completed properly, the LED on the download jig blinks (at an interval of approx. 1 sec.).
The LED starts blinking approx. 50 sec. after the update starts. It is assumed that the update has failed if it does not start blinking even though 2 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, RADF and the equipment operate properly?

(8) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch.
Remove the download jig and install the RADF rear cover.

(9) Close the front cover.

[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.8-50 "8.4 Confirmation of the updated data"

8.3.3 Hole punch unit firmware (MJ-6101)

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 operated properly.

[A] Checking the hole punch position

Follow the procedure below to check the stopping position of the paper transport during the punching operation before updating the firmware, as the value for the position is defaulted when the firmware is updated.

(1) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch.

(2) Remove the finisher board access cover and change the setting of the DIP-SW1 (SW1) on the finisher control PC board as shown in the figure below.

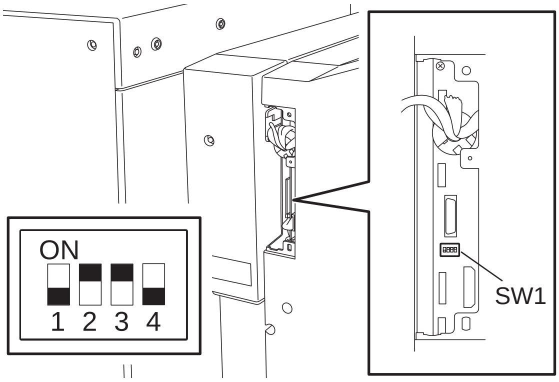


Fig. 8-24

(3) Turn the power ON using the main power switch while simultaneously holding down the [0] and [8] buttons. The [LED1] on the finisher control panel starts blinking. Count the number of times it blinks. If the number of blinks is “6”, this indicates that the value for the stopping position is the default. If the number is other than “6”, record it because the value needs to be reset after the firmware is updated.

(4) Return the DIP-SW1 to the status before checking.

[B] Update Procedure

(1) Install the ROM to the download jig (K-PWA-DLM-320).
Make sure the direction is correct.

(2) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch.

(3) Remove 1 screw and take off the finisher board access cover.

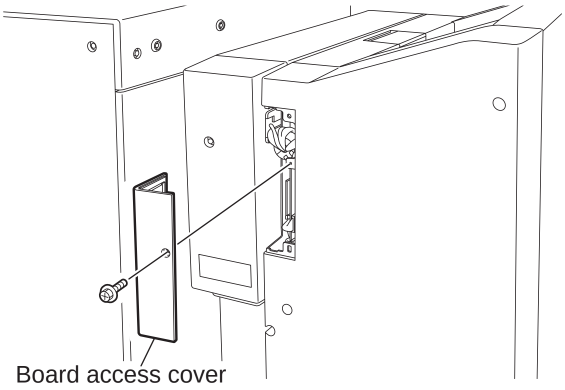


Fig. 8-25

(4) Release the latches and take off the rear lower cover of the hole punch unit.

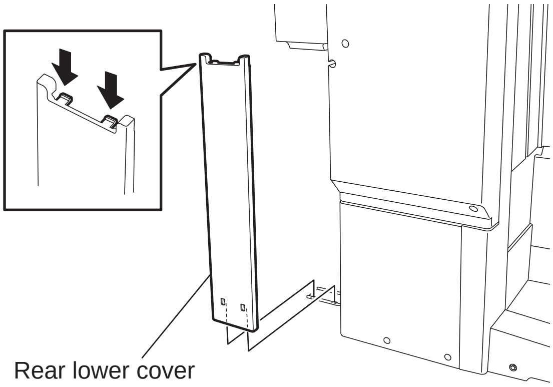


Fig. 8-26

(5) Remove 3 screws and take off the rear cover of the hole punch unit.

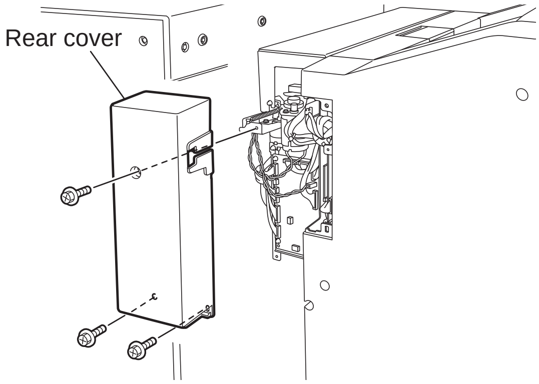


Fig. 8-27

(6) Connect the download jig with the jig connector (CN9) on the finisher control PC board.

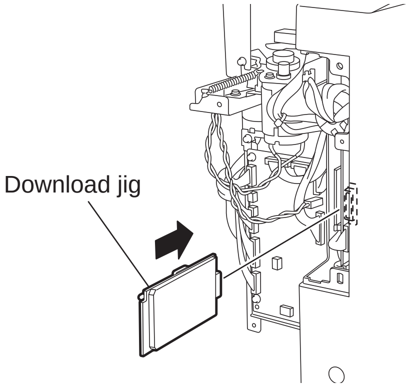


Fig. 8-28

(7) Set the DIP-SW4 on the hole punch control PC board to ON.

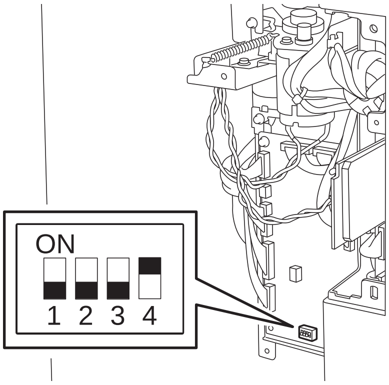


Fig. 8-29

(8) Turn the power ON using the main power switch while simultaneously holding down the [0] and [8] buttons.
Updating starts and the LED on the download jig lights.

(9) When the update is completed normally, the LED on the download jig starts blinking.
The LED on the download jig starts blinking approx. 20 seconds after the update started. It is assumed that the update has failed if the LED does not start blinking even after 30 seconds have elapsed. In this case, shut down the equipment and check the following items. Then clear the problems and restart updating from the beginning.

- Is the downloading jig connected properly?
- Is the ROM attached to the downloading jig properly?
- Is the DIP-SW4 on the hole punch control PC board set properly?
- Has the update data been written correctly to the ROM on the jig?
- Is the download jig or the equipment damaged?
- Is the connector (CN12) on the finisher control PC board connected properly?
- Are the connector (CN15) on the finisher control PC board and the connector (CN1) on the hole punch control PC board connected properly?

(10) Press the [ON/OFF] button on the control panel and turn the power OFF using the main power switch and remove the download jig.

(11) Set the DIP-SW4 on the hole punch control PC board to OFF.

Note:

When the number of blinks is other than “6” (which indicates that the adjustment value is “0”) at the section “[A]Checking the hole punch position”, follow the steps of “5.1 Stopping Position Adjustment” in the MJ-6101 Service Manual to adjust the value to the one that has been set before the update.

(12) Change the settings of the DIP-SW1 and -SW2 on the hole punch control PC board according to the model as shown in the figure below.

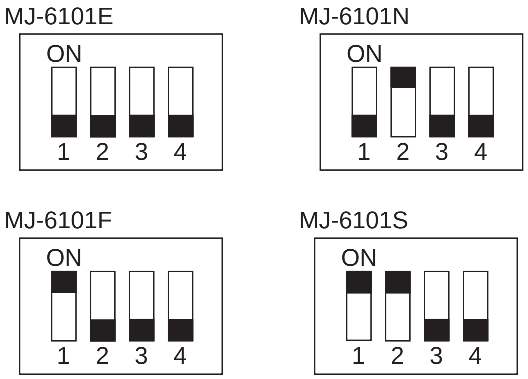


Fig. 8-30

(13) Install the rear cover of the hole punch unit.

(14) Install the rear lower cover of the hole punch unit.

(15) Install the finisher board access cover.

[C] 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.8-50 "8.4 Confirmation of the updated data"

8.3.4 Finisher firmware (MJ-1025)

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 operated properly.

[A] Update Procedure

(1) Install the ROM to the download jig.
Make sure the direction is correct.

(2) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch.

(3) Take off the finisher rear cover.

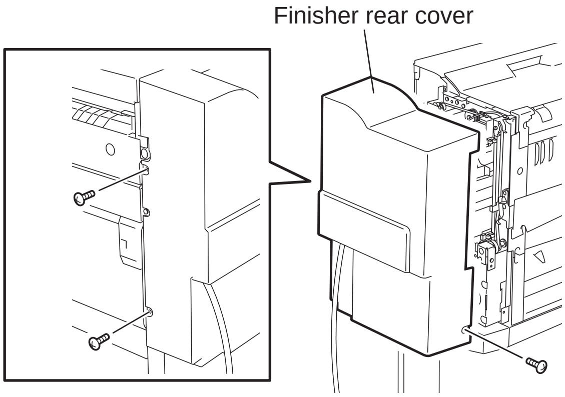


Fig. 8-31

* Connect the finisher interface cable with the equipment after removing the finisher rear cover.

(4) Connect the download jig with the jig connector on the finisher control PC board.

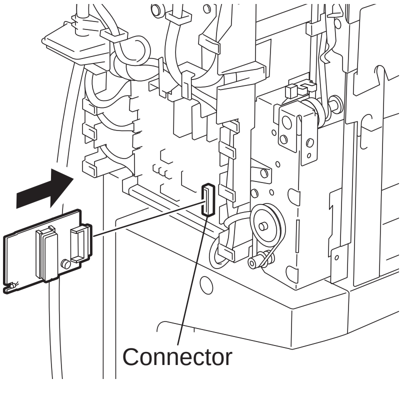


Fig. 8-32

(5) Change the setting of he DIP switch on the finisher control PC board.
Change all the setting of the DIP switch (1-8) to OFF.

Note:
Record the current settings of the DIP switch before changing them. After the updating is completed, return the DIP switch to the status as record.

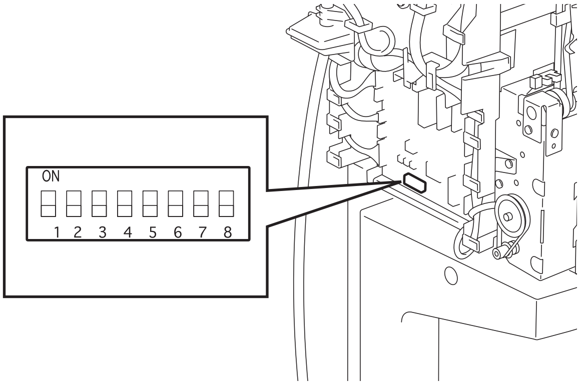


Fig. 8-33

(6) Turn the power ON using the main power switch while [0] button and [8] button are pressed simultaneously.
Updating starts automatically and the LED on the download jig lights.

(7) After the update is completed properly, the LED on the download jig blinks slowly. The LED starts blinking in approx. 20 sec. since the update starts. It is assumed that the update is failed if it does not start blinking even though 1 min. has passed, or LED flashes fast. In this case, turn OFF the power and check the following items. Then, clear the problem 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?
- Is the DIP switch on the finisher control PC board set properly?

(8) Press the [ON/OFF] button on the control panel and turn the power OFF using the main power switch and remove the download jig. Return the DIP switch to the status before updating.

(9) Install the finisher rear cover.

[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.8-50 "8.4 Confirmation of the updated data"

8.3.5 Finisher firmware (MJ-1024)

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 operated properly.

[A] Update Proced

Finisher firmware and saddle stitcher firmware are written on the finisher ROM. These two kinds of firmware can be updated individually by installing the download jig to the finisher control PC board.

(1) Install the ROM to the download jig.
Make sure the direction is correct.

(2) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch.

(3) Take off the finisher rear cover.

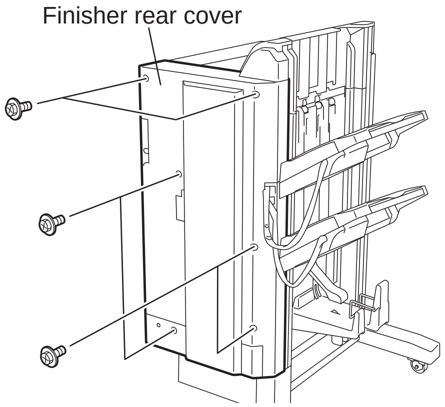


Fig. 8-34

* Connect the finisher interface cable with the equipment after removing the finisher rear cover.

(4) Connect the download jig with the jig connector on the finisher control PC board.

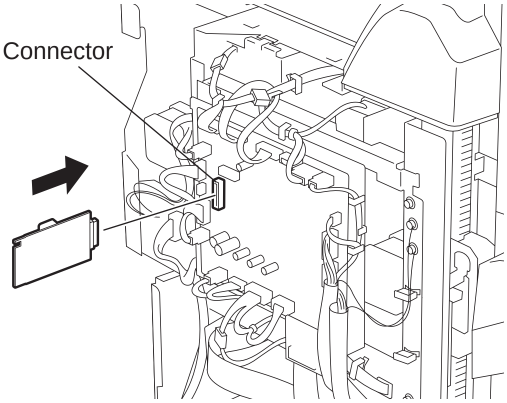


Fig. 8-35

(5) Change the setting of the DIP switch on the finisher control PC board.
Change the setting of the DIP switch as follows according to the firmware to be updated.

Note:
Record the current settings of the DIP switch before changing them. After the updating is completed, return the DIP switch to the status as record.

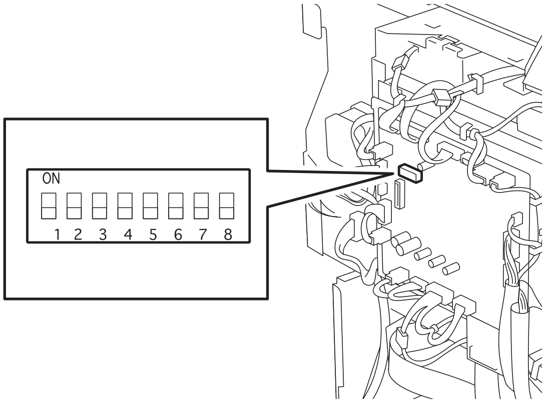


Fig. 8-36

<Updating Finisher Firmware>
Change all the setting of the DIP switch (1-8) to OFF.

<Updating Saddle Stitcher Firmware>
Change the setting of the DIP switch 1-6 to OFF and 7-8 to ON.

(6) Turn the power ON using the main power switch while [0] button and [8] button are pressed simultaneously.
Updating starts automatically and the LED on the download jig lights.

Important:
The processing status can be confirmed by the lighting of the LED (LED 101-103) on the finisher control board.

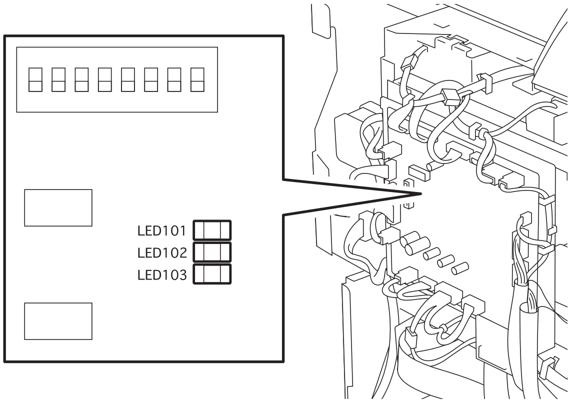


Fig. 8-37

Processing status	LED		
	LED103	**LED102**	**LED101**
0% or above	OFF	OFF	ON
15% or above	OFF	ON	OFF
30% or above	OFF	ON	ON
45% or above	ON	OFF	OFF
60% or above	ON	OFF	ON
75% or above	ON	ON	OFF
90% or above	ON	ON	ON

(7) After the update is completed properly, the LED on the download jig blinks slowly (at interval of 0.8 sec). The LED starts blinking in approx. 30 sec. (finisher section) or 2 min. 30 sec. (saddle stitcher section) since the update starts. It is assumed that the update is failed if it does not start blinking even though 1 min. has passed (finisher section) or 3 min. (saddle stitcher section), or LED flashes fast (at interval of 0.1 sec.). In this case, turn OFF the power and check the following items. Then, clear the problem 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?
- Is the DIP switch on the finisher control PC board set properly according to the download section (finisher or saddle stitcher)?

(8) Press the [ON/OFF] button on the control panel and turn the power OFF using the main power switch and remove the download jig. Return the DIP switch to the status before updating.

(9) Install the finisher rear cover.

[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.8-50 "8.4 Confirmation of the updated data"

8.3.6 Finisher firmware (MJ-1101)

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 operated properly.

[A] Update Procedure

(1) Install the ROM to the download jig (K-PWA-DLM-320).
Make sure the direction is correct.

(2) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch.

(3) Remove 1 screw and take off the board access cover.

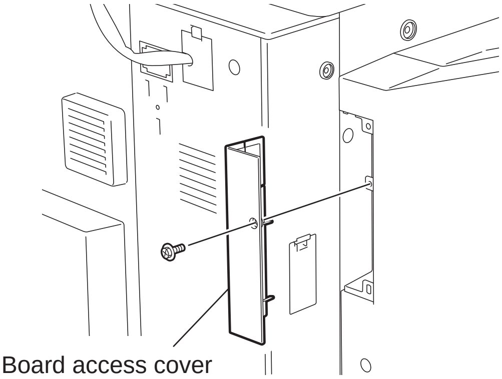


Fig. 8-38

(4) Connect the download jig with the jig connector (CN9) on the Finisher control board.

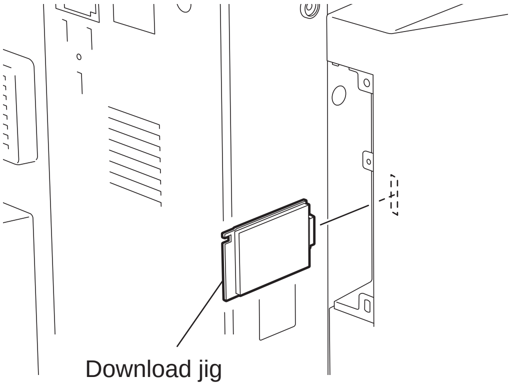


Fig. 8-39

(5) Turn the power ON using the main power switch while simultaneously holding down the [0] and [8] buttons.
Updating starts and the LED on the download jig lights

(6) When the update completes normally, the LED on the download jig starts blinking.
The LED on the download jig starts blinking approx. 12 seconds after the update started.
It is assumed that the update has failed if the LED does not start blinking even after 20 seconds have elapsed. In this case, shut down the equipment and check the following items. Then clear the problems and restart updating from the beginning.
    - Is the downloading jig connected properly?
    - Is the ROM attached to the downloading jig properly?
    - Has the update data been written correctly to the ROM on the jig?
    - Is the download jig or the equipment damaged?

(7) Press the [ON/OFF] button on the control panel and turn the power OFF using the main power switch and remove the download jig. Install the board access cover.

[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.8-50 "8.4 Confirmation of the updated data"

8.3.7 Converter Firmware (MJ-1101)

The harness jig for board connection is required for updating the firmware of the converter PC board of the finisher (MJ-1101) as well as the download jig (K-PWA-DLM-320).

Name of the jig	Model name
Harness jig for board connection	HRNS-CNV-DL-JIG

Important:

- Be sure to connect the equipment and finisher (MJ-1101) before updating the converter firmware.
- 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 operated properly.

[A] Update Procedure

(1) Install the ROM to the download jig (K-PWA-DLM-320).
Make sure the direction is correct.

(2) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch.

(3) Take off the finisher board access cover.

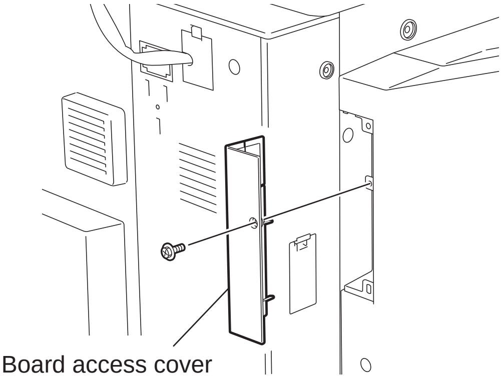


Fig. 8-40

(4) Take off the rear cover of the equipment.

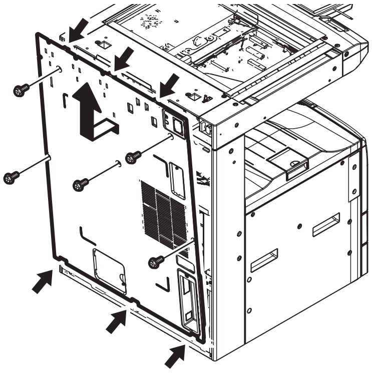


Fig. 8-41

(5) Take off the converter PC board from the logic PC board (LGC board).

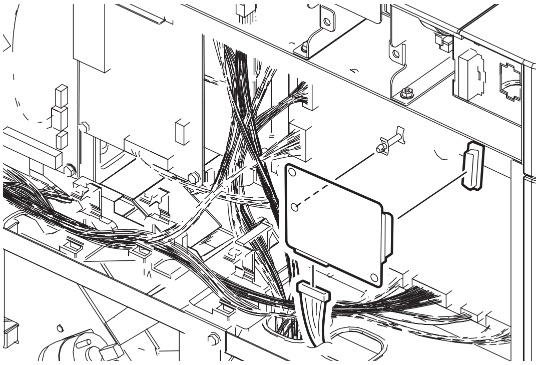


Fig. 8-42

(6) Connect the 10-pin side of the harness jig for board connection to the connector (CN2) of the converter PC board.

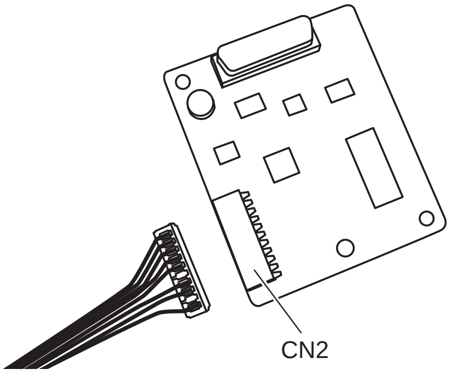


Fig. 8-43

(7) Connect the 15-pin side of the harness jig for board connection to the connector (CN15) of the finisher control PC board.

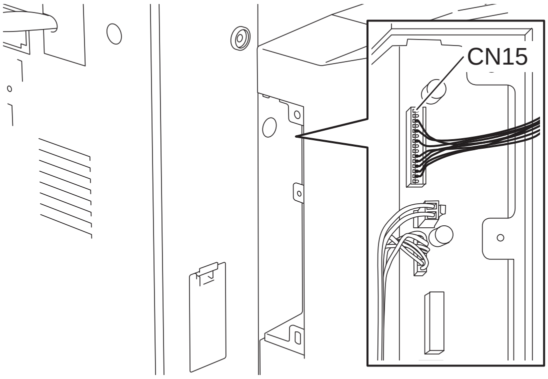


Fig. 8-44

Notes:

- Be sure to release the connection cable from the connector (CN15) of the finisher control PC board when the hole punch unit (MJ-6101) has been installed.
- Be careful not to short-circuit any part of the converter PC board.

(8) Connect the download jig with the jig connector (CN9) on the Finisher control board.

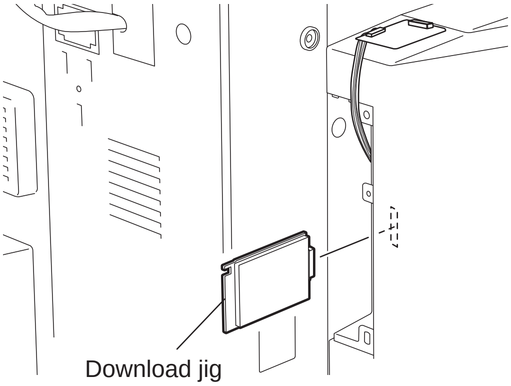


Fig. 8-45

(9) Turn the power ON using the main power switch while simultaneously holding down the [0] and [8] buttons.
Updating starts and the LED on the download jig lights.

(10) When the update completes normally, the LED on the download jig starts blinking.
The LED on the download jig starts blinking approx. 20 seconds after the update started.
It is assumed that the update has failed if the LED does not start blinking even after 30 seconds have elapsed. In this case, shut down the equipment and check the following items. Then clear the problems and restart updating from the beginning.

- Is the downloading jig connected properly?
- Is the ROM attached to the downloading jig properly?
- Have the update data been written correctly to the ROM on the jig?
- Is the download jig or the equipment damaged?
- Is the harness jig for board connection connected to connector (CN2) of the converter PC board and the connector (CN15) of the finisher control PC board correctly?

(11) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch.

(12) Remove the download jig and the harness jig for board connection from the finisher control PC board.

Note:
Be sure to secure the connection cable in the connector (CN15) of the finisher control PC board when the hole punch unit (MJ-6101) has been installed.

(13) Install the board access cover.

(14) Remove the harness jig for board connection from the converter PC board.

(15) Install the converter PC board in the equipment.

(16) Install the cover plate and the rear cover-1.

[B] Confirmation of Firmware Version

Be sure to install the converter PC board in the equipment and connect the finisher (MJ-1101) before confirming the firmware version of the converter firmware.
📖 P.8-50 "8.4 Confirmation of the updated data"

8.3.8 Finisher firmware (MJ-1031)

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 operated properly.

[A] Update Procedure

(1) Install the ROM to the download jig (K-PWA-DLM-320).
Make sure the direction is correct.

(2) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch.

(3) Take off the hanging finisher (MJ-1031) from the equipment.

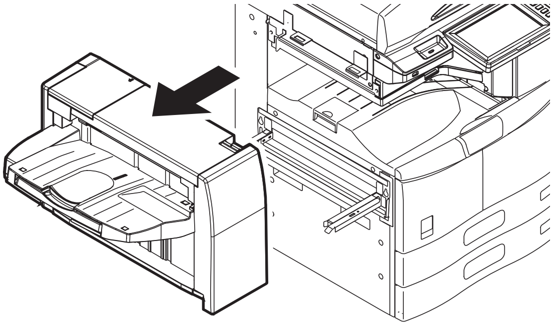


Fig. 8-46

(4) Take off the rear cover.

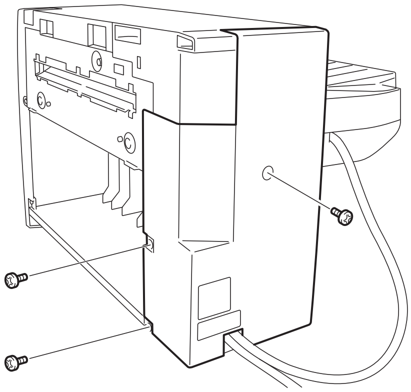


Fig. 8-47

(5) Install the hanging finisher in the equipment.

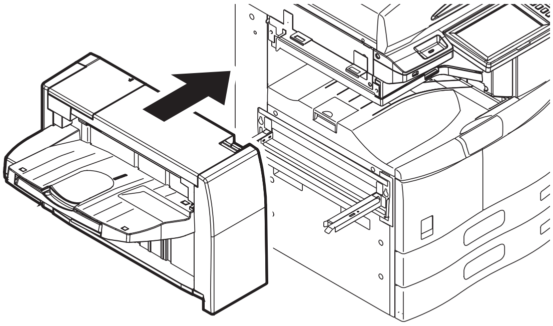


Fig. 8-48

(6) Connect the download jig with the jig connector on the Finisher control board.

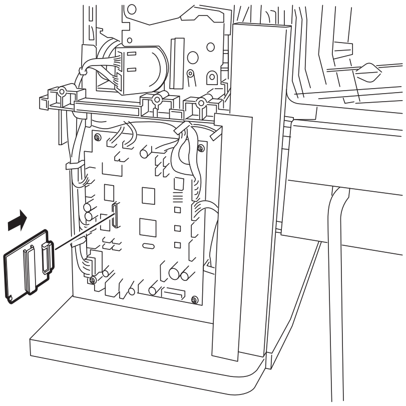


Fig. 8-49

(7) Turn the power ON using the main power switch while simultaneously holding down the [0] and [8] buttons.
Updating starts and the LED on the download jig lights.

(8) When the update completes normally, the LED on the download jig starts blinking.
The LED on the download jig starts blinking approx. 12 seconds after the update started.
It is assumed that the update has failed if the LED does not start blinking even after 20 seconds have elapsed. In this case, shut down the equipment and check the following items. Then clear the problems and restart updating from the beginning.

- Is the downloading jig connected properly?
- Is the ROM attached to the downloading jig properly?
- Has the update data been written correctly to the ROM on the jig?
- Is the download jig or the equipment damaged?

(9) Press the [ON/OFF] button on the control panel and turn the power OFF using the main power switch and remove the download jig.

(10) Take off the hanging finisher from the equipment.

(11) Install the board access cover.

(12) Install the hanging finisher in the equipment.

[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.8-50 "8.4 Confirmation of the updated data"

8.3.9 Fax unit firmware (GD-1250)

Important:

- Before updating the FAX ROM, 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.
    - Print the “Mailbox/Relay box report” and then confirm that there are no F code data.
    - Press the [JOB STATUS] button to display the screen and then confirm that there are no memory transmission data.

[A] Firmware update

(1) Install the ROM to the download jig (K-PWA-DLM-320).
Make sure the direction is correct.

(2) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch.

(3) Pull out the lower drawer of the equipment.

(4) Take off the cover.

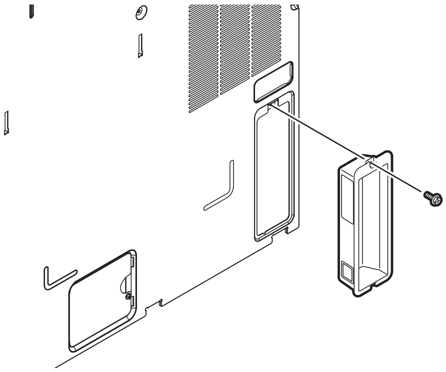


Fig. 8-50

(5) Take off the cover plate.

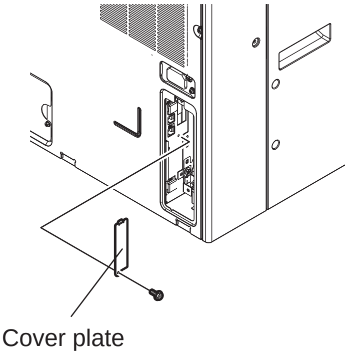


Fig. 8-51

(6) Connect the download jig with the jig connector (CN602) on the FAX board.

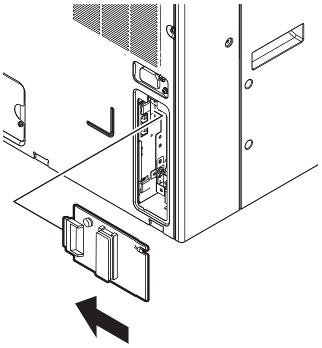


Fig. 8-52

(7) Turn the power ON using the main power switch while simultaneously holding down the [0] and [8] buttons.
Updating starts automatically and the LED on the download jig lights.

(8) 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?

(9) Press the [ON/OFF] button on the control panel and turn the power OFF using the main power switch and remove the download jig. Install the cover plate.

(10) In the FAX Clearing Mode, perform the “FAX Set Up”.

- Confirm the destination setting is correct in the Setting Mode (08).
  08-201: Destination setting of the equipment
  08-701: Destination setting of the FAX machine
- Turn the power ON using the main power switch 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).
  08-201: Destination setting of the equipment
  08-701: Destination setting of the FAX machine
- Turn the power ON using the main power switch while [1] button and [*] button are pressed simultaneously.
- Key in “102”.
- Press the [START] button.

[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.8-50 "8.4 Confirmation of the updated data"

8.4 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 HDD/UI data	08-944	HDD Version
	08-924	Version of UI data language 1 in HDD
Updating System ROM	08-900	System firmware ROM version
	08-921	System firmware ROM internal program version
Updating OS	08-920	FROM basic section software version
Updating Engine ROM	08-903	Engine ROM version
Updating Scanner ROM	08-905	Scanner ROM version
Updating RADF ROM	08-907	RADF ROM version
Updating Finisher ROM	08-908	Finisher ROM version
	08-911	Hole punch unit ROM version (MJ-6101 only)
	08-9945	Converter board ROM version
Updating FAX ROM	08-915	FAX ROM version

The installed ROM versions and the registered optional Electronic License Keys can be confirmed in the list print mode following the procedure below.

(1) Turn the power ON using the main power switch while pressing the digital key [9] and the [START] button simultaneously.
   * When the equipment is already in the other setting mode, press the [ON/OFF] button on the control panel instead of using the main switch.

(2) Key in “1” three times, and then press the [START] button.

(3) “VERSION LIST” is printed out.
   * It is recommended to keep this list for future reinstallation such as the replacement of the SYS board / SYS-IMG board.

(4) Keep pressing the [ON/OFF] button until you hear a sound to shut down the equipment.

8.5 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.

8.5.1 Procedure

(1) Update “System ROM“ of the system control PC board (SYS board / SYS-IMG board) using the download jig (PWA-DWNLD-350-JIG2).
Updating with the USB media becomes possible only after the “System ROM” (OS data) has been updated.
See the updating procedure below for details.
📖 P.8-16 "8.2 Firmware Updating with PWA-DWNLD-350-JIG2"

(2) Update “Master Data”, “Engine ROM” and “Scanner ROM” using the USB media.
See the updating procedure below for details.
📖 P.8-5 "8.1 Firmware Updating with USB Media"

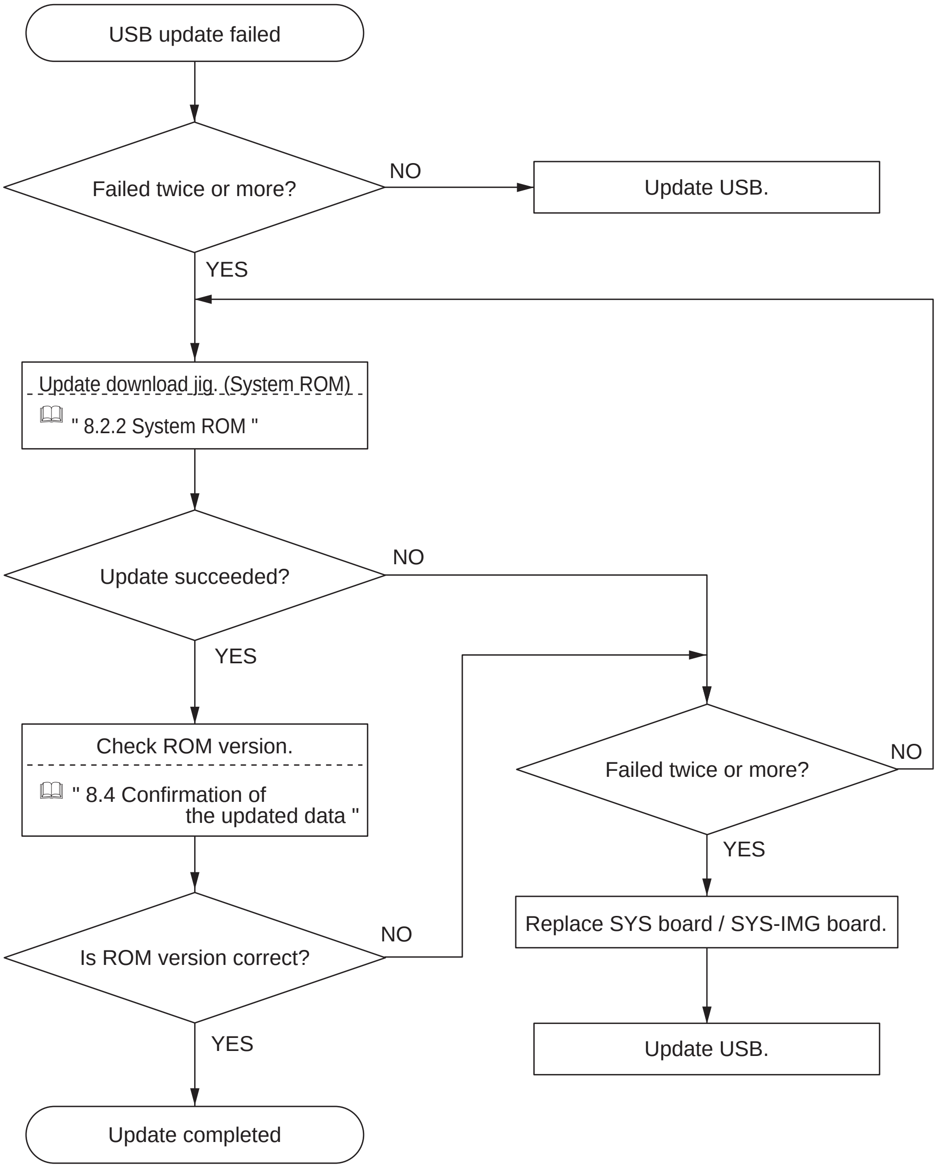
(3) When the update with the USB media for “Engine ROM” and “Scanner ROM” failed, update these ROMs using the respective download jigs in the table below.

Firmware	Storage location	Download jig
Engine ROM	Logic PC board (LGC board)	PWA-DWNLD-350-JIG2 📖 P.8-22 "8.2.3 Engine ROM"
Scanner ROM	Scanning section control PC board (SLG board)	K-PWA-DLM-320 📖 P.8-25 "8.3.1 Scanner ROM"

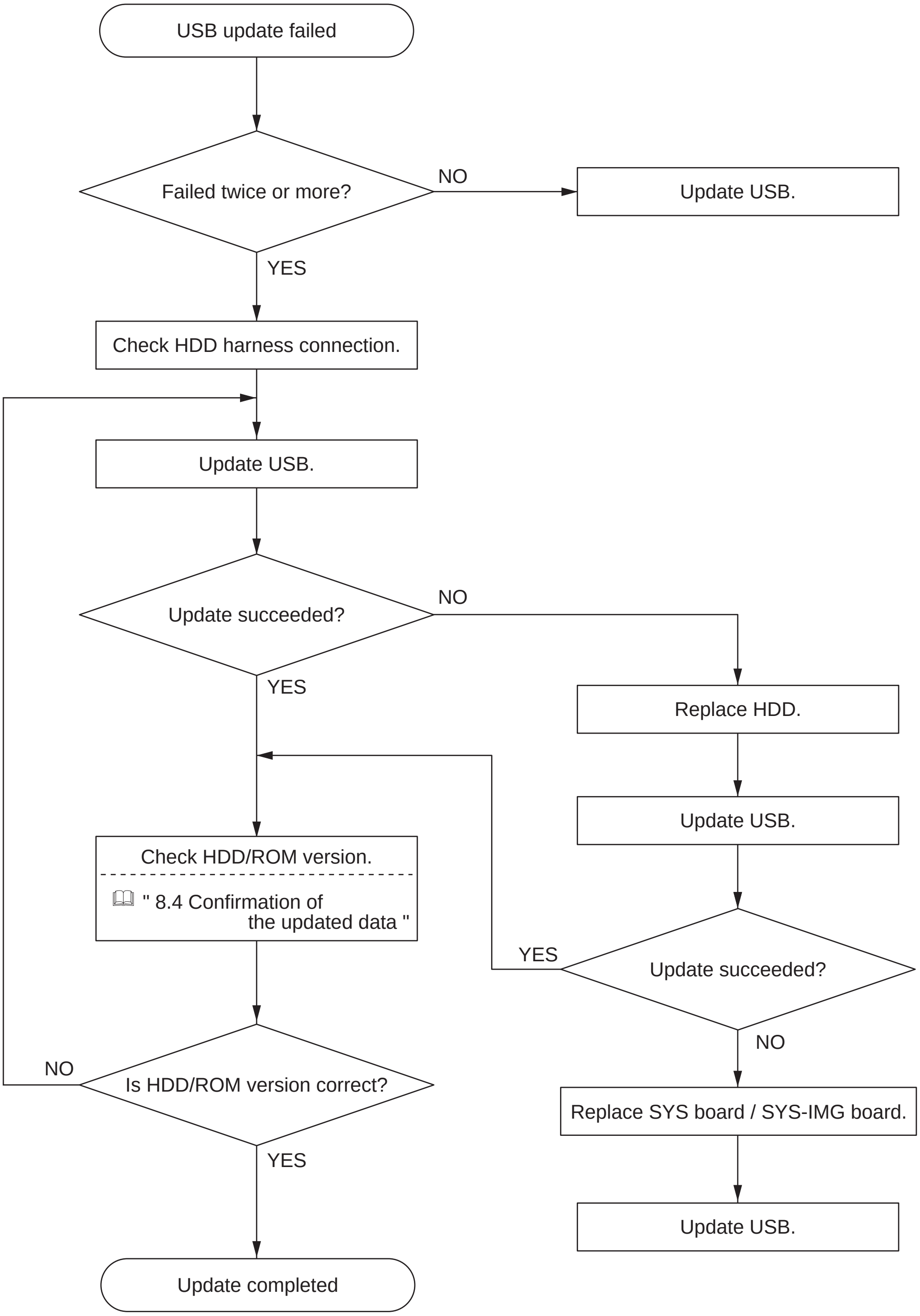
Important:
If the equipment cannot be started even when the above update has been performed, check that there is no damage to the “SYS board / SYS-IMG board”, “LGC board” or “SLG board”. Replace them if necessary.

8.5.2 Flow chart for correcting USB update failure

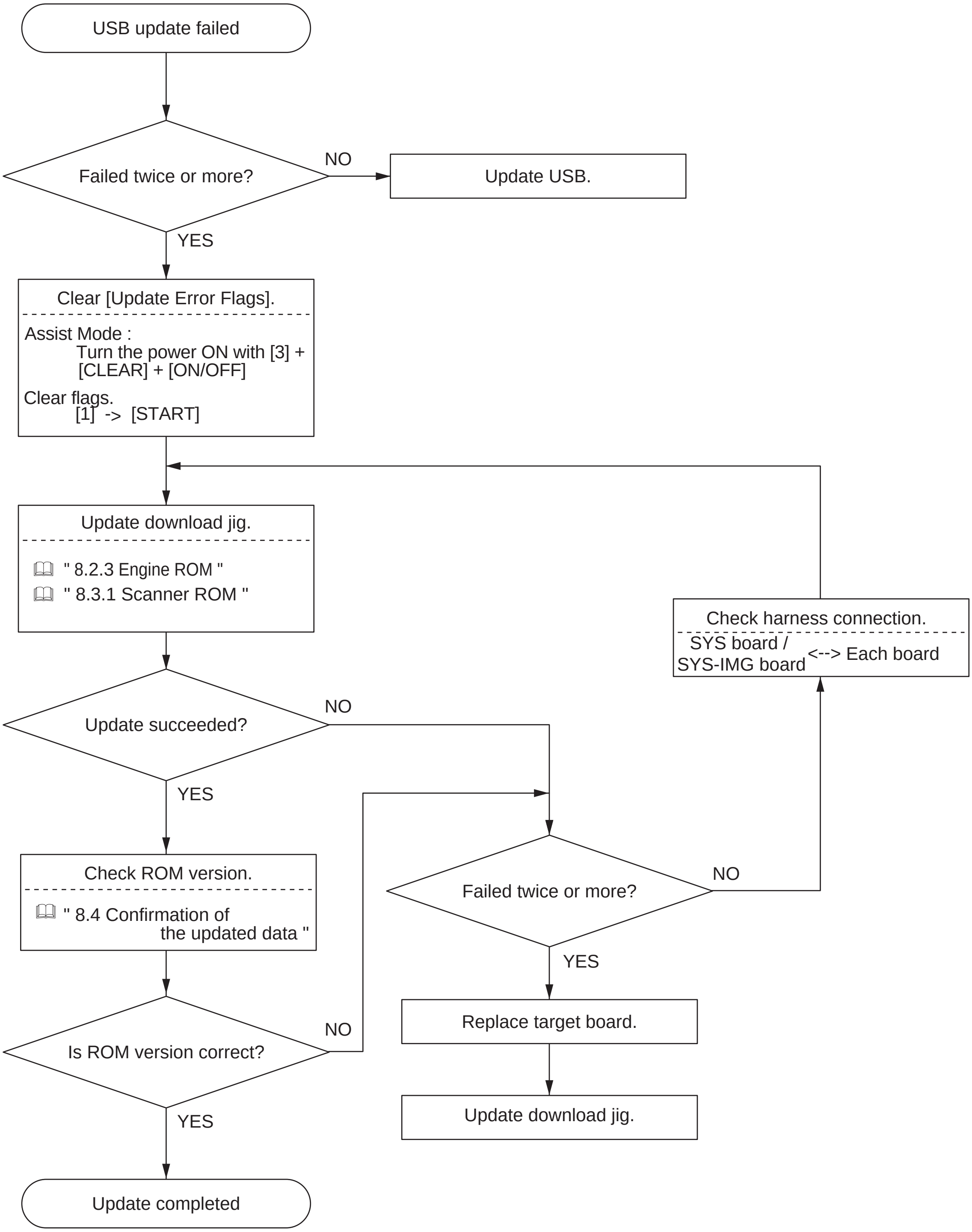
[A] When the update of the System ROM (OS data) failed


USB update failed
Failed twice or more?
NO
Update USB.
YES
Update download jig. (System ROM)
📖 " 8.2.2 System ROM "
Update succeeded?
NO
YES
Check ROM version.
📖 " 8.4 Confirmation of the updated data "
Failed twice or more?
NO
YES
Is ROM version correct?
NO
Replace SYS board / SYS-IMG board.
YES
Update USB.
Update completed

[B] When the update of HDD program data / system firmware / UI data (master data) failed


USB update failed
Failed twice or more?
NO
Update USB.
YES
Check HDD harness connection.
Update USB.
Update succeeded?
NO
YES
Replace HDD.
Update USB.
Check HDD/ROM version.
" 8.4 Confirmation of the updated data "
YES
Update succeeded?
NO
NO
Is HDD/ROM version correct?
Replace SYS board / SYS-IMG board.
YES
Update USB.
Update completed

[C] When the update of Laser ROM / Engine ROM / PFC ROM failed / Scanner ROM failed


USB update failed
Failed twice or more?
NO
Update USB.
YES
Clear [Update Error Flags].
Assist Mode :
Turn the power ON with [3] + [CLEAR] + [ON/OFF]
Clear flags.
[1] -> [START]
Update download jig.
" 8.2.3 Engine ROM "
" 8.3.1 Scanner ROM "
Check harness connection.
SYS board / SYS-IMG board <--> Each board
Update succeeded?
NO
YES
Failed twice or more?
NO
YES
Check ROM version.
" 8.4 Confirmation of the updated data "
Replace target board.
Update download jig.
Is ROM version correct?
NO
YES
Update completed

9. POWER SUPPLY UNIT

9.1 Construction

The power supply unit consists of the AC filter, insulation type DC output circuit, heater lamp control circuit and damp heater power supply 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 switch line :Power supply used in the entire equipment during image forming process. Two kinds of voltage (+5V, +12V) are output when the main switch of the equipment is turned ON.

   b. Door switch line :Power supply used in the entire equipment during image forming process, being supplied via the interlock switch. Two kinds of voltage (+5VD and +24VD) are output only when the main switch of the equipment is turned ON and two doors (front cover and ADU unit) are closed.

3. Heater lamp control circuit
   TRC (Triac) is driven by the heater control signal (HTR1ON/HTR2ON/HTRASTON) from the LGC board and then AC power is supplied to each heater lamp (center, side and sub) in the fuser unit. For e-STUDIO205L/255/305, the sub heater lamp is not installed and the HTRASTON signal is not supplied.

4. Damp heater power supply circuit
   AC power input from outside is output directly to the FUS board and then supplied to the damp heater in each section in the equipment. The damp heater switch is set to OFF as initial setting for shutting off the power to the damp heater. When using the damp heater, the damp heater switch needs to be turn ON after installing the equipment. The damp heater (including the FUS board) is an option in NAD/MJD model, and is installed as standard device in other models.

9.2 Operation of DC Output Circuits

1. Starting line output
   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, +5VA, +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 / SYS-IMG board and then voltage starts being supplied to all the lines, if no error was detected.

5. 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 / SYS-IMG 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 the setting for receiving confidential data on each line (08-3846) is set to ON

   - When operation is being performed in the self-diagnosis mode (Disabled until the main switch is turned OFF)

6. 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 +5VB, +5VD, +12VB and +24V DC voltages are not supplied but +12VA, +5VA and +5VS DC voltages only, the equipment does not enter into the ready state.

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

9.3 Output Channel

The followings are two output channels which are not linked with the door switch.

1. +5V
+5VS : CN418 Pins 11 and 12
Output to the SYS board / SYS-IMG board
+5VA : CN418 Pins 8 and 9
Output to the SYS board / SYS-IMG board
+5VB : CN418 Pins 1
Output to the SYS board / SYS-IMG board
+5VB : CN415 Pin 4
Output to the FUS board
+5VB : CN415 Pins 1, 2 and 3
Output to the LGC board, PFP/ LCF (via LGC board),
Bridge unit / Job separator / Offset tray (via LGC board)
+5VB : CN415 Pin 5
Output to the finisher
+5VB : CN419 Pins 1 and 2
Output to the SLG board
+5VB : CN419 Pin 4
Output to the RADF

2. +12V
+12VA : CN418 Pin 5
Output to the SYS board / SYS-IMG board
+12VB : CN419 Pin 5
Output to the SLG board

The followings are two output channels which are linked with the door switch.

1. +5V
+5VD : CN415 Pin 14
Output to the LGC board

2. +24V
+24VD1 : CN415 Pins 19, 21, 22 and 24
Output to the LGC board, High-voltage transformer (via LGC board),
PFP/LCF (via LGC board), Bridge unit / Job separator / Offset tray (via LGC board)
+24VD1 : CN419 Pins 11 and 12
Output to the SLG board
+24VD2 : CN417 Pins 1 and 2
Output to the MOT/MOT2 board
+24VD2 : CN417 Pins 3 and 4
Output to the main motor
+24VD3 : CN419 Pins 15 and 16
Output to the RADF
+24VD4 : CN415 Pin 23
Output to the finisher

<<Output connector>>

Not linked with the door switch

Connector	Destination	Voltage
CN418	For the SYS board / SYS-IMG board	+5VS, +5VA, +5VB, +12VA
CN415	For the LGC board, FUS board, PFP/LCF (via LGC board), Bridge unit / Job separator / Offset tray (via LGC board), finisher	+5VB
CN419	For the SLG board, RADF	+5VB, +12VB

Linked with the door switch

Connector	Destination	Voltage
CN415	For the LGC board, High-voltage transformer (via LGC board), PFP/LCF (via LGC board), Bridge unit / Job separator / Offset tray (via LGC board), finisher	+5VD, +24VD1, +24VD4
CN417	For the Main motor, MOT/MOT2 board	+24VD2
CN419	For the SLG board, RADF	+24VD1, +24VD3

9.4 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	Process unit fan	F201:8A (Time-lag)
		Toner motor	
		Polygonal motor	
		Upper Tray-up motor	
		Lower Tray-up motor	
		TRU fan	
		Switching regulator cooling fan	
		Auto-toner sensor	
		Upper drawer feed clutch	
		Lower drawer feed clutch	
		Registration roller clutch	
		High speed transport clutch	
		Low speed transport clutch	
		ADU clutch	
		Discharge LED	
		Main switch	
		High-voltage transformer	
		Bypass feed clutch	
	SLG	Scan motor	
		Exposure lamp (lamp Inverter board)	
	Key copy counter / Coin controller		
	Bridge unit / Job separator / Offset tray		
	PFP/LCF		
+24VD2	MOT/MOT2	ADU motor	F202:8A (Time-lag)
		Exit motor	
		Reverse motor (e-STUDIO355/455 only)	
		REV gate solenoid (e-STUDIO355/455 only)	
	Main motor		
+24VD3	RADF		F203:4A (Time-lag)
+24VD4	Finisher		F204:5A (Time-lag)

9.5 Configuration of Power Supply Unit

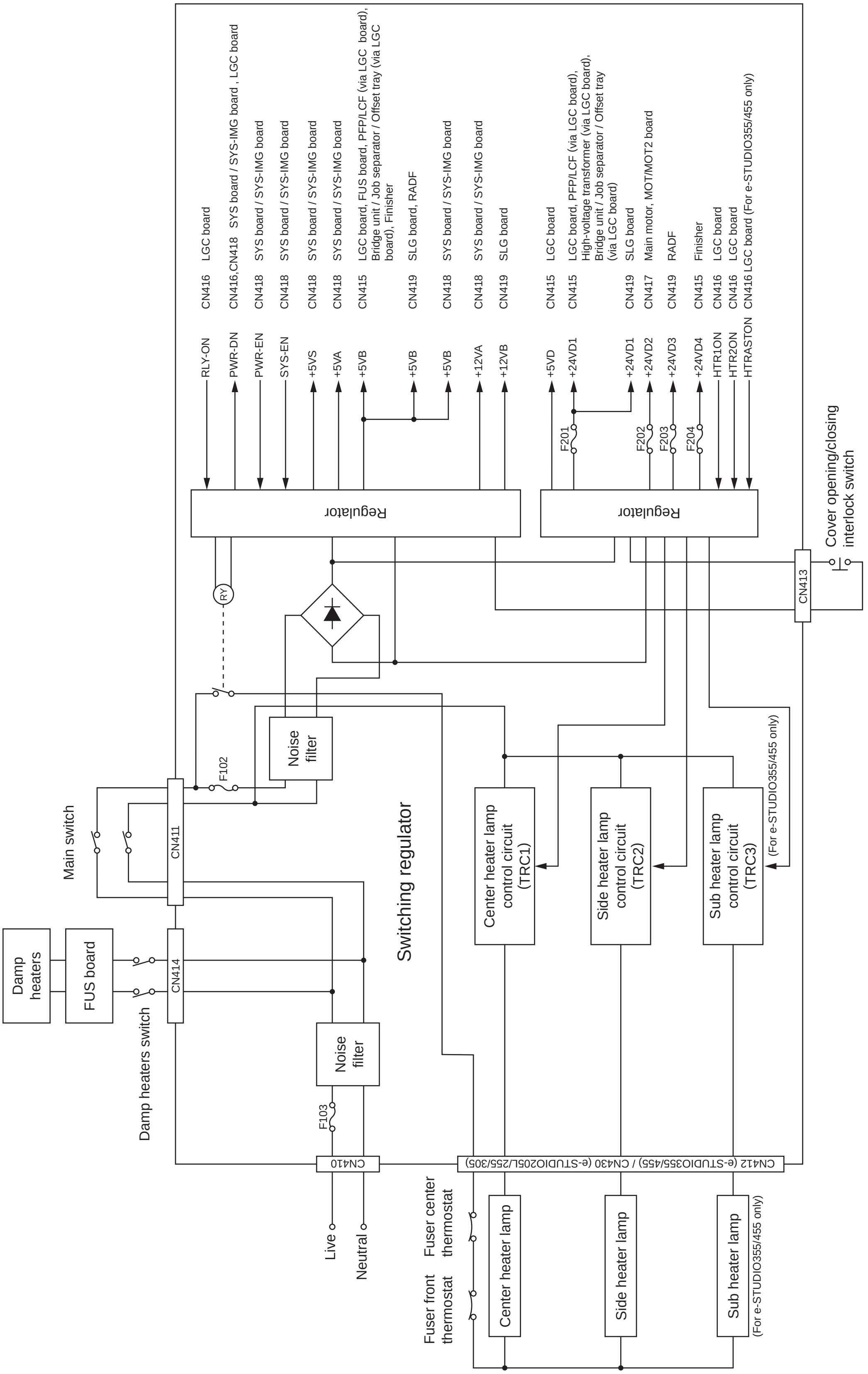

RLY-ON CN416 LGC board
PWR-DN CN416,CN418 SYS board / SYS-IMG board , LGC board
PWR-EN CN418 SYS board / SYS-IMG board
SYS-EN CN418 SYS board / SYS-IMG board
+5VS CN418 SYS board / SYS-IMG board
+5VA CN418 SYS board / SYS-IMG board
+5VB CN415 LGC board, FUS board, PFP/LCF (via LGC board), Bridge unit / Job separator / Offset tray (via LGC board), Finisher
+5VB CN419 SLG board, RADF
+5VB CN418 SYS board / SYS-IMG board
+12VA CN418 SYS board / SYS-IMG board
+12VB CN419 SLG board
+5VD CN415 LGC board
+24VD1 CN415 LGC board, PFP/LCF (via LGC board), High-voltage transformer (via LGC board), Bridge unit / Job separator / Offset tray (via LGC board)
+24VD1 CN419 SLG board
+24VD2 CN417 Main motor, MOT/MOT2 board
+24VD3 CN419 RADF
+24VD4 CN415 Finisher
HTR1ON CN416 LGC board
HTR2ON CN416 LGC board
HTRASTON CN416 LGC board (For e-STUDIO355/455 only)
F201
F202
F203
F204
Regulator
Regulator
RY
Cover opening/closing interlock switch
CN413
Noise filter
F102
Main switch
CN411
Switching regulator
Center heater lamp control circuit (TRC1)
Side heater lamp control circuit (TRC2)
Sub heater lamp control circuit (TRC3)
(For e-STUDIO355/455 only)
Damp heaters
FUS board
CN414
Damp heaters switch
Noise filter
F103
CN410
CN412 (e-STUDIO355/455) / CN430 (e-STUDIO205L/255/305)
Live
Neutral
Fuser center thermostat
Fuser front thermostat
Center heater lamp
Side heater lamp
Sub heater lamp
(For e-STUDIO355/455 only)

Fig. 9-1

9.6 Sequence of Power Supply

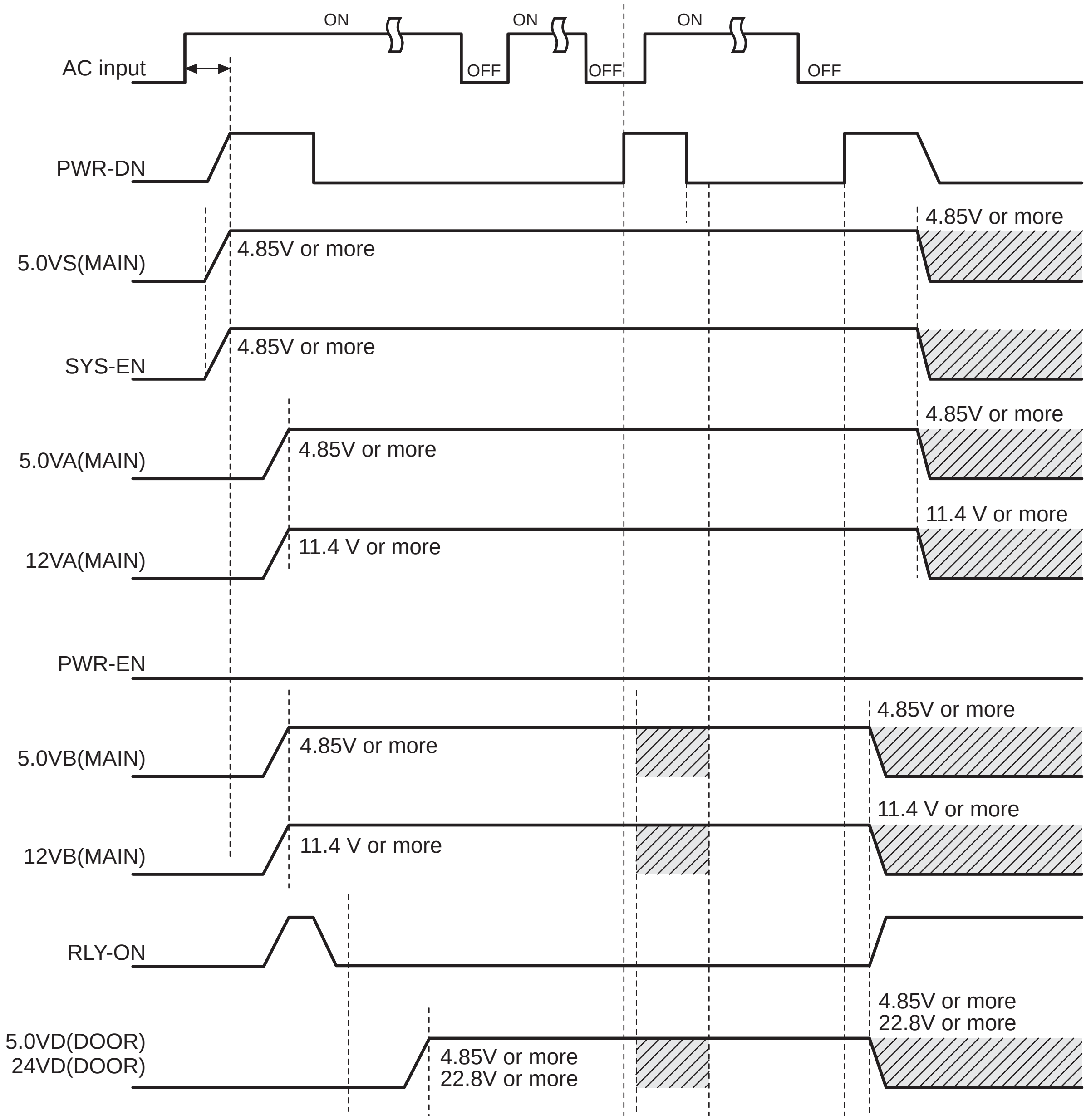

ON
ON
ON
OFF
OFF
OFF
AC input
PWR-DN
5.0VS(MAIN)
4.85V or more
4.85V or more
SYS-EN
4.85V or more
5.0VA(MAIN)
4.85V or more
4.85V or more
12VA(MAIN)
11.4 V or more
11.4 V or more
PWR-EN
5.0VB(MAIN)
4.85V or more
4.85V or more
12VB(MAIN)
11.4 V or more
11.4 V or more
RLY-ON
5.0VD(DOOR)
24VD(DOOR)
4.85V or more
22.8V or more
4.85V or more
22.8V or more

Fig. 9-2

9.7 AC Wire Harness

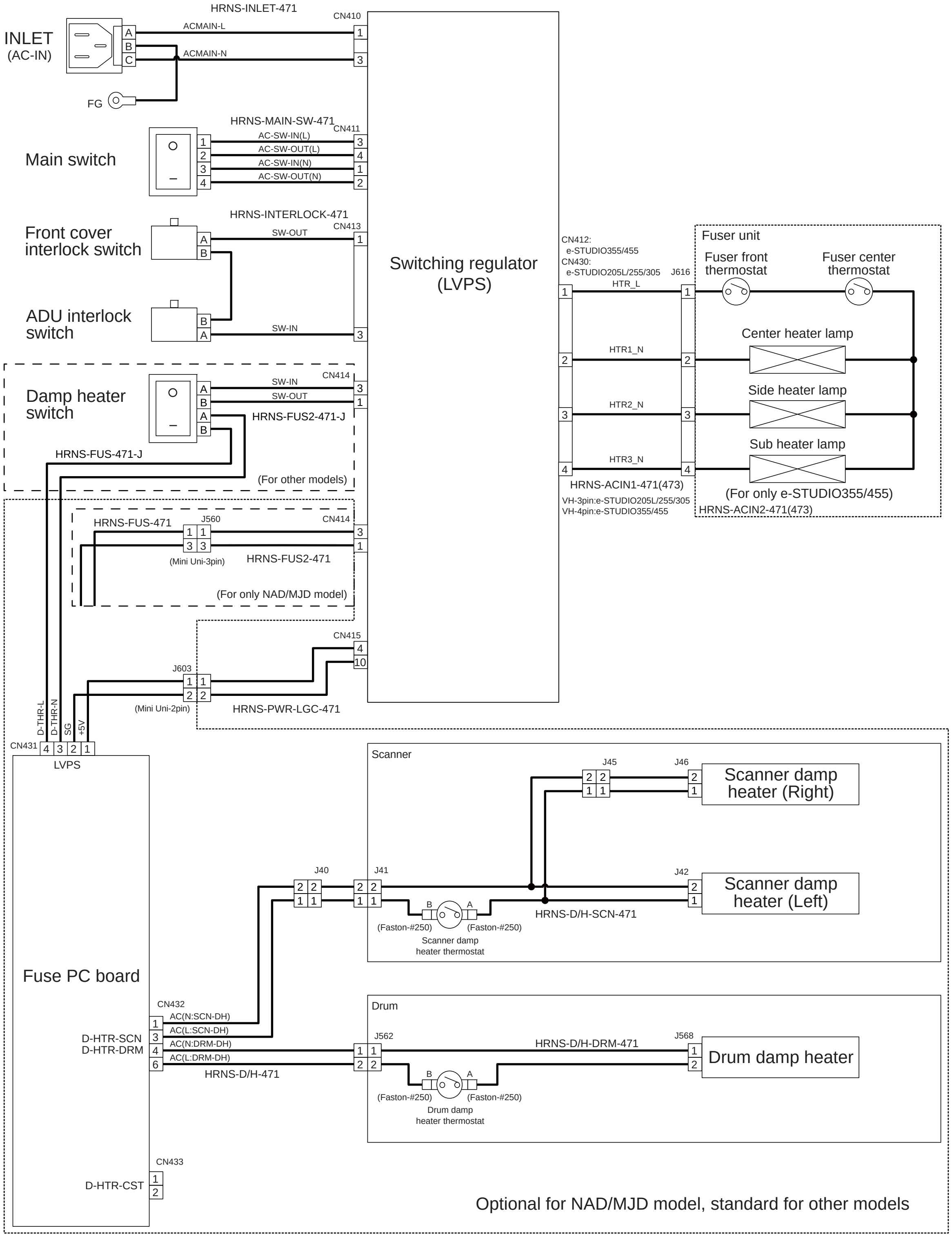

HRNS-INLET-471
CN410
INLET
(AC-IN)
A
B
C
ACMAIN-L
ACMAIN-N
1
3
FG
HRNS-MAIN-SW-471
CN411
Main switch
AC-SW-IN(L)
AC-SW-OUT(L)
AC-SW-IN(N)
AC-SW-OUT(N)
HRNS-INTERLOCK-471
CN413
Front cover interlock switch
SW-OUT
ADU interlock switch
SW-IN
Switching regulator (LVPS)
Damp heater switch
CN414
SW-IN
SW-OUT
HRNS-FUS2-471-J
HRNS-FUS-471-J
(For other models)
HRNS-FUS-471
J560
(Mini Uni-3pin)
HRNS-FUS2-471
(For only NAD/MJD model)
CN415
J603
(Mini Uni-2pin)
HRNS-PWR-LGC-471
D-THR-L
D-THR-N
SG
+5V
CN431
LVPS
CN412:
e-STUDIO355/455
CN430:
e-STUDIO205L/255/305
J616
HTR_L
HTR1_N
HTR2_N
HTR3_N
HRNS-ACIN1-471(473)
VH-3pin:e-STUDIO205L/255/305
VH-4pin:e-STUDIO355/455
Fuser unit
Fuser front thermostat
Fuser center thermostat
Center heater lamp
Side heater lamp
Sub heater lamp
(For only e-STUDIO355/455)
HRNS-ACIN2-471(473)
Scanner
J45
J46
Scanner damp heater (Right)
J40
J41
J42
Scanner damp heater (Left)
(Faston-#250)
(Faston-#250)
Scanner damp heater thermostat
HRNS-D/H-SCN-471
Fuse PC board
CN432
AC(N:SCN-DH)
AC(L:SCN-DH)
AC(N:DRM-DH)
AC(L:DRM-DH)
D-HTR-SCN
D-HTR-DRM
HRNS-D/H-471
Drum
J562
J568
HRNS-D/H-DRM-471
Drum damp heater
(Faston-#250)
(Faston-#250)
Drum damp heater thermostat
CN433
D-HTR-CST
Optional for NAD/MJD model, standard for other models

Fig. 9-3

10. REMOTE SERVICE

There are following functions as Remote Service.

1. Auto Supply Order
   Automatically orders the toner by FAX or E-mail.

2. Service Notification
   Notifies the status of the equipment to the service technician by E-mail or FAX.

To start in the self-diagnosis mode, turn OFF the power using the main power switch, then turn ON the power while two digital keys designated to each mode.

10.1 Auto Supply Order

10.1.1 Outline

Automatically orders the toner.

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
   When the toner empty occurs, the number of occurrences is counted. And when it reaches the specified number for CONDITION, the order is placed automatically.

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.

10.1.2 Setting item

To enable Auto Supply Order, the following settings are required.

Note:

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 (08-765) 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 TECHNICIAN	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)
PART NUMBER	Part number to be ordered
CONDITION	The number of conditions (*1)
QUANTITY	The quantity to be ordered
AUTO ORDER	ON/OFF setting of order for each part

*1 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 (*1)
FROM NAME	E-mail username of this equipment

*1 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
   Keying in the following buttons and keys prints the setting list.
   [USER FUNCTIONS] [USER] [LISTS] [*] [#] [*] [*] [3] [8] [START]

10.1.3 Setting procedure

(1) Start up the self-diagnosis setting mode 08-765, 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] tab.
- When the Administrator Password has been set, ADMINISTRATOR PASSWORD screen is displayed.

(5) Press the [PASSWORD] button and the screen is switched to a full keyboard. Then key in the Administrator Password and press the [ENTER] button.
* Confirm the password to the administrator.

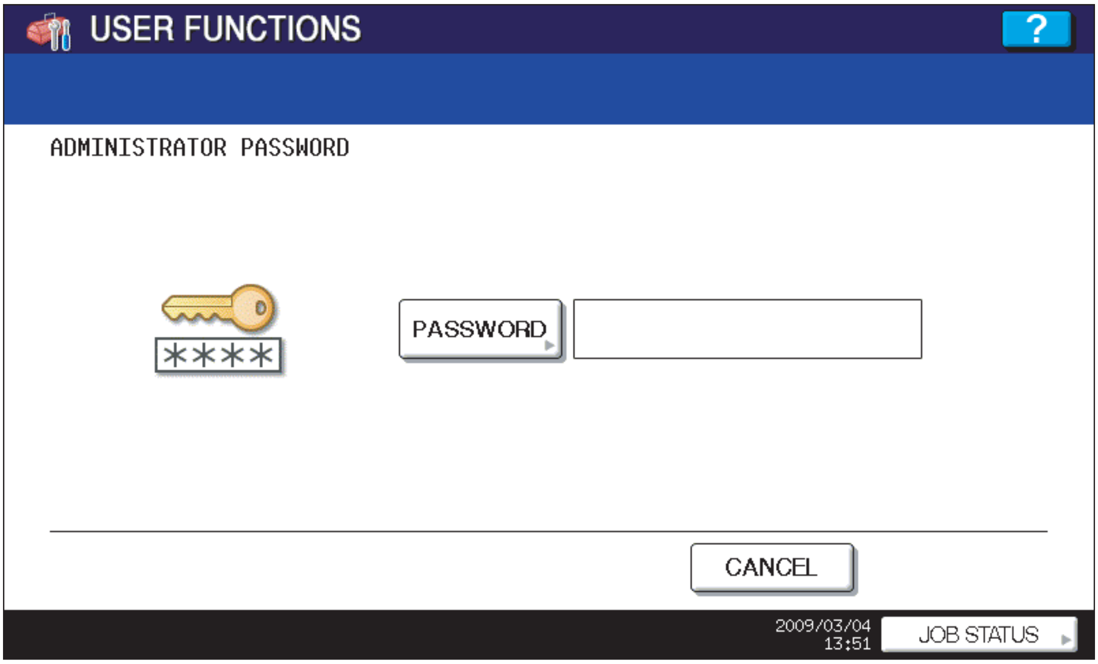

USER FUNCTIONS
?
ADMINISTRATOR PASSWORD
****
PASSWORD
CANCEL
2009/03/04
13:51
JOB STATUS

Fig. 10-1

(6) Press the [SERVICE] button in the ADMIN screen.

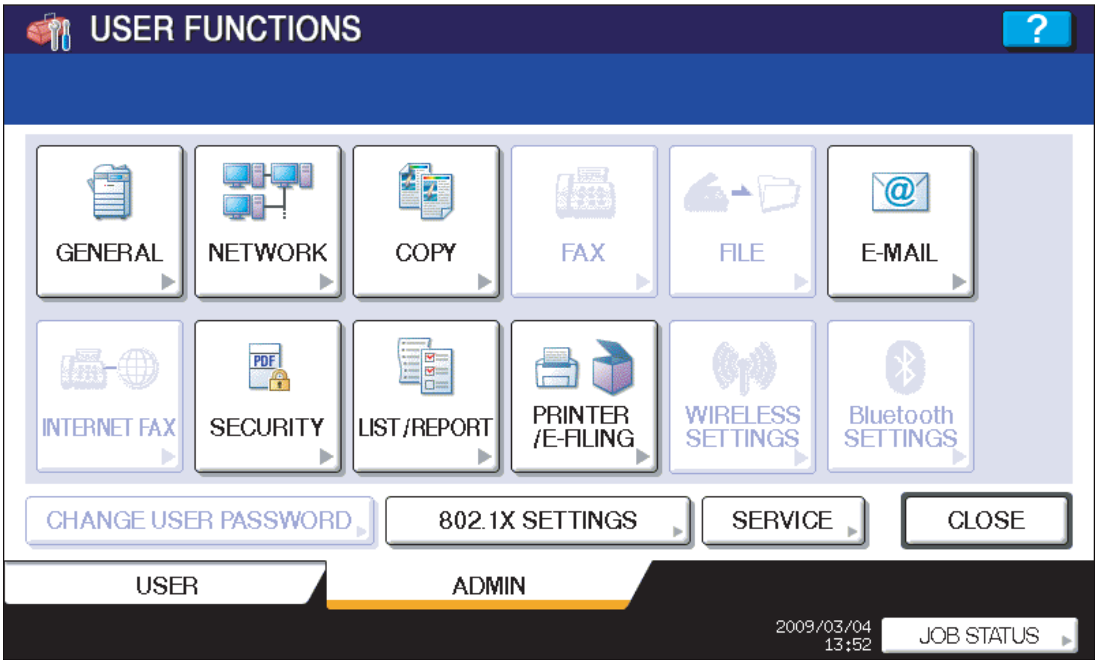

USER FUNCTIONS
?
GENERAL
NETWORK
COPY
FAX
FILE
E-MAIL
INTERNET FAX
SECURITY
LIST/REPORT
PRINTER /E-FILING
WIRELESS SETTINGS
Bluetooth SETTINGS
CHANGE USER PASSWORD
802.1X SETTINGS
SERVICE
CLOSE
USER
ADMIN
2009/03/04 13:52
JOB STATUS

Fig. 10-2

(7) The SERVICE screen is displayed.

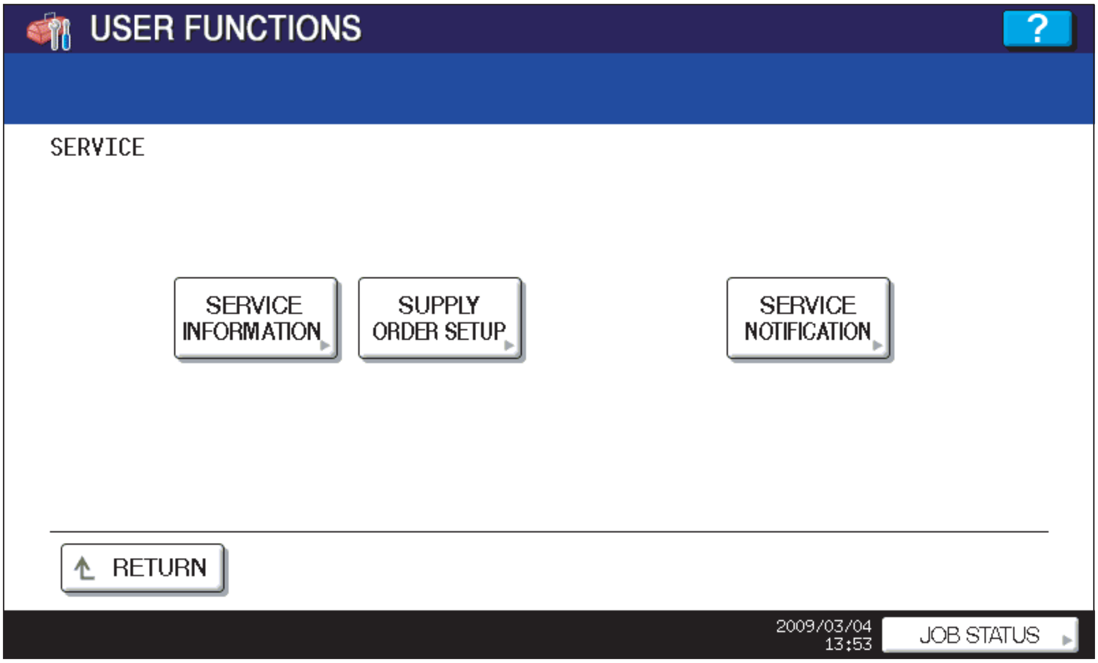

USER FUNCTIONS
?
SERVICE
SERVICE INFORMATION
SUPPLY ORDER SETUP
SERVICE NOTIFICATION
RETURN
2009/03/04 13:53
JOB STATUS

Fig. 10-3

(8) Press the [SUPPLY ORDER SETUP] button.

(9) Press the [ORDER INFORMATION] button.

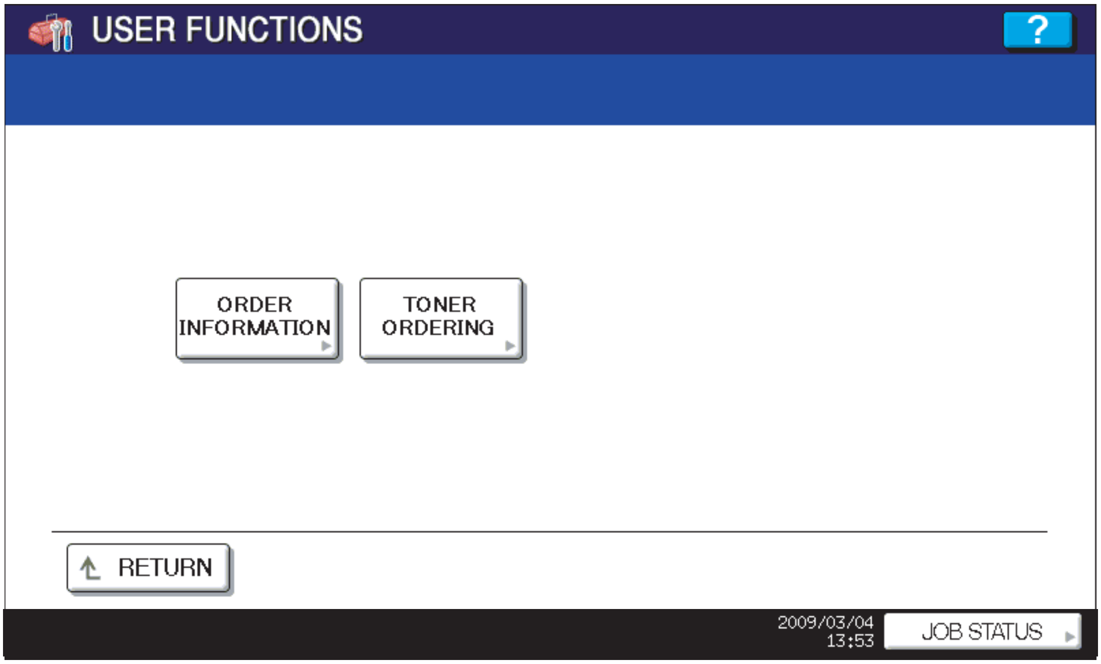
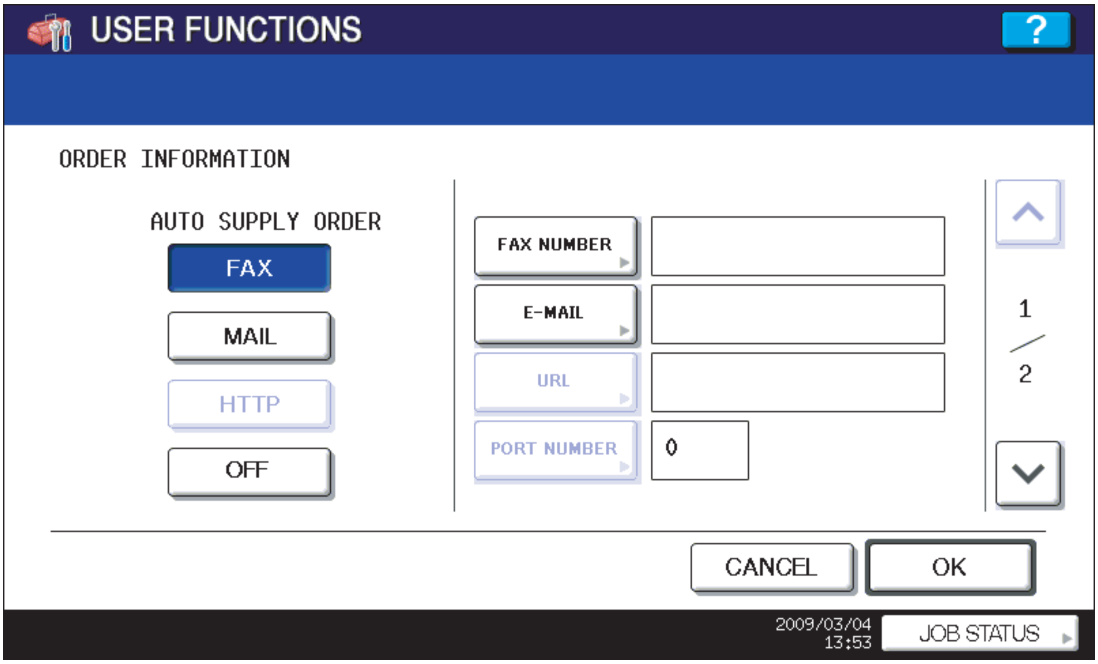

USER FUNCTIONS
?
ORDER INFORMATION
TONER ORDERING
RETURN
2009/03/04
13:53
JOB STATUS

Fig. 10-4

(10) The ORDER INFORMATION screen is displayed.


ORDER INFORMATION

AUTO SUPPLY ORDER

FAX

PORT NUMBER 0
USER FUNCTIONS
?
MAIL
HTTP
OFF
FAX NUMBER
E-MAIL
URL
1
2
CANCEL
OK
2009/03/04
13:53
JOB STATUS

Fig. 10-5

(11) Press the buttons on the screen of ORDER INFORMATION to set the required item.
[FAX]/[MAIL]/[OFF] ---
Select the [FAX] or the [MAIL] button for the transmitting way of order.
(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.

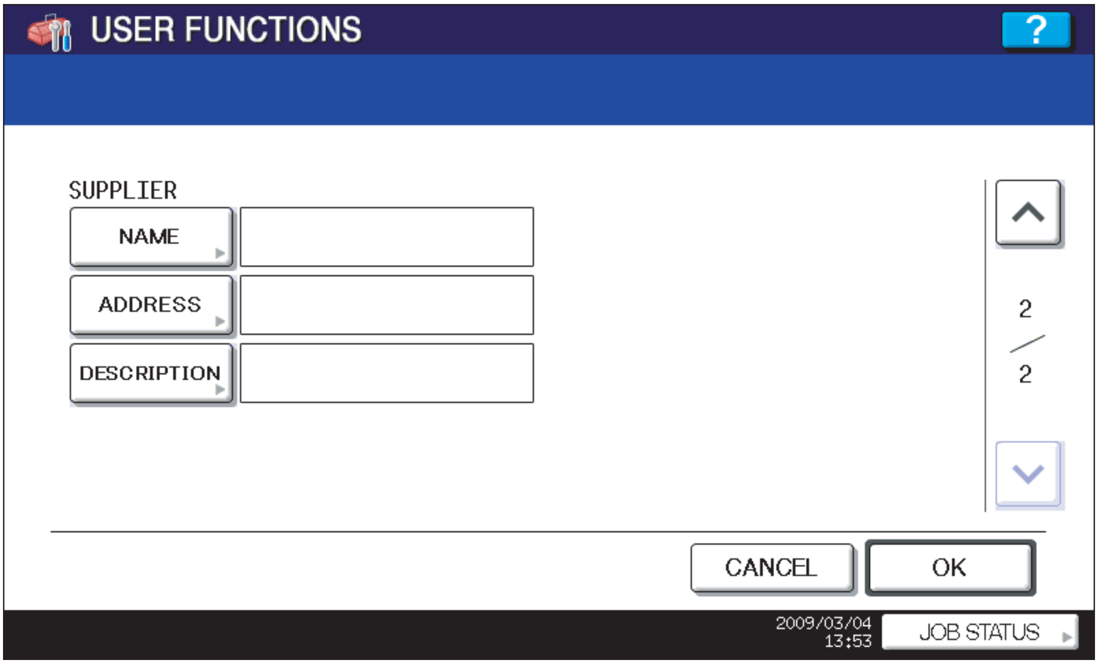


Fig. 10-6

(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.

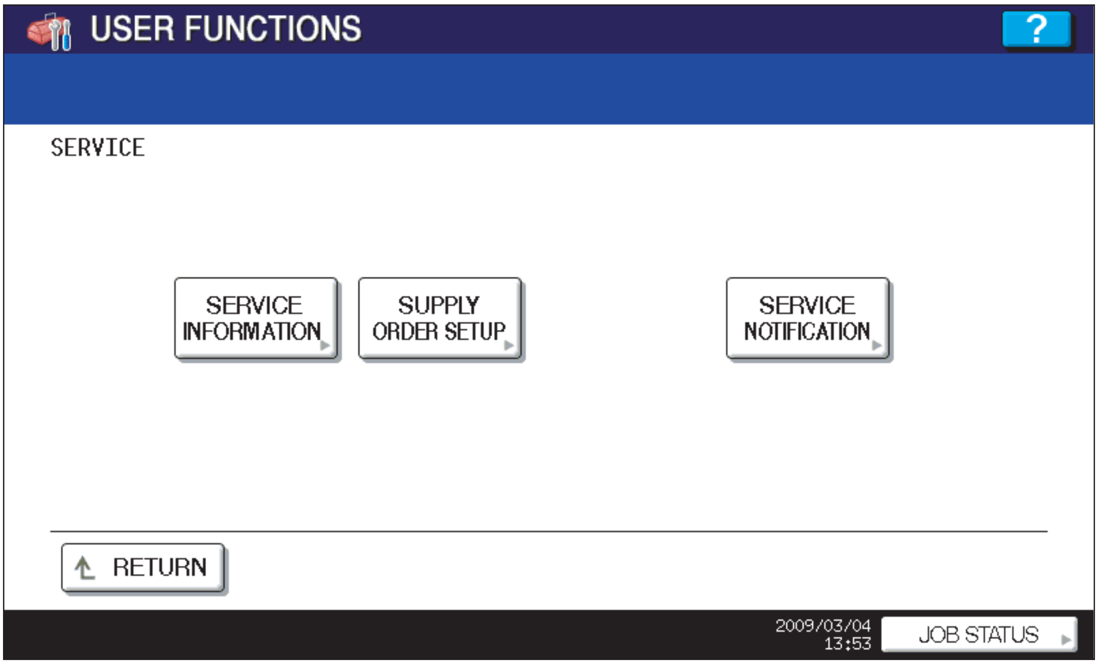

USER FUNCTIONS
?
SERVICE
SERVICE INFORMATION
SUPPLY ORDER SETUP
SERVICE NOTIFICATION
RETURN
2009/03/04 13:53
JOB STATUS

Fig. 10-7

(17) Press the [SERVICE INFORMATION] button.

(18) The CUSTOMER/SERVICE TECHNICIAN screen is displayed.

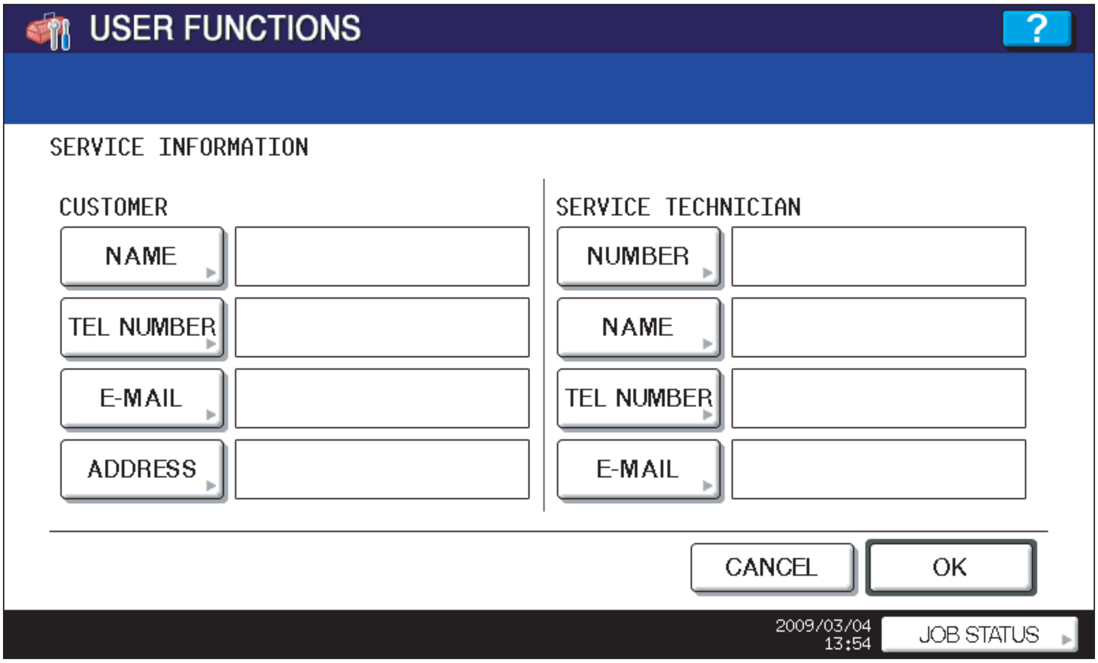

USER FUNCTIONS
?
SERVICE INFORMATION
CUSTOMER
NAME
TEL NUMBER
E-MAIL
ADDRESS
SERVICE TECHNICIAN
NUMBER
NAME
TEL NUMBER
E-MAIL
CANCEL
OK
2009/03/04 13:54
JOB STATUS

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.

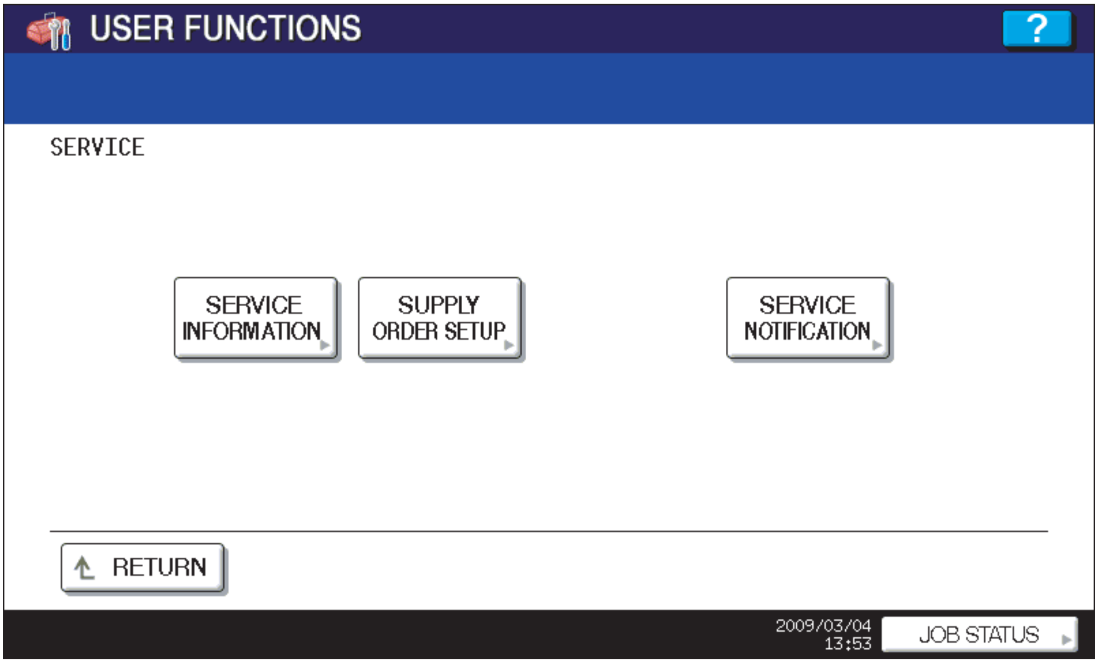

USER FUNCTIONS
?
SERVICE
SERVICE INFORMATION
SUPPLY ORDER SETUP
SERVICE NOTIFICATION
RETURN
2009/03/04
13:53
JOB STATUS

Fig. 10-9

(22) Press the [SUPPLY ORDER SETUP] button.

(23) Press the [TONER ORDERING] button.

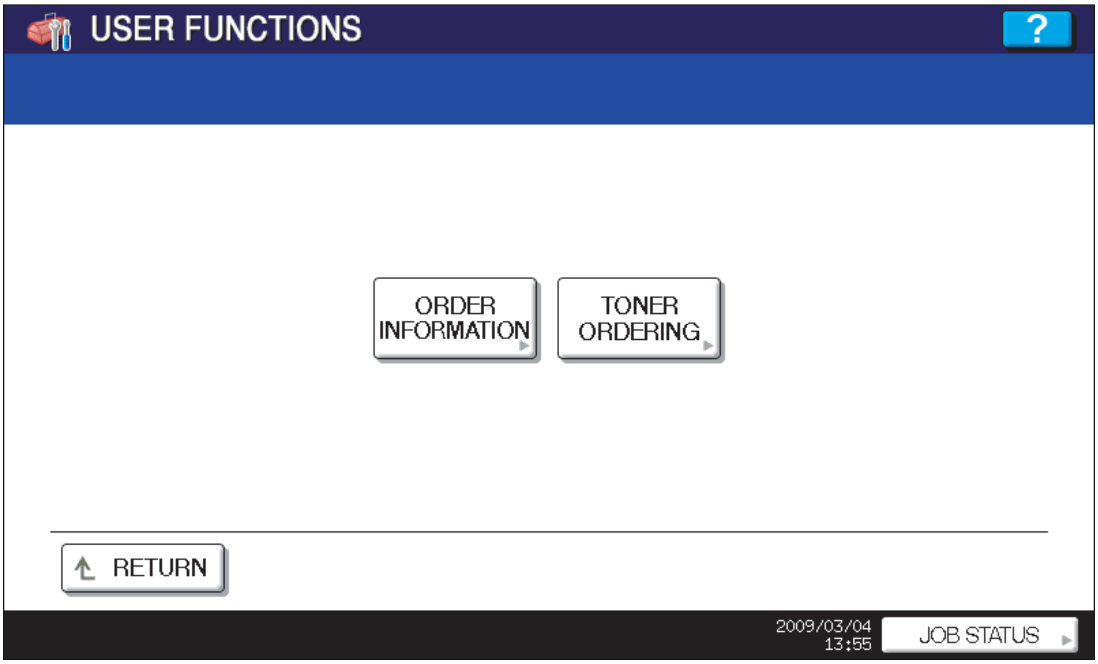

USER FUNCTIONS
?
ORDER INFORMATION
TONER ORDERING
RETURN
2009/03/04 13:55
JOB STATUS

Fig. 10-10

(24) The TONER ORDERING screen is displayed.

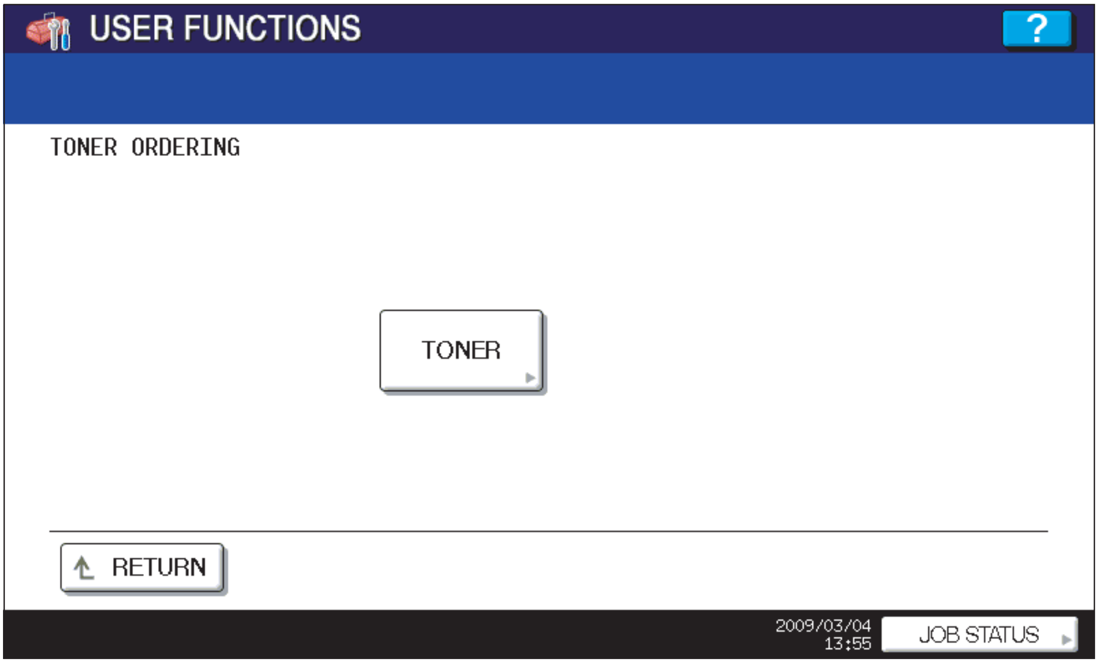
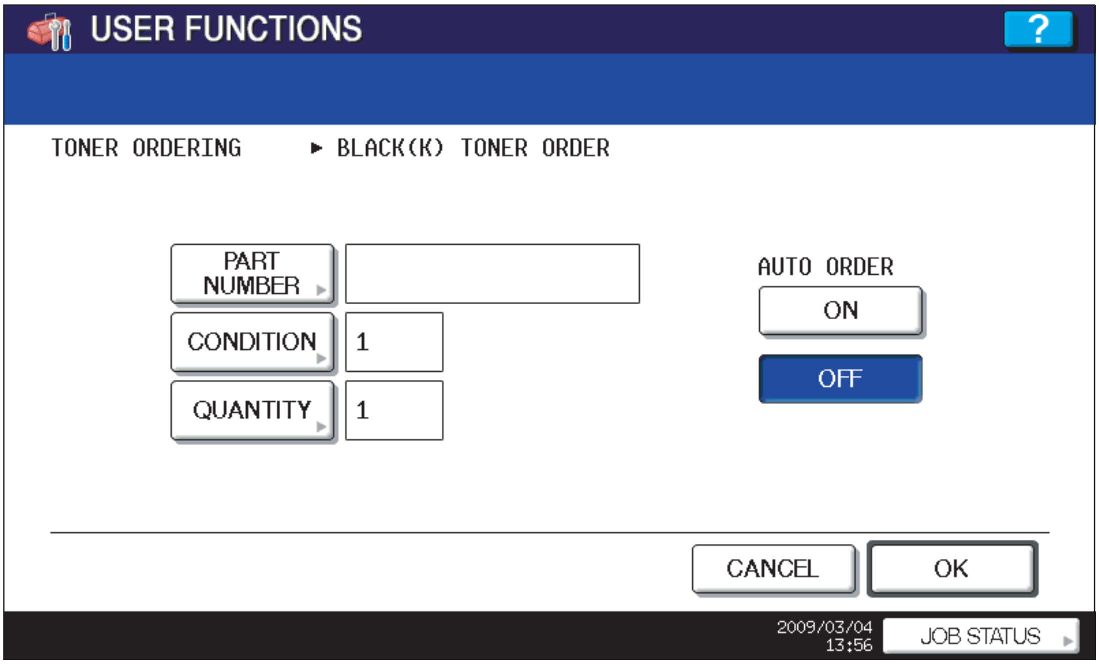

USER FUNCTIONS
?
TONER ORDERING
TONER
RETURN
2009/03/04 13:55
JOB STATUS

Fig. 10-11

(25) Select the part to be ordered. (Press the [TONER] button.)

(26) Input the order information of TONER.


USER FUNCTIONS
?
PART NUMBER
CONDITION
QUANTITY
AUTO ORDER
ON
OFF
CANCEL
OK
2009/03/04 13:56
JOB STATUS

TONER ORDERING ► BLACK(K) TONER ORDER

CONDITION: 1
QUANTITY: 1
AUTO ORDER: OFF

Fig. 10-12

[PART NUMBER]	Toner number
[CONDITION]	The order is placed when the number of toner empty reaches the number specified for the CONDITION.
[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 screen returns to the TONER ORDERING.

(29) Press the [USER FUNCTION] button to be switched from the ADMIN screen on touch panel and returned to the BASIC screen, so that the setting of Auto Supply Order is finished.

Note:

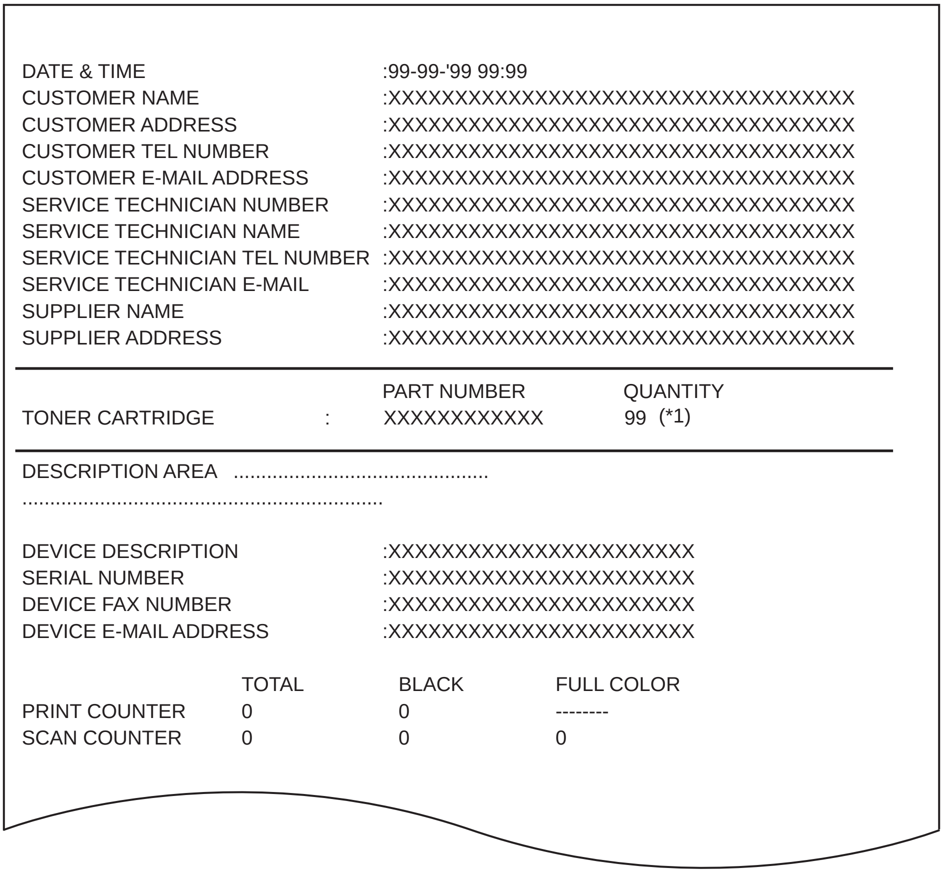
Auto Supply Order setting is also available from the following setting mode (08).

Items	08 code	Contents
The transmitting way of order [FAX] / [MAIL] / [OFF]	732	0: Ordered by FAX 1: Ordered by E-mail 2: Ordered by HTTP 3: OFF
SUPPLIER [FAX NUMBER]	733	Maximum 32 digits
SUPPLIER [E-MAIL]	734	Maximum 192 letters
CUSTOMER [NAME]	738	Maximum 50 letters
CUSTOMER [TEL NUMBER]	739	Maximum 32 letters
CUSTOMER [E-MAIL]	740	Maximum 192 letters
CUSTOMER [ADDRESS]	741	Maximum 100 letters
SUPPLIER [NAME]	746	Maximum 50 letters
SUPPLIER [ADDRESS]	747	Maximum 100 letters
SERVICE TECHNICIAN [NUMBER]	742	Maximum 5 digits
SERVICE TECHNICIAN [NAME]	743	Maximum 50 letters
SERVICE TECHNICIAN [TEL NUMBER]	744	Maximum 32 digits
SERVICE TECHNICIAN [E-MAIL]	745	Maximum 192 letters
Remarks [DESCRIPTION]	748	Maximum 128 letters
TONER [PART NUMBER]	758	Maximum 20 digits
TONER [CONDITION]	760	1-99
TONER [QUANTITY]	759	1-99

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.)

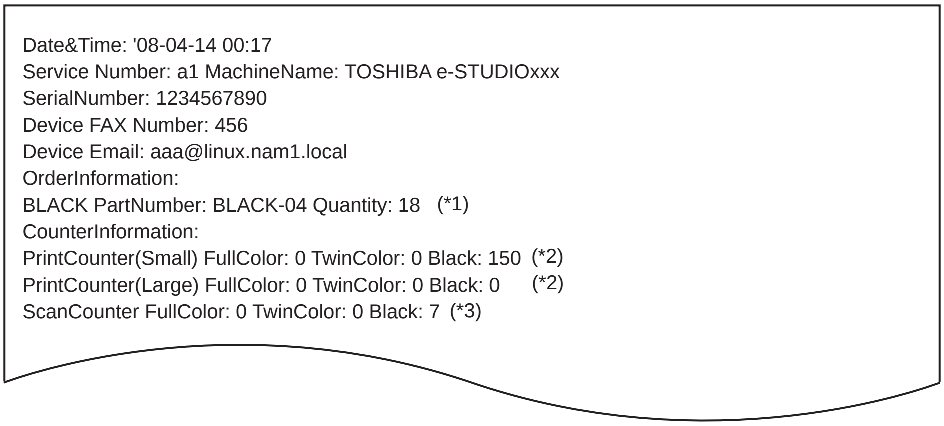


```
DATE & TIME                       :99-99-'99 99:99
CUSTOMER NAME                     :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CUSTOMER ADDRESS                  :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CUSTOMER TEL NUMBER               :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CUSTOMER E-MAIL ADDRESS           :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SERVICE TECHNICIAN NUMBER         :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SERVICE TECHNICIAN NAME           :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SERVICE TECHNICIAN TEL NUMBER     :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SERVICE TECHNICIAN E-MAIL         :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SUPPLIER NAME                     :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SUPPLIER ADDRESS                  :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

                                   PART NUMBER          QUANTITY
TONER CARTRIDGE              :     XXXXXXXXXXXX         99  (*1)

DESCRIPTION AREA  .....................................................
...........................................................................

DEVICE DESCRIPTION                :XXXXXXXXXXXXXXXXXXXXXXX
SERIAL NUMBER                     :XXXXXXXXXXXXXXXXXXXXXXX
DEVICE FAX NUMBER                 :XXXXXXXXXXXXXXXXXXXXXXX
DEVICE E-MAIL ADDRESS             :XXXXXXXXXXXXXXXXXXXXXXX

                      TOTAL          BLACK          FULL COLOR
PRINT COUNTER         0              0              --------
SCAN COUNTER          0              0              0
```

Fig. 10-13

*1. Part not to be ordered is not output. (Less space between the lines)

(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

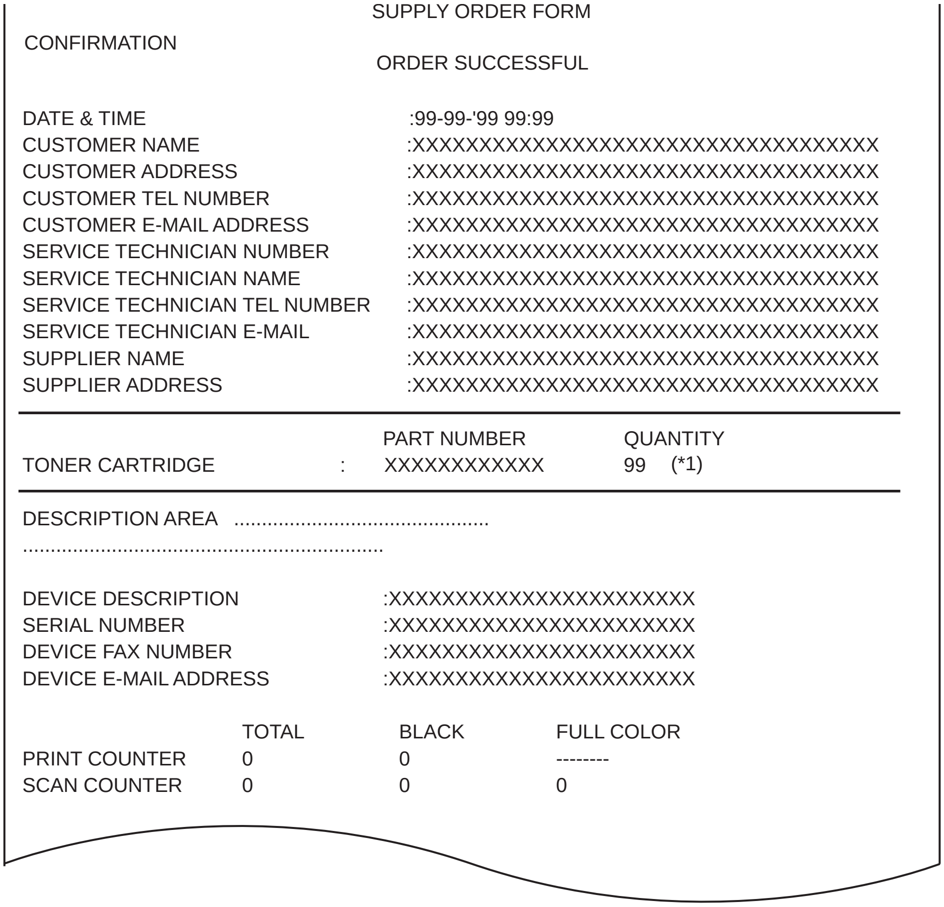


Date&Time: '08-04-14 00:17
Service Number: a1 MachineName: TOSHIBA e-STUDIOxxx
SerialNumber: 1234567890
Device FAX Number: 456
Device Email: aaa@linux.nam1.local
OrderInformation:
BLACK PartNumber: BLACK-04 Quantity: 18 (*1)
CounterInformation:
PrintCounter(Small) FullColor: 0 TwinColor: 0 Black: 150 (*2)
PrintCounter(Large) FullColor: 0 TwinColor: 0 Black: 0 (*2)
ScanCounter FullColor: 0 TwinColor: 0 Black: 7 (*3)

Fig. 10-14

*1. Part not to be ordered is not output. (Less space between the lines)
*2. "FullColor:0" and "TwinColor:0" do not change. The value for "Black:" is the counter value.
*3. "TwinColor:0" does not change. The values for "FullColor:" and "Black:" are the counter values.

(3) Result list



SUPPLY ORDER FORM

CONFIRMATION

ORDER SUCCESSFUL

DATE & TIME :99-99-'99 99:99
CUSTOMER NAME :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CUSTOMER ADDRESS :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CUSTOMER TEL NUMBER :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CUSTOMER E-MAIL ADDRESS :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SERVICE TECHNICIAN NUMBER :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SERVICE TECHNICIAN NAME :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SERVICE TECHNICIAN TEL NUMBER :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SERVICE TECHNICIAN E-MAIL :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SUPPLIER NAME :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SUPPLIER ADDRESS :XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

		PART NUMBER	QUANTITY
TONER CARTRIDGE	:	XXXXXXXXXXXX	99 (*1)

DESCRIPTION AREA ....
....

DEVICE DESCRIPTION :XXXXXXXXXXXXXXXXXXXXXXXX
SERIAL NUMBER :XXXXXXXXXXXXXXXXXXXXXXXX
DEVICE FAX NUMBER :XXXXXXXXXXXXXXXXXXXXXXXX
DEVICE E-MAIL ADDRESS :XXXXXXXXXXXXXXXXXXXXXXXX

	TOTAL	BLACK	FULL COLOR
PRINT COUNTER	0	0	--------
SCAN COUNTER	0	0	0

Fig. 10-15

*1. Part not to be ordered is not output. (Less space between the lines)

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 Transmit
  When this function is effective, it notifies each counter information periodically (on the set date and time every month).

- Service Call Transmit (E-mail only)
  When this function is effective, it notifies the corresponding error code and such at a service call error.

- PM Counter Transmit
  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
  If this function is effective, it notifies each counter information and toner cartridge information when toner near-empty occurs.

10.2.2 Setting

Note:

When using this function, it is required that sending and receiving E-mails or FAXes are available. Confirm the details to the administrator.

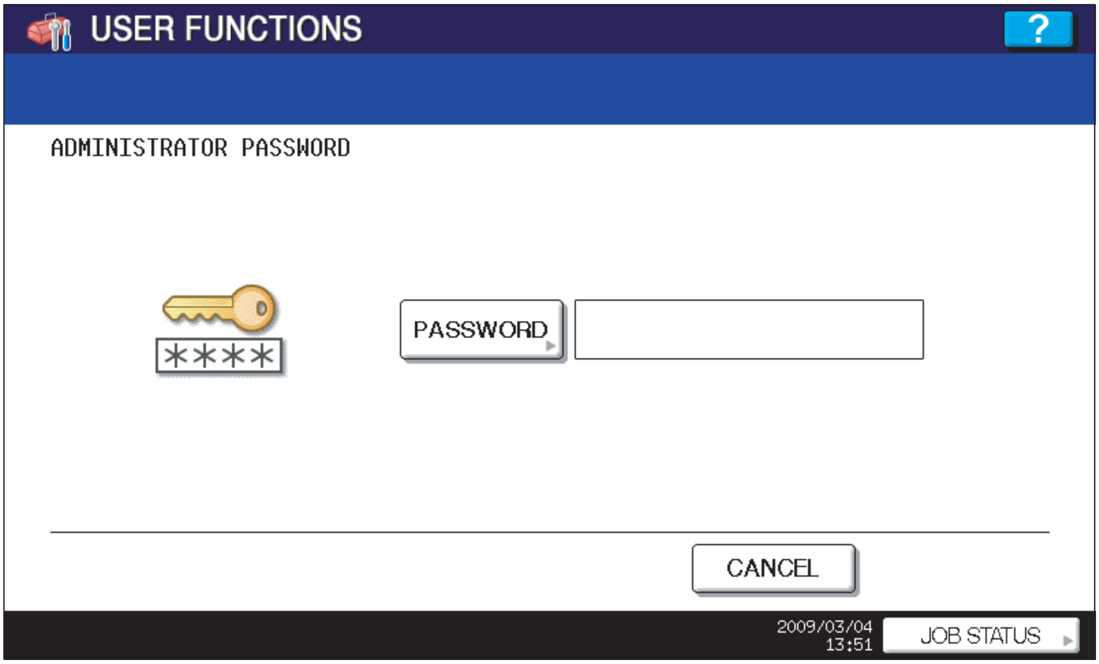
[1] Preparation

The screen to set this function is not displayed at the default setting.
Set this screen to be displayed with the following code (08).

08-774 Setting of notification display
0: Invalid (Default)
1: Valid

[2] Setting procedure

(1) Press the [USER FUNCTIONS] button and select the [ADMIN] tab. Then enter the password and press the [OK] button.
- Confirm the password to the administrator.



USER FUNCTIONS

ADMINISTRATOR PASSWORD

Fig. 10-16

(2) Press the [SERVICE] button.

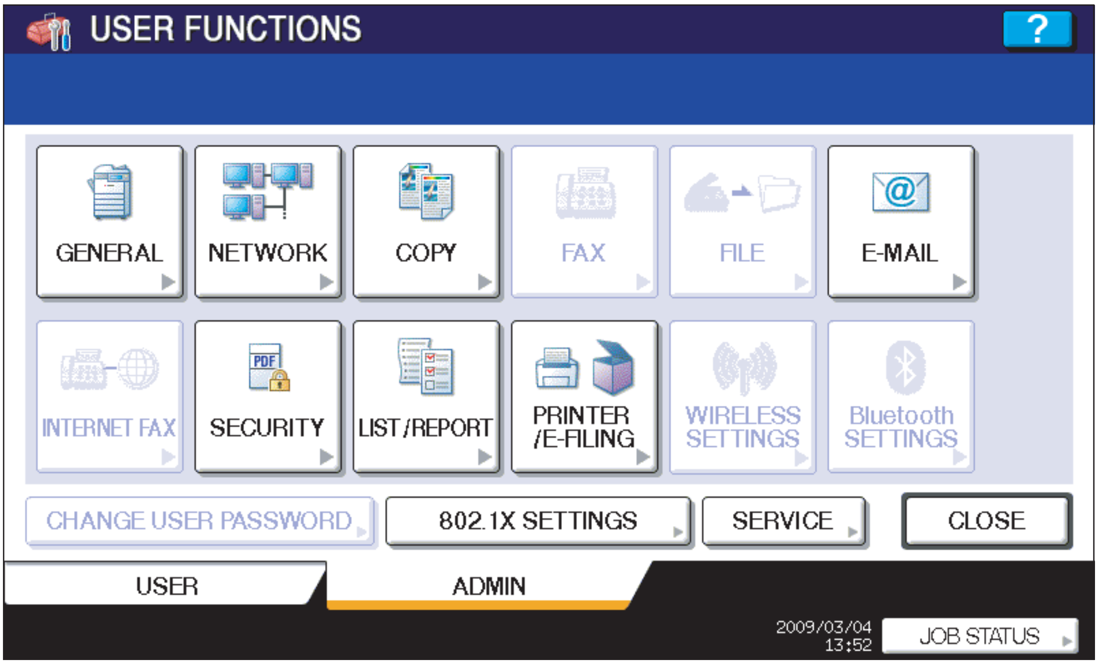

USER FUNCTIONS
?
GENERAL
NETWORK
COPY
FAX
FILE
E-MAIL
INTERNET FAX
SECURITY
LIST/REPORT
PRINTER
/E-FILING
WIRELESS
SETTINGS
Bluetooth
SETTINGS
CHANGE USER PASSWORD
802.1X SETTINGS
SERVICE
CLOSE
USER
ADMIN
2009/03/04
13:52
JOB STATUS

Fig. 10-17

(3) Press the [SERVICE NOTIFICATION] button.

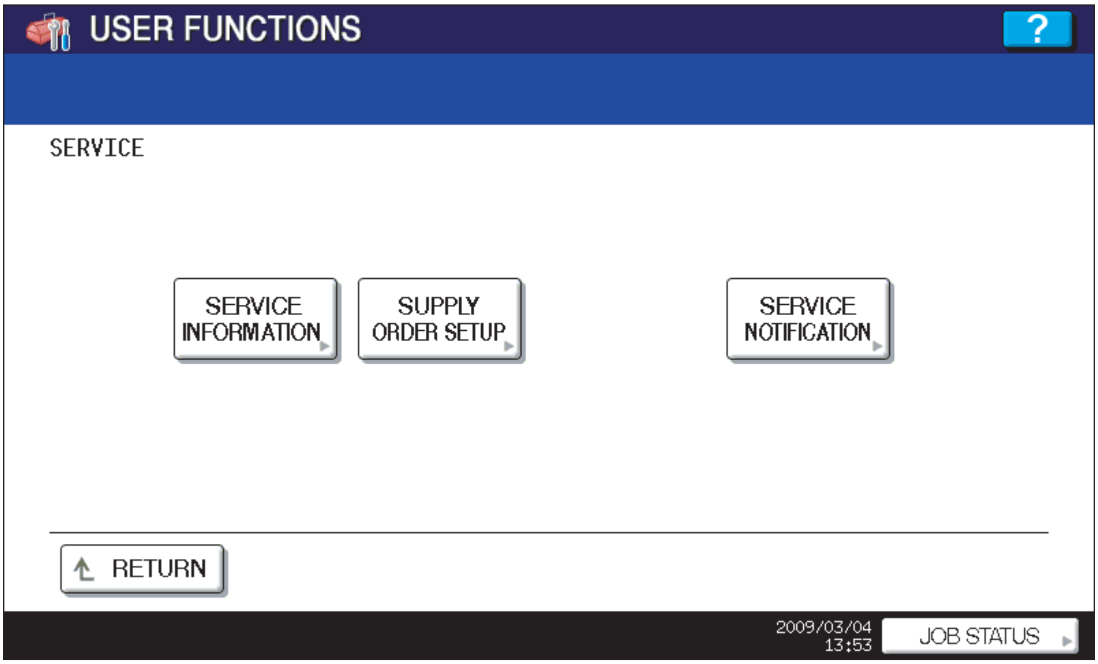

USER FUNCTIONS
?
SERVICE
SERVICE INFORMATION
SUPPLY ORDER SETUP
SERVICE NOTIFICATION
RETURN
2009/03/04 13:53
JOB STATUS

Fig. 10-18

(4) Press the [E-MAIL] or [FAX] button in "SERVICE NOTIFICATION".
- When the [OFF] button is pressed, all functions related Service Notification become ineffective.

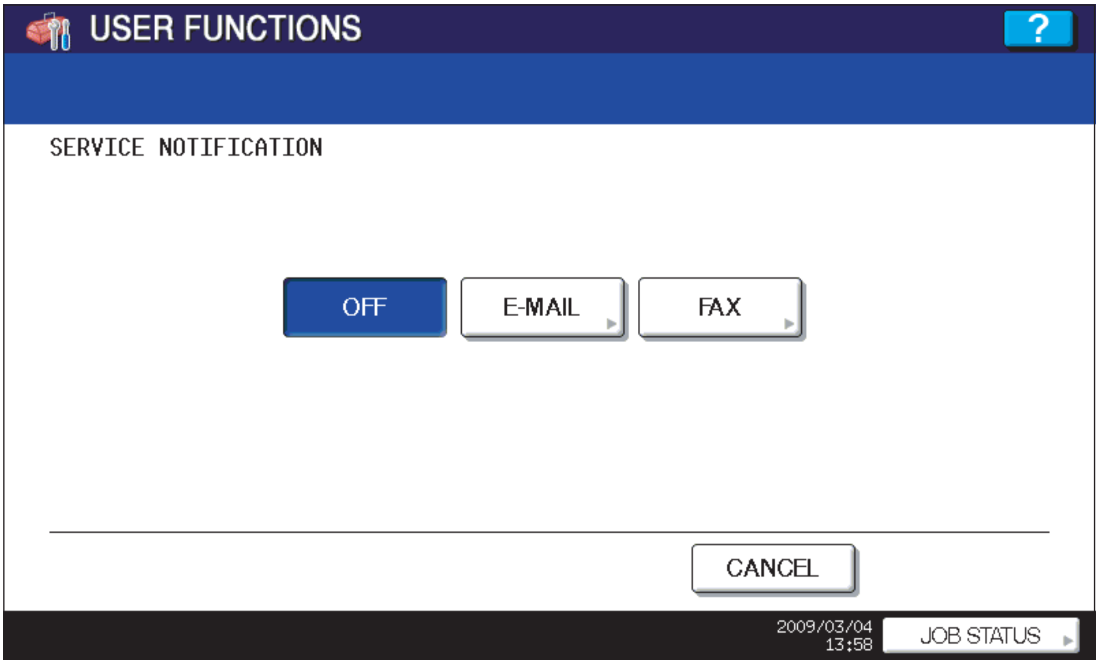

USER FUNCTIONS
?
SERVICE NOTIFICATION
OFF
E-MAIL
FAX
CANCEL
2009/03/04 13:58
JOB STATUS

Fig. 10-19

(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.)

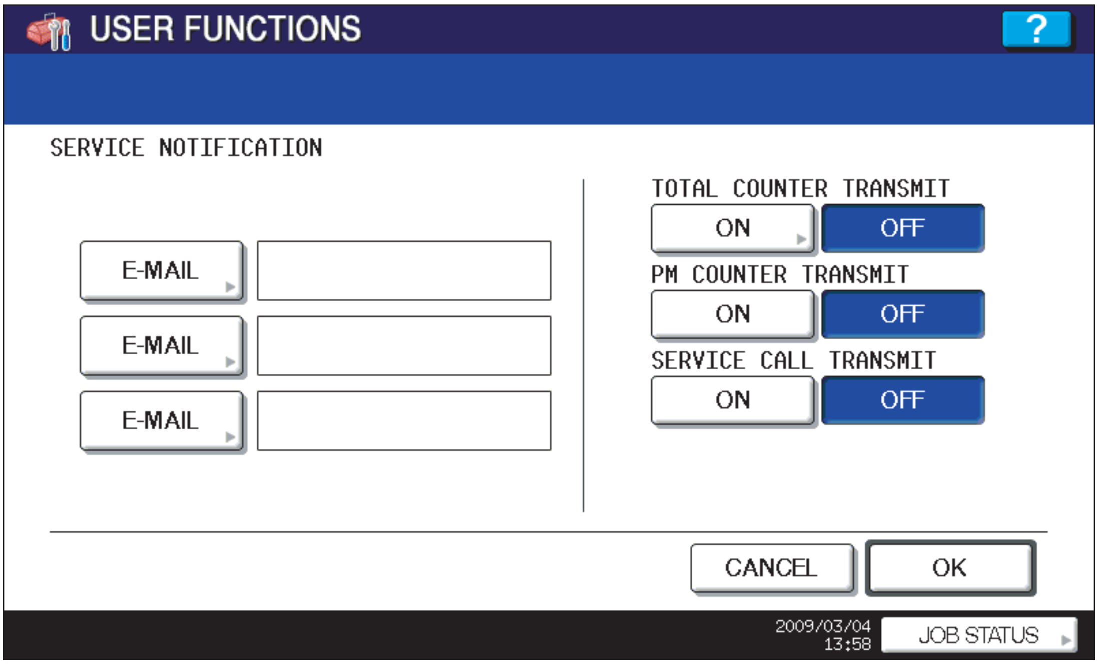

USER FUNCTIONS
?
SERVICE NOTIFICATION
E-MAIL
E-MAIL
E-MAIL
TOTAL COUNTER TRANSMIT
ON
OFF
PM COUNTER TRANSMIT
ON
OFF
SERVICE CALL TRANSMIT
ON
OFF
CANCEL
OK
2009/03/04
13:58
JOB STATUS

Fig. 10-20

- Press the [FAX NUMBER] button, key in the FAX number and then press the [OK] button.

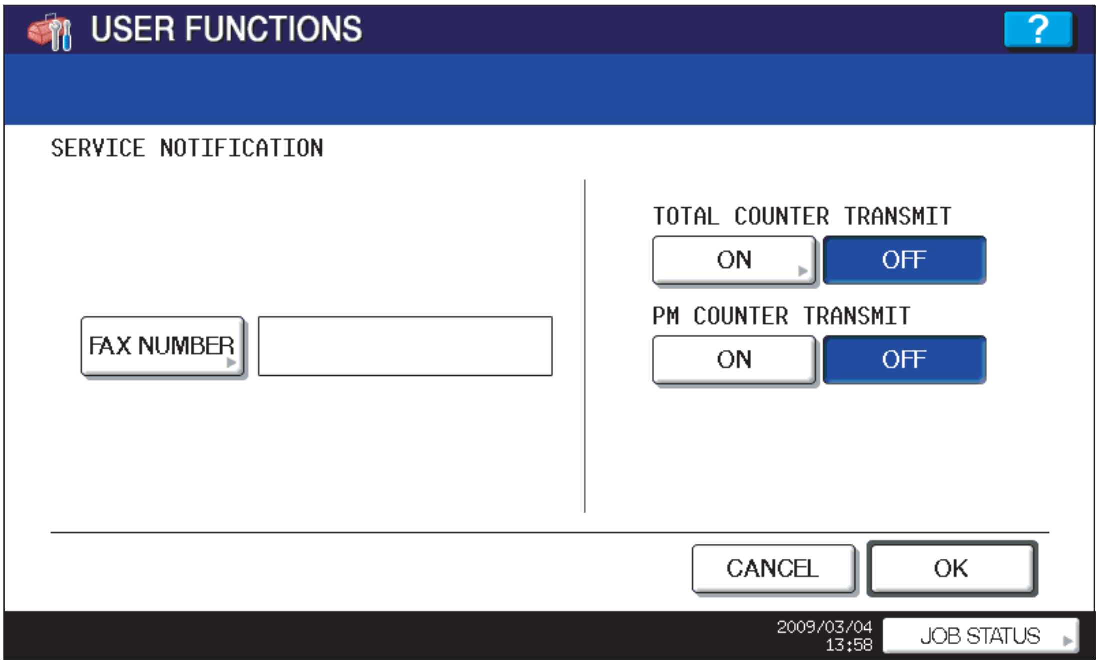

USER FUNCTIONS
?
SERVICE NOTIFICATION
FAX NUMBER
TOTAL COUNTER TRANSMIT
ON
OFF
PM COUNTER TRANSMIT
ON
OFF
CANCEL
OK
2009/03/04
13:58
JOB STATUS

Fig. 10-21

(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.

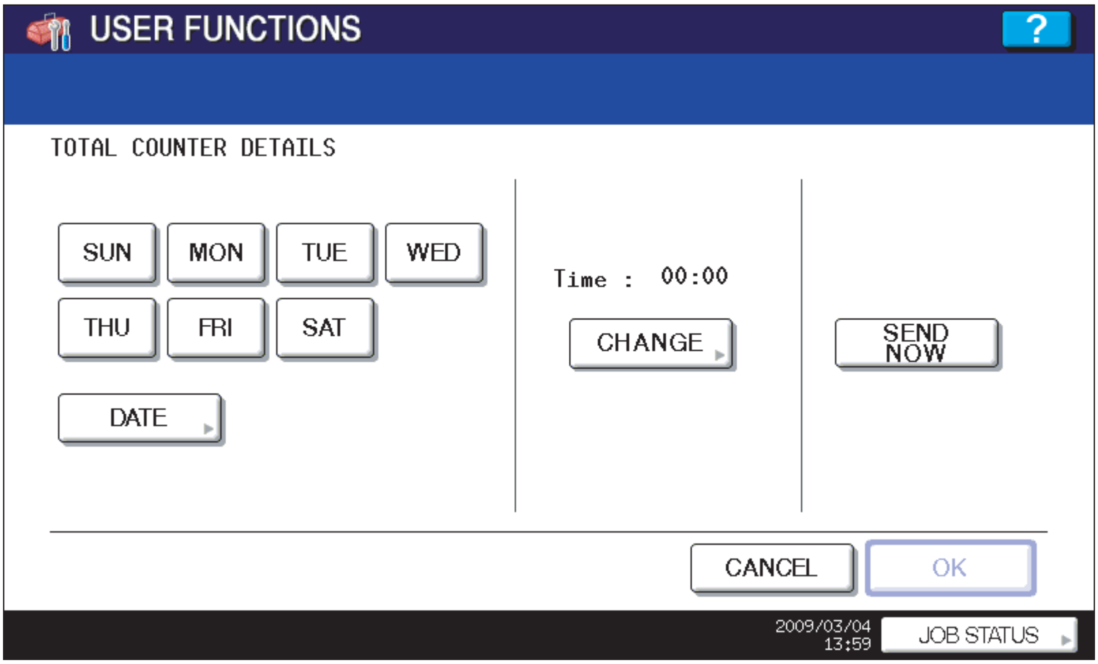

USER FUNCTIONS
?
TOTAL COUNTER DETAILS
SUN
MON
TUE
WED
THU
FRI
SAT
DATE
Time : 00:00
CHANGE
SEND NOW
CANCEL
OK
2009/03/04 13:59
JOB STATUS

Fig. 10-22

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 ([Sunday] to [Saturday] 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.

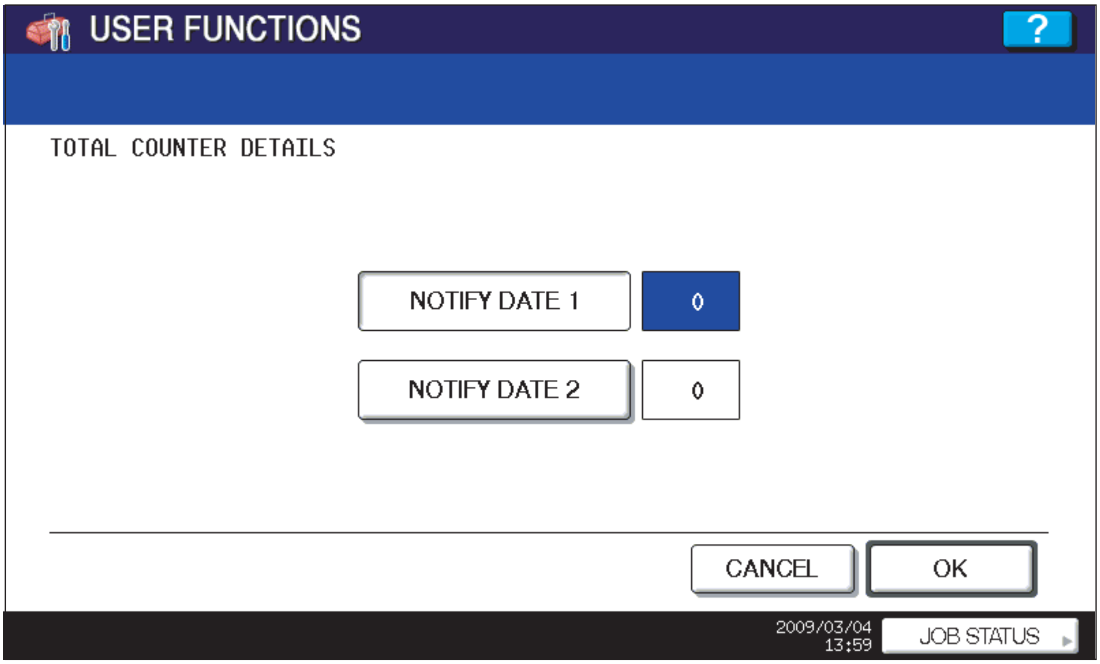
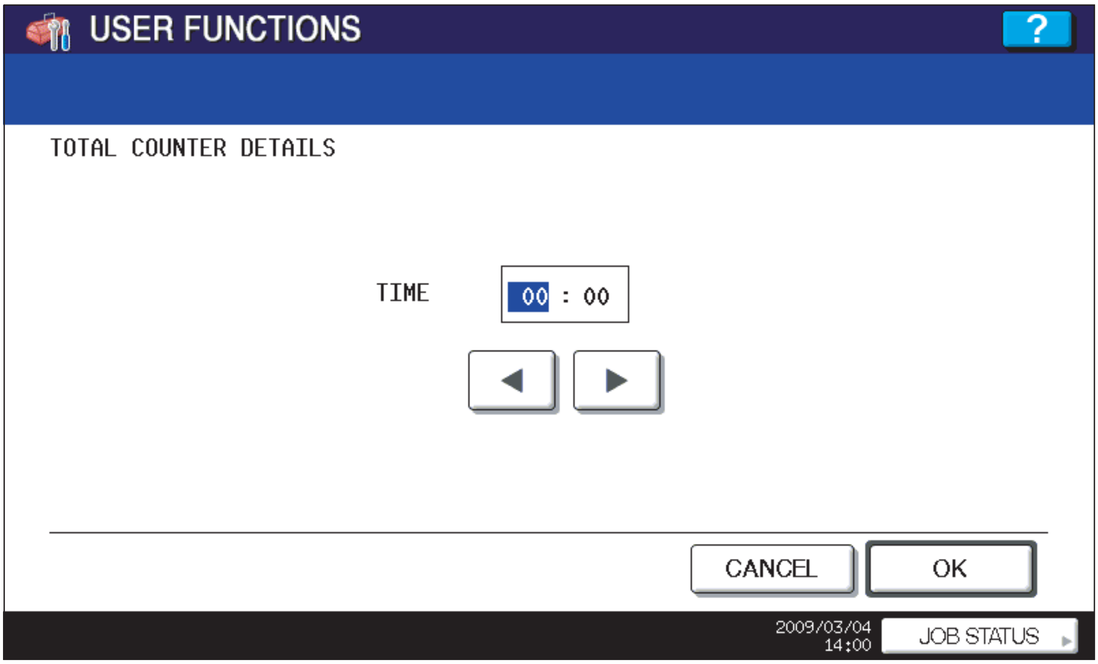

USER FUNCTIONS
?
TOTAL COUNTER DETAILS
NOTIFY DATE 1
0
NOTIFY DATE 2
0
CANCEL
OK
2009/03/04
13:59
JOB STATUS

Fig. 10-23

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".


USER FUNCTIONS

TOTAL COUNTER DETAILS

TIME 00 : 00

2009/03/04 14:00

Fig. 10-24

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 [ENTER] button. The display returns to the screen in step (5).

(7) Press the [OK] button. The setting completes.

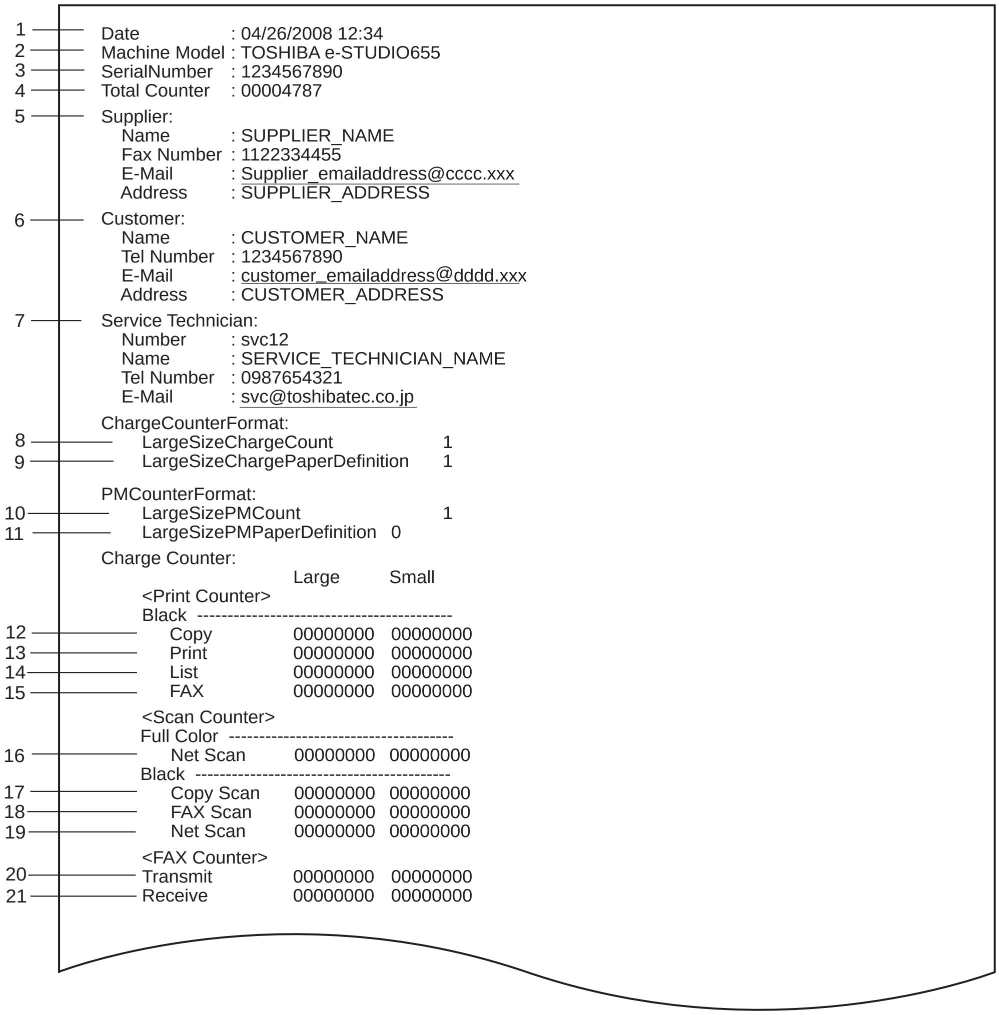
Note:
Service Notification setting is also available from the following setting mode (08).

Items	08 code	Contents
Service Notification setting	767	0: OFF (Invalid) 1:E-mail 2:FAX
E-mail address 1	768	Maximum 192 letters
E-mail address 2	777	Maximum 192 letters
E-mail address 3	778	Maximum 192 letters
FAX number	1145	Maximum 32 digits
Total Counter Transmit setting	769	0: OFF (Invalid) 1: ON (Valid)
Total counter transmission date setting	770	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)	776	00:00-23:59
Service Call Transmit setting	775	0: OFF (Invalid) 1: ON (Valid)
PM Counter Transmit setting	771	0: OFF (Invalid) 1: ON (Valid)

10.2.3 Items to be notified

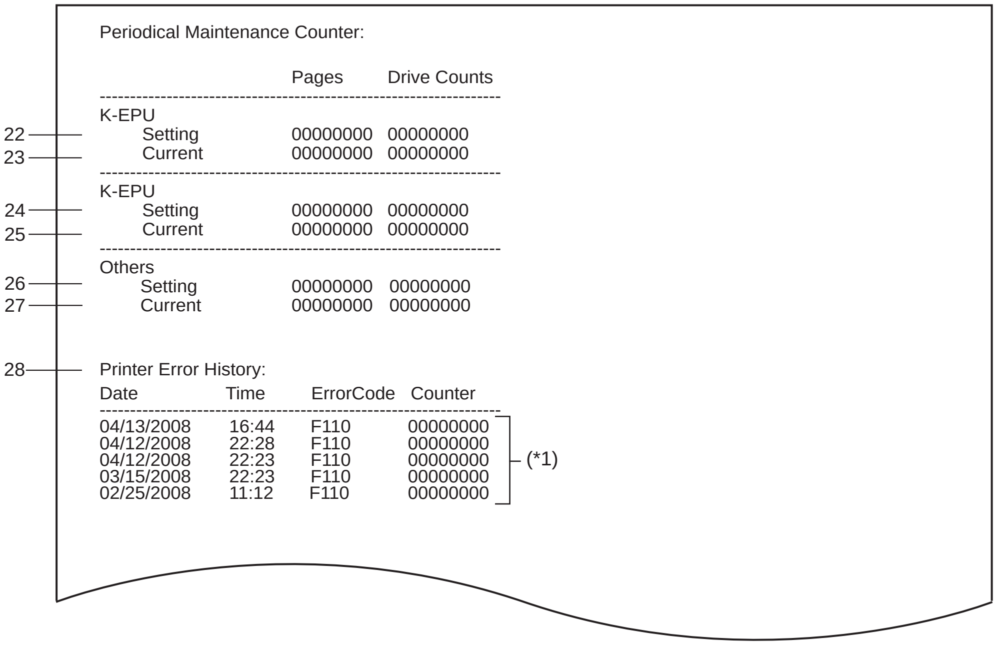
The items to be notified are shown below.

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
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21

```
Date            : 04/26/2008 12:34
Machine Model   : TOSHIBA e-STUDIO655
SerialNumber    : 1234567890
Total Counter   : 00004787
Supplier:
   Name         : SUPPLIER_NAME
   Fax Number   : 1122334455
   E-Mail       : Supplier_emailaddress@cccc.xxx
   Address      : SUPPLIER_ADDRESS
Customer:
   Name         : CUSTOMER_NAME
   Tel Number   : 1234567890
   E-Mail       : customer_emailaddress@dddd.xxx
   Address      : CUSTOMER_ADDRESS
Service Technician:
   Number       : svc12
   Name         : SERVICE_TECHNICIAN_NAME
   Tel Number   : 0987654321
   E-Mail       : svc@toshibatec.co.jp
ChargeCounterFormat:
      LargeSizeChargeCount                1
      LargeSizeChargePaperDefinition      1

PMCounterFormat:
      LargeSizePMCount                    1
      LargeSizePMPaperDefinition   0
Charge Counter:
                              Large       Small
      <Print Counter>
      Black  ------------------------------------------
          Copy                00000000   00000000
          Print               00000000   00000000
          List                00000000   00000000
          FAX                 00000000   00000000
      <Scan Counter>
      Full Color  -------------------------------------
          Net Scan            00000000   00000000
      Black  ------------------------------------------
          Copy Scan           00000000   00000000
          FAX Scan            00000000   00000000
          Net Scan            00000000   00000000
      <FAX Counter>
      Transmit                00000000   00000000
      Receive                 00000000   00000000
```

Fig. 10-25


22
23
24
25
26
27
28
(*1)

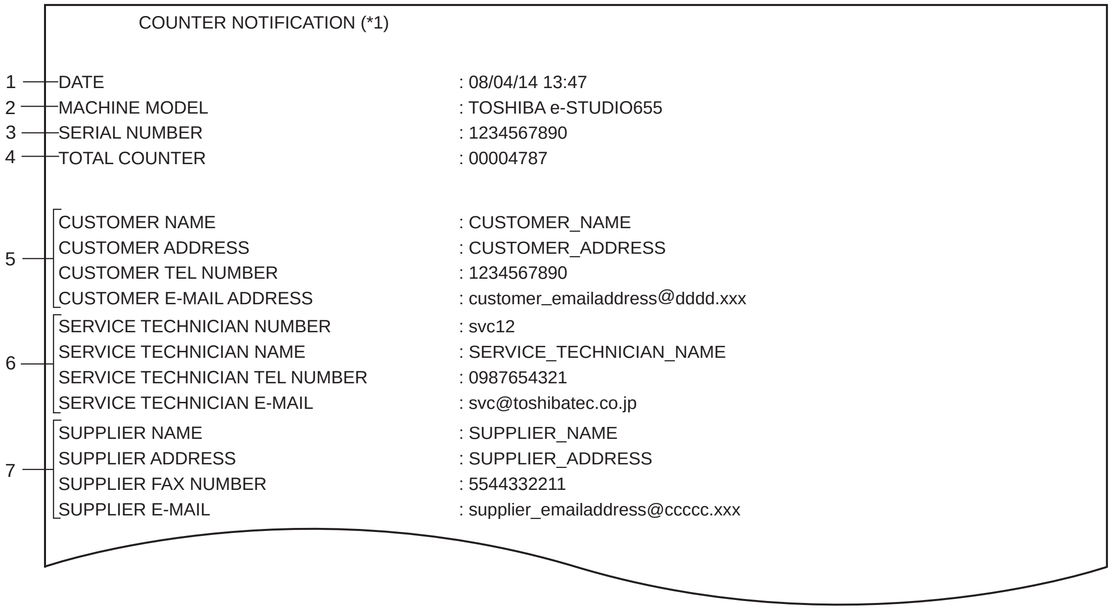
```
Periodical Maintenance Counter:

                         Pages        Drive Counts
------------------------------------------------------------------
K-EPU
      Setting            00000000   00000000
      Current            00000000   00000000
------------------------------------------------------------------
K-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
03/15/2008       22:23       F110        00000000
02/25/2008       11:12       F110        00000000
```

Fig. 10-26

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)
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 of error
    *1 The latest 20 errors are displayed.

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



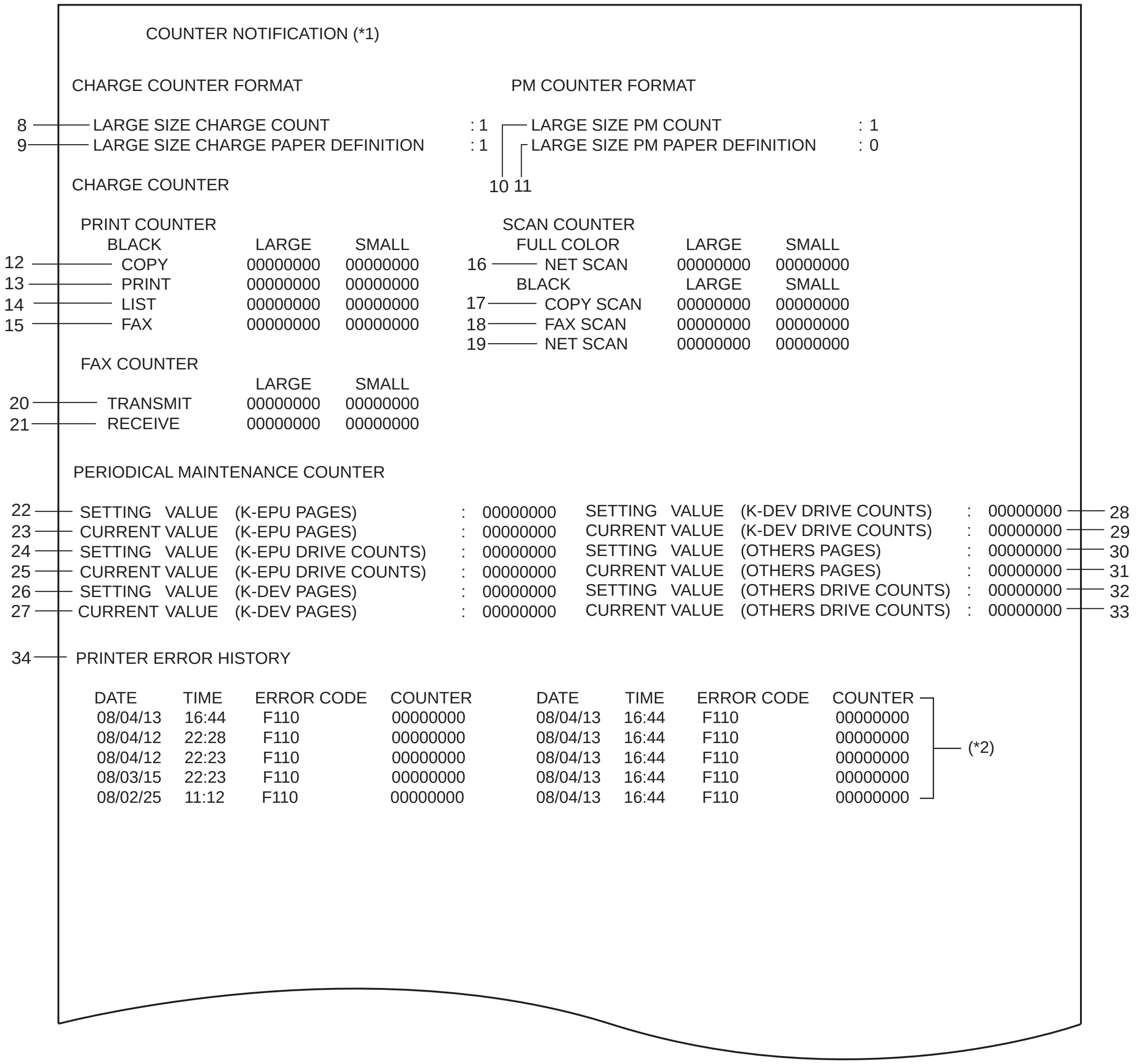
COUNTER NOTIFICATION (*1)

DATE : 08/04/14 13:47
MACHINE MODEL : TOSHIBA e-STUDIO655
SERIAL NUMBER : 1234567890
TOTAL COUNTER : 00004787

CUSTOMER NAME : CUSTOMER_NAME
CUSTOMER ADDRESS : CUSTOMER_ADDRESS
CUSTOMER TEL NUMBER : 1234567890
CUSTOMER E-MAIL ADDRESS : customer_emailaddress@dddd.xxx
SERVICE TECHNICIAN NUMBER : svc12
SERVICE TECHNICIAN NAME : SERVICE_TECHNICIAN_NAME
SERVICE TECHNICIAN TEL NUMBER : 0987654321
SERVICE TECHNICIAN E-MAIL : svc@toshibatec.co.jp
SUPPLIER NAME : SUPPLIER_NAME
SUPPLIER ADDRESS : SUPPLIER_ADDRESS
SUPPLIER FAX NUMBER : 5544332211
SUPPLIER E-MAIL : supplier_emailaddress@ccccc.xxx

Fig. 10-27

Sheet 2



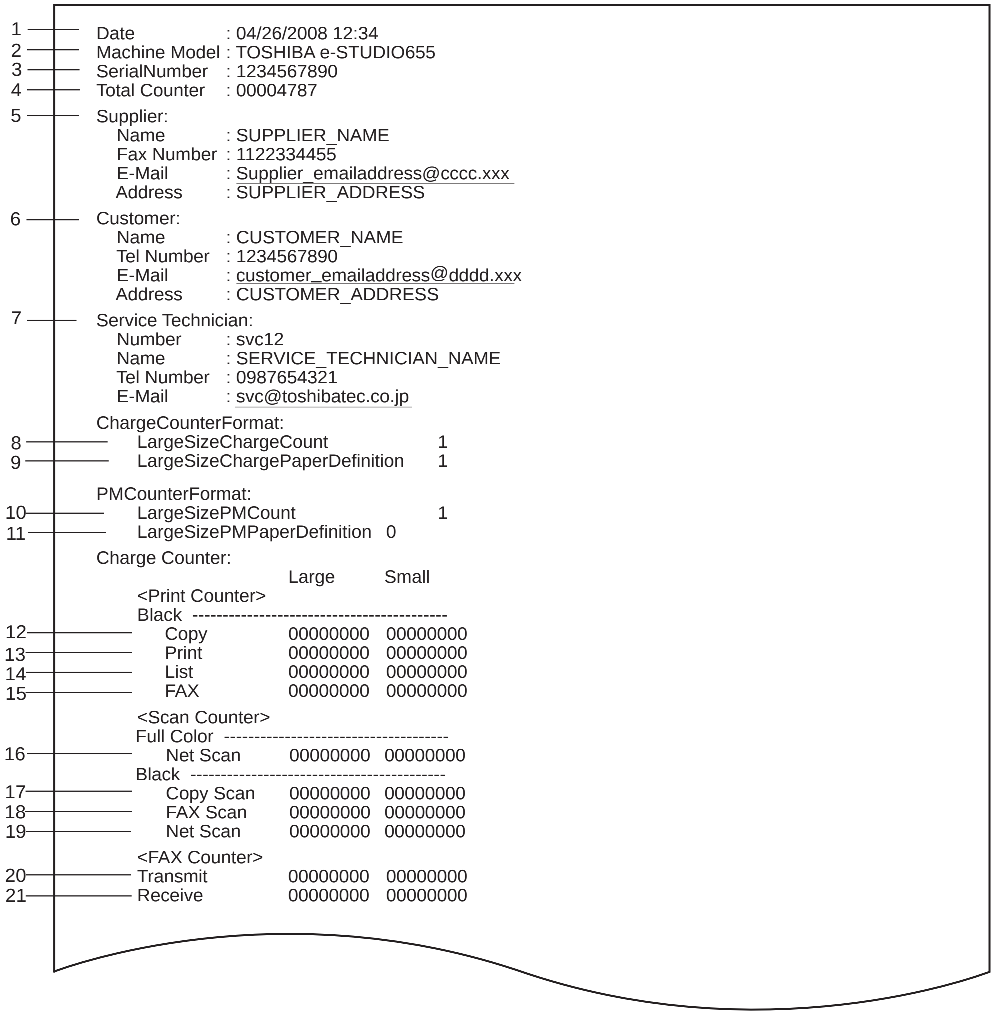
```
           COUNTER NOTIFICATION (*1)

    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. 10-28

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)

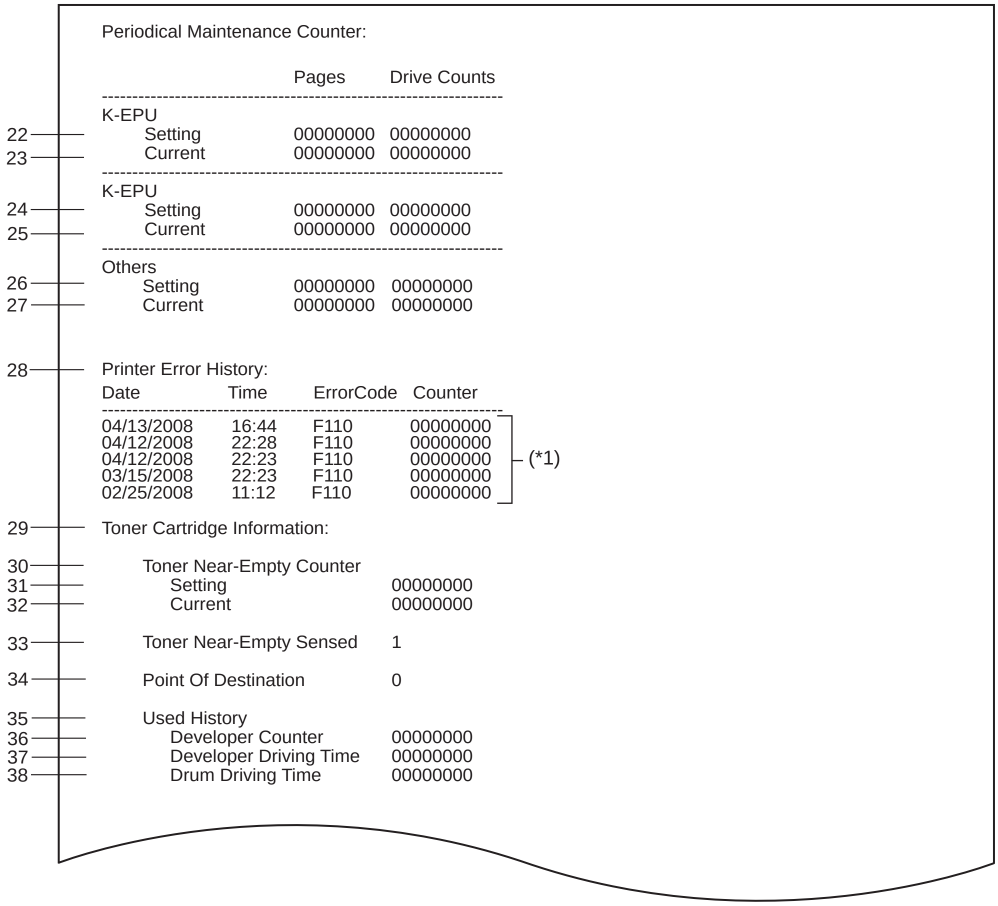
16. Number of scanning pages in the Network Scanning Function (Full color)
17. Number of scanning pages in the Copier Function (BLACK)
18. Number of scanning pages in the FAX Function (BLACK)
19. Number of scanning pages in the Network Scanning Function (BLACK)
20. Number of transmitted pages in the 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)]
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
    *2 The latest 20 errors are displayed.

3. Toner near-empty notification by e-mail
   Subject: Toner Near-Empty Notification



```
Date           : 04/26/2008 12:34
Machine Model  : TOSHIBA e-STUDIO655
SerialNumber   : 1234567890
Total Counter  : 00004787
Supplier:
   Name        : SUPPLIER_NAME
   Fax Number  : 1122334455
   E-Mail      : Supplier_emailaddress@cccc.xxx
   Address     : SUPPLIER_ADDRESS
Customer:
   Name        : CUSTOMER_NAME
   Tel Number  : 1234567890
   E-Mail      : customer_emailaddress@dddd.xxx
   Address     : CUSTOMER_ADDRESS
Service Technician:
   Number      : svc12
   Name        : SERVICE_TECHNICIAN_NAME
   Tel Number  : 0987654321
   E-Mail      : svc@toshibatec.co.jp
ChargeCounterFormat:
      LargeSizeChargeCount                1
      LargeSizeChargePaperDefinition      1

PMCounterFormat:
      LargeSizePMCount                    1
      LargeSizePMPaperDefinition   0
Charge Counter:
                             Large       Small
      <Print Counter>
      Black  ------------------------------------------
          Copy               00000000   00000000
          Print              00000000   00000000
          List               00000000   00000000
          FAX                00000000   00000000
      <Scan Counter>
      Full Color  -------------------------------------
          Net Scan           00000000   00000000
      Black  ------------------------------------------
          Copy Scan          00000000   00000000
          FAX Scan           00000000   00000000
          Net Scan           00000000   00000000
      <FAX Counter>
      Transmit               00000000   00000000
      Receive                00000000   00000000
```

Fig. 10-29



```
Periodical Maintenance Counter:

                            Pages      Drive Counts
------------------------------------------------------------
K-EPU
      Setting               00000000  00000000
      Current               00000000  00000000
------------------------------------------------------------
K-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
03/15/2008        22:23       F110        00000000
02/25/2008        11:12       F110        00000000

Toner Cartridge Information:

      Toner Near-Empty Counter
          Setting                   00000000
          Current                   00000000

      Toner Near-Empty Sensed       1

      Point Of Destination          0

      Used History
          Developer Counter         00000000
          Developer Driving Time    00000000
          Drum Driving Time         00000000
```

Fig. 10-30

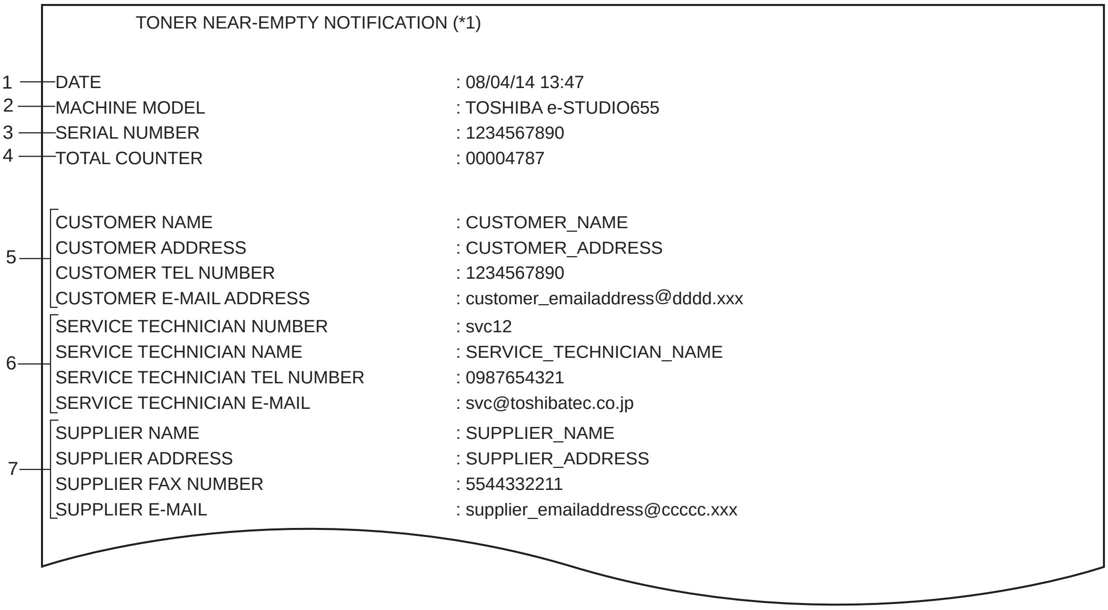
1. Date
2. Machine model name
3. Serial number
4. Total counter value
5. Supplier information
6. Customer information
7. Service technician information
8. Count setting of large-sized paper (Fee charging system counter)
9. Definition setting of large-sized paper (Fee charging system counter)
10. Count 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)
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 cartridge information
30. Toner near-empty counter
31. Setting value of toner cartridge rotation time counter
32. Current value of toner cartridge rotation time counter
33. Toner near empty threshold setting (08-971)
34. Destination setting of toner cartridge
35. Usage History
36. Current value for total printed sheets of developer
37. Current value for developer driving time
38. Current value for drum driving time

*1. The latest 20 errors are displayed.

4. Toner near-empty notification by FAX

Sheet 1



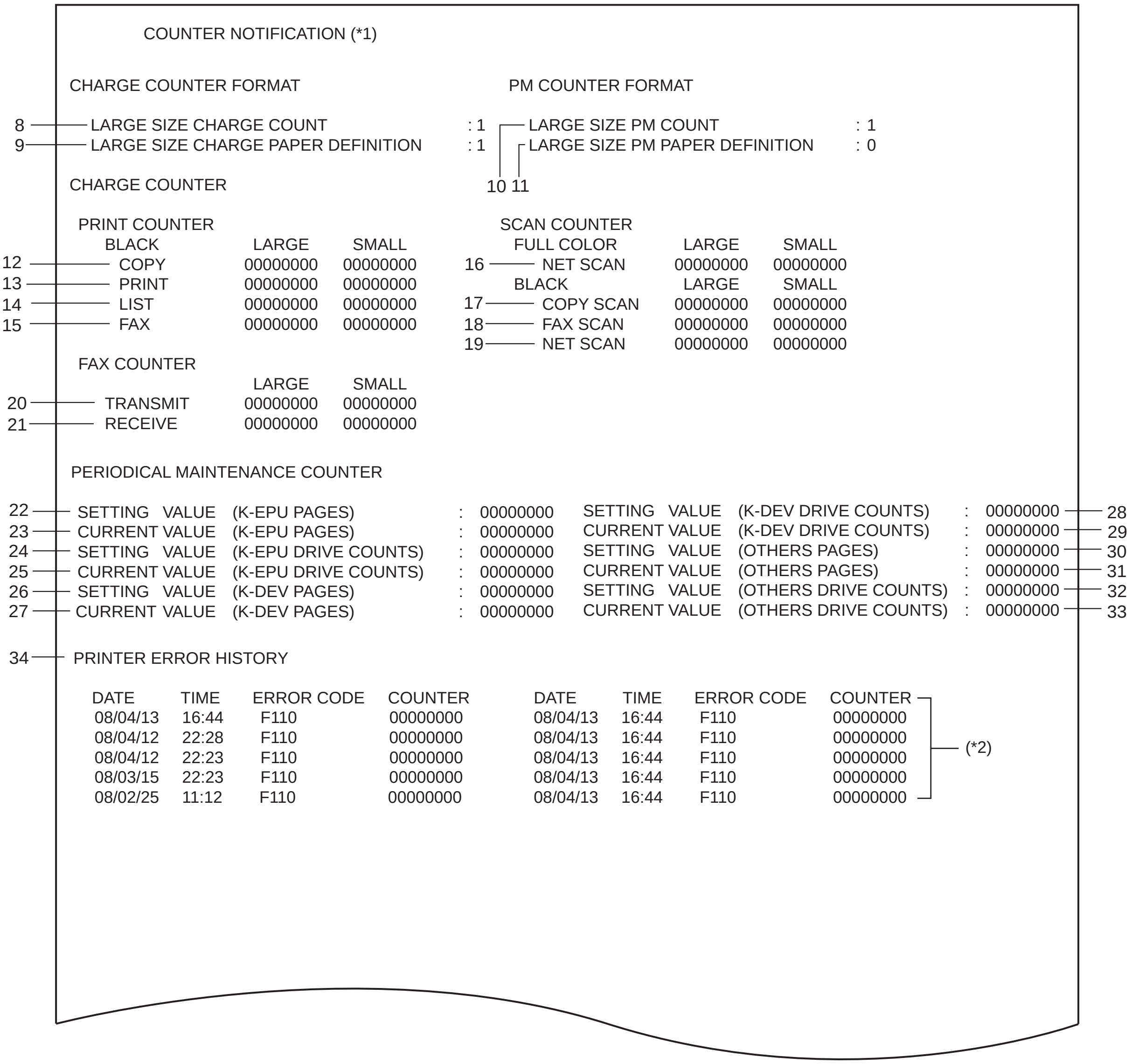
TONER NEAR-EMPTY NOTIFICATION (*1)

DATE : 08/04/14 13:47
MACHINE MODEL : TOSHIBA e-STUDIO655
SERIAL NUMBER : 1234567890
TOTAL COUNTER : 00004787

CUSTOMER NAME : CUSTOMER_NAME
CUSTOMER ADDRESS : CUSTOMER_ADDRESS
CUSTOMER TEL NUMBER : 1234567890
CUSTOMER E-MAIL ADDRESS : customer_emailaddress@dddd.xxx
SERVICE TECHNICIAN NUMBER : svc12
SERVICE TECHNICIAN NAME : SERVICE_TECHNICIAN_NAME
SERVICE TECHNICIAN TEL NUMBER : 0987654321
SERVICE TECHNICIAN E-MAIL : svc@toshibatec.co.jp
SUPPLIER NAME : SUPPLIER_NAME
SUPPLIER ADDRESS : SUPPLIER_ADDRESS
SUPPLIER FAX NUMBER : 5544332211
SUPPLIER E-MAIL : supplier_emailaddress@ccccc.xxx

Fig. 10-31

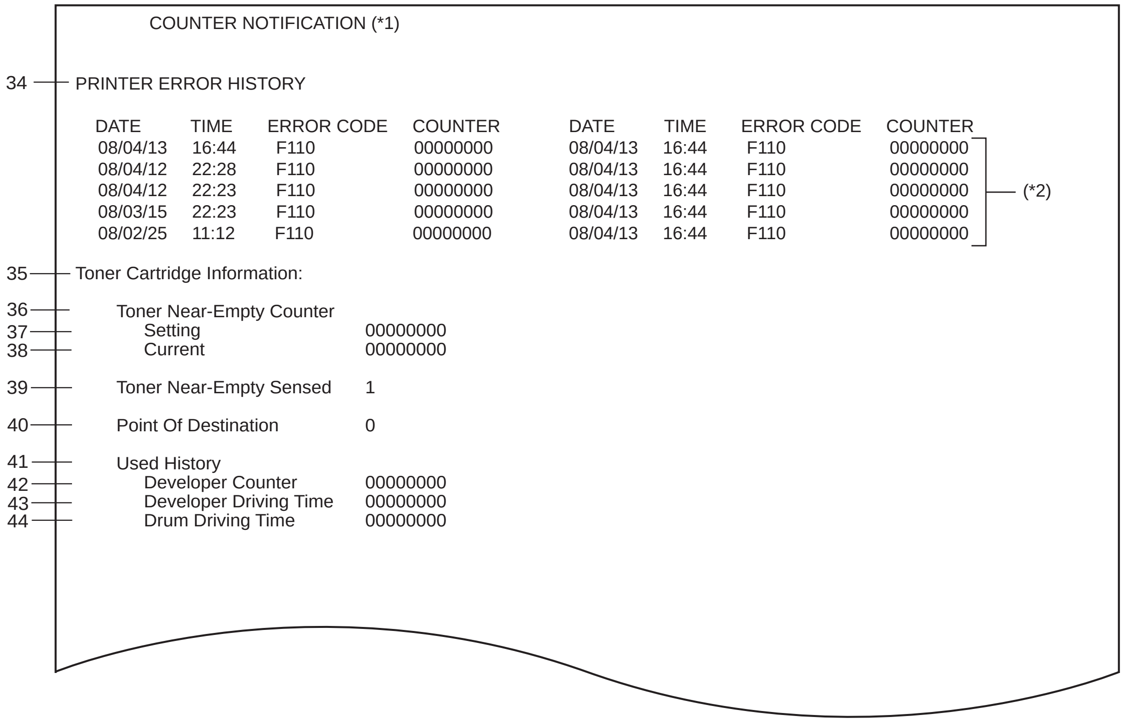
Sheet 2



```
          COUNTER NOTIFICATION (*1)

CHARGE COUNTER FORMAT                                      PM COUNTER FORMAT

  LARGE SIZE CHARGE COUNT                        : 1       LARGE SIZE PM COUNT                  : 1
  LARGE SIZE CHARGE PAPER DEFINITION             : 1       LARGE SIZE PM PAPER DEFINITION       : 0

CHARGE COUNTER

 PRINT COUNTER                                          SCAN COUNTER
    BLACK              LARGE      SMALL                   FULL COLOR        LARGE      SMALL
      COPY             00000000   00000000                  NET SCAN        00000000   00000000
      PRINT            00000000   00000000                BLACK             LARGE      SMALL
      LIST             00000000   00000000                  COPY SCAN       00000000   00000000
      FAX              00000000   00000000                  FAX SCAN        00000000   00000000
                                                            NET SCAN        00000000   00000000
 FAX COUNTER
                       LARGE      SMALL
    TRANSMIT           00000000   00000000
    RECEIVE            00000000   00000000

PERIODICAL MAINTENANCE COUNTER

 SETTING   VALUE  (K-EPU PAGES)         : 00000000   SETTING   VALUE  (K-DEV DRIVE COUNTS)    : 00000000
 CURRENT VALUE    (K-EPU PAGES)         : 00000000   CURRENT VALUE    (K-DEV DRIVE COUNTS)    : 00000000
 SETTING   VALUE  (K-EPU DRIVE COUNTS)  : 00000000   SETTING   VALUE  (OTHERS PAGES)          : 00000000
 CURRENT VALUE    (K-EPU DRIVE COUNTS)  : 00000000   CURRENT VALUE    (OTHERS PAGES)          : 00000000
 SETTING   VALUE  (K-DEV PAGES)         : 00000000   SETTING   VALUE  (OTHERS DRIVE COUNTS)   : 00000000
 CURRENT VALUE    (K-DEV PAGES)         : 00000000   CURRENT VALUE    (OTHERS DRIVE COUNTS)   : 00000000

 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
   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. 10-32

Sheet 3



```
            COUNTER NOTIFICATION (*1)

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 Cartridge Information:

     Toner Near-Empty Counter
         Setting                 00000000
         Current                 00000000

     Toner Near-Empty Sensed     1

     Point Of Destination        0

     Used History
         Developer Counter       00000000
         Developer Driving Time  00000000
         Drum Driving Time       00000000
```

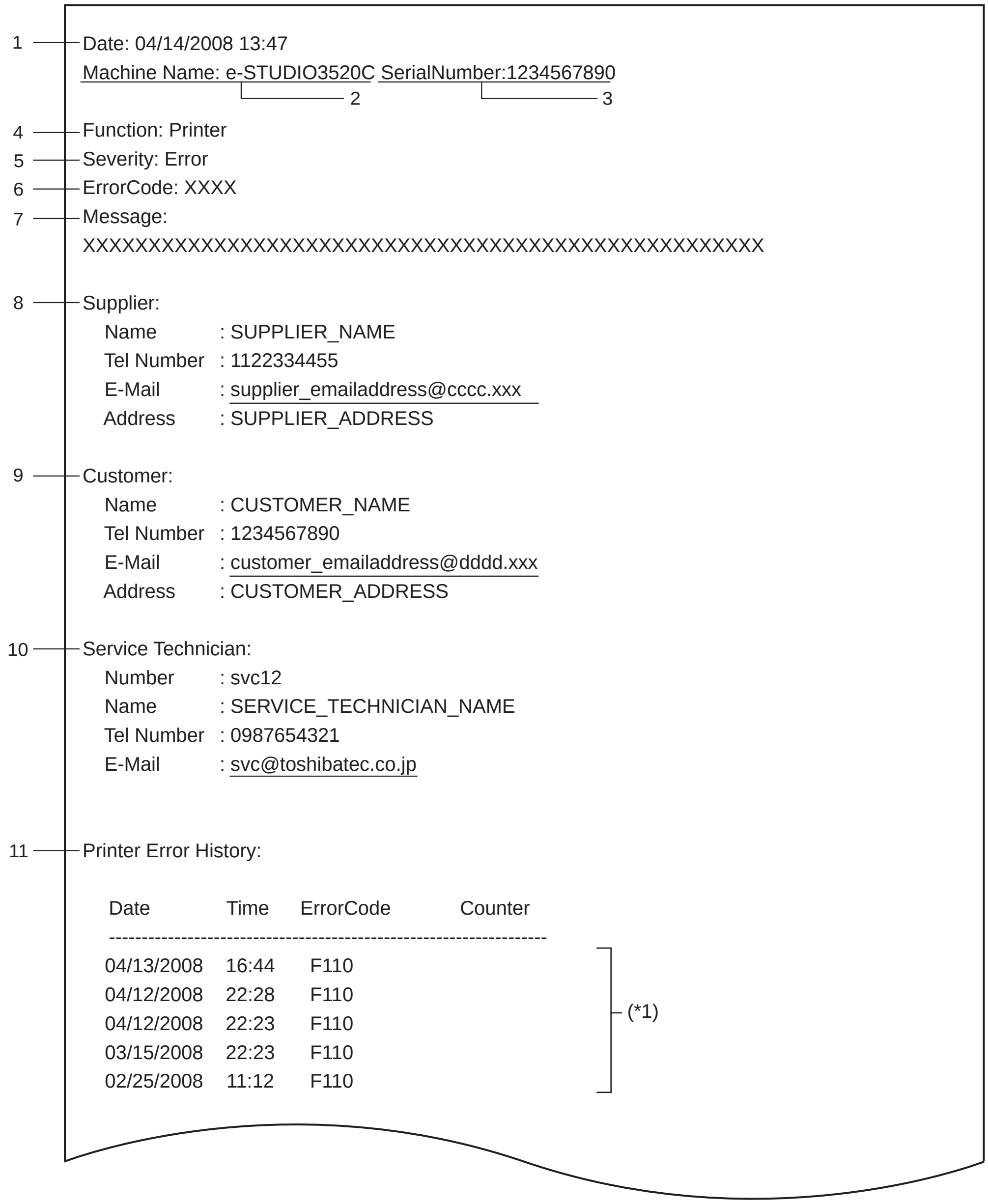
Fig. 10-33

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)]
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. Toner near empty threshold setting (08-971)
40. Destination setting of toner cartridge
41. Usage History
42. Current value for total printed sheets of developer
43. Current value for developer driving time
44. Current value for drum driving time

*2 The latest 20 errors are displayed.

5. Service Call Transmit
Subject: Service Call Notification



```
Date: 04/14/2008 13:47
Machine Name: e-STUDIO3520C SerialNumber:1234567890

Function: Printer
Severity: Error
ErrorCode: XXXX
Message:
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Supplier:
   Name         : SUPPLIER_NAME
   Tel Number   : 1122334455
   E-Mail       : supplier_emailaddress@cccc.xxx
   Address      : SUPPLIER_ADDRESS

Customer:
   Name         : CUSTOMER_NAME
   Tel Number   : 1234567890
   E-Mail       : customer_emailaddress@dddd.xxx
   Address      : CUSTOMER_ADDRESS

Service Technician:
   Number       : svc12
   Name         : SERVICE_TECHNICIAN_NAME
   Tel Number   : 0987654321
   E-Mail       : svc@toshibatec.co.jp


Printer Error History:

   Date          Time    ErrorCode        Counter
   -------------------------------------------------------------------
   04/13/2008    16:44     F110
   04/12/2008    22:28     F110
   04/12/2008    22:23     F110
   03/15/2008    22:23     F110
   02/25/2008    11:12     F110
```

Fig. 10-34

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.

11. WIRE HARNESS CONNECTION DIAGRAMS

11.1 AC Wire Harness

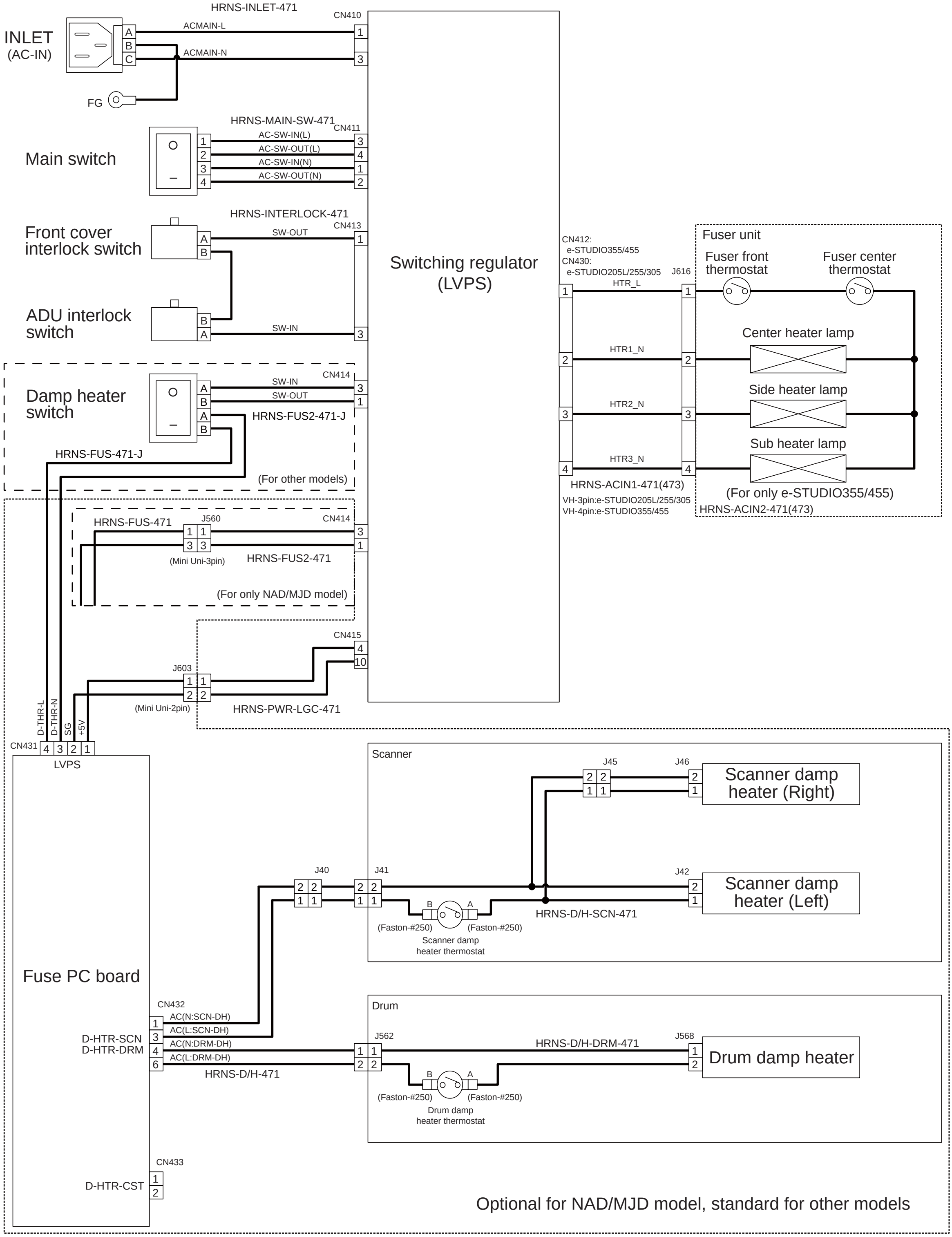
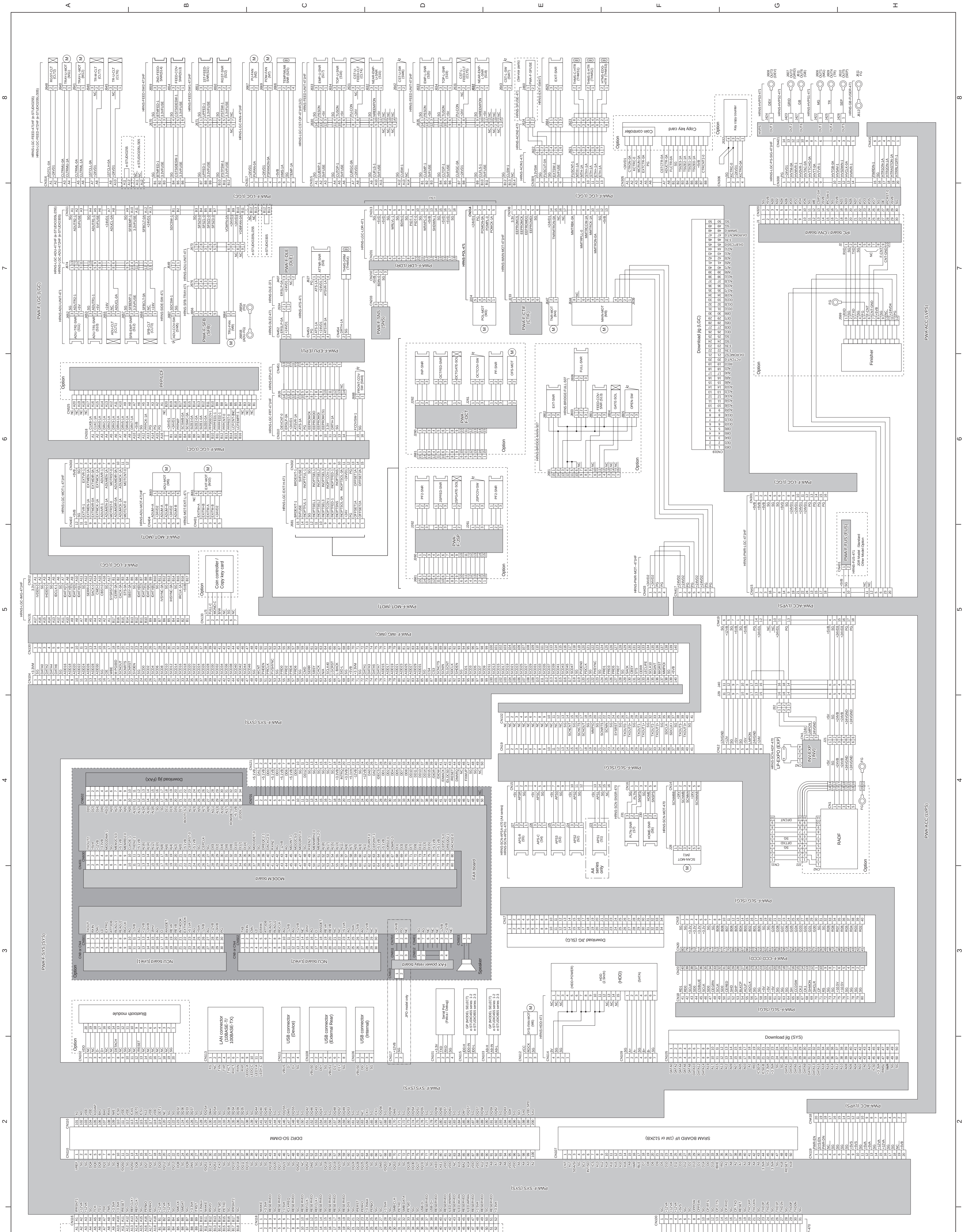

HRNS-INLET-471
CN410
INLET
(AC-IN)
A
B
C
ACMAIN-L
ACMAIN-N
1
3
FG
HRNS-MAIN-SW-471
CN411
Main switch
AC-SW-IN(L)
AC-SW-OUT(L)
AC-SW-IN(N)
AC-SW-OUT(N)
HRNS-INTERLOCK-471
CN413
Front cover interlock switch
SW-OUT
ADU interlock switch
SW-IN
Switching regulator (LVPS)
Damp heater switch
CN414
SW-IN
SW-OUT
HRNS-FUS2-471-J
HRNS-FUS-471-J
(For other models)
HRNS-FUS-471
J560
(Mini Uni-3pin)
HRNS-FUS2-471
(For only NAD/MJD model)
CN415
J603
(Mini Uni-2pin)
HRNS-PWR-LGC-471
D-THR-L
D-THR-N
SG
+5V
CN431
LVPS
CN412:
e-STUDIO355/455
CN430:
e-STUDIO205L/255/305
J616
HTR_L
HTR1_N
HTR2_N
HTR3_N
HRNS-ACIN1-471(473)
VH-3pin:e-STUDIO205L/255/305
VH-4pin:e-STUDIO355/455
Fuser unit
Fuser front thermostat
Fuser center thermostat
Center heater lamp
Side heater lamp
Sub heater lamp
(For only e-STUDIO355/455)
HRNS-ACIN2-471(473)
Scanner
J45
J46
Scanner damp heater (Right)
J40
J41
J42
Scanner damp heater (Left)
B
A
(Faston-#250)
(Faston-#250)
Scanner damp heater thermostat
HRNS-D/H-SCN-471
Fuse PC board
CN432
AC(N:SCN-DH)
AC(L:SCN-DH)
AC(N:DRM-DH)
AC(L:DRM-DH)
D-HTR-SCN
D-HTR-DRM
HRNS-D/H-471
Drum
J562
HRNS-D/H-DRM-471
J568
Drum damp heater
(Faston-#250)
(Faston-#250)
Drum damp heater thermostat
CN433
D-HTR-CST
Optional for NAD/MJD model, standard for other models

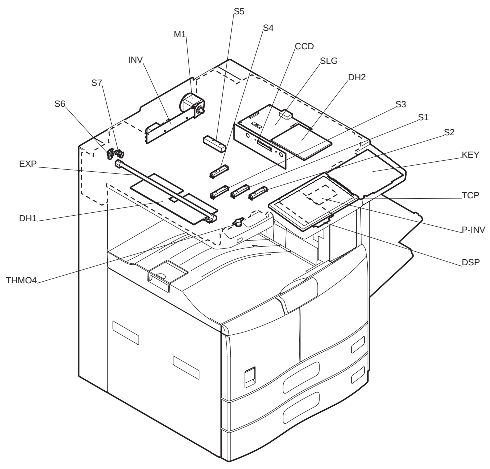
Fig. 11-1

11.2 DC Wire Harness (e-STUDIO205L/255/305)

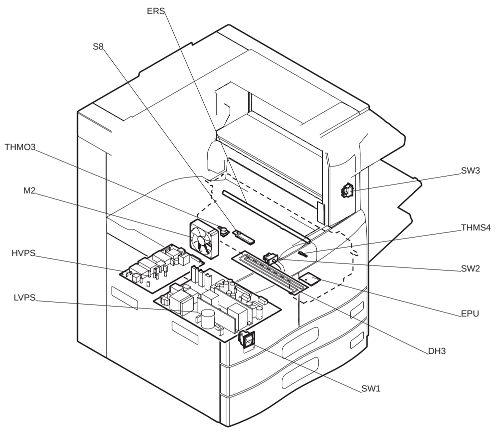

A
B
C
D
E
F
G
H
1
2
3
4
5
6
7
8
PWA-F-LGC (LGC)
PWA-F-SYS (SYS)
PWA-F-ACC (LVPS)
PWA-F-MOT (MOT)
PWA-F-SLG (SLG)
PWA-F-CCD (CCD)
PWA-F-DSP (DSP)
PWA-F-KEY (KEY)
PWA-F-EPU (EPU)
PWA-F-LDR (LDR)
PWA-F-SFB (SFB)
PWA-F-CTIF (CTIF)
PWA-F-SNS (SNS)
PWA-F-FUS (FUS)
PFP/LCF
Option
Download jig (LGC)
Download jig (SYS)
Download jig (SLG)
Download jig (FAX)
IPC board / CNV board
Finisher
Coin controller
Copy key card
Copy key counter
Coin controller / Copy key card
MODEM board
FAX board
NCU board (Line1)
NCU board (Line2)
FAX power relay board
Speaker
Bluetooth module
LAN connector (10BASE-T/100BASE-TX)
USB connector (Device)
USB connector (External Rear)
USB connector (Internal)
HDD
RADF
INV-EXP
DDR2 SO-DIMM
SRAM BOARD I/F (1M or 512KB)
PCI Express slot -MEBUS-
Mini PCI Express slot -Wireless LAN Card-
LCD
LCD back light

11.3 Electric Parts Layout (e-STUDIO205L/255/305)

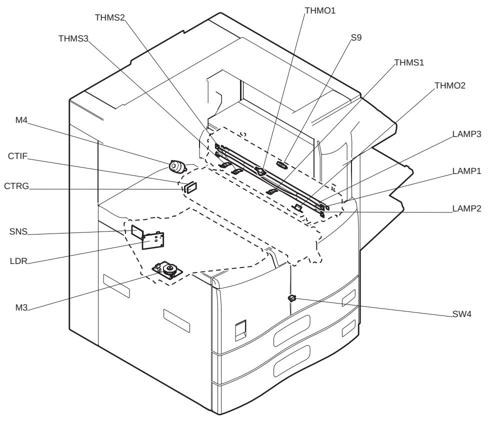
[A] Scanner unit, control panel



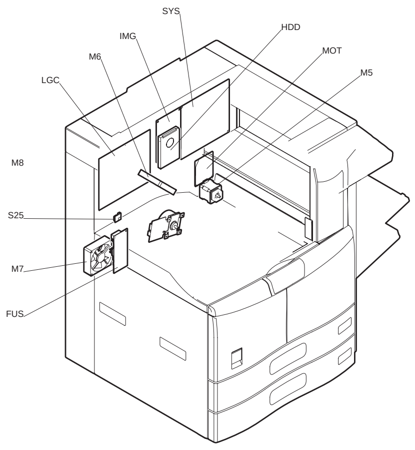
[B] Power supply, developer unit



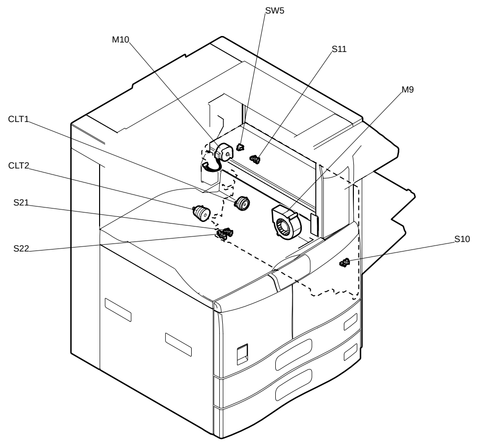
[C] Laser unit, fuser unit, toner cartridge



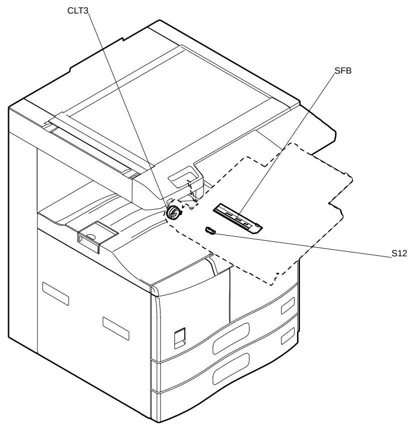
[D] Drive unit



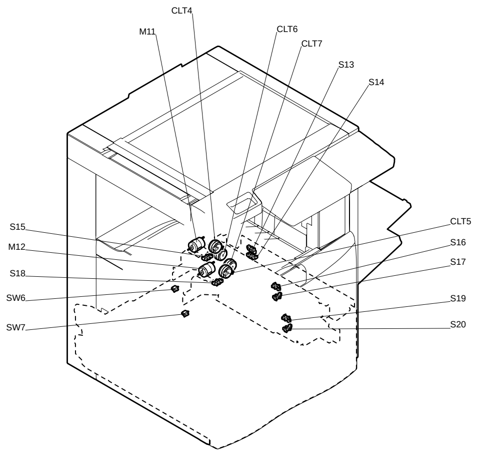
[E] Automatic duplexing unit, transfer unit, exit unit



[F] Bypass feed unit



[G] Drawer unit



Motors

Symbol	Name	Figure	Wire harness location
M1	SCAN-MOT Scan motor	[A]	4-F
M2	PU-FAN Process unit fan	[B]	8-C
M3	POL-MOT Polygonal motor	[C]	7-E
M4	TNR-MOT Toner motor	[C]	7-E
M5	ADU-MOT ADU motor	[D]	6-B
M6	SYS-FAN-MOT SYS/HDD cooling fan	[D]	-
M7	POW-FAN Switching regulator cooling fan	[D]	8-C
M8	MAIN-MOT Main motor	[D]	7-E
M9	TRU-FAN TRU fan	[E]	7-B
M10	EXIT-MOT Exit motor	[E]	6-B
M11	TRAY-U-MOT Upper tray-up motor	[G]	8-A
M12	TRAY-L-MOT Lower tray-up motor	[G]	8-A

Sensors and switches

Symbol	Name	Figure	Wire harness location
S1-5	APS1-3, APS-C, APS-R Automatic original detection sensor	[A]	4-E
S6	HOME-SNR Carriage home position sensor	[A]	4-F
S7	PLTN-SNR Platen sensor	[A]	4-F
S8	ATTNR-SNR Auto-toner sensor	[B]	7-C
S9	EXIT-SW Exit sensor	[C]	8-E
S10	ADU-TR1-SNR ADU exit sensor	[E]	7-A
S11	ADU-TR2-SNR ADU entrance sensor	[E]	7-A
S12	SFB-EMP-SNR Bypass paper sensor	[F]	7-B
S13	FEED-COV-SNR Feed cover opening/closing sensor	[G]	6-E
S14	2ND-FEED-SNR 2nd transport sensor	[G]	8-B
S15	NEAR-EMP-U-SNR Upper drawer paper stock sensor	[G]	8-D
S16	TOP-U-SNR Upper drawer tray-up sensor	[G]	8-C
S17	EMP-U-SNR Upper drawer empty sensor	[G]	8-C
S18	NEAR-EMP-L-SNR Lower drawer paper stock sensor	[G]	8-D
S19	TOP-L-SNR Lower drawer tray-up sensor	[G]	8-D
S20	EMP-L-SNR Lower drawer empty sensor	[G]	8-D
S21	1ST-FEED-SNR 1st transport sensor	[E]	8-B
S22	RGST-SNR Registration sensor	[E]	8-B
S25	TEMP/HUMI-SNR Temperature/humidity sensor	[D]	8-C
SW1	MAIN-SW Main switch	[B]	-
SW2	FRNT-COV-INTLCK-SW Front cover interlock switch	[B]	-
SW3	ADU-INTLCK-SW ADU interlock switch	[B]	-
SW4	FRONT-COV-SW Front cover switch	[C]	6-C
SW5	ADU-COV-SW ADU opening/closing switch	[E]	7-B
SW6	CST-U-SW Upper drawer detection switch	[G]	8-D
SW7	CST-L-SW Lower drawer detection switch	[G]	8-E

Electromagnetic clutches

Symbol	Name	Figure	Wire harness location
CLT1	ADU-CLT ADU clutch	[E]	7-A
CLT2	RGST-CLT Registration roller clutch	[E]	8-A
CLT3	SFB-CLT Bypass feed clutch	[F]	7-B
CLT4	CST-U-FEED-CLT Upper drawer feed clutch	[G]	8-C
CLT5	CST-L-FEED-CLT Lower drawer feed clutch	[G]	8-D
CLT6	TR-U-CLT High speed transport clutch	[G]	-
CLT7	TR-M-CLT Low speed transport clutch	[G]	-

PC boards

Symbol	Name	Figure	Wire harness location
CCD	PWA-F-CCD CCD driving PC board (CCD board)	[A]	3-G
CTIF	PWA-F-CTIF Toner cartridge interface PC board (CTIF board)	[C]	7-E
CTRG	PWA-F-CTRG Toner cartridge PC board (CTRG board)	[C]	-
DSP	PWA-F-DSP Display PC board (DSP board)	[A]	1-G
EPU	PWB-F-EPU EPU board	[B]	7-C
FUS	PWA-F-FUS Fuse PC board (FUS board)	[D]	5-H
IMG	PWA-F-IMG Image processing PC board (IMG board)	[D]	5-E
KEY	PWA-F-KEY Key control PC board (KEY board)	[A]	1-H
LDR	PWA-F-LDR Laser driving PC board (LDR board)	[C]	7-D
LGC	PWA-F-LGC Logic PC board (LGC board)	[D]	7-A
MOT	PWB-F-MOT MOT board	[D]	5-C
SFB	PWA-F-SFB Paper size detection board	[F]	7-B
SLG	PWA-F-SLG Scanning section control PC board (SLG board)	[A]	4-F
SNS	PWA-F-SNS H-sync signal detection PC board (SNS board)	[C]	7-D
SYS	PWA-F-SYS System control PC board (SYS board)	[D]	2-D

Lamps and heaters

Symbol	Name	Figure	Wire harness location
DH1	SCN-L-DH Scanner damp heater (Left)	[A]	-
DH2	SCN-R-DH Scanner damp heater (Right)	[A]	-
DH3	DRM-DH Drum damp heater	[B]	-
ERS	LP-ERS Discharge LED	[B]	-
EXP	LP-EXPO Exposure lamp	[A]	4-G
LAMP1	CNTR-LAMP Center heater lamp	[C]	-
LAMP2	SIDE-LAMP Side heater lamp	[C]	-

Thermistors and thermostats

Symbol	Name	Figure	Wire harness location
THMO1	THERMO-FSR-C Fuser center thermostat	[C]	-
THMO2	THERMO-FSR-F Fuser front thermostat	[C]	-
THMO3	THERMO-DRM-DH Drum damp heater thermostat	[B]	-
THMO4	THERMO-SCN-DH Scanner damp heater thermostat	[A]	-
THMS1	THMS-C-HTR Center thermistor	[C]	8-E
THMS2	THMS-S-HTR Side thermistor	[C]	-
THMS3	THMS-EDG-HTR Edge thermistor	[C]	8-F
THMS4	THMS-DRM Drum thermistor	[B]	7-C

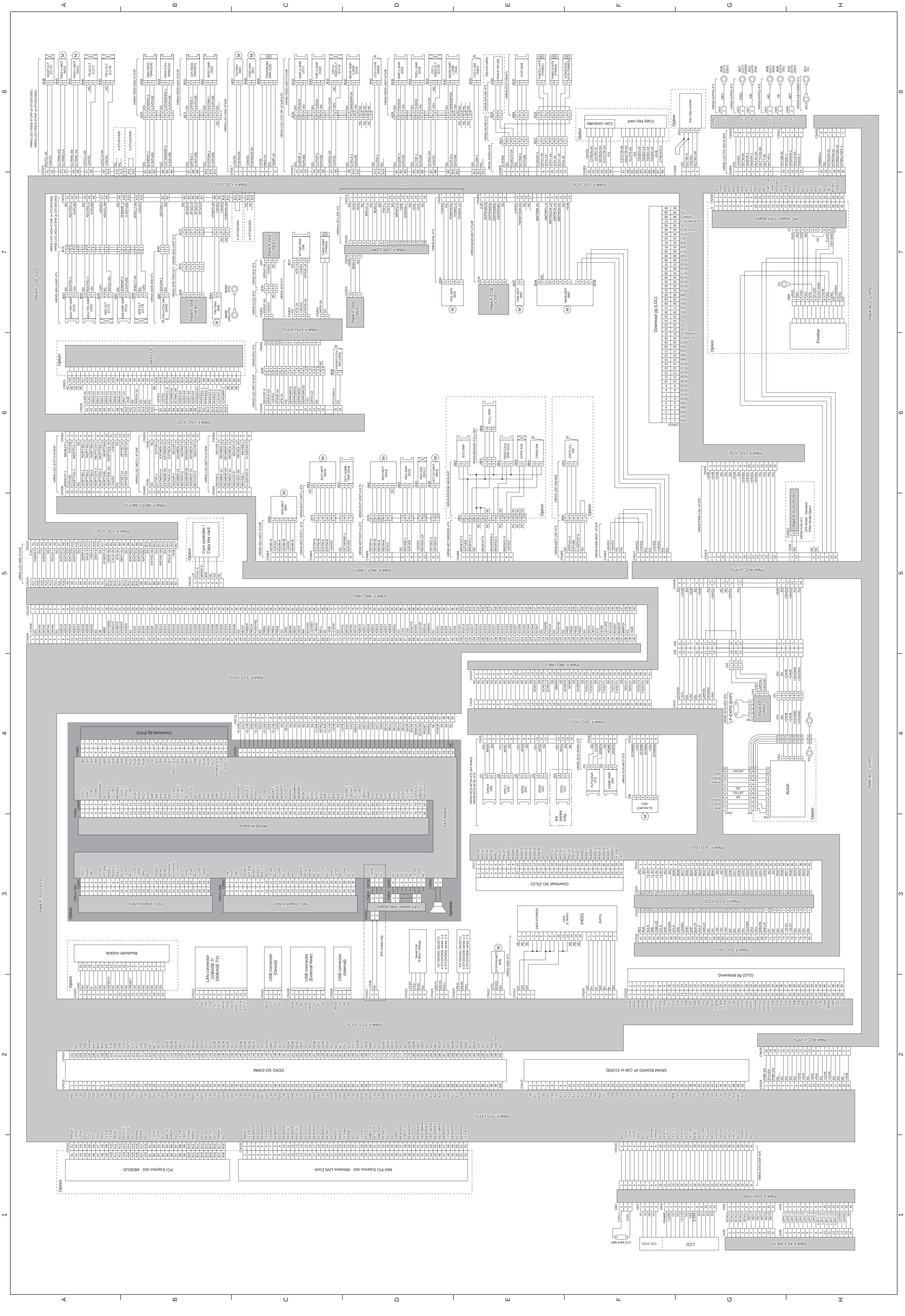
Transformer

Symbol	Name	Figure	Wire harness location
HVT	PS-HVT High-voltage transformer	[B]	-

Others

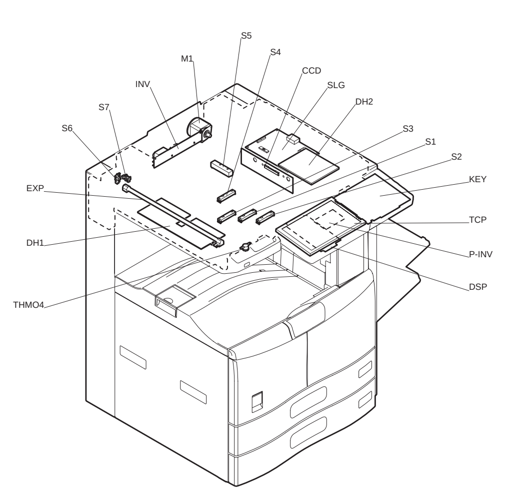
Symbol	Name	Figure	Wire harness location
TCP	TCP Touch panel	[A]	1-G
HDD	HDD Hard disk	[D]	3-F
INV	INV-EXP Inverter board	[A]	4-G
LVPS	PS-ACC Switching regulator (LVPS board)	[B]	5-H
P-INV	INV-PNL Panel inverter board	[A]	-

11.4 DC Wire Harness (e-STUDIO355/455)

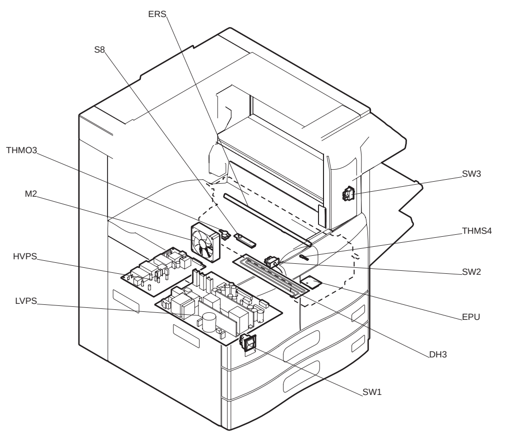

A
B
C
D
E
F
G
H
1
2
3
4
5
6
7
8
PWA-F-LGC (LGC)
PWA-F-SYS (SYS)
PWA-ACC (LVPS)
PWA-F-MOT2 (MOT2)
PWA-F-IMG (IMG)
PWA-F-SLG (SLG)
PWA-F-CCD (CCD)
PWA-F-DSP (DSP)
PWA-F-KEY (KEY)
DDR2 SO-DIMM
SRAM BOARD I/F (1M or 512KB)
Download jig (LGC)
Download jig (SYS)
Download jig (FAX)
MODEM board
FAX board
NCU board (Line1)
NCU board (Line2)
Bluetooth module
LAN connector (10BASE-T/100BASE-TX)
USB connector (Device)
USB connector (External Rear)
USB connector (Internal)
PCI Express slot -MEBIUS-
Mini PCI Express slot -Wireless LAN Card-
Finisher
RADF
LCD
Speaker
Option

11.5 Electric Parts Layout (e-STUDIO355/455)

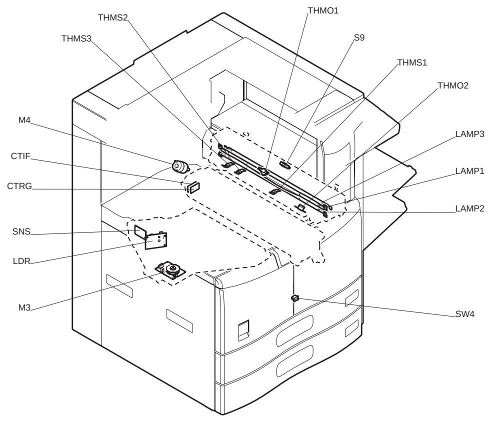
[A] Scanner unit, control panel



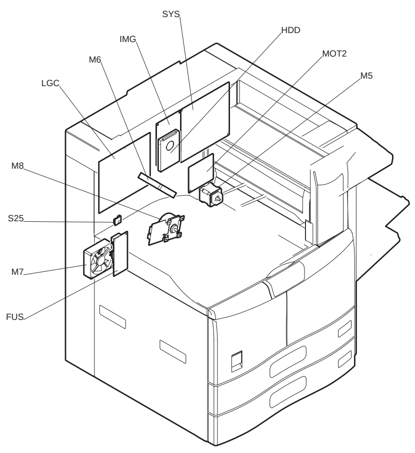
[B] Power supply, developer unit



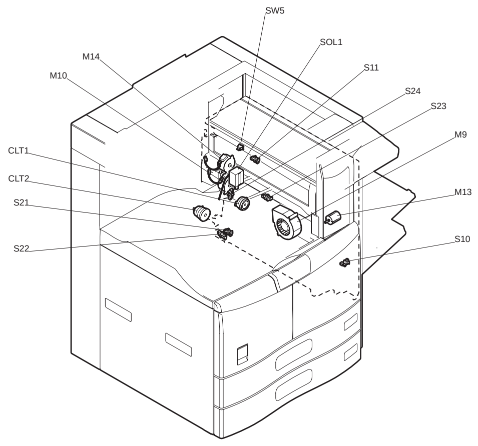
[C] Laser unit, fuser unit, toner cartridge



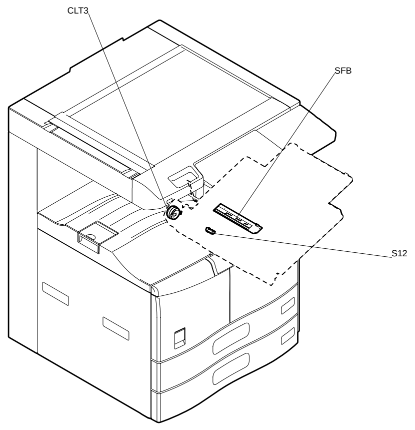
[D] Drive unit



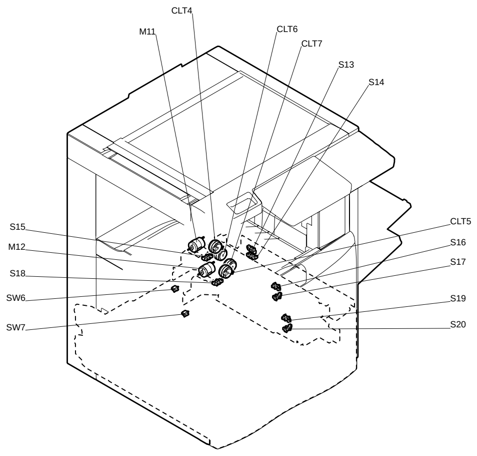
[E] Automatic duplexing unit, transfer unit, exit unit



[F] Bypass feed unit



[G] Drawer unit



Motors

Symbol	Name	Figure	Wire harness location
M1	SCAN-MOT Scan motor	[A]	4-F
M2	PU-FAN Process unit fan	[B]	8-C
M3	POL-MOT Polygonal motor	[C]	7-E
M4	TNR-MOT Toner motor	[C]	7-E
M5	ADU-MOT ADU motor	[D]	5-C
M6	SYS-FAN-MOT SYS/HDD cooling fan	[D]	-
M7	POW-FAN Switching regulator cooling fan	[D]	8-C
M8	MAIN-MOT Main motor	[D]	7-E
M9	TRU-FAN TRU fan	[E]	7-B
M10	EXIT-MOT Exit motor	[E]	6-C
M11	TRAY-U-MOT Upper tray-up motor	[G]	8-A
M12	TRAY-L-MOT Lower tray-up motor	[G]	8-A
M13	OCT-GT-MOT offset gate motor	[E]	6-D
M14	REV-MOT Reverse motor	[E]	6-D

Sensors and switches

Symbol	Name	Figure	Wire harness location
S1-5	APS1-3, APS-C, APS-R Automatic original detection sensor	[A]	4-E
S6	HOME-SNR Carriage home position sensor	[A]	4-F
S7	PLTN-SNR Platen sensor	[A]	4-F
S8	ATTNR-SNR Auto-toner sensor	[B]	7-C
S9	EXIT-SW Exit sensor	[C]	8-E
S10	ADU-TR1-SNR ADU exit sensor	[E]	7-A
S11	ADU-TR2-SNR ADU entrance sensor	[E]	7-A
S12	SFB-EMP-SNR Bypass paper sensor	[F]	7-B
S13	FEED-COV-SNR Feed cover opening/closing sensor	[G]	6-E
S14	2ND-FEED-SNR 2nd transport sensor	[G]	8-B
S15	NEAR-EMP-U-SNR Upper drawer paper stock sensor	[G]	8-D
S16	TOP-U-SNR Upper drawer tray-up sensor	[G]	8-C
S17	EMP-U-SNR Upper drawer empty sensor	[G]	8-C
S18	NEAR-EMP-L-SNR Lower drawer paper stock sensor	[G]	8-D
S19	TOP-L-SNR Lower drawer tray-up sensor	[G]	8-D
S20	EMP-L-SNR Lower drawer empty sensor	[G]	8-D
S21	1ST-FEED-SNR 1st transport sensor	[E]	8-B
S22	RGST-SNR Registration sensor	[E]	8-B
S23	REV-SNR REV sensor	[E]	6-D
S24	OCT-HOME-SNR OCT home position sensor	[E]	6-D
S25	TEMP/HUMI-SNR Temperature/humidity sensor	[D]	8-C
SW1	MAIN-SW Main switch	[B]	-
SW2	FRNT-COV-INTLCK-SW Front cover interlock switch	[B]	-
SW3	ADU-INTLCK-SW ADU interlock switch	[B]	-
SW4	FRONT-COV-SW Front cover switch	[C]	6-C
SW5	ADU-COV-SW ADU opening/closing switch	[E]	7-B
SW6	CST-U-SW Upper drawer detection switch	[G]	8-D
SW7	CST-L-SW Lower drawer detection switch	[G]	8-E

Electromagnetic clutches

Symbol	Name	Figure	Wire harness location
CLT1	ADU-CLT ADU clutch	[E]	7-A
CLT2	RGST-CLT Registration roller clutch	[E]	8-A
CLT3	SFB-CLT Bypass feed clutch	[F]	7-B
CLT4	CST-U-FEED-CLT Upper drawer feed clutch	[G]	8-C
CLT5	CST-L-FEED-CLT Lower drawer feed clutch	[G]	8-D
CLT6	TR-U-CLT High speed transport clutch	[G]	-
CLT7	TR-M-CLT Low speed transport clutch	[G]	-

Solenoids

Symbol	Name	Figure	Wire harness location
SOL1	REV-SOL REV gate solenoid	[E]	8-D

PC boards

Symbol	Name	Figure	Wire harness location
CCD	PWA-F-CCD CCD driving PC board (CCD board)	[A]	3-G
CTIF	PWA-F-CTIF Toner cartridge interface PC board (CTIF board)	[C]	7-E
CTRG	PWA-F-CTRG Toner cartridge PC board (CTRG board)	[C]	-
DSP	PWA-F-DSP Display PC board (DSP board)	[A]	1-G
EPU	PWB-F-EPU EPU board	[B]	7-C
FUS	PWA-F-FUS Fuse PC board (FUS board)	[D]	5-H
IMG	PWA-F-IMG Image processing PC board (IMG board)	[D]	5-E
KEY	PWA-F-KEY Key control PC board (KEY board)	[A]	1-H
LDR	PWA-F-LDR Laser driving PC board (LDR board)	[C]	7-D
LGC	PWA-F-LGC Logic PC board (LGC board)	[D]	7-A
MOT2	PWB-F-MOT2 MOT2 board	[D]	5-C
SFB	PWA-F-SFB Paper size detection board	[F]	7-B
SLG	PWA-F-SLG Scanning section control PC board (SLG board)	[A]	4-F
SNS	PWA-F-SNS H-sync signal detection PC board (SNS board)	[C]	7-D
SYS	PWA-F-SYS System control PC board (SYS board)	[D]	2-D

Lamps and heaters

Symbol	Name	Figure	Wire harness location
DH1	SCN-L-DH Scanner damp heater (Left)	[A]	-
DH2	SCN-R-DH Scanner damp heater (Right)	[A]	-
DH3	DRM-DH Drum damp heater	[B]	-
ERS	LP-ERS Discharge LED	[B]	-
EXP	LP-EXPO Exposure lamp	[A]	4-G
LAMP1	CNTR-LAMP Center heater lamp	[C]	-
LAMP2	SIDE-LAMP Side heater lamp	[C]	-
LAMP3	LAMP-TRIPLE Sub heater lamp	[C]	-

Thermistors and thermostats

Symbol	Name	Figure	Wire harness location
THMO1	THERMO-FSR-C Fuser center thermostat	[C]	-
THMO2	THERMO-FSR-F Fuser front thermostat	[C]	-
THMO3	THERMO-DRM-DH Drum damp heater thermostat	[B]	-
THMO4	THERMO-SCN-DH Scanner damp heater thermostat	[A]	-
THMS1	THMS-C-HTR Center thermistor	[C]	8-E
THMS2	THMS-S-HTR Side thermistor	[C]	-
THMS3	THMS-EDG-HTR Edge thermistor	[C]	8-F
THMS4	THMS-DRM Drum thermistor	[B]	7-C

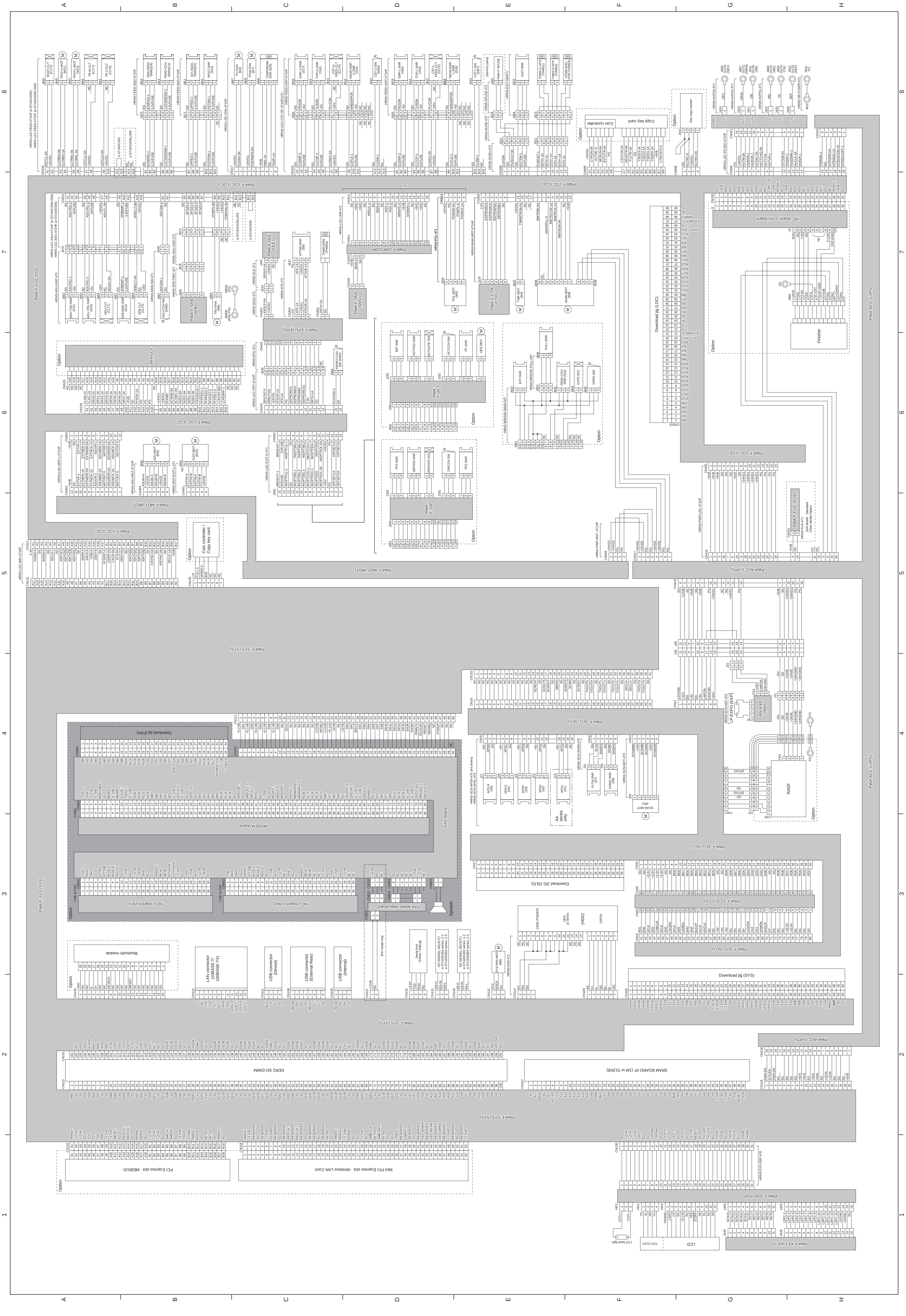
Transformer

Symbol	Name	Figure	Wire harness location
HVT	PS-HVT High-voltage transformer	[B]	-

Others

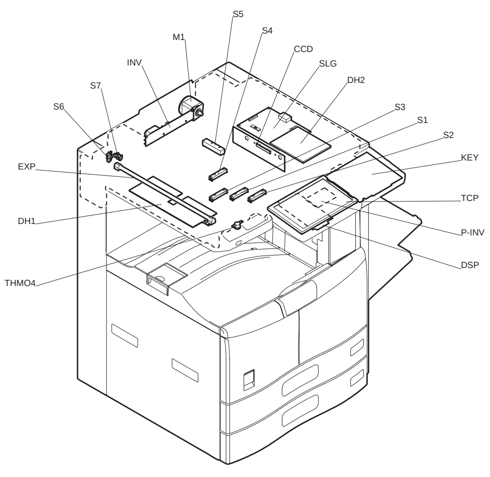
Symbol	Name	Figure	Wire harness location
TCP	TCP Touch panel	[A]	1-G
HDD	HDD Hard disk	[D]	3-F
INV	INV-EXP Inverter board	[A]	4-G
LVPS	PS-ACC Switching regulator (LVPS board)	[B]	5-H
P-INV	INV-PNL Panel inverter board	[A]	-

11.6 DC Wire Harness (e-STUDIO205L/255/305 for SYS-IMG board)

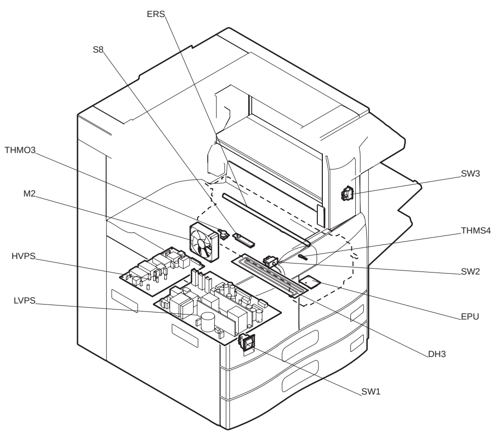

A
B
C
D
E
F
G
H
1
2
3
4
5
6
7
8
PWA-F-SYS (SYS)
PWA-F-LGC (LGC)
PWA-ACC (LVPS)
PWA-F-SLG (SLG)
PWA-F-MOT (MOT)
PWA-F-EPU (EPU)
PWA-F-LDR (LDR)
PWA-F-CCD (CCD)
PWA-F-DSP (DSP)
PWA-F-KEY (KEY)
PWA-F-SFB (SFB)
PWA-F-SNS (SNS)
PWA-F-CTIF (CTIF)
PWA-F-OCT
PWA-F-JSP
PWA-F-FUS (FUS)
IPC board / CNV board
Download jig (LGC)
Download jig (SLG)
Download jig (SYS)
Download jig (FAX)
FAX board
MODEM board
NCU board [Line1]
NCU board [Line2]
FAX power relay board
Speaker
DDR2 SO-DIMM
SRAM BOARD I/F (1M or 512KB)
PCI Express slot -MEBIUS-
Mini PCI Express slot -Wireless LAN Card-
Bluetooth module
LAN connector (10BASE-T/100BASE-TX)
USB connector (Device)
USB connector (External Rear)
USB connector (Internal)
Serial Port (Feda / Debug)
Coin controller / Copy key card
Coin controller
Copy key card
Key copy counter
Finisher
RADF
INV-EXP (INV)
LP-EXPO (EXP)
PFP/LCF
LCD
TCP (TCP)
LCD back light
(HDD)
Option

11.7 Electric Parts Layout (e-STUDIO205L/255/305 for SYS-IMG board)

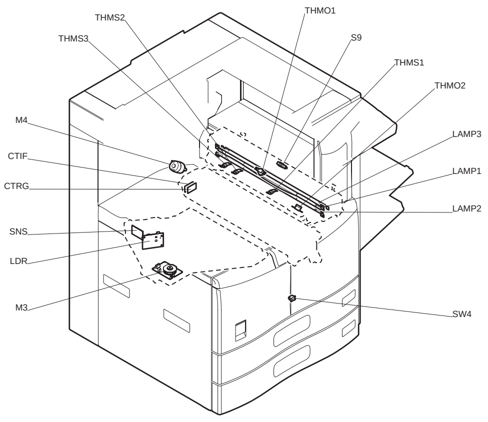
[A] Scanner unit, control panel



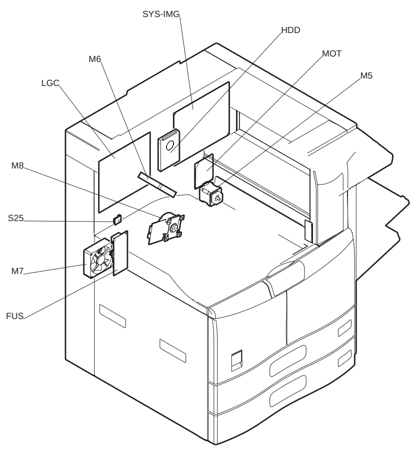
[B] Power supply, developer unit



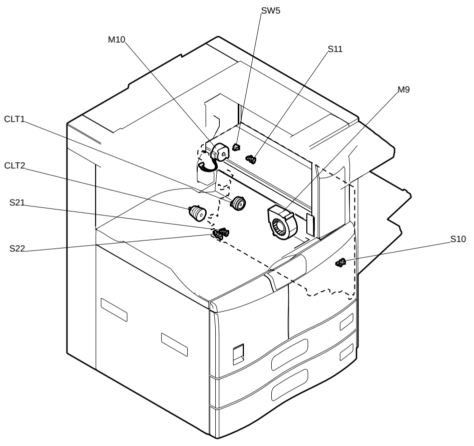
[C] Laser unit, fuser unit, toner cartridge



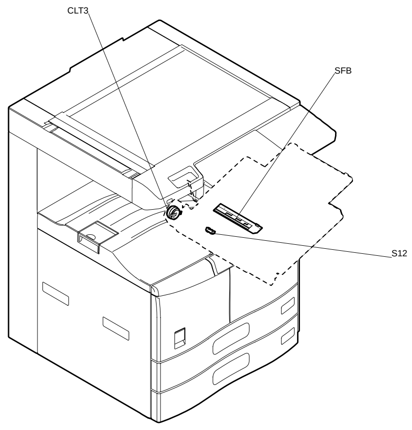
[D] Drive unit



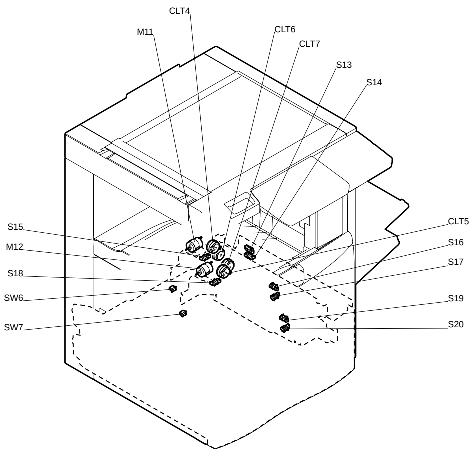
[E] Automatic duplexing unit, transfer unit, exit unit



[F] Bypass feed unit



[G] Drawer unit



Motors

Symbol	Name	Figure	Wire harness location
M1	SCAN-MOT Scan motor	[A]	4-F
M2	PU-FAN Process unit fan	[B]	8-C
M3	POL-MOT Polygonal motor	[C]	7-E
M4	TNR-MOT Toner motor	[C]	7-E
M5	ADU-MOT ADU motor	[D]	6-B
M6	SYS-FAN-MOT SYS/HDD cooling fan	[D]	-
M7	POW-FAN Switching regulator cooling fan	[D]	8-C
M8	MAIN-MOT Main motor	[D]	7-E
M9	TRU-FAN TRU fan	[E]	7-B
M10	EXIT-MOT Exit motor	[E]	6-B
M11	TRAY-U-MOT Upper tray-up motor	[G]	8-A
M12	TRAY-L-MOT Lower tray-up motor	[G]	8-A

Sensors and switches

Symbol	Name	Figure	Wire harness location
S1-5	APS1-3, APS-C, APS-R Automatic original detection sensor	[A]	4-E
S6	HOME-SNR Carriage home position sensor	[A]	4-F
S7	PLTN-SNR Platen sensor	[A]	4-F
S8	ATTNR-SNR Auto-toner sensor	[B]	7-C
S9	EXIT-SW Exit sensor	[C]	8-E
S10	ADU-TR1-SNR ADU exit sensor	[E]	7-A
S11	ADU-TR2-SNR ADU entrance sensor	[E]	7-A
S12	SFB-EMP-SNR Bypass paper sensor	[F]	7-B
S13	FEED-COV-SNR Feed cover opening/closing sensor	[G]	6-E
S14	2ND-FEED-SNR 2nd transport sensor	[G]	8-B
S15	NEAR-EMP-U-SNR Upper drawer paper stock sensor	[G]	8-D
S16	TOP-U-SNR Upper drawer tray-up sensor	[G]	8-C
S17	EMP-U-SNR Upper drawer empty sensor	[G]	8-C
S18	NEAR-EMP-L-SNR Lower drawer paper stock sensor	[G]	8-D
S19	TOP-L-SNR Lower drawer tray-up sensor	[G]	8-D
S20	EMP-L-SNR Lower drawer empty sensor	[G]	8-D
S21	1ST-FEED-SNR 1st transport sensor	[E]	8-B
S22	RGST-SNR Registration sensor	[E]	8-B
S25	TEMP/HUMI-SNR Temperature/humidity sensor	[D]	8-C
SW1	MAIN-SW Main switch	[B]	-
SW2	FRNT-COV-INTLCK-SW Front cover interlock switch	[B]	-
SW3	ADU-INTLCK-SW ADU interlock switch	[B]	-
SW4	FRONT-COV-SW Front cover switch	[C]	6-C
SW5	ADU-COV-SW ADU opening/closing switch	[E]	7-B
SW6	CST-U-SW Upper drawer detection switch	[G]	8-D
SW7	CST-L-SW Lower drawer detection switch	[G]	8-E

Electromagnetic clutches

Symbol	Name	Figure	Wire harness location
CLT1	ADU-CLT ADU clutch	[E]	7-A
CLT2	RGST-CLT Registration roller clutch	[E]	8-A
CLT3	SFB-CLT Bypass feed clutch	[F]	7-B
CLT4	CST-U-FEED-CLT Upper drawer feed clutch	[G]	8-C
CLT5	CST-L-FEED-CLT Lower drawer feed clutch	[G]	8-D
CLT6	TR-U-CLT High speed transport clutch	[G]	-
CLT7	TR-M-CLT Low speed transport clutch	[G]	-

PC boards

Symbol	Name	Figure	Wire harness location
CCD	PWA-F-CCD CCD driving PC board (CCD board)	[A]	3-G
CTIF	PWA-F-CTIF Toner cartridge interface PC board (CTIF board)	[C]	7-E
CTRG	PWA-F-CTRG Toner cartridge PC board (CTRG board)	[C]	-
DSP	PWA-F-DSP Display PC board (DSP board)	[A]	1-G
EPU	PWB-F-EPU EPU board	[B]	7-C
FUS	PWA-F-FUS Fuse PC board (FUS board)	[D]	5-H
KEY	PWA-F-KEY Key control PC board (KEY board)	[A]	1-H
LDR	PWA-F-LDR Laser driving PC board (LDR board)	[C]	7-D
LGC	PWA-F-LGC Logic PC board (LGC board)	[D]	7-A
MOT	PWB-F-MOT MOT board	[D]	5-C
SFB	PWA-F-SFB Paper size detection board	[F]	7-B
SLG	PWA-F-SLG Scanning section control PC board (SLG board)	[A]	4-F
SNS	PWA-F-SNS H-sync signal detection PC board (SNS board)	[C]	7-D
SYS-IMG	PWA-F-SYS System control PC board (SYS-IMG board)	[D]	2-D

Lamps and heaters

Symbol	Name	Figure	Wire harness location
DH1	SCN-L-DH Scanner damp heater (Left)	[A]	-
DH2	SCN-R-DH Scanner damp heater (Right)	[A]	-
DH3	DRM-DH Drum damp heater	[B]	-
ERS	LP-ERS Discharge LED	[B]	-
EXP	LP-EXPO Exposure lamp	[A]	4-G
LAMP1	CNTR-LAMP Center heater lamp	[C]	-
LAMP2	SIDE-LAMP Side heater lamp	[C]	-

Thermistors and thermostats

Symbol	Name	Figure	Wire harness location
THMO1	THERMO-FSR-C Fuser center thermostat	[C]	-
THMO2	THERMO-FSR-F Fuser front thermostat	[C]	-
THMO3	THERMO-DRM-DH Drum damp heater thermostat	[B]	-
THMO4	THERMO-SCN-DH Scanner damp heater thermostat	[A]	-
THMS1	THMS-C-HTR Center thermistor	[C]	8-E
THMS2	THMS-S-HTR Side thermistor	[C]	-
THMS3	THMS-EDG-HTR Edge thermistor	[C]	8-F
THMS4	THMS-DRM Drum thermistor	[B]	7-C

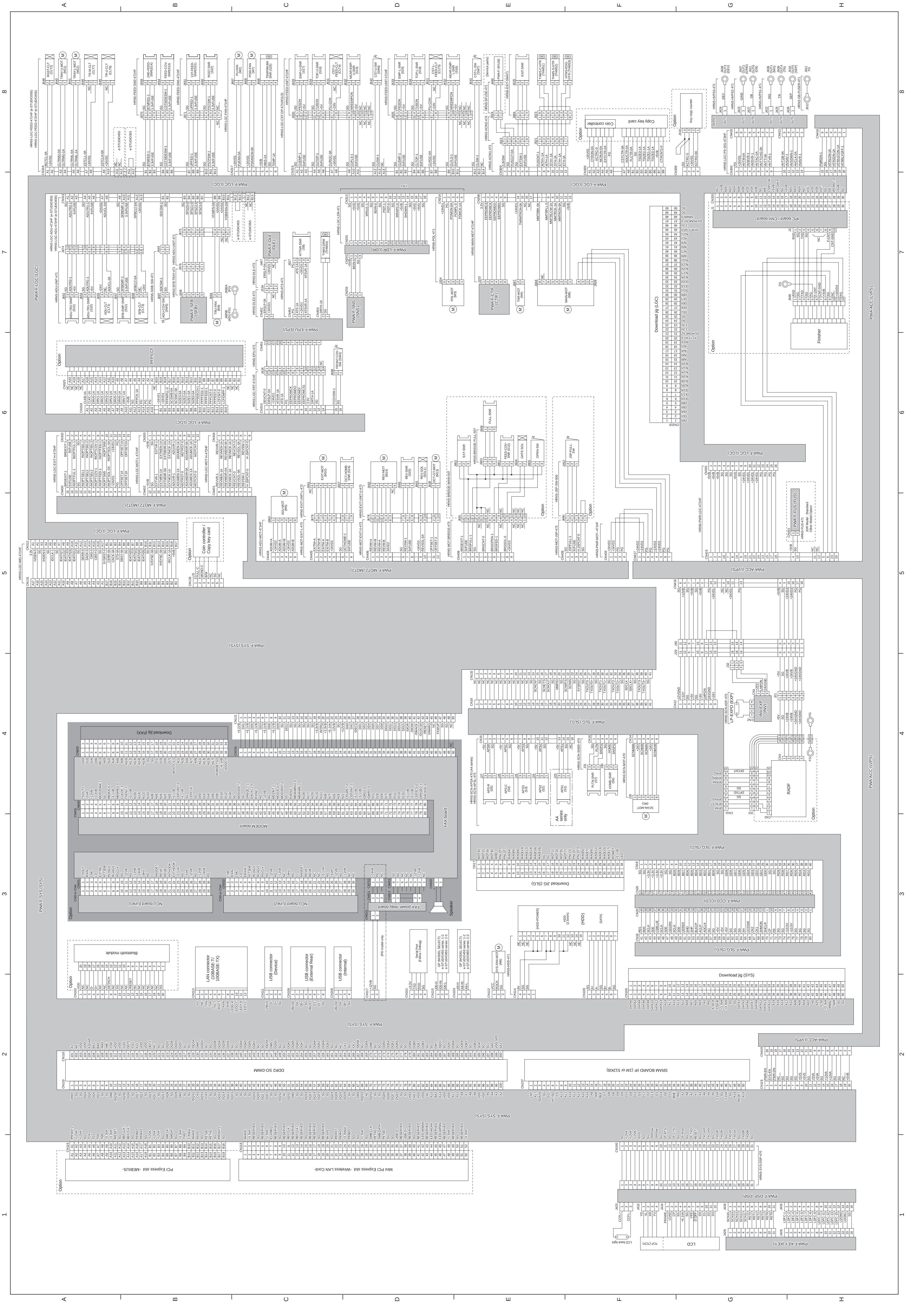
Transformer

Symbol	Name	Figure	Wire harness location
HVT	PS-HVT High-voltage transformer	[B]	-

Others

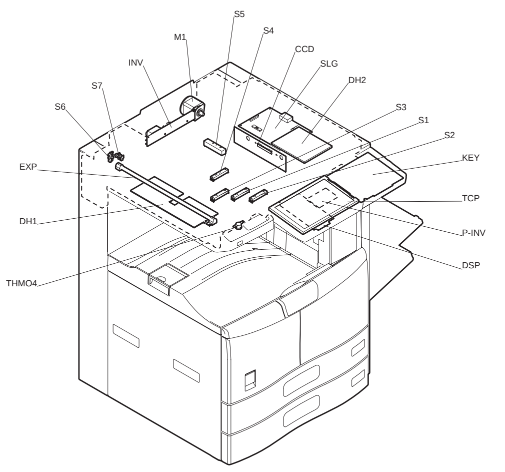
Symbol	Name	Figure	Wire harness location
TCP	TCP Touch panel	[A]	1-G
HDD	HDD Hard disk	[D]	3-F
INV	INV-EXP Inverter board	[A]	4-G
LVPS	PS-ACC Switching regulator (LVPS board)	[B]	5-H
P-INV	INV-PNL Panel inverter board	[A]	-

11.8 DC Wire Harness (e-STUDIO355/455 for SYS-IMG board)

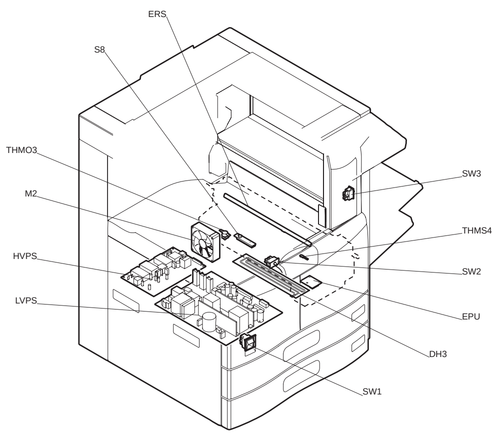

A
B
C
D
E
F
G
H
1
2
3
4
5
6
7
8

11.9 Electric Parts Layout (e-STUDIO355/455 for SYS-IMG board)

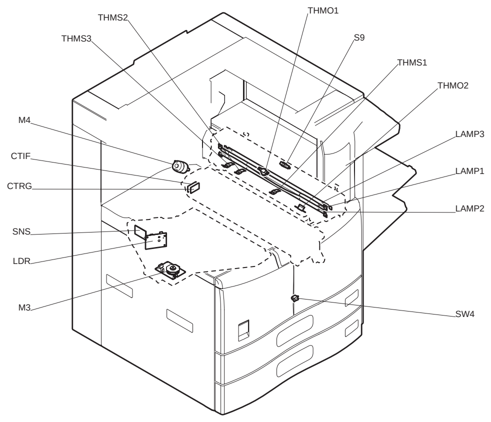
[A] Scanner unit, control panel



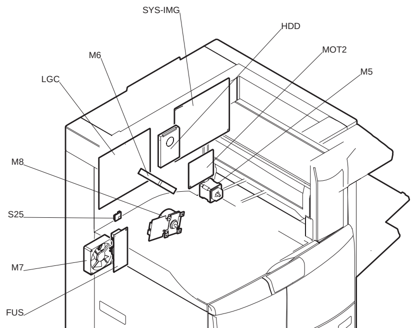
[B] Power supply, developer unit



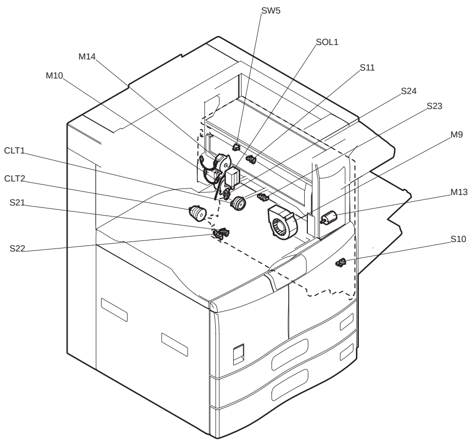
[C] Laser unit, fuser unit, toner cartridge



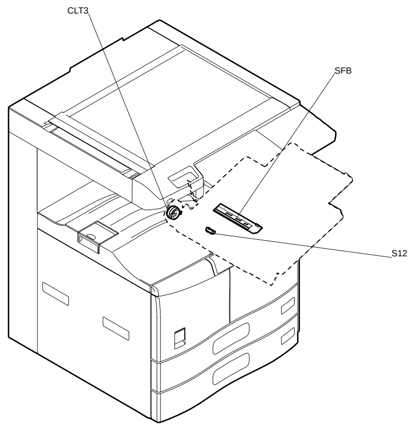
[D] Drive unit



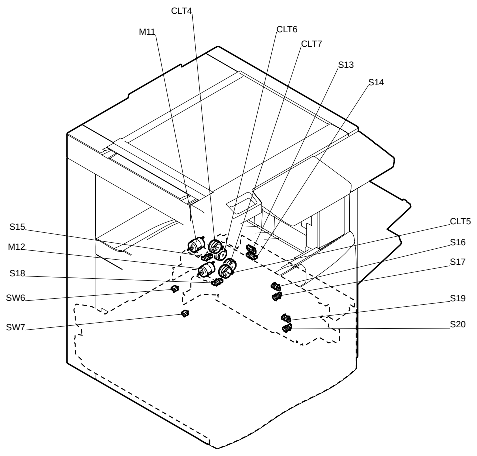
[E] Automatic duplexing unit, transfer unit, exit unit



[F] Bypass feed unit



[G] Drawer unit



Motors

Symbol	Name	Figure	Wire harness location
M1	SCAN-MOT Scan motor	[A]	4-F
M2	PU-FAN Process unit fan	[B]	8-C
M3	POL-MOT Polygonal motor	[C]	7-E
M4	TNR-MOT Toner motor	[C]	7-E
M5	ADU-MOT ADU motor	[D]	5-C
M6	SYS-FAN-MOT SYS/HDD cooling fan	[D]	-
M7	POW-FAN Switching regulator cooling fan	[D]	8-C
M8	MAIN-MOT Main motor	[D]	7-E
M9	TRU-FAN TRU fan	[E]	7-B
M10	EXIT-MOT Exit motor	[E]	6-C
M11	TRAY-U-MOT Upper tray-up motor	[G]	8-A
M12	TRAY-L-MOT Lower tray-up motor	[G]	8-A
M13	OCT-GT-MOT offset gate motor	[E]	6-D
M14	REV-MOT Reverse motor	[E]	6-D

Sensors and switches

Symbol	Name	Figure	Wire harness location
S1-5	APS1-3, APS-C, APS-R Automatic original detection sensor	[A]	4-E
S6	HOME-SNR Carriage home position sensor	[A]	4-F
S7	PLTN-SNR Platen sensor	[A]	4-F
S8	ATTNR-SNR Auto-toner sensor	[B]	7-C
S9	EXIT-SW Exit sensor	[C]	8-E
S10	ADU-TR1-SNR ADU exit sensor	[E]	7-A
S11	ADU-TR2-SNR ADU entrance sensor	[E]	7-A
S12	SFB-EMP-SNR Bypass paper sensor	[F]	7-B
S13	FEED-COV-SNR Feed cover opening/closing sensor	[G]	6-E
S14	2ND-FEED-SNR 2nd transport sensor	[G]	8-B
S15	NEAR-EMP-U-SNR Upper drawer paper stock sensor	[G]	8-D
S16	TOP-U-SNR Upper drawer tray-up sensor	[G]	8-C
S17	EMP-U-SNR Upper drawer empty sensor	[G]	8-C
S18	NEAR-EMP-L-SNR Lower drawer paper stock sensor	[G]	8-D
S19	TOP-L-SNR Lower drawer tray-up sensor	[G]	8-D
S20	EMP-L-SNR Lower drawer empty sensor	[G]	8-D
S21	1ST-FEED-SNR 1st transport sensor	[E]	8-B
S22	RGST-SNR Registration sensor	[E]	8-B
S23	REV-SNR REV sensor	[E]	6-D
S24	OCT-HOME-SNR OCT home position sensor	[E]	6-D
S25	TEMP/HUMI-SNR Temperature/humidity sensor	[D]	8-C
SW1	MAIN-SW Main switch	[B]	-
SW2	FRNT-COV-INTLCK-SW Front cover interlock switch	[B]	-
SW3	ADU-INTLCK-SW ADU interlock switch	[B]	-
SW4	FRONT-COV-SW Front cover switch	[C]	6-C
SW5	ADU-COV-SW ADU opening/closing switch	[E]	7-B
SW6	CST-U-SW Upper drawer detection switch	[G]	8-D
SW7	CST-L-SW Lower drawer detection switch	[G]	8-E

Electromagnetic clutches

Symbol	Name	Figure	Wire harness location
CLT1	ADU-CLT ADU clutch	[E]	7-A
CLT2	RGST-CLT Registration roller clutch	[E]	8-A
CLT3	SFB-CLT Bypass feed clutch	[F]	7-B
CLT4	CST-U-FEED-CLT Upper drawer feed clutch	[G]	8-C
CLT5	CST-L-FEED-CLT Lower drawer feed clutch	[G]	8-D
CLT6	TR-U-CLT High speed transport clutch	[G]	-
CLT7	TR-M-CLT Low speed transport clutch	[G]	-

Solenoids

Symbol	Name	Figure	Wire harness location
SOL1	REV-SOL REV gate solenoid	[E]	8-D

PC boards

Symbol	Name	Figure	Wire harness location
CCD	PWA-F-CCD CCD driving PC board (CCD board)	[A]	3-G
CTIF	PWA-F-CTIF Toner cartridge interface PC board (CTIF board)	[C]	7-E
CTRG	PWA-F-CTRG Toner cartridge PC board (CTRG board)	[C]	-
DSP	PWA-F-DSP Display PC board (DSP board)	[A]	1-G
EPU	PWB-F-EPU EPU board	[B]	7-C
FUS	PWA-F-FUS Fuse PC board (FUS board)	[D]	5-H
KEY	PWA-F-KEY Key control PC board (KEY board)	[A]	1-H
LDR	PWA-F-LDR Laser driving PC board (LDR board)	[C]	7-D
LGC	PWA-F-LGC Logic PC board (LGC board)	[D]	7-A
MOT2	PWB-F-MOT2 MOT2 board	[D]	5-C
SFB	PWA-F-SFB Paper size detection board	[F]	7-B
SLG	PWA-F-SLG Scanning section control PC board (SLG board)	[A]	4-F
SNS	PWA-F-SNS H-sync signal detection PC board (SNS board)	[C]	7-D
SYS-IMG	PWA-F-SYS System control PC board (SYS-IMG board)	[D]	2-D

Lamps and heaters

Symbol	Name	Figure	Wire harness location
DH1	SCN-L-DH Scanner damp heater (Left)	[A]	-
DH2	SCN-R-DH Scanner damp heater (Right)	[A]	-
DH3	DRM-DH Drum damp heater	[B]	-
ERS	LP-ERS Discharge LED	[B]	-
EXP	LP-EXPO Exposure lamp	[A]	4-G
LAMP1	CNTR-LAMP Center heater lamp	[C]	-
LAMP2	SIDE-LAMP Side heater lamp	[C]	-
LAMP3	LAMP-TRIPLE Sub heater lamp	[C]	-

Thermistors and thermostats

Symbol	Name	Figure	Wire harness location
THMO1	THERMO-FSR-C Fuser center thermostat	[C]	-
THMO2	THERMO-FSR-F Fuser front thermostat	[C]	-
THMO3	THERMO-DRM-DH Drum damp heater thermostat	[B]	-
THMO4	THERMO-SCN-DH Scanner damp heater thermostat	[A]	-
THMS1	THMS-C-HTR Center thermistor	[C]	8-E
THMS2	THMS-S-HTR Side thermistor	[C]	-
THMS3	THMS-EDG-HTR Edge thermistor	[C]	8-F
THMS4	THMS-DRM Drum thermistor	[B]	7-C

Transformer

Symbol	Name	Figure	Wire harness location
HVT	PS-HVT High-voltage transformer	[B]	-

Others

Symbol	Name	Figure	Wire harness location
TCP	TCP Touch panel	[A]	1-G
HDD	HDD Hard disk	[D]	3-F
INV	INV-EXP Inverter board	[A]	4-G
LVPS	PS-ACC Switching regulator (LVPS board)	[B]	5-H
P-INV	INV-PNL Panel inverter board	[A]	-

REVISION RECORD

Ver.10

Ver.10 <2012.03.30>	
Page	**Contents**
1-7	The unit has been added.
2-45	The default value of 05-469-3, 05-469-4 and 05-460-5 has been changed.
2-54	05-2382 have been added.
2-160	08-2827 have been added. The contents of 08-2847 has been changed.
2-161	The contents of 08-2848 has been changed.
2-176	08-5005 has been added.
2-192	08-8632 has been added.
5-27	The exit sensor actuator has been added to PM check list.
5-28	A note has been added.
5-47	The item and part name of PM kit have been corrected.
6-39	The connector number has been changed.

Ver.09

Ver.09 <2011.09.27>	
Page	**Contents**
2-38	The default value of 05-434-0 to 1 has been changed.
2-58	05-7380-1 and 05-7380-2 have been added.
2-111	The content of 08-638 has been changed.
2-140	The content of 08-1477 has been changed.
2-151	The content of 08-1773 has been changed.
2-152	The contents of 08-1774 and 1775 have been changed.
2-161	The default value of 08-2987 has been changed.
2-162	08-3631 has been added.
2-171	The content of 08-3864 has been changed.
2-191	08-8624 and 8625 have been added.
2-192	08-8626 and 8628 have been added.
2-201	The content of 08-9980 has been changed.
2-221	08-8624, 8625, and 8626 have been added.
2-222	05-7380-1 and -2 have been added.
2-225	08-3631 has been added.
2-229	08-8628 has been added.
6-76	The contents of C580 have been changed.
8-5	The contents of model specific folder have been changed.

Ver.08

Ver.08 <2011.07.15>	
Page	**Contents**
2-14	03-294 has been added.
2-15	The code of "CML relay ON" has been corrected from "320" to "322".
2-55	05-7050, 7051, 7059, and 7126 have been added.
2-56	05-7129, 7193-0, 7193-1, 7193-2, 7289, and 7290 have been added.
2-183	New codes have been added to the contents of 08-7000.
2-221	New codes have been added to the table of "2.8 Classification List of Adjustment Mode (05)/ Setting Mode (08)".
3-23	05-7126, and 7129 have been added.
3-24	05-7050, 7051, and 7059 have been added.
3-25	05-7289, and 7290 have been added.
3-26	05-7193-0, 7193-1, and 7193-2 have been added.
3-94 to 102	"3.15.4 Adjusting Paper Exit Speed" has been added.

Ver.07

Ver.07 <2011.04.19>	
Page	**Contents**
2-34	"SYS board" has been changed to "SYS board / SYS-IMG board".
2-36	"SYS board" has been changed to "SYS board / SYS-IMG board".
2-64	"SYS board" has been changed to "SYS board / SYS-IMG board".
2-69	The acceptable values and contents of 08-265 have been changed. The acceptable values and contents of 08-266 have been changed.
2-86	The content of 08-331 has been changed.
2-137	The classification and contents of 08-1426 have been changed.
2-151 to 2-152	08-1776 has been changed to 08-1776-0 to 15.
2-160	08-3626 has been added.
2-161	The default and acceptable values of 08-3743 have been changed.
2-182	The contents of 08-6977-0 to 4 have been changed.
2-187	The classification, item, acceptable value and contents of 08-8589 have been changed.
2-187	08-8590 has been changed to 08-8590-0 to 4.
2-188 to 2-189	Setting codes 08-8608, 8609, 8610, 8611, 8612, 8613, 8615, 8616, 8617, 8618, 8619, 8620 and 8622 have been added.
2-189	08-8614 has been deleted.
2-199	08-9984 has been changed to 08-9984-0 to 4.
2-222	08-8611 has been added.
2-223	Setting codes 08-8608, 8609, 8610 and 8622 has been added.
2-224	Setting codes 08-8616, 8617, 8618, 8619, 8620 and 8622 has been added.
2-225	08-8615 has been added.
2-226	08-3626 has been added.
2-227	Setting codes 08-8612 and 8613 has been added.
4-2	Items and a note have been added to step 2.
4-3 to 4-4	Setting codes 08-204, 205, 206, 218, 219, 221, 250, 254, 259, 260, 272, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 302, 331, 342, 503, 550, 603, 610, 611, 619, 634, 638, 640, 642, 645, 649, 650, 651, 652, 653, 658, 659, 671, 702, 703, 707, 721, 723, 726, 727, 728, 729, 730, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 969, 970, 973, 978, 979, 1002, 1017, 1022, 1125, 1432, 1740, 1744, 1772, 1780, 3508, 3722, 3723, 3724, 3736, 3737, 3738, 3739, 3740, 3754, 3755, 3757, 3758, 3759, 3760, 3783, 3785, 3789, 3796, 3797, 3812, 3833, 3851, 3852, 3853, 3854, 3855, 3856, 3857, 3858, 3859, 3860, 3861, 3862, 3863, 8504, 8511, 8543, 8580, 8581, 8582, 8583, 8584, 8585, 8586, 8587, 8588, 8589, 8590-0, 8590-1, 8590-2, 8590-3, 8590-4, 8591, 8592, 8593, 8604, 8605, 8606, 8615, 8616, 8617, 8618, 8619, 8620, 8803, 8804, 8805, 8817, 8818, 9117, 9120, 9121, 9122, 9123, 9124, 9125, 9126, 9294, 9384, 9629, 9791, 9799, 9829, 9889, 9891, 9957, 9958, 9980, 9984-0, 9984-1, 9984-2, 9984-3 and 9984-4 have been added.
4-7	Items have been added in Step 4 <When “3: Setting Back Up” is selected>.
4-8	Fig. 4-5 has been changed.
4-10	Items have been added in step 4 <When “4: Setting Restore” is selected>.
4-11	Fig. 4-10 has been changed.
4-12	"ERROR12" has been added.
4-18	"SYS board" has been changed to "SYS board / SYS-IMG board". (4) SRAM data format" has been changed to "(4) SRAM Data formatting on the SYS board (SRAM Data format)".
6-8	"SYS board" for EAD0 has been changed to "SYS board / SYS-IMG board".
6-13	"SYS board" for F090 has been changed to "SYS board / SYS-IMG board".
6-30	"SYS board" for F090 has been changed to "SYS board / SYS-IMG board".
6-34	The contents of E510 have been changed.
6-34 to 6-35	The contents of E520 have been changed.
6-64	"SYS board" for EAD0 has been changed to "SYS board / SYS-IMG board".

Ver.07 <2011.04.19>	
Page	**Contents**
6-77	A description has been added to step 1 of F070, F110 and F111. "SYS board" has been changed to "SYS board / SYS-IMG board".
6-104	"SYS board" has been changed to "SYS board / SYS-IMG board". The contents of F090, F100, F101, F102, F103, F104 and F105 have been corrected.
6-105	"SYS board" for F400 has been changed to "SYS board / SYS-IMG board".
6-106	"SYS board" for 1C22 has been changed to "SYS board / SYS-IMG board".
6-107	"SYS board" for 1C6D has been changed to "SYS board / SYS-IMG board".
6-109	"SYS board" for 2551 has been changed to "SYS board / SYS-IMG board".
6-110	"SYS board" for 2B10, 2B11, 2B20, 2B30, 2BC0 and 2BC1 has been changed to "SYS board / SYS-IMG board".
6-112	"SYS board" for 2C20, 2C21 and 2C22 has been changed to "SYS board / SYS-IMG board".
6-113	"SYS board" for 2C6D has been changed to "SYS board / SYS-IMG board".
6-115	"SYS board" for 2D20, 2D21, 2D22 and 2D60 has been changed to "SYS board / SYS-IMG board".
6-129	"SYS" has been changed to "SYS/SYS-IMG".
6-130	"SYS" has been changed to "SYS/SYS-IMG".
6-134	The contents in the Prescription field in step 2 for Drawers/LCF have been changed.
7-1	SYS-IMG has been added to the explanation of 7.1.1. "SYS board" has been changed to "SYS board / SYS-IMG board".
7-2	"SYS board" has been changed to "SYS board / SYS-IMG board".
7-9 to 7-10	"SYS board" has been changed to "SYS board / SYS-IMG board". A description has been added to "Important".
7-13	"SYS board" has been changed to "SYS board / SYS-IMG board".
7-16	"SYS board" has been changed to "SYS board / SYS-IMG board".
7-18	"SYS board" has been changed to "SYS board / SYS-IMG board".
7-19	"SYS board" has been changed to "SYS board / SYS-IMG board".
7-20	"SYS board" has been changed to "SYS board / SYS-IMG board".
8-4	Notes have been changed.
8-5	"SYS board" has been changed to "SYS board / SYS-IMG board".
8-16	"SYS board" has been changed to "SYS board / SYS-IMG board".
8-20	"SYS board" has been changed to "SYS board / SYS-IMG board".
8-50	"SYS board" has been changed to "SYS board / SYS-IMG board".
8-51	"SYS board" has been changed to "SYS board / SYS-IMG board".
8-54	"SYS board<-->SYS board" has been changed to "SYS board / SYS-IMG board<-->Each board".
9-2	"SYS board" has been changed to "SYS board / SYS-IMG board".
9-4	"SYS board" has been changed to "SYS board / SYS-IMG board".
9-5	"SYS board" has been changed to "SYS board / SYS-IMG board".
9-7	"SYS board" has been changed to "SYS board / SYS-IMG board".
-	11.6 to 11.9 have been added.

Ver.06

Ver.06 <2010.11.18>	
Page	**Contents**
Trademarks	"Windows 95/98/Me" has been deleted.
Trademarks	"Windows 7" has been added.
1-1	An explanation of CNS and NAS models has been added.
1-9	The scanning speed has been corrected from "57" to "45".
1-12	ASU destination has been deleted.
2-14	A note has been added to 03-207.
2-17	211, 213 and 214 have been added.
2-18	211, 213 and 214 have been added.
2-19	211, 213 and 214 have been added.
2-29	A description of the error logs has been added.
2-30	A description of the total counter list has been added.
2-37	The contents of 05-424 and 05-425 have been corrected.
2-61	05-9960 has been added.
2-62	The button name in Procedure 3 has been corrected from [ENTER] to [INITIALIZE].
2-64	The acceptable value and the contents of 08-202 have been changed.
2-66	ASU destination has been deleted.
2-85	The item of 08-331 has been corrected, and "6" and "7" have been added to that of the contents.
2-87	The default value of 08-375 has been corrected.
2-88	The default value of 08-404-0 to 3 has been changed.
2-89	The default value of 08-405-0 to 3 has been changed.
2-91	The default value of 08-424-0 to 3 has been changed.
2-92	The default value of 08-425-0 to 3 has been changed.
2-97	The acceptable value and the contents of 08-481 have been changed.
2-99	ASU destination has been deleted.
2-101	The default value of 08-525-0 has been changed.
2-102	The default value of 08-527-0 has been changed.
2-102	The default value of 08-535-0 has been changed.
2-103	The default value of 08-535-1 has been changed.
2-106	The default value of 08-540-0 has been changed.
2-106	The default value of 08-541-0 has been changed.
2-111	The contents of 08-652 and 08-653 have been changed.
2-123	The default value of 08-886 has been changed.
2-128	The item, the default value and the contents of 08-983 have been changed.
2-129	The default value and the contents of 08-1022 have been changed.
2-136	The default value and the contents of 08-1431 have been changed.
2-137	The acceptable value and the contents of 08-1449 have been changed.
2-157	08-3625 has been added.
2-161	08-3789 has been added.
2-167	A note has been added to the contents of 08-4016.
2-174	The default value of 08-5334-0 has been changed.
2-176	The default value of 08-5336-0 has been changed.
2-179	The contents of 08-6977-0 to 4 have been changed.
2-182	The item and the contents of 08-8548 have been corrected.
2-183	08-8676 has been corrected to 08-8576
2-183	08-8584 has been added.

Ver.06 <2010.11.18>	
Page	**Contents**
2-183	08-8585 has been added.
2-183	08-8586 has been added.
2-183	08-8587 has been added.
2-183	08-8588 has been added.
2-184	08-8589 has been added.
2-184	08-8590 has been added.
2-184	08-8591 has been added.
2-184	08-8594 has been added.
2-184	08-8595 has been added.
2-184	08-8596 has been added.
2-184	08-8597 has been added.
2-184	08-8598 has been added.
2-184	08-8599 has been added.
2-184	08-8600 has been added.
2-185	08-8601 has been added.
2-185	08-8602 has been added.
2-185	08-8603 has been added.
2-185	08-8604 has been added.
2-185	08-8605 has been added.
2-185	08-8606 has been added.
2-186	08-8823 has been added.
2-190	08-9791 has been added.
2-192	The item and the default value of 08-9889 have been changed.
2-193	A note has been added to the contents of 08-9933.
2-194	08-9960 has been added.
2-195	08-9984 has been added.
2-195	08-9985 has been added.
2-195	08-9986 has been added.
2-193	08-9987 has been added.
2-215 to 2-222	New codes have been added to the table of "2.8 Classification List of Adjustment Mode (05) / Setting Mode (08)".
4-1	A note for data cloning has been changed.
4-3, 4-4	"4.1.4 List for codes available for data cloning" has been added.
4-8	A note for data cloning has been changed.
5-20	An explanation for applying the grease to the registration roller (pusher) has been added.
5-21	An explanation for applying the grease to the drive gears in the paper feeding section has been added.
6-1	"6.1.1 If a problem continues even after performing all troubleshooting" has been added.
6-9	The contents of C430 and C440 have been corrected.
6-25	"6.2.5 TopAccess related error" has been added.
6-26	"<<Error history>>" described in the chapter 6.2.4 has been moved to the chapter 6.2.6. (Configuration change of the contents.)
6-73	The procedure of C410 has been changed.
6-74	The titles and the procedure of C430 and C440 have been changed.
6-122	"6.3.17 TopAccess related error" has been added.
6-146	"6.4.23 Black streaks on image leading edge during scanning" has been added.
6-147	"6.5 Other Errors" has been added.

Ver.06 <2010.11.18>	
Page	**Contents**
7-3	"Note" for the display digits has been added.
7-11	The procedure for replacing the LGC board has been corrected.
7-11	A note has been added.
7-11	"7.1.6 Procedure when replacing the battery on LGC board" has been added.
7-19	The procedure for re-registration of the electronic license key has been corrected.
8-4	A note for "ROM Ver" has been added.
10-1	"Main switch" has been corrected to "main power switch".

Ver.05

Ver.05 <2010.04.20>	
Page	**Contents**
1-1	The information of the paper basis weight has been corrected.
1-2	The information of the paper basis weight has been corrected.
1-4	The information of the paper basis weight has been corrected.
1-5	The information of the paper basis weight has been corrected.
1-6	The information of the paper basis weight has been corrected.
3-6	The information of the paper basis weight has been corrected.

Ver.04

Ver.04 <2010.01.21>	
Page	**Contents**
PRECAUTIONS	The illustration of the cautionary labels has been added.
1-8	“1.1.3 Print”, “1.1.4 Scan” and “1.1.5 e-Filing” have been added.
1-9	"1.1.6 Internet Fax" has been added.
1-10	"1.1.7 Network Fax" has been added.
2-37	The default of (08) 448-2 has been changed.
2-38	The default of (08) 449-2 has been changed.
2-39	The default of (08) 452-2 has been changed.
2-44	The default of (08) 470-2 and 471-2 has been changed.
2-45	The default of (08) 472-2 has been changed.
2-56	The content of (08) 7489 has been corrected.
2-63	The default of (08) 219 has been changed.
2-94	The item of (08) 481 has been corrected.
2-109	The content of (08) 683 has been changed.
2-113	The default of (08) 774 has been changed.
2-132	The default of (08) 1478 has been changed.
2-152	(08) 3623 and 3624 have been added.
2-158	The item and content of (08) 3841 have been changed.
2-159	The default of (08) 3852 has been changed.
2-160	The default of (08) 3854, 3855, 3857, 3859 and 3860 has been changed.
2-160	The default of (08) 3854, 3855, 3857, 3859 and 3860 has been changed.
2-160	The default of (08) 3854, 3855, 3857, 3859 and 3860 has been changed.
2-176	(08) 8514 has been added.
2-177	(08) 8546, 8548 and 8549 have been added.
2-185	(08) 9933 has been added.
2-187	(08) 9982 has been added.
2-206	(08) 8546 and 9982 have been added.
2-207	(08) 8548 has been added.
2-209	(08) 9933 has been added.
2-211	(08) 8549 has been added.
2-212	(08) 8514, 3623 and 3624 have been added.
4-1	A description of backup function has been added.
4-4	A note for the cloning procedure has been added.
4-5	The descriptions of the backup item have been corrected.
4-7	A note for the restoring procedure has been added.
4-8	The descriptions of the restore item have been corrected.

Ver.03

Ver.03 <2009.11.09>	
Page	**Contents**
Precaution	"General precautions" in German has been corrected.
1-1	"Fixing method" has been corrected.
1-2	The descriptions of "Envelope (DL, COM10, Monarch, CHO-3, YOU-4)" have been added to "Bypass feeding".
1-3	The description of "Super Sleep mode" has been added to "Power consumption".
1-9	The names of options have been corrected.
1-11	The names of options have been corrected.
1-12	The names of options have been corrected.
2-69, 2-70	The function of (08) 288 and 289 have been corrected to "SCN".
2-147	An explanation of (08)1928 has been added to the contents.
5-5	The PM sheet number for e-STUDIO255 has been corrected from "10,000 sheets" to "100,000 sheets".
6-8	"initial detection mode" has been corrected to "EPU replacement mode".
6-71	"initial detection mode" has been corrected to "EPU replacement mode".
7-1	The explanation for the ID has been deleted.
7-9	"woth" has been corrected to "with".
7-17	"7.1.10 Re-registration of the Electronic License Key with one-time dongle" has been added.
8-5	"Note" for the update has been added.
-	The drawing of "11.2 DC Wire Harness (e-STUDIO205L/255/305) has been corrected.
-	The PC board name "PWA-F-SLG (SLG)" has been added to "11.2 DC Wire Harness (e-STUDIO205L/255/305)".
-	The drawing of "11.4 DC Wire Harness (e-STUDIO355/455) has been corrected.

Ver.02

Ver.02 <2009.07.02>	
Page	**Contents**
2-117	(08) 849 has been added.
2-206	(08) 849 has been added.
2-211	(08) 8526 and 8527 have been deleted.
7-10	A remark and note have been added.
7-14	A remark has been added.
7-15	A note has been added.
-	Model names have been added to "11. WIRE HARNESS CONNECTION DIAGRAMS".

Ver.01

Ver.01 <2009.06.03>	
Page	**Contents**
1-8	Errors in "1.2 Accessories" have been corrected.
1-10	An error in "1.4 Supplies" has been corrected.
2-12	Step 5 has been added.
2-35	The default values of (05) 410 and 411 have been changed.
2-96	The default value of (08) 499 has been changed.
2-97	The default values of (08) 520 and 521 have been changed.
2-104	The description of (08) 550 has been changed.
2-166	The default value of (08) 5332 has been changed.
2-175	(08) 8526 and 8527 have been deleted.
3-40	The transfer cleaning bias (positive/negative) has been added.
3-44	The transfer cleaning bias (positive/negative) has been added.
7-1	The note for replacing the board has been corrected.
8-11	The contents of Note for the update procedure have been changed.
8-21	The contents of Note for the update procedure have been changed.
8-41	Arrows have been added to Fig. 8-41.

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