



imageRUNNER ADVANCE 500/400 Series Service Manual Rev.0



Read me

Application

This manual has been issued by Canon Inc. for qualified persons to learn technical theory, installation, maintenance, and repair of products. This manual covers all localities where the products are sold. For this reason, there may be information in this manual that does not apply to your locality.

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Caution



Use of this manual should be strictly supervised to avoid disclosure of confidential information.

Explanation of Symbols

The following symbols are used throughout this Service Manual.

Symbols	Explanation	Symbols	Explanation
	Check.		Remove the claw.
	Check visually.		Insert the claw.
	Check the noise.		Use the bundled part.
	Disconnect the connector.		Push the part.
	Connect the connector.		Plug the power cable.
	Remove the cable/wire from the cable guide or wire saddle.		Turn on the power.
	Set the cable/wire to the cable guide or wire saddle.		
	Remove the screw.		
	Tighten the screw.		

The following rules apply throughout this Service Manual:

- Each chapter contains sections explaining the purpose of specific functions and the relationship between electrical and mechanical systems with reference to the timing of operation.
In the diagrams,  represents the path of mechanical drive; where a signal name accompanies the symbol, the arrow  indicates the direction of the electric signal.
The expression "turn on the power" means flipping on the power switch, closing the front door, and closing the delivery unit door, which results in supplying the machine with power.
- In the digital circuits, "1" is used to indicate that the voltage level of a given signal is "High", while "0" is used to indicate "Low". (The voltage value, however, differs from circuit to circuit.) In addition, the asterisk (*) as in "DRMD*" indicates that the DRMD signal goes on when "0".
In practically all cases, the internal mechanisms of a microprocessor cannot be checked in the field. Therefore, the operations of the microprocessors used in the machines are not discussed: they are explained in terms of from sensors to the input of the DC controller PCB and from the output of the DC controller PCB to the loads.

The descriptions in this Service Manual are subject to change without notice for product improvement or other purposes, and major changes will be communicated in the form of Service Information bulletins.

All service persons are expected to have a good understanding of the contents of this Service Manual and all relevant Service Information bulletins and be able to identify and isolate faults in the machine.



SITE MAP

Technology

Product Overview

Product Lineup

Host machine

Host machine configuration

Model type

Option

Pickup / Delivery / Image Reading System

Options

Function expansion system options

Features

Product Features

Service Feature

Service Mode

Improved Upgrading Operability

Jam/Error Code Display Specifications

Specifications

Specifications

Weight and Size

Productivity (Print speed)

Paper type

Pickup

Parts Name

External View

Cross Sectional View

Operation

Service

Periodic Service

List of periodically replacement parts, consumable parts and locations for cleaning

Periodically Replacement Parts

Consumable parts

Disassembly/Assembly

List of Parts

External View

Front Side

Rear Side

Internal View

List of Main Unit

Electrical Components

ADF Unit

Reader Unit

Printer Unit

List of Connectors

External Cover/Internal System

Location

Front Side

Rear Side

Internal View

Removing the Front Cover

Removing the Reader Controller Cover

Appendix

Safety Precautions

CDRH Act

Laser Safety

Handling of Laser System

Turn Power Switch ON

Power Supply

Safety of Toner

About Toner

Toner on Clothing or Skin

Notes When Handling a Lithium Battery

Notes Before Servicing

Points to Note at Cleaning

Notes On Assembly/Disassembly

Service Tools

Service Tools

Special Tools

Oils and Solvents

General Timing Chart

General Timing Chart

Basic sequence at printing (A4 single-sided print (2 sheets), cassette)

Power Switch
Description of Control Panel

Basic Configuration

Basic Configuration

Functional Configuration

Basic sequence

Sequence at Power-On

Print sequence

Original Exposure

Construction

Specifications/controls/functions

Major Components

Reader Unit

ADF unit

Reader Controller PCB

Basic Operation

Basic Sequence

Basic Sequence at Power-On

Basic Sequence at Start Key ON (Book mode/1 original)

Basic Sequence at Start Key ON (ADF mode/1 original)

ADF Operation Mode

Forward Pickup/Delivery (Single-sided original → Single-sided print) Operation

Forward Pickup/Reversal Delivery (Double-sided original → Double-sided print) Operation

Controls

Controlling the Scanner Drive System

Overview

Removing the Rear Cover

Removing the Right Front Cover

Removing the Right Rear Cover

Removing the Right Door Unit

Preparation

Procedure

Removing the Left Cover

Preparation

Procedure

Removing the Inner Rear Cover

Preparation

Procedure

Removing the Delivery Outer Cover

Procedure

Removing the Delivery Inner Cover

Preparation

Procedure

Removing the Right Inner Cover

Preparation

Procedure

Removing the Left Inner Cover

Preparation

Procedure

Removing the Support Column Cover

Preparation

Procedure

Removing the Reader Front Cover

Preparation

Procedure

Removing the Reader Rear Cover

Preparation

Procedure

Basic sequence at printing (A4 double-sided print (1 sheet), cassette)

General Circuit Diagram

General Circuit Diagram

General Circuit Diagram (1/10)

General Circuit Diagram (2/10)

General Circuit Diagram (3/10)

General Circuit Diagram (4/10)

General Circuit Diagram (5/10)

General Circuit Diagram (6/10)

General Circuit Diagram (7/10)

General Circuit Diagram (8/10)

General Circuit Diagram (9/10)

General Circuit Diagram (10/10)

List of User Mode

Environment Settings

Paper Settings

Display Settings

Timer/Energy Settings

Network

External Interface

Accessibility

Adjustment/Maintenance

Adjust Image Quality

Adjust Action

Maintenance

Function Settings

Common

Copy

- Reader Motor Control
- Contact Image Sensor (CIS)
 - Outline
 - Analog Control Performed by the CIS
- Enlargement / Reduction
 - Magnification Change in Main Scanning Direction
 - Magnification Change in Sub Scanning Direction
- Dust Detection Control
 - Overview
- Dust Detection Preventive Process
- Dust Detection Correction Control
- Image Processing
 - Overview
 - Original Reading Sensor Drive
 - Original Reading Sensor Output Gain Correction and Offset Correction
 - Original Reading Sensor Output A/D Conversion
 - Outline of Shading Correction
 - Shading Adjustment
 - Shading Correction
 - LED Intensity Adjustment
- Control of ADF
 - Pickup and Feed Operations
 - Reversal Operation
 - Upstream Reversal Feed Operation
 - Downstream Reversal Feed Operation
 - Delivery Operation
 - Jam Detection
- Work of Service
 - Periodically Replaced Parts

- Removing the Reader Bottom Cover
 - Preparation
 - Procedure
- Removing the Control Panel Unit
 - Preparation
 - Procedure
- Original Exposure/Feed System
 - Location
- Removing the Copyboard Glass
 - Procedure
 - After Replacement
- Removing the ADF Reading Glass
 - Procedure
 - After Replacement
- Removing the ADF Unit
 - Procedure
 - After Replacement
- Removing the Reader Unit
 - Preparation
 - Procedure
- Removing the Reader Controller PCB
 - Preparation
 - Procedure
- Removing the CIS Unit
 - Preparation
 - Procedure
 - After Replacement
- Removing the ADF Upper Cover Unit
 - Procedure
- Removing the ADF Separation Pad
 - Procedure
- Removing the ADF Pickup Roller Unit

- Printer
- Send
- Receive/Forward
- Store/Access Files
- Secure Print
- Web Access
- Set Destination
 - Set Destination
- Management Settings
 - User Management
 - Device Management
 - License/Other
 - Data Management
- Backup Data**
 - Backup Data

Consumable Parts
Periodical Servicing
When replacing the parts

Main Controller

Overview

Configuration / Function
Main controller PCB

Boot Sequence

Shutdown Sequence

Controls

Copy

Print

SEND

Network(Advanced Box / Space Client)

Fax Send

Fax Receive

Security

Setting the Management on the Hard Disk
HDD Data Erase
Initializing All Data/Settings

Security features(encryption key and certificate, password protection)
Configuration of Security Information
Preparation before Installing TPM
Before / after introduction
Related Error Code
Data to be encrypted / decoded
(reference)

HDD Encryption Kit (Optional)

Preparation
Procedure

Removing the Original Pickup Tray
Procedure

Removing the ADF Pickup Unit
Preparation
Procedure

Main Controller System

Location

Reamoving the Main Controller PCB
Preparation before Replacement
Preparation
Procedure
After Replacement

Reamoving the HDD Unit
Preparation before Replacement
Preparation
Procedure
After Replacement

Laser Exposure System

Location

Removing the Laser Scanner Unit
Preparation
Procedure
After Replacement

Image Formation System

Location

Removing the Waste Toner Container
Procedure

Removing the Toner Cartridge
Procedure

Removing the Drum Unit

HDD encryption function
Data encryption mechanism
Conditions for Encryption Board operation
Compatibility among Device, Encryption Board and HDD
Actions against Troubles - Overview
Relevant Error Codes

Service Tasks

Actions at Parts Replacement
Periodically Replaced Parts
Consumable Parts
Service Notes

Laser Exposure System

Construction

Specifications/Controls/Functions
Laser light
Scanner motor
Polygon mirror
Controls

Main Configuration Parts
Control System Configuration

Basic Sequence

Basic Sequence

Controls

Controlling the Laser Activation Timing
Laser ON/OFF Control
Main Scanning Synchronous Control
Controlling the Intensity of Laser Light
APC Control
Controlling the Laser Scanner Motor

Preparation
Procedure

Removing the Developing Assembly
Preparation
Procedure

Removing the Transfer Roller
Procedure

Removing the Separation Static Eliminator
Procedure

Removing the Main Drive Unit
Preparation
Procedure

Removing the Hopper Unit
Preparation
Procedure

Fixing System

Location
Removing the Fixing Assembly
Procedure

Removing the Fixing Drive Unit
Preparation
Procedure

Pickup Feed System

Location
Removing the Cassette Feed Roller
Procedure
Removing the Cassette Separation Roller
Procedure
Removing the Cassette Pickup Roller
Procedure
Removing the Cassette Pickup Idler Gear

[Controlling the Laser Scanner Motor](#)

[Controlling the Laser Shutter](#)

[Laser Shutter Control](#)

Image Formation System

[Basic Configuration](#)

[List of Image Formation Specifications](#)

[Major Components in image formation system](#)

[Image Formation Process](#)

[Basic Sequence](#)

[Initial rotation sequence](#)

[Sequence at printing](#)

[Last rotation sequence](#)

[Controls](#)

[Drum Unit](#)

[Drum Unit Detection](#)

[Drum Unit Life Detection](#)

[Primary Charging Bias Control](#)

[DC/AC bias constant voltage control](#)

[DC bias switch control](#)

[Developing Assembly](#)

[Developing Bias Control](#)

[DC/AC bias constant voltage control](#)

[DC bias switch control](#)

[Toner Supply Area](#)

[Toner Supply Control](#)

[Toner level detection](#)

[Detection for replacing Toner Container](#)

[Transfer Unit](#)

[Transfer bias/separation static eliminator bias control](#)

[Transfer bias constant current control](#)

[Preparation](#)

[Procedure](#)

[Removing the Cassette Pickup Unit](#)

[Preparation](#)

[Procedure](#)

[Removing the Multi-purpose Tray Pickup Roller](#)

[Procedure](#)

[Removing the Multi-purpose Tray Separation Pad](#)

[Preparation](#)

[Procedure](#)

[Removing the Delivery/Reverse Unit](#)

[Preparation](#)

[Procedure](#)

[External Auxiliary System](#)

[Location](#)

[Removing the DC Controller PCB](#)

[Preparation before Replacement](#)

[Preparation](#)

[Procedure](#)

[After Replacement](#)

[Removing the HVT PCB](#)

[Preparation](#)

[Procedure](#)

[Removing the Power Supply PCB](#)

[Preparation](#)

[Procedure](#)

Adjustment

[Overview](#)

[Adjustment when replacing parts](#)

[Image Position Adjustment](#)

- Transfer bias level control
- Cleaning bias control
- Separation static eliminator bias control

Change in bias by service mode

Waste Toner Container

- Overview

- Full Detection

Service Tasks

- Periodically Replaced Parts

- Consumable Parts

- Periodical Servicing

Fixing System

Overview

- Features

- Specifications

- Major Components

Controls

- Fixing Temperature Control (temperature control)

 - Standby Temperature Control

 - Print Temperature Control

 - Down Sequence Control

- Standby Temperature Control

 - Flying Start

- Print Temperature Control

 - Startup (initial rotation) Temperature Control

 - Print Temperature Control

- Down Sequence Control

 - Down sequence when feeding small-size paper

When Replacing the Parts

- Original Exposure and Feed System (Reader)

 - Copyboard Glass

 - ADF Reading Glass

 - CIS Unit

- Original Exposure and Feed System (ADF)

 - ADF Unit

- Original Exposure and Feed System (Laser Scanner Unit)

 - Laser Scanner Unit

When Replacing the Parts (Controller System)

- HDD

- Main controller PCB

- DC Controller PCB

Image Position Adjustment

- Leading Edge Margin Adjustment

 - Standard

 - Service Mode Adjustment Method

- Trailing Edge Margin Adjustment

 - Standard

 - Service Mode Adjustment Method

- Left Margin Adjustment

 - Standard

 - Service Mode Adjustment Method (1-sided)

 - Service Mode Adjustment Method (2-sided)

- Leading Edge Non-image Width Adjustment

 - Standard

 - Service Mode Adjustment Method

- Left Edge Non-image Width Adjustment

 - Standard

Down sequence when switching paper size

Change in fixing performance by service mode

Pre-fixing arch level control

Protection function

Service Tasks

Periodically Replaced Parts

Consumable Parts

Periodical Servicing

Pickup Feed System

Overview

Specifications

Parts Configuration

Rollers Layout drawing

Sensors Layout Drawing

Route of Drive

Paper Path

Controls

Overview

Cassette Pickup Assembly

Overview

Pickup Retry Control

Paper Size Detection Control

Paper Level Detection Control

Paper Detection Control

Lifter Control

Multi-purpose Tray Pickup Assembly

Overview

Pickup Retry Control

Paper Detection

Service Mode Adjustment Method

Adjustment of the Image Position of the ADF

Troubleshooting

Initial Check

List of Initial Check Items

Test Print

Overview

Steps to Select a Test Print Type

How to View the Test Print

Grid (TYPE = 1)

17 gradations (TYPE = 2/3)

Solid white (TYPE = 4)

Halftone (TYPE = 5/6/11/12/13/14)

Solid black (TYPE = 7)

Horizontal line (TYPE = 8/9/10)

Troubleshooting Items

List of Troubleshooting Items

Image Failure

Toner soiling at the back side of paper

Soiling at the leading/trailing edge of paper

Poor transfer of the image, hollow character

Image smear/toner bleed/condensation
Large curl of paper

Paper jam in solid image when the leading edge margin is small (1 to 4mm)

Jam with thin paper (63g/m² or lighter)

The toner bottle set lever cannot be operated or is hard to operate.

Upgrading

Fixing/Registration Assembly

[Registration Control](#)

[Size Mismatch Detection Control](#)

Delivery Assembly

[Delivery Acceleration Control](#)

[Delivery Full Detection](#)

Reverse/Duplex Assembly

[Reverse Flapper Operation](#)

[Duplex Reverse Control](#)

[Duplex Re-pickup Control](#)

[Duplex Circulation](#)

Jam Detection

[List of Jam Codes](#)

[Forcible Paper Feed Control](#)

Work of Service

[Periodically Replaced Parts](#)

[Consumables](#)

[Periodically Servicing](#)

External Auxiliary System

Controls

[Software counter](#)

Fan

[Overview](#)

Power supply

[Internal power supply \(Except for the EU model\)](#)

[Power supply connection with the options](#)

Quick Startup

Energy Saving Function

[Effects of Spanning Tree-supported Hub](#)

[Conditions to operate the heater](#)

Version Upgrade

Overview

[Overview of Version Upgrade](#)

[Download mode](#)

[Writing System Software](#)

[System Software Configuration](#)

[Note on download process](#)

Version Upgrade via SST

[Overview](#)

[Registering System Software](#)

[Connection](#)

[Downloading System Software \(Assist mode\)](#)

[Downloading System Software \(in single mode\)](#)

[Formatting HDD](#)

[Backup](#)

[Optional language support](#)

Version Upgrade using USB Memory Storage Device

[Relation between SST and USB memory storage device](#)

[Registering System Software](#)

[Connection](#)

[Upgrading System Software](#)

[Selecting System Software](#)

[Downloading/ Writing System Software \(Automatic\)](#)

[Formatting FLASH PCB or HDD](#)

[Backup/ Restore](#)

[Other menus](#)

Error Code

Overview

[Outline](#)

[Outline](#)

Service Tasks

- Periodically Replaced Parts
- Consumable Parts
- Periodical Servicing

MEAP

Preparation for Using SSO-H

- Outline
- Server authentication management
 - Active Directory authentication
 - LDAP authentication
- PC Environment of Administrator Users and General Users
 - OS of the PC and Other Environments
 - Network ports used

Preparation for Using SMS

- Preparation of PC for Accessing SMS
 - Checking of operation environment
 - PC and Browser Settings

Settings on the Device Side

- Network configuration process
- Key Pair and Server Certificate when Using Encrypted SSL Communication
- Network Port Settings
- How to Check the Serial Number
 - Checking from the PC browser
 - Checking from the device's Touch Panel

Login to SMS

- Outline
- When SMS Cannot Be Accessed
 - If you forgot the password (SMS login password initialization)

- Location code
- Pickup position code
- Points to Note When Clearing MN-CON
- Points to Note When Clearing HDD

Error Code

Error Code Details

- E000 to E197
- E202 to E355
- E500 to E583
- E602 to E996

Jam Code

- Jam Type
- Host machine
- CASSETTE UNIT-AA1
- ADF
- Staple Finisher-R1

Alarm Code

- Alarm Code Details

Service Mode

Overview

- Overview
- Entering Service Mode
- Service Mode Menu
- Service mode item explanations
- I/O information enhancement
- Display of Error Code/Alarm Code description
- COPIER> OPTION> BODY, Item Segmentation
- Security features

If login is not possible due to exclusive control

How to Deal with a Message "Certificate Error" That Appears at the Time of Access

Installing an MEAP Application

Outline

Device compatibility with the MEAP application

Resources availability (remaining amount)

Procedure to install applications

Resource Information

Outline

Device's resources

MEAP Specifications

What is MEAP Specifications (MEAP Spec Version)?

About Name

Mechanism

MEAP Application Management

Outline

Starting, Stopping, or Uninstalling the MEAP Application

Procedure to start and stop a MEAP application

If the MEAP application cannot be started

Procedure to uninstall the MEAP application

Managing the License File

Outline

Procedure adding a license file

Procedure disabling a license file (suspending a license)

Procedure downloading / removing an invalidated license file

Related service modes

Switching Screen (Level 1 < - > 2)

Language switch

Back-up of service mode

Service Label

COPIER

DISPLAY

VERSION

USER

ACC-ST5

ANALOG

HV-ST5

CCD

I/O

Main Body_DC Controller (DC-CON> P001 to P016)

ADF (FEEDER> P001)

Reader (R-CON> P001)

ADJUST

AE

ADJ-XY

CCD

LASER

DEVELOP

DENS

BLANK

PASCAL

HV-PRI

HV-TR

FEED-ADJ

MISC

FUNCTION

INSTALL

Other License File Management Functions
 Reusable license
 License for forwarding

Enhanced System Application Management

 Outline

 About Login Service

 Default Authentication overview

 SSO-H (Single Sign-On-H) overview

 Environment confirmation

 Specification of SSO-H

 Setting the Authentication Method

 Using an Accounting Product When SSO-H Is Used

 Conducting Department ID Management When SSO-H Is Used

 Setting the Administrator for Server Authentication

 System Manager Linkage (automatic ID allocation to SystemManagers)

 Local device authentication

 Server authentication (Active Directory authentication)

 Outline

 Access Mode in Sites

 Server Authentication (LDAP Authentication)

 Server authentication and local device authentication

 Steps to Change Login Services

 Login Service Installation Procedure

 Login Service Uninstallation Procedure

System Application Management

 Password authentication

 RLS Authentication

CCD
CLEANING
FIXING
PANEL
PART-CHK
CLEAR
MISC-R
MISC-P
SYSTEM
DBG-LOG

OPTION

 FNC-SW
 DSPLY-SW
 IMG-FIX
 IMG-TR
 IMG-LSR
 IMG-RDR
 IMG-MCON
 IMG-SPD
 CLEANING
 ENV-SET
 FEED-SW
 NETWORK
 CUSTOM
 USER
 CST
 ACC
 INT-FACE
 LCNS-TR

TEST

 PG
 NETWORK

COUNTER

 TOTAL
 PICK-UP

Setting the method to login to SMS

Outline

Setting for login by Password Authentication

Setting for login by RLS Authentication

Initial Display Languages of SMS

When accessing by SMS Installer Service (Password Authentication)

When accessing by SMS Installer Service (Remote Login Service Authentication).

MEAP Application System Information

Outline

Checking the System Information

Display of System Information Details

Printing the System Information of a MEAP Application

Content of MEAP system information

MEAP Application Information

Outline

Procedure to Check MEAP Application Information

Check License

Outline

Procedure to Check the License File

Changing SMS Login Password

Outline

Procedure to Change the SMS Login Password

MEAP Application Setting Information Management and Log Management

Outline

MEAP Application Configuration Service

FEEDER

JAM

MISC

JOB

DRBL-1

DRBL-2

LF

FEEDER

ADJUST

FUNCTION

OPTION

SORTER

OPTION

BOARD

OPTION

Installation

How to check this Installation Procedure

When Using the parts included in the package

Symbols in the Illustration

Installation

Option Installation Sequence

Copy Card Reader-F1

Check Item of the Contents

Points to Note at Installation

Checking the Contents

Copy Card Reader-F1

Copy Card Reader Attachment-C2

Check Items when Turning OFF the Power

Installation Outline Drawing

MEAP Application Log Service

Advantages Obtained When Using the Services

Devices and MEAP applications which do not support new functions

Devices and MEAP applications which support new functions

MEAP Application Setting Information Management

MEAP Application Log Management

Maintenance

Backup of the MEAP Application Area and Recovery of the Backup Data Using SST

Outline

Backup Item Automatically Copied

Data backed up using SST in the case of iR-ADV devices

Requirements for Backup Using the SST

Procedure for backing up the MEAP application area using SST

Procedures to Restore Backup Data

Formatting and Replacing the HDD

Outline

Formatting the HDD

HDD replacement procedure

If the MEAP application area can be backed up

MEAP Safe Mode (level 2)

Outline

Starting in Safe Mode

How to cancel MEAP SAFE mode

Collection of MEAP Console Logs

Overview

What to Prepare

Installation Procedure

Assembling the Card Reader

Removing the Covers

Installing the Card Reader Unit

Registering the Card IDs

IC Card Reader BOX-A1

Check Item of the Contents

Points to Note at Installation

Checking the Contents

Check Items when Turning OFF the Power

Installation Outline Drawing

Installation Procedure

Assembling the IC Card Reader Box

Removing the Covers

Installing the Card Reader Unit

Copy Control Interface Kit-A1

Checking the Contents

Check Items when Turning OFF the Main Power

Installation Outline Drawing

Installation Procedure

HDD Data Encryption Kit-C6

Points to Note when Unpacking HDD Data Encryption Kit

Checking the Contents

Points to Note Regarding Data Backup/Export

Making a Backup of the Data (reference only)

Procedure for Import/Export ALL of User Settings

Backup of MEAP Application

Work Procedure

Using USB Devices

USB Driver

Initialization of MEAP driver priority registration

USB Device report print

Integrated Authentication Function

Sharing the Authentication Information

Volatile Credential

Persistent Credential

Comparison of Functions

Disabling the Integrated Authentication Function

Points to Note When Enabling the [Quick Startup Settings for Main Power] Setting

The [Quick Startup Settings for Main Power] setting cannot be enabled.

Changes made in the settings of a MEAP application are not reflected.

After recovery from quick startup, MEAP applications do not work properly.

Remedy to Be Performed When the Device Has Become Unable to Be Logged in

Overview

Remedy

Reference material

Glossary

Option for exclusive individual measure

Display Setting of Copy Icon (level2)

Error at starting up the MEAP application/Setting to hide JAM screen (level 2)

E-RDS

Product Overview

Stop of MEAP Applications, Disabling, Download of Disabled License Files and Uninstallation

User Authentication Information Registered by SSO-H (Single Sign-ON H)

Setting Before Turning OFF the Power

Check Items when Turning OFF the Main Power

Installation Outline Drawing

Installation Procedure

HDD Initialization Procedure

Checking the Security Version

Checking the Security Mark

Reporting to the System Administrator at the End of the Work

Execution of Auto Gradation Adjustment

PCL International Font Set-B1

Preparation

Checking the Contents

Installation Procedure

Register Andale Font using the SST.

Register Andale Font in the USB memory device.

Register Andale Font in the host machine

Operation check after making the settings

Confirmation of the application condition

Overview

Features and benefits

Major Functions

Service Browser

Service mode menu Transmission

Limitations

Service Mode Menu Transmission Function

Service cautions

E-RDS Setup

Confirmation and preparation in advance

Steps to E-RDS settings

Procedure for Service Call Completion

Steps to Service Browser settings

Initializing E-RDS settings

Initialization procedure

Setting values and data to be initialized

FAQ

Troubleshooting

Error code and strings

Updater

Functional Overview

Overview

Installing Firmware

Installing MEAP Application/System Option

System Configuration

List of Functions

Distribution Flow

Firmware Installation Flow

MEAP Application/System Option Installation Flow

Limitations and Cautions

Limitations

Cautions

Preparation

Overview of Preparation

Setting Sales Company's HQ

Network Settings

Connecting to External Network

Confirming URL Setting of Distribution
Server

Communication Test

Enabling UGW Link

Enabling [Update Firmware] Button of User
Mode

Enabling [Install Application/Options] Button
of User Mode

Enabling [Manual Update] Button of User
Mode (Remote UI)

System Management Operations

Various Setting

Setting URL of Distribution Server

Setting Log Level

Displaying Logs

Update Logs

System Logs

Communication Test

Maintenance

Upgrading Updater

Formatting Hard Disk

[How to Replace Controller Boards](#)

[How to Replace Devices](#)

FAQ

[FAQ on Installing Firmware](#)

[FAQ on Installing MEAP Application/System Option](#)

[FAQ on General Matters of Updater](#)

DCM

DCM

Overview

[Where data is stored](#)

[Setting values that can be backed up](#)

[General limitations on DCM](#)

[Restrictions about import/export by Remote UI](#)

[Import/Export All from Remote UI](#)

[Service mode setting values that can be backed up by DCM](#)

[Service Mode](#)

[Import/export by service mode \(external\)](#)

[Export](#)

[Import](#)

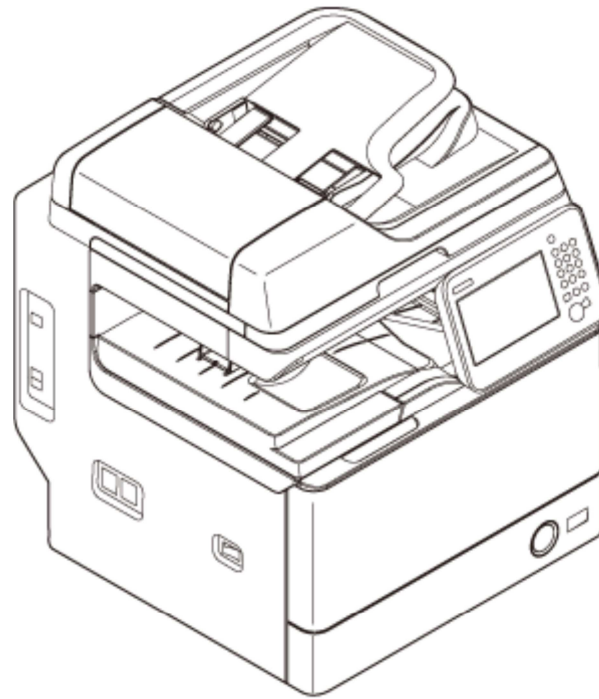
[Import/export by service mode \(internal\)](#)

[Export](#)

[Import](#)

Product Lineup

Host machine



■ Host machine configuration

Configuration
Reader+ADF+Printer

■ Model type

	imageRUNNER ADVANCE 500	imageRUNNER ADVANCE 400

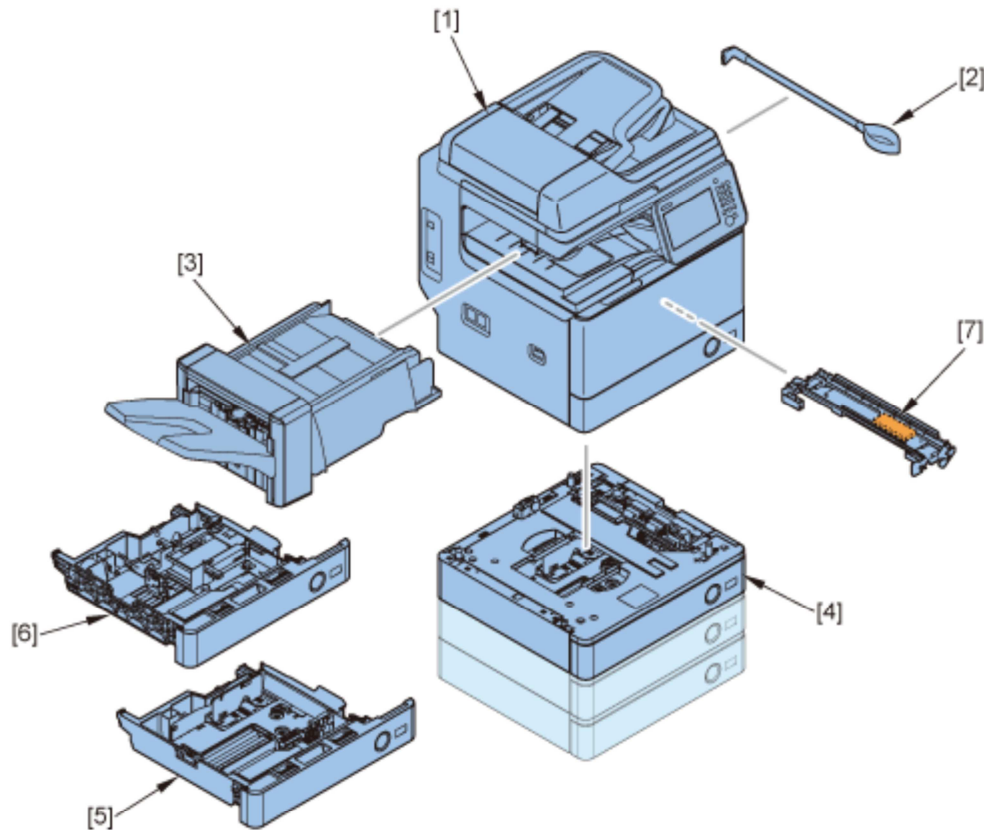
	imageRUNNER ADVANCE 500	imageRUNNER ADVANCE 400
Print Speed	50ppm	40ppm
Positioning	Target machine: imageRUNNER 1750/1740 series	

imageRUNNER ADVANCE 500/400

Underlined (2-digit) numeric figures indicate print speed (ppm: print per minute).

Option

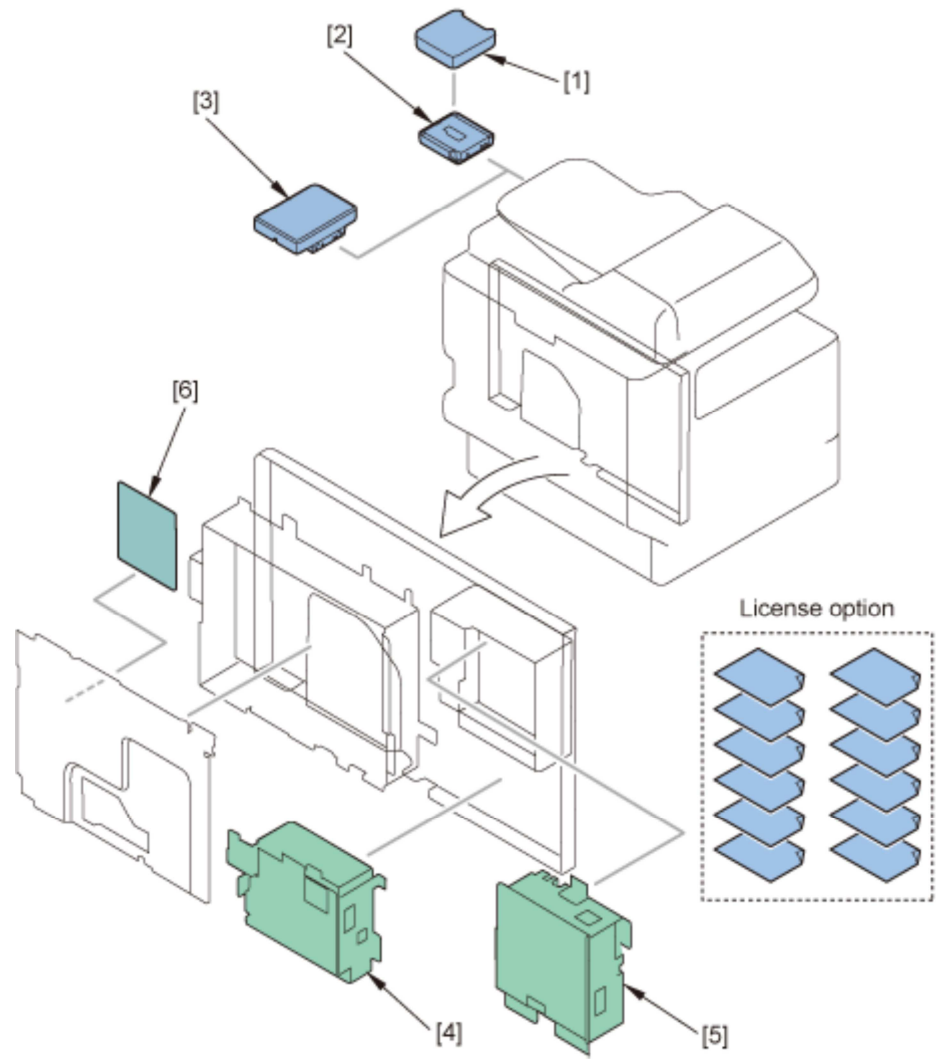
■ Pickup / Delivery / Image Reading System Options



No.	Product name	Remarks and condition
-----	--------------	-----------------------

No.	Product name	Remarks and condition
1	imageRUNNER ADVANCE 500/400	
2	ADF Access Handle-A1	
3	Staple Finisher-R1	
4	Cassette Module-AA1	Up to 3 units can be installed
5	FL Cassette-AS1	
6	Envelope Cassette-E1	It can be installed to Cassette 2
7	Drum Heater-F1	

■ **Function expansion system options**



● Hardware Products

No.	Product name	Remarks and condition
1	Copy Card Reader-F1	Copy Card Reader Attachment-C2 is required.
2	Copy Card Reader Attachment-C2	It cannot be used in combination with IC Card Reader.

No.	Product name	Remarks and condition
3	IC Card Reader Box-A1	IC Card Reader is sales company's option.
4	Super G3 Fax Board-AM1	
5	Super G3 2nd Line Fax Board-AM1	Super G3 Fax Board-AM1 is required.
6	HDD Data Encryption Kit-C6	
7	Copy Control Interface Kit-A1	Required when the coin manager is connected.
8	eM Controller-C1	

● License Products

At the time of installation, obtain the license number according to the license certificate included. Then, enter the obtained license number from the Control Panel of the machine, so that the applicable functions are enabled.

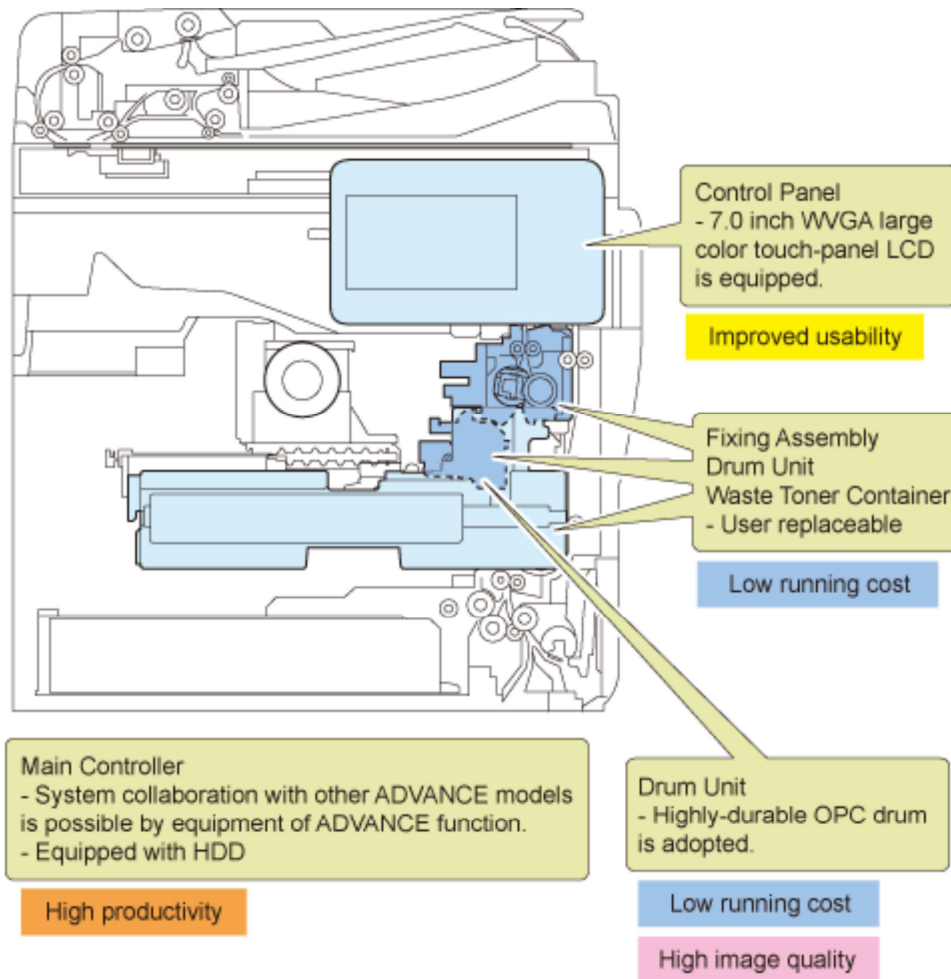
There is no physical installation work at the time of installation.

Product name	Remarks and condition
PCL Printer Kit-AW1	
PCL International Font Set-B1	PCL is required.
PS Printer Kit-AW1	
Direct Print Kit-H1 (PDF/XPS)	
Barcode Print Kit-D1	PCL is required.
Universal Send Trace & Smooth PDF Kit-A1	
Universal Send Advanced Feature Set-D1/E1	
Universal Send Security Feature Set-D1	
Universal Send Digital User Signature Kit-C1	
Remote Operators Software Kit-B1	
Encrypted Secure Print Software-D1/ Encrypted Printing Software-D1	
ACCESS MANAGEMENT SYSTEM KIT-B1	
Secure Watermark-B1	

Product name	Remarks and condition
iR-ADV Security Kit-H1 for IEEE 2600.1 Common Criteria Certification	
Web Access Software-H1	
Remote Fax Kit-A1	

Features

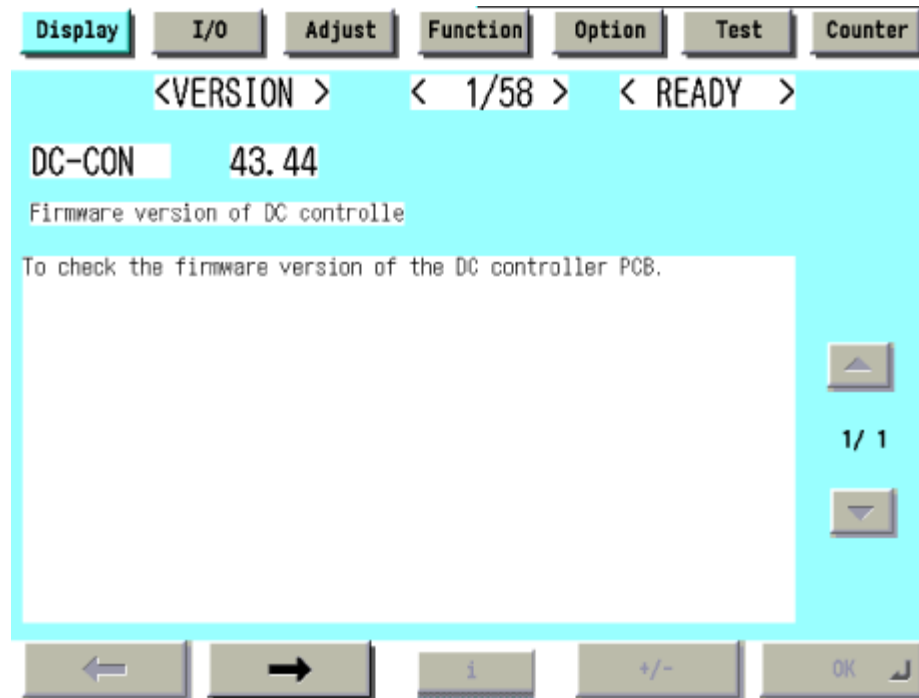
Product Features



Service Feature

■ Service Mode

The description of each service mode item is displayed as well.



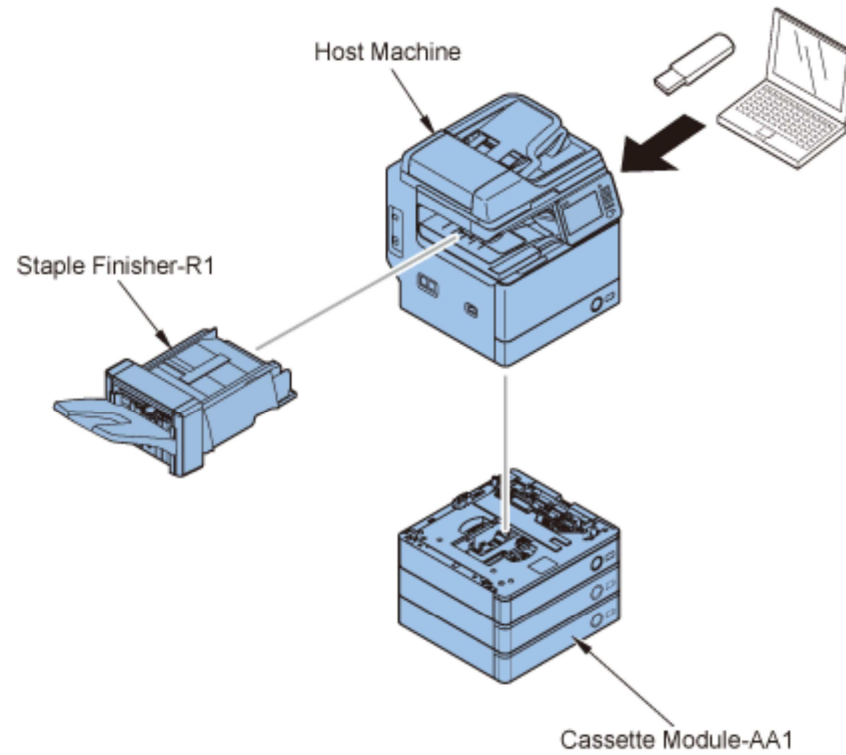
● Features

- Display in natural language
- Item in the following are newly classified: COPIER> OPTION> BODY
- Enhanced I/O information
- The description of error code/alarm code is displayed.
- Easy switching of screens between Level 1 and Level 2

■ Improved Upgrading Operability

The options can be upgraded through the host machine.

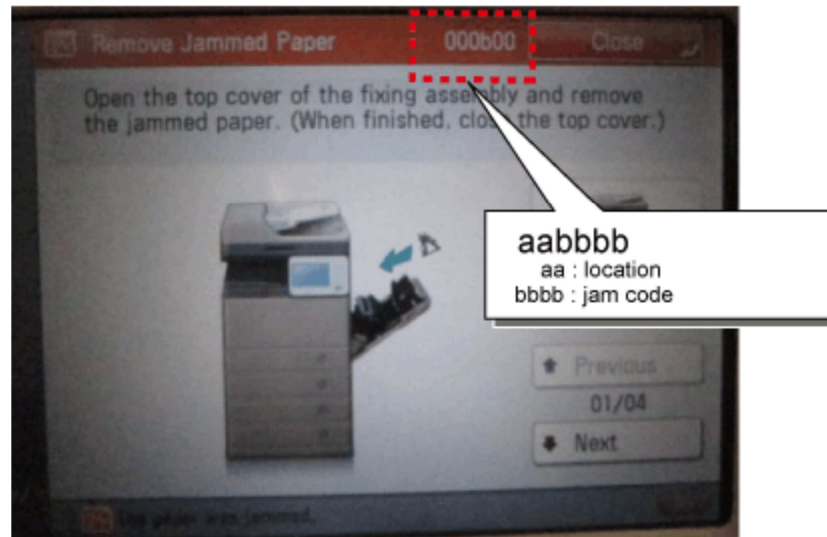
SST (Service Support Tool) or USB memory or CDS (Contents Delivery System) are used for upgrading.



■ Jam/Error Code Display Specifications

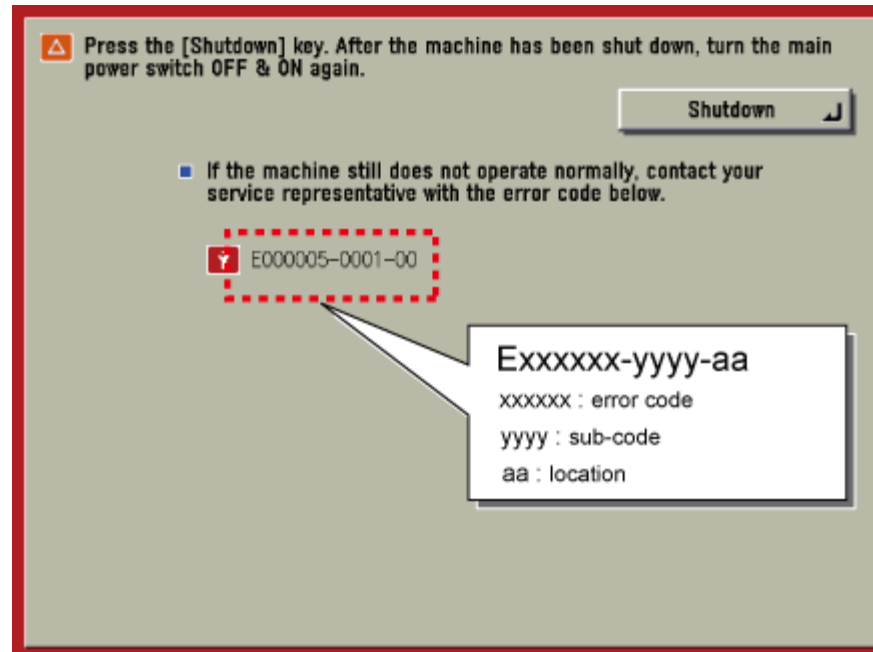
● Jam Code

"Jam Code" and "Location Code" are displayed on the screen when a paper jam occurs.



- **Error Code**

In addition to "Error Code", "Location Code" is displayed on the screen when an error occurs.



- **Service Advantage**

When a paper jam/error is reported from the user:

The location (device) causing the paper jam/error can be recognized before the service technician is sent to the user site.

The cause of trouble and the remedy can be assumed before the service technician is sent to the user site.

Depending on the cause of the paper jam (e.g.: paper jam caused by wrong operation by the user), support can be completed by the phone or e-mail. (Visiting to the user site is not necessary.)

Specifications

Specifications

Item	Specifications
Copyboard	Original stream reading, original fixed reading
Machine installation method	Desktop
Light source	LED (RGB)
Photosensitive medium	OPC
Image reading system	CIS
Copying method	Indirect electrostatic method
Exposure method	Laser exposure
Charging method	Roller charging
Developing method	Dry, 1-component toner projection development
Transfer method	Roller transfer
Separation method	Curvature separation
Pickup method	Cassette: Retard separation Multi-purpose Tray: Pad separation

Item	Specifications
Fixing method	On-demand fixing
Delivery method	Face-down (inner delivery)
Magnification ratio	25 to 400% (in 1% increment)
Drum cleaning method	Cleaning Blade
Toner type	Magnetic negative toner
Toner supplying method	Toner Container method
Toner level detection function	Yes
Image margin	5.0mm or less (leading/trailing/left/right edge)
Warm-up time	34 sec or less when the power is turned ON 10 sec or less when the sleep mode
Image gradations	256 gradations
Resolution at reading	600 x 600dpi (Color SEND: 300 x 300dpi)
Resolution at writing	1200 x 1200dpi (Print) 600 x 600dpi (Copy)
First print time	5.0 sec or less
Paper type (Cassette)	Plain paper (64 to 90g/m ²), Recycled paper (64 to 80g/m ²), Heavy paper (91 to 105g/m ²), Pre-Punched paper, *Envelope (No. 10 (COM10), Monarch, ISO-C5, DL, Nagagata 3, Yougatanaga 3) *Only when the option Cassette Unit-AA1 is installed and the option Envelope Cassette-E1 is installed in the 2nd cassette.
Paper type (Multi-purpose Tray)	Plain paper (64 to 90g/m ²), Recycled paper (64 to 80g/m ²), Heavy paper (91 to 128g/m ²), Pre-Punched paper, Bond paper (90g/m ²), Transparency, Label paper, Envelope (No. 10 (COM10), Monarch, ISO-C5, DL, Nagagata 3, Yougatanaga 3)
Paper size (Cassette)	A4, A5, B5, LTR, LGL, EXEC, STMT, 16K
Paper size (Multi-purpose Tray)	A4, A5, B5, LTR, LGL, EXEC, STMT, 16K, Custom size (99 x 139.7mm to 216 x 355.6mm), Envelope (No.10 (COM10), Monarch, ISO-C5, DL, Nagagata 3, Yougatanaga 3)

Item	Specifications
Pickup capacity	Cassette: 550 sheets (80g/m ²) Multi-purpose Tray: 100 sheets (80g/m ²)
Duplexing method	Through-pass duplex
HDD capacity	160 GB
Operation noise	imageRUNNER ADVANCE 500 series: During copy: 75.0dB or smaller *1/During standby: 53.0dB or smaller *2 imageRUNNER ADVANCE 400 series: During copy: 73.0dB or smaller *1/During standby: 53.0dB or smaller *2 *1 Excluding the Chinese models (Chinese models: 71.0dB or smaller (During copy)) *2 Excluding the Chinese models (Chinese models: 45.0dB or smaller (During standby))
Ozone volume	1.5mg/h or smaller
Rated power supply	120 - 127 V AC, 50/60 Hz, 10.5 A 220 - 240 V AC, 50/60 Hz, 5.0 A
Maximum power consumption	120 to 127 V model approx. 1500 W or less 220 to 240 V model approx. 1600 W or less
Dimensions (WxDxH)	560mm x 567mm x 633mm 560mm x 567mm x 983mm with the 3 cassette

Weight and Size

Product name	Width (mm)	Depth (mm)	Height (mm)	Weight Approx. (kg)
imageRUNNER ADVANCE 500/400 series	560	567	633	47.9 *1
imageRUNNER ADVANCE 500/400 series (with FAX)	560	567	633	48.7 *1
Staple Finisher-R1	798	395	263	10.5
Cassette Module-AA1	540	500	158	7.7

*1: Without the Toner and Drum Unit

Productivity (Print speed)

Paper type	Size	imageRUNNER ADVANCE 500 series						imageRUNNER ADVANCE 400 series					
		Cassette 1		Cassette 2/3/4		Multi-purpose Tray		Cassette 1		Cassette 2/3/4		Multi-purpose Tray	
		1-sided	2-sided	1-sided	2-sided	1-sided	2-sided	1-sided	2-sided	1-sided	2-sided	1-sided	2-sided
Plain paper (64 to 90g/m ²) Recycled paper (64 to 80g/m ²)	A4	50	49	50	49	40	39	40	39	40	39	40	39
	B5	25	22	25	22	23	20	25	22	25	22	23	20
	A5	25	22	25	22	25	22	25	22	25	22	25	22
	LGL	43	22	43 (41: Cassette 4)	22	35	18	40	20	40	20	35	18
	LTR	52	48	52	48	40	37	42	39	42	39	40	37
	EXEC	25	22	25	22	23	20	25	22	25	22	23	20
	STMT	25	22	25	22	25	22	25	22	25	22	25	22
	16K	25	22	25	22	23	20	25	22	25	22	23	20
Heavy paper 1 (91 to 105g/m ²)	A4	45	44	45	44	40	39	40	39	40	39	40	39
	B5	25	22	25	22	23	20	25	22	25	22	23	20
	A5	25	22	25	22	25	22	25	22	25	22	25	22
	LGL	43	22	43 (41: Cassette 4)	22	35	18	40	20	40	20	35	18
	LTR	45	42	45	42	40	37	42	39	42	39	40	37
	EXEC	25	22	25	22	23	20	25	22	25	22	23	20
	STMT	25	22	25	22	25	22	25	22	25	22	25	22
	16K	25	22	25	22	23	20	25	22	25	22	23	20

Paper type	Size	imageRUNNER ADVANCE 500 series						imageRUNNER ADVANCE 400 series					
		Cassette 1		Cassette 2/3/4		Multi-purpose Tray		Cassette 1		Cassette 2/3/4		Multi-purpose Tray	
		1-sided	2-sided	1-sided	2-sided	1-sided	2-sided	1-sided	2-sided	1-sided	2-sided	1-sided	2-sided
Heavy paper 2 (106 to 128g/m ²)	A4	-	-	-	-	21	-	-	-	-	-	21	-
	B5, A5	-	-	-	-	17	-	-	-	-	-	17	-
	LGL	-	-	-	-	14	-	-	-	-	-	14	-
	LTR	-	-	-	-	21	-	-	-	-	-	21	-
	EXEC, STMT, 16K	-	-	-	-	17	-	-	-	-	-	17	-
Bond paper	A4	-	-	-	-	22	-	-	-	-	-	21	-
	B5, A5	-	-	-	-	17	-	-	-	-	-	17	-
	LGL	-	-	-	-	6	-	-	-	-	-	14	-
	LTR	-	-	-	-	22	-	-	-	-	-	21	-
	EXEC, STMT, 16K	-	-	-	-	17	-	-	-	-	-	17	-
Envelope	No.10 (COM10), Monarch, ISO-C5, DL, Nagagata 3, Yougatanaga 3	-	-	12 *1	-	12	-	-	-	12 *1	-	12	-
Transparency	A4, LTR	-	-	-	-	17	-	-	-	-	-	17	-
Label paper	A4, LTR	-	-	-	-	21	-	-	-	-	-	21	-

*1: Only when the optional Envelope Cassette-E1 is installed in the 2nd cassette

Paper type

See the table below for custom paper size.

Type	Feeding direction (mm)	Width direction (mm)
Custom size	139.7 to 355.6	99 to 216

■ Pickup

Available paper types

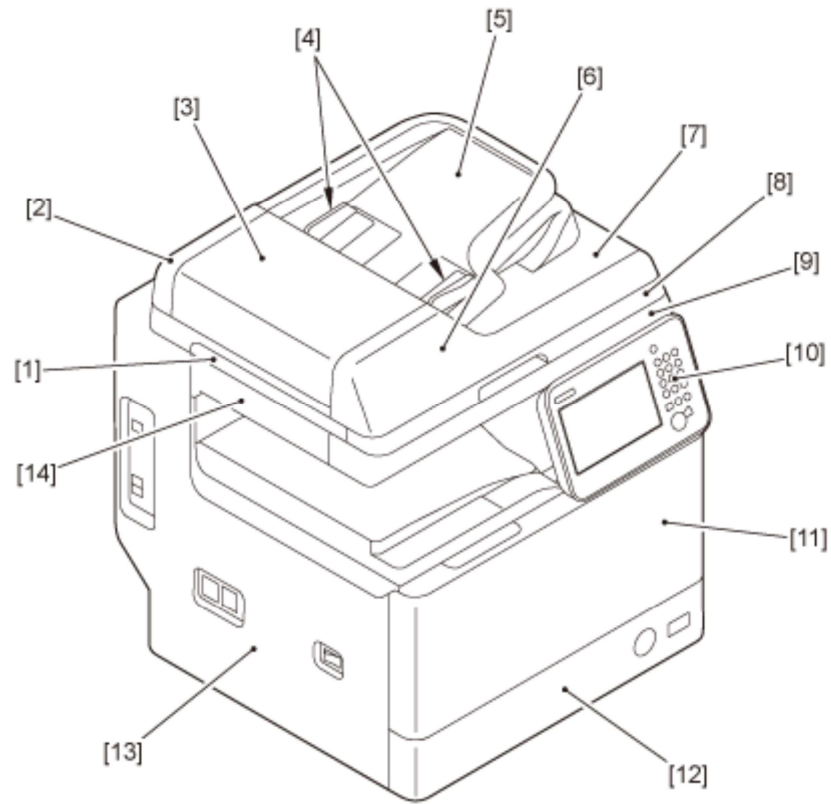
Paper Type	Size	Multi-purpose Tray	Cassette 1	Cassette 2		Cassette 3	Cassette 4	2-sided
				Envelope Cassette is installed	Envelope Cassette is not installed			
Plain paper (64 to 90g/m²) Color paper (64 to 90g/m²) Recycled paper (64 to 80g/m²) Heavy paper 1 (91 to 105g/m²)	A4, A5, B5, LGL, LTR, STMT, EXEC, 16K, Free size (139.7 mm x 210 mm to 215.9 mm x 355.6 mm)	Yes	Yes	-	Yes	Yes	Yes	Yes
Heavy paper 2 (106 to 128g/m²) Bond paper (75 to 90g/m²)	A4, A5, B5, LGL, LTR, STMT, EXEC, 16K, Free size (139.7 mm x 210 mm to 215.9 mm x 355.6 mm)	Yes	-	-	-	-	-	-
Pre-Punched paper (75 to 80g/m²)	A4, LTR	Yes	Yes	-	Yes	Yes	Yes	Yes
Label paper (151 to 181g/m²)	A4, LTR	Yes	-	-	-	-	-	-
Transparency (151 to 181g/m²)	A4, LTR	Yes	-	-	-	-	-	-
Envelope (75 to 105g/m²)	No.10 (COM10), Monarch, ISO-C5, DL, Nagagata 3, Yougatanaga 3	Yes	-	Yes	-	-	-	-
Custom size (64 to 128g/m²)	99 mm x 139.7 mm to 216 mm x 355.6 mm	Yes	-	-	-	-	-	-

Paper Type	Size	Multi-purpose Tray	Cassette 1	Cassette 2		Cassette 3	Cassette 4	2-sided
				Envelope Cassette is installed	Envelope Cassette is not installed			
	(long length paper: to 630 mm)							

Parts Name

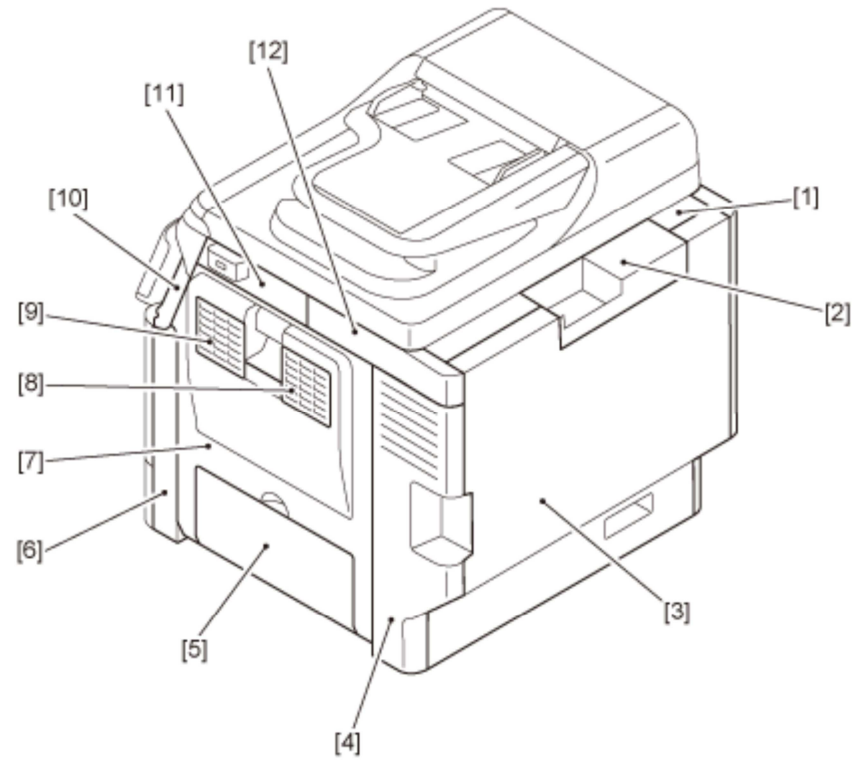
External View

Front view, Left side



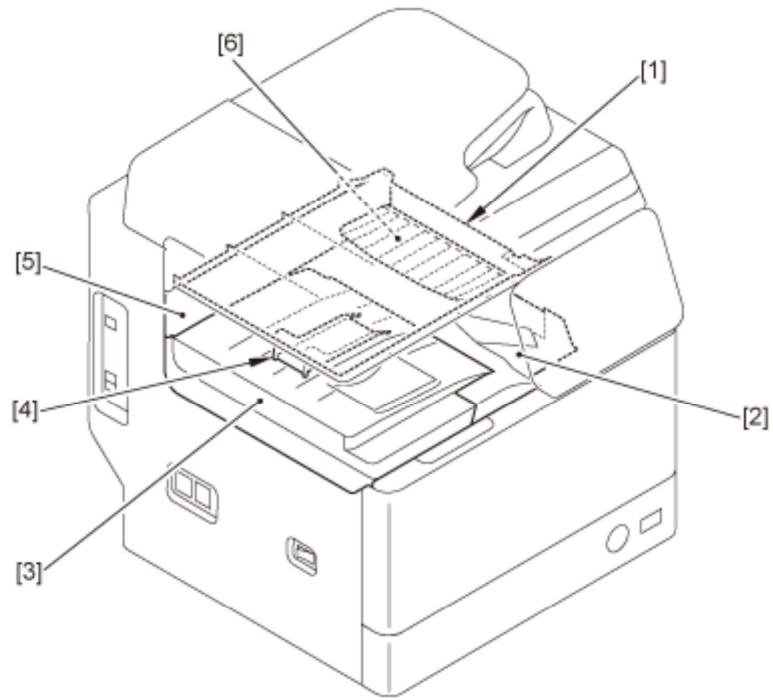
- | | |
|----------------------------|---------------------------|
| [1] ADF Left Cover | [8] ADF Front Lower Cover |
| [2] ADF Rear Cover | [9] Reader Front Cover |
| [3] ADF Upper Cover | [10] Control Panel Unit |
| [4] Side Guide Plates | [11] Front Cover |
| [5] Original Pickup Tray | [12] Cassette |
| [6] ADF Front Upper Cover | [13] Left Cover |
| [7] Original Delivery Tray | [14] Reader Left Cover |

Rear view, Right side



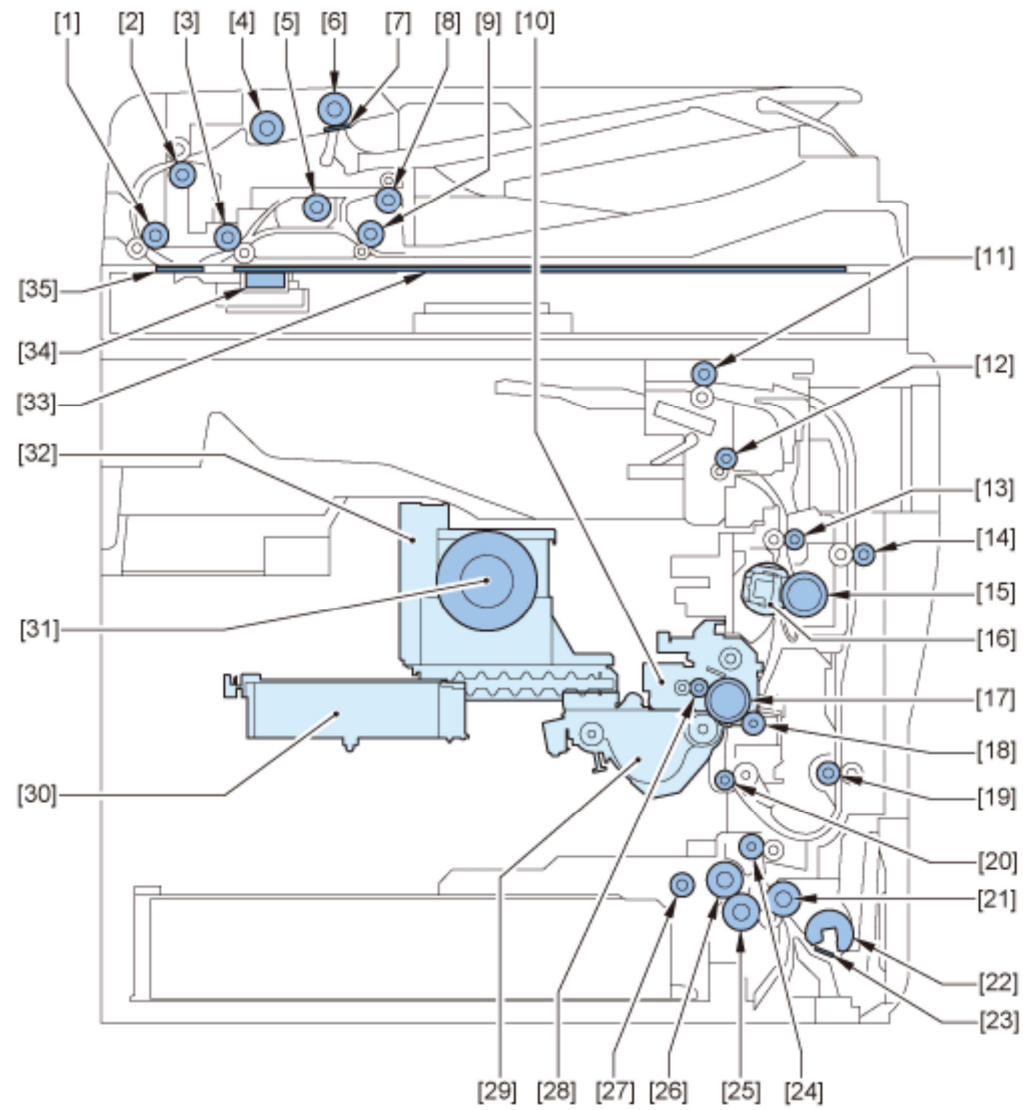
- | | |
|------------------------------------|-------------------------------|
| [1] Reader Rear Cover | [7] Right Door Unit |
| [2] Reader Controller Cover | [8] Right Rear Fan Cover |
| [3] Rear Cover | [9] Right Front Fan Cover |
| [4] Right Rear Cover | [10] Support Column Cover |
| [5] Multi-purpose Tray Pickup Unit | [11] Reader Right Front Cover |
| [6] Right Front Cover | [12] Reader Right Rear Cover |

[Delivery Assembly](#)



- [1] Reader Bottom Cover
- [2] Delivery Inner Cover
- [3] Delivery Outer Cover
- [4] Delivery Stopper
- [5] Inner Rear Cover
- [6] Reverse Tray

Cross Sectional View



- [1] Lead Roller 1
- [2] Registration Roller
- [3] Lead Roller 2

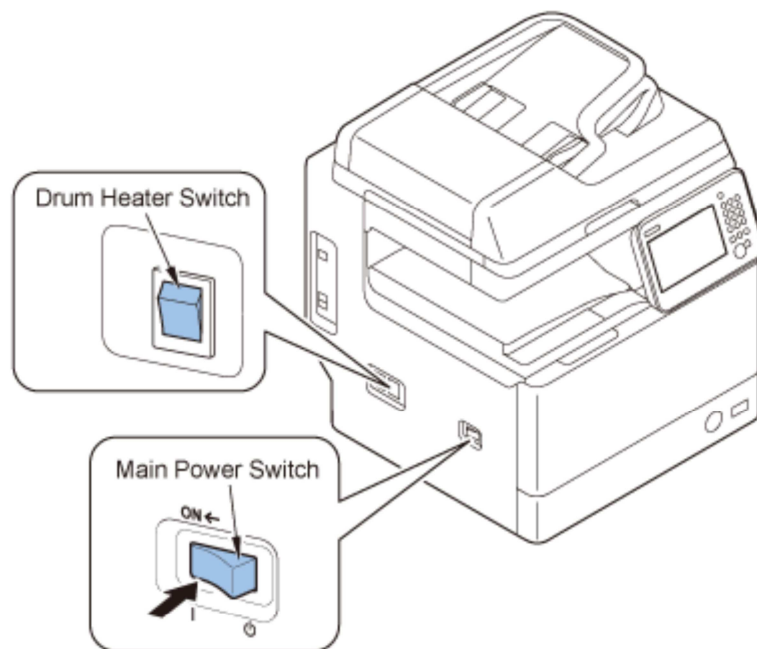
- [19] Duplex Feed Roller 2
- [20] Registration Roller
- [21] Multi-purpose Tray Pullout Roller

[4] ADF Feed Roller	[22] Multi-purpose Tray Pickup Roller
[5] ADF Delivery Reverse Roller	[23] Multi-purpose Tray Separation Pad
[6] ADF Pickup Roller	[24] Vertical Path Roller
[7] ADF Separation Pad	[25] Cassette Separation Roller
[8] ADF Delivery Roller	[26] Cassette Feed Roller
[9] ADF Reverse Roller	[27] Cassette Pickup Roller
[10] Drum Unit	[28] Primary Charging Roller
[11] Reverse Roller	[29] Developing Assembly
[12] Delivery Roller	[30] Laser Scanner Unit
[13] Fixing Outlet Roller	[31] Toner Container
[14] Duplex Feed Roller 1	[32] Hopper
[15] Pressure Roller	[33] Copyboard Glass
[16] Fixing Film Unit	[34] CIS Unit
[17] Photosensitive Drum	[35] ADF Reading Glass
[18] Transfer Roller	

Operation

■ Power Switch

● Types of Power Switches



This machine has the Main Power Switch and the Drum Heater Switch.

[1] Main Power Switch

This switch is used to turn OFF / ON the power of host machine.

[2] Drum Heater Switch (option)

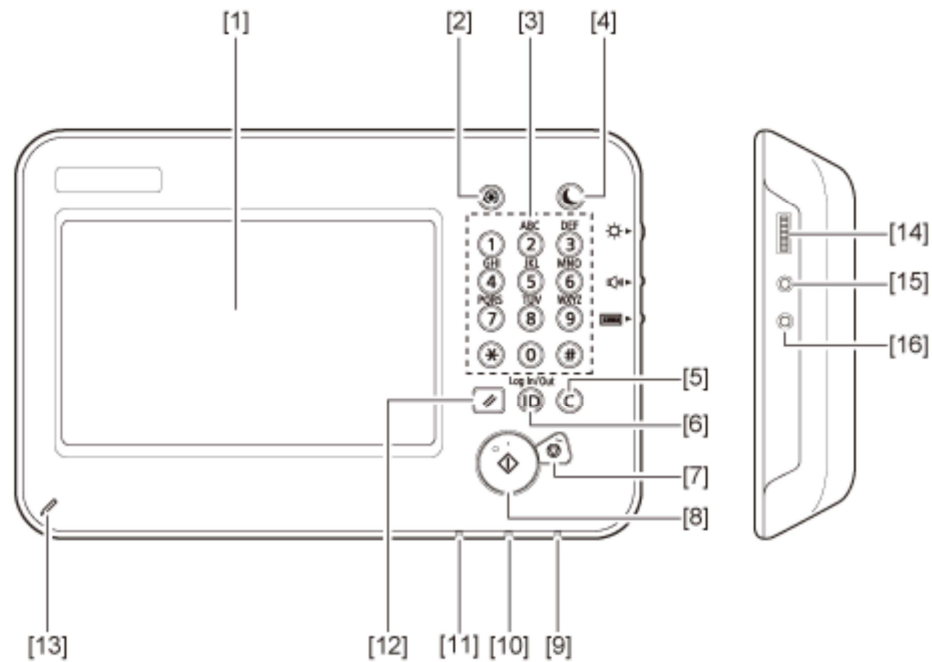
This switch is used to turn OFF / ON the power of the drum heater.

● **Points to Note on Turning ON/OFF the Power Switch**

- Be sure to turn OFF the main power switch when turning OFF the power. (The conventional shut-down sequence process is not needed.)
- After turning OFF the power (after turning OFF the Main Power Switch), do not turn ON the main power switch again unless the screen disappears.
- Do not turn OFF the power during downloading.

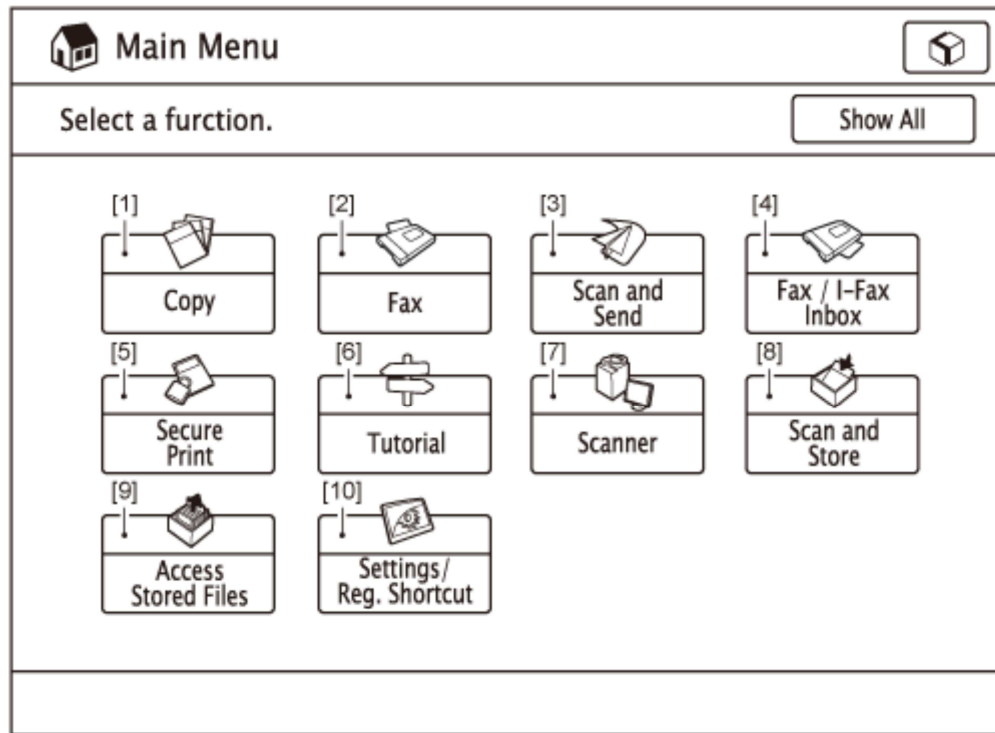
■ **Description of Control Panel**

● **Control Panel**



- | | |
|-------------------------------|----------------------------------|
| [1] Touch Panel Display | [9] Main Power Indicator |
| [2] Settings/Registration key | [10] Error Indicator |
| [3] Numeric key | [11] Processing / Data Indicator |
| [4] Energy Saver key | [12] Reset key |
| [5] Clear key | [13] Edit Pen |
| [6] ID (Log In/Out) key | [14] Brightness Adjustment Dial |
| [7] Stop key | [15] Volume Settings key |
| [8] Start key | [16] Counter Check key |

● Main Menu



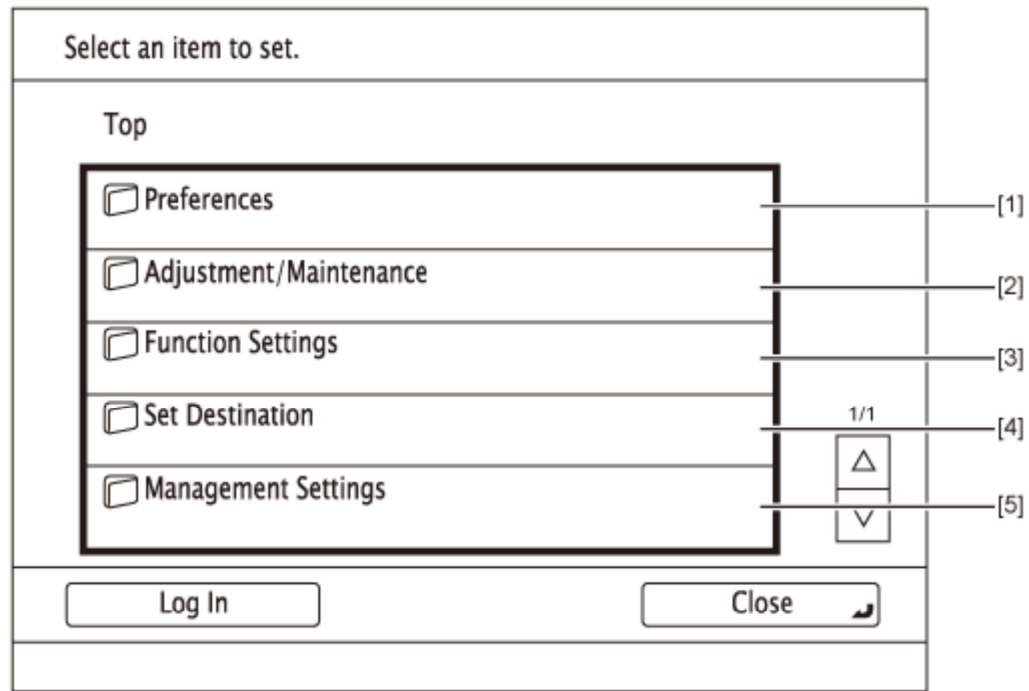
No	Name	Remarks
[1]	Copy	
[2]	Fax	Super G3 Fax Board-AM1 is required.
[3]	Scan and Send	
[4]	Fax / I-Fax Inbox	
[5]	Secure Print	
[6]	Tutorial	
[7]	Scanner	
[8]	Scan and Store	
[9]	Access Stored Files	
[10]	Settings / Reg. Shortcut	

No	Name	Remarks
----	------	---------

● Differences in Main Menu

imageRUNNER 1750/1740 series	imageRUNNER ADVANCE 500/400 series
Copy Key	Copy
Send / Fax Key	Fax
	Scan and Send
	Fax / I-Fax Inbox
	Scan and Store
	Access Stored Files
Remote Scanner / Expansion Key	Secure Print
---	Tutorial
---	Scanner
---	Settings / Reg. Shortcut

● Settings / Registration Menu



No	Name	Remarks
[1]	Preferences	
[2]	Adjustment / Maintenance	
[3]	Function Settings	
[4]	Set Destination	
[5]	Management Settings	To log in as an administrator is necessary.

● Differences in Settings / Registration Menu

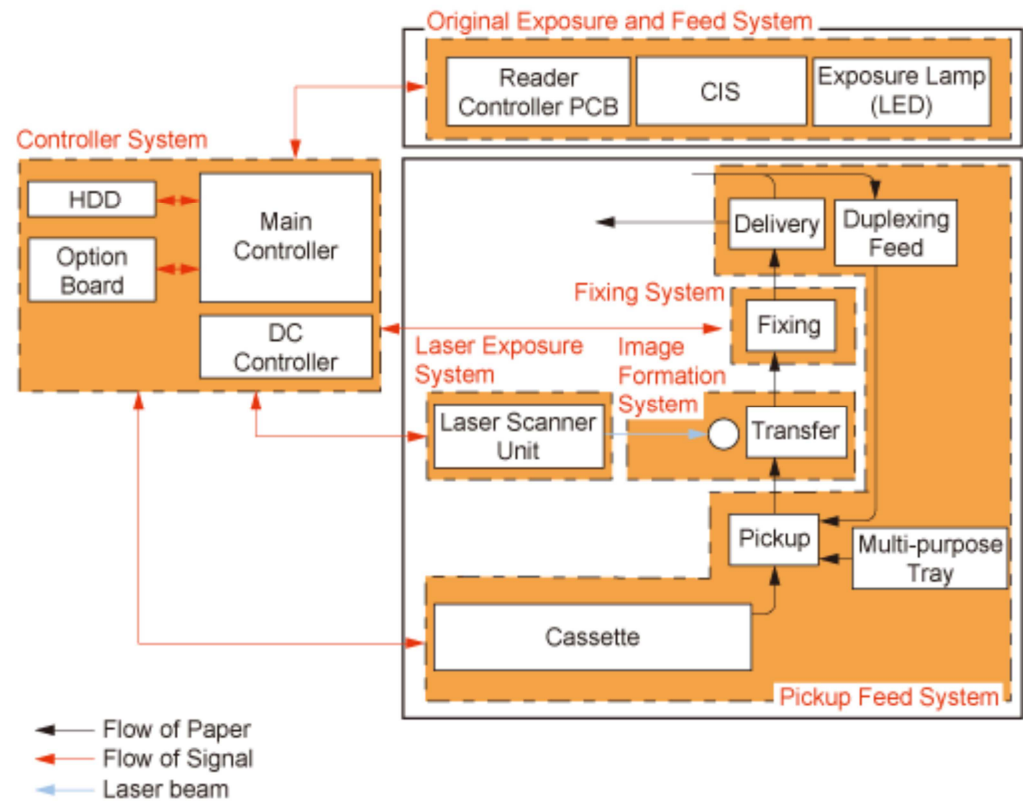
imageRUNNER 1750/1740 series	imageRUNNER ADVANCE 500/400 series
Common Settings	Preferences
Timer Settings	
Adjustment / Cleaning	Adjustment / Maintenance

imageRUNNER 1750/1740 series	imageRUNNER ADVANCE 500/400 series
System Settings	Management Settings
Report Settings	Function Settings
Cpoy Settings	
Print Settings	
Address Book Settings	Set Destination

Basic Configuration

Functional Configuration

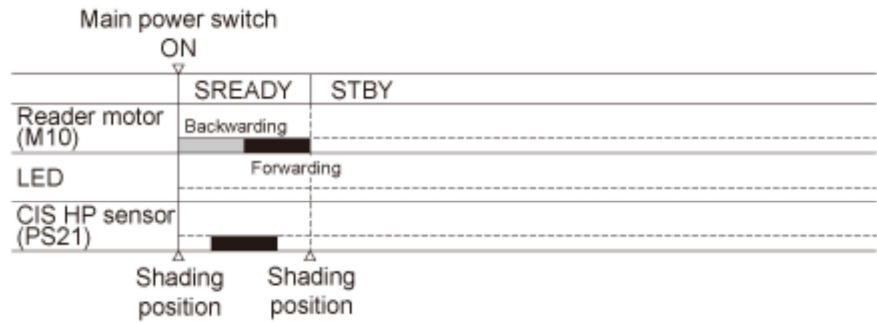
This machine consists of 6 major blocks: Original Exposure and Feed System, Controller System, Laser Exposure System, Image Formation System, Fixing System, and Pickup Feed System.



■ Basic sequence

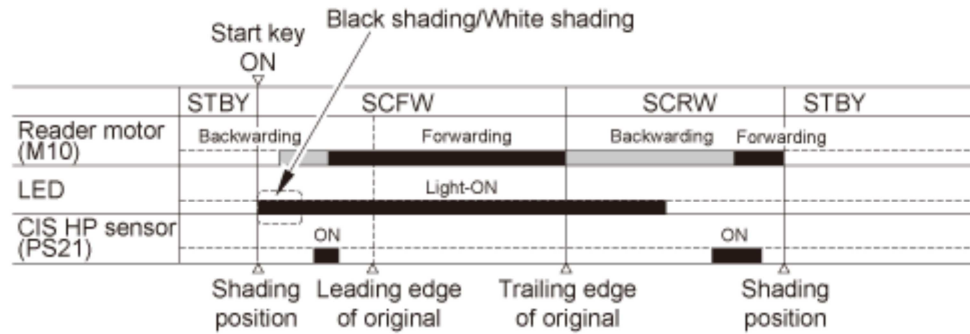
● Sequence at Power-On

- Reader



● **Print sequence**

- Reader (in book mode, 1-sheet original)



Original Exposure and Feed System

Construction

■ Specifications/controls/functions

The major specifications, controls and functions of the original exposure and feed system are described below.

Item		Specification/function
Original exposure		LED
Original scan	In book mode	Original scan is performed by moving the contact image sensor (CIS).
	In ADF mode	Original stream reading is performed with the contact image sensor (CIS) fixed.
Read resolution		B/W: 600 dpi (main scanning) x 600 dpi (sub scanning) (Color SEND: 300 dpi (main scanning) x 300 dpi (sub scanning))
Gradation		256 gradation
Carriage position detection		CIS HP sensor (PS21)
Magnification		25% to 400% (in 1% increment)
	Main scanning direction	Image is processed on main controller PCB.
	Sub scanning direction	Image is processed on main controller PCB.
Lens		Rod lens array
Original reading sensor		Number of lens: 1
		Number of pixels: Total 5148 (incl. 5104 effective pixels)
		Maximum original scan width: 216mm
CIS drive control		Drive control by Reader motor (M10)
Original size detection	Reader	Main scanning direction: No
		Sub scanning direction: by original reading length (LTR or LGL)

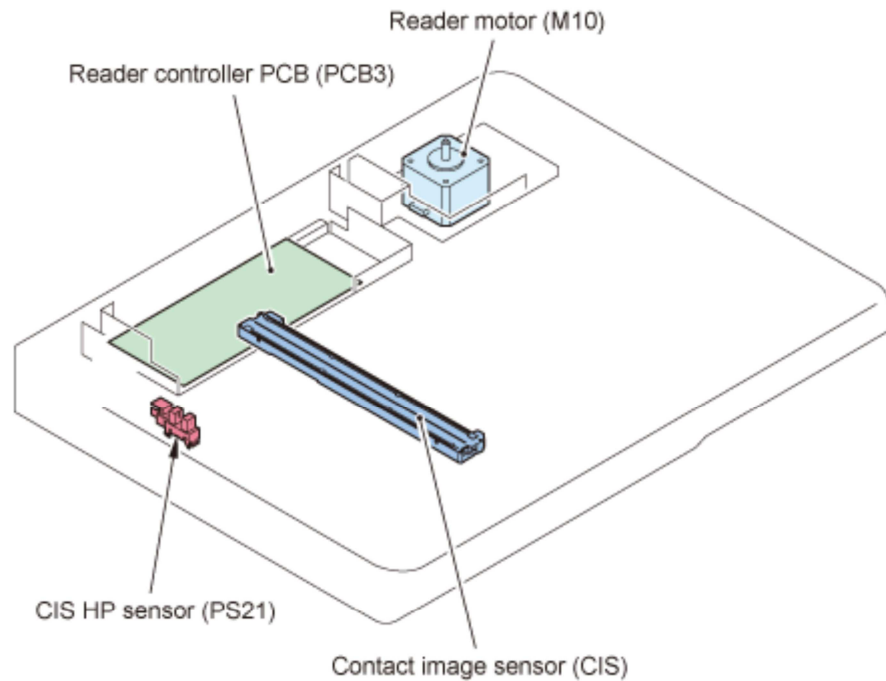
Item	Specification/function
ADF	Main scanning direction: No
	Sub scanning direction: by original feeding length (LTR or LGL)
ADF original pickup method	Auto pickup/delivery method
ADF setting direction of original	Original tray pickup: face-up stacking
ADF setting position of original	Original tray pickup: center reference
ADF separation method of original	Upper separation by separation pad
ADF scanning method of original	Stream reading
ADF weight of original	1-sided
	AB: 42 to 128 g/m ² Inch: 50 to 128 g/m ²
	2-sided
	50 to 128 g/m ²
	Color original
	64 to 128 g/m ²
	B/W or Color mixed original
	50 to 128 g/m ² (Color: 64 to 128 g/m ²)
	Original longer than 432mm
	60 to 90 g/m ² (1-sided, 1-sheet feeding)
ADF original size	A4, B5, A5, LGL, LTR, STMT, 16K
	Original width direction: 139.7 to 216 mm
	Original feed direction: 139.7 to 355.6 mm (In long length paper printing mode: maximum 630 mm; FAX mode only)
ADF original tray capacity	100 sheets (64 or 80 g/m ² paper, original height: 10mm or less)
ADF original processing mode	1-sided original processing
	2-sided original processing
ADF original size detection function	No
ADF mixed original mode function	Mix of same configuration mode
	Yes (weight of original same as continuous feed mode) Assured combination for mix with same configuration • LTR/LGL
	Mix of different configuration mode
	No

Item	Specification/function
Book original	Yes (The thickness of the book original must not exceed 30 mm.)
ADF done stamp function	No

■ Major Components

● Reader Unit

Following shows major components of reader unit.

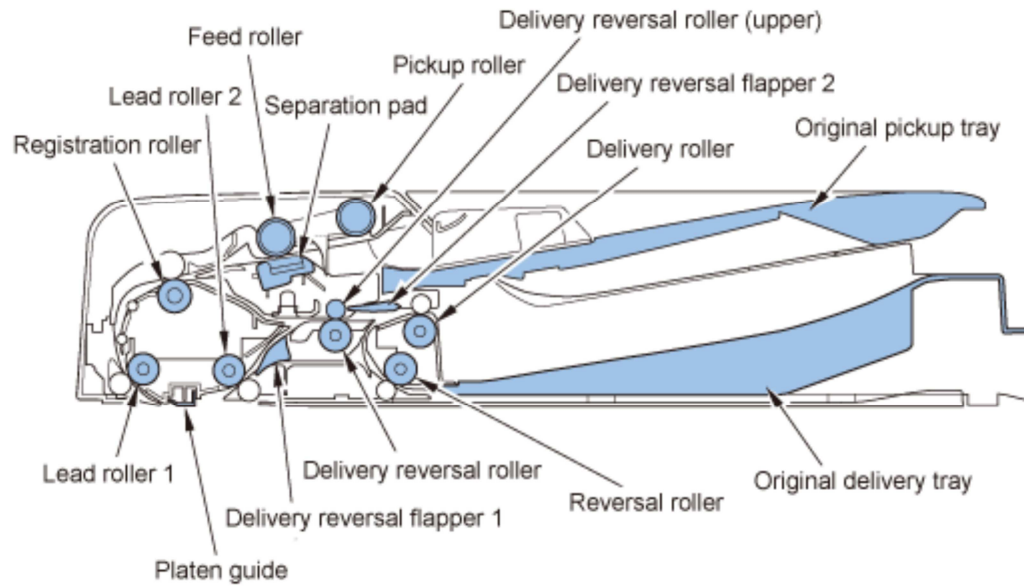


Item	Notation	Specification/function
Reader motor	M10	Stepping motor: controls the carriage drive.
CIS HP sensor	PS21	Photo interrupter: detects the home position of CIS unit.
Contact image sensor	CIS	Reads the original. (LED + Light guide + Original reading sensor array unit)
Reader controller PCB	PCB3	Controls the reader unit and ADF unit.

● **ADF unit**

Following shows major components of ADF unit.

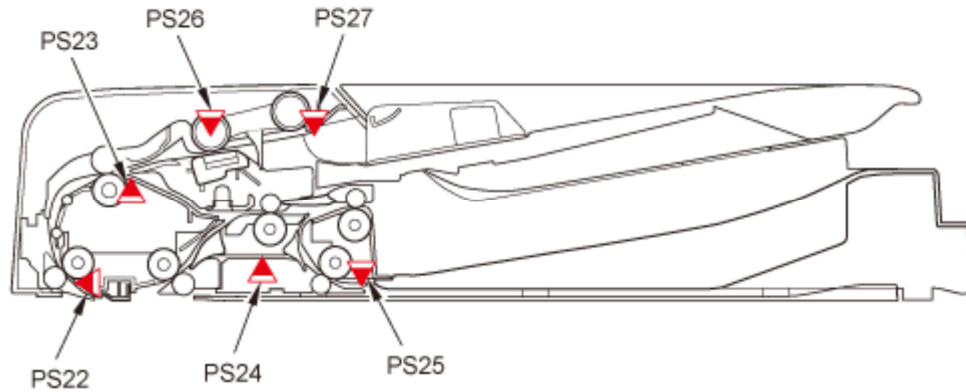
1) Cross Section



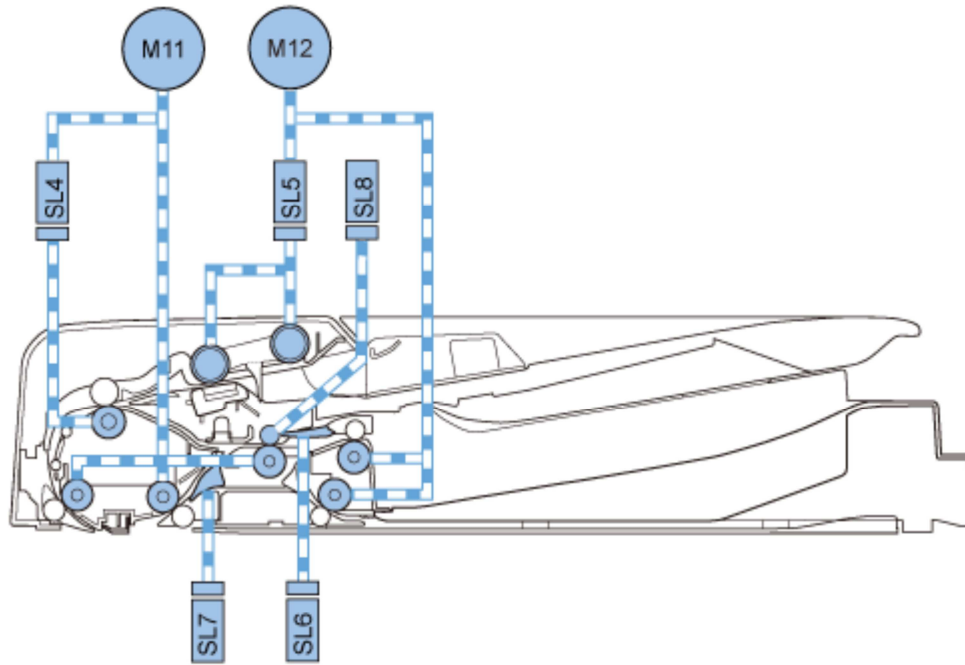
Item	Specification/function
Pickup roller	Picks up the original.
Feed roller	Separates and feeds the original.
Separation pad	Separates the original.
Registration roller	Feeds the original and forms a skew feed correction loop.
Lead roller 1	Feeds the original before reading.
Lead roller 2	Feeds the original after reading.
Delivery reversal roller	Delivers the original and performs upstream reversal feed of the original.
Delivery reversal roller (upper)	Separated from the mating delivery reversal roller by the roller release solenoid during reverse feed of the original.

Item	Specification/function
Delivery roller	Delivers the original.
Reversal roller	Performs downstream reversal feed of the original.
Platen guide	Original read section.
Delivery reversal flapper 1	Switches between the upstream reversal path and the downstream reversal path.
Delivery reversal flapper 2	Switches between the upstream reversal path and the delivery path.
Original pickup tray	Allows you to load an original.
Original delivery tray	Stacks the delivered originals.

2) Sensor Layout



3) Drive Configuration

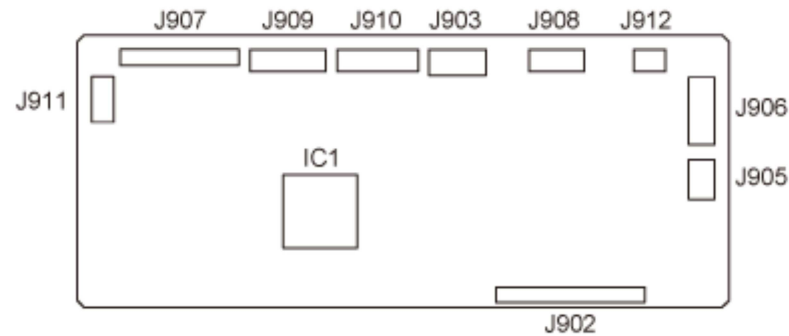


Item	Notation	Specification/function
Feed motor	M11	Stepping motor: Feeds the original.
Delivery reversal motor	M12	Stepping motor: Feeds, reverses, and delivers the original.
Registration solenoid	SL4	Transmits the driving force of the feed motor to the registration roller.
Pickup solenoid	SL5	Transmits the driving force of the delivery reversal motor to the pickup roller and feed roller.
Flapper solenoid 2	SL6	Drives the delivery reversal flapper 2.
Flapper solenoid 1	SL7	Drives the delivery reversal flapper 1.
Roller release solenoid	SL8	Separates the delivery reversal roller from the mating delivery reversal roller during upstream reversal feed of the original.
Lead sensor	PS22	Photo interrupter: Detects the original read timing and original length.
Registration sensor	PS23	Photo interrupter: Detects the original leading edge looping timing.
Stay sensor	PS24	Photo interrupter: Detects the original reversal timing during downstream reversal feed.

Item	Notation	Specification/function
Reversal sensor	PS25	Photo interrupter: Detects the original feed during downstream reversal feed.
Timing sensor	PS26	Photo interrupter: Detects feed of the original.
Original set sensor	PS27	Photo interrupter: Detects presence/absence of the original on the original pickup tray.

■ Reader Controller PCB

The function configuration of reader controller PCB is described below.

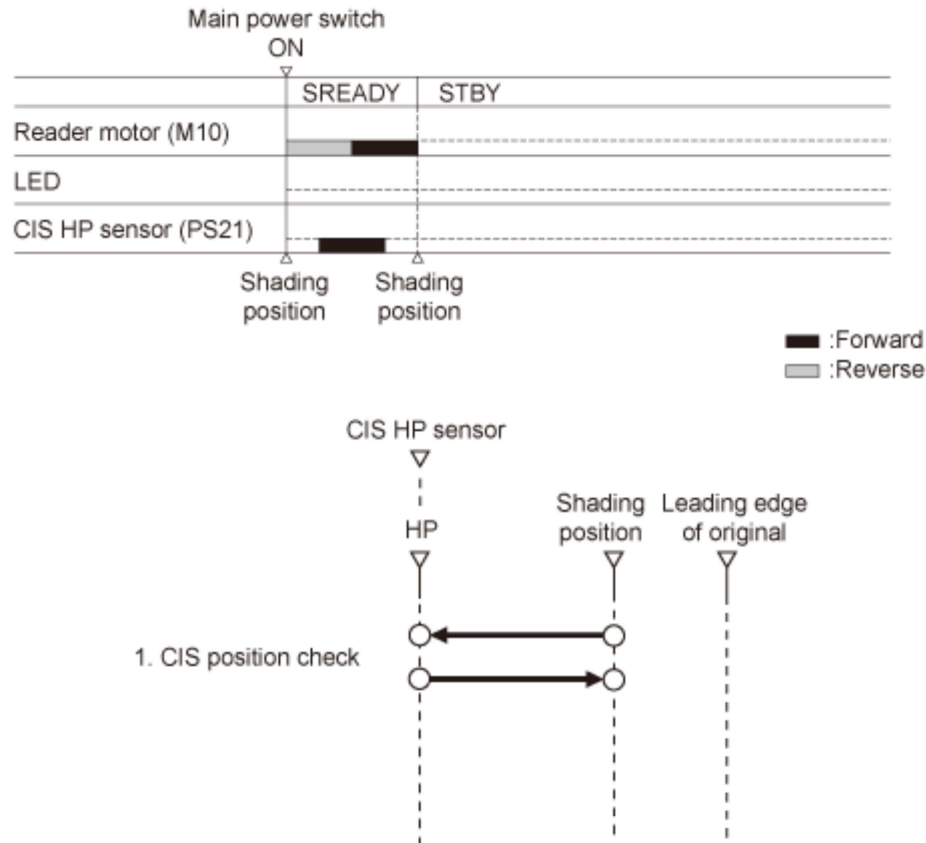


Notation	Description
IC1	Image processing, control of contact image sensor, control of motors and solenoids drive, control of sensors detection
J902	Connector for contact image sensor
J903	Connector for power supply from host machine (AC Driver PCB)
J905	Connector for reader motor
J906	Connector for feed motor and delivery reversal motor of ADF
J907	Connector for communication with main controller PCB of host machine
J908	Connector for registration solenoid and pickup solenoid and flapper solenoid 1 and 2
J909	Connector for timing sensor and original set sensor
J910	Connector for lead sensor and registration sensor and stay sensor and reversal sensor
J911	Connector for CIS HP sensor
J912	Connector for roller release solenoid

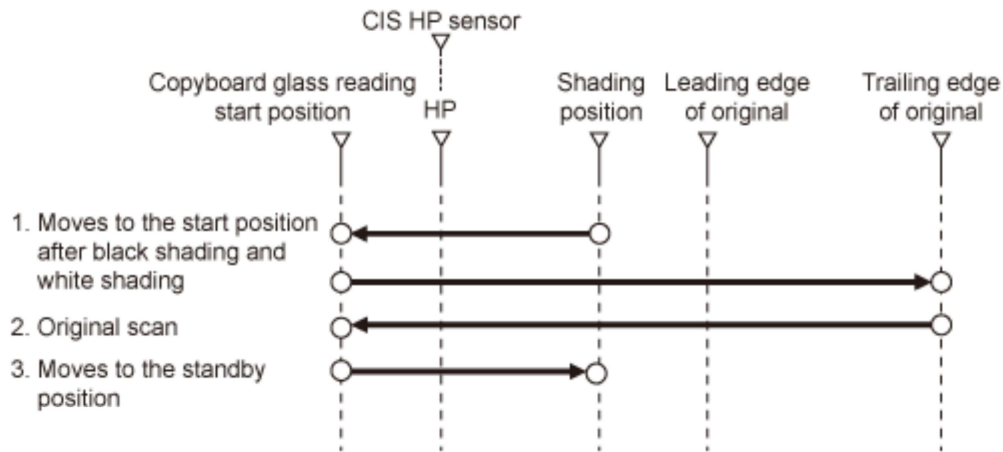
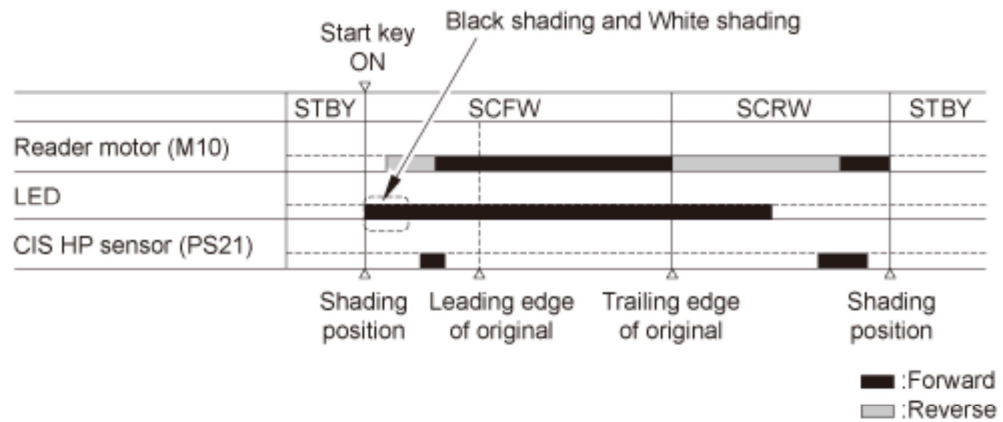
Notation	Description
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Basic Operation

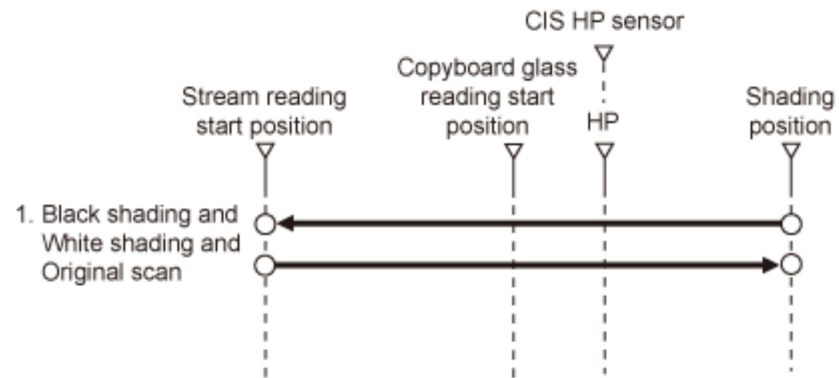
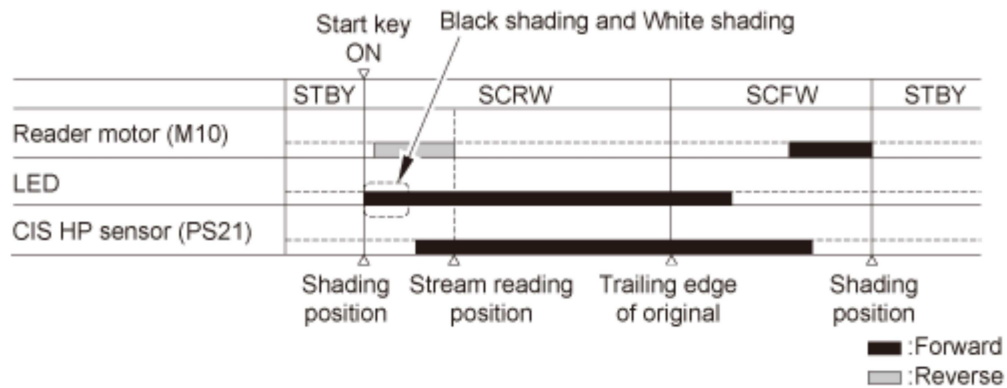
- Basic Sequence
- Basic Sequence at Power-On



- Basic Sequence at Start Key ON (Book mode/1 original)



● Basic Sequence at Start Key ON (ADF mode/1 original)



■ ADF Operation Mode

ADF has four operation modes.

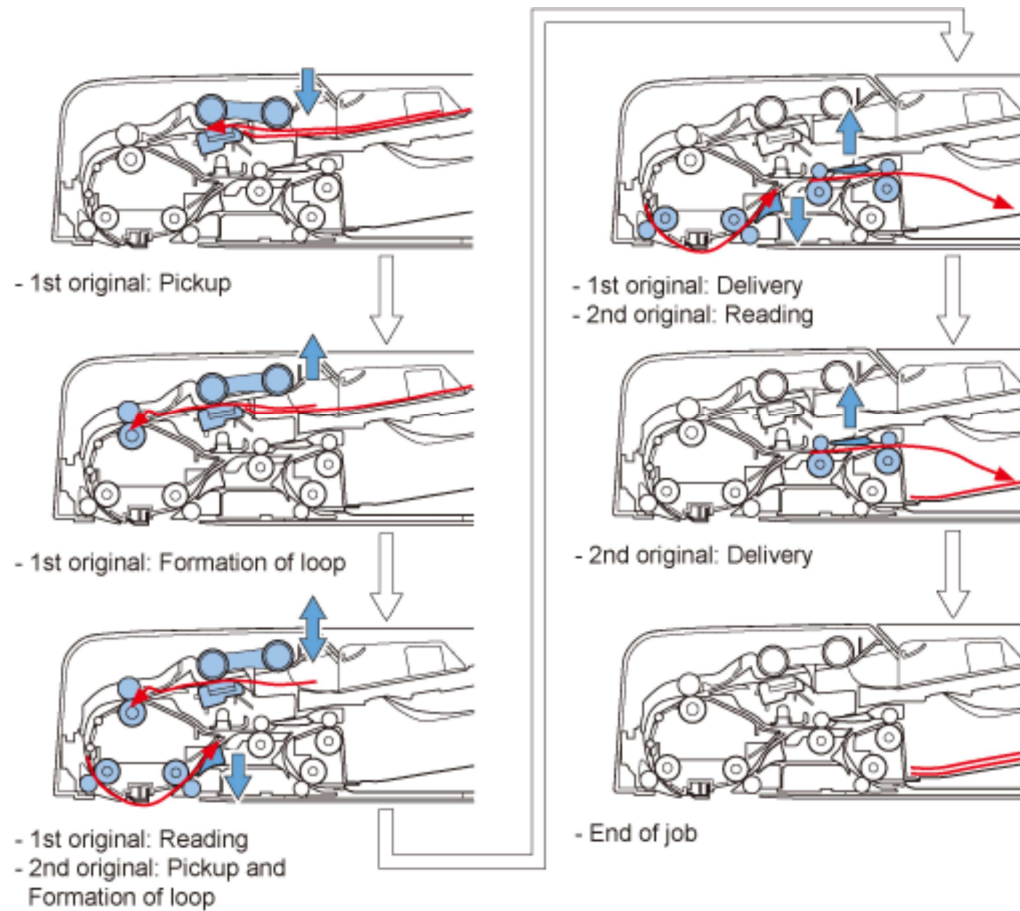
Operation mode names and outline of operations and associated print modes are given in the following table:

Operation mode name	Outline of operation	Associated print mode
Forward pickup/delivery	Picks up, reads, and then delivers an original.	Single-sided original → Single-sided print
		Single-sided original → Double-sided print
Forward pickup/reversal delivery	Picks up, reads, and then reverses and delivers an original	Double-sided original → Double-sided print
		Double-sided original → Single-sided print

● Forward Pickup/Delivery (Single-sided original → Single-sided print) Operation

The original flows as shown below.

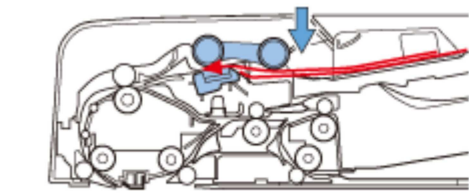
- Operation of single-sided original reading (2 originals)



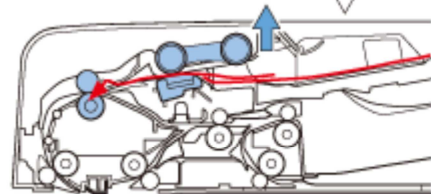
● Forward Pickup/Reversal Delivery (Double-sided original → Double-sided print) Operation

The original flows as shown below.

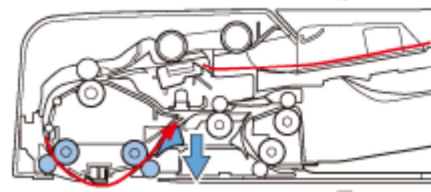
- Operation of double-sided original reading (2 originals)



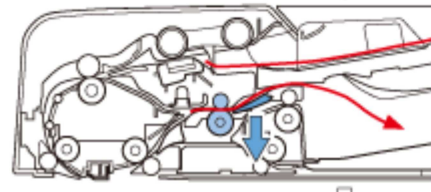
- 1st original: Pickup



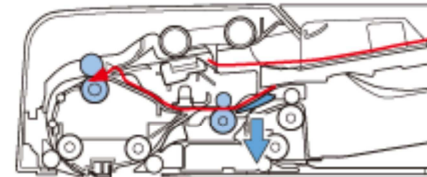
- 1st original: Formation of loop



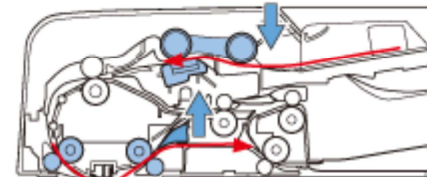
- 1st original: Reading



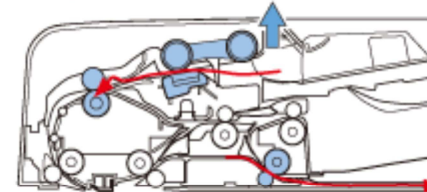
- 1st original: Feeding to upstream reversal path



- 1st original: Reversal and Formation of loop

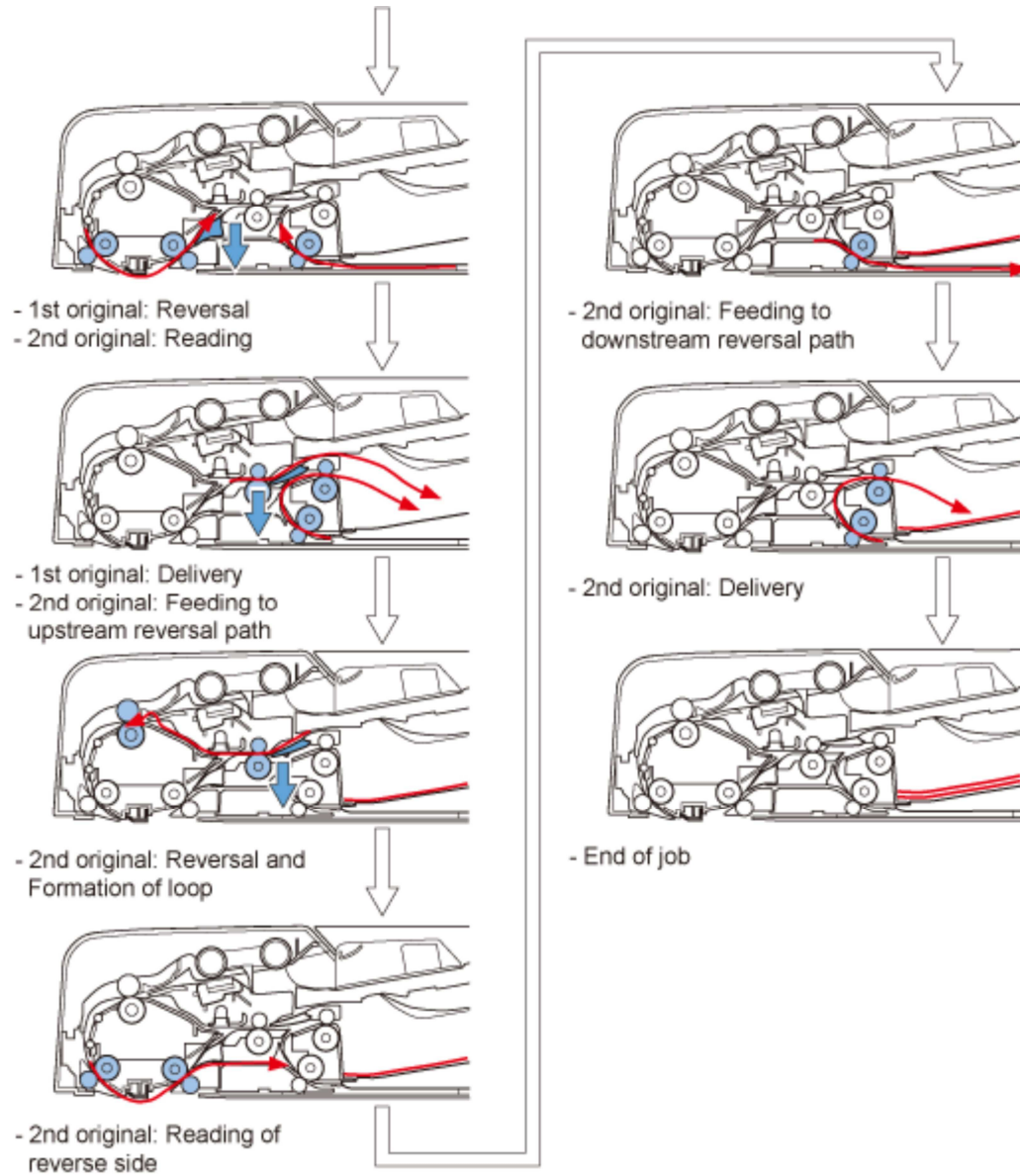


- 1st original: Reading of reverse side
- 2nd original: Pickup



- 1st original: Feeding to downstream reversal path
- 2nd original: Formation of loop

Next

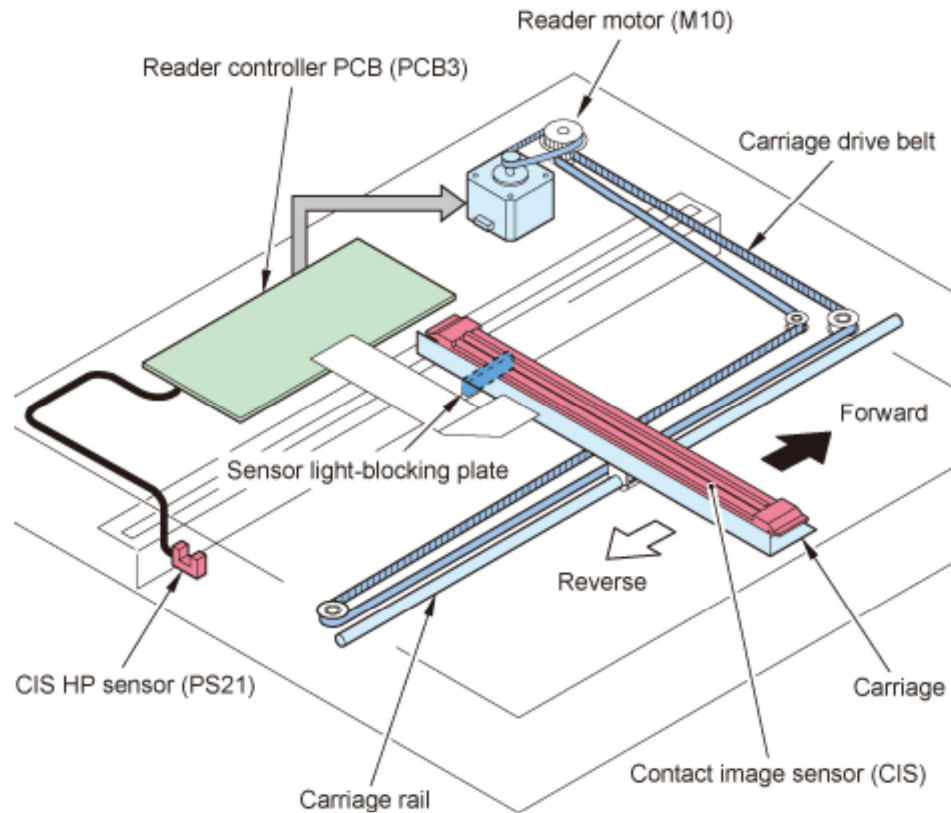


Controls

■ Controlling the Scanner Drive System

● Overview

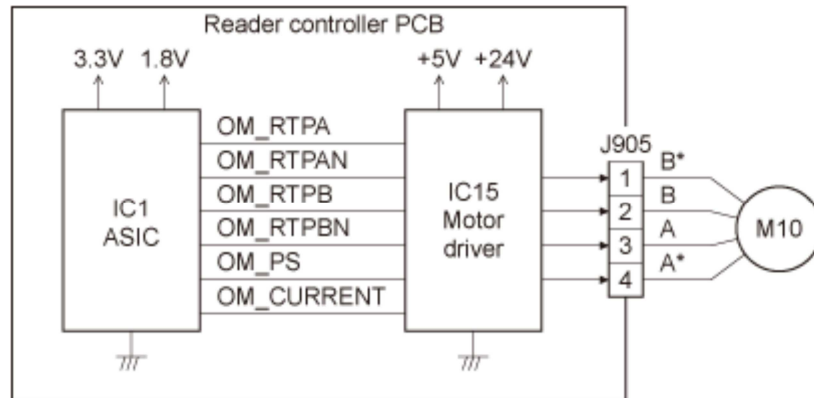
Parts configuration of scanner drive is described below.



- Reader motor (M10) drive signal
Controls the rotation and its direction and speed of motor.
- CIS HP sensor (PS21)
Detects that the contact image sensor (CIS) is at the home position.

● Reader Motor Control

Reader motor driver (IC15) turns on/off the reader motor (M10) and controls its direction and speed of rotation according to the signals from ASIC (IC1).

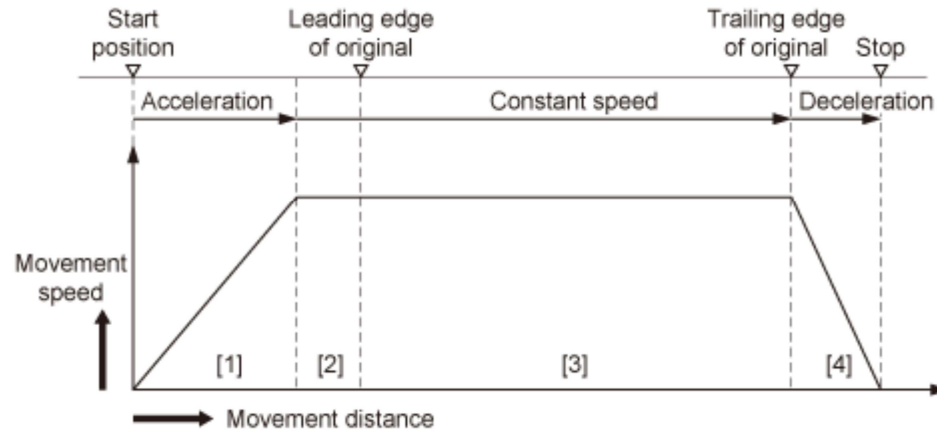


NOTE:

The scan speed is 160 mm/sec.

1) Forward Movement during Image Scan

During image scanning, the reader controller PCB controls the reader motor (M10) to control the contact image sensor (CIS) operation.



- [1] Acceleration area: The motor accelerates to the speed specified for each mode.
- [2] Runup area: A margin to stabilize the speed.
- [3] Image read area: The image is read at a constant speed.
- [4] Deceleration area: Upon detection of the trailing edge, the motor decelerates rapidly and stops.

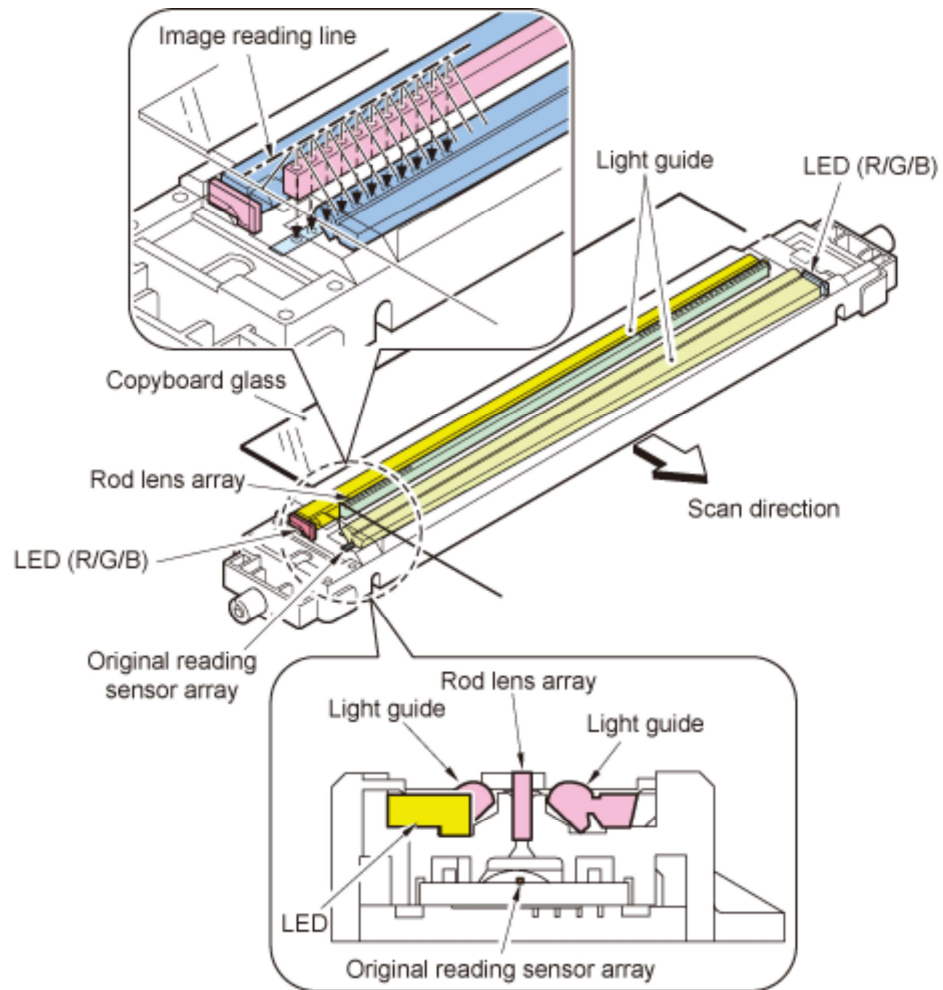
2) Backward Movement after Image Scan

After image scan, the carriage moves back to the contact image sensor (CIS) shading position at the constant speed (160 mm/sec).

■ Contact Image Sensor (CIS)

● Outline

The original is exposed to light and read using the contact image sensor (CIS) to read the image on a line-by-line basis.



Component	Function
LED	Illuminates the original.
Light guide	Illuminates the entire image line with the LED light.
Rod lens array	Collects the light reflected by the original.
Original reading sensor array	Receives the light that passed through the rod lens array.

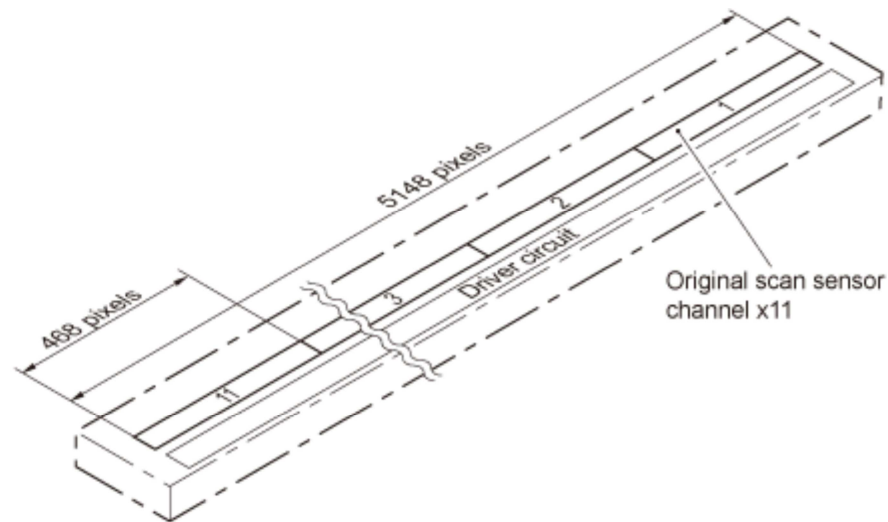
● Analog Control Performed by the CIS

The flow of analog image processing performed by the contact image sensor (CIS) is as follows:

- a. The light reflected by the original is collected by the rod lens array.
- b. The light is received by the original scan sensor array.
- c. The original scan sensor array converts the received light to an electric signal and outputs it.

The original scan sensor array consists of eleven channels (units).

Each channel is provided with an output correction table to output an image signal after performing gain correction for the input brightness signal.



■ Enlargement / Reduction

● Magnification Change in Main Scanning Direction

In book mode or ADF mode

In the main scanning direction, image is read at 100%; thereafter, the data is subjected to processing by the main controller PCB to suit the selected reproduction ratio.

● Magnification Change in Sub Scanning Direction

The magnification in sub scanning direction is changed as follows:

- 1) In book mode

Image is read at original scan speed kept at 160 mm/sec; thereafter, the data is subjected to processing by the main controller PCB to suit the selected reproduction ratio.

2) In ADF mode

Image is read at original scan feeding speed kept at 320 mm/sec; thereafter, the data is subjected to processing by the main controller PCB to suit the selected reproduction ratio.

■ Dust Detection Control

● Overview

In ADF mode, the machine changes the original read position or corrects the read image depending on the presence/absence of dust on the ADF reading glass or platen guide, thus preventing dust from showing up in the image.

The control of dust detection is as follows:

- 1) Dust detection preventive process
- 2) Dust detection correction control

■ Dust Detection Preventive Process

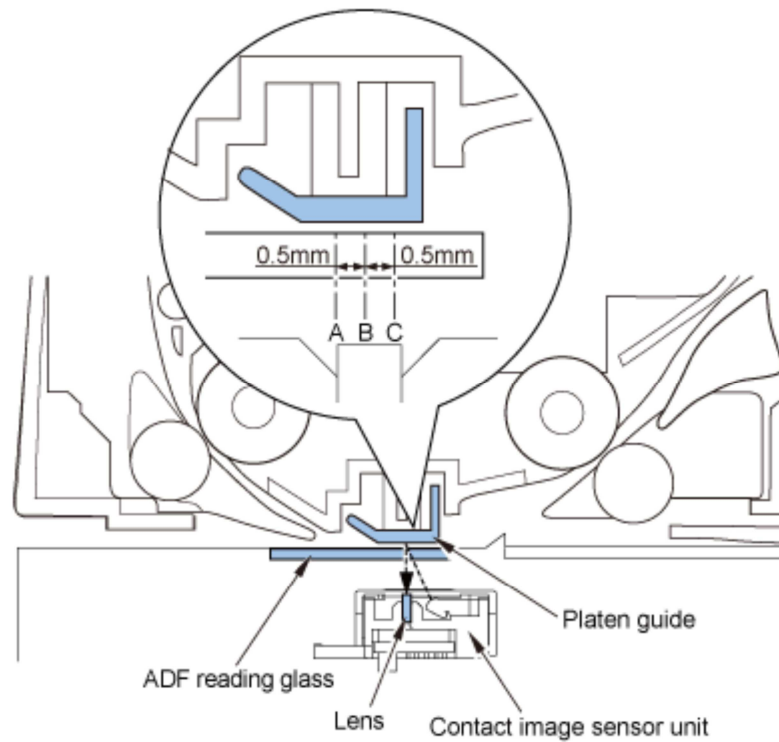
The contact image sensor (CIS) detects the reflected light from the ADF reading glass and platen guide surface (at the read position) to judge presence or absence of dust.

The dust detection process is performed as follows:

- 1) The dust detection process is performed at position A. The original read position is decided to the position A if detecting the absence of dust. And the process of step 2) is performed if detecting the presence of dust.
- 2) The dust detection position moves to position B to perform the dust detection process there. The original read position is decided to the position B if detecting the absence of dust. And the process of step 3) is performed if detecting the presence of dust.
- 3) The dust detection position moves to position C to perform the dust detection process there. The original read position is decided to the position C if detecting the absence of dust. And the process of step 4) is performed if detecting the presence of dust.
- 4) If dust is detected at all of positions A, B, and C, position A is determined as the original read position.

This process is performed only before starting the first job after the power-on.

However, in case the dust is detected at all of positions A, B, and C or the dust detection preventive process cannot be performed, this process is performed before starting the next job.



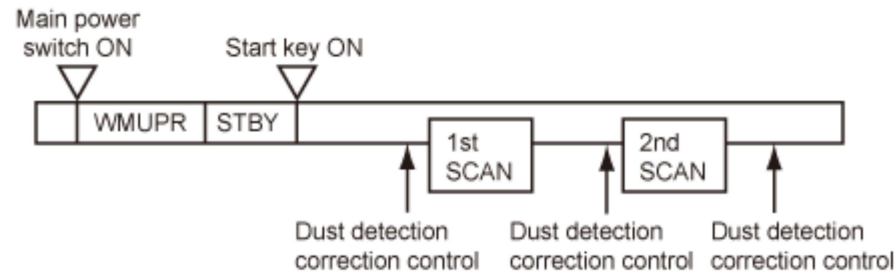
Position	Description
A	Reference position for read
B	About 0.5 mm to the right of the reference position A
C	About 1.0 mm to the right of the reference position A

NOTE:

When dust has been detected at all of positions A, B, and C, setting an original on the ADF will show a message that prompts the user to clean the glass surface.

■ **Dust Detection Correction Control**

Whenever the original from the ADF is read, presence or absence of dust is detected at the original read position determined in the dust detection preventive process. If presence of dust is detected, the image correction process is performed to prevent dust from appearing in the output image.

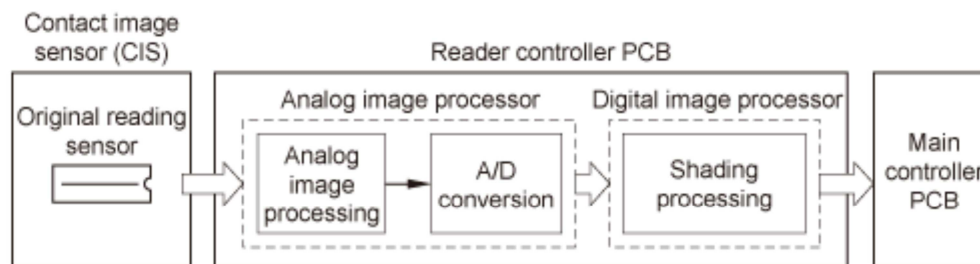


■ Image Processing

● Overview

Major specifications and functions of the image processing system are as follows:

Item	Specification/function
Original reading sensor array	Number of lines: 1 Number of pixels: Total 5148 (incl. 5104 effective pixels)
Shading correction	Shading correction: Performed for each job. Shading adjustment: Performed in the Service mode.



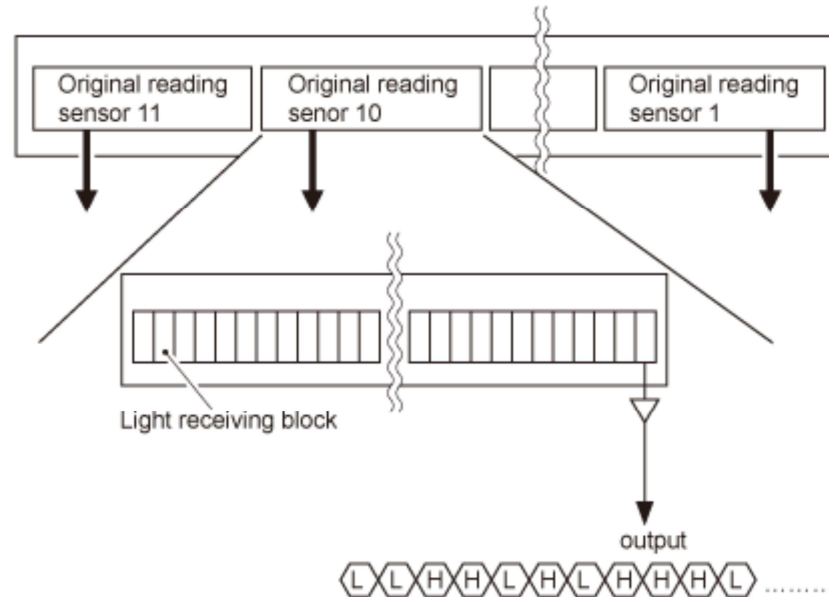
About image processing, the function of the reader controller PCB is as follows:

- Original reading sensor drive
- Original reading sensor output gain correction and offset correction
- Original reading sensor output A/D conversion

- Shading correction
- LED intensity adjustment

● Original Reading Sensor Drive

The original reading sensor is a 1-line linear image sensor consisting of 5147 photocells. After completion of photoelectric conversion in the light receiving block, the signals are output to the reader controller PCB in parallel for each channel (total eleven channels) of the original reading sensor array.



● Original Reading Sensor Output Gain Correction and Offset Correction

The analog video signals output from the original reading sensor are corrected so that they will have a specific gain level (gain correction), and the output voltages generated in the absence of incident light are also corrected so that they will have a specific offset level (offset correction).

● Original Reading Sensor Output A/D Conversion

After completion of the gain correction and offset correction, the analog video signals are converted to digital signals corresponding to individual pixel voltage levels by the A/D converter.

● Outline of Shading Correction

The original reading sensor outputs are necessary even for the following reasons even when the density of the original is uniform:

- 1) Variation in sensitivity among original reading sensor pixels
- 2) Variation in light intensity of rod lens array

The machine performs shading correction to even out the original reading sensor output.

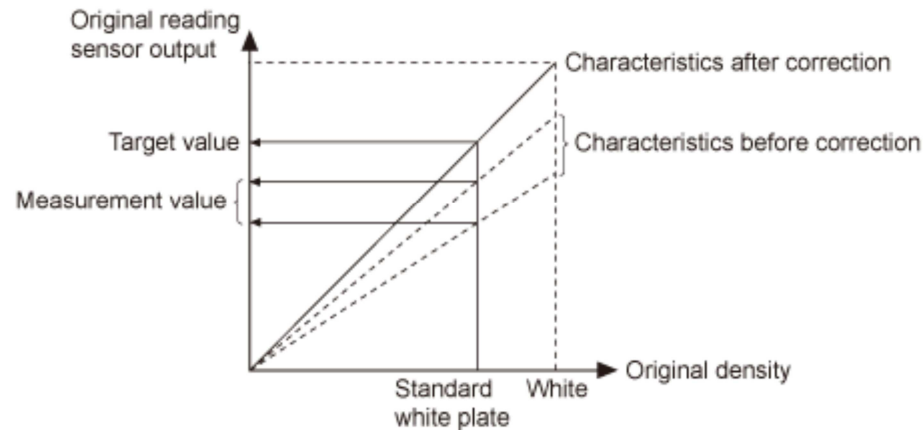
There are two types of shading correction: shading adjustment performed in the service mode and shading correction performed for each job.

● Shading Adjustment

The machine measures the density of the standard white plate, and stores the measured density data. It then processes the stored data to use it as the target value for shading correction.

● Shading Correction

The machine performs shading correction for each scan. It measures the density of the standard white plate, and compares the measured value with the target value stored in the shading correction circuit to use the difference between the two as the shading correction value. The machine uses this shading correction value to correct the variation among the original reading sensor pixels when scanning the originals, thus evening out the image density level.



● LED Intensity Adjustment

The machine adjusts the length of time during which the LED turns on for each scan so that the image scan level of the original reading sensor will be specific level.

Related Service Mode:

- CIS gain and offset correction

COPIER > FUNCTION > CCD > CCD-ADJ

- ADF white level adjustment

COPIER > FUNCTION > CCD > DF-WLVL1 (Copyboard glass scan, B/W)

COPIER > FUNCTION > CCD > DF-WLVL2 (Stream reading scan, B/W)

COPIER > FUNCTION > CCD > DF-WLVL3 (Copyboard glass scan, Color)

COPIER > FUNCTION > CCD > DF-WLVL4 (Stream reading scan, Color)

Control of ADF

■ Pickup and Feed Operations

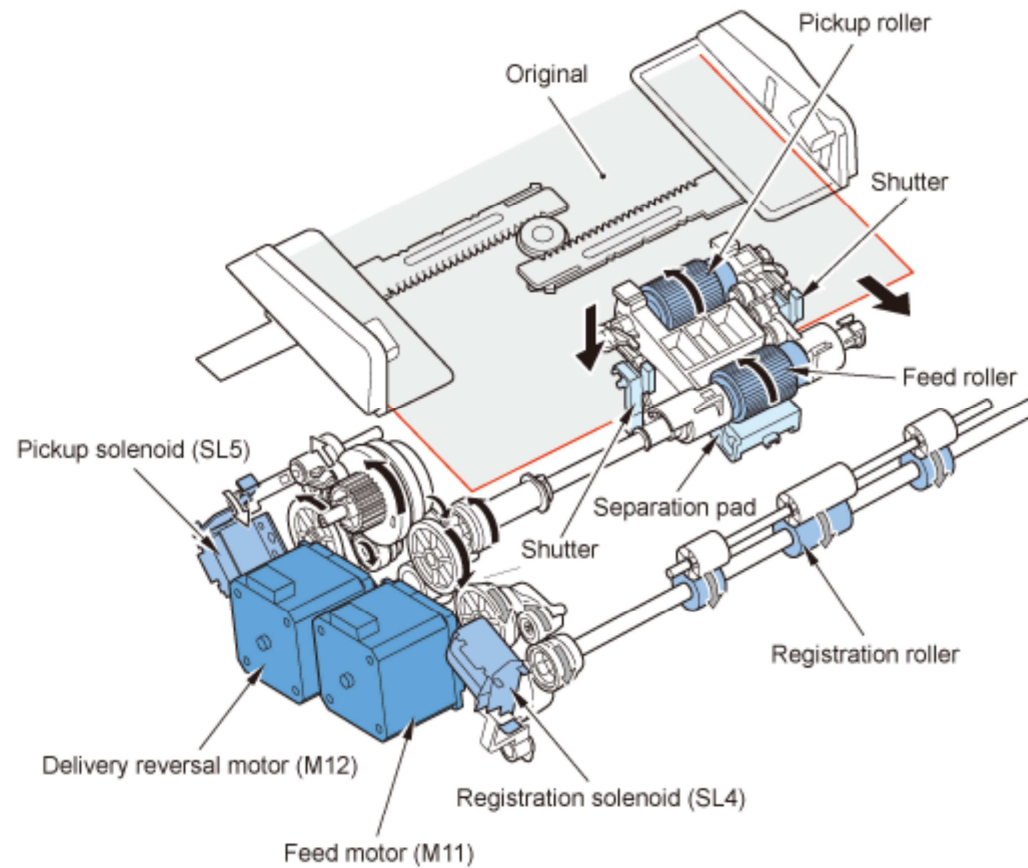
The pickup unit consists of two rollers, a pickup roller and a feed roller.

When the Start key is turned on (the original pickup signal is input), the delivery reversal motor (M12) turns in the normal direction, the pickup solenoid (SL5) turns off to lower the pickup unit, and then the pickup roller and feed roller turn to pick up and feed the original.

A shutter and a separation pad are provided to prevent double feed of originals during pickup operation. The separation pad is used to separate the original.

When the original arriving at the registration roller loops, the pickup solenoid (SL5) turns on to raise the pickup unit.

Then, the feed motor (M11) turns to rotate the registration roller, feeding the original. And the registration solenoid (SL4) turns on to stop the registration roller while the feed motor (M11) turns on.



■ Reversal Operation

Reversal operation is performed in the duplex printing mode or various sized originals printing mode.

There are two types of reversal operations: upstream reversal feed operation and downstream reversal feed operation.

Either type of reversal feed operation is selected according to the following conditions:

- 1) Upstream reversal feed operation
 - When the front side is read in the duplex printing mode
 - When the front side is read in the various sized originals printing mode
- 2) Downstream reversal feed operation
 - When the back side is read in the duplex printing mode

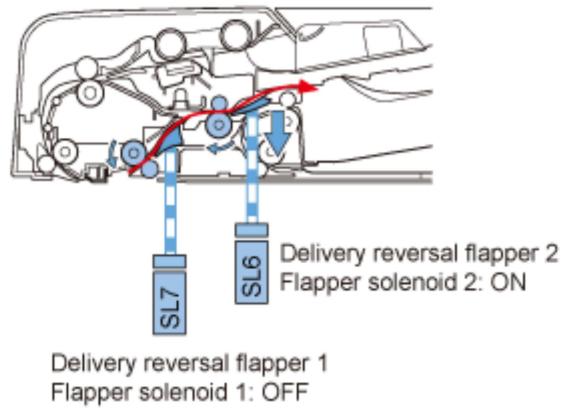
- When the back side is read in the various sized originals printing mode

● Upstream Reversal Feed Operation

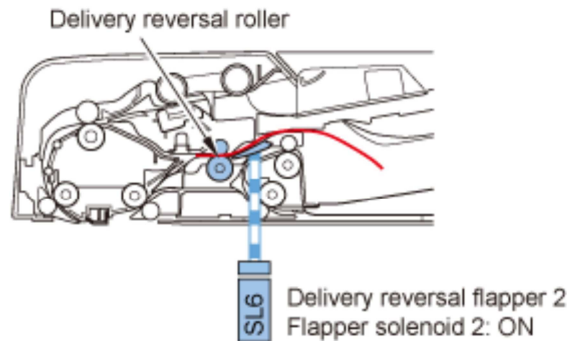
After the front of the original is read, the flapper solenoid 1 (SL7) turns off and the flapper solenoid 2 (SL6) turns on to feed the original to the upstream reversal path with the delivery reversal flapper 1 and delivery reversal flapper 2.

When the original is fed by the registration roller, the roller release solenoid (SL8) turns on to raise the delivery reversal roller, thus preventing the delivery reversal roller from applying pressure to the paper.

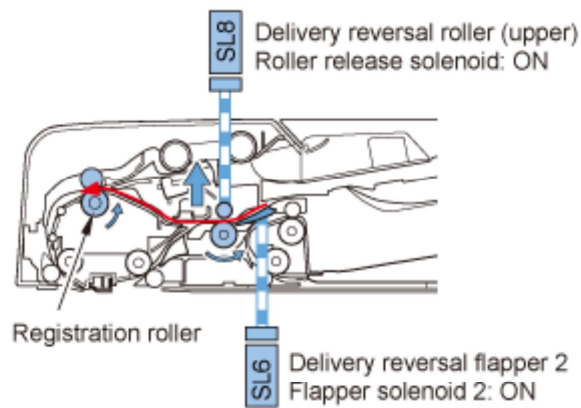
- 1) The flapper solenoid 1 turns off and the flapper solenoid 2 turns on to feed the original to the upstream reversal path.



- 2) After being fed by the specified distance in the upstream reversal path, the original stops.



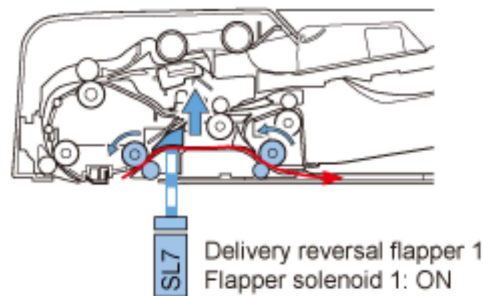
- 3) The delivery reversal roller turns in the reverse direction to feed the original for back side read. After the original arrives at the registration roller, the roller release solenoid (SL8) turns on to raise the delivery reversal roller.



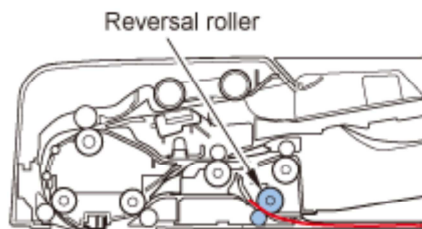
● Downstream Reversal Feed Operation

After the back side of the original is read, the flapper solenoid 1 (SL7) turns on to feed the original to the downstream reversal path using the delivery reversal flapper 1. Then, the original is delivered with the reversal roller and delivery roller.

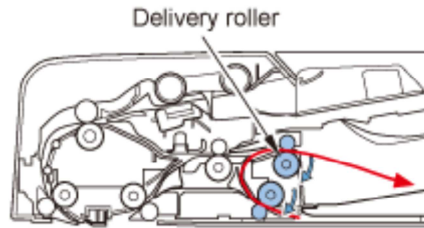
- 1) The flapper solenoid 1 turns on to feed the original to the downstream reversal path.



- 2) After being fed by the specified distance in the downstream reversal path, the original stops.



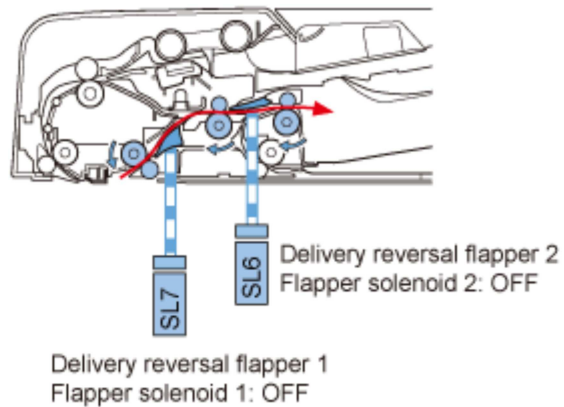
- 3) The reversal roller turns in the reverse direction to deliver the original.



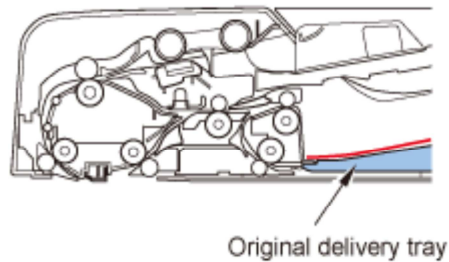
■ Delivery Operation

After being read, the original is delivered to the original delivery tray using the delivery reversal roller and delivery roller.

- 1) The flapper solenoid 1 turns off and the flapper solenoid 2 turns off to feed the original.



- 2) The original is delivered to the original delivery tray.

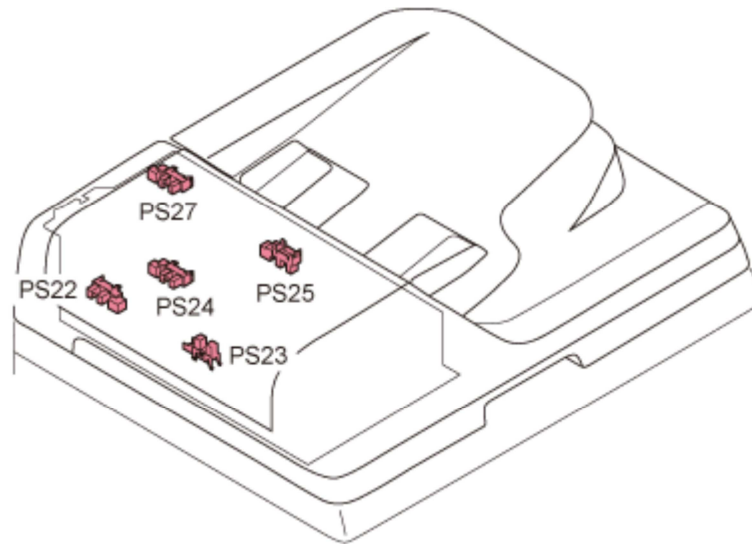


■ Jam Detection

Whether jam is occurred or not, determined by whether there is paper or not in the sensor area by the timing check that memorized in advance by the reader controller PCB.

When the reader controller PCB detected jam, it will stop feeding operation and display the message in the control panel about the jam occurrence.

As the machine stores the jam codes, it can be checked by outputting a jam error log report in the service mode.



The jam is detected by the following sensors.

- Lead sensor (PS22)
- Registration sensor (PS23)
- Stay sensor (PS24)
- Reversal sensor (PS25)
- Original set sensor (PS27)

Jam type	Sensor	Jam description
Registration sensor delay jam	PS23	When the registration sensor cannot detect an original within the specified time.
Registration sensor stationary jam	PS23	When the trailing edge of the original cannot be detected after lapse of the specified time after the original was detected by the registration sensor.
Lead sensor delay jam	PS22	When the lead sensor cannot detect the original within the specified time.
Lead sensor stationary jam	PS22	When the trailing edge of the original cannot be detected after lapse of the specified time after the original was detected by the lead sensor.

Jam type	Sensor	Jam description
Stay sensor delay jam	PS24	When the stay sensor cannot detect the original within the specified time.
Stay sensor stationary jam	PS24	When the trailing edge of the original cannot be detected after lapse of the specified time after the original was detected by the stay sensor.
Reversal sensor delay jam	PS25	When the reversal sensor cannot detect the original within the specified time.
Reversal sensor stationary jam	PS25	When the trailing edge of the original cannot be detected after lapse of the specified time after the original was detected by the reversal sensor.
Initial stationary jam	PS22/PS23/PS24/ PS25	When an original is detected in the feed path during pickup of the first original.
Pickup NG jam	PS27	When original pickup operation starts with no original set on the original pickup tray.
Timing error jam	-	When the original feed sequence is not completed during the specified time.

Work of Service

■ Periodically Replaced Parts

None

■ Consumable Parts

No.	Parts name	Parts number	Q'ty	Estimated life
1	ADF Pickup Roller Unit	FM4-7732	1	80,000 sheets
2	ADF Separation Pad	FL3-7878	1	80,000 sheets

■ Periodical Servicing

None

Perform as needed.

■ When replacing the parts

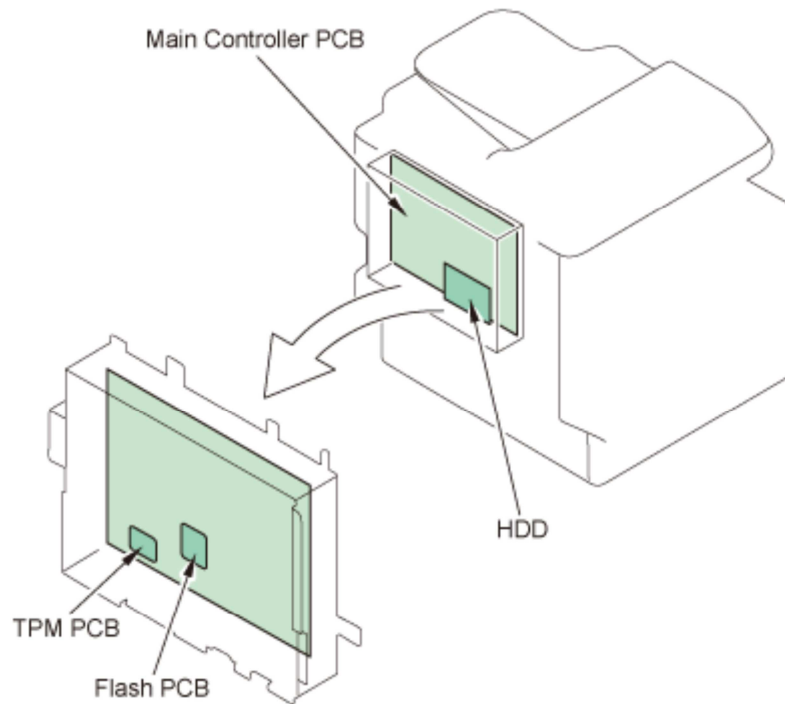
Part name	Operation	Reference

Part name	Operation	Reference
Copyboard glass	Input the value of label on the copyboard glass and ADF white level adjustment	Reference
ADF reading glass	ADF white level adjustment	Reference
Contact image sensor (CIS)	ADF white level adjustment and CIS gain and offset correction	Reference

Main Controller

Overview

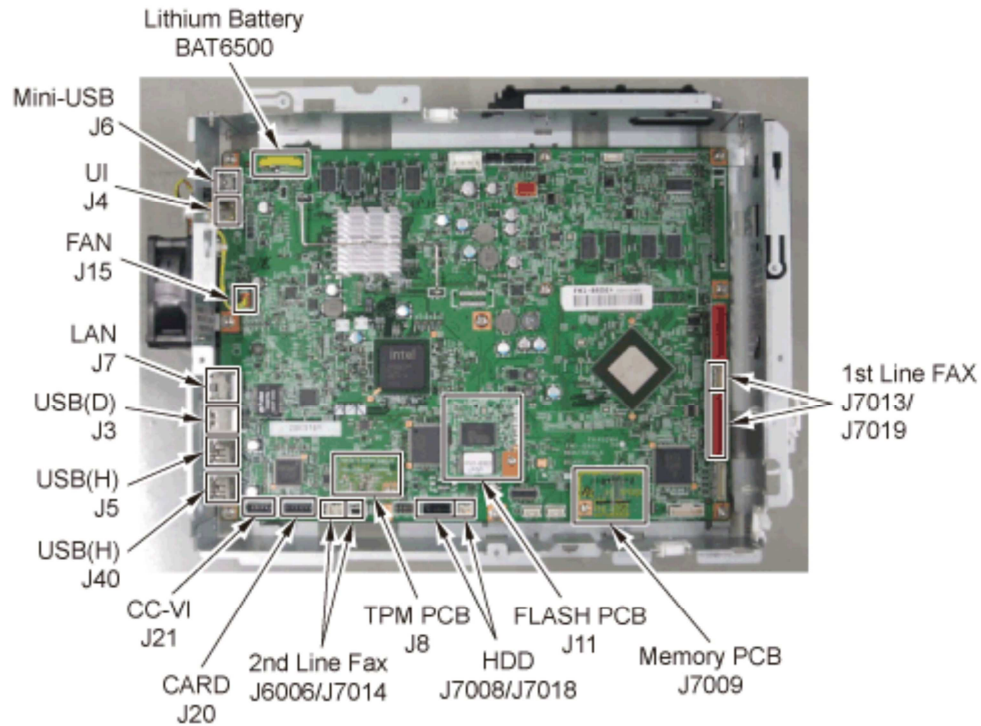
■ Configuration / Function



Item	Function
Main Controller PCB	System Control / Memory Control / Printer Output Image Processing Control, Reader Image Input Processing, Card Reader Connection I/F, Image Processing for FAX, USB Expansion HUB Connection I/F
	RAM Temporarily saving image data Capacity 1GB (for controller control) + 512MB (for image processing control)
	USB2.0 Device I/F, USB2.0 Host I/F

Item	Function
USB port	
HDD	2.5 inch SATA I/F Standard: 160GB (80GB usable area) Address book, Security information (password, certificate), Image data, Preference data
Flash PCB	Retains the system data: 1GB
TPM PCB	Generates and stores the encryption key. Management Settings > Data Management > TPM Settings; this function is enabled when the TPM setting is set "On" (default: Off)

● Main controller PCB



Jack	Function	Jack	Function

Jack	Function	Jack	Function
J3	USB I/F (Device)	J40	USB I/F (Host)
J4	UI: Control Panel I/F	J6006	2nd Line FAX Unit I/F (Power)
J5	USB I/F (Host)	J7008	HDD Serial I/F
J6	Mini-USB I/F: Connect to USB port of Right Front Cover	J7009	Memory PCB I/F
J7	LAN I/F	J7013	1st Line FAX Unit I/F (Power)
J8	TPM PCB I/F	J7014	2nd Line FAX Unit I/F
J11	FLASH PCB I/F	J7018	HDD Power Supply I/F
J15	FAN: Fan I/F	J7019	1st Line FAX Unit I/F
J20	CARD: I/F for Card Reader	BAT6500	Lithium Battery for RTC Life: approx. 10 years Replacement of a single battery is not available in the service field.
J21	CC-VI: I/F for Control Interface Kit		

■ Boot Sequence



[] : Program storage location

- Initializing process of hardware
- Starting BIOS
[Main Controller PCB]
- Starting IPL, OS, system software for the main/sub CPU
[Flash PCB]
[Main Controller PCB]
- Starting application

NOTE:

Due to the high speed startup, the progress bar and the active PCB are not synchronized.

For this reason, the progress bar cannot be utilized for troubleshooting.

See the following error code list for the troubleshooting.

Related error codes (major error codes):

Error codes	Error description
E602	HDD error
0001	HDD detection error
	Unable to find the startup partition (BOOTDEV) at startup.
0002	File system error on the HDD
E614	Flash error
0001	Flash PCB detection error
	Unable to recognize the Flash PCB. The Flash PCB is not formatted.
0002	Error in file system on the Flash PCB
E748	Board error (Flash PCB)
2010	Unable to find the IPL (Initial Program Loader).
	Unable to find the OS.

■ Shutdown Sequence

Before shutting OFF the power supply, it is necessary to perform the HDD completion process (for the HDD models only. Purpose: to prevent damage on the HDD) and execute the fixing disengagement operation. This sequential process is called "shutdown sequence". The shutdown sequence has been manually executed with the legacy (existing) models (by holding down the power supply switch on the Control Panel for a specific duration).

When the Main Power Switch is turned OFF with this equipment, Main Controller PCB detects this operation to start/execute the shutdown sequence automatically.

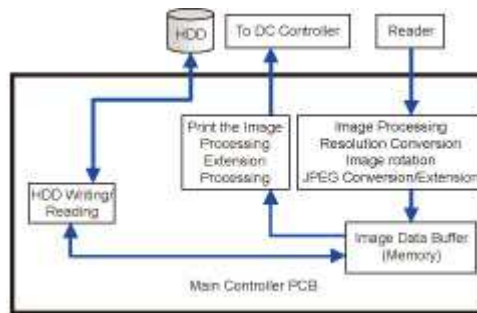
Note that the maximum shutdown time with this equipment is 110 seconds.

NOTE:

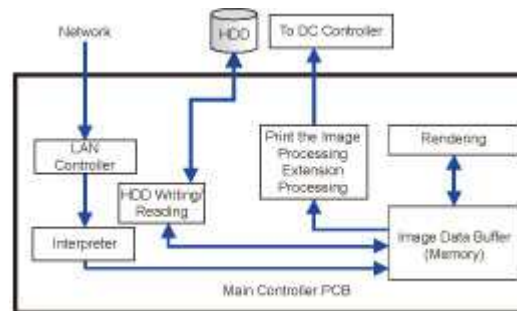
When the power supply is stopped without advance shutdown of the equipment, or the complete deletion process of the HDD (deletion of the primary file) failed to be completed within the shutdown time (max. 110 sec.), data matching is checked at startup. In such a case, startup takes up to 80 seconds. The progress bar is displayed during the data checking.

Controls

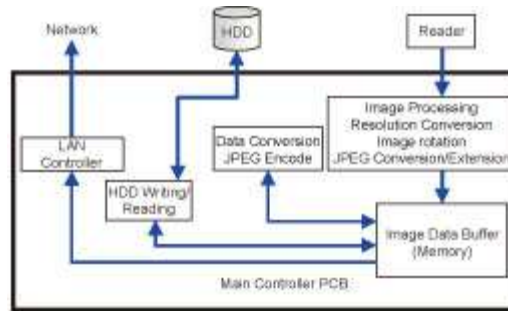
■ Copy



■ Print

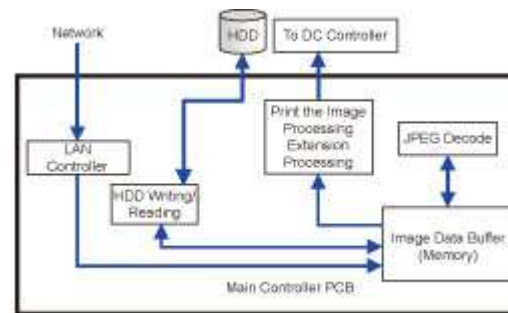


■ SEND

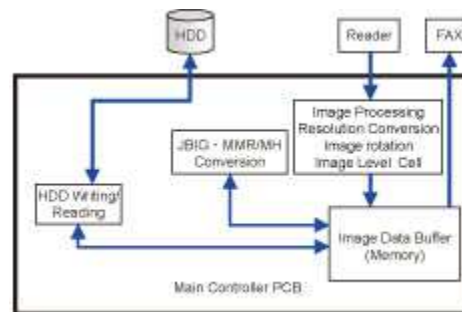


*Same as Remote FAX.

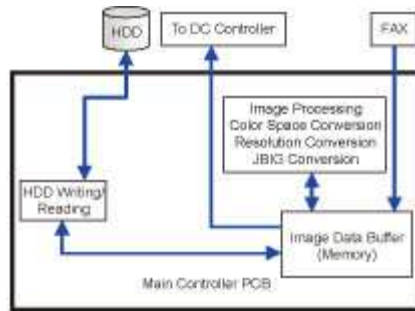
■ Network(Advanced Box / Space Client)



■ Fax Send



■ Fax Receive



Security

■ Setting the Management on the Hard Disk

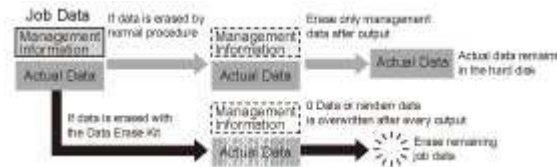
In addition to the document data to be accumulated by FAX function, the registration information of the Address Book and the password information of the System Box and the Address Book are saved in the HDD of the host machine. Therefore, data management in the HDD needs to be executed under a tight security measure.

The host machine has functions such as data encryption and data deletion and the data is managed which prevents data leak to the outside so that the data is maintained safely and confidentially.

● HDD Data Erase

The host machine saves the job data by dividing it into the management information area and the actual data area at the time of copy, transmission/reception or print output. While the management information is automatically deleted after job completion, the actual data is left in the HDD.

Overwriting 0-data or random data can completely delete the actual data left in the HDD of the host machine. This procedure is effective to prevent data leak to the outside when the HDD is replaced or disposed.



Enabling the Data Erase Kit can completely delete the unnecessary data or the deleted data in the HDD. For data deletion in the HDD, deletion timing and deletion mode can be selected.

The following shows the data to be completely deleted from the HDD:

- Temporary image data generated at the time of scanning.
- Residual data after deleting a file in Fax/I-Fax Inbox(Fax Box/System Box).

- Fax/I-Fax sent/received data
- Spool data
- Data temporarily saved as print data

● **Initializing All Data/Settings**

Initializing the saved file and the registration information

This function enables to delete (initialize) the data such as the file saved in the host machine, the registration information of the Address Book and the job log information*

Caution:

This “Initialize All Data/Settings” setting is equipped without adding Data Erase Kit and executed voluntarily by a user when the machine is disposed. The effect is different from complete deletion of the job data and the user management information is deleted as well; therefore, take note not to explain this function to the user.

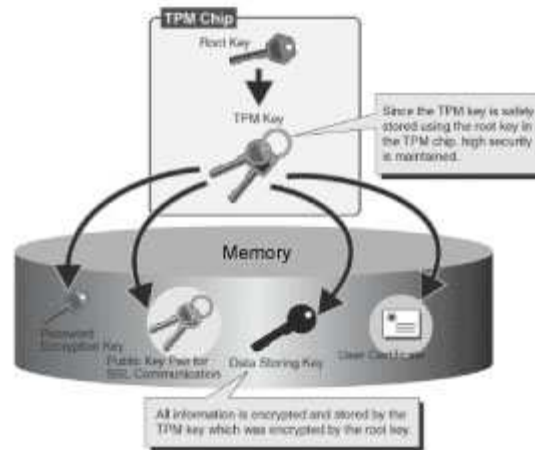
*The details are to be explained in the TPM section.

■ **Security features(encryption key and certificate, password protection)**

On the Main Controller PCB 1 of the main body, “TPM PCB” is equipped. TPM stands for Trusted Platform Module, and is the chip name which generates and stores the encryption key and has the encryption calculation function for the public key.

TPM PCB can protect the security information(password, certificate and encryption key) stored in the Flash Set / registered / saved data other than the security information is not protected.

To encrypt or decode the security information, use the TPM key installed in the chip.



It is extremely difficult from the outside to take out the TPM key installed in the chip.

Therefore, even the following cases occur, the security information in the main body can be protected securely.

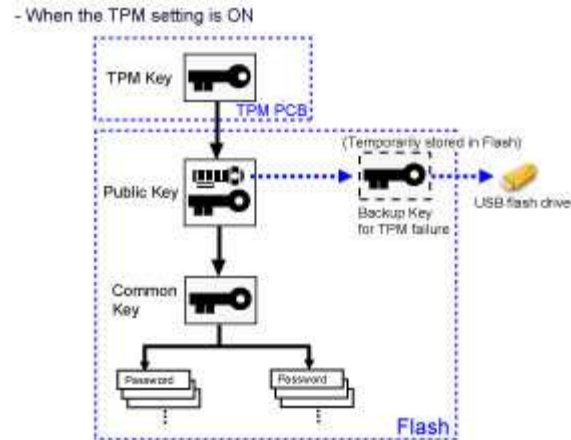
- HDD or Main Controller PCB is taken out
- System of the main body is intruded through the network

To enable this function, setting is required in Settings / Registration mode.

Management Settings > Data Management > TPM Settings -> On (default: OFF)

● Configuration of Security Information

The security functionality behaves differently depending on the TPM setting on the UI. This machine provides the two types of TPM settings. See the figure below for the security information flow in each setting.



When the TPM setting is ON, the TPM key is enabled to secure information with the three keys. Therefore, the security information held in each machine is safely protected. The security information in this setting can be accessed by the three keys and multiple passwords stored in the Flash. Each data is stored in the specified location (enclosed with blue dots in the figure above). Since the data in the upper layer are linked to those in the lower layer, security information is activated only when data in all the layers are linked. For the backup purpose, the backup key is temporarily stored also in the Flash to be prepared for a TPM failure (only for the initial failure after the TPM setting is ON). This key can be backed up using the USB flash drive. Note that the security information is not decodable correctly in case the Flash is failed or formatted because the public key information stored in the Flash is cleared. If this occurs, execute "Initialize All Data / Settings" in Settings/Registration to set the TPM setting to OFF.

When the TPM setting is OFF, the TPM key is disabled. Thus, the security information is protected only by the common key. Under this setting, the security information held in this machine is protected at the level equivalent to the conventional machines. The security functionality in this setting is configured by the common key and multiple passwords stored in the Flash. When the TPM setting is set to OFF, the security information is protected by the common key and multiple passwords stored in Flash. Unlike the case that the TPM setting is set to ON, the password information stored in the Flash is initialized when the Flash is replaced or formatted.

TPM Setting for Security Information

The security information can be protected with or without TPM by switching between TPM settings in Setting / Registration mode.

- When the TPM setting is ON The security functionality is enabled in 4 levels (TPM key, public key, common key and password).
- When the TPM setting is OFF The security functionality is enabled in 2 levels (common key and password).

● Preparation before Installing TPM

Before installing TPM, ask the user to back up data. Follow the steps below to back up data.

1) From Remote UI, execute Setting / Registration > Management Setting > Data Management > Import / Export. The following data types should be backed up.

- Address book (see *1)
- Device settings (transfer settings, address book, frequently-used Send functions) (see *2)

- Setting / Registration
- Printer settings can be exported
- Favorites stored in the web browser (only when the web browser is enabled) (see *3)

*1 Each of address books can be exported. If the address book is seen as a part of device settings, this step can be disregarded.

*2 Among settings in the main menu, only “Frequently-used Setting” under “Scan and Send” can be backed up.

*3 These are available only in the specific models or configurations.

2) Select “Export” from Custom Menu of the Remote UI to back up “Custom Menu Setting Information”.

● Before / after introduction

The setting needs to be specified in Settings / Registration mode (“TPM setting” is set OFF at the time of shipment from the factory)

1. Enable the feature
2. Backup the TPM key
3. Restore the TPM key
4. Disable the feature

Basically the user should perform this work

Caution:

To set “ON” for TPM setting, be sure to instruct the following points to the user.

- Be sure to backup the TPM key immediately after selecting “ON”
- Keep the password at the time of backup
- Be sure not to lose the USB memory that has saved the backup file of TPM key.

In the case of replacing the TPM PCB due to failure, it is necessary to restore the TPM key after replacement.

Unless restoration is implemented, security information (password, certificate and encryption key) cannot be used.

If restore work could not be performed due to lost of USB memory, etc., it is necessary to first execute [Initialize All Data / Settings] to enable the TPM feature again. This is due to security issue to keep the setup/register data unchanged.

1. Enable the feature

Setting of “system management encryption number”

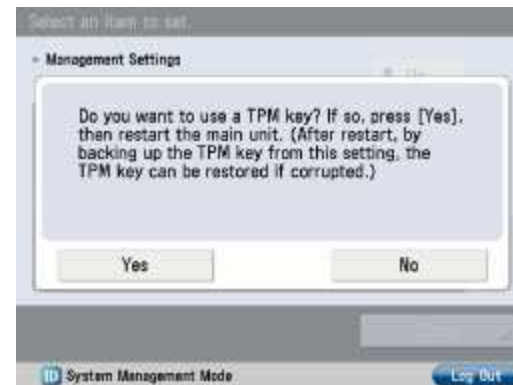
Recommend the user (administrator) to set up the system management encryption number in advance.

Backup of TPM key is performed after selecting “ON” for TPM settings, however, backup is available only once. Therefore, it is efficient to set the system management encryption number as a mean to avoid incidents, such as when backup file is obtained by anyone other than the administrator, etc.

1) Select the following: Management Settings > Data Management > TPM Setting: and select “ON” for TPM setting.



2) Click “Yes”, and then reboot this machine.



Encryption / decoding feature of security information is enabled after rebooting the machine.

2. Backup of TPM key

Only the USB memory (supported system file: FAT32) can be used as the device for saving backup file of TPM key.

Data size of this file is several MB.



1) Connect the USB memory to the main unit.

There are two USB I/F (host): one at the side of the control panel and the other at the side of main controller PCB 1.

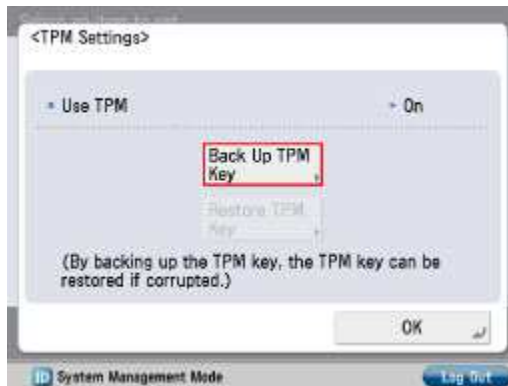
Caution:

Be sure to connect only one USB memory, otherwise, a message indicating backup failure is shown if performing backup while 2 or more USB memories are connected.

NOTE:

The USB memory can save multiple backup files for TPM key.

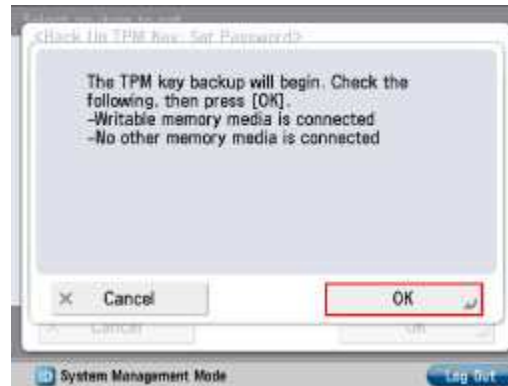
2) Select the following: Management setting > Data Management > TPM setting; and click [Backup TPM key].



3) Click [Password] to enter the password (4 to 12-digit), and then enter the password to confirm the entry.



4) Click [OK] to start backup of TPM key.



5) Once the backup completion screen is shown, click [OK] and remove the USB memory.

Caution:

Cause of backup failure

In the case of the following, a message is shown indicating backup failure and its cause. Be sure to perform appropriate remedy.

- USB memory is not connected
- 2 or more USB memories are connected
- Memory capacity of USB memory is insufficient
- Connected USB memory is read-only (writing is prohibited)
- There is no key

Caution:

Storage of USB memory

Be sure to instruct the following points to the user.

- The USB memory should be securely kept/managed.
- Do not put the backup file of TPM key stored in the USB memory to any location accessible by general public, such as on the server.

NOTE: Backup file name of TPM key

Serial No. is automatically given as the backup file name.

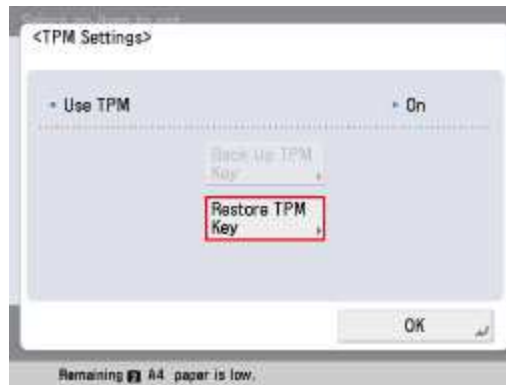
3. Restore of TPM Key

Procedure is about the same as the backup work.

Difference between restore work and backup work:

Rebooting is necessary (turn OFF and then ON the main power) after completion of restore work.

- 1) Connect the USB memory that saves TPM key.
- 2) Select the following: Management setting > Data management > TPM setting; and click [Restore TPM key].



- 3) Enter the password that has been specified at backup work.
- 4) Once the screen to confirm restore start is shown, click [OK] to start restore.
- 5) Once the restore completion screen is shown, click [OK] and remove the USB memory, and turn OFF and then ON the main power switch.

Caution:

Cause of restore failure

In the case of the following, a message is shown indicating restore failure and its cause.

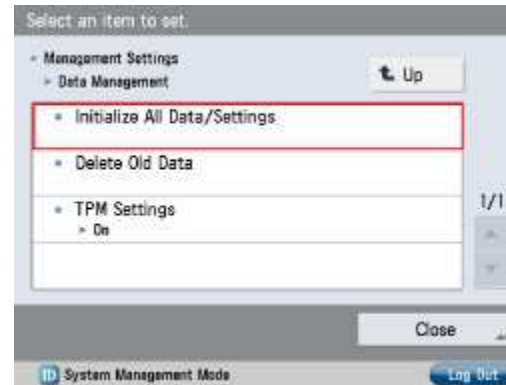
Be sure to perform appropriate remedy.

- USB memory is not connected.
- 2 or more USB memories are connected.
- Connected USB memory is with security feature.
- There is no TPM key in the USB memory.
- The TPM key in the USB memory is not appropriate for the target machine.

- Mismatched entry password
- [Initialize All Data /Setting] is executed after obtaining backup of TPM key.
- The Flash is faulty.

4. Disable the feature

To set “OFF” for the TPM setting, execute [Initialize All Data / Settings].



Caution: Points to note when disabling functionality

To disable the use of TPM, all data and settings should be initialized. If this is executed, user information saved in the FLASH is totally cleared. Ensure to back up the data before disabling TPM settings.

List of data to be cleared

- Data saved in Inbox (Fax Box/ System Box)
- Destination data registered in Address Book
- Read mode registered using Send function
- Mode memory registered using Copy/ Box function
- MEAP applications and their license files
- Data saved using MEAP applications
- Password for MEAP SMS (Service Management Service)

(The password is returned to default if any change is made.)

- User authentication information registered by local device authentication via SSO-H (Single Sign-On H)

- Unsent documents (documents for scheduled transmission and reserved transmission)
- Job logs
- Contents set in Setting / Registration
- Image-composite registration form
- Registered transfer settings
- Key pair and server certificate registered in Management Setting (Setting/ Registration) > [Device Management] > [Certificate Settings]

Steps of data restoration after recovery

The restoration process triggers Setting/ Registration > Management Setting > Data Management > Import/ Export > Import/ Export Setting/ Registration on the UI.

The data listed below cannot be restored, thus should be set again.

● **Related Error Code**

Error Code	Error title, description, remedy	
E746	Error in encryption	
0031	Engine ID error	
	Description	Hardware error
	Remedy	1. Turn OFF and then ON the power 2. Replace the TPM PCB
0032	Engine ID error	
	Description	TPM key mismatch
	Remedy	Format the system Use SST or USB memory to format the HDD, and then execute downloading of the system software. See Chapter 6 Upgrading for details. For reference, the method using USB memory is shown below: 1. Prepare USB memory in which the system software was registered
0033	Engine ID error	
	Description	Mismatched data in the TPM
	Remedy	Recovery is available if backup of the TPM has been executed 1. Connect the USB memory in which the TPM key is saved

		<p>2. Management Settings > Data Management > TPM Settings; click [Restore TPM key]</p> <p>3. Enter the password that was specified at the time of backup work</p> <p>4. Once the restore completion screen is displayed, click [OK] and remove the USB memory, and then turn OFF and ON the main power switch.</p> <p>When backup of the TPM key is not executed</p> <p>System format is necessary</p> <p>Use SST or USB memory to format the HDD, and then download the system software</p>
0034	TPM auto recovery error	
	Description	An error occurs when clearing the HDD while the TPM setting is ON
	Remedy	The symptom is recovered by turning OFF and then ON the power
0035	TPM version error	
	Description	TPM which cannot be used in this machine was installed.
	Remedy	Install the supported TPM.

● **Data to be encrypted / decoded(reference)**

Type	Application/feature	Security information	Saving destination
Password/encryption number	FAX Box	Password for FAX Box	HDD
	Send	Password for File destination in Address Book	HDD
		Password of LDAP server	FLASH
		Password of POP3 server	FLASH
		Password of Adobe ES Rights Management server	FLASH
		Password for address (destination) registration	FLASH
	UI	Password for Service Mode	FLASH
	Network	Password for IPP authentication	FLASH
		Password for FTP authentication	FLASH
		User name and password of Proxy authentication client	FLASH
		Login password of NetWare print server	FLASH

		Policy common key for IPSec	FLASH
		User name and password for PEAP/TTLS authentication	FLASH
	Others	Login user information of device	HDD
		Password for FAX reception	FLASH
		Department management data (including administrator password)	FLASH
Encryption key	MIB	Authentication key and encryption key for SNMPv3	FLASH
Certificate/Secret Key	SSL, AMS	Device key pair	HDD
	Signature SEND	User key pair	HDD
Others	User preference data	Key bundle information (password)	HDD

■ HDD Encryption Kit (Optional)

This option enables to generate the encryption key inside the encryption board and to encrypt the whole HDD including the system software. Performing encryption can protect the temporary image data generated at copying or printing, the registration information of the Address Book and the password information from leakage of confidential information by theft of the HDD.

Caution:

There is no need to reinstall the system in the case of installing the HDD Encryption Kit. This is because the system is not deleted but stored in the flash memory.

● HDD encryption function

Temporary image data such as scanned image or PDL data is written in the HDD of the host machine on an as-needed basis. In normal operation, only the management information is deleted after printing is complete or the file is deleted; therefore, the image or the user file information remain in the HDD as they are (without modification). In this case, HDD encryption function prevents an original image being restored from pulling out the HDD and analyzing in disk editor.

● Data encryption mechanism

The encryption board receives signals transmitted from the controller board, and encrypts and saves them in the HDD.

The encryption board receives the encrypted data saved in the HDD to decode and send them to the controller.

● Conditions for Encryption Board operation

The encryption board has the function to recognize and authenticate the host machine. An error is triggered if a second-hand HDD encryption/ mirroring board is installed to the other machine.

● **Compatibility among Device, Encryption Board and HDD**

E602-2000 error may occur if the unmatched authentication information is found between the controller and the HDD encryption board and the encryption board is mounted. The device, the encryption board and HDD can be connected in 4 use cases.

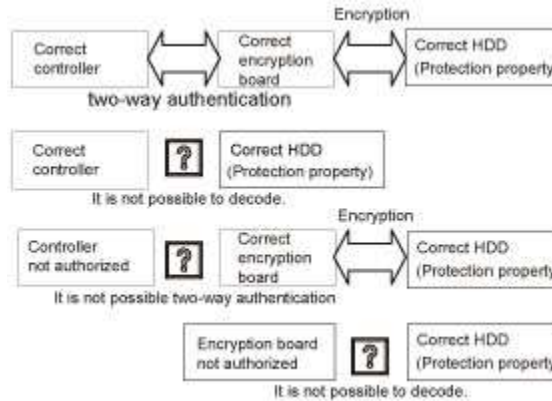
The following shows the statuses for each use case.

Case 1: Normally operated

Case 2: HDD-related error occurs because the system on the HDD cannot be read (other than E602-2000 error)

Case 3: E602-2000 is triggered by failure in mutual authentication

Case 4: Unable to decode properly due to unmatched key for the encryption board



● **Actions against Troubles - Overview**

Servicing	User data	Recovery	Action
HDD replacement	cleared	Replace HDDs	1) Format the HDD
Encryption board replacement	cleared	Install HDD encryption Kit	1) Replace encryption board
			2) Initialize Encryption Board
			3) Format the HDD
Main controller replacement	cleared	Clear the key for HDD data encryption kit	1) Initialize the encryption board

Servicing	User data	Recovery	Action
			2) Format the HDD
Main controller clear	cleared	After MN-CON clear process is done	MN-CON clear does not clear authentication information; no work is required specifically for HDD encryption kit

● Relevant Error Codes

E602 and detailed codes

E code	Description	Cause	Detection Timing	Actions
E602 -2000	Authentication Error	Error in authentication between the host machine and the encryption board	Start-up	Check connections between the encryption board and the HDD and between the encryption board and the main controller. This error may be triggered after replacement of the encryption board or the main controller. At any rate, this error disables accesses to HDD data. When no problem is found in connections, use SST to execute Key Clear > Format .
	Failure in Encryption Board	Error in recognition of the encryption board		
	Device Error	Failure in the encryption board		

Service Tasks

■ Actions at Parts Replacement

Reference to the section 5.

■ Periodically Replaced Parts

None.

■ Consumable Parts

None.

■ Service Notes

None.

Laser Exposure System

Construction

■ Specifications/Controls/Functions

● Laser light

The number of laser light	4
Output	10mW
Wave length	775nm to 799nm (Infrared laser)

● Scanner motor

Motor type	DC brushless motor
The number of rotation	Approx 31715 rpm / 36732 rpm (2-speed control)
Type of bearing	Oil

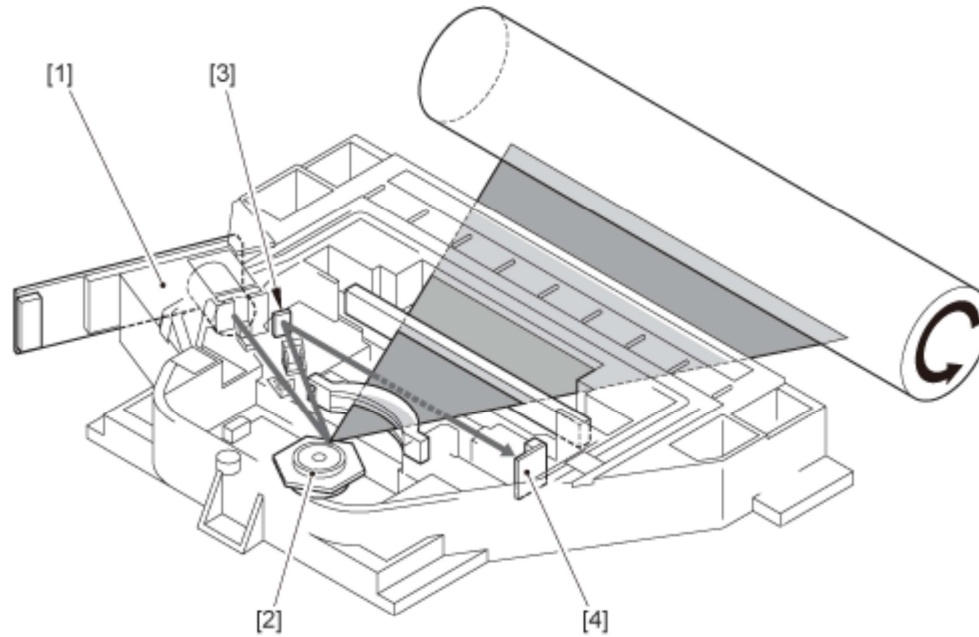
● Polygon mirror

The number of facet	6 (Φ40)
----------------------------	---------

● Controls

Synchronous control	Main scanning direction synchronous control
Laser intensity control	APC control
Others	Laser ON/OFF control
	Laser scanner motor control
	Laser shutter control

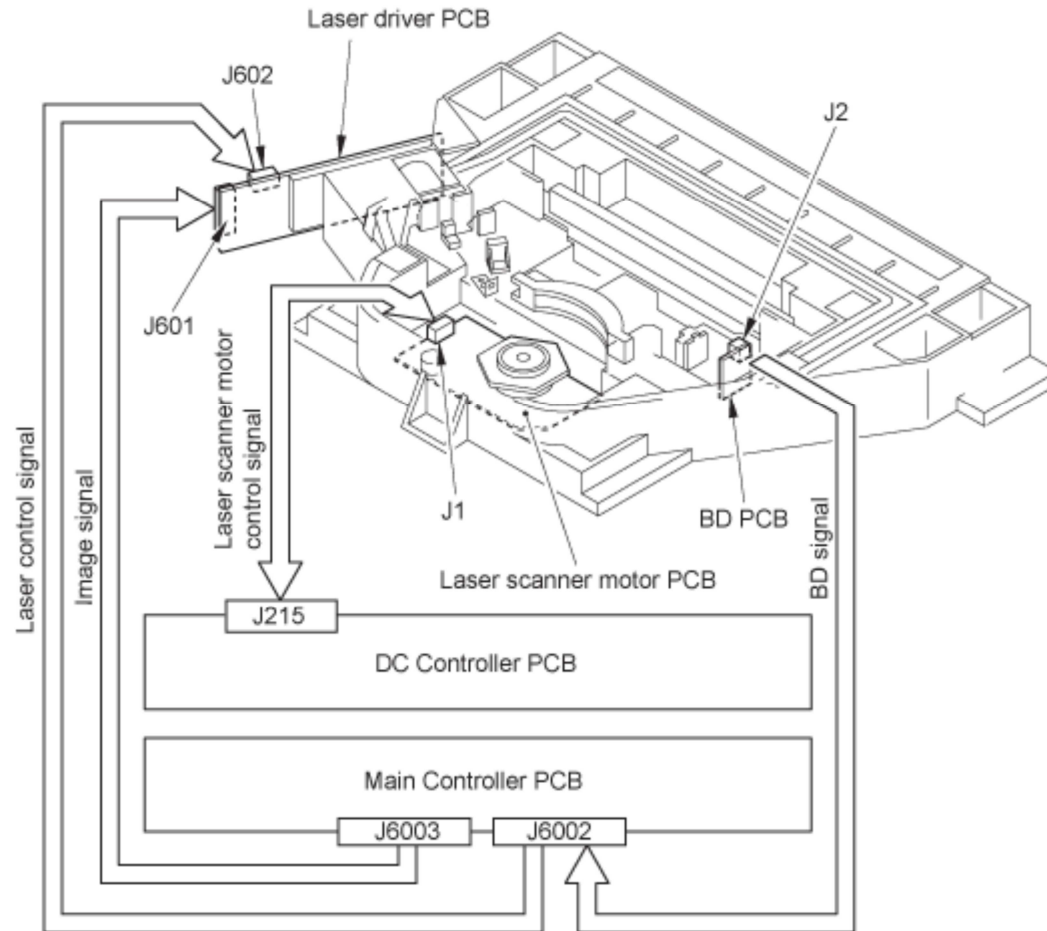
■ Main Configuration Parts



Name	Function
[1] Laser Driver PCB	Emits laser
[2] Polygon mirror	Scans the laser light in the main scanning direction
[3] BD mirror	Reflects the laser light in the BD PCB direction
[4] BD PCB	Generates the BD signal

■ Control System Configuration

Controls for the laser exposure system are mainly performed by the Main Controller PCB and DC Controller PCB.



Signal name	Function
Image signal	
DATA C+	C laser image data signal entry
DATA C-	C laser image data signal entry
DATA B-	B laser image data signal entry
DATA B+	B laser image data signal entry
DATA A-	A laser image data signal entry

Signal name	Function
DATA A+	A laser image data signal entry
DATA D+	D laser image data signal entry
DATA D-	D laser image data signal entry
Laser control signal	
CTRL0_0	A/B laser control signal
CTRL0_1	A/B laser control signal
CTRL0_2	A/B laser control signal
CTRL1_0	C/D laser control signal
CTRL1_1	C/D laser control signal
CTRL1_2	C/D laser control signal
Scanner motor control signal	
POLYGON_M_FG*	FG output signal
POLYGON_M_ACC*	Motor speed-up signal
POLYGON_M_DEC*	Motor speed-down signal
BD signal	
BD	BD signal

Basic Sequence

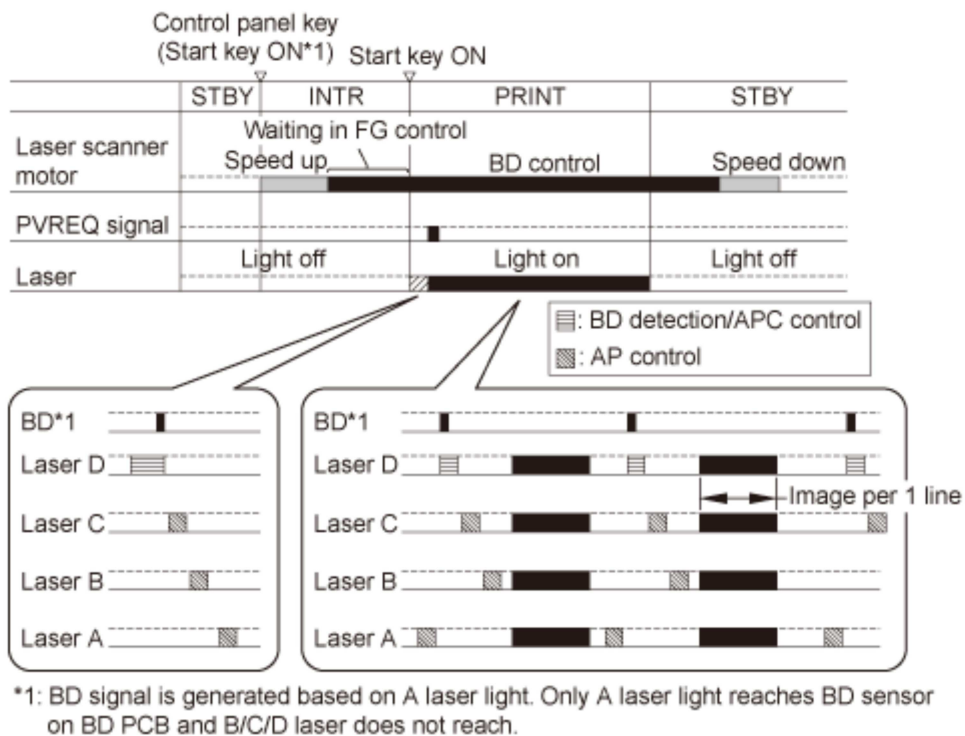
■ Basic Sequence

Initial rotation (INTR): After the control panel key is ON, the machine starts the scanner motor and rotates the laser scanner motor until it reaches the number of target rotation while keeping all laser OFF. Once it reaches the target, the machine enters stand-by mode. (FG control)

If pressing the start key before the control panel key is ON, standby time gets shorter after the laser scanner motor reaches the target.

Print (PRINT): When copy start key is ON, the machine drives D laser. After BD PCB detects D laser, the machine performs the APC (laser intensity) control of each laser. Once the BD signal reaches the specified cycle, the machine is ready to print. Image data is output from the main controller based on the synchronous signal and laser is emitted corresponding to it.

<In the case of A4, 1 sheet>



Controls

■ Controlling the Laser Activation Timing

● Laser ON/OFF Control

Laser ON/OFF control is dependent on the combination of the laser control signal (A/B laser: CTRL0_0/0_1/0_2, C/D laser: CTRL1_0/1_1/1_2) from the Main Controller PCB.

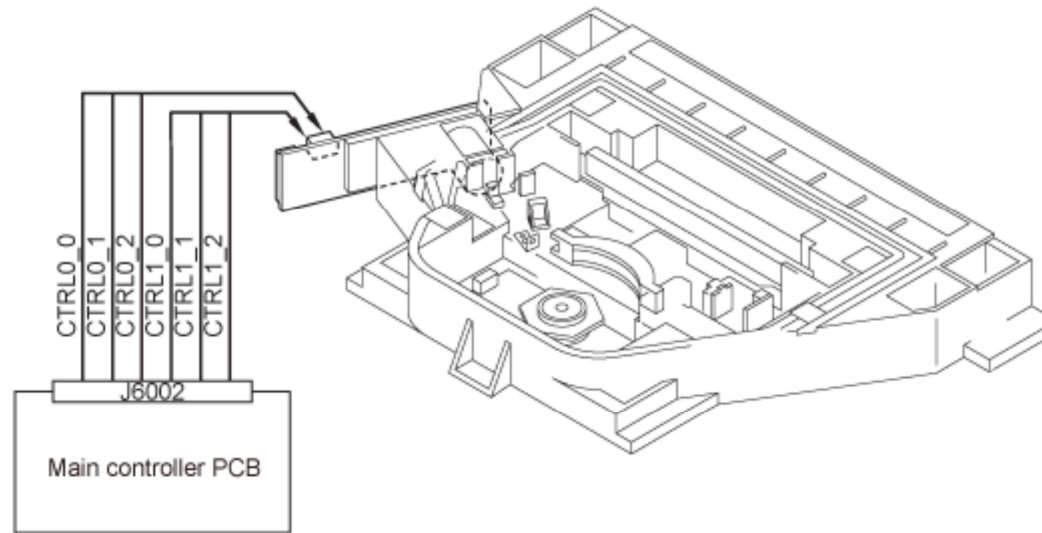
<A laser/B laser>

Laser control signal			Laser status	
CTRL0_0	CTRL0_1	CTRL0_2	A Laser	B Laser
1	1	1	Image data output	Image data output
0	1	1	Forcible output	OFF

Laser control signal			Laser status	
CTRL0_0	CTRL0_1	CTRL0_2	A Laser	B Laser
1	0	1	OFF	Forcible output
0	0	1	Forcible output	Forcible output
1	1	0	Forcible output OFF	Forcible output OFF
0	1	0	ON (For APC control)	OFF
1	0	0	OFF	ON (For APC control)
0	0	0	Discharge: APC reset (Fixed when laser is not used)	Discharge: APC reset (Fixed when laser is not used)

<C laser/D laser>

Laser control signal			Laser status	
CTRL1_0	CTRL1_1	CTRL1_2	C Laser	D Laser
1	1	1	Image data output	Image data output
0	1	1	Forcible output	OFF
1	0	1	OFF	Forcible output
0	0	1	Forcible output	Forcible output
1	1	0	Forcible output OFF	Forcible output OFF
0	1	0	ON (For APC control)	OFF
1	0	0	OFF	ON (For APC control)
0	0	0	Discharge: APC reset (Fixed when laser is not used)	Discharge: APC reset (Fixed when laser is not used)

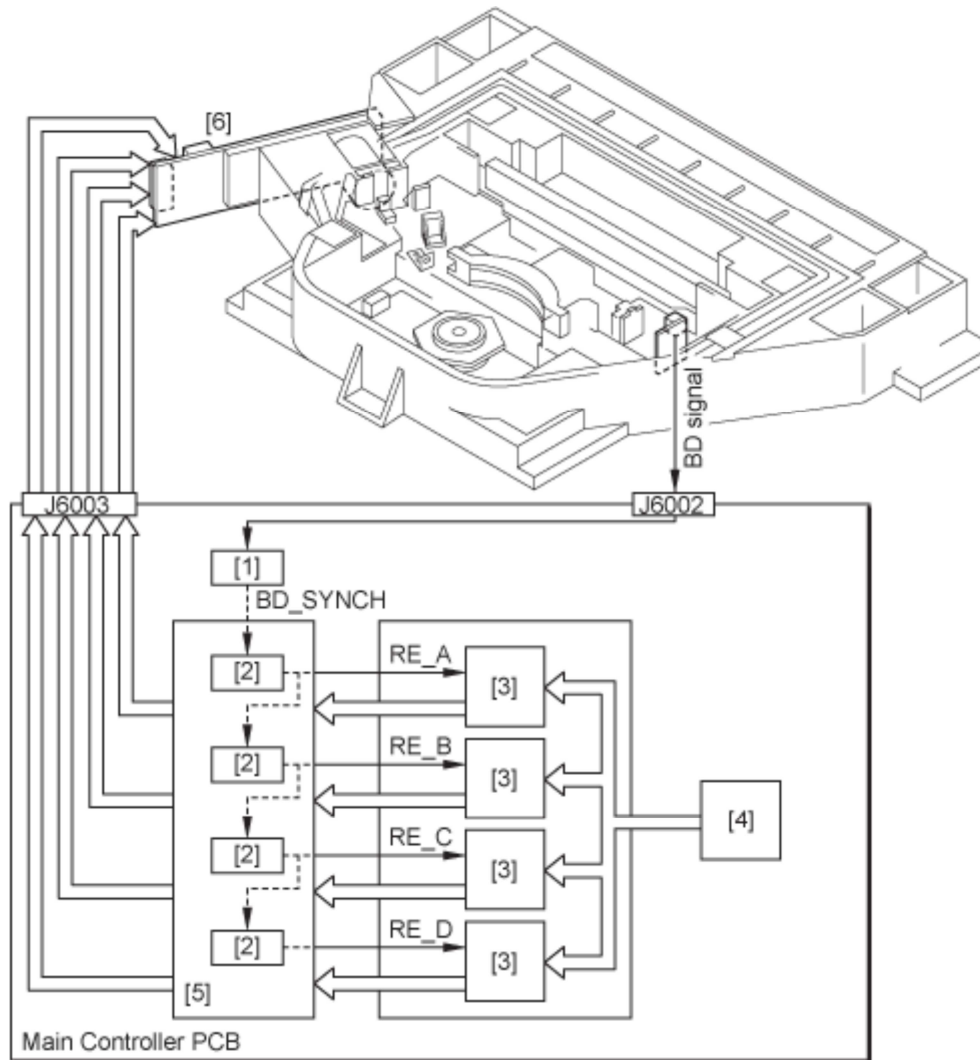


- **Main Scanning Synchronous Control**

Main scanning synchronous control is operated at synchronous PCB based on BD synchronous signal.

Based on BD signal that is formed from A laser light detected by BD PCB, BD synchronous signal for each laser is formed inside Forcible Main Controller PCB.

Image data written in the line memory is read out by the readable signal (RE_A, RE_B, RE_C, RE_D) according to the 4 phase differences formed inside the delay PCB based on the BD synchronous signal (BD_SYNCH) and is sent to the laser driver.



[1] Synchronous PCB [4] VDO

[2] Delay PCB [5] VDO signal process unit

[3] Line memory [6] Laser driver PCB

BD_SYNCH: BD synchronous signal

RE_A/B/C/D: Readable signal

NOTE:

Regarding BD signal formation

Not B laser but A laser only reaches BD sensor on BD PCB. BD signal is formed based on A laser light.

■ Controlling the Intensity of Laser Light

● APC Control

The machine monitors the laser light that is emitted to the built-in photo diode of laser diode and adjusts the laser to appropriate intensity.

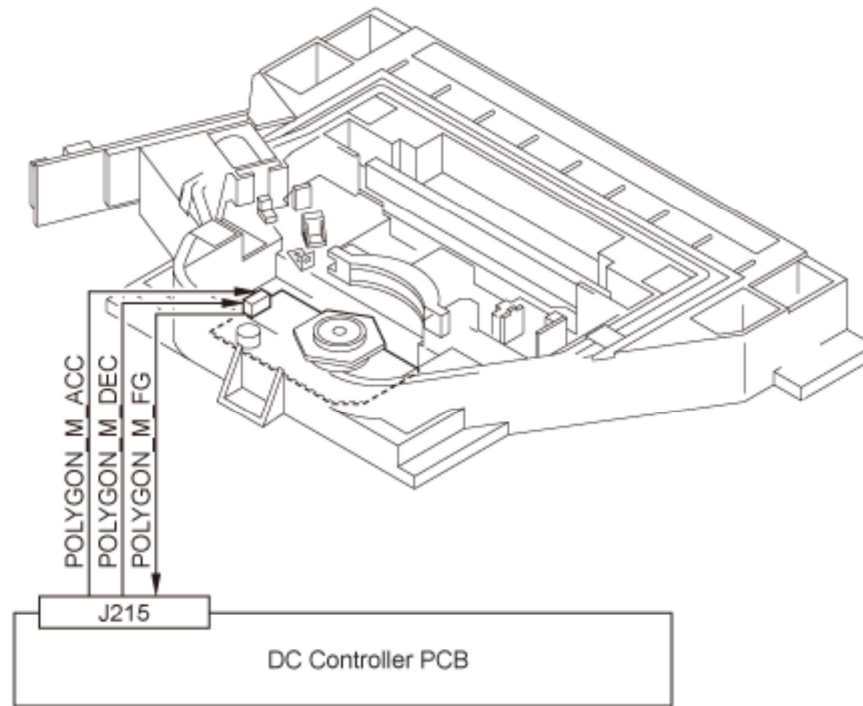
■ Controlling the Laser Scanner Motor

● Controlling the Laser Scanner Motor

From when the laser scanner motor starts and the laser scanner motor reaches the number of target rotation to before image formation starts, the machine controls the rotation speed by referring to the laser scanner motor rotation speed signal (FG signal).

During image formation, it controls the laser scanner motor rotation speed based on BD signal.

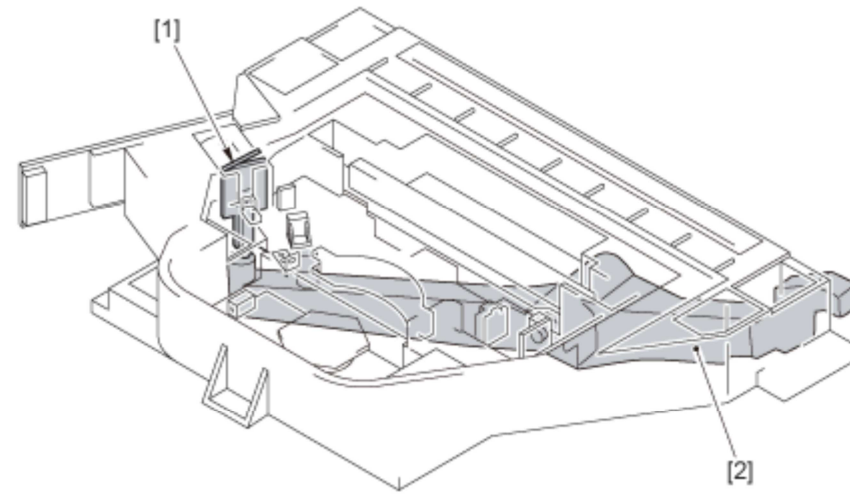
Laser scanner motor rotation speed is controlled by speed-up signal (ACC signal) and speed-down signal (DEC signal).



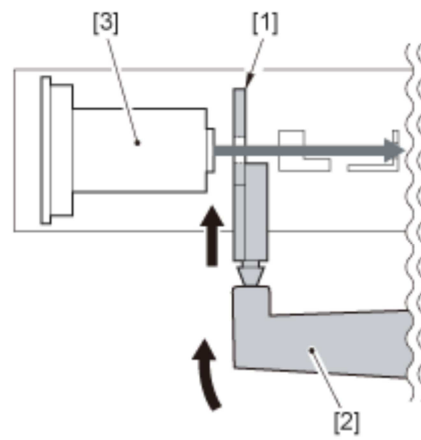
■ Controlling the Laser Shutter

● Laser Shutter Control

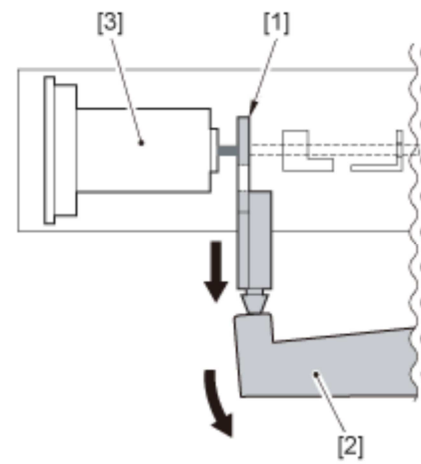
When releasing the Drum Unit, laser shutter will be closed by laser shutter link that works in conjunction with the Drum Unit and the laser light is blocked. Also, when the front door or right door open is detected, laser scanner motor and the laser emission will be turned OFF.



When setting Drum Unit



When releasing Drum Unit



[1] Laser shutter

[2] Laser shutter link (works in conjunction with the Drum Unit)

[3] Laser unit

Image Formation System

Basic Configuration

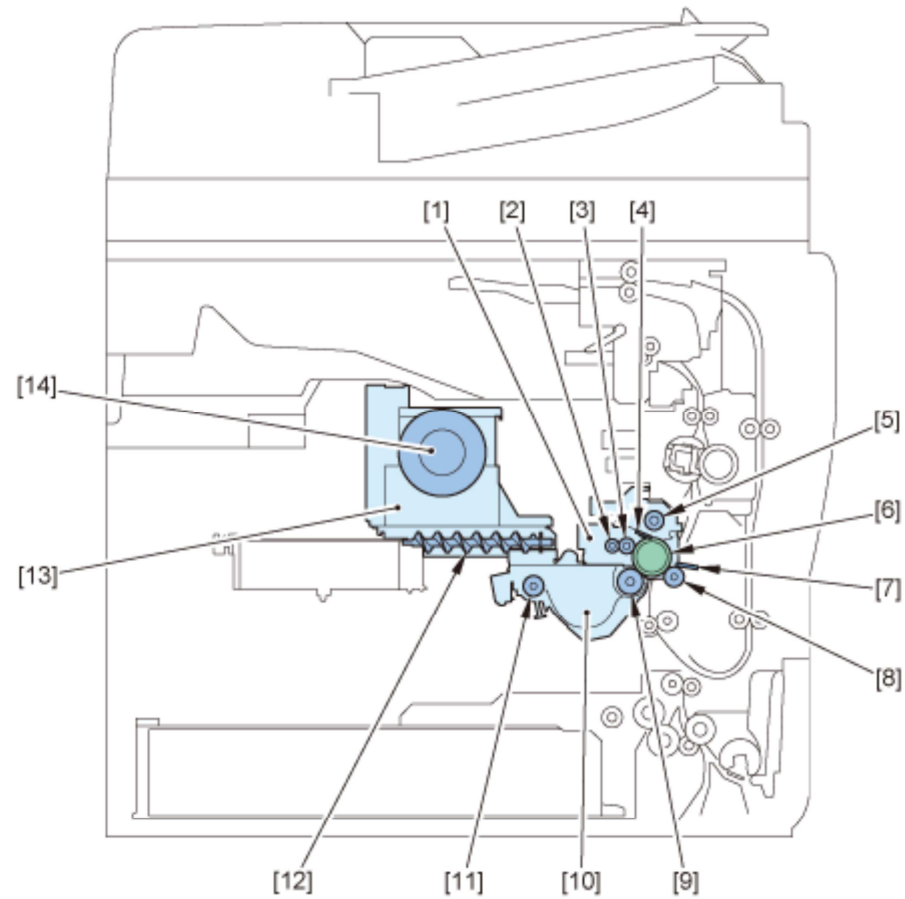
■ List of Image Formation Specifications

	Item	Specifications/Function/Method
Photosensitive Drum	Type	Organic Photo Conductor High Durable Drum (E Drum)
	Cleaning mechanism	Cleaning Blade
	Processing speed	311mm/sec (at pickup from Cassette) 134mm/sec (at pickup from Multi-purpose Tray)
Primary Charging	Charging method	Roller charging AC bias constant voltage control: approx. 0 to 3000Vp-p DC bias constant voltage control: approx. -300 to -1000V DC bias switch control (variable by Environment Sensor Detection)
	Roller diameter	Diameter: 12
	Cleaning mechanism	Brush Roller (Diameter: 10)
Developing	Developing method	Dry, 1-component toner projection development AC bias constant voltage control: approx. 800Vp-p DC bias control: approx. 0 to -700V DC bias switch control (Variable by density setting and Environment Sensor Detection)
	Developing Cylinder diameter	Diameter: 20
	Toner	Magnetic negative toner
	Toner level detection mechanism	Toner detection by Toner Level Detection Sensor (in Hopper and Developing Assembly)
Transfer	Transfer method	Roller charging DC constant current control: approx. 0 to 50 micro A

Item	Specifications/Function/Method
	Cleaning bias control: -2300V (DC constant voltage control) DC current level control (variable by Environment Sensor Detection, paper type, paper width and pickup location) Roller diameter Diameter: 16 Cleaning mechanism Cleaning bias application
Separation	Separation method Electrostatic separation (Static Eliminator) + curvature separation DC constant voltage control: -2700V (strong bias), -2300V (weak bias)
Waste Toner	To collect into Waste Toner Container Waste Toner Container capacity: approx. 750g

■ **Major Components in image formation system**

The following shows major component parts in image formation system:



	Name	Function
[1]	Drum Unit	A unit consists of the Photosensitive Drum, Primary Charging Roller, etc.
[2]	Brush Roller	To rotate by engaging with the Primary Charging Roller to clean the Primary Charging Roller.
[3]	Primary Charging Roller	To rotate by engaging with the Photosensitive Drum to make the surface of Photosensitive Drum negatively-charged.
[4]	Cleaning Blade	To remove residual toner on the surface of Photosensitive Drum.
[5]	Waste Toner Feed Screw	To feed toner that was collected by the Cleaning Blade into the Waste Toner Container.
[6]	Photosensitive Drum	To create image on the surface of Photosensitive Drum.

	Name	Function
[7]	Static Eliminator	To make the back side of paper negatively-charged to separate the paper from the Photosensitive Drum.
[8]	Transfer Roller	To make the back side of paper positively-charged to transfer toner on the paper.
[9]	Developing Cylinder	To transfer toner in the Developing Assembly on the Photosensitive Drum.
[10]	Developing Assembly	A unit consists of the Developing Cylinder, Developing Blade, etc.
[11]	Toner Feed Screw (Inside Developing Assembly)	To fill toner that was supplied from the Hopper into the Developing Assembly.
[12]	Toner Feed Screw (Inside Hopper)	To feed toner that was supplied from the Toner Bottle into the Developing Assembly.
[13]	Hopper Assembly	To accumulate toner supplied from the Toner Bottle.
[14]	Toner Cartridge	A toner-filled cartridge for toner supply

■ Image Formation Process

The image formation system of this machine consists of the Photosensitive Drum, Primary Charging Roller, Developing Cylinder, Transfer Charging Roller, Static Eliminator and Cleaning Blade, and the image formation process around the Drum Unit mainly consists of the 6 blocks.

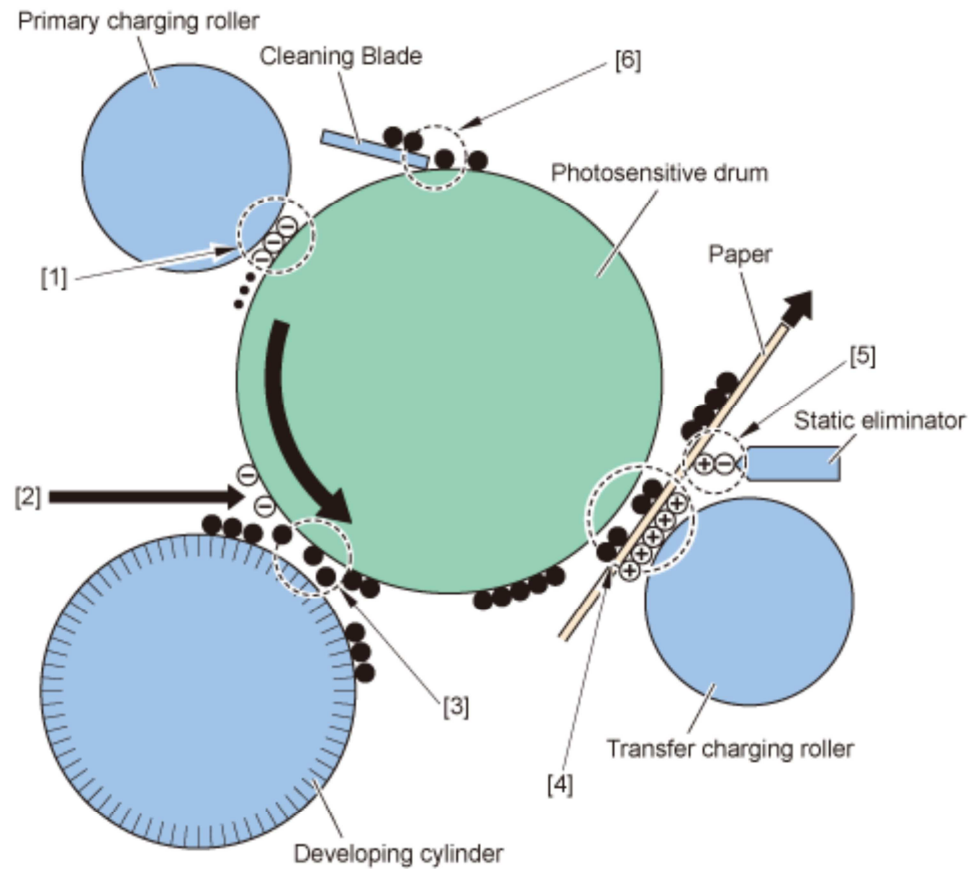


	Image formation block	Description
[1]	Primary charging block	To evenly make the surface of the Photosensitive Drum negatively-charged.
[2]	Laser exposure block	To neutralize electric charge by scanning laser beam on the drum surface to create latent image.
[3]	Developing block	To create visible image by attaching toner that has been negatively charged from the Developing Cylinder to the latent static latent image on the surface of the Photosensitive Drum.
[4]	Transfer block	To apply positively-charged potential from the back side of paper to transfer toner on the drum to the paper.
[5]	Separation block	

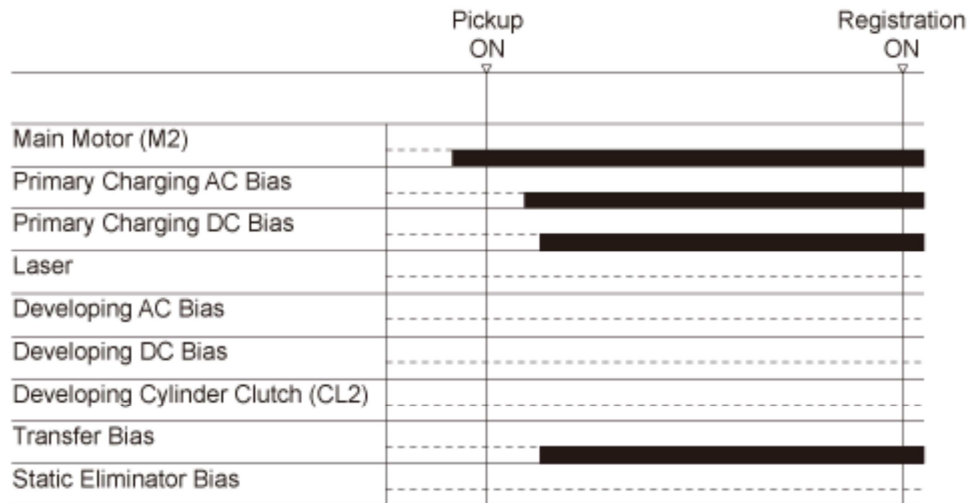
	Image formation block	Description
		To separate paper from the Photosensitive Drum by elastic force of paper and make the paper easy to be separated by applying negatively-charged potential from the back side of paper.
[6]	Drum cleaning block	To remove residual toner on the surface of the drum by the Cleaning Blade to be collected into the Waste Toner Container.

Basic Sequence

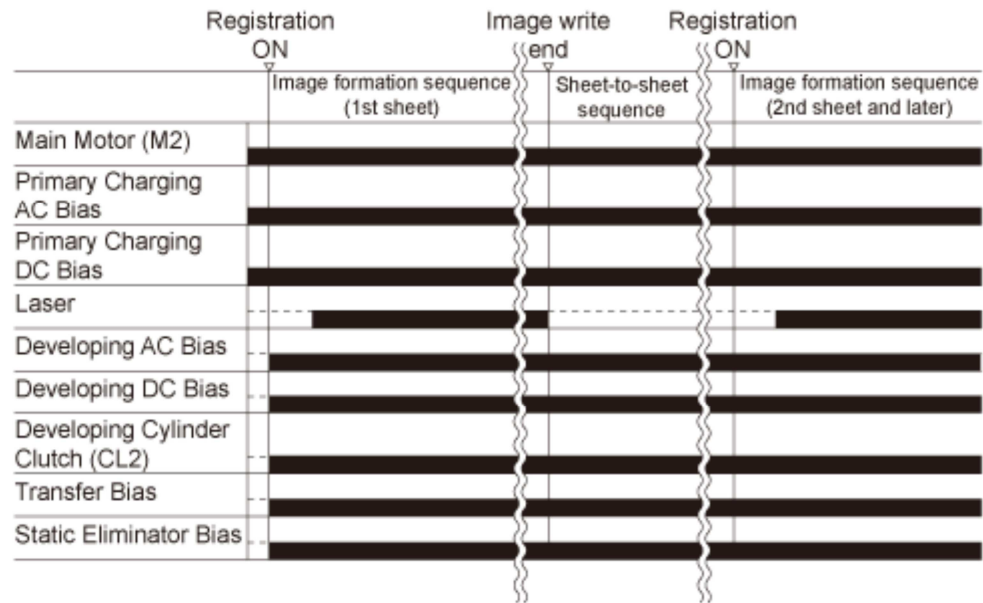
The following shows the basic sequence of this machine:

■ Initial rotation sequence

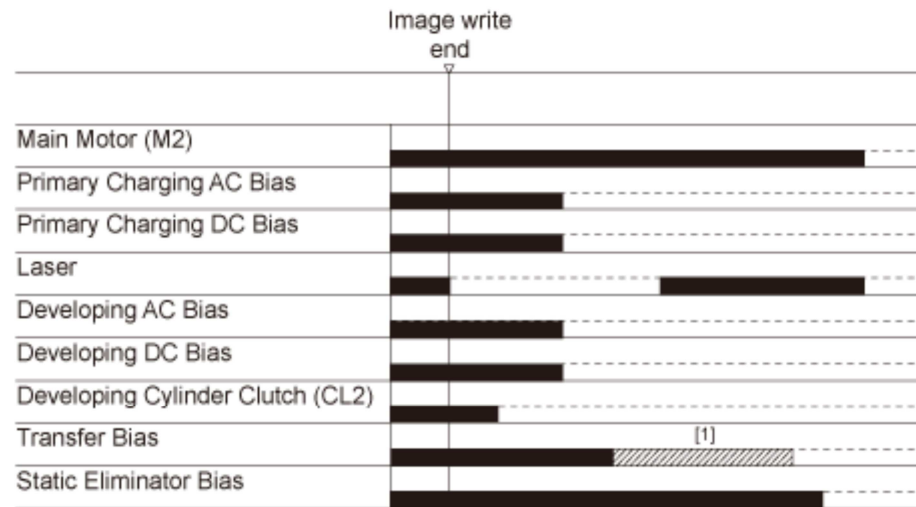
- At pickup from Cassette and pickup from Multi-purpose Tray



■ Sequence at printing



■ Last rotation sequence



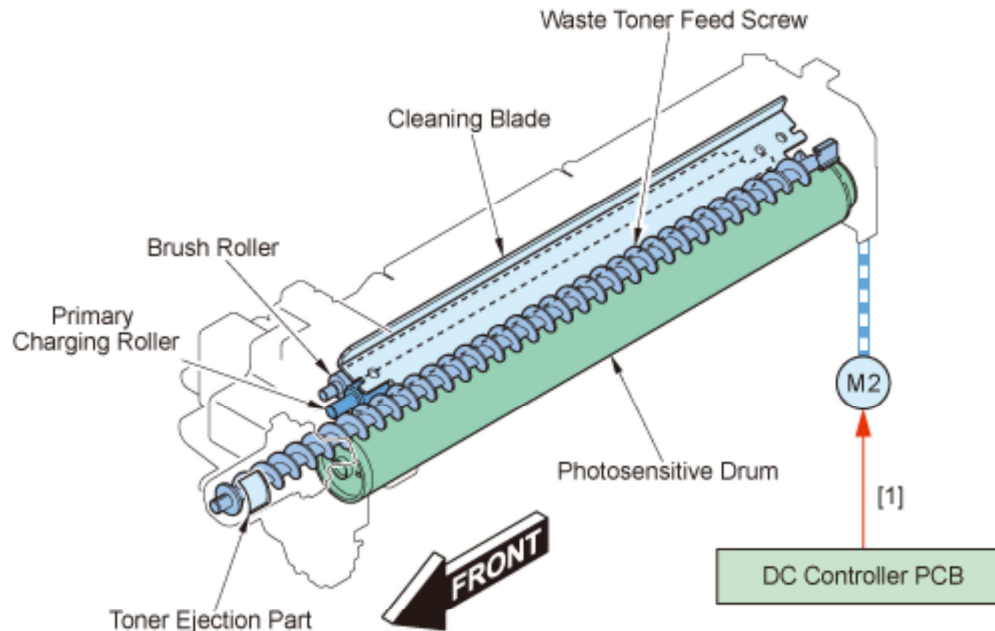
Cleaning bias (-2700V) is applied at [1] as shown above.

Controls

■ Drum Unit

The Drum Unit mainly consists of the Photosensitive Drum, Primary Charging Roller, Brush Roller, Cleaning Blade and Waste Toner Feed Screw, and is driven by the Main Motor (M2).

The Cleaning Blade is in contact with the surface of the Photosensitive Drum to remove residual toner on the surface of the Photosensitive Drum that was not transferred to the paper. Residual toner collected by the Cleaning Blade is sent from the Toner Ejection Part to Waste Toner Container by the Waste Toner Feed Screw. The Brush Roller is also in contact with the Primary Charging Roller, and the Brush Roller cleans the Primary Charging Roller.



- M2 Main Motor
- [1] Main Motor drive signal

● Drum Unit Detection

Charging AC bias is applied at Power-on, recovery from sleep state, or opening/closing the door to detect the Drum Unit by the return value.

● Drum Unit Life Detection

This machine detects the drum unit life from accumulation of time when the primary charging AC bias or the primary charging DC bias is applied.

The life (displayed in %) can be checked by the following service mode:

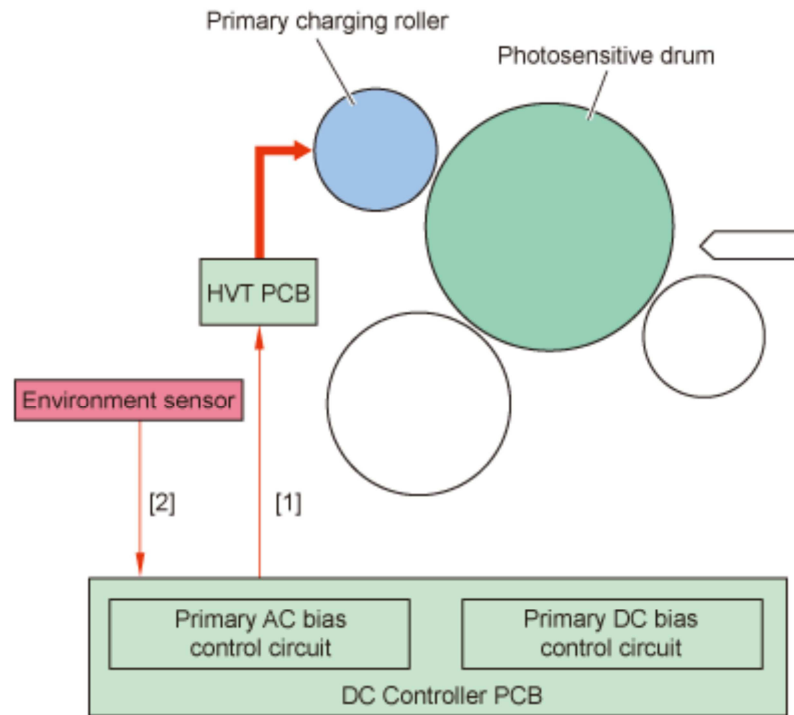
Lv.1) COPIER > COUNTER > LF > K-DRM-LF (Drum unit (Bk) counter)

Related Service Mode

- Lv.1) COPIER > OPTION > FNC-SW > D-DLV-BK (Set Bk Drum auto delivery alarm timing)
<Setting value>
50 to 200% [Default: 100]
- Lv.2) COPIER > OPTION > USER > P-CRG-LF (ON/OFF of Drum Unit life warning)
<Setting value>
0 to 1
0: OFF, 1: ON [Default: 0]
- Lv.1) COPIER > OPTION > DSPLY-SW > DRM-DSP (Counter initial screen display sw: Drum Unit)
<Setting value>
0 to 1
0: Hide, 1: Display [Default: 0]

● Primary Charging Bias Control

This machine performs direct charging by the Charging Roller. AC bias is applied to the Primary Charging Roller to make steady DC bias and charging.



[1] Primary charging bias control signal

[2] Environment sensor detection signal

● DC/AC bias constant voltage control

The DC bias control circuit and AC bias control circuit in the DC Controller PCB control DC bias and AC bias, which are applied to the Primary Charging Roller, to make constant voltage.

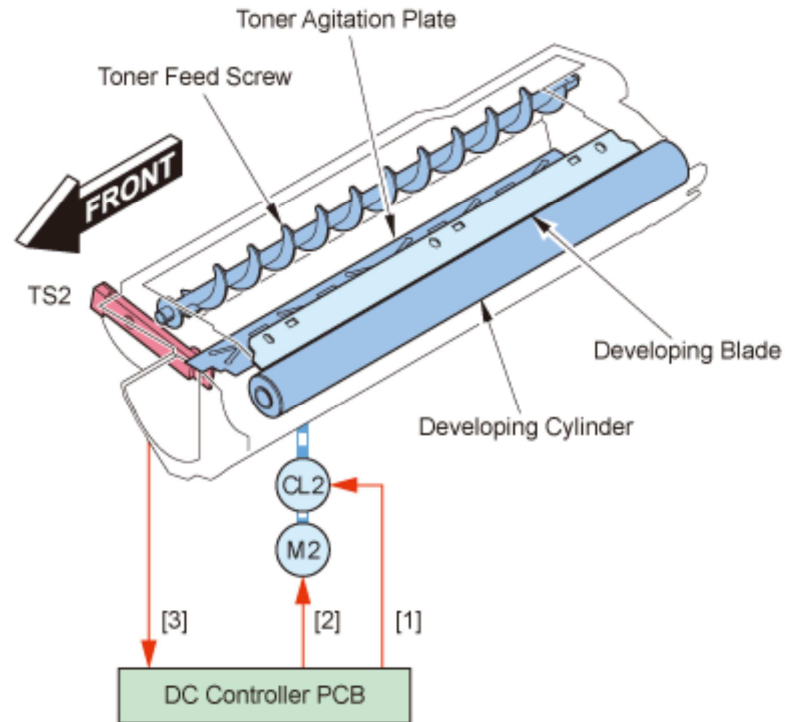
● DC bias switch control

DC bias changes output value of DC bias according to the environment detected by the Environment Sensor (THU1).

■ Developing Assembly

The Developing Assembly mainly consists of the Developing Cylinder, Developing Blade, Toner Stirring Plate, and Toner Feed Screw, and is driven by the Main Motor (M2) and Developing Cylinder Clutch (CL2).

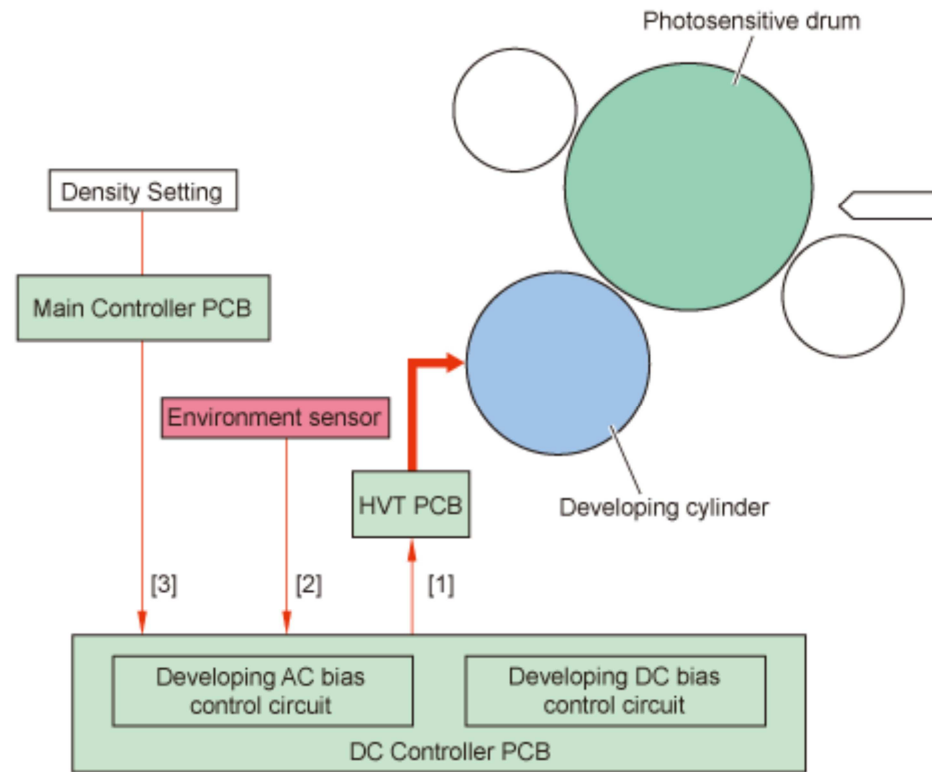
The Toner Feed Screw and Toner Stirring Plate feed the toner, which was sent from the Toner Container, to fill in the Developing Assembly. Toner in the Developing Assembly is detected by the Developing Assembly Toner Sensor (TS2), which is a magnetic sensor.



TS2	Developing Assembly Toner Sensor
CL2	Developing Cylinder Clutch
M2	Main Motor
[1]	Developing Cylinder Clutch drive signal
[2]	Main Motor drive signal
[3]	Developing Assembly Toner Sensor detection signal

● Developing Bias Control

DC bias and AC bias are applied to the Developing Cylinder.



- [1] Developing bias control signal
- [2] Environment sensor detection signal
- [3] Density setting signal

● DC/AC bias constant voltage control

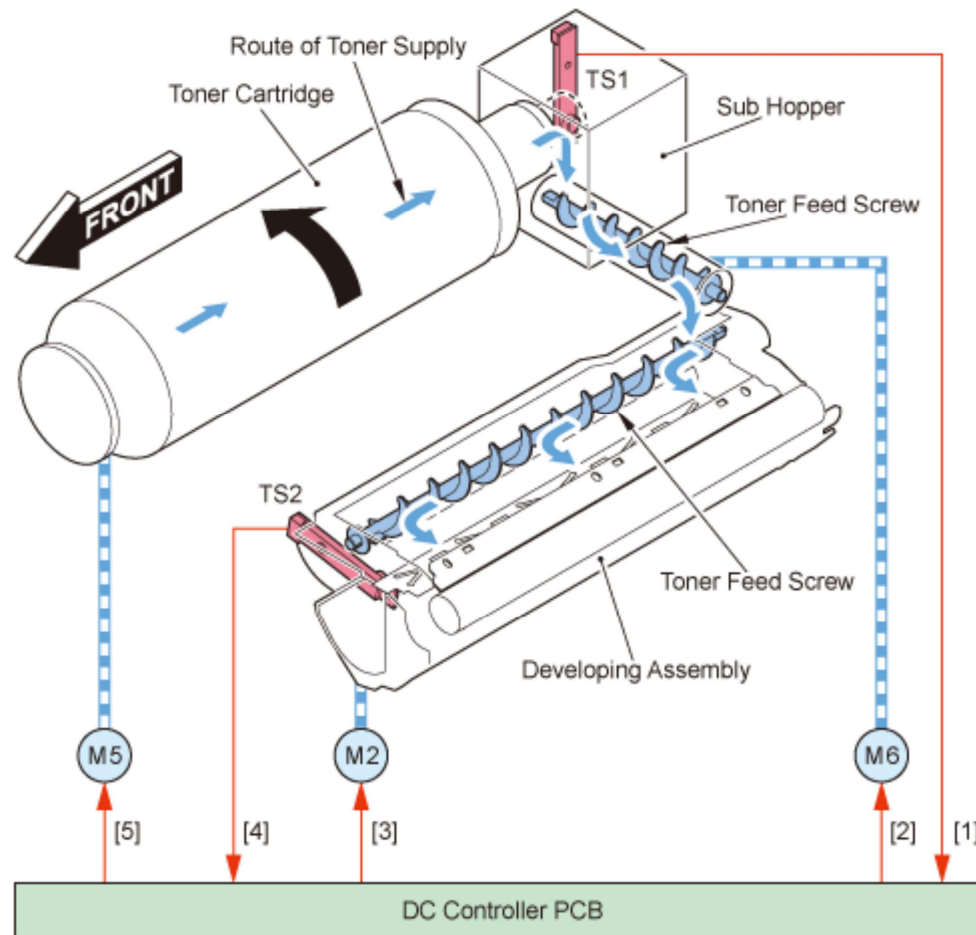
The DC bias control circuit and AC bias control circuit in the DC Controller PCB control DC bias and AC bias, which are applied to the Developing Cylinder, to make constant voltage.

● DC bias switch control

DC bias changes output value of DC bias according to the environment and density settings detected by the Environment Sensor (THU1).

■ Toner Supply Area

● Toner Supply Control



- TS1 Hopper Toner Sensor
- TS2 Developing Assembly Toner Sensor
- M2 Main Motor
- M6 Hopper Motor
- M5 Bottle Motor
- [1] Hopper Toner Sensor detection signal

- [2] Hopper Motor drive signal
- [3] Main Motor drive signal
- [4] Developing Assembly Toner Sensor detection signal
- [5] Bottle Motor drive signal

Title	Description	Supply timing	Operation of the host machine
Supply to the Hopper	To supply developer in the Toner Container into the Hopper	When output result of Hopper Toner Sensor (TS1) changes from H to L.	To drive the Bottle Motor (M5) intermittently (to rotate for 3 sec and stop for 2 sec).
Supply to the Developing Assembly	To supply developer from the Hopper to the Developing Assembly.	The Developing Clutch is turned On and the Main Motor (M2) is driven.*1 When output result of Developing Assembly Toner Sensor (TS2) changes from H to L while the above conditions are satisfied.	To drive the Hopper Motor (M6) intermittently (to rotate for 1 sec and stop for 1 sec)

*1 The screw of Developing Assembly is driven by the Main Motor; therefore, supplying toner while the Main Drive Motor is not driven causes toner leakage.

● Toner level detection

Detection description	Prior delivery alarm *1	Display Remaining Toner error	Empty toner
The residual quantity of the toner	EUR: 0% Other:29% (The value mentioned above is a residual quantity in the toner bottle.)	10%	0%
Detection timing	The rotary time for Toner Feed Screw in the Sub Hopper	When the Hopper Toner Sensor (TS1) detected absence of toner while there has been no change in value of the sensor despite a supply operation for approx. 150 sec.	When the Developing Assembly Toner Sensor (TS2) detected toner absence for 40 seconds.
Message (machine operation)	None	Check the remaining toner. (Continuous printing is enabled.)	Replace toner cartridge. (Job is stopped.)
Alarm Code	10-0020	None	None

*1: Lv.1) COPIER > OPTION > FNC-SW > T-DLV-BK (Set of Bk-toner level displaying alarm)

<Setting value>

0 to 40% [Default EUR: 0, Other: 29]

● Detection for replacing Toner Container

This machine does not have a sensor to detect replacement of a Toner Container. Therefore, execute the toner supply sequence as follows to determine replacement of a Toner Container.

- Toner supply sequence (When "Replace toner cartridge." is displayed.)
 1. Make the Main Motor (M2), Developing Clutch, Hopper Motor (M6) and Bottle Motor (M5) driven to supply toner.
 2. When the Hopper Toner Sensor detects presence of toner, the machine resumes normal operation. When the Hopper Toner Sensor failed to detect presence of toner for more than 60 sec, it is determined that there has been no replacement of a Toner Container.
- Toner supply sequence (When "Check the remaining toner." is displayed.)
 1. To drive the Bottle Motor (M5) intermittently (to rotate for 3 sec and stop for 2 sec).
 2. When the Hopper Toner Sensor detects presence of toner, the machine resumes normal operation. When the Hopper Toner Sensor failed to detect presence of toner to drive the Hopper Motor (M6) intermittently for more than 30 sec, it is determined that there has been no replacement of a Toner Container.
- Replacement when the power is turned ON

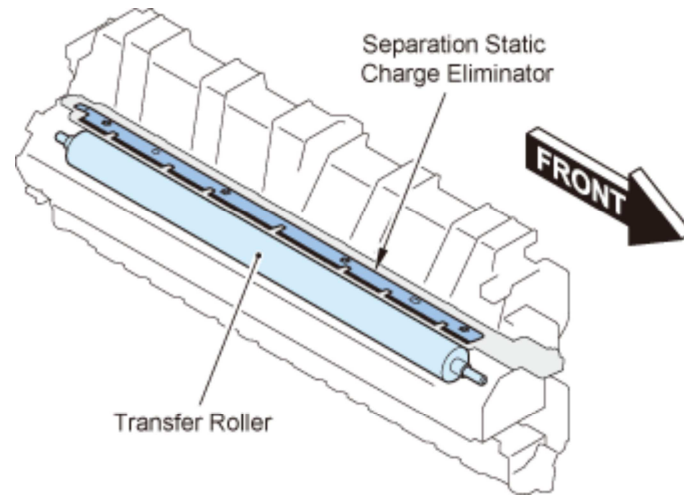
When the Front Cover is opened/closed, the machine determines that a Toner Container has been replaced and executes toner supply sequence.

- Replacement when the power is turned OFF or the machine is at sleep 2 state

The machine executes the toner supply sequence at power-on if there was a toner-out alert or toner-out message when the power was turned OFF the last time.

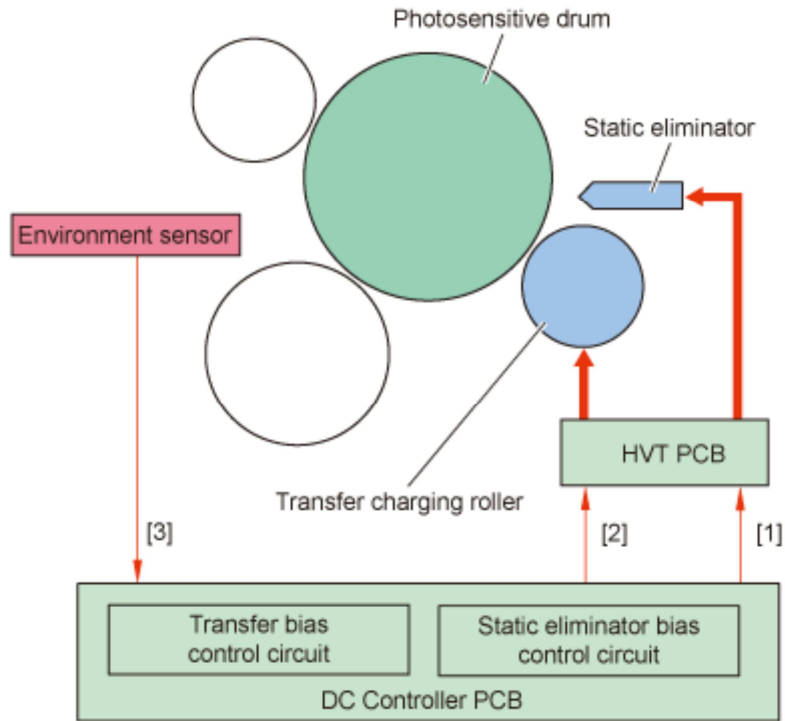
■ Transfer Unit

The Transfer Unit mainly consists of the Transfer Roller and Static Eliminator, and the Transfer Roller rotates by engaging with the Drum Unit



- **Transfer bias/separation static eliminator bias control**

DC bias is applied to the Transfer Roller and Static Eliminator.



- [1] Separation static eliminator bias control signal
- [2] Transfer bias control signal
- [3] Environment sensor detection signal

- **Transfer bias constant current control**

Transfer bias, which is applied to the Transfer Roller, is controlled by the Transfer Bias Control Circuit in the DC Controller PCB to make constant current.

- **Transfer bias level control**

Transfer bias changes output value of transfer bias according to the environment detected by the Environment Sensor (THU1), paper type, paper width, pickup position, etc.

- **Cleaning bias control**

This is a control to apply negatively-charged voltage at last rotation to bring the toner attached on the Transfer Roller back to the Photosensitive Drum.

- **Separation static eliminator bias control**

Two types of negatively-charged voltages, weak and strong biases, are applied to the Static Eliminator according to the print mode and sequence so that the paper is easy to be separated from the Photosensitive Drum by reducing electrostatic absorption force.

- **Change in bias by service mode**

Service mode settings include a mode to change the density or improve the separation performance by changing the bias. The following describes the mode which executes bias control.

Item	Overview	Setting value	Control details
Lv.2) COPIER >OPTION >FEED-SW >SP-SW	Set separation priority mode	0: Off (Default)	Normal control
		1 to 2: On	Separation priority mode (Separation effect improves.)
Lv.2) COPIER >OPTION >FNC-SW>WTM-DENS	Set density at watermark setting	0: Off (Default)	Normal control
		1: On	When the watermark is set, the density becomes high by changing the developing /primary charge DC voltage so that the watermark is reappeared.

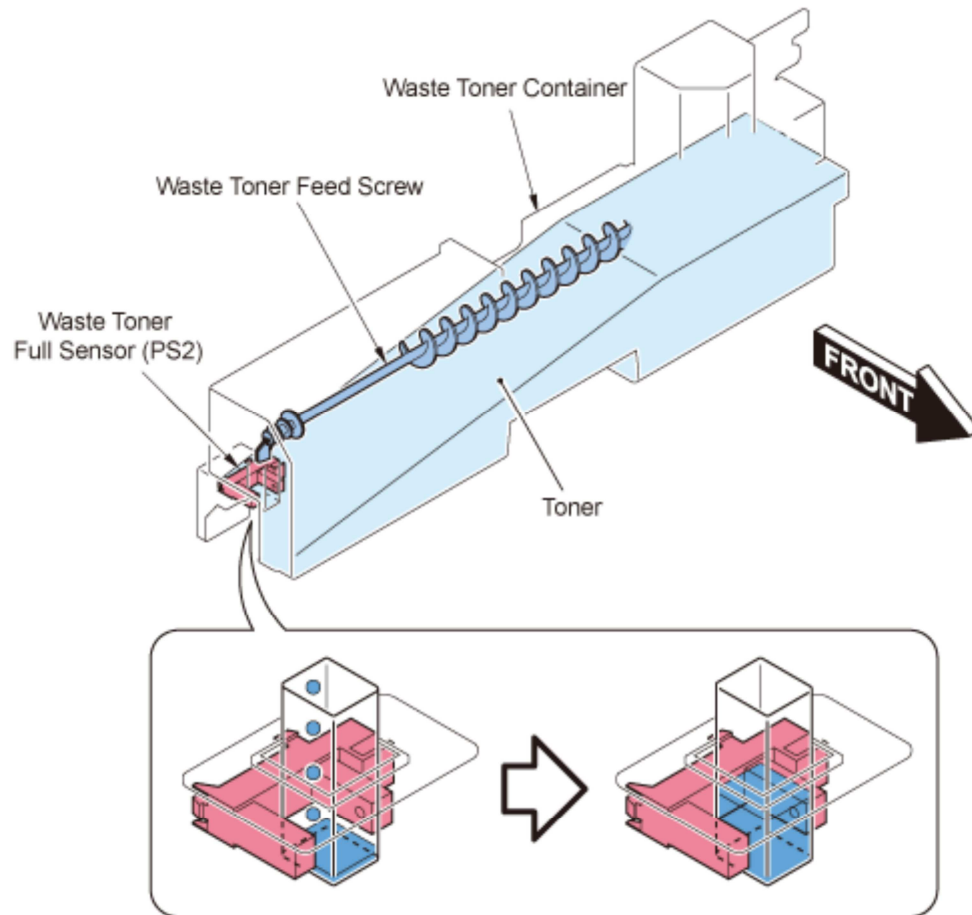
- **Waste Toner Container**

- **Overview**

The toner, which was not transferred to the paper but attached on the Photosensitive Drum, is removed by the Cleaning Blade that is in contact with the Photosensitive Drum, and then fed into the Waste Toner Container by the Waste Toner Feed Screw.

There is a screw for feeding toner in the Waste Toner Container. This screw is driven by the Waste Toner Motor and engaged with movement of the Hopper Motor.

Note that there is no mechanism to detect presence of a Waste Toner Container with this machine. The Front Cover cannot be closed unless the Waste Toner Container is mechanically installed; therefore, the machine is not driven without having the Waste Toner Container installed.



PS2 Waste toner full level sensor

● Full Detection

Detection description	Prior delivery alarm	Alert for full level of waste toner *1 (approx. 2000 sheets left to reach the full level of waste toner)	Full level of waste toner (0% left to reach full level of waste toner)
The empty capacity of the waste toner container	2%		0%

Detection description	Prior delivery alarm	Alert for full level of waste toner *1 (approx. 2000 sheets left to reach the full level of waste toner)	Full level of waste toner (0% left to reach full level of waste toner)
Detection timing	When output result of the Waste Toner Full Sensor (PS2) changes from H to L and the internal counter value exceeds 50,000 sheets.		When 2,000 sheets are printed since the full level warning. After approx. 2,000 When output result of the Waste Toner Full Sensor (PS2) changes from H to L and the internal counter value fails 50,000 sheets. *2
Message (machine operation)	None	Waste toner is near full.(Continuous printing is enabled.)	Replace the waste toner container. (Host machine is stopped.)
Alarm Code	11-0010		11-0001

*1: Lv.1) COPIER > OPTION > DSPLY-SW > WT-WARN (Display/hide of Waste Toner Container preparation message)

<Setting value>

0 to 1

0: Hide, 1: Display [Default: 0]

*2: Special full level detection

When attaching a Waste Toner Container that has been used by the other machine, or the counter information is lost for some reason, it is necessary to notify full level before an alert is given. (The counter shows less than 50,000 although the sensor detects full level of waste toner) In such a case, it is determined as full level without an alert and the machine cannot continue printing. Explain the user that there will be no alert when any of the above is executed.

When replacing it for a new waste toner container after the Waste Toner Full Sensor (PS2) detected waste toner full, the internal counter for full detection is cleared automatically. The warning/indication message on the operation panel disappears.

And the parts counter (WST-TNR) of the waste toner container in the service mode is cleared automatically.

- Lv.1) COPIER> COUNTER> DRBL-1> WST-TNR

Service Tasks

■ Periodically Replaced Parts

None

■ Consumable Parts

No.	Parts name	Parts number	Q'ty	Estimated life
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No.	Parts name	Parts number	Q'ty	Estimated life
1	Waste Toner Container	FM4-8035	1	100,000 sheets
2	Transfer Roller	FM4-6522	1	180,000 sheets
3	Static Eliminator	FM1-A131	1	90,000 sheets

■ Periodical Servicing

None

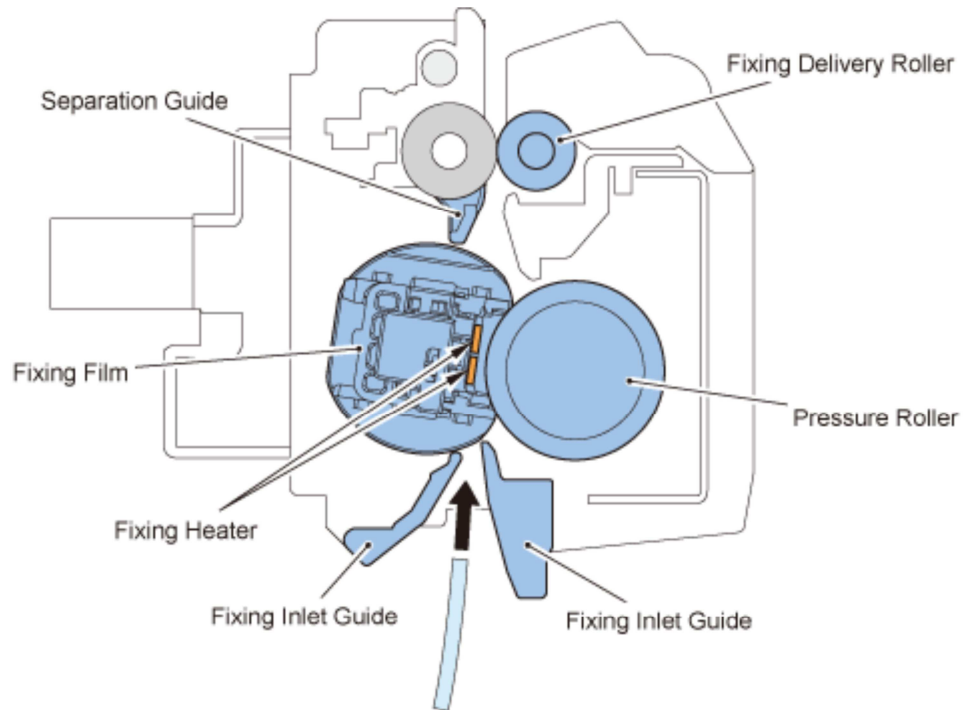
Perform as needed.

Fixing System

Overview

■ Features

This machine uses the on-demand fixing method.



■ Specifications

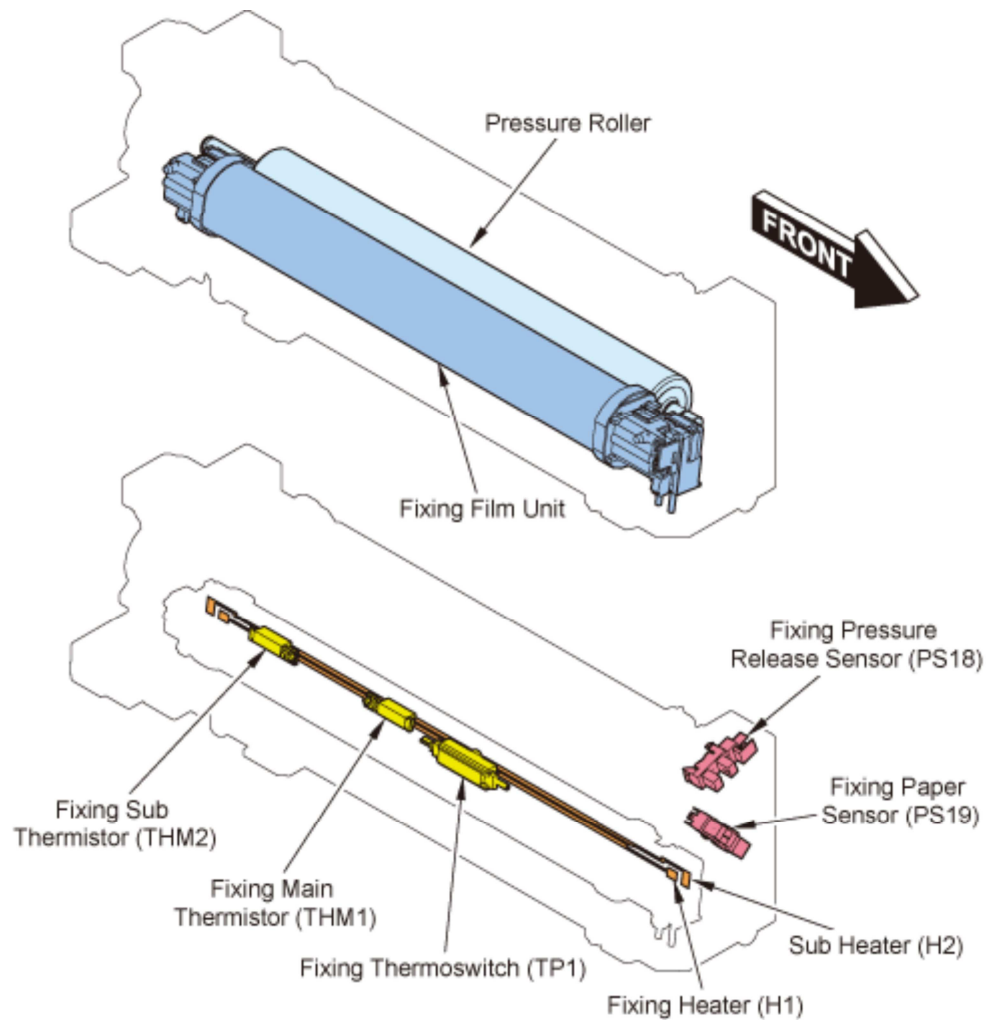
Item	Function/method	
Fixing method	On-demand fixing	
Fixing speed	1/1 speed	314 mm/sec (high: 0.8% acceleration speed)

Item	Function/method
	311 mm/sec (default) 303 mm/sec (slow: 3.1% deceleration speed) 1/2 speed 136 mm/sec (high: 0.8% acceleration speed) 134 mm /sec (default) 131 mm/sec (slow: 3.1% deceleration speed)
Fixing Heater	Ceramic Heater
Control temperature	230 deg C (plain paper 1/2 mode, when the fixing temperature at the start of startup control is 60 deg C or less.) *1
Temperature Control	Fixing Main Thermistor, Fixing Sub Thermistor
Cleaning control	Cleaning sequence control
Edge temperature rising control	Down sequence
Fixing Arch Control	Arch Sensor
Protection function	Fixing Main Thermistor, Fixing Sub Thermistor, Thermoswitch (Rated operational temperature: 270 +/-10 deg C)
Nip width	Area of 30mm from the edge: 6.5 to 8.2 mm Center area: 6.5 to 8.0 mm Difference between front and rear is within 1.0mm.

*1. The figure varies depending on fixing mode and fixing temperature at the start of Startup control.

Related Service Mode
 Lv.1) COPIER > FUNCTION > NIP-CHK (Check of fixing nip width)

■ Major Components

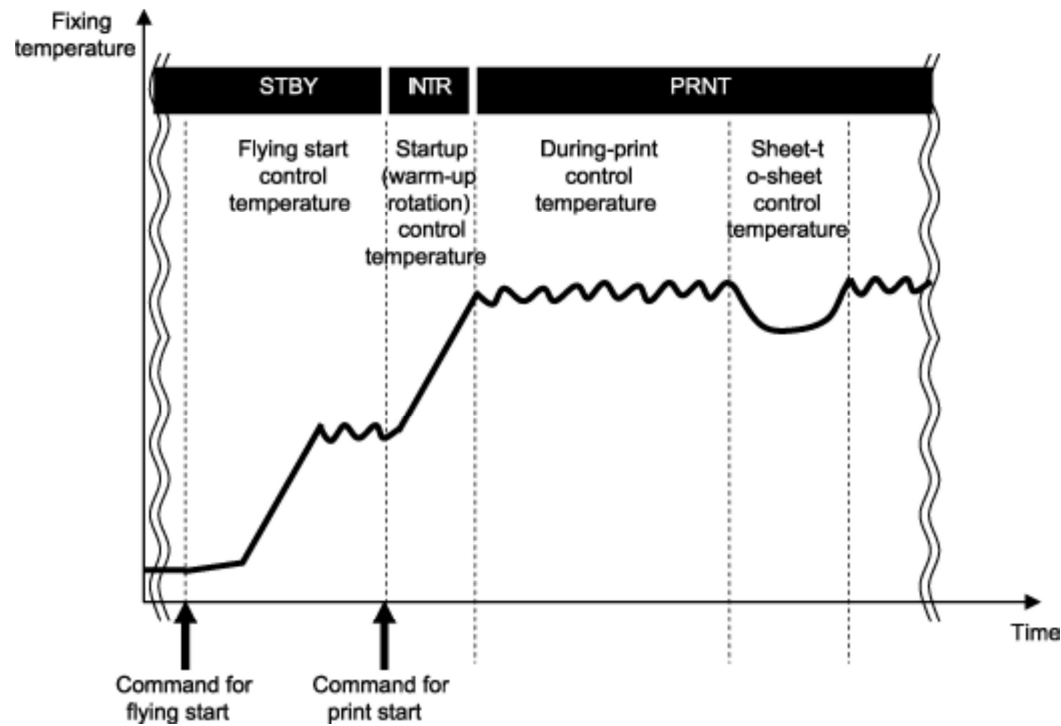


Part name	Function / method
--- Film Unit	A toner image on paper is fixed by applying heat/pressure.
--- Pressure Roller	
H1/H2 Fixing Heater / Sub Heater	Ceramic Heater
THM1 Fixing Main Thermistor	Engaged with the heater Temperature control and abnormal temperature rising detection

Part name		Function / method
THM2	Fixing Sub Thermistor	Engaged with the heater Temperature control, abnormal temperature rising detection, edge temperature-rising/cooling control
TP1	Thermoswitch	A kind not engaged with the heater. AC power supply is blocked at detection of a failure.
PS18	Fixing Pressure Release Sensor	Detection of pressure application/release to the Film Unit
PS19	Fixing Paper Sensor	Jam Detection

Controls

■ Fixing Temperature Control (temperature control)



● Standby Temperature Control

This is a control to pre-heat the Fixing Assembly to reduce time to start printing.

- Flying Start

● Print Temperature Control

This is a control to increase fixing temperature to the target level and keep it during printing.

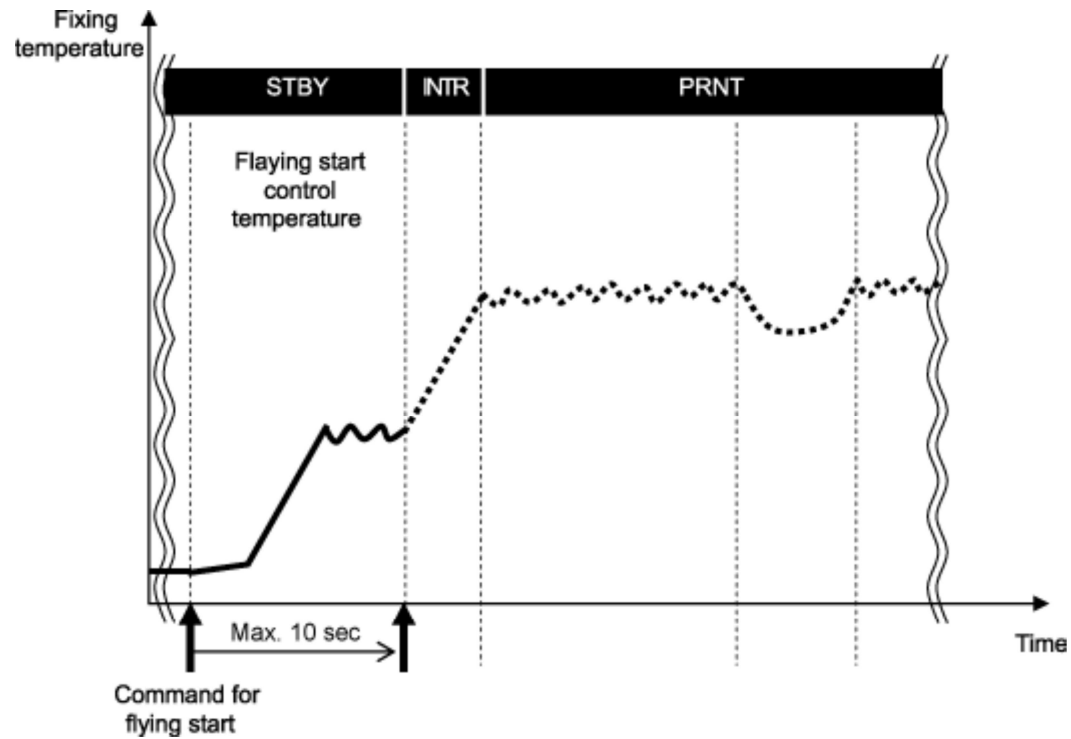
- Startup (initial rotation) temperature control
- Print temperature control
- Paper interval temperature control

● Down Sequence Control

This is a control to prevent fixing failure due to temperature increase at the edge or temperature decrease. Productivity (throughput) decreases.

- Down sequence when feeding small-size paper
- Down sequence when switching paper size

■ Standby Temperature Control



● Flying Start

Purpose:

To reduce time to print the first sheet (FCOT).

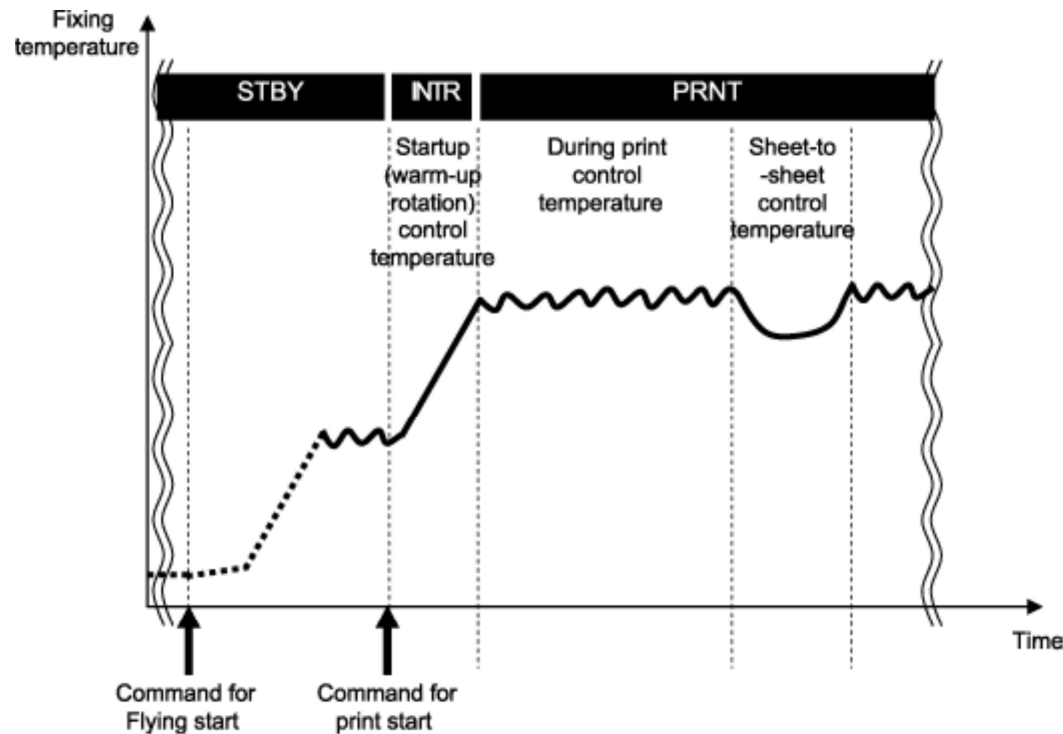
Starting conditions:

- When opening the Copyboard Cover or ADF while the detected temperature of the Main Thermistor is lower than 100 deg C.
- When setting the original on the ADF while the detected temperature of the Main Thermistor is lower than 100 deg C.
- When receiving the job start demand while the detected temperature of the Main Thermistor is lower than 100 deg C.
- When the Main Power Switch is turned ON or the machine is recovered from sleep mode to standby mode while the detected temperature of the Main Thermistor is lower than 180 deg C

Control description:

The temperature control target is set at 177 deg C and the Fixing Motor is controlled at half-speed to start operation. The control continues for 10 sec at most until the machine receives a command to start printing.

■ Print Temperature Control



● Startup (initial rotation) Temperature Control

A fixing temperature is increased to a printable temperature after receiving a command to start printing.

● Print Temperature Control

To set optimal target temperature to prevent fixing failure or offset, and keep the specified target temperature during printing

A. Setting the target temperature

A target temperature is determined according to the paper type/size, time which elapsed from when fixing temperature control (including standby control) finished the last time, and fixing temperature when startup control started.

B. Temperature control during printing

When the paper passes through the Fixing Assembly, temperature is controlled to keep the target temperature (see the next page) according to the detected temperature of the Main Thermistor.

C. Paper interval temperature control

At paper interval where no paper is fed to the Fixing Assembly, the control temperature is set less than the print control temperature (*1) to prevent temperature rising of the Fixing Assembly and save energy.

*1. Same as control temperature for plain paper. The temperature is set at -5 deg C or -15 deg C or -20 deg C according to the paper type.

Target temperature during printing

The control temperature is determined according to the fixing mode and fixing temperature at the start of Startup control. 11 fixing modes are available according to the selected pickup cassette and paper type.

The following shows an example of control temperature when the fixing temperature at the start of Startup control is 65 deg C or higher and lower than 70 deg C: (Temperature at standby with 20 deg C room temperature)

Fixing mode	Setting	Control temperature (deg C)			
		1-sided print/1st side of 2-sided print		2nd side of 2-sided print	
		Normal Speed	Low Speed	Normal Speed	Low Speed
Plain paper 1(64 to 80g/m ²)	Paper type	224	155	224	150
Plain paper 2(81 to 90g/m ²)		224	155	224	150
Heavy paper 1 (91 to 105g/m ²)		224	155	224	150
Heavy paper 2 (106 to 128g/m ²)		---	175	---	170
Bond paper		---	175	---	170
Transparency		---	150	---	---
Envelope		---	180	---	175
N1 mode *1	Paper type and service mode	195	150	185	145
N3 mode *2		180	145	170	140
Thin paper mode *3		205	150	200	145
S thin paper mode *4		195	145	190	140

*1 Setting of Plain paper 1/2, and Set "2" (N1 mode) in service mode (Lv.1 COPIER >OPTION >IMG-FIX >TMP-TBLC).

*2 Setting of Plain paper 1/2, and Set "3" (N3 mode) in service mode (Lv.1 COPIER >OPTION >IMG-FIX >TMP-TBLC).

*3 Setting of Plain paper 1/2, and Set "1" (Thin paper mode) in service mode (Lv.1 COPIER >OPTION >IMG-FIX >TMP-TBL5).

*4 Setting of Plain paper 1/2, and Set "2" (S thin paper mode) in service mode (Lv.1 COPIER >OPTION >IMG-FIX >TMP-TBL5).

Related Service Mode

- COPIER > OPTION > IMG-FX

Lv.1) > TEMPCON2 (Set fixing control temp table: Plain 1, 1/2 Speed)

Lv.1) > FX-S-TMP (Set fixing temperature: Curl correction)

Lv.1) > TMP-TBL2 (Set fixing control temp table: Heavy paper 1)

Lv.1) > TMP-TBL4 (Set fixing control temp table: Heavy paper 2)

Lv.1) > TMP-TBL6 (Fixing control temp table: envelope)

Lv.1) > TMP-TBL7 (Set fixing control temp table: Plain 2, 1/1 Speed)

Lv.2) > TMP-TB12 (Set fixing control temp table: Plain 2, 1/2 Speed)

Lv.2) > TMP-TB13 (Set fixing control temp table: Thin paper, 1/1 Speed)

Lv.2) > TMP-TB14 (Set fixing control temp table: Thin paper, 1/2 Speed)

Lv.2) > TMP-TB15 (Set fixing control temp table: Plain 1, 2-sided)

Lv.2) > TMP-TB16 (Set fixing control temp table: Plain 2, 2-sided)

- COPIER > ADJUST > FEED-ADJ

Lv.1) > ADJ-PTMG (Adj fix temperature at start of pickup)

- COPIER > OPTION > CUSTOM

Lv.1) > TEMP-TBL (Set fixing control temp table: Plain 1, 1/1 Speed)

<Setting value>

0 to 2: +15 degrees C

3 to 11: +12 to -12 degrees C (increment by 3 degrees C) [Default: 7]

12 to 14: -15 degrees C

■ Down Sequence Control

● Down sequence when feeding small-size paper

Purpose:

To prevent fixing offset and deterioration of the Fixing Film by controlling temperature increase at a non paper feed area at continuous printing of small-size paper (paper that has smaller than A4R of width-direction length)

Starting conditions:

Down sequence is performed in a stepwise manner. This is a control to reduce throughput on a step-by-step basis as the detected temperature of the Fixing Sub Thermistor reaches the specified temperature or higher as shown in the table below for consecutive 400msec during printing.

Stages	Normal	The 1st stage	The 2nd stage	The 3rd stage
A temperature to go for the next stage	224 degrees C	245 degrees C	255 degrees C	260 degrees C

Operation:

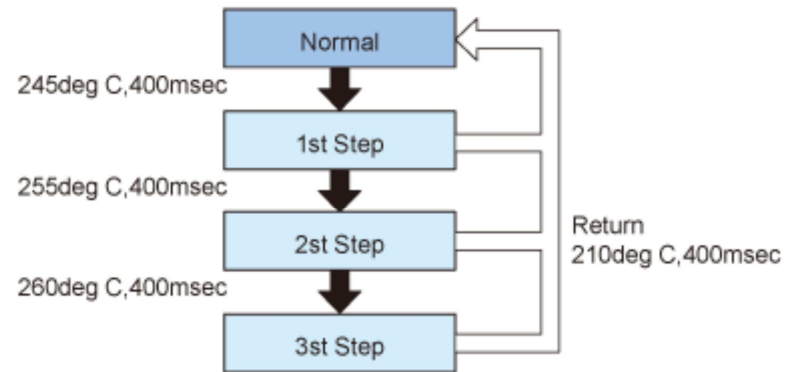
Increasing paper interval (to make longer temperature control at a temperature lower than that of normal print) to reduce fixing temperature in 4 stages at most.

Fixing mode	Stages	LGL	A4R	LTRR	A5R/B5R EXE-R/STMTR	Envelope
Plain paper 1 (64 to 80g/m2) Plain paper 2 (81 to 90g/m2) Heavy paper 1 (91 to 105g/m2)	Normal	43/40	50/40	52/42	25	---
	1	---	---	---	20	---
	2	---	---	---	18	---
	3	15	15	15	15	---
Heavy paper 2 (106 to 128g/m2)	Normal	14	21	21	17	---
	1	---	---	---	14	---
	2	---	---	---	10	---
	3	6	6	6	6	---
Bond paper	Normal	13	22	22	17	---
	1	---	---	---	14	---
	2	---	---	---	10	---
	3	6	6	6	6	---
Transparency	Normal	---	17	17	---	---
	1	---	14	14	---	---
	2	---	10	10	---	---
	3	---	6	6	---	---
Envelope	Normal	---	---	---	---	12
	1	---	---	---	---	10

Fixing mode	Stages	LGL	A4R	LTRR	A5R/B5R EXE-R/STMTR	Envelope
	2	---	---	---	---	8
	3	---	---	---	---	6

Termination condition:

When the machine detects 175 degrees C or lower for consecutive 400 msec after reaching the 3rd stage, the machine is recovered to move to the 1st stage.



Related Service Mode

- COPIER > OPTION > IMG-FX

Lv.1) > FIX-TEMP (Setting of down sequence mode)

0 to 4

<Setting value>

0: +20 deg C

1: +10 deg C

2: 0 deg C [default: 2]

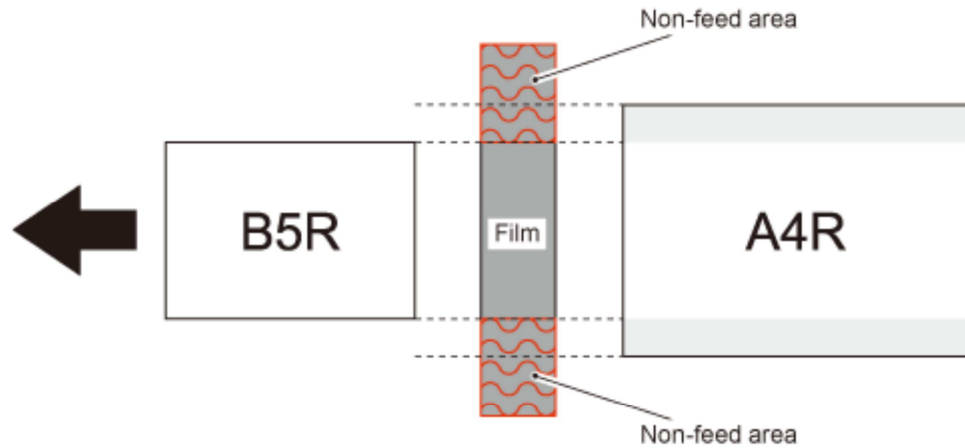
3: -10 deg C

4: -20 deg C

● Down sequence when switching paper size

Purpose:

When feeding a sheet with a wider width than a preceding sheet during continuous printing, temperature at the non paper-feed area of the preceding sheet increases, and it can cause fixing offset and wrinkles when feeding the succeeding sheet. This down sequence controls temperature increase at the non paper feed area.



Starting conditions:

When the paper is switched to a wider paper than the preceding sheet during printing, the detected temperature of the Fixing Sub Thermistor is higher than 210 deg C (*1).

Operation:

This is a control to stop pickup of the succeeding sheet and power distribution to the Fixing Heater to reduce fixing temperature.

Termination condition:

When detected temperature of the Fixing Sub Thermistor is 170 deg C or lower (*1).

*1. The temperature differs according to the service mode settings.

■ Change in fixing performance by service mode

Changing the control temperature or throughput affects fixing performance in some modes settings in service mode. The following describes the mode which affects fixing performance.

Service mode	Outline	Setting value	Fixing temperature control / Throughput
Lv.1) COPIER >OPTION >IMG	To set the control temperature table to the N1 mode or the N3 mode so that the paper curl is reduced when select the: plain paper 1, plain	0: Auto	Change the normal temperature control and N1 mode according to the environment (temperature/humidity)

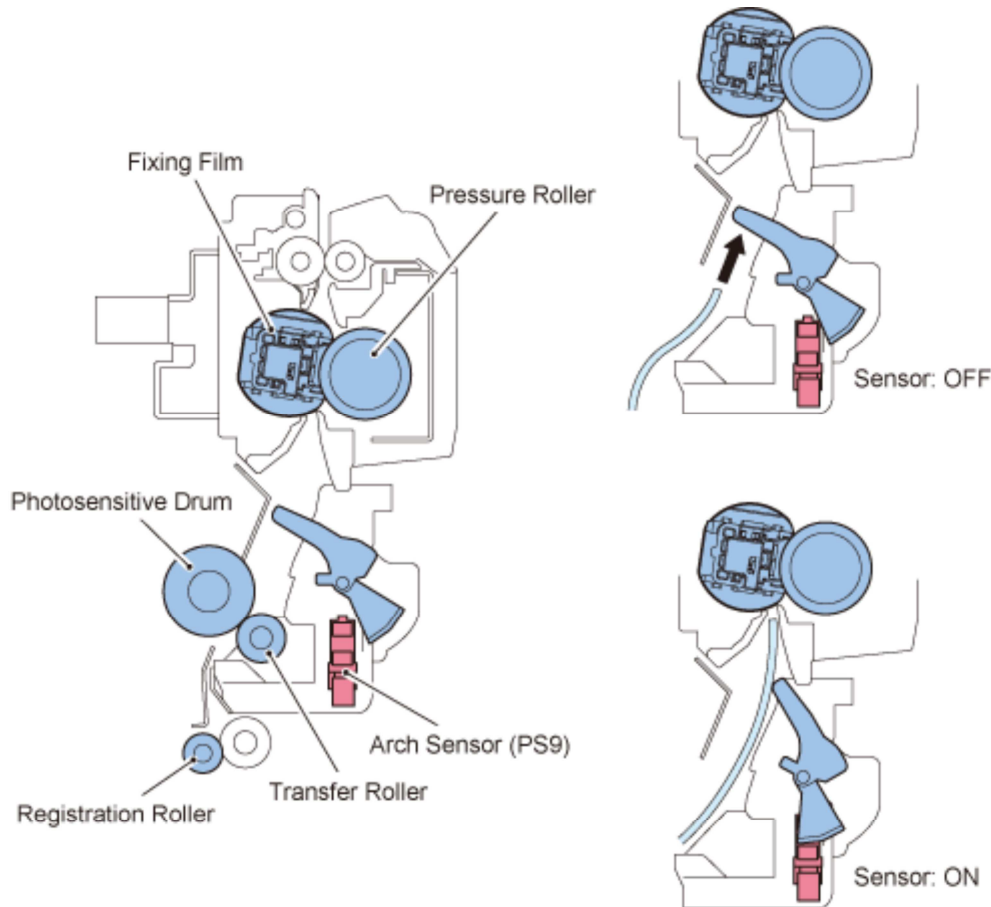
Service mode	Outline	Setting value	Fixing temperature control / Throughput
-FIX >TMP-TBLC	paper 2, recycled paper, color paper, prepunched paper.	1: OFF (default) (Fixing grade priority)	Normal temperature control (plain paper mode control)
		2: N1 mode with plain paper 1/2 (Target temperature becomes low.)	N1 mode temperature control
		3: N3 mode with plain paper 1/2 (Target temperature becomes moreover low.)	N3 mode temperature control
Lv.1) COPIER >OPTION >IMG -FIX >TMP-TBL5	To set the control temperature table for the plain paper 1 and plain paper 2 to the thin paper mode or the S-thin paper mode.	0: OFF (default)	Normal temperature control (plain paper mode control)
		1: thin paper mode (Fixing grade priority)	Thin paper mode
		2: S-thin paper mode (Fixing grade priority)	S-thin paper mode
Lv.2) COPIER >OPTION >IMG -SPD >PSP-PR1	To lower the fixing temperature for the paper feed start at the paper size change. The priority is given to the productivity so that the fixing offset may occur.	0: OFF (default)	This is a control to set the pickup permission temperature at 210* deg C and pickup recovery temperature at 170* deg C. (*: Detction temperature of sub thermistor)
		1: ON (Productivity priority)	This is a control to set the pickup permission temperature at 230* deg C and pickup recovery temperature at 190* deg C. (*: Detction temperature of sub thermistor)
Lv.2) COPIER >OPTION >IMG -FIX >FIX-PR	Set fixing paper special processing mode	0: OFF (default)	Normal temperature control (plain paper mode control)
		1: ON	Normal temperature control (plain paper mode control) The electrostatic offset is improved by increasing the fixing filb bias, and electrical effect of the inside between the paper become small.

Service mode	Outline	Setting value	Fixing temperature control / Throughput
			To prevent of discharge between the fixing film unit and pressure roller, and the static charge of the pressure roller.

■ Pre-fixing arch level control

Purpose:

Constantly creating an optimal arch between the transfer and fixing areas prevents a shock, which occurs when the paper's trailing edge passes through the Registration Roller, and obtains an optimal image.



Starting conditions:

This control is performed every time the paper is fed.

Operation:

The Arch Sensor detects a paper arch between the transfer nip and fixing nip to change the drive speed of the Fixing Motor.

- 1) When the paper's leading edge goes over 35mm from the Transfer Roller, drive speed of the Fixing Motor is reduced by 3.1% against the process speed. The reduced speed is maintained until the paper creates an arch and the Arch Sensor is turned ON.
- 2) After the Arch Sensor has been detected ON for consecutive 50msec or longer, drive speed of the Fixing Motor is increased by 0.8% against the process speed. The increased speed is maintained until the paper arch disappears and the Arch Sensor is turned OFF.
- 3) After the Arch Sensor has been detected OFF for consecutive 50msec or longer, drive speed of the Fixing Motor is reduced by 3.1% against the process speed. The reduced speed is maintained until the paper creates an arch and the Arch Sensor is turned ON.
- 4) Repeat steps 2) and 3). When the paper's trailing edge reaches at 10mm before the Transfer Roller, drive speed of the Fixing Motor is increased by 0.8% against the process speed.
- 5) Go back to step 1) in the case of continuous printing. The machine goes to the last rotation operation in the case of 1 sheet print.

■ Protection function

Code	Description	Clearing of error
E000	Fixing Assembly low temperature error	
0001	When the detected temperature of the Fixing Main Thermistor (THM1) fails to reach the specified temperature at temperature rising control.	Required
E001	Fixing Assembly high temperature error	
0000	When the Fixing Main Thermistor (THM1) detects 250 deg C or higher for consecutive 200msec or longer.	Required
0001	When the hardware circuit detects overheating of the Fixing Main Thermistor (THM1) or Fixing Sub Thermistor (THM2) for 30msec or longer.	Required
0002	When the Fixing Sub Thermistor (THM2) detects 295 deg C or higher for consecutive 200msec or longer.	Required
E002	Fixing Assembly temperature rise error	
0000	<ol style="list-style-type: none"> 1. When the Fixing Main Thermistor (THM1) detected a temperature lower than 115 deg C for consecutive 400msec or longer after 6 seconds that the Fixing Main Thermistor (THM1) detected 100 deg C. 2. When the Fixing Main Thermistor (THM1) detected a temperature lower than 150 deg C for consecutive 400msec or longer after 6.0 seconds that the Fixing Main Thermistor (THM1) detected 140 deg C. 	Required
E003	Fixing Assembly temperature decrease error	

Code		Description	Clearing of error
	0000	1. The Fixing Main Thermistor (THM1) detected the temperature of lower than 80 deg C for 200 msec or longer. 2. The Fixing Sub Thermistor (THM2) detected the temperature of lower than 60 deg C for 200 msec or longer.	Required
E004	Thermistor disconnection detection error		
	0000	When removal of the connector is detected for consecutive 30msec.	Not required
E014	Error in rotation of Fixing Motor (M1)		
	0001	Detection is performed every 100msec since the start of drive and there has been no lock signal for 2sec.	Not required
	0002	Detection is performed every 100msec during the drive (after the lock detection) and the lock signal has not detected for 5 times consecutively (in 500msec).	Not required
	0003	When the Fixing Pressure Release Sensor never detected pressure release during the 3 seconds while the fixing pressure was released.	Not required
	0004	When the Fixing Pressure Release Sensor never detected pressure during the 3 seconds while the fixing pressure was applied.	Not required
E261	Error in zero cross signal		
	0000	When the relay is ON, the zero cross signal failed to be detected for 500msec or longer. *When the same status is detected again despite an error retry.	Not required

Related Service Mode

- COPIER > FUNCTION > CLEAR

Lv.1) > ERR (Clear of error code)

Service Tasks

■ Periodically Replaced Parts

None.

■ Consumable Parts

No.	Parts name	Parts number	Q'ty	Estimated life
-----	------------	--------------	------	----------------

No.	Parts name	Parts number	Q'ty	Estimated life
1	Fixing Assembly (120V)	FM1-A680	1	160,000 sheets
	Fixing Assembly (230V)	FM1-A681	1	160,000 sheets

■ Periodical Servicing

None.

Perform as needed.

Pickup / Feed System

Overview

■ Specifications

Item		Description
Paper storage method		Front-loading method
Pickup method	Cassette	Retard separation
	Multi-purpose Tray	Pad separation
Stacking capacity	Cassette	550 sheets (80g/m ²), 650 sheets (64g/m ²)
	Multi-purpose Tray	100 sheets (80g/m ²), 110 sheets (64g/m ²)
Paper feed reference		Center reference
Paper size	Cassette	A4-R, A5-R, B5-R, LGL, LTR-R, STMT-R, EXEC-R, 16K-R, special standard-size *1
	Multi-purpose Tray	Width: 99mm to 216mm Length: 139.7 mm to 355.6 mm (Up to 630mm long length paper can be supported. *2) A4-R, A5-R, B5-R, LGL, LTR-R, STMT-R, EXEC-R, 16K-R, Envelopes (No.10 (COM10), ISO-C5, Monarch, DL, Nagagata 3, Yougatanaga 3)
Paper weight	Cassette	64 to 105g/m ²
	Multi-purpose Tray	64 to 128g/m ²
Paper size switching	Cassette	Auto switching
	Multi-purpose Tray	Manual switching
Supported size for 2-sided print	Cassette	210 mm to 355.6 mm (105g/m ²) *3

Item	Description
Multi-purpose Tray	210 mm to 355.6 mm (105g/m ²) *3
2-sided print method	Through-pass duplex

*1: ["Setting method when the size detection patterns are overlapped."](#)

*2: Long length paper is supported.

To make a print with long length paper, settings are required in service mode and applicable mode.(Up to 630mm image supported.)

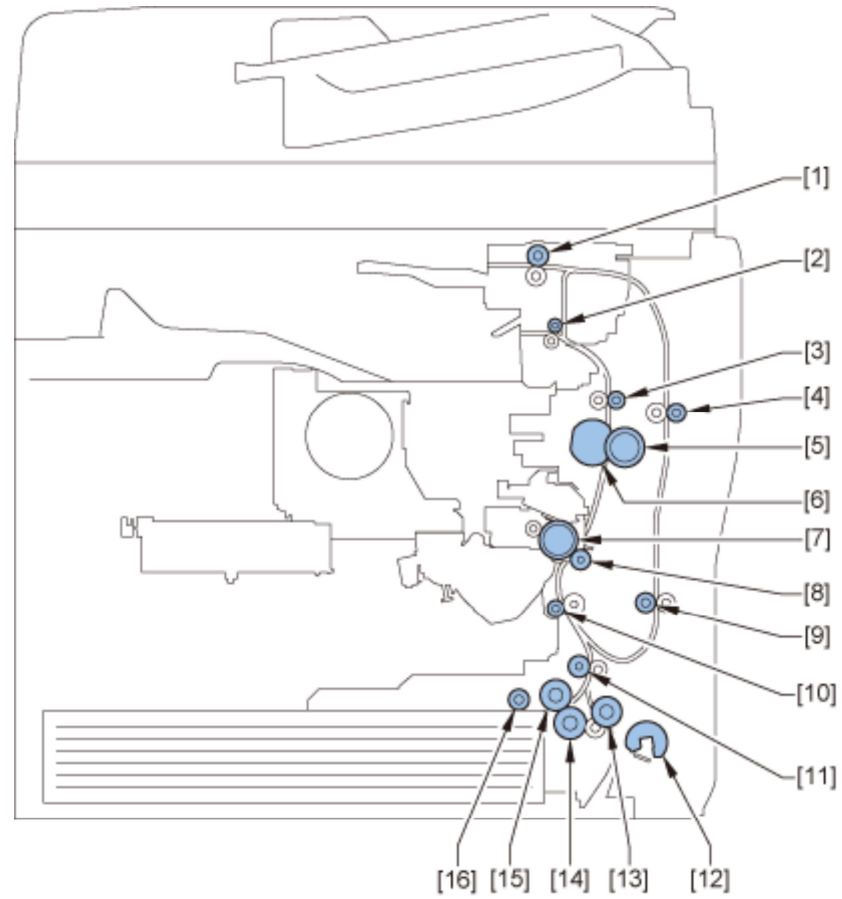
Lv.2) COPIER > OPTION > USER > MF-LG-ST >1

Copying using long length paper is not available with this machine.

*3: Custom paper size is not supported.

■ Parts Configuration

● Rollers Layout drawing

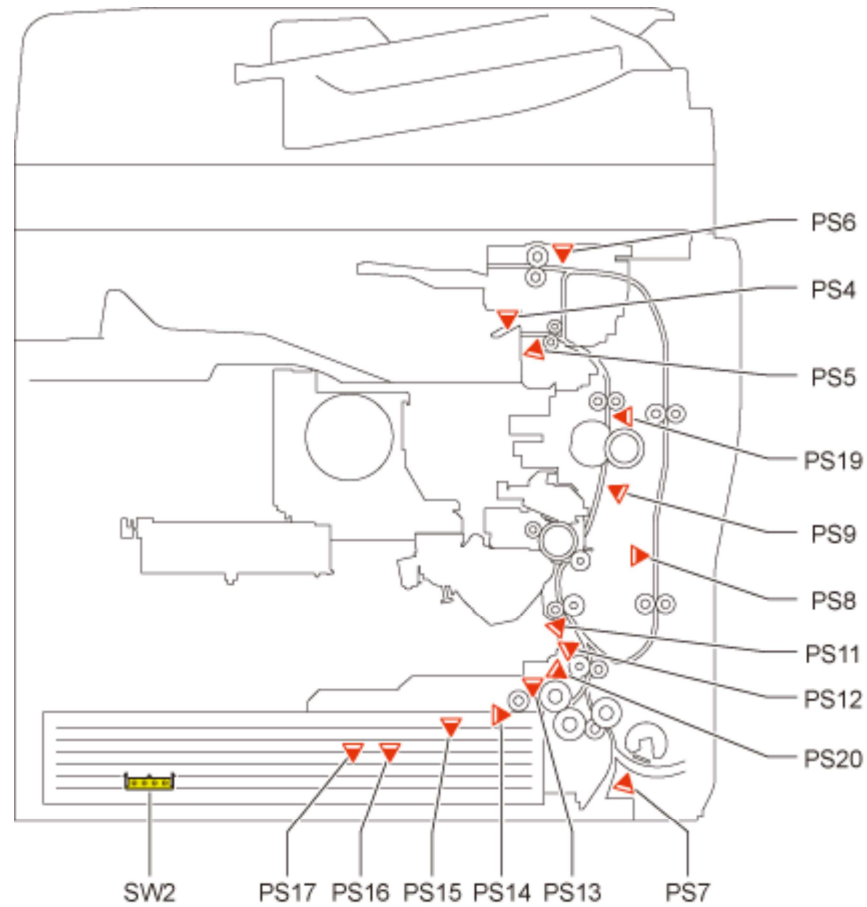


- | | |
|--------------------------|--|
| [1] Reverse Roller | [9] Duplex Feed Roller 2 |
| [2] Delivery Roller | [10] Registration Roller |
| [3] Fixing Outlet Roller | [11] Vertical Path Roller |
| [4] Duplex Feed Roller 1 | [12] Multi-purpose Tray Pickup Roller |
| [5] Pressure Roller | [13] Multi-purpose Tray Pullout Roller |
| [6] Fixing Roller | [14] Cassette Separation Roller |
| [7] Drum | [15] Cassette Feed Roller |

[8] Transfer Roller

[16] Cassette Pickup Roller

● Sensors Layout Drawing



- | | | | |
|-----|---------------------------------|------|-------------------------------|
| PS4 | Delivery Paper Full Sensor | PS13 | Cassette Pickup Sensor |
| PS5 | Delivery Sensor | PS14 | Cassette Lifting Plate Sensor |
| PS6 | Reverse Sensor | PS15 | Cassette Paper Sensor |
| PS7 | Multi-purpose Tray Paper Sensor | PS16 | Cassette Paper Level Sensor A |
| PS8 | Duplex Feed Sensor | PS17 | Cassette Paper Level Sensor B |

PS9 Arch Sensor

PS19 Fixing Paper Sensor

PS11 Registration Sensor

PS20 Transparency Sensor

PS12 Pre-Registration Sensor

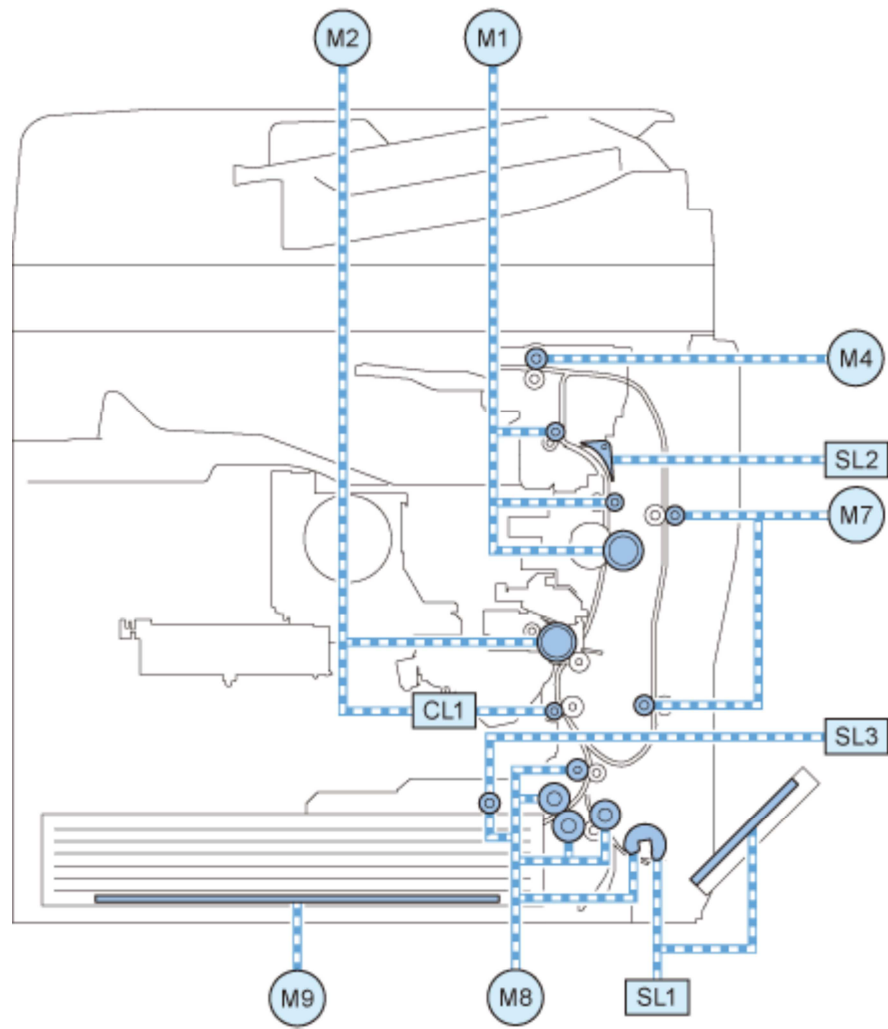
SW2 Cassette Size Detection Switch

NOTE:

Transparency detection of this machine is performed by the Transparency Sensor (PS20) which is a flag-type sensor.

Uneven speed at the time of transparency feed is detected to judge whether it is transparency.

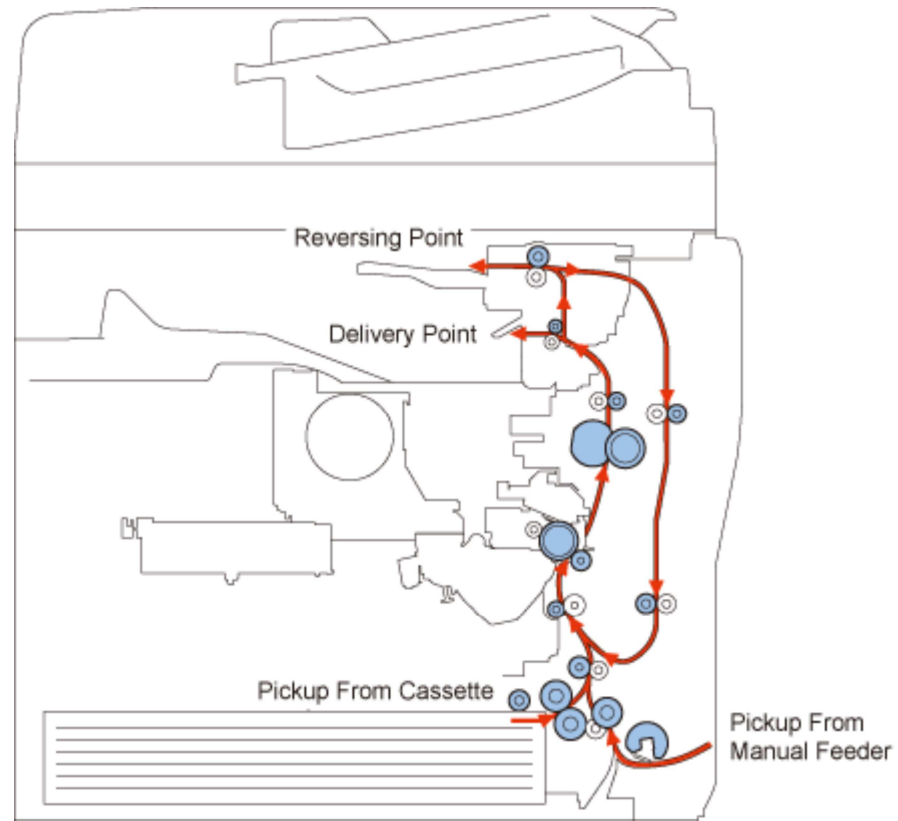
● **Route of Drive**



- | | | | |
|----|--------------------|-----|------------------------------------|
| M1 | Fixing Motor | CL1 | Registration Clutch |
| M2 | Main Motor | SL1 | Multi-purpose Tray Pickup Solenoid |
| M4 | Reverse Feed Motor | SL2 | Reverse Feed Solenoid |
| M7 | Duplex Feed Motor | SL3 | Cassette Pickup Solenoid |
| M8 | Pickup Motor | | |

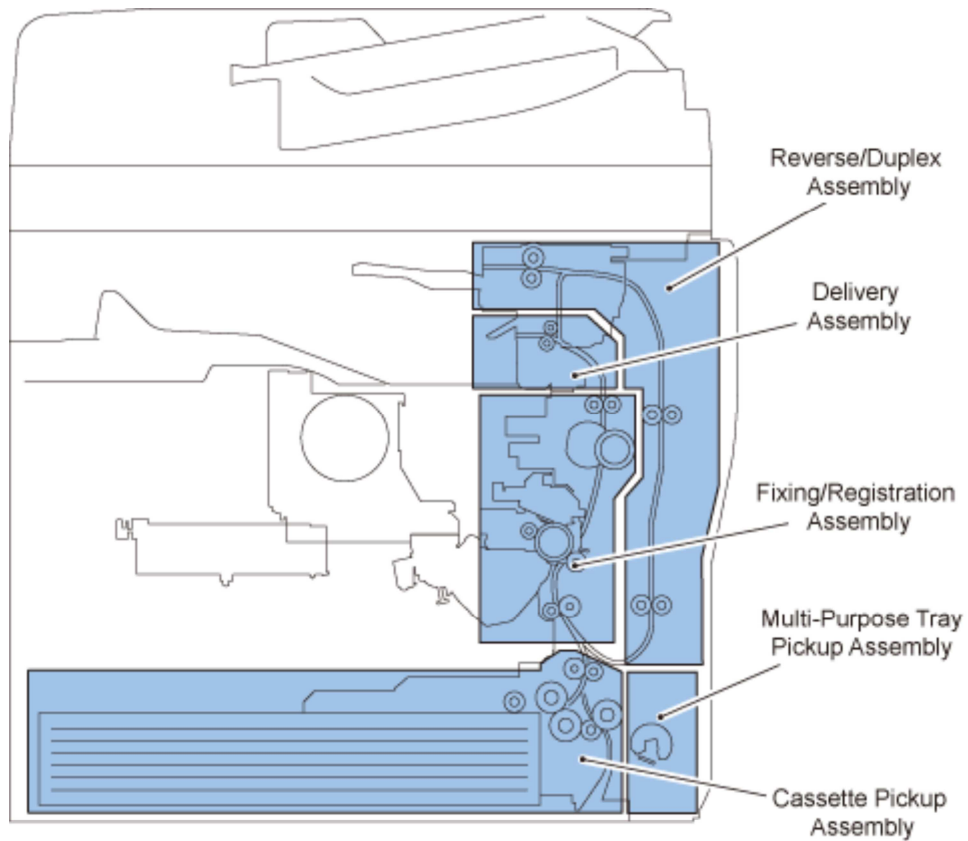
M9 Lifter Motor

■ Paper Path



Controls

■ Overview



Area	Detection/Control	
Cassette Pickup Assembly	Paper Level Detection Control	Pickup Retry Control
	Paper Detection Control	Paper Size Detection Control
	Lifter Control	-
Multi-purpose Tray Pickup Assembly	Paper Detection	Pickup Retry Control
	Paper Size Detection	-
Fixing/Registration Assembly	Registration Control	Size Mismatch Detection Control
Delivery Assembly	Delivery Acceleration Control	Delivery Full Detection
Reverse/Duplex Assembly	Reverse Flapper Operation	Duplex Re-pickup Control

Area	Detection/Control	
	Duplex Reverse Control	Duplex Circulation
Jam Detection	List of Jam Codes	Forcible Paper Feed Control

■ Cassette Pickup Assembly

● Overview

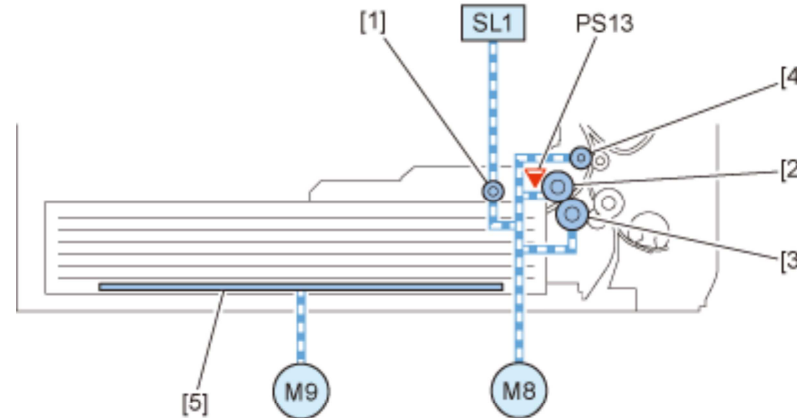
Paper inside a cassette is lifted up by the Lifting Plate.

When pickup takes place, the Cassette Pickup Solenoid (SL1) is turned ON so that the Cassette Pickup Roller is moved down. When the Cassette Pickup Roller comes in contact with the surface of paper, the paper is picked up by rotation of the roller.

Only a single paper picked up is moved to the feed path by the Cassette Feed Roller and the Cassette Separation Roller, and moved as far as the Registration Roller by the Vertical Path Roller.

If the Cassette Pickup Sensor (PS13) is ON when starting pickup (in the case that the succeeding paper is also picked up when a paper is picked up and fed), the feed speed is decreased.

The Vertical Path Roller and Cassette Pickup Roller and Cassette Feed Roller and Cassette Separation Roller are driven by the Cassette Pickup Motor (M8), and the Lifting Plate is driven by the Lifter Motor (M9).



- [1] Cassette Pickup Roller
- [2] Cassette Feed Roller
- [3] Cassette Separation Roller
- [4] Vertical Path Roller
- [5] Lifting Plate

● Pickup Retry Control

If the Pre-Registration Sensor (PS12) is not turned ON within a specified period of time after the start of pickup operation, operation of the Cassette Pickup Motor (M8) and the Cassette Pickup Solenoid (SL3) is suspended once, and the pickup operation is executed again. If the Pre-Registration Sensor (PS12) is not turned ON after re-pickup operation, a delay jam is notified.

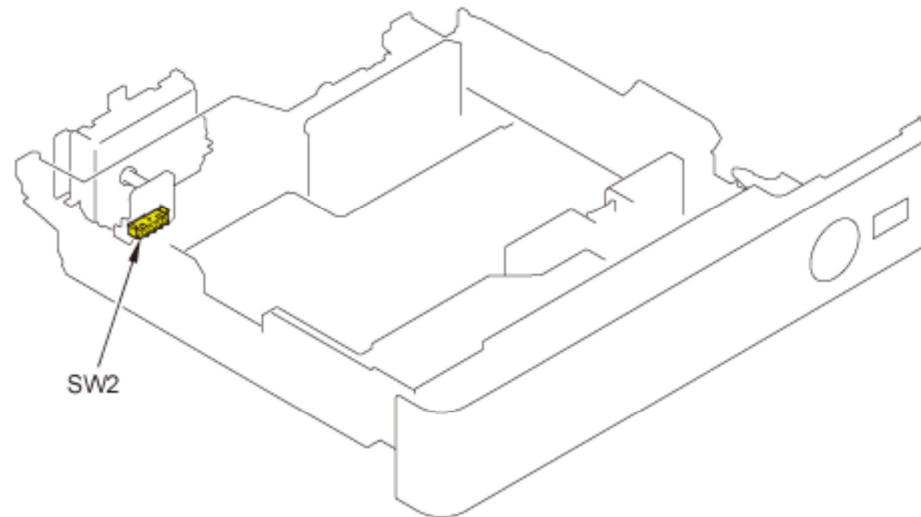
● Paper Size Detection Control

Paper size in a cassette is automatically detected by the "Cassette Size Switch". Paper size in a cassette is automatically detected by adjusting the Guide Plate position.

By shifting the Guide Plate, concavo-convex area of the Cassette Size Dial is switched and the Cassette Size Switch at the printer side is switched. The switch consists of 4 microswitches, and length and width are detected in accordance with the combination of ON/OFF. As long as standard size paper, it can be used for both AB configuration and inch configuration. However, distinction between A5-R and STMT-R (*) should be specified manually on the check screen. EXEC-R and 16K-R are decided automatically by model setting.

*: The user can register paper distinction of A5-R and STMT-R by a user mode.

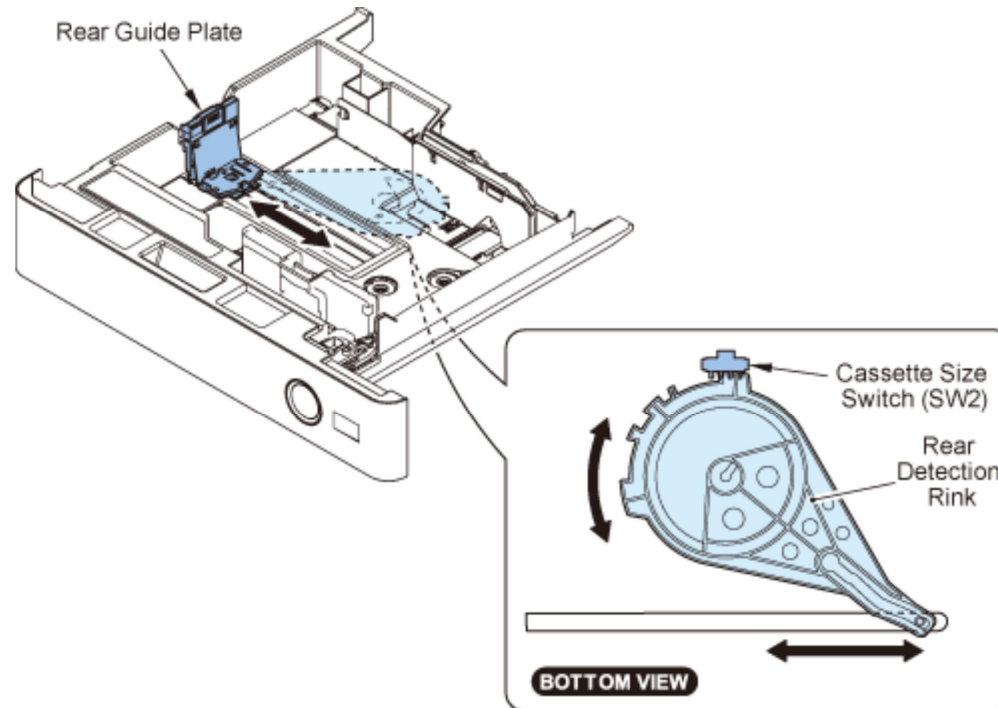
[Settings/Registration] > [Preferences] > [Paper Settings] > [Distinguishing A5 and STMT Paper] > [A5] or [STMT]



		Length Detection			
Size	Length	1	2	3	4
A5-R	210.0	-	-	ON	ON
STMT-R	215.9	-	-	ON	ON
B5-R	257.0	ON	-	-	-

		Length Detection			
Size	Length	1	2	3	4
EXEC-R	267.0	ON	ON	-	-
16K-R	270.0	ON	ON	-	-
LTR-R	279.4	-	ON	ON	-
A4-R	297.0	ON	-	ON	ON
LGL	355.6	-	-	ON	-
(No cassette)	-	-	-	-	-

In addition, presence of the cassette is detected when the size switch is pushed. (If no switch is pushed, it is judged as no cassette.)



Setting method when the size detection patterns are overlapped

Method to distinguish between A5-R and STMT-R is specified by the user settings.

Method to distinguish the special paper is specified by the user settings.

Setting sizes are as follows.

Related service mode

Lv.1) COPIER > OPTION > CST > CSTX-UY (Set the overseas special paper category used in Cassette)





X indicates the cassette number (1 to 4), and Y indicates size category (1/2/4).

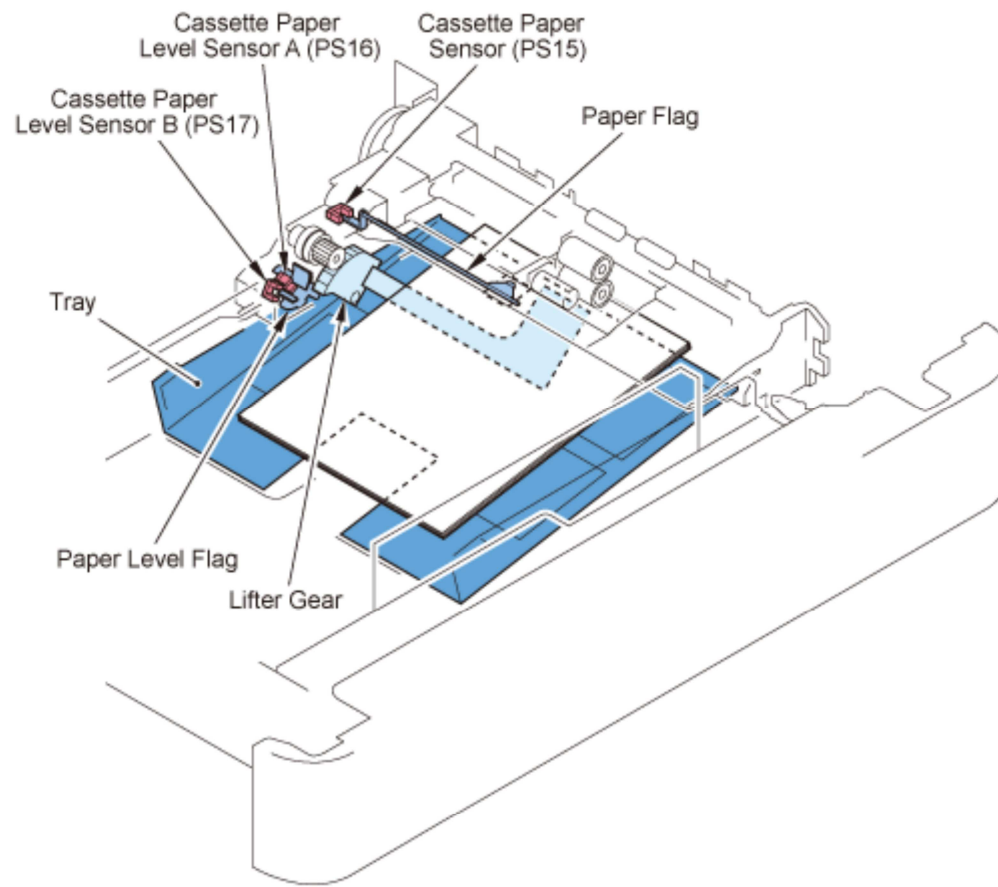
Set "1" in service mode (Lv.1 COPIER >OPTION >CST >U1/2/4-NAME) to display the paper type on UI.

U sizes	Settings
U1	24: FLSC, 25: A-FLS, 26: OFI, 34: G-LGL, 37: M-OFI, 42: FA4, 0: Default
U2	23: K-LGL-R, 32: G-LTRR, 41: 16K-R, 44: EXEC-R, 0: Default
U4	21: LGL (Cassette 2/4 only), 28: B-OFI, 0: Default

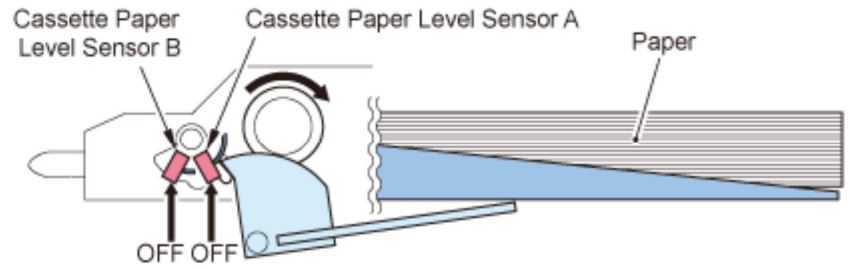
● Paper Level Detection Control

Paper level inside the cassette is detected by the sensors shown in the following table.

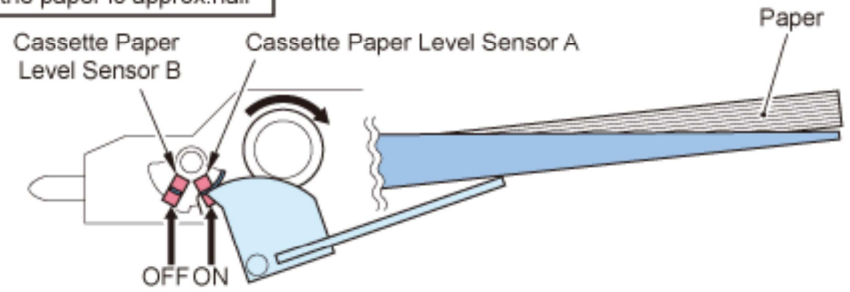
Cassette Paper Level Sensor A (PS16)	Cassette Paper Level Sensor B (PS17)	Cassette Paper Sensor (PS15)	Paper level	Display on the Control Panel
OFF	OFF	OFF	100% to 50%	
ON	OFF	OFF	Approx. 50% to approx. 50 sheets	
ON	ON	OFF	Approx. 50 sheets or less	
ON	ON	ON	No papers	



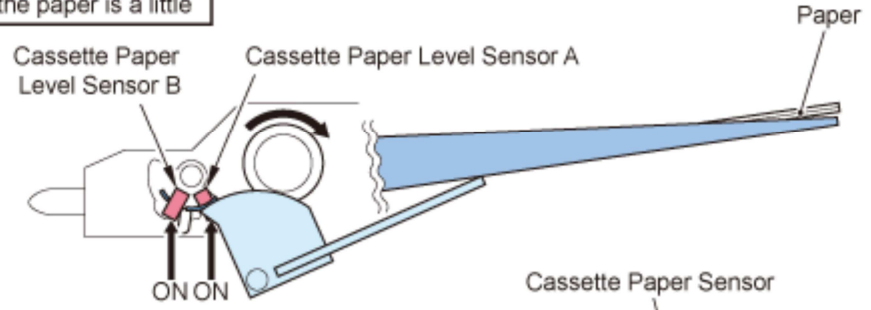
If the paper is full



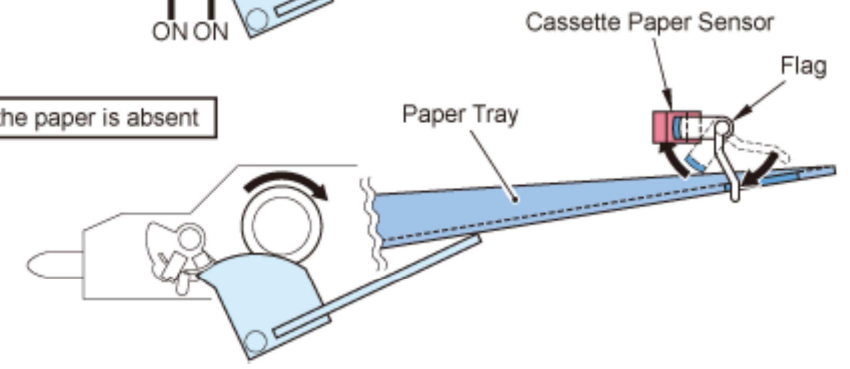
If the paper is approx. half



If the paper is a little



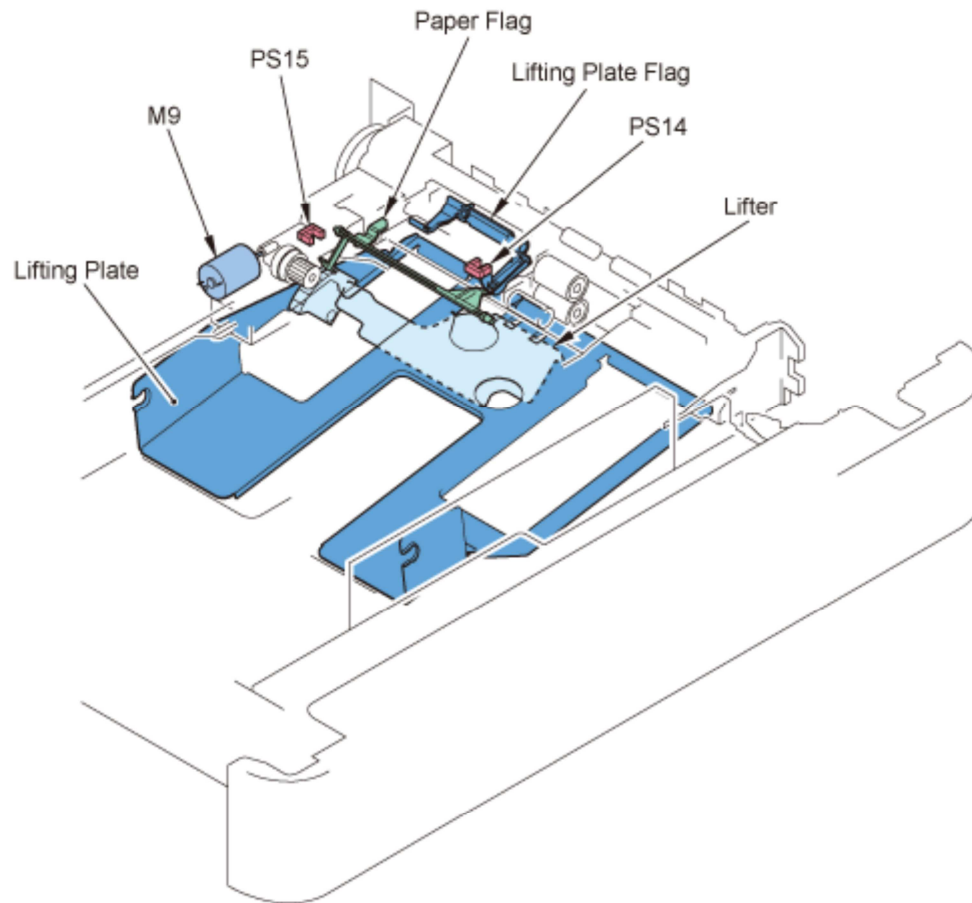
If the paper is absent



● Paper Detection Control

After the Cassette Lifting Plate Detection Sensor (PS14) is turned ON, the Cassette Paper Sensor (PS15) detects presence/absence of paper. When the Cassette Paper Sensor (PS15) is ON, absence of paper is notified.

In addition, if the Cassette Lifting Plate Detection Sensor (PS14) is not turned ON even raising the Lifter for 3 seconds, absence of paper is notified.



● Lifter Control

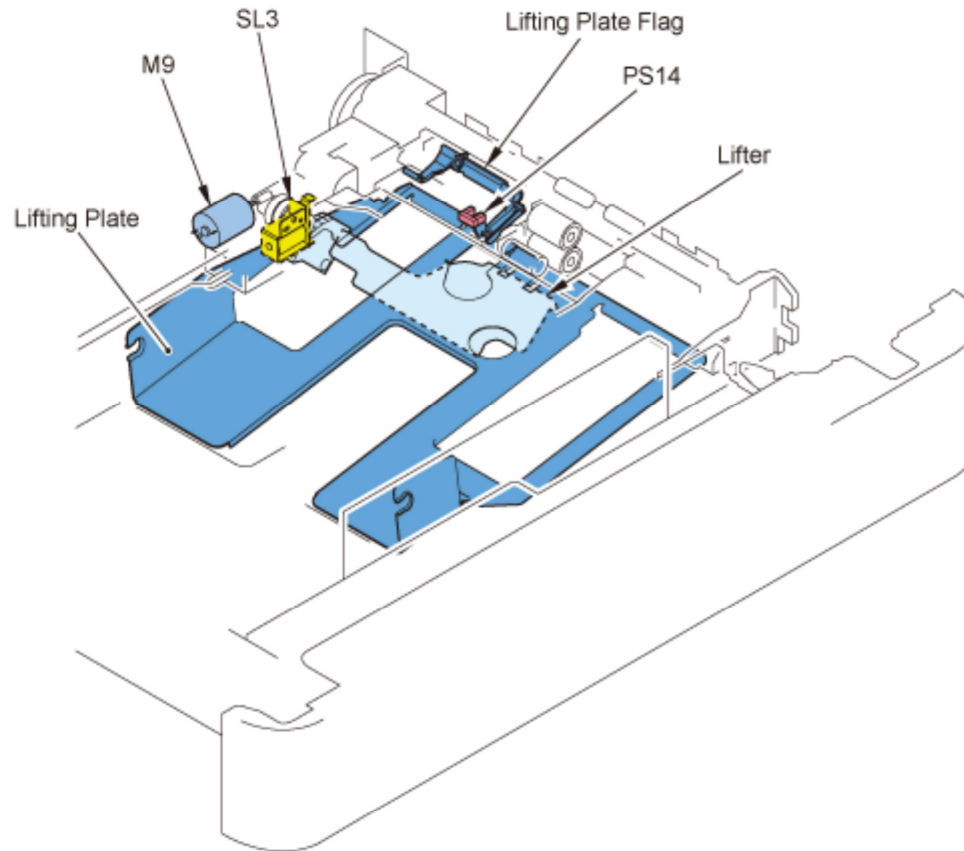
When Cassette is set

The Lifting Plate is raised until the Cassette Lifting Plate Detection Sensor (PS14) is turned ON.

During pickup

The behavior is determined in accordance with the detection when the Cassette Pickup Solenoid (SL3) is turned ON and the detection by the Cassette Lifting Plate Detection Sensor (PS14) executed 100msec. later.

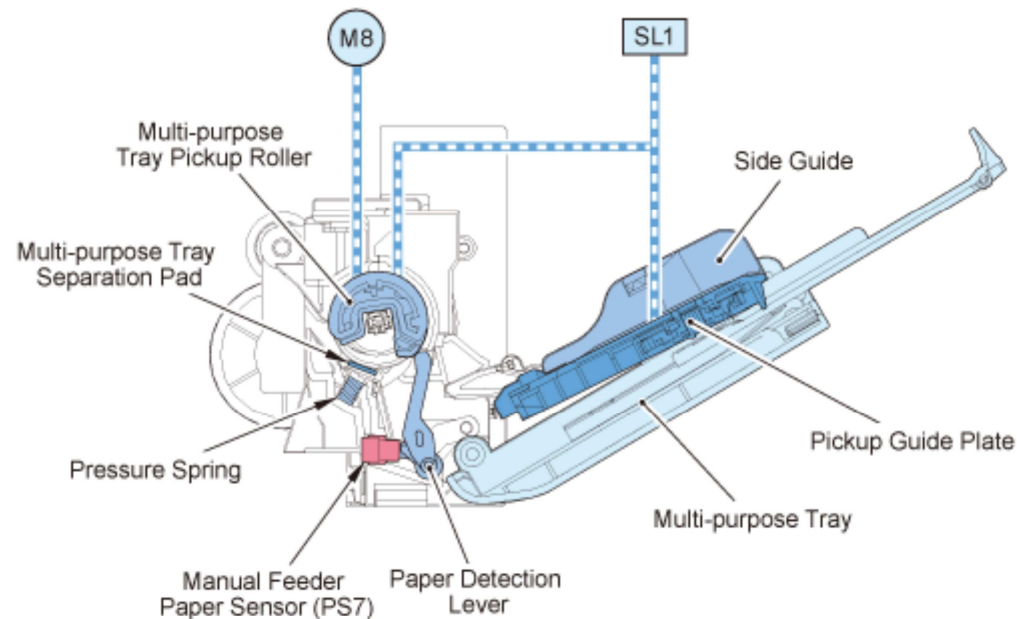
		100msec. later after Cassette Pickup Solenoid (SL3) is turned ON	
		ON	OFF
When the Cassette Pickup Solenoid (SL3) is turned ON	ON	-	If the same detection continues for 5 consecutive sheets, the Lifting Plate is raised until the Cassette Lifting Plate Detection Sensor (PS14) is turned ON.
	OFF	-	Raising the Lifting Plate immediately until the Cassette Lifting Plate Detection Sensor (PS14) is turned ON.



■ Multi-purpose Tray Pickup Assembly

● Overview

Paper on the Multi-purpose Tray Pickup Tray of the Multi-purpose Tray Pickup Unit is pushed against the Multi-purpose Tray Pickup Roller by the Lifting Plate, and only a single sheet of paper is separated and fed by the work of the Multi-purpose Tray Pickup Roller and the Separation Pad.



● Pickup Retry Control

If the Pre-Registration Sensor (PS12) is not turned ON within the specified period of time after the start of pickup operation, detection by the Multi-purpose Tray Paper Sensor (PS7) is referred.

- When Multi-purpose Tray Paper Sensor (PS7) is ON:
Execute the pickup operation again. If the Pre-Registration Sensor (PS12) is not turned ON after the start of re-pickup operation, a delay jam is notified.
- When Multi-purpose Tray Paper Sensor (PS7) is OFF:
Terminate the pickup operation.

● Paper Detection

Presence/absence of paper is detected by the Multi-purpose Tray Paper Sensor (PS7).

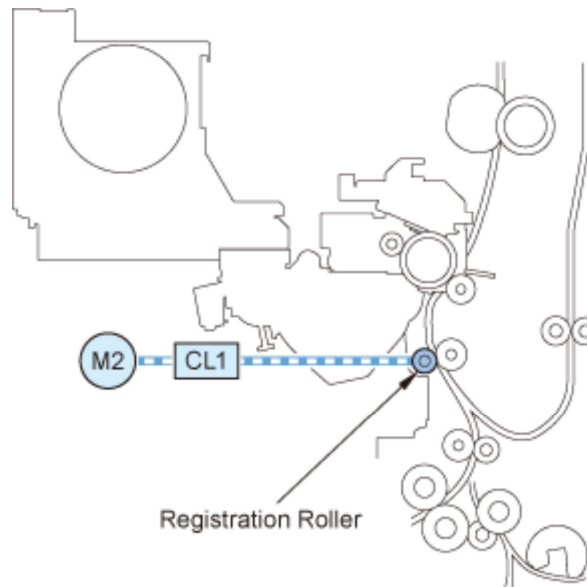
When absence of paper is detected but the same size and same type of papers exist in another paper source, auto cassette change is executed.

■ Fixing/Registration Assembly

● Registration Control

The Registration Roller is driven by the Main Motor (M2). There is the Registration Clutch (CL1) between the Registration Roller and the Main Motor, and it controls ON/OFF of the Registration Roller to align the paper with the image on the drum at the specified registration.

In addition, the speed is decreased right before a paper hits the Registration Roller so that hitting sound is alleviated (speed is not decreased when picking up from the Cassette 1 of iR-ADV 400).



● Size Mismatch Detection Control

Whether the size is mismatched is determined by paper length.

The time a paper passes through the Registration Sensor (PS11) is converted into distance. Compared with the paper size (specified by the user in case of the Multi-purpose Tray Pickup Tray) detected by the Cassette Size Detection Switch (SW2), if the measured distance is shorter than the specified distance (16mm), it is judged that the size is mismatched.

Priority of the size mismatch detection control is lower than other controls. In addition, due to the behavioral error of paper, the measured distance has a margin of error of approx. +6mm.

Paper size mismatch cannot be detected with the following combinations because the difference in paper size is small.

- A4-R, LTR-R
- A5-R, STMT-R
- B5-R, EXEC-R, 16K-R

In case of envelope, paper size mismatch is not detected (because detection by the Registration Sensor (PS11) is not stable when feeding the envelope).

■ Delivery Assembly

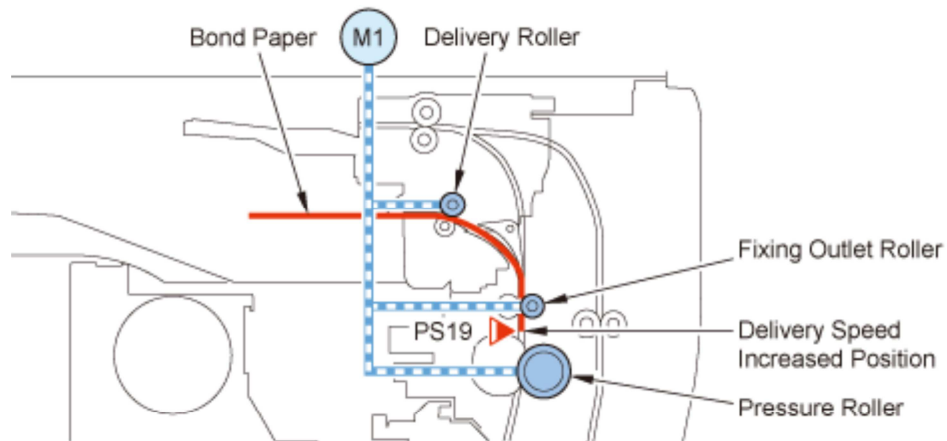
● Delivery Acceleration Control

Since elasticity of bond paper is low, delivery speed is increased when feeding the bond paper to improve the stackability.

Condition for acceleration: When the Finisher is not installed, and the bond paper is set.

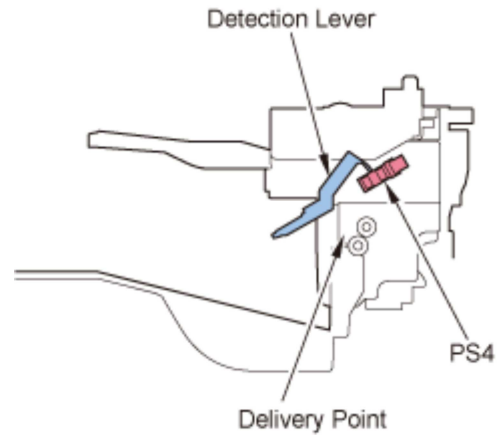
Timing for acceleration: When the trailing edge of paper passes through the Fixing Paper Sensor (PS19).

Timing to return the speed: When the Registration Clutch (CL1) is turned ON for the succeeding paper.



● Delivery Full Detection

If the Delivery Paper Full Sensor (PS4) is ON for a specified period of time, it is notified to the Main Controller PCB. After the notification, printing stops.

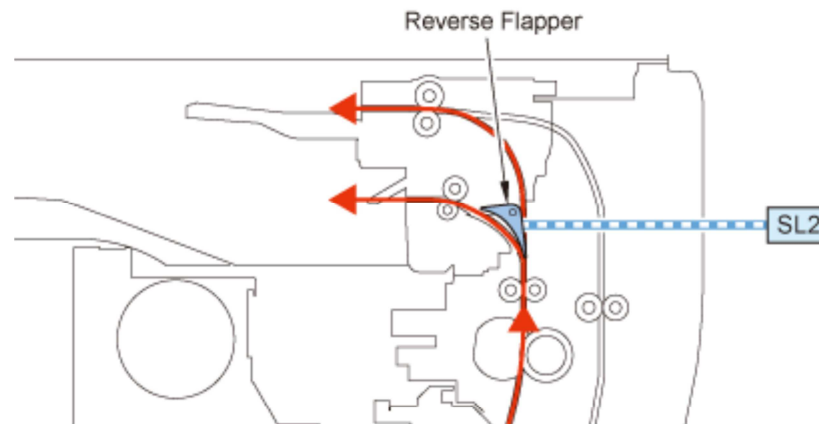


■ Reverse/Duplex Assembly

● Reverse Flapper Operation

The Reverse Flapper behaves in accordance with the Reverse Feed Solenoid (SL2).

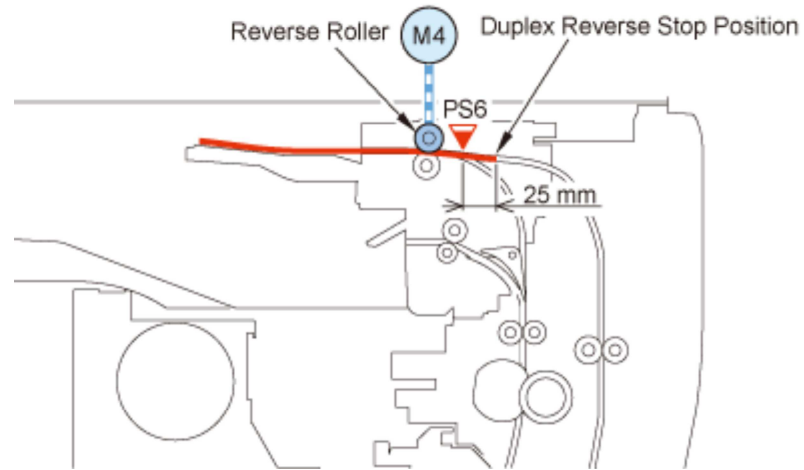
- When Reverse Feed Solenoid (SL2) is OFF: Feed to the Delivery Path
- When Reverse Feed Solenoid (SL2) is ON: Feed to the Reverse Path



● Duplex Reverse Control

Paper is reversed outside the machine using the Reverse Path.

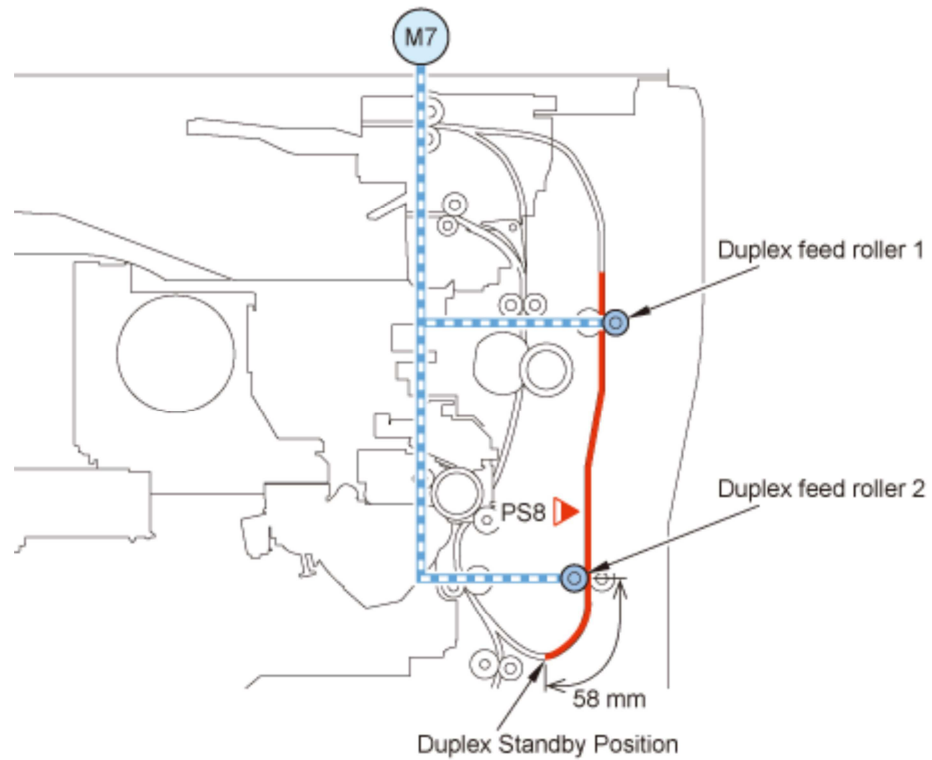
The paper is fed to the duplex reverse stop position (it stops at 25mm from the trailing edge of paper) by using the Reverse Sensor (PS6) as a reference. Then, reverse operation starts.



- **Duplex Re-pickup Control**

If it is possible to secure necessary paper interval by estimating the paper interval with the preceding paper when the Duplex Feed Sensor (PS8) is ON, the paper is re-picked up to the pre-registration.

If the necessary paper interval cannot be secured, the paper stays at the duplex standby position (58mm downstream from the Duplex Lower Roller). After recalculated standby time has passed, re-pickup is executed.



● Duplex Circulation

The following shows the number of circulating sheets at the 2-sided print.

Length in paper feed direction	Number of circulating sheets
317.5 mm less	3
317.5 mm or more	2

■ Jam Detection

● List of Jam Codes

A jam code consists of 4 alphanumeric characters.

The upper 2 digits indicate the jam type, and the lower 2 digits indicate the sensor that detected a jam.

ACC ID	Jam Code	Type	Sensor Name	Sensor ID
3	0101	Delay	Pre-Registration Sensor	PS12
3	0201	Stationary	Pre-Registration Sensor	PS12
3	0A01	Power-on	Pre-Registration Sensor	PS12
3	0102	Delay	Cassette 2 Retry Sensor (Option)	PS103
3	0202	Stationary	Cassette 2 Retry Sensor (Option)	PS103
3	0A02	Power-on	Cassette 2 Retry Sensor (Option)	PS103
3	0103	Delay	Cassette 3 Retry Sensor (Option)	PS203
3	0203	Stationary	Cassette 3 Retry Sensor (Option)	PS203
3	0A03	Power-on	Cassette 3 Retry Sensor (Option)	PS203
3	0104	Delay	Cassette 4 Retry Sensor (Option)	PS303
3	0204	Stationary	Cassette 4 Retry Sensor (Option)	PS303
3	0A04	Power-on	Cassette 4 Retry Sensor (Option)	PS303
3	0105	Delay	Registration Sensor	PS11
3	0205	Stationary	Registration Sensor	PS11
3	0A05	Power-on	Registration Sensor	PS11
3	0107	Delay	Fixing Paper Sensor	PS19
3	0207	Stationary	Fixing Paper Sensor	PS19
3	0A07	Power-on	Fixing Paper Sensor	PS19
3	0108	Delay	Delivery Sensor	PS5
3	0208	Stationary	Delivery Sensor	PS5
3	0A08	Power-on	Delivery Sensor	PS5
3	010A	Delay	Reverse Sensor	PS6
3	020A	Stationary	Reverse Sensor	PS6
3	0A0A	Power-on	Reverse Sensor	PS6

ACC ID	Jam Code	Type	Sensor Name	Sensor ID
3	010B	Delay	Transparency Sensor	PS20
3	020B	Stationary	Transparency Sensor	PS20
3	0A0B	Power-on	Transparency Sensor	PS20
3	010D	Delay	Duplex Feed Sensor	PS8
3	020D	Stationary	Duplex Feed Sensor	PS8
3	0A0D	Power-on	Duplex Feed Sensor	PS8
3	0B00	Door open	-	-
3	0CA0	Sequence jam ^{*2}	-	-
3	0CF1	Error ^{*1}	-	-
3	0D91	Size Error	-	-
3	FF01	Sequence jam ^{*2}	-	-
3	FF02	Sequence jam ^{*2}	-	-
3	FF03	Sequence jam ^{*2}	-	-
3	FF04	Sequence jam ^{*2}	-	-
3	FF05	Sequence jam ^{*2}	-	-
3	FF06	Sequence jam ^{*2}	-	-
3	FF07	Sequence jam ^{*2}	-	-

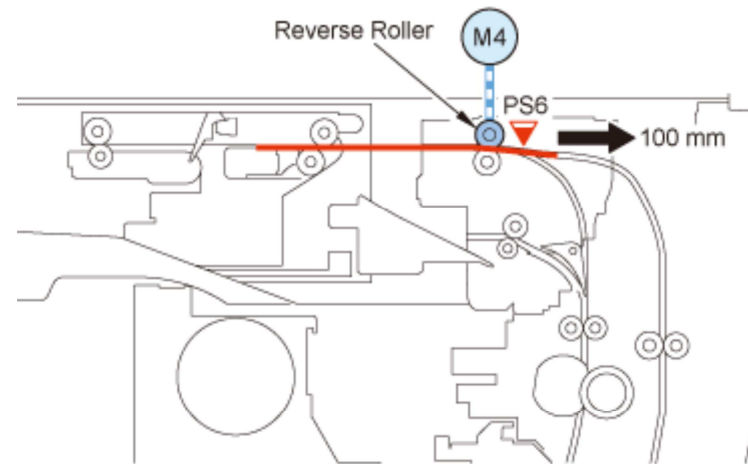
*1: The state is recovered by opening and closing the Door, or turning OFF and then ON the power supply.

If the same jam is detected regardless of the operation above, the error code is displayed.

*2: The state is recovered by opening and closing the Door, or turning OFF and then ON the power supply.

● **Forcible Paper Feed Control**

If the Finisher is installed when a jam occurs at the Reverse Assembly, jammed papers are forcibly fed because they cannot be seen. If the Reverse Paper Sensor (PS6) is ON, the Reverse Motor (M4) is driven for 100mm when opening/closing the door.



Work of Service

■ Periodically Replaced Parts

None

■ Consumables

No.	Item	Parts No.	Q'ty	Life	Remarks
1	Multi-purpose Tray Pickup Roller	FL2-3897	1	150,000 sheets	Replace with Multi-purpose Tray Separation Pad
2	Multi-purpose Tray Separation Pad	FL3-4890	1	150,000 sheets	Replace with Multi-purpose Tray Pickup Roller
3	Cassette Feed Roller (Except CHN)	FC6-7083	1	80,000 sheets	Replace with Cassette Separation Roller.
	Cassette Feed Roller (CHN)	FC7-9502			
4	Cassette Separation Roller (Except CHN)	FC6-6661	1	80,000 sheets	Replace with Cassette Feed Roller.
	Cassette Separation Roller (CHN)	FE3-1295			
5	Cassette Pickup Idler Gear (For China only)	FU0-0043	1	80,000 sheets	

■ Periodically Servicing

None

External Auxiliary System

Controls

■ Software counter

Count-up timing differs depending on the following conditions:

- Print mode (1-sided/2nd side of 2-sided print, 1st side of 2-sided print)
- Differs depending on the delivery position (Staple Finisher)

Delivery position	Print mode	
	1-sided print/2nd side of 2-sided print	1st side of 2-sided print
	Count-up timing	
Host machine Delivery Tray	Delivery Sensor (PS5)	Duplex Feed Sensor (PS8)
Staple Finisher	Delivery Sensor (S2)	

Default counters for each country (model) are listed below.

Target	Display number of each counter (in service mode) / item						Country Code
	Counter 1	Counter 2	Counter 3	Counter 4	Counter 5	Counter 6	
JP model Type1 (Conventional method)	Total 1	*1	*1	*1	*1	*1	JP
	101	000	000	000	000	000	
Type 2 (New method)	Total 2	Copy (Total 2)	Total A 2	*1	*1	*1	JP
	102	202	127	000	000	000	
Taiwan model	Total 1	Copy (Total 1)	*1	*1	*1	*1	TW

Target	Display number of each counter (in service mode) / item						Country Code
	Counter 1	Counter 2	Counter 3	Counter 4	Counter 5	Counter 6	
	101	201	000	000	000	000	
UL model Type1 (Conventional method)	Total 1	Copy (Total 1)	*1	*1	*1	*1	US
	101	201	000	000	000	000	
UL model Type 2 (New method)	Total 2	Copy (Total 2)	*1	*1	*1	*1	US
	102	202	000	000	000	000	
General model	Total 1	Copy (Total 1)	*1	*1	*1	*1	SG/KR/CN/TH/VN
	101	201	000	000	000	000	
UK model Type1 (Conventional method)	Total (Black/Small)	Scan (Total 1)	Print (Total 1)	*1	*1	*1	GB
	113	501	301	000	000	000	
240V UK model Type 2 (New method)	Total 1	*1	*1	*1	*1	*1	GB
	101	000	000	000	000	000	
FRN model Type1 (Conventional method)	Total 1	Copy (Total 1)	*1	*1	*1	*1	AU
	101	201	000	000	000	000	
FRN model Type1 (Conventional method)	Total (Black/Small)	Scan (Total 1)	Print (Total 1)	*1	*1	*1	FR
	113	501	301	000	000	000	

Target	Display number of each counter (in service mode) / item						Country Code
	Counter 1	Counter 2	Counter 3	Counter 4	Counter 5	Counter 6	
FRN model Type 2	Total 1 101	*1 000	*1 000	*1 000	*1 000	*1 000	FR
(New method) GER model Type1 (Conventional method)	Total (Black/Small) 113	Scan (Total 1) 501	Print (Total 1) 301	*1 000	*1 000	*1 000	DE
GER model Type 2	Total 1 101	*1 000	*1 000	*1 000	*1 000	*1 000	DE
(New method) AMS model Type1 (Conventional method)	Total (Black/Small) 113	Scan (Total 1) 501	Print (Total 1) 301	*1 000	*1 000	*1 000	ES/SE/ PT/NO/ DK/FI/ PL/HU/ CZ/SI/
AMS model Type 2 (New method)	Total 1 101	*1 000	*1 000	*1 000	*1 000	*1 000	GR/EE/ ES/SE/ RU/NL/ PT/NO/ SK/RO/ DK/FI/ HR/BG/ PL/HU/ TR CZ/SI/ GR/EE/
ITA model Type1 (Conventional method)	Total (Black/Small) 113	Scan (Total 1) 501	Print (Total 1) 301	*1 000	*1 000	*1 000	RU/NL/ SK/RO/ HR/BG/ TR
ITA model Type 2	Total 1 101	*1 000	*1 000	*1 000	*1 000	*1 000	IT

Target	Display number of each counter (in service mode) / item						Country Code
	Counter 1	Counter 2	Counter 3	Counter 4	Counter 5	Counter 6	
(New method)							

<Explanation of the list>

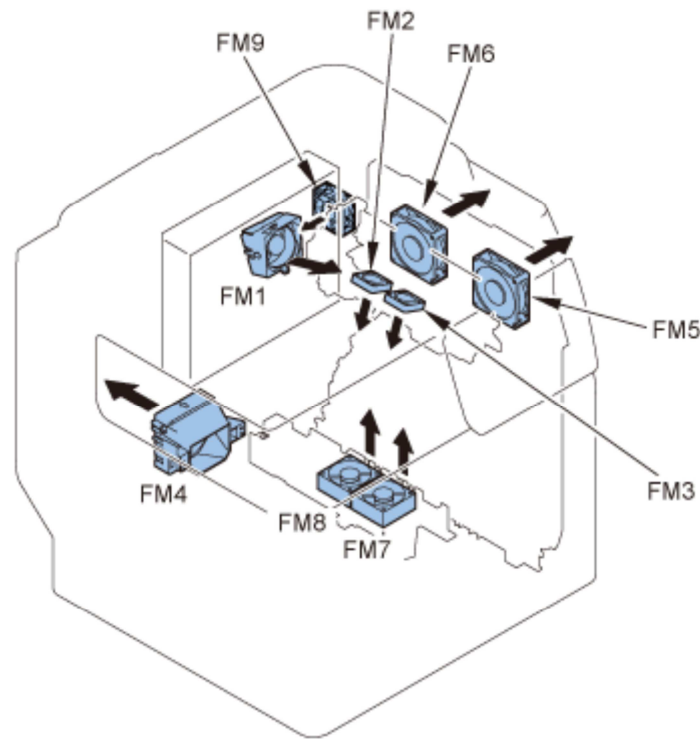
- Large: Large size paper (when paper length exceeds 324 mm in paper feed direction)
- Small: Small size paper (when paper length is 324 mm or less in paper feed direction)
- Total: Copy + Print; 1 count up
- 2-Sided: 1 count up when auto 2-sided copy
- Country code change of CONFIG is executed from COPIER > OPTION > FNC-SW > CONFIG.
- Three-digit number in the counter column shows the setting value of the following service mode items.
(Lv.1) COPIER > OPTION > USER > COUNTER 1 to 6
- COUNTER2 to 6 can be changed from the service mode (COPIER > OPTION > USER).
- The change of the counter display type (New method/Conventional method) can be changed from the service mode (COPIER > OPTION > USER> CNT-SW).

*1: Nothing is displayed as default. However, you can change this setting from the service mode.

■ Fan

● Overview

[Location of Fans](#)



No.	Name	Function	Error codes
FM1	Delivery Cooling Fan (Rear)	To cool the Delivery Assembly	E822-0004,E822-0005
FM2	Delivery Cooling Fan (Center)	To cool the Delivery Assembly	E822-0002,E822-0003
FM3	Delivery Cooling Fan (Front)	To cool the Delivery Assembly	E822-0000,E822-0001
FM4	Power Supply Cooling Fan	To cool power supply	E804-0000
FM5	Heat Exhaust Fan (Front)	To exhaust heat in the machine	E805-0002,E805-0003
FM6	Heat Exhaust Fan (Rear)	To exhaust heat in the machine	E805-0000,E805-0001
FM7	Developing Cooling Fan (Front)	To cool the Developing Assembly and laser	E820-0000,E820-0001
FM8	Developing Cooling Fan (Rear)	To cool the Developing Assembly and laser	E820-0002,E820-0003
FM9	Main Controller Cooling Fan	To cool the Main Controller	E881-0001

	WUP	STBY	INI	PTINT	LSTR	STBY	JAM /ERROR	
Delivery Cooling Fan (Rear) (FM1)				■	■	■		*1
Delivery Cooling Fan (Center) (FM2)				■	■	■		
Delivery Cooling Fan (Front) (FM3)				■	■	■		
Power Supply Cooling Fan (FM4)	Controller control							
Heat Exhaust Fan (Front) (FM5)				■	■	■		*2
Heat Exhaust Fan (Rear) (FM6)				■	■	■		
Delivery Cooling Fan (Front) (FM7)								*3
Developing Cooling Fan (Rear) (FM8)				■	■	■		
Main Controller Cooling Fan (FM9)	Controller control							

■ : Full-speed ■ : 1/2-speed

*1: Fan speed is switched between half speed and full speed depending on the fixing temperature.

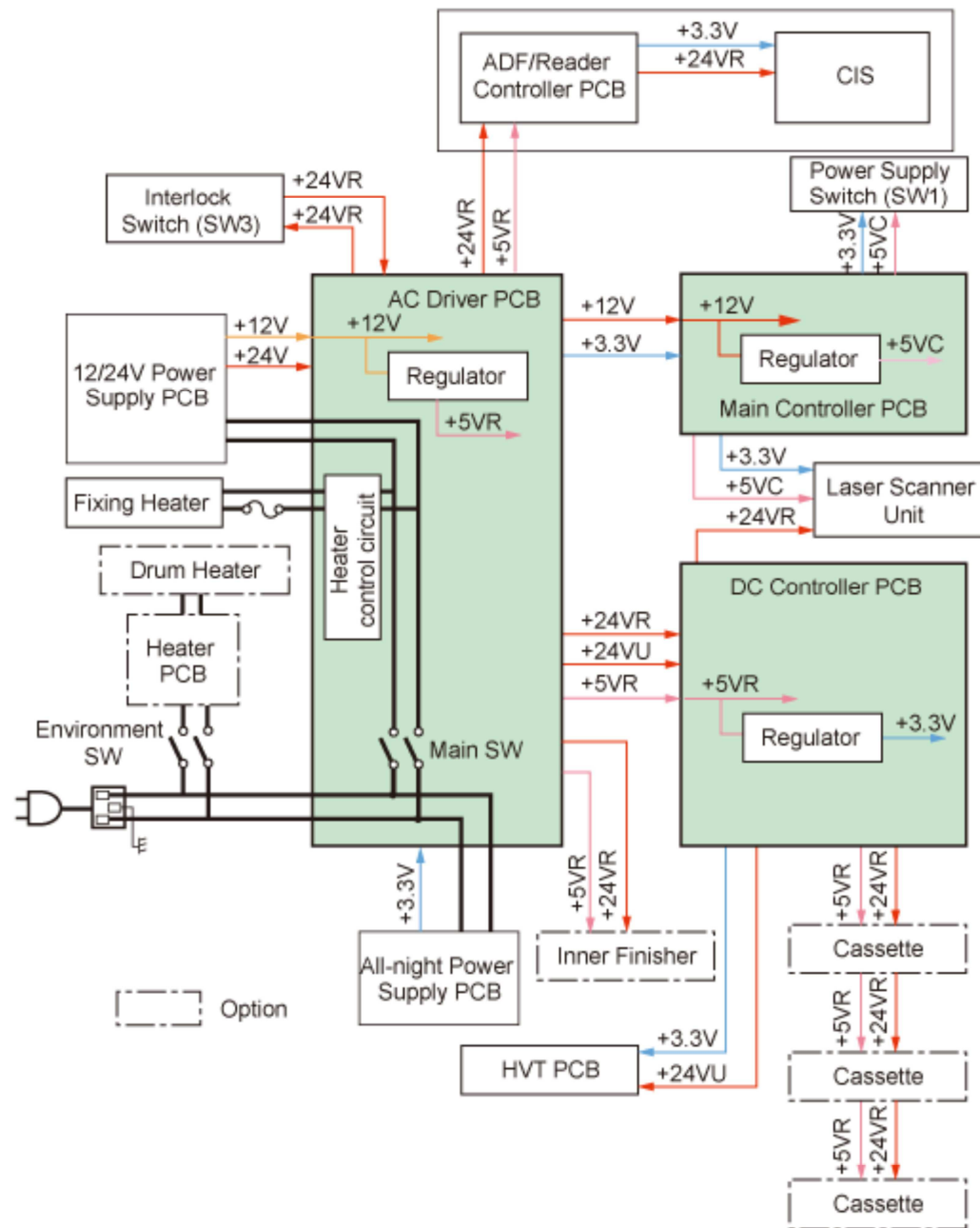
*2: Upper (gray) band: sequence at 1-sided, lower (black) band: sequence at 2-sided print

*3: Fan is not driven at 1-sided print.

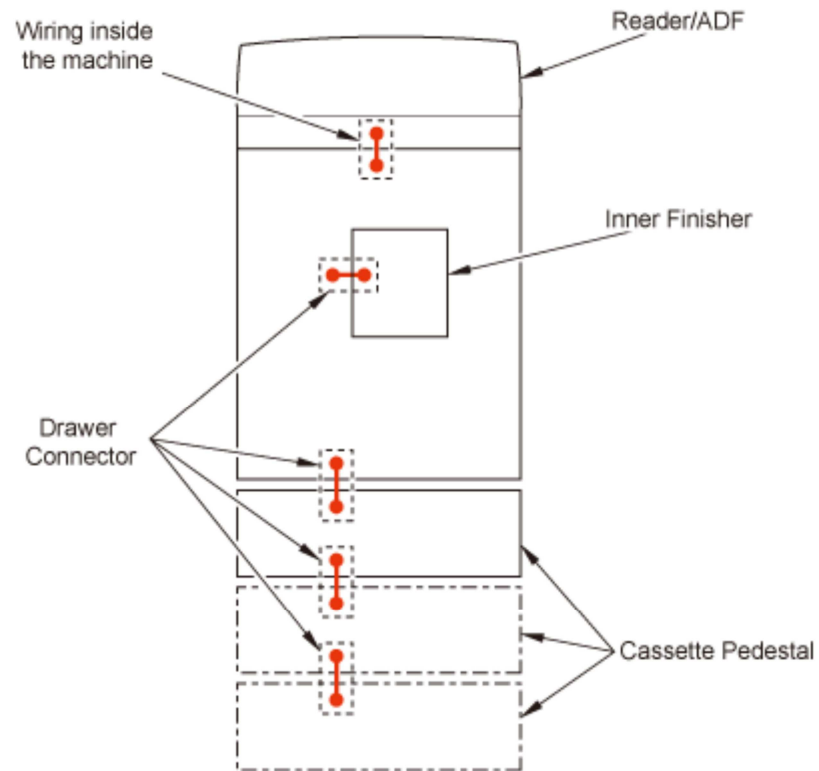
It is driven at full speed from the 2nd side at 2-sided print.

■ Power supply

● Internal power supply (Except for the EU model)



● Power supply connection with the options



NOTE:

With this machine, Reader and ADF are installed as standard.

The drawer connectors connect the Staple Finisher and Cassette Pedestals.

An external cable is used to connect to ADF.

■ Quick Startup

To realize faster startup, power configuration has been changed to always supply power to the AC Driver PCB. Thereby, the main menu can be displayed after 34 seconds from turning ON the Main Power Supply Switch.

Although when the Main Power Supply Switch is OFF, power is supplied to the following PCBs.

- AC Driver PCB

- All-night Power Supply PCB
- Main Controller PCB

Disconnect the plug from outlet when performing work with the possibility to come in contact with the PCBs above. PCBs may get damage. If a conductive material comes in contact with the PCB, short circuit may occur in the PCB, and may cause damage on it.

The following illustration is used at the place where attention needs. When the following label is affixed, be sure to disconnect the plug from outlet.



In addition, quick startup is not performed under the following conditions.

At first startup after the AC Power Plug is connected to the outlet	
Under the following conditions (settings), the machine always starts up normally (even quick startup is ON).	
When any of the following devices is connected.	
	<ul style="list-style-type: none"> • Serial Interface Coin Vendor
When any of the following network settings is set to "ON".	
	<ul style="list-style-type: none"> • RARP
	<ul style="list-style-type: none"> • BOOTP
	<ul style="list-style-type: none"> • IPsec
	<ul style="list-style-type: none"> • IPv6
	<ul style="list-style-type: none"> • NetWare
As for startup right after shutting down of the machine under any of the following conditions, it starts up normally (even quick startup is ON).	
FAX	
	<ul style="list-style-type: none"> • There is a fax transmission reservation.
	<ul style="list-style-type: none"> • Within a specified period of time (10 seconds) from disconnection of a fax line
	<ul style="list-style-type: none"> • Within a specified period of time (10 seconds) from non-detection of reception from a fax line

- Within a specified period of time (10 seconds) from putting down the fax sub device or handset

MEAP

During execution of MEAP application which prohibits moving to Deep Sleep

A scheduled processing is reserved on MEAP.

Job processing

- During print/scan job processing
- During SEND job processing
- During I-Fax communication/job processing
- During report job processing
- During forwarding transmission job/reception job processing
- During fax communication/phone communication
- During distribution of device information
- During export/import by RUI
- During rebuilding with the HDD Data Encryption installed

Others

- When the machine state remains unchanged for more than 110 hours after turning ON the power as quick startup or turning OFF the power.

-> At the time of shutdown, it will be normal shutdown.

* This is to prevent a risk of UI freeze caused by memory leak.

- Within a specified period of time (20 seconds) from turning OFF the Main Power Supply Switch

-> In such a case, the machine reboots and then starts up normally at startup. Therefore, it will take a few more seconds compared with the normal startup.

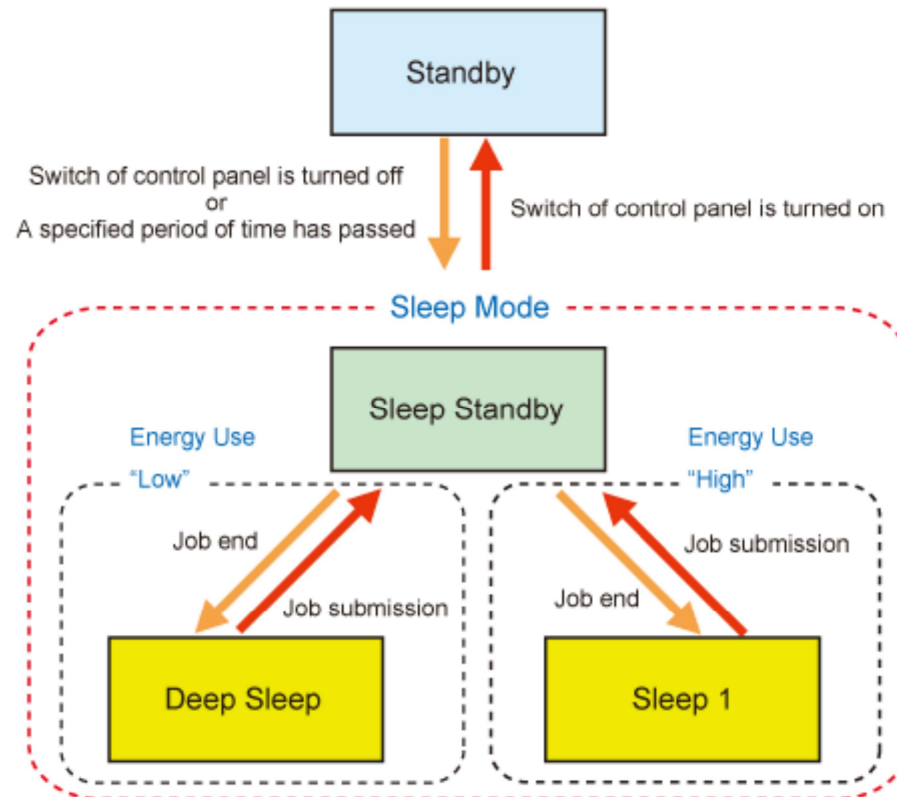
* This is for starting up the machine normally at the time of failure (UI freeze, etc.).

- After moving to the Settings/Registration screen of service mode or RUI
- After changing the Settings/Registration that requires restart
- The machine is shut down from RUI
- When an error occurs

- When resource downloader is active
- In printer/scanner limited functions mode
- When a login application is switched by SMS
- A license has been registered.
- Startup by pressing the Control Panel Key

■ Energy Saving Function

The power supply mode of this equipment is divided into the “Standby” mode and the “Sleep” mode. In addition to the major modes, there are 3 patterns in “Sleep” mode.



*By default, it takes 5 minutes after completion of printing, scanning or Fax job. It takes 10 minutes after completion of other job cases (such as the job relating to Universal Send (e.g. iFAX) or ping, etc).

Standby

This is the mode that the machine is running or the machine is ready to start operation. All the power is supplied.

Sleep Standby

This mode indicates that only the display is turned off while the power of other parts is all supplied. The machine gets into this state when a PDL job is submitted during sleep.

Sleep 1

In the case of the following:

Settings/Registration > Preferences > Timer/Energy Settings > Sleep Mode Energy Use > "High"

The Control Panel is not active (the light is off) and the 24V power on the DC Controller PCB is not supplied. The 12V power is supplied. The machine gets into the Sleep Standby mode when a print job is submitted and the Standby mode when the power supply switch on the Control Panel is pressed.

In the case of the following, the machine gets into this mode even if "Sleep Mode Energy Use" is set "Low".

- The device is connected to the IC CARD READER BOX-A1.
- Any mode other than "Auto" is specified for fax reception (RX) mode.

Deep Sleep

In the case of the following:

Settings/Registration > Preferences > Timer/Energy Settings > Sleep Mode Energy Use > "Low" (Default: "Low")

Only the 3.3V is supplied. The machine gets into the Sleep Standby mode when a print job is submitted and the Standby mode when the power supply switch on the Control Panel is pressed.

Regardless of the machine condition, the power of the Cassette Heater is always supplied when the Environment switch is turned ON.

The following descriptions are conditions for not entering DEEP SLEEP.

Software status	
Common	<ul style="list-style-type: none">• Settings/Registration > Preferences > Timer/Energy Settings > Sleep Mode Energy Use is set to "High".• Settings/Registration > Preferences > Timer/Energy Settings > Sleep Mode Exit Time Settings is set (and not blank).
Network	<ul style="list-style-type: none">• Settings/Registration > Preferences > Network > TCP/IP Settings > IPSec Settings > Use IPSec is set to "ON".• Settings/Registration > Preferences > Network > SMB Server Settings > Use SMB Server is set to "ON".• Settings/Registration > Preferences > Network > NetWare Settings > Use NetWare is set to "ON".• Settings/Registration > Preferences > Network > Ethernet Driver Settings > Auto Detect is set to "OFF" and "1000 Base-T" is set for "Ethernet Type".• Settings/Registration > Preferences > Network > IEEE802.1X Settings > Use IEEE802.1X is set to "ON".

Fax

- Settings/Registration > Function Settings > Receive/Forward > Fax Settings > Selecting Reception Mode is not set to "Auto RX".
- Settings/Registration > Function Settings > Receive/Forward > Fax Settings > Auto Reception Switching is set to "ON".
- Settings/Registration > Function Settings > Receive/Forward > Fax Settings > Remote Reception is set to "ON".
- Settings/Registration > Function Settings > Send > Fax Settings > Set Line > Modem Dial in Settings > Line 1 or Line 2 is set to "ON".
- Settings/Registration > Function Settings > Receive/Forward > Fax Settings > Number Display Settings > Line 1 or Line 2 is set to "ON".

Hardware status

- The Serial Coin Vendor is connected.
- The host machine (such as a PC) is connected to the USB Device.
- The storage is connected to the USB host.
- A device (general USB devices such as the IC Card Reader not used by host machine's functions) used by MEAP is connected to the USB host.

System Performance Status

- A network application is communicating.
- A print job is being processed or waiting.
- A scan job is being processed or waiting.
- A fax communication is in progress.
- A phone communication is in progress.
- An IFAX communication is in progress.
- A job is being processed.
- A report job is being processed.
- A forward send job is in progress.
- A forward receive job is in progress.
- A SEND job is being processed.
- The delivery of device information is in progress.
- RUI is being exported / imported.
- A VNC connection is in progress.
- A MEAP Application is being executed. (However, when the MEAP Application is scheduling Timer Service Task within the time condition (within 12 minutes) of the Alarm Service not entering DEEP SLEEP, the machine may enter DEEP SLEEP.)
- The Resource Downloader is executing a task (such as downloading a font data and creating a backup).

- The Inbox is being backed up.
- The printer is in a limited operation.
- The scanner is in a limited operation.
- A store job is being processed. (As with SEND, this include the storage process to Advanced Box or other storage after the scanning is completed.)

The Alarm Service is set to within 12 minutes.

- * When one of the following is being executed, the Alarm Service (Time) is set.
- - Time setting for ON/OFF of the Memory Lock
- Settings/Registration > Function Settings > Receive/Forward > Common Settings > Fax/I-Fax Inbox > Memory Lock Start Time
- Settings/Registration > Function Settings > Receive/Forward > Common Settings > Fax/I-Fax Inbox > Memory Lock End Time
- - Output of the scheduled report
- Settings/Registration > Function Settings > Send > Common Settings > Communication Management Report > Specify Print Time (when not set to "Off")
- Settings/Registration > Function Settings > Send > Fax Settings > Fax Activity Report > Specify Print Time (when not set to "Off")
- Settings/Registration > Management Settings > Device Management > Device Information Delivery Settings > Communication Log > Specify Print Time (when not set to "Off")
- - Scheduled Transmission Setting (Fax, Send)
- - POP settings
- Settings/Registration > Function Settings > Send > E-Mail/I-Fax Settings > Network Settings > Next > POP Issue Interval (when not set to "0")
- DHCP Setting (The interval is specified by the server)
- E-RDS Setting (The interval is specified by the server)
- SNTP Setting (The interval is specified by the server)
- Auto delivery of device information
- Scheduled specified printing of web browser
- Time specified backup of Inbox document
- The auto sleep timer is running (and for the time set by Settings/Registration > Preferences > Timer/Energy Settings > Weekly Timer Settings).
- The sleep mode exit timer is running (for 15 seconds after exiting DEEP SLEEP)."
- The network timer is running (and for the number of seconds set by Service Mode (Level 2) > COPIER > OPTION > NETWORK > WUEN-LIV.)
- The wake up timer is running (for 10 minutes after receiving a wake up packet).
- The hard disk drive protection timer is running (for 12 minutes after exiting from DEEP SLEEP and the HDD is powered ON. However, after a printing, scanning, and fax job is completed, this timer is disabled.)

- The after linkup timer is running (for 1 minute after the machine is powered ON and the communication with the network is started).
- The sleep notification timer is running (for 10 minutes after notifying the network module of entering DEEP SLEEP. However, when the network module responds, this timer is disabled).

● Effects of Spanning Tree-supported Hub

If you set the network as a loop, data keeps staying in this loop and efficiency of data transfer might be decreased. In order to prevent this symptom, some hubs have the function called “spanning tree”. If this function is enabled, the device newly connected to the hub can make data communication with network 10 to 50 seconds (time changes due to the conditions) after the connection. When the machine enters Deep sleep mode and restores from the sleep mode, the machine electrically disconnects with the network once. Therefore, if the machine connects with the spanning tree-installed hub, the machine cannot communicate with network for approximately 1 minute at a maximum after restoring from the Deep sleep mode.

For this reason, right after restoring from the Deep sleep mode, the following symptoms might occur: Device status cannot be collected, printing cannot be made, and login using a login application cannot be made. If such symptoms become any problems, perform the following operations.

- Using Settings/Registration, set not to enter the Deep sleep mode.
Preferences > Timer/Energy Settings > Sleep Mode Energy Use > High
- Disable the spanning tree function of hub.
- Request users to use the hub which supports Rapid Spanning-Tree
- Protocol (RSTP) that resolved such problems.

● Conditions to operate the heater

		Drum Heater
When the Environment Switch is turned ON	At standby	ON
	At printing	OFF
	When the Main Power Switch is turned OFF	ON
	At sleep state	ON

Service Tasks

■ Periodically Replaced Parts

None.

■ **Consumable Parts**

None.

■ **Periodical Servicing**

None.

MEAP

Preparation for Using SSO-H

■ Outline

When using Single Sign-On H (hereinafter referred to as SSO-H) for the login service, required system environments are different in server authentication or local device authentication.

See the following for system requirements in each of authentication methods:

■ Server authentication management

The system requirements necessary when using server authentication by SSO-H vary depending on the authentication server.

The system requirements for using each authentication server are shown below.

● Active Directory authentication

In order to use Active Directory authentication in SSO-H, the following system environments are required.

1) Authentication server (Active Directory : Windows server)

- Active Directory and Domain Name System (DNS) should be installed.
- A group named "Canon Peripheral Admins" should be created on the Active Directory.
- The OS should be one of the followings.
 - Microsoft Windows Server 2003 SP2 *
 - Microsoft Windows Server 2003 R2 SP2 *
 - Microsoft Windows Server 2008 SP2 *
 - Microsoft Windows Server 2008 R2 SP1
 - Microsoft Windows Server 2012

* 64-bit version is not supported.

2) Users accessing the authentication server (Active Directory: Windows Server)

- The user should belong to the "Canon Peripheral Admins" group on the Active Directory.
- The user name should contain only single-byte alphanumeric characters, - (hyphen), _ (low line), and % (percent).

Note:

The difference in time setting between the authentication server (Active Directory) and the machine (and the computer for login) should be within 5 minutes. (If the difference in time setting is 5 minutes or longer, an error will occur at the time of login for the server authentication.)

Note:

As for the user name for logging into the machine, use the name registered as "User logon name (pre-Windows 2000)" in the Active Directory.

An example of the user registration screen (Windows Server 2003)



The screenshot shows the 'New Object - User' dialog box in Windows Server 2003. The dialog is titled 'New Object - User' and has a 'Create in' field set to 'training.com/Users'. It contains several input fields: 'First name', 'Last name', 'Full name', 'User logon name', and 'User logon name (pre-Windows 2000)'. The 'User logon name' field has a dropdown menu showing '@training.com'. The 'User logon name (pre-Windows 2000)' field is highlighted with a yellow box and contains the text 'training'. At the bottom of the dialog are 'OK', 'Next', and 'Cancel' buttons.

● LDAP authentication

When using LDAP authentication by SSO-H, the following conditions need to be satisfied.

1) LDAP server

- Novell eDirectory V8.8 SP6 for Windows
- Lotus Domino V8.5 for Windows

2) OS where the LDAP server runs

- It should comply with the specifications of the LDAP server product.

Operation check has been conducted for the following OS.

- Microsoft Windows Server 2003 Enterprise SP2

- Microsoft Windows Server 2008 Enterprise

Note:

When an LDAP server other than the server shown above is used, SSO-H may not work properly.

Windows Active Directory works also as an LDAP server, but is not supported.

■ PC Environment of Administrator Users and General Users

The following environment is required to use this machine (managed by SSO-H) from a PC on the network.

● OS of the PC and Other Environments

Classification	Operating System	IPv6	Supported browser	Java Runtime Environment
Client OS	Windows XP Professional SP3	✓	Internet Explorer 7 Internet Explorer 8	JRE5.0/JRE6/JRE7 (Exclude JRE6 update4/5.)
	Windows Vista SP2	✓	Internet Explorer 7 Internet Explorer 8 Internet Explorer 9	
	Windows 7 SP1	✓	Internet Explorer 8 Internet Explorer 9	
	Windows 8	✓	Internet Explorer 10	
Server OS	Windows Server 2003 SP2 Windows Server 2003 R2 SP2	✓	Internet Explorer 7 Internet Explorer 8	
	Windows Server 2008 SP2	✓	Internet Explorer 7 Internet Explorer 8 Internet Explorer 9	
	Windows Server 2008 R2 SP1	✓	Internet Explorer 8 Internet Explorer 9	
Mac OS	Mac OS X v10.5		Safari 4.0.5 Safari 5.0.5	J2SE5.0 Java SE 6
	Mac OS X v10.6		Safari 4.0.5	Java SE 6

Classification	Operating System	IPv6	Supported browser	Java Runtime Environment
			Safari 5.0.5 Safari 5.1	
	Mac OS X Lion		Safari 5.1	Java SE 6 Java SE 7
	Mac OS X Mountain Lion		Safari 6.0	Java SE 7

JRE : Java Runtime Environment

J2SE : Java 2 Platform Standard Edition

Note: common to browsers

- The browser should support Java. (The environment such as Modern UI version of Internet Explorer on Windows 8 in which Java add-on cannot be used is not applicable.)
- JavaScript should be enabled.
- Refer to the website of JAVA (<http://java.com/>) for how to obtain the Java environment.

Note: Internet Explorer-related

- In order to use JRE6 Update24 with Internet Explorer 9/10, JRE6 Update24 or later is required.
- The ActiveX plug-in should be enabled in Internet Explorer.
- In Internet Explorer, if [Run ActiveX controls and plug-ins] is disabled in [Internet Options] > [Security] > [Custom level...], a warning message that JRE has not yet been installed is displayed.
- When using Windows XP in an IP v6 environment, IP v6 may need to be installed manually in some cases.

Note: MacOS-related

Java does not work in the case of combination of MacOS 10.6.8, Java SE 6 update6 (Java for MacOS X 10.6 Update 6) and Safari5.0.5. Either of the following measures needs to be taken to make it run.

- Not installing Java SE 6 update6 (Java for MacOS X 10.6 Update 6) (it is however not possible to uninstall it if it is already installed and running)
- Providing a symbolic link again using the command of `ln -s /System/Library/Frameworks/JavaVM.framework/Resources/JavaPluginCocoa.bundle`
- Upgrading Safari to version 5.1

● Network ports used

	Port No.	Application
Connecting	53	Communication with DNS server (fixed)
	88	Kerberos authentication with KDC (Key Distribution Center)
	1-65535 (default:389)	Communication with directory service using LDAP (default is 389, may be changed to any port on LDAP service side)
Listening	10000 - 10100	-

Preparation for Using SMS

To use SMS, a PC and browser used to access SMS are required, and the network settings need to be set up on the device.

■ Preparation of PC for Accessing SMS

● Checking of operation environment

In order to access SMS using password authentication, the PC and browser need to comply with the following system environment.

Combination of the Browser and the OS

Operating System	Supported browser
Windows XP Professional SP3	Microsoft Internet Explorer 7 Microsoft Internet Explorer 8
Windows Vista SP2	Microsoft Internet Explorer 7 Microsoft Internet Explorer 8 Microsoft Internet Explorer 9
Windows 7 SP1	Microsoft Internet Explorer 8 Microsoft Internet Explorer 9
Windows 8	Microsoft Internet Explorer 10
Mac OS X v10.5	Safari 4.0.5 Safari 5.0.5
Mac OS X v10.6	Safari 4.0.5 Safari 5.0.5

Operating System	Supported browser
	Safari 5.1
Mac OS X Lion	Safari 5.1
Mac OS X Mountain Lion	Safari 6.0

In order to access SMS using RLS authentication, the environment should comply with the environment for using SSO-H as the login service. (For details, refer to "[PC Environment of Administrator Users and General Users](#)".)

● PC and Browser Settings

The PC and browser used to access SMS need to satisfy the following conditions.

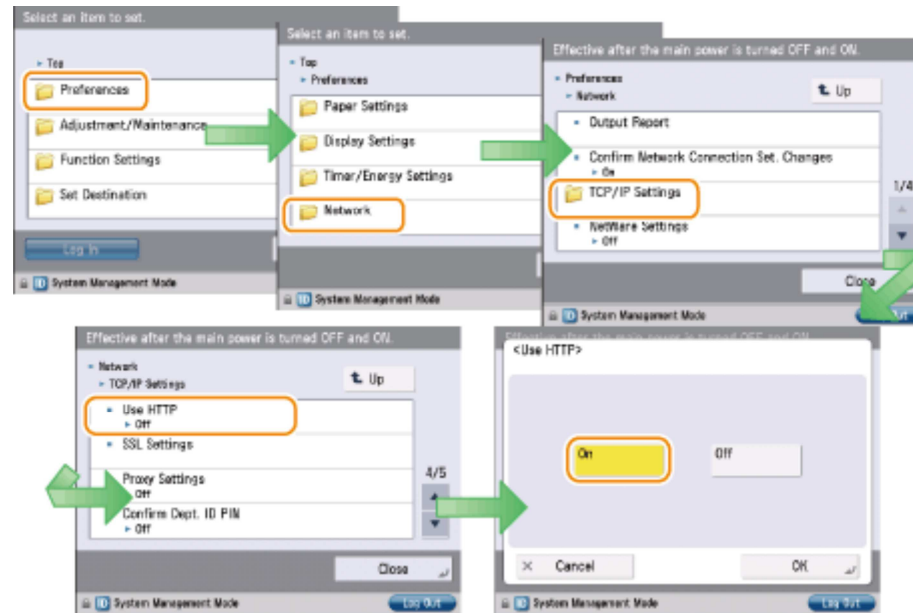
- The supported browser language should be the same with the language of the OS.
- Java Script should be enabled.
- The supported screen size should be 800 x 600 or larger (recommended size: 1024 x 768).
- Session cookie should be enabled.
- Only alphanumeric characters and some of the symbols ("-" or ".") should be used as the machine domain name and host name.
- If an invalid character string such as a low line ("_") is included in the host name, cookies cannot be enabled.

■ Settings on the Device Side

● Network configuration process

In order to provide support for the machine via network such as SMS, the network settings need to be made from the touch panel of the machine. (this setting is [ON] by default).

- 1) Press [Settings/Registration] button, select [Preferences] > [Network] > [TCP/IP Settings] > [Use HTTP] and press [On] button.



8

Note:

In iR-ADV series, the System Manager ID and the System PIN are configured by default, so “Network” and the items that follow are grayed out and cannot be selected.

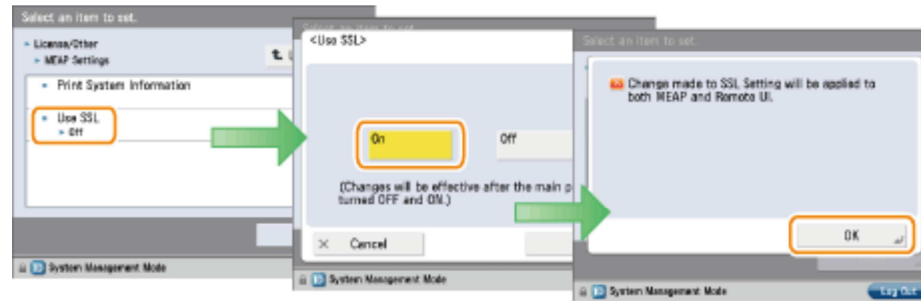
Return to the top screen, press “Login” button at the lower left of the screen, login as the system manager, and configure the settings. The default setting for the System Manager ID is “7654321”, and the password is “7654321”.



Note:

When using SSL, press [Settings/ Registration] button, select [Management Settings]>[License / Other] > [MEAP Settings] > [SSL Settings] and press [On] button. (This setting is applied to SSL setting on RUI. Vice versa, [On] set for SSL on RUI is also applied to the touch panel.)

When [Use SSL] is set to On, the message dialog, [The Default Key is not set. Check the Key and Certificate List settings in Certificate Setting.], is shown. Press [OK] button for this message.



2) Press [OK] button to return to Main Menu screen.

3) Re this device.

CAUTION:

- The setting [Use HTTP] is not actually enabled/disabled until you have restarted the device.
- You cannot make a connection through a proxy server. If a proxy server is in use, enter the IP address of the MEAP device in the Exceptions field for the browser. Open Internet Options dialog of Internet Explorer and select Connections tab, LAN Settings button, Use a proxy server option, and Advanced button of Proxy server group. Proxy Settings dialog will opens. The Exceptions field is in the dialog. As network settings vary among environments, consult the network administrator.
- If Cookie and JavaScript are not enabled in the Web browser, you will not be able to use SMS.
- To type text using the Web browser, use the characters compatible with the MEAP device's touch panel display. The MEAP device may not properly recognize some characters.
- When [Use SSL] is made available, it is necessary to set the key and the certificate necessary for the SSL communication. Set the key and the certificate by SSL with [SSL Settings] that exists in [Preferences] > [Network] > [TCP/IP Settings] > [SSL Settings] on the iR device.

● Key Pair and Server Certificate when Using Encrypted SSL Communication

To use SMS via SSL connection, it is required to specify a key pair and server certificate as the key to be used.

Since a key (default key) that can be used for encrypted SSL communication is installed as standard on the device, advance setting of the key pair and server certificate is not required.

In order to use an encryption key other than the default key, follow the procedure "Generating a key pair" shown below to make settings for the key pair and server certificate necessary for encrypted SSL communication.

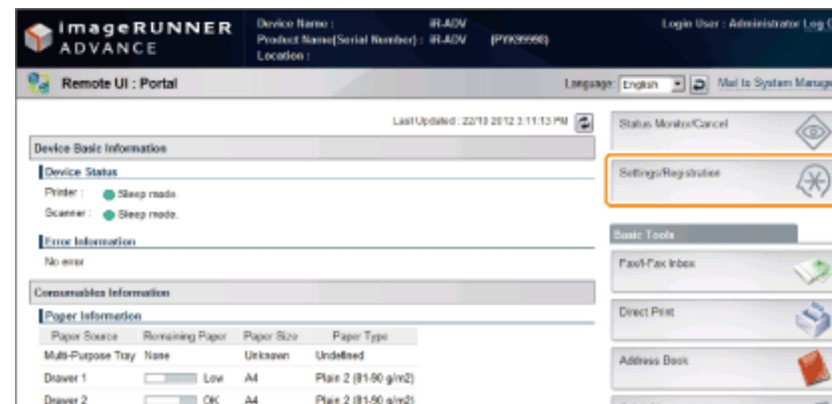
Note:

- MFP has a server certificate registered as standard.
- For detailed procedures of the Default Key setting, refer to [e-Manual > Security].
- As for SMS, by setting a Default Key, encrypted SSL communication is always executed regardless of the following setting: [Settings/Registration] > [Management Settings] (Settings/Registration) > [MEAP Settings] > [SSL Settings]: ON/OFF.

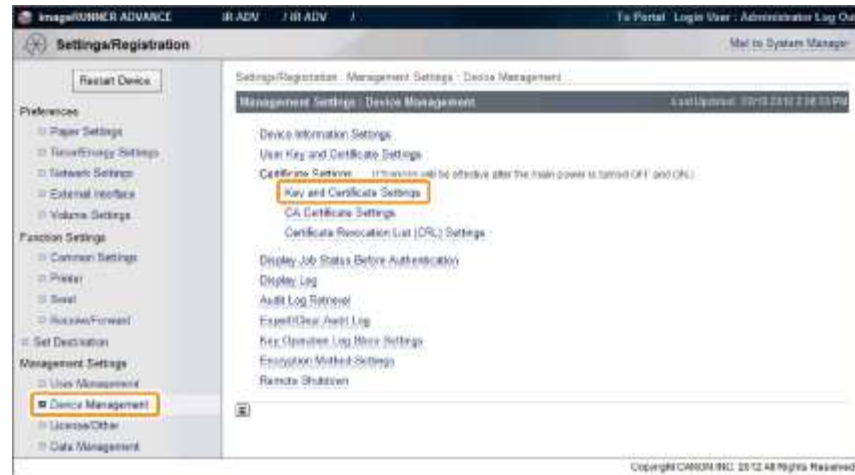
Generating a key pair

- 1) From a PC on the same network as the device, use a web browser to access the remote UI's portal page. Then, select [Settings/Registration] from the menu on the right side of the screen.

URL to access: <http://<device's IP address>:8000/>



- 2) Click [Management Settings] > [Device Management] > [Certificate Settings] > [Key and Certificate Settings].



3) Click [Generate Key...] button.



4) Click [Network Communication]



5) Enter the necessary information, and then click the [OK] button.

Settings/Registration : Management Settings : Device Management > Key and Certificate Settings > Generate Key > Generate Network Communication Key

Generate Network Communication Key Last Updated: 2013/01/15 10:11:21

OK Cancel

Key Name:

Signature Algorithm: SHA1

Key Algorithm: RSA 1024

Certificate Settings

Validity Start Date: Year Month Day

Validity End Date: Year Month Day

Country/Region: Select Country/Region Name
United States (US)

Enter Internet Country Code

Organization:

State:

Organization Unit:

City:

Shared Name:

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Input example

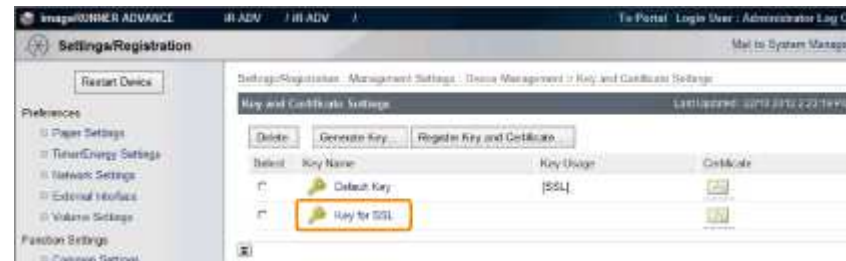
Item name	Type	Content	Entry
Key Settings			
Key Name	Compulsory	An arbitrary character string	Default Key
Signature Algorithm	Compulsory	Selected from:SHA1/SHA256/SHA384/SHA512	SHA1
Key Algorithm	Compulsory	Selected from:512/1024/2048/4096	1024
Certificate Settings			
Validity Start Date	Compulsory	Date	15/4/2012
Validity End Date	Compulsory	Date	15/4/2036
Country/Region	Compulsory	Country or region name	US
State	Arbitrary	State name	-
City	Arbitrary	City name	-
Organization	Arbitrary	Organization name	-
Organization Unit	Arbitrary	Organization unit	-

Item name	Type	Content	Entry
Common Name	Arbitrary	Common Name*	-

Note:

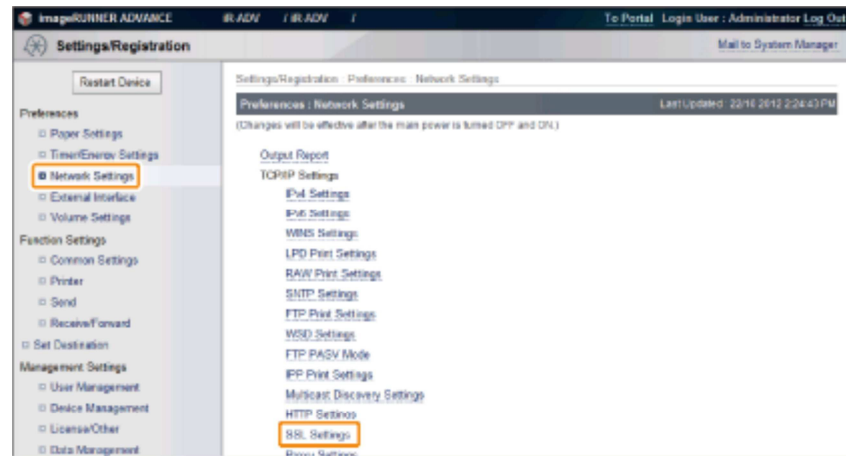
When the IP address of the device has been entered in the [Common Name] entry field, if you install a server certificate to the browser (see "Installing a server certificate (reference information)"), the message "Certificate Error" that usually appears when access is made from Internet Explorer 7 or later will not be displayed.

6) Check to see that the generated key appears in [Registered Key and Certificate].

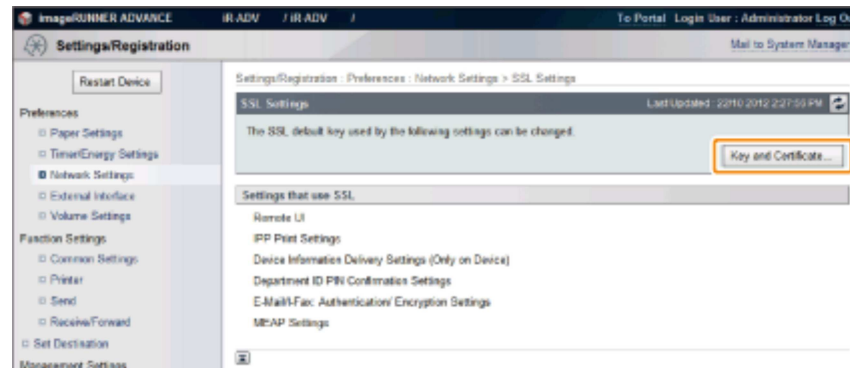


Default Key Settings

1) Click [Preferences] > [Network Settings] > [TCP/IP Settings] > [SSL Settings].



2) Click [Key and Certificate...] button.



3) Select the generated key, and then click the [Default Key Settings] button.



4) Check that [SSL] is displayed in the [Key Usage] entry field.

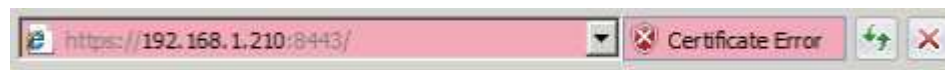


5) Log out from the remote UI, and then restart the device.

Installing a server certificate (reference information)

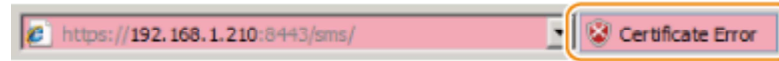
When you access a device where the key installed as standard [default key] is set as the key for SSL, "Certificate Error" appears if the version of Internet Explorer (IE) is Version 7 or later.

Error display example

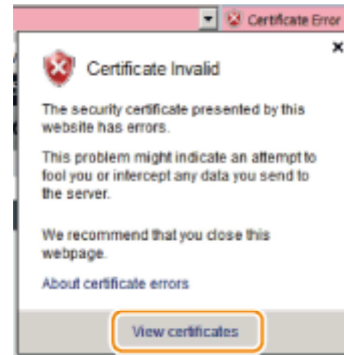


To disable display of "Certificate Error", use the following procedure (for IE8) to set the key generated in "Key Pair and Server Certificate when Using Encrypted SSL Communication" (i.e. the key with the IP address of the device specified as the shared name) as an SSL key.

1) Access SMS from the browser, and then click "Certificate Error" in the URL entry field.



2) Click [View certificates].



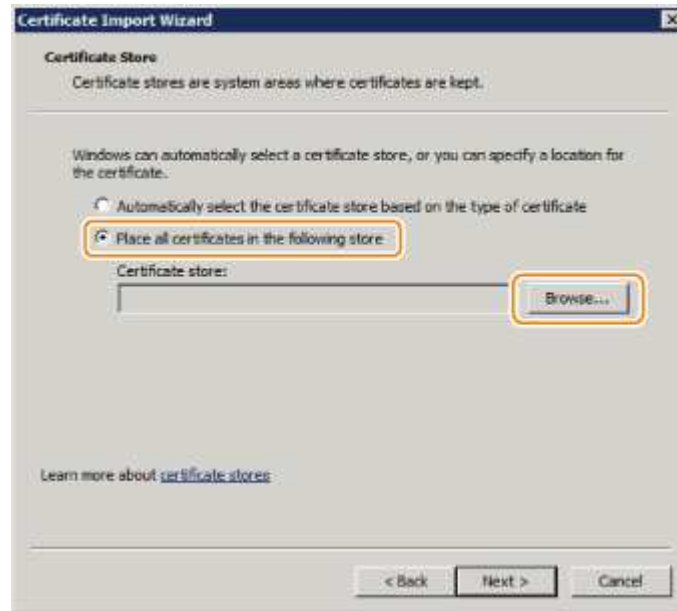
3) Click the [Install Certificate...] button on the [General] tab.



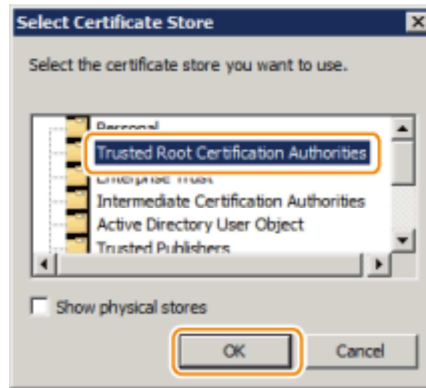
4) [Certificate Import Wizard] will appear. Click the [Next] button.



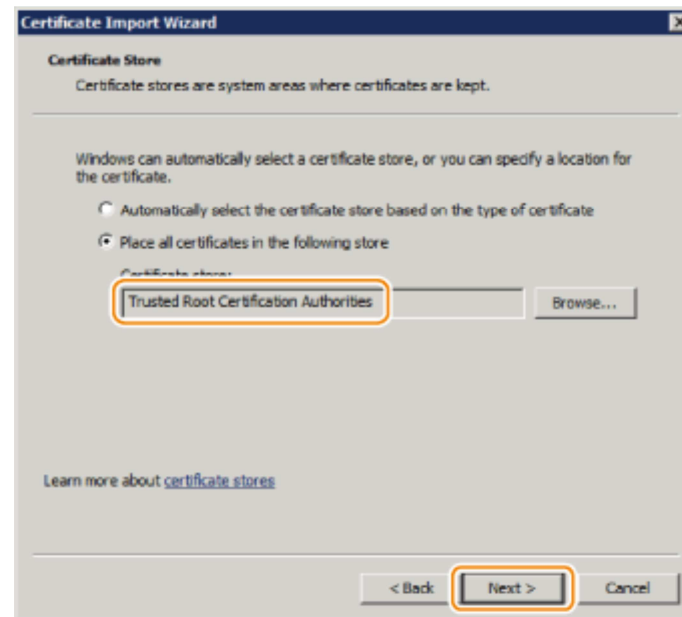
5) In [Certificate Store], select the [Place all certificates in the following store] option, and then click the [Browse] button.



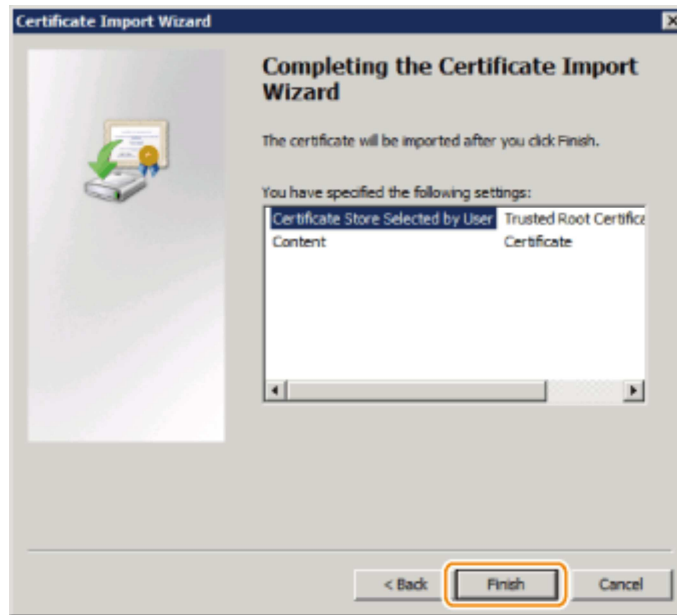
6) In [Select Certificate Store], select [Trusted Root Certification Authorities], and then click the [OK] button.



7) You will return to the [Certificate Store] dialog. Check that "Trusted Root Certification Authorities" appears in [Certificate], and then click the [Next] button.



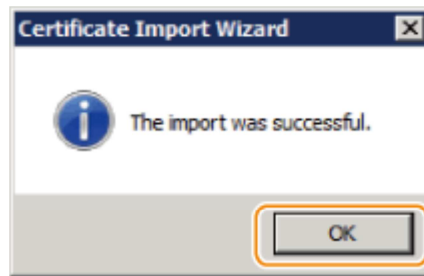
8) [Completing the Certificate Import Wizard] will appear. Click the [Finish] button.



9) If the [Security Warning] appears, click the [Yes] button. (It does not appear when installing the same certificate again.)



10) A message will appear to indicate that import has been completed successfully. Click the [OK] button.

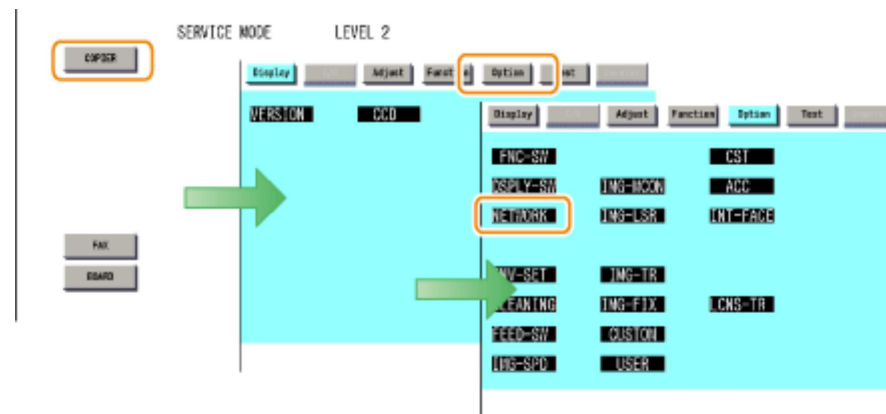


● Network Port Settings

The default port of the HTTP server used for MEAP and MEAP applications to provide the servlet function is 8000, and the HTTPS server's default port is 8443. In the case that these ports have already been used by the customer who is to introduce this application, the MEAP application cannot use the HTTP (or HTTPS) server(s).

By changing the following ports to use, however, the MEAP application can be used as well as the existing system.

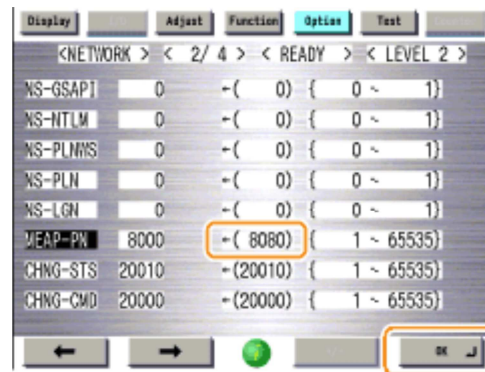
- 1) Start [SERVICE MODE] in Level 2.
- 2) Press [COPIER] > [Option] > [NETWORK] buttons.



3) To set up the HTTP server port, select [MEAP-PN]. To set up the HTTPS server port, select [MEAP-SSL].



4) Press the port number to specify on the control panel (the numerical value input in the field is displayed), and press [OK] button.



Note:
A port number can be any integer from 0 to 65535. To avoid port numbers that are frequently used, do not use any integer from 0 to 1023.

Server	Setting value	Default value / Value after RAM clear
HTTP Server	1024 to 65535	8000
HTTPS Server	1024 to 65535	8443

Note:

- If Print Server is connected, do not specify port 8080.

If port 8080 is specified, it is not possible to access the remote UI of the device where the MEAP authentication application is running. (Port 8080 is reserved to allow the PS Print Server Unit to redirect to the iR device.)

- As for port on HTTPS server, it only applies to the device that supports SSL function.

5) Restart the device if the port number is set.



■ How to Check the Serial Number

When performing MEAP device support, the serial number of the device is necessary in some cases.

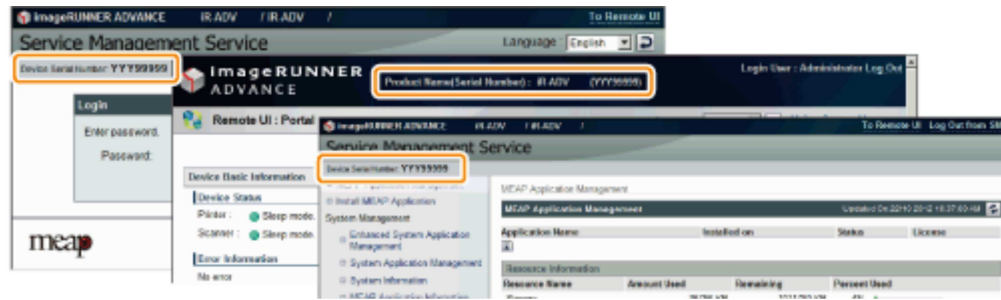
Examples of where the serial number is necessary

- When initializing SMS login password (obtaining a switch license)
- When obtaining a MEAP application license from LMS
- When obtaining a transfer license of MEAP application
- When obtaining a special license for reinstalling MEAP application

If a problem occurs in the MEAP device and you want to contact the support department of the sales company, you need to provide the serial number. Perform the following procedure to get the serial number.

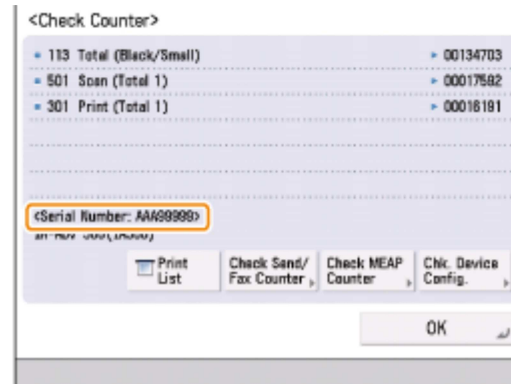
● Checking from the PC browser

The serial number of the device is displayed on the SMS login screen, SMS screen, and remote UI portal screen.



- **Checking from the device's Touch Panel**

You can see the number by pressing the counter key on the Control Panel of the machine.

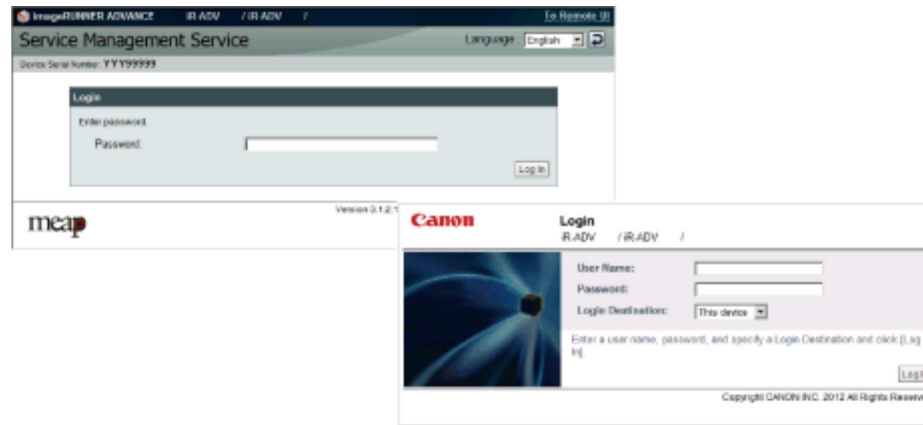


Login to SMS

- **Outline**

SMS login may be done by entering a password for authentication, or by authentication via the Remote Login Service (RLS) login window (RLS authentication). Settings can be changed to allow either only one of these methods or both of them.

SMS login window (password auth) RLS login window (user name/ password auth)



Login method	Authentication method	Authentication service name	Users who may log in
Password authentication	Password authentication	SMS Installer Service (Password Authentication)	Users who know the SMS login password
RLS login	SSO-H	SMS Installer Service (Remote Login Service Authentication)	Users registered as administrators with SSO-H

Note:
 If Default Authentication is selected as the device authentication method, 'RLS Authentication' is not selectable as SMS Login method. Also, if 'RLS Authentication' is selected, the device authentication method (Default Authentication, SDL, SSO) cannot be changed.

■ **When SMS Cannot Be Accessed**

● **If you forgot the password (SMS login password initialization)**

After changing the default SMS login password, if you forgot the new password and cannot log in to SMS, you can use a switch license for password initialization to change the password back to the default value "MeapSmsLogin".

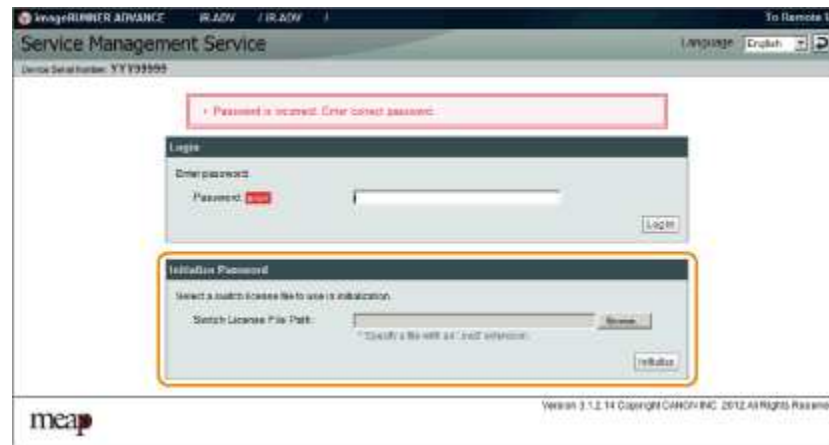
Note that there is no special password for service.

- 1) Obtain a switch license file for password initialization.

Contact the person in charge of support at the sales company, give the device's serial number, and have a switch license file for password initialization issued.

- 2) Load the switch license file.

With nothing entered, click the [Log in] button to display the area for specifying a switch license file for password initialization.



3) Specify the switch license file.

Click the [Browse] button and specify the switch license file.

4) Initialize the login password.

Click the [Initialize] button to display an initialization confirmation page, and click the [OK] button.

Note:

- The default password is “MeapSmsLogin.” (The password is case-sensitive.)
- If you click [Cancel] button, the Login page opens without initializing the password.

● If login is not possible due to exclusive control

Since access to SMS is under exclusive control, you cannot log in if another user has already logged into the SMS of the same iR device.

An example of the exclusive control message



If you cannot log in due to exclusive control, you need to ask the other user to log out before you can try again.

Note:

If you close the browser without logging out, the session remains active. In that case, you cannot log in again.

If this problem occurs, you can wait for 5 minutes so that the session is disconnected. Or, you can restart the device to force the session to disconnect.

If [Key and Certificate Settings] is not set

If [Key and Certificate Settings] is not set correctly, you cannot access the URL for SMS (<https://<device's IP address>:8443/sms/>). In that case, perform the following procedure.

- 1) Go to <http://<device's IP address>:8000/sms/>, and check to see that "HTTP 500 Internal Server Error" appears.
- 2) If it appears, perform the procedure "[Key Pair and Server Certificate when Using Encrypted SSL Communication](#)" in this chapter.

Note:

In the case of SMS, by setting the key to be used, encrypted SSL communication is always executed regardless of the following setting: [Settings/Registration] > [Management Settings] > [License/Other] > [MEAP Settings] > [Use SSL] > ON/OFF.

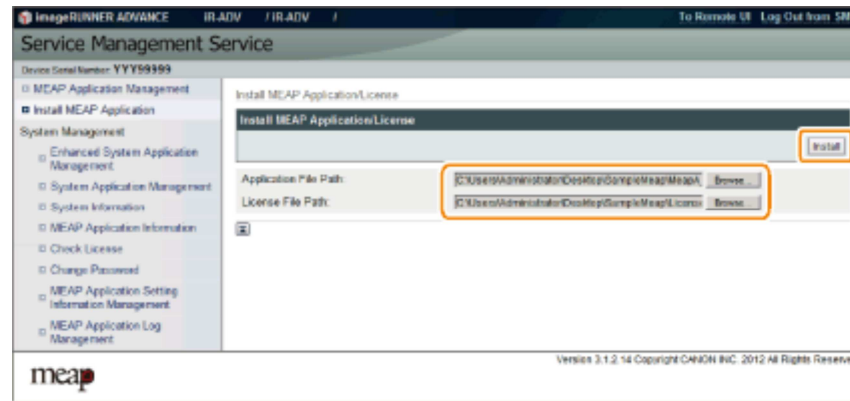
■ How to Deal with a Message "Certificate Error" That Appears at the Time of Access

When accessing from the browser to SMS, a message "Certificate Error" appears in some cases. In that case, perform the procedure "[Installing a server certificate \(reference information\)](#)" in this chapter.

Installing an MEAP Application

■ Outline

From the MEAP application installation screen, you can install the MEAP application as well as the license file.



Before installing the MEAP application, be sure to check the following items.

● Device compatibility with the MEAP application

To find out whether the device is compatible with the MEAP application, check the devices supported by the MEAP application. Depending on the application, the device's firmware may require version upgrade.

● Resources availability (remaining amount)

The necessary resources (free storage space and free memory available) must be secured for an MEAP application to run; otherwise, you cannot install the MEAP application.

To check the resource information, see "[Device's resources](#)" in this manual.

■ Procedure to install applications

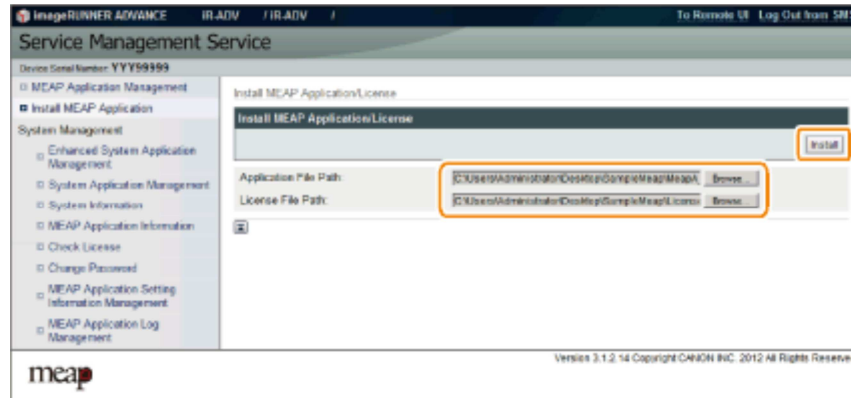
- 1) Long on to SMS.
- 2) Click [Install MEAP Application] on the menu.



3) Check [Install MEAP Application/License]page appears.

4) Click [Browse..] button, and select the application file and the license file of the application; then, click [Install] button.

Note:
 Application File: identified by the extension “jar”.
 License File: identified by the extension “lic”.



CAUTION:

- You cannot install only the license.

- You will not be able to install the application without using the appropriate license. Be sure to select its license file.
- If you are adding a license to an existing application, see "Procedure adding a license file".
- If you are updating an existing application, stop the application; then, install the new application or its license file. You will not be able to update an application while it is running.

Note:

The license file is provided in text file format, enabling to view in a text editor. The application ID and device serial number shown in the file allow users to confirm which device to install with the license file.

Note that any changes added to the license file may disable installation. Cares should be taken when confirming the contents of the license file.

Sample file

The screenshot shows a Notepad window titled "LicenseA1.lic - Notepad". The text inside the window is as follows:

```

LicenseFile-Version: 1
LicenseFile-Id: 8b52c16d-e826-405f-a02a-0c547423ade0
Application-Id: 4d06d282-deb4-462e-bd48-712020100510
Serial-No: xy200123
Validated-Period: 60

MaximumBwSCAN1: 1000, STOP
MaximumBwSCAN2: 900, STOP
MaximumBwSCAN3: 800, STOP
MaximumBwSCAN4: 700, STOP
MaximumPrintedImpressions-Bw-Large: 1000, stop
MaximumPrintedImpressions-Bw-Small: 2000, nonstop

Uh/wWLTGm4VjBT9Itv1q392kLDwplm+syjw3ATEMT/xpBpKESM11CLPRsgw/yk+
yJ7Hy+vv01mxCFen5hqwHqofWJ2a2qg9Pt1CzaE3/wx76Acdy2bngMT1yb01cqd1
lK/N+1H3HTc4T6YRvrLu4vQFZnI/Jrvc/wLEfygywqMA/7IF0img2aLTKK01H061
dsCd1xxsBwd1p31Q1jgrFQxmXE4bj2L1HB5mUANsxyrx0FDvXpJg4kv1F6TwurM
Cuy7Y41bvkkUq8Rk7sf+TlyTMUueq6+x7xA9mkvHRR4PdzPzmKpx72f1fZSM5p6
UwcnHqg5M10Bgg3j q2CFxC4063Gj/zwzncSM2ncQ7Bw01wu0a/j1st7vy0Fez19C
ef0uzR6j11jwXgwAwg/mR6w7r1dWLC7MUHOTv/1mNLZ7kF1gvgh2z7dH16kTvpTm
xUWM1vM0eQ68F73k02bLghoocXSfgdFKLpsC1wPe1SRkb2Qq5644PB0EC5cJ1XCC
dqJSU+dGLTXLkLFRLCD1Bknw1xcBzI3pCH7b5Vh2z1mQFR6k4rbtcrnhf18ZwUT
Q9Y1ur/Yv1sbkPaFHq1JNw==

```

Annotations on the right side of the image point to specific fields in the license file:

- License File ID**: Points to the "LicenseFile-Id" field.
- Application ID**: Points to the "Application-Id" field.
- Serial Number**: Points to the "Serial-No" field.
- Validated Period**: Points to the "Validated-Period" field.
- Counter informations**: Points to the four "MaximumBwSCAN" fields.

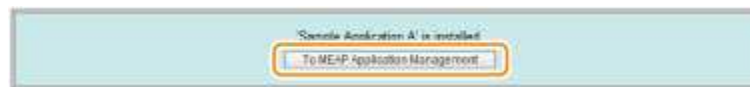
5) Check the contents of the Confirm page; then, click [OK] button.



- 6) Some applications show a screen to indicate the terms of agreement. Read the terms, and click [OK].
- 7) Check the message "Installing...Please wait." appears, beginning the installation.



- 8) Upon installation completed, click [To MEAP Application Management] button shown on the screen to view MEAP Application Management page.



Note:
As for an application that has just been installed, the status is "Installed". In order to use the application, it is necessary to click the [Start] button to change the status to [Started].

Service Management Service

Device Serial Number: YYYS9999

MEAP Application Management

MEAP Application Management

Application Name	Installed on	Status	Start	Stop	License
Sample Application A	4.4.0 23/10/2012	Installed	Start	Stop	Installed
Sample Application B	4.4.0 23/10/2012	Uninstalled	Start	Stop	Installed
Sample Application C	4.4.0 23/10/2012	Uninstalled	Start	Stop	Installed

Resource Information:

Resource Name	Amount Used	Remaining	Percent Used
Storage	3600 KB	101168 KB	4%
Memory	3800 KB	127272 KB	3%
Threads	33	223	13%
Sockets	33	223	13%
File Descriptors	27	229	11%

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Note:

There are two ways to install an MEAP application. You can install using SMS, or install using the [Register/Update Software] screen of the remote UI.

Screen example

Register/Update Software

Device Serial Number: YYYS9999

Install Application/Option

- Manual Installation
- Delivered Installation

Update Firmware

- Manual Update
- Delivered Update

Software Management Settings

- Display Logs/Communication Test
- Scheduled Update Settings

Manual Installation

License File Path:

Application File Path:

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[Register/Update Software] provides two types of installations. One is [Manual Installation] where you specify a jar file and a license file and then install. The other is [Delivered Installation] where you enter a license access number.

For details of the procedures, please refer to the e-Manual.

■ Resource Information

● Outline

Application Management page shows [resource information] for information of the whole device resources including Amount Used, Remaining, and Percent Used.

This function enables users to judge the remaining resources before installing the additional application. Such resource information is shown based on the manifest header stated at the top of each application, which declares the resources required in the application. Therefore, the information does not necessarily show the resources actually in use.

The following resource information is shown:

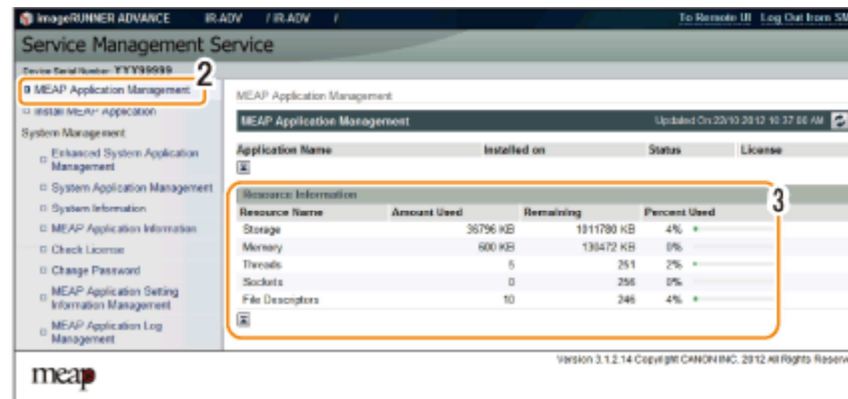
- Storage
- Memory
- Thread
- Socket
- File Descriptor

If the hard disk does not have enough free space for the application, the application cannot be installed.

Moreover, if the free space of any of the resources (Memory, Thread, Socket, and File Descriptor) is insufficient, the application cannot be started.

The following procedure shows how to check the resource information.

- 1) Log in to SMS.
- 2) Click [MEAP Application Management].
- 3) Check [Resource Information] for information of the whole device resources.



● Device's resources

When 1 MEAP application operates, the resource volume allocated to each device is as follows (loaded resource list). Since the following value is an estimate, when installing the MEAP applications, it needs to check the available resource of SMS.

Since the indication of SMS resource volume fluctuates by the login service (authentication function) and configuration (future model), which the user selected, it may show a bigger value than the following values.

List of Available Resources

Product Name		Storage	Memory	Thread	Socket	File Description
iR-ADV C5051 series		1024MB	128MB	256	256	256
iR-ADV C9075 series		1024MB	128MB	256	256	256
iR-ADV 6075 series		1024MB	128MB	256	256	256
iR-ADV 8105 PRO series		1024MB	128MB	256	256	256
iR-ADV C2030/C2020 series	Flash model	220MB	32MB	162	128	128
	HDD model	1024MB	128MB	256	256	256
iR-ADV 4045 series		1024MB	128MB	256	256	256
iR-ADV C5255 series		1024MB	128MB	256	256	256
iR-ADV C2220/C2230 series	Flash model	220MB	32MB	162	128	128
	HDD model	1024MB	128MB	256	256	256
iR-ADV 500/400 series		1024MB	128MB	256	256	256

Note:

- Among the resources, the free space of Storage is checked when installing an application. For other resources, the free space is checked when the application is started.
- Some applications call for a specific set of conditions for installation. For details, see the User's Guide that comes with the individual applications.
- Maximum installable application is up to 20 even if the remaining resource is adequate. (However, the Send function consumes 1, it must be 19 in practice.) Authentication application is not included in this number.
- The MEAP application, which can be started simultaneously, is up to 19. (Authentication application is not included in this number.)

CAUTION:

To install an application, the user needs to use the following URL when accessing the license control system to obtain a license file. In doing so, he/she needs to register the license access number of the application and the serial number of the device.

<http://www.canon.com/lms/license/>

MEAP Specifications

■ What is MEAP Specifications (MEAP Spec Version)?

MEAP Specifications is one of the information required to judge whether MEAP applications can be operated or not. With MEAP Specifications, you can prevent an application that uses a specific function of device from being installed onto the device that does not have the function.

● About Name

The displayed name for Meap Specifications differs depending on the screen or the location where the name is displayed.

In this document, it is referred to as "Meap Specifications".

The location where the name is displayed/shown	Displayed name
Platform Information : SMS > [System Management] > [System Information] > [Platform Information]	MEAP Specifications
System Information Print : Local UI [Settings/Registration] > [Management Settings] > [License/Other] > [MEAP Settings] > [System Information Print]	
Manifest file of the MEAP application	MeapSpecVersion
SDK documents	

● Mechanism

MEAP platform judges whether MEAP applications can be operated on it using on the 2 information below:

- Device Specification ID
- MEAP Specifications

Device Specification ID shows information such as the original functions of MFP (including print, scan, and copy), and one that differs by model such as maximum copy number, thus each model has a different ID. (It is easy to determine the IDs for this reason.) MEAP application declares 1 or more Device Specification ID required for its execution. Declaration of multiple Device Specification IDs means that the application is operable in all the models declared. Upon installation of MEAP application in (using) SMS or MEAP Enterprise Service Manager, matching of Device Specification ID is executed on the side of MEAP platform machine. The machine which doesn't support the ID declared by the application rejects installation of such an application.

Meanwhile, MEAP Specifications shows other information than defined by Device Specification ID above, including network and security. Thus each model does not always have the same version.

MEAP application declares 1 or more MEAP Specifications required for its execution.

Declaration of multiple Device Specification IDs means that the application is operable in all the environments declared. Upon installation of MEAP application in SMS or MEAP Enterprise Service Manager, matching of MEAP Specifications is executed on the side of MEAP platform machine. The machine which doesn't support the version declared by the application rejects installation of such an application.

[MEAP Specifications for each model](#)

Product Name	Initial MEAP SpecVer	Remarks
iR-ADV C5051 iR-ADV C5045 iR-ADV C5035 iR-ADV C5030	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45	Ver.37.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46 Ver.38.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 49 Ver.50.xx or later 5,6,7,9,10,11,13,14,15,17,18,19,25,26,27,29,30,31,32,33,34,35,36,37,38,39,40,41,42,44,45,46,47,49,50,51,52,53,54,55,56,57,58,59 Ver.65.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 74
iR-ADV C9075 iR-ADV C9070 iR-ADV C9065 iR-ADV C9060 iR-ADV C7065 iR-ADV C7055	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45	Ver.37.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46 Ver.38.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 49 Ver.50.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59 Ver.65.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 74
iR-ADV 6075 iR-ADV 6065	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 44, 45, 46, 49	Ver.20.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 44, 45, 46, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59 Ver.42.xx or later

Product Name	Initial MEAP SpecVer	Remarks
iR-ADV 6055		5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 74
iR-ADV 8105 PRO iR-ADV 8095 PRO iR-ADV 8085 PRO	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 44, 45, 46, 49	Ver.20.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 1, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 44, 45, 46, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59 Ver.42.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 74
iR-ADV C2030 iR-ADV C2025 iR-ADV C2020	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49	Ver.10.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49, 53 Ver.29.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49, 53, 74
iR-ADV 4045 iR-ADV 4035 iR-ADV 4025	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59	Ver.11.xx or later 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 74
iR-ADV C5255 iR-ADV C5250 iR-ADV C5240 iR-ADV C5235	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 64, 65, 66, 67, 68, 69, 70, 71, 72, 74, 78, 80	-
iR-ADV C2230	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32,	-

Product Name	Initial MEAP SpecVer	Remarks
iR-ADV C2225 iR-ADV C2220	33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 64, 65, 66, 67, 69, 70, 72, 74, 78, 79, 80	
iR-ADV 500 iR-ADV 400	5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 64, 65, 66, 67, 69, 70, 72, 73, 74, 78, 79, 80, 82	

MEAP Specifications List

Ver	Description
1	MEAP basic function
2	MEAP Spec Version 1 function and SSL/TSL + Proxy
5	MEAP Spec Version 1 function and CPCA V2 + ERS (Error Recovery Service) + New SSL/TSL
6	Reserved
7	MEAP Spec Version 5 function and Compact PDF + OCR PDF (Text Searchable) + USB Host (Buffering of Interrupt Transfer)
9	Reserved
10	MEAP Spec Version 5 function and USB-Host (Exception + Clear Feature + Set Feature+ Hot Plug) + WINS address acquisition using MIB Agent + Timer Service + SSL client authentication
11	MEAP Spec Version 5 function and AMS
13	MEAP Spec Version 5 function and J2ME1.1 Support + Encrypted PDF + Trace and smooth PDF + CTK2.0
14	Device signature PDF
15	IMI + ERS (API addition for IMI) , IPv6, Extended encryption function (AES/RC4)
17	Acquiring images of JBIG format
18	Parsing XML documents (XML parser)

Ver	Description
19	Enhancement of IMI function (IMI Version1.2 series)
21	Reserved
25	API to access the HID/Mass Storage class devices.
26	MEAP driver preference function
27	Symbols that can be used with MibAgent added. (symbols for IPv6 address acquisition)
29	IMI API added (IMI version 1.2.1 enabled)
30	Extended address book function. (e-mail/group/i-FAX/file)
31	Integrated ERS function
32	Extended Imaging function (function to generate PDF/OOXML (PowerPoint) with visible signature)
33	Extended function for imageRUNNER / iR ADVANCE series (API for address book/ CTK/ TopMenu)
34	Extended IMI Box function (v1.3.0)
35	Extended SIS function (function to check the network cable status, function to check PS print server unit status)
36	Reserved
37	CLS (Contextual Login Service) Supporting API Added
38	imageRUNNER / iR ADVANCE Series administrative privileges supported
39	MEAP Specifications added according to Jcrypto API Specification Change
40	ImagingAPI (Creation API of Visible Signature PDF) added
41	Reserved
42	Reserved
44	imageRUNNER / iR ADVANCE Series Remote Address Book Supported, RemoteFAX Supported
45	Addition of API that allows acquisition of the HID installation status
46	Multilingualization of the USB keyboard of the System Driver
47	Addition of API which executes a print order from the MEAP application of the IMI encryption PDF document
48	ID expressing the scan function for iR-ADV C2030/C2025/C2020 series

Ver	Description
49	Reserved
50	SecurityOptionalPackage
51	IMI function expansion of iR-ADV C5051 series (Ver.50.xx or later) or later
52	(iR-ADV C5051 series (Ver.50.xx or later)) Addition of registered API to enable SSL communication setting (On/Off) for each URL
53	Disclosure of registration/deletion function to/from Quick Menu
54	Function to notify an event to the application at recovery from the sleep mode.
55	System account release function
56	MEAP User Preference Service
57	MEAP Application Configuration Service
58	MEAP Application Log Service
59	Reserved
59	Integrated authentication service
60	SFP basic functions
61	AVS (Lightweight Applet Viewer Service) for LBP
62	SIS (Lightweight System Interface Service) for LBP
63	LDT
64	IMI customization
65	Extension of MEAP User Preference Service (Ver56) (preference shared among applications)
66	Reserved
68	Addition of Office Open XML's Word creation API
69	Extension of the encryption PDF function (AES 128-bit/256-bit)
70	Addition of 3 formats (uncompressed searchable PDF, XPS, and linearized searchable PDF)
71	Reserved
72	Reserved

Ver	Description
73	API that supports A4 scanners and allows for specifying of the direction of the original image
74	Support for addition of the CN validation function
75	Reserved
76	Addition of the SFP ExtendedTextInputView class
77	Reserved
78	Reserved
79	Reserved
80	Reserved
81	Reserved
82	API to recover from Sleep 1

MEAP Application Management

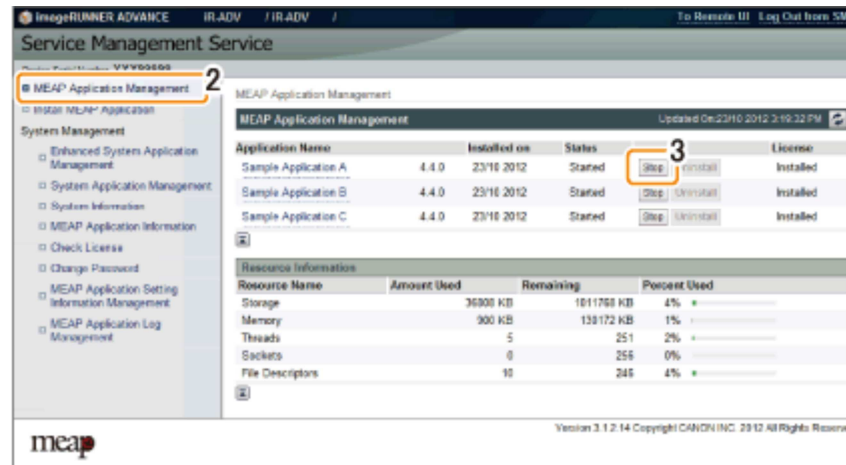
■ Outline

You can use the MEAP application management screen to perform basic management tasks of the MEAP application (start, stop, uninstall), or check the device's resource information.

■ Starting, Stopping, or Uninstalling the MEAP Application

● Procedure to start and stop a MEAP application

- 1) Log in to the SMS. (Refer to "Login to SMS" in this manual.)
- 2) Click [MEAP Application Management].
- 3) Click [Start] or [Stop] button shown for the MEAP application to be started or stopped.



4) Check to see that the status of the MEAP application in question is either [Started] or [Stopped].



- **If the MEAP application cannot be started**

If the conditions to start the MEAP application are not satisfied, the MEAP application cannot be started.

If the MEAP application cannot be started, check the following items.

Is a valid license installed?

If the license has expired, you cannot start the application. If the license has already expired, obtain a new license and then update the license. (See "Managing the License File" in this manual.)

Are the necessary resources available?

If the resources such as memory capacity or number of threads are not sufficient, the application also cannot be started.

Delete any unnecessary data to secure sufficient resources.

If the application still cannot be started after checking the foregoing conditions, contact the support department of the sales company.

● Procedure to uninstall the MEAP application

Before uninstalling the MEAP application, check that the following conditions are met.

- The MEAP application has stopped.
- The license has been disabled or deleted. (The status is "Not Installed".)

The screenshot shows the 'Service Management Service' interface. The main content area is titled 'MEAP Application Management' and contains a table with the following data:

Application Name	Installed on	Status	Start	Stop	License
Sample Application A	4.4 B 07/10/2012	Stopped	Start	Stop	Installed
Sample Application B	4.4 B 23/10/2012	Started	Start	Stop	Installed
Sample Application C	4.4 B 23/10/2012	Started	Start	Stop	Installed

Below the table is a 'Resource Information' section with the following data:

Resource Name	Amount Used	Remaining	Percent Used
Storage	3688 KB	931168 KB	4%
Memory	3669 KB	127272 KB	3%
Threads	33	223	13%
Sockets	33	223	13%
File Descriptors	27	229	11%

For information on the procedure to stop the MEAP application, see the previous section "Procedure to start and stop a MEAP application".

For information on the procedure to delete the license file, see the following section "Managing the License File".

Note:

When a user tries to uninstall an application before deleting the license, the following message is shown.



If the license file of the selected application cannot be deleted, the [Uninstall] button is

grayed out and therefore the application cannot be uninstalled.

CAUTION:

If the application you are uninstalling is associated with another application, a message will appear to indicate that the package exported by the application will no longer be available. Uninstalling such an application may also disable its associated applications.

- 1) Log in to SMS to click [MEAP Application Management] on the menu.
- 2) Check that the status of the application you want to uninstall is [Stop] and the license has been disabled. (The status is "Not Installed".)



- 3) Click [Uninstall] button for the application to be uninstalled.



4) Check the application name to be uninstalled shown on the screen to click [Yes] button.

Upon [Yes] button clicked, uninstallation process is started.



■ Managing the License File

● Outline

The license file management functions allow you to perform the following operations related to the license file necessary for the MEAP application to run.

- Update the license which has already expired.
- Disable or delete the license file in order to uninstall the MEAP application.

These license management functions can be performed from the [MEAP Application Management] screen.

The main license management functions are as follows:

Adding a license

When the license has expired, you can add a license file.

Disabling a License File

Before uninstalling the MEAP application, the license needs to be deleted. In that case, you must first disable the license file because a license file which has not been disabled cannot be downloaded or deleted.

Downloading / Removing an Invalidated License File

Before uninstalling the MEAP application, you need to delete its license file which has already been disabled.

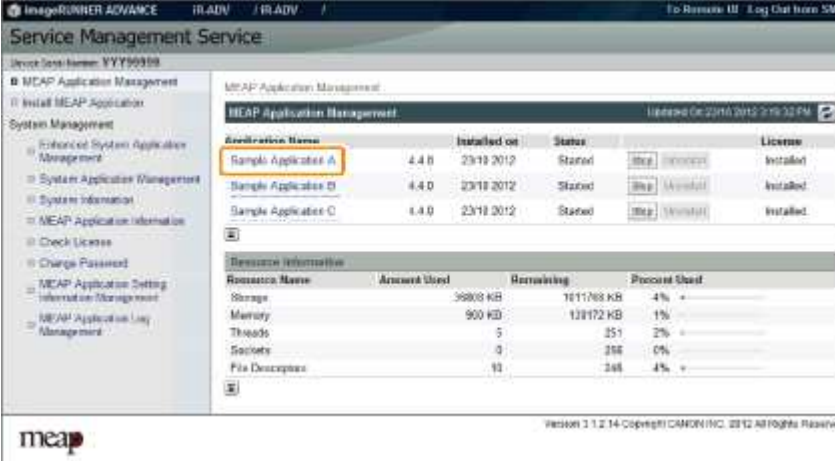
By downloading the license file to your PC before it is deleted, you can use it when installing the application again to the same device.

WARNING:

After deleting the license file which has been disabled, you can no longer download the license file.

● Procedure adding a license file

- 1) Log on to SMS.
- 2) On MEAP Application Management, click the name of the application to which you want to add a license file.



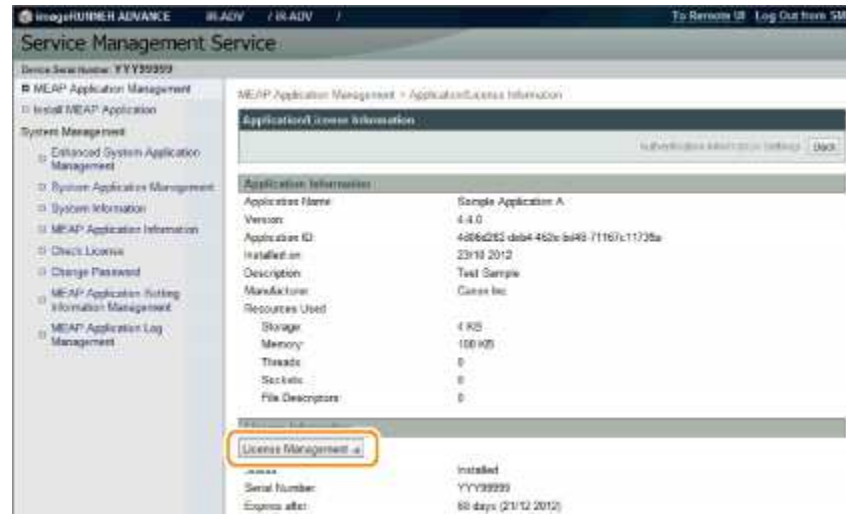
The screenshot shows the Service Management Service (SMS) interface. The main content area is titled 'MEAP Application Management' and contains a table with the following data:

Application Name	Version	Installed on	Status	License	License	
Sample Application A	4.4.0	23/12/2012	Staged	Stop	Uninstall	Installed
Sample Application B	4.4.0	23/12/2012	Staged	Stop	Uninstall	Installed
Sample Application C	4.4.0	23/12/2012	Staged	Stop	Uninstall	Installed

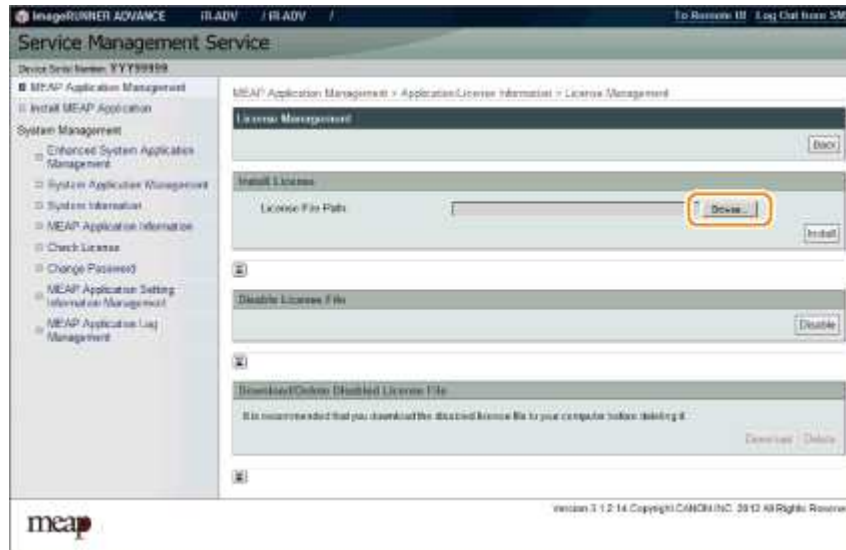
Below the table, there is a 'Resource Information' section with the following data:

Resource Name	Amount Used	Remaining	Percent Used
Storage	36800 KB	1011768 KB	4%
Memory	900 KB	133172 KB	1%
Threads	5	351	2%
Sockets	0	256	0%
File Descriptors	13	256	4%

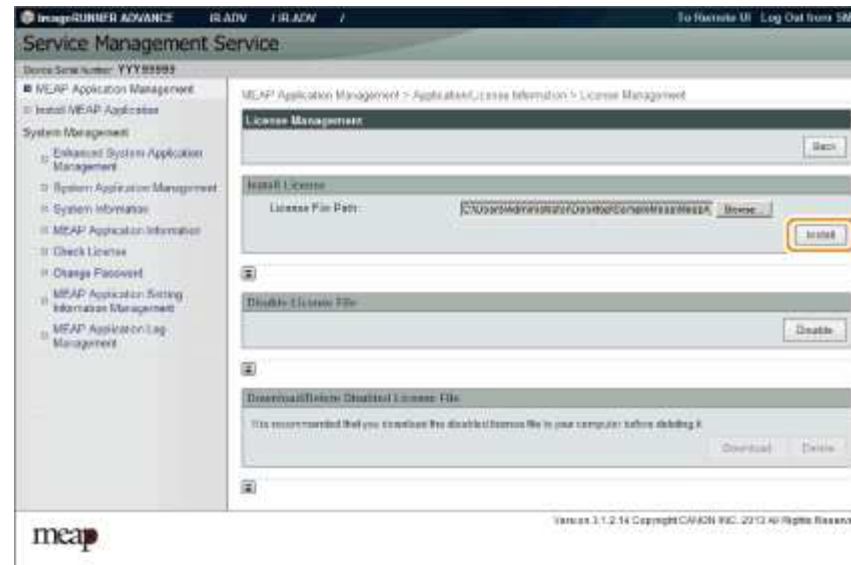
- 3) In [Application / License Information] page shown on the screen, click [License Management] button.



4) Click [Browse] button, and select the license file you want to install.



5) Click [Install] button.



6) Check the content of the confirmation page, and click [OK] button.

● Procedure disabling a license file (suspending a license)

CAUTION:

- Since the license file cannot be disabled when the application is still running, the application needs to be stopped before disabling the license file.
- Once suspended, the status of the license will be 'Not Installed', and its application will no longer be available for use.
- You can later restore a suspended license file as long as you are doing so on the same iR, the device with the same device serial number.
- If the machine needs to be replaced due to a device failure, use the transfer license during the replacement. (See "License for forwarding")

1) Stop the application you want to uninstall on MEAP Application Management page.

Service Management Service

MEAP Application Management

MEAP Application Management

Application Name	Version	Installed on	Status	Stop	Restart	License
Sample Application A	4.4.0	23/10/2012	Started	Stop	Restart	Installed
Sample Application B	4.4.0	23/10/2012	Started	Stop	Restart	Installed
Sample Application C	4.4.0	23/10/2012	Started	Stop	Restart	Installed

Resource Information

Resource Name	Amount Used	Remaining	Percent Used
Storage	36808 KB	7011768 KB	4%
Memory	900 KB	130172 KB	1%
Threads	5	251	2%
Sockets	0	200	0%
File Descriptors	10	200	4%

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2) Click the name of the application that you want to disable.

Service Management Service

MEAP Application Management

MEAP Application Management

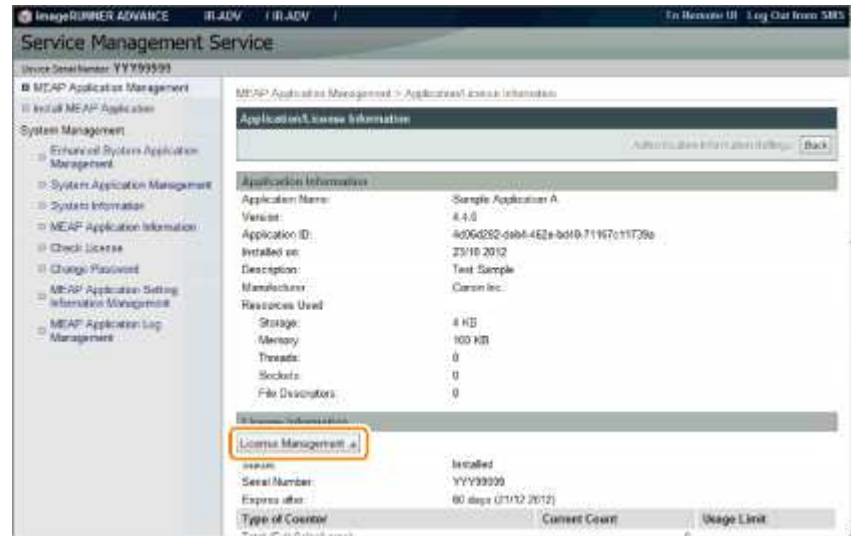
Application Name	Version	Installed on	Status	Stop	Restart	License
Sample Application A	4.4.0	23/10/2012	Stopped	Start	Restart	Installed
Sample Application B	4.4.0	23/10/2012	Started	Stop	Restart	Installed
Sample Application C	4.4.0	23/10/2012	Started	Stop	Restart	Installed

Resource Information

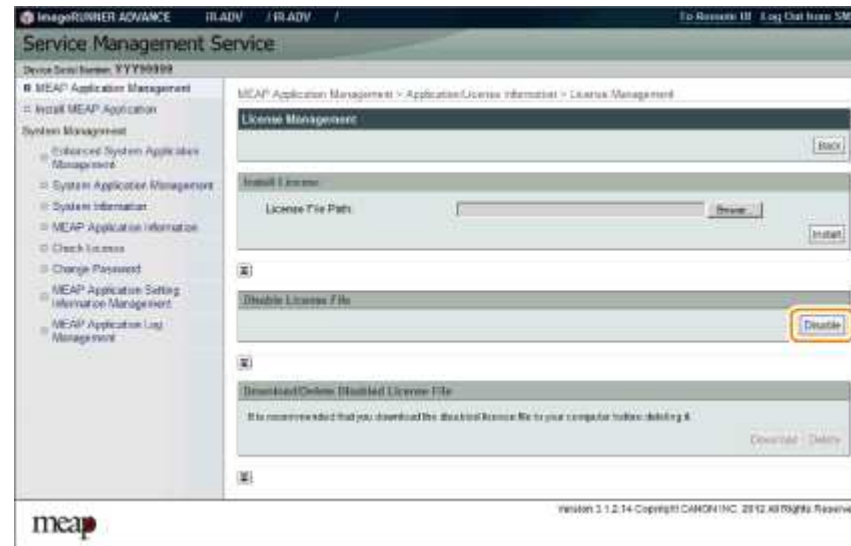
Resource Name	Amount Used	Remaining	Percent Used
Storage	36808 KB	7011768 KB	4%
Memory	2600 KB	127272 KB	3%
Threads	33	223	13%
Sockets	33	223	13%
File Descriptors	27	229	11%

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3) On Application/ License Information page, click [License Management] button.



4) License Management page appears. Click [Disable] button.



5) Click [Yes].



● Procedure downloading / removing an invalidated license file

Note:

The downloaded license file can be used for reinstallation only in the same iR device (with the same device serial number).

1) Login to SMS. (See "Login to SMS.")

2) Application List page appears. On MEAP Application Management page , click the name of the application you want.

The screenshot shows the "Service Management Service" interface. The main content area is titled "MEAP Application Management" and contains a table with the following data:

Application Name	Version	Installed on	Status	Start	Stop	License
Sample Application A	4.4 B	22/10/2012	Stopped	Start	Stop	Invalid
Sample Application B	4.4 B	23/10/2012	Started	Start	Stop	Invalid
Sample Application C	4.4 B	23/10/2012	Started	Start	Stop	Invalid

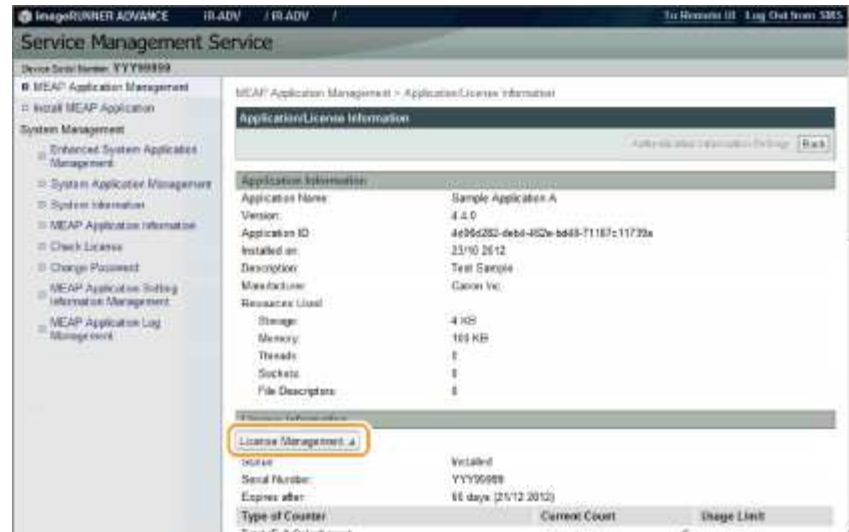
Below the table is a "Resource Information" section with the following data:

Resource Name	Amount Used	Remaining	Percent Used
Storage	3688 KB	1011768 KB	4%
Memory	3688 KB	127272 KB	3%
Threads	33	223	13%
Sockets	33	223	13%
File Descriptors	33	229	14%

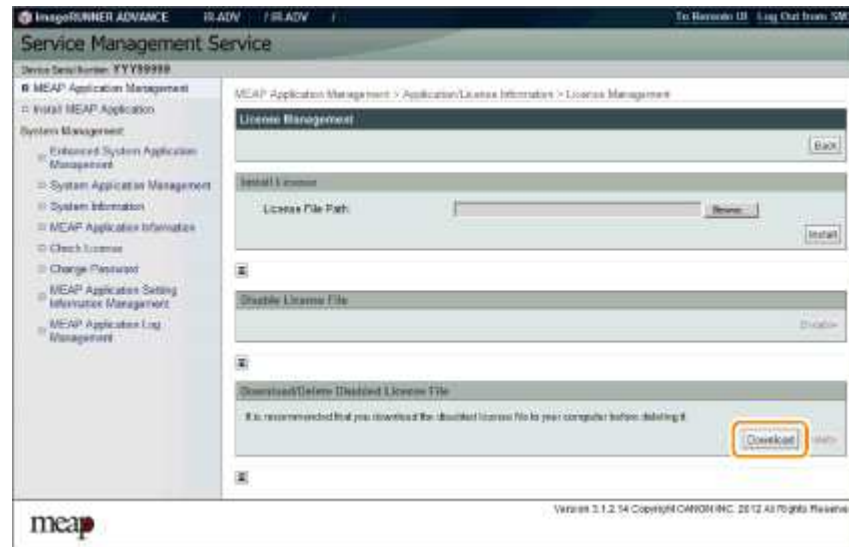
The "meap" logo is visible in the bottom left corner, and the version number "Version 3.1.2.14 Copyright © CANON INC. 2012 All Rights Reserved" is in the bottom right corner.

3) Check Application/ License Information page appears.

4) On Application / License Information page, click [License Management] button.

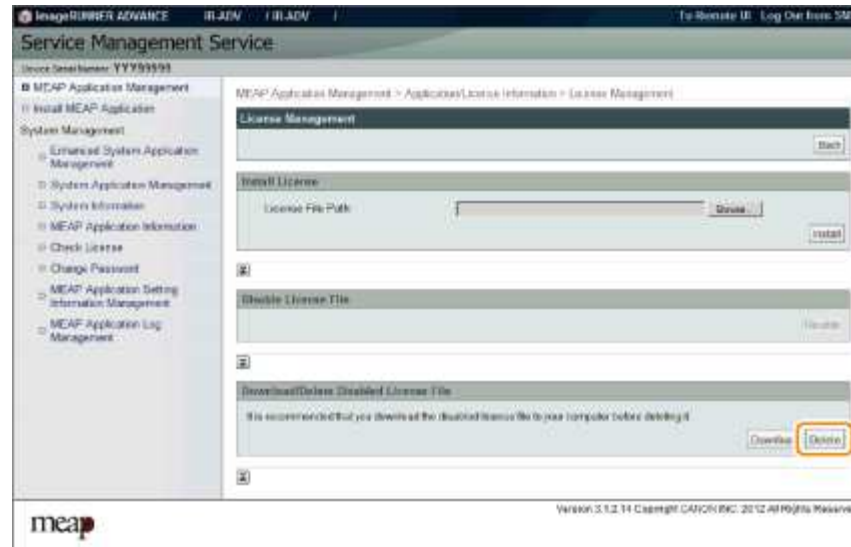


5) License Management page appears. To download, click [Download] button.



6) When you have selected [Download] button, specify where you want to store the file by following the instructions on the screen.

7) To delete, click [Delete] button.



8) When the dialog to confirm deletion is shown, click [Yes] button.



WARNING:
 Without the license file, an application cannot be reinstalled even to the MEAP de-vice that the application had been installed last time. Download and save the license file before deleting the application.

■ Other License File Management Functions

● Reusable license

When reinstalling, Disable License file should be downloaded (see Chapter 0, “Disabling a License File .” and see Chapter 0, “Downloading / Removing an Invalidated License File.” in this manual) or a license for reinstallation should be obtained from LMS, before reinstallation.

This specification aims to prevent misuse of applications.

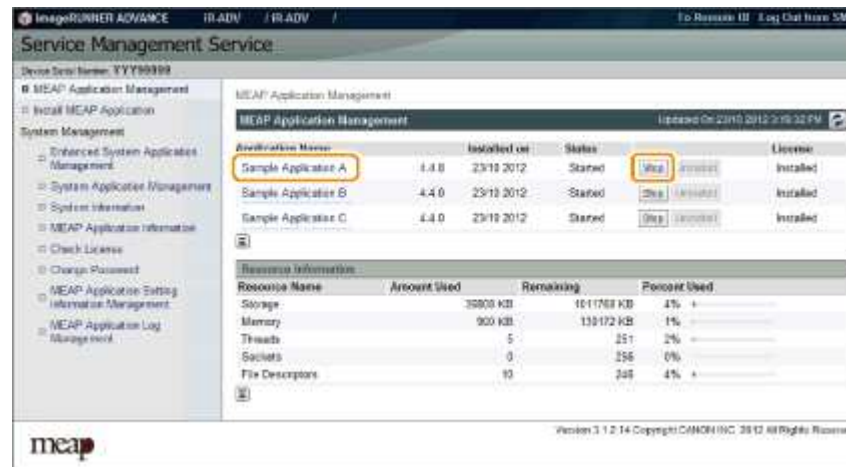
To increase convenience of users, only application with unlimited validity date and application counter (e.g. Portal Service, SDL, SSO) has been made to be able to install as many times as needed by the same license file. This kind of license is called 'Reusable license'.

● License for forwarding

If the machine needs to be replaced due to a device failure, you can transfer the license information used in the MEAP application to the new machine and continue its usage. Service engineers are responsible for license transfer as this task requires the SMS hidden page (not open to users).

The procedure is shown below.

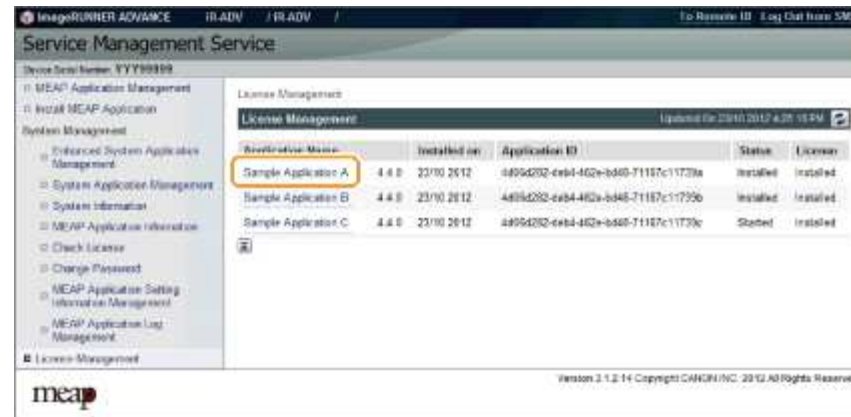
- 1) Log in to SMS, stop the application to be forwarded. (see "[Starting, Stopping, or Uninstalling the MEAP Application](#)".)



- 2) Move to the download page of license forwarded for the device as sender ([https:// IP address of device: 8443/sms/ForwardLicense](https://IP address of device: 8443/sms/ForwardLicense)).



- 3) Specify the application to be forwarded.



4) Click [Disable] button on the [Disable License File].



5) The window to confirm whether to create a transfer licence will be displayed. Click [Yes].



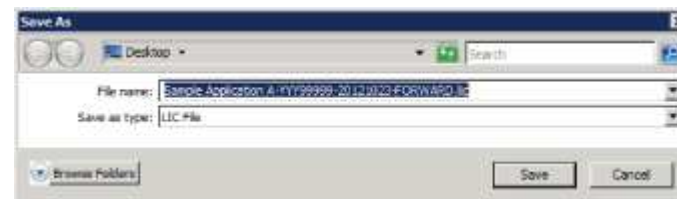
6) When [Download] button on the [Download / Delete Transfer License File] becomes effective, click [Download] button.



7) The dialogue [File Download] is displayed. Click [Save].



8) Specify the download destination, click [Save].



9) After downloading the license file for forwarding, click [Delete] to display the confirmation screen and click [Yes] to delete the file (in consideration of breakage of license for forwarding, deleting disabled license can be executed after all steps have been completed).



10) Log out of SMS.

11) Since this downloaded transfer license is the file only to prove the license invalidation, it cannot be used for installation to the other device as it is. Send the transfer license to the service support contact of your nearest sales company to request issuance of the new license for installation in the new device.

Note:

When requesting issuance of license for forwarding, inform the sales company of the name of product name and serial No. of the device as sender, and of the name of product name and serial No. of the forwarding destination.

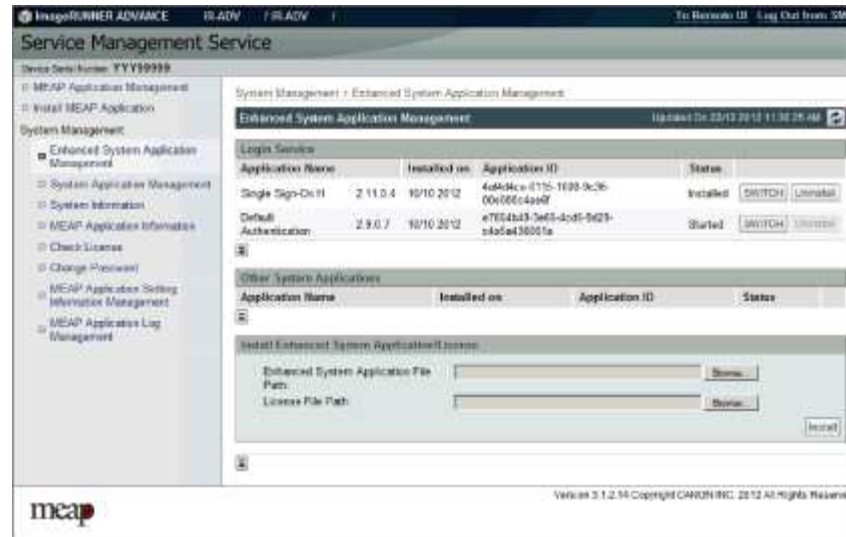
12) Install application using the license for forwarding issued by the sales company.

Enhanced System Application Management

■ Outline

[Enhanced System Application Management] mainly manages the login services for logging in to devices.

- Installing and uninstalling Enhanced System Application Management (login services, etc.)
- Switching login services (switching the method to log in to devices)
- Checking installation status of other System Applications



■ About Login Service

The login service is started up to authenticate the user when MEAP-enabled iR device is booted up. Login service changes and install/ uninstall are carried out from the [System Management] page.

The preinstalled login applications are Default Authentication and Single Sign On-H, and Default Authentication is enabled by default.

CAUTION:

- This device does not support SDL, conventional SSO and Security Agent.

■ Default Authentication overview

This login service is selected when the department ID management is enabled or no authentication function is set. Set the department ID management to [ON] on Setting / Registration (Additional Functions mode) of this device and register 7-digit ID and PIN by department. This setting restricts the use of this device only to users keying the registered ID and PIN. Department IDs/ and PINs can be registered on the touch panel of this device or Remote UI.

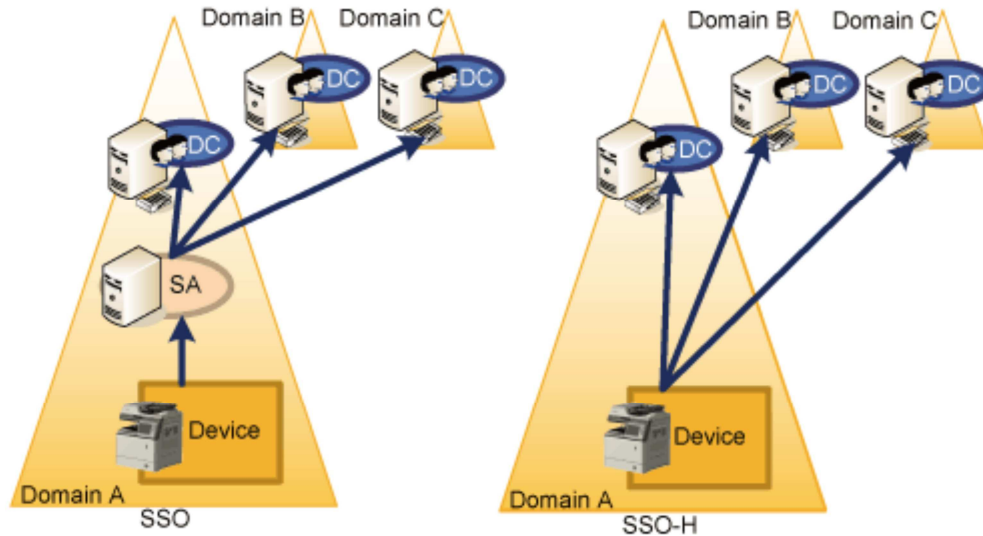
■ SSO-H (Single Sign-On-H) overview

This is a merger of the existing SDL and SSO login services and has the following features.

- The following three authentication methods may be selected from.
 - Server authentication

- Server authentication and local authentication
- Local device authentication
- Active Directory or LDAP can be used as the server for server authentication.
- It is not necessary to prepare a server for Security Agent (SA). (In the case of SSO, SA is necessary.)

Differences from conventional SSO



CAUTION:

- When the setting is SSO-H, the card reader for the option controller card cannot be used.
- When the setting is SSO-H, start up takes a little longer when compared to Default Authentication (because of the time required for object initialization).
- To use the SEND function when the setting is for SSO-H, when sending email, mail addresses need to be programmed against each user. If they are not, email cannot be sent. Note, however, that when sending i-Fax, the mail addresses set in the device are used.
- The system configuration is different from previous SSO, so individual management is required.
- Data porting of user information that was being used with the earlier SSO local device authentication and SDL can be done by exporting/ importing. However, application settings information cannot be ported.

● **Environment confirmation**

Refer to the section of "[Preparation for Using SSO-H](#)" of this manual for system requirements needed in each login service.

● **Specification of SSO-H**

Item		Specification
No. of local device users		Up to 5000
Maximum number of domains		Active Directory : 200 domains ("this device" not included)
IPv6		Authentication provided in IPv6 supports AD/KDC/DNS of Windows Server 2008 only)
Resource used		Memory : 3600KB Storage : 27000KB File Description : 27 Thread : 33 Socket : 33
Network ports used	Connecting	88 : KDC 53 : DNS 1 - 65535 (Default : 389) : LDAP
	Listening	10000 - 10100
Supported authentication server		Active Directory : Microsoft Windows Server 2003 SP2 * Microsoft Windows Server 2003 R2 SP2 * Microsoft Windows Server 2008 SP2 * Microsoft Windows Server 2008 R2 SP1 Microsoft Windows Server 2012 *64-bit OS is not supported. LDAP : Novell eDirectory V8.8 SP6 for Windows Lotus Domino V8.5 for Window
Availability of Department Management Linkage		Available only in local authentication

[SSO/SDL handling](#)

This model does not support older versions of SSO or SDL released in the past.

● Setting the Authentication Method

In the case of SSO-H, it is possible to use a combination of multiple authentication methods. The combination can be changed from the SSO-H setting screen. (For details, refer to e-Manual > MEAP > Menu for Administrators > Setting the SSO-H > "Setting the User Authentication System".)



Note:

The default settings are shown below.

- User authentication method : "Server Authentication + Local Device Authentication"
- Type of authentication : "Active Directory"

CAUTION:

- To ensure the security, it is recommended to change the password and the user name of the Local Device Authentication administrator from those at the time of shipment immediately after you have started using SSO-H.
- Since department ID and password are not assigned to domain users, distributing setting information where the department ID is enabled to a device where the server authentication is enabled may make the device unable to be logged in. If the device has become unable to be logged in, follow ["Remedy to Be Performed When the Device Has Become Unable to Be Logged in"](#) in this manual.

● Using an Accounting Product When SSO-H Is Used

SSO-H has collaborative linkage with NetSpot Accountant, imageWARE / iW Accounting Manager, imageWARE Enterprise Management Console / iW Management Console Access Management Plug-in, imageWARE Enterprise Management Console / iW Management Console Accounting Management Plug-in.

For details on the combination, refer to the User's Manual or Service Manual of the product.

● Conducting Department ID Management When SSO-H Is Used

Department ID Management can be conducted also when SSO-H is used for login service.

Usage Conditions

In order to allow coexistence of SSO-H and Department ID management, the following conditions need to be satisfied.

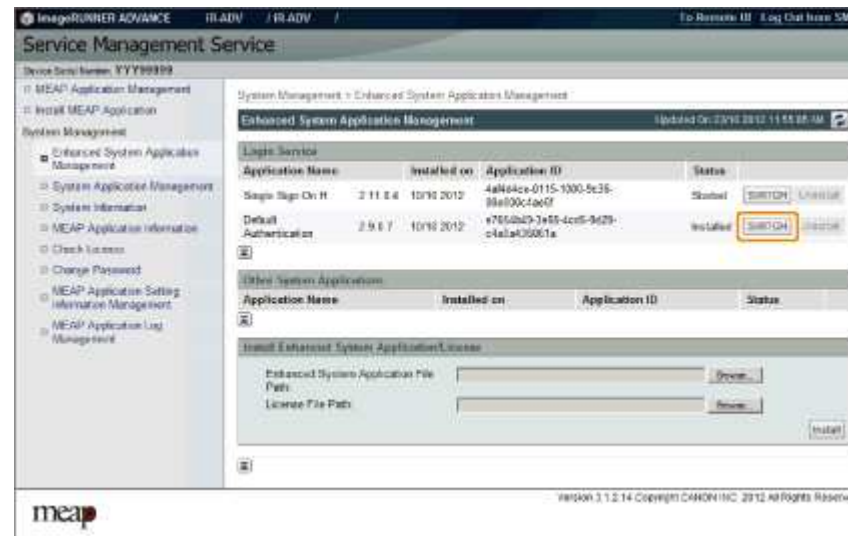
- Only "Local Device Authentication" can be used as the user authentication method.
- The department ID and password have been already set for the SSO-H login user before enabling department ID management.
- The information (the department ID and password) set for the login user coincides with the information registered in Department ID Management.

Setting Procedure

In order to allow coexistence of SSO-H and Department ID management, the following procedure needs to be performed to enable the setting.

- 1) Change the authentication method to DA (Default Authentication).

Access SMS, and select [Default Authentication] in [Enhanced System Application Management] > [Login Service]. (How to log in to SMS can be found in "[Login to SMS](#)".)

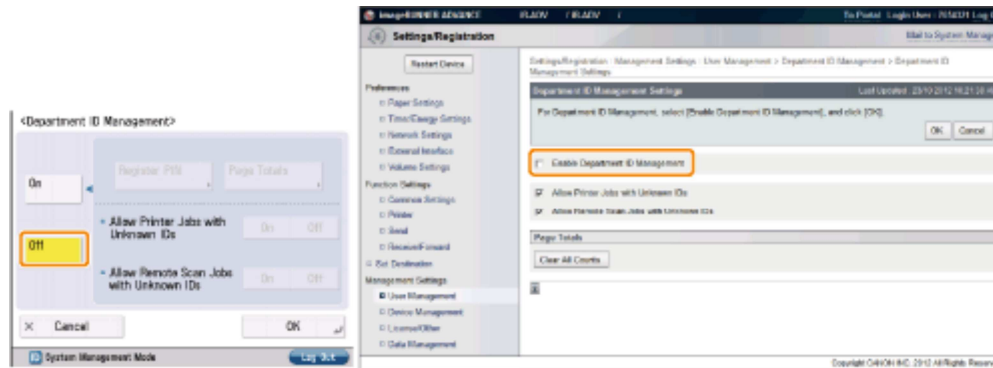


- 2) Restart the device.

Restart the device in order to reflect the changes in login service.

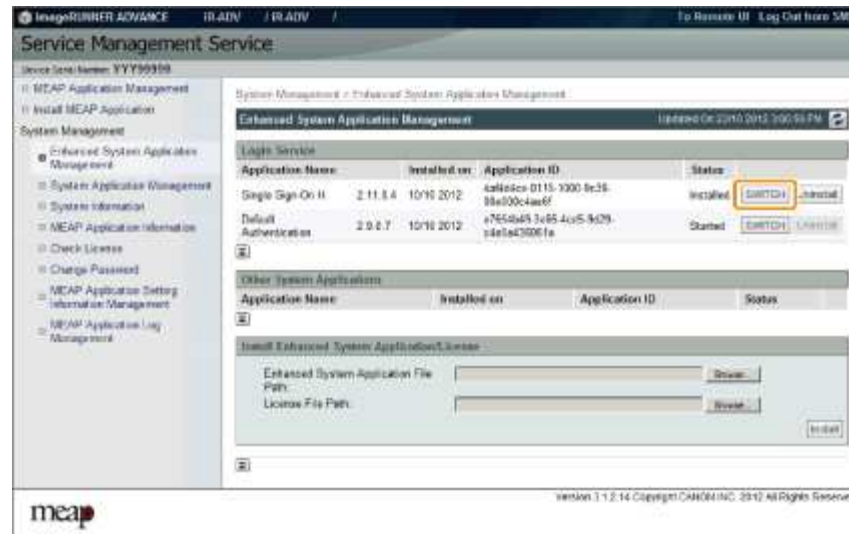
- 3) Disable Depart ID Management.

In user mode ([Settings/Registration]), select [Management Settings] > [User Management] > [Department ID Management] > [OFF]. In the case of remote UI, access [Settings/ Registration] > [Management Settings] > [User Management] > [Department ID Management] > [Department ID Management Settings], and deselect [Enable Department ID Management].



4) Change the authentication method back to SSO-H authentication.

Access SMS, and select [Single Sign-On H] in [Enhanced System Application Management] > [Login Service]. (How to log in to SMS can be found in "Login to SMS".)



5) Restart the device.

Restart the device in order to reflect the changes in login service.

6) Change the user registration information of SSO-H.

Access the URL shown below, and change the content to the information registered in Department ID Management.

Or, import the setting file whose content you want to use.

SSO-H user registration information edition screen

(SSO management screen [Main Menu] > [User Management] > [Edit User Information] or <https://<IP address>:8443/sso/Edit>).

The screenshot shows the 'Single Sign-On H' web interface. The breadcrumb trail is 'Main Menu > User Management > Edit User Information'. The page title is 'Edit User Information' and it shows an 'Updated On' timestamp of '23/10/2012 12:01:43 PM'. There are 'Update' and 'Cancel' buttons. The form contains the following fields:

- User Name: Administrator
- Change password
- Old Password: (Maximum 32 Characters)
- New Password: (Maximum 32 Characters)
- Confirm: (Maximum 32 Characters)
- Department ID: 7654321 (Maximum 7 Characters) - This field is highlighted with an orange box.
- Change PIN
- PIN: (Maximum 7 Characters)
- Confirm: (Maximum 7 Characters)
- Displayed As: Administrator (Maximum 32 Characters)
- E-Mail Address: (Maximum 32 Characters)
- Select Role to Set: Administrator

At the bottom, there is a 'meap' logo and the text 'Version 2.11.0.4 Copyright CANON INC. 2012 All Rights Reserved'.

SSO-H user registration information import screen

(SSO management screen [Main Menu] > [User Management] > [Import User Information] or (<https://<IP address>:8443/sso/Import>)).

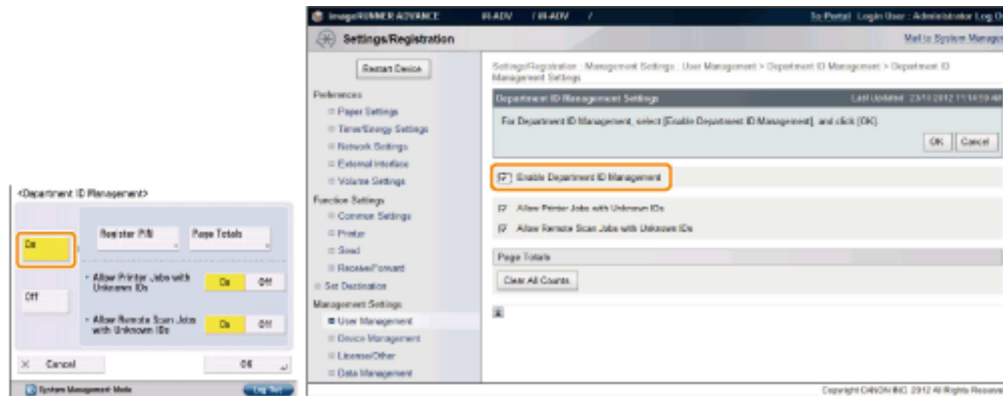
The screenshot shows the 'Single Sign-On H' web interface. The breadcrumb trail is 'Main Menu > User Management > Import User Information'. The page title is 'Import User Information' and it shows an 'Updated On' timestamp of '23/10/2012 12:04:12 PM'. There are 'Start Import' and 'Cancel' buttons. The form contains the following fields:

- File Path: (Maximum 255 Characters) - This field is highlighted with an orange box.
- File Format: ROL Format
- Which Scripted Annotation Format to Select
- Encoding: Windows Latin-1 (CP-1252)
- User Name Type: User ID

At the bottom, there is a 'meap' logo and the text 'Version 2.11.0.4 Copyright CANON INC. 2012 All Rights Reserved'.

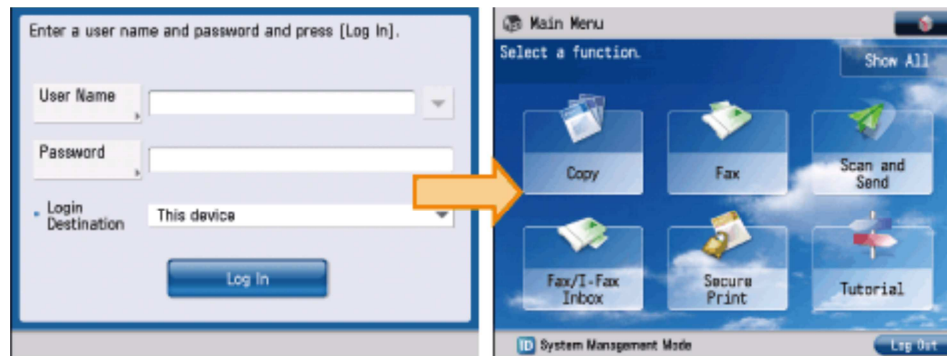
7) Enable Depart ID Management.

In user mode ([Settings/Registration]), select [Management Settings] > [User Management] > [Department ID Management] > [ON]. In the case of remote UI, access [Settings/ Registration] > [Management Settings] > [User Management] > [Department ID Management] > [Department ID Management Settings], and select [Enable Department ID Management].



8) Check that the device can be logged in.

Log off and then log on to check that the device can be logged in with an environment where Local Device Authentication and Department ID Management are enabled.



Note:
 In the case of conventional SSO, department management can be conducted also when server authentication is used provided that iWAM/iW EMC account management is used, which is not supported by SSO-H.

● **Setting the Administrator for Server Authentication**

When using Server Authentication, the user who satisfies the specified conditions (user attribute and its match criteria) becomes the administrator (the device administrator and the SSO-H administrator).

The default user attribute and whether the setting value can be changed or not are shown below.

Item	Default value	Active Directory	LDAP
Search Criteria:	Exact Match	Not Available	Available
User Attribute:	memberOf	Not Available	Available
Character String:	Canon Peripheral Admins	Available	Available

The settings of the administrator can be changed on the following screen: remote UI > Single Sign-On H > Configuration (<http://device's IP address:8000/sso/ActionSet>)

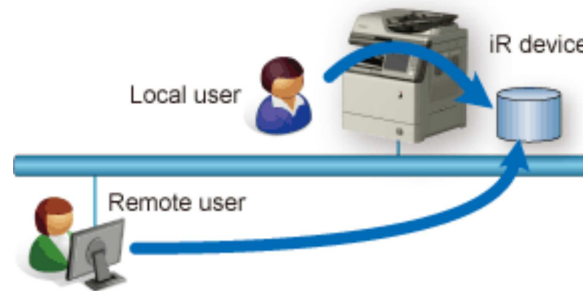


● System Manager Linkage (automatic ID allocation to SystemManagers)

SSO provided the automated function conventionally on Security Agent (hereinafter “SA”) to authenticate System Manager by allocating IDs set on SA to domain authentication managers (users belonging to Canon Peripheral Admins group). However, SSO-H does not support this function.

■ Local device authentication

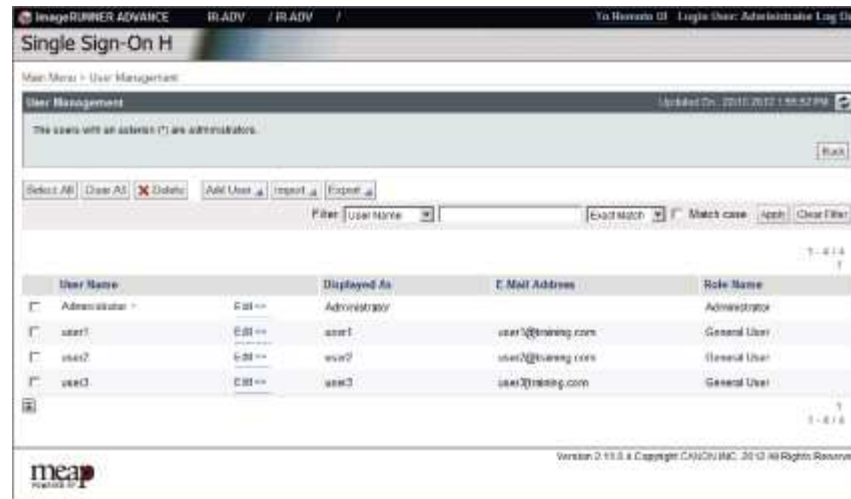
It is one of the user authentication methods using SSO-H, and is used for an iR device on a stand-alone basis.



Register the user to be authenticated on the database in the device.

User management can be performed from the User Management screen (<http://device's IP address:8000/sso/>) or imageWARE Enterprise Management Console. The login destination is [This device].

User Management screen

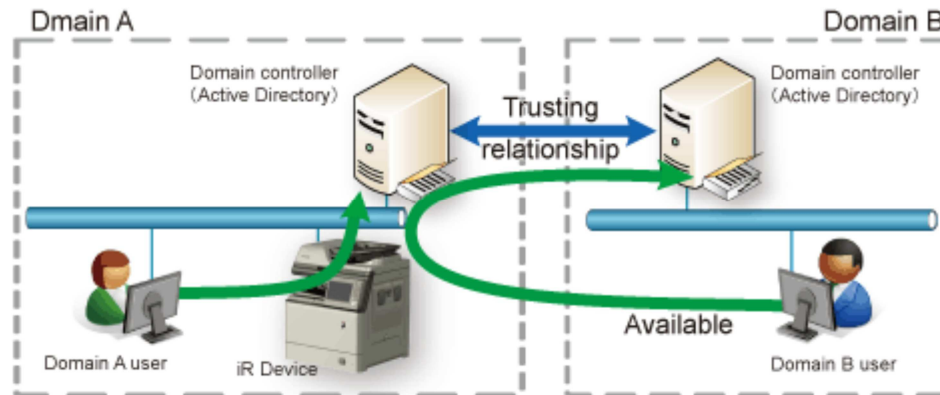


■ Server authentication (Active Directory authentication)

● Outline

It is one of the user authentication methods using SSO-H. User authentication is performed with the device linked with a domain controller on the network in an Active Directory environment. It is a user authentication where the user is authenticated by the domain on the network when the user logs into the device. In addition to users belonging to the domain that includes the iR device, users belonging to domains that have a reliable relationship with the domain (multi-domain) can also be authenticated. The domain name of the login destination can be selected by the users themselves upon login.

Using one of the options (Net Spot Accountant, imageWARE Accounting Manager, or imageWARE EMC Accounting Management Plug-in) makes it possible to analyze/manage the iR device usage.



The protocol used is as follows.

- Kerberos:LLS/RLS/ILS
- NTLMV2:WLS(Web Service Login Service)

User information acquisition is done by LDAP, so the Active Directory LDAP port needs to be made accessible. If LDAP connection fails, the authentication will end in error.

No. of supported domains: 200 (unchanged from SSO) Site access supported.

CAUTION:

In the case of using Server Authentication (Active Directory authentication), it is necessary to synchronize the time settings of the Active Directory server and the machine (and the PC for login). If the difference in time setting is 5 minutes or longer, an error will occur at the time of login. (The setting of the allowable difference in time can be changed.)

CAUTION:

Since department ID and password are not assigned to domain users, distributing setting information where the department ID is enabled to a device where the server authentication is enabled may make the device unable to be logged in. If the device has become unable to be logged in, follow "[Remedy to Be Performed When the Device Has Become Unable to Be Logged in](#)" in this manual.

● **Access Mode in Sites**

With SSO-H, access to Active Directory within site can be prioritized or restricted, so there is a setting called 'Access Mode in Sites'. Sites programmed in Active Directory comprise multiple subnets. In this mode, SSO-H uses site information to access the same site as the device, or the subnet Active Directory.

- The SSO-H default setting is with the site internal access mode OFF.
- Access Active Directory within same site only.
- If there is no Active Directory within the same site, or if connection fails, there will be an authentication error.
- Access another site if Active Directory within the same site cannot be located.
- If there is no Active Directory within the same site, or if connection fails, an Active Directory external to the site will be accessed.
- If all attempts to access Active Directory fail, there will be an authentication error.

The operating specifications of the site internal access mode are as described below.

When first logging in to the login service after booting iR, the domain controller (DC) is obtained from the site list.

However, upon the first login, even if the site functionality is active, connection to DC is random. (This is because, if connection to DC should fail, the site to which the device belongs cannot be ascertained.)

If the device IP address or the domain name are changed, the site settings are acquired once more.

In this mode, at the first login (first authentication of domain to which the device belongs) LDAP-Bind is performed directly to DC and site information acquired by LDAP from DC.

From the acquired site list, the site to which the device subnet belongs is extracted and this becomes the site to which device belongs. Active Directory address is acquired (retrieved from DNS)

Note:

- The Active Directory subnet is assumed to be the same subnet as the device sub-net.
- In the Active Directory addresses, the Active Directories of the same site are listed.
- Active Directories of the same subnet as the device are listed first.
- If there is no Active Directory with the same subnet as the device, Active Directories belonging to different subnets than the device are listed.
- The Active Directories within the same site are accessed in order. Note, however, that where there are multiple Active Directories within the same site, access to those Active Directories will be in the order in which the address list was obtained.
- If there is no Active Directory within the same site, if access outside of the site is programmed, Active Directories outside of the site will be accessed in the order in which the address list was obtained.

Site list acquisition

After booting up, upon the first login by LLS or ILS/ RLS, the site list is obtained from the Active Directory. In order to obtain the site list from the Active Directory, Active Directory needs to be accessed in LDAP, so SASL-Kerberos-Bind is used by the login user account. If authentication by Active Directory should fail, an authentication error will be generated and the site list will be acquired again from Active Directory upon the next login.

In SSO-H, the Active Directory to be accessed when acquiring the site list cannot be specified. In other words, if there is no site list, which site's Active Directory is accessed depends upon the order of the Active Directory addresses returned by DNS. Therefore, when acquiring the site list, LDAP may access the Active Directory of a different site. Therefore, in such cases, it is sometimes necessary to access across sites or subnets, which means that

LDAP protocol needs to have continuity across sites (subnets) (normally, LDAP is port No. 389). Further, if connection with Active Directory fails when acquiring site information, another

Active Directory will be accessed.

Site information, once it has been acquired, is cached within the device. The life settings of the cache can be set so that site information in the cache is updated upon the first login after the device boots up, or so that the cache is not updated once acquired.

Settings for access mode in sites

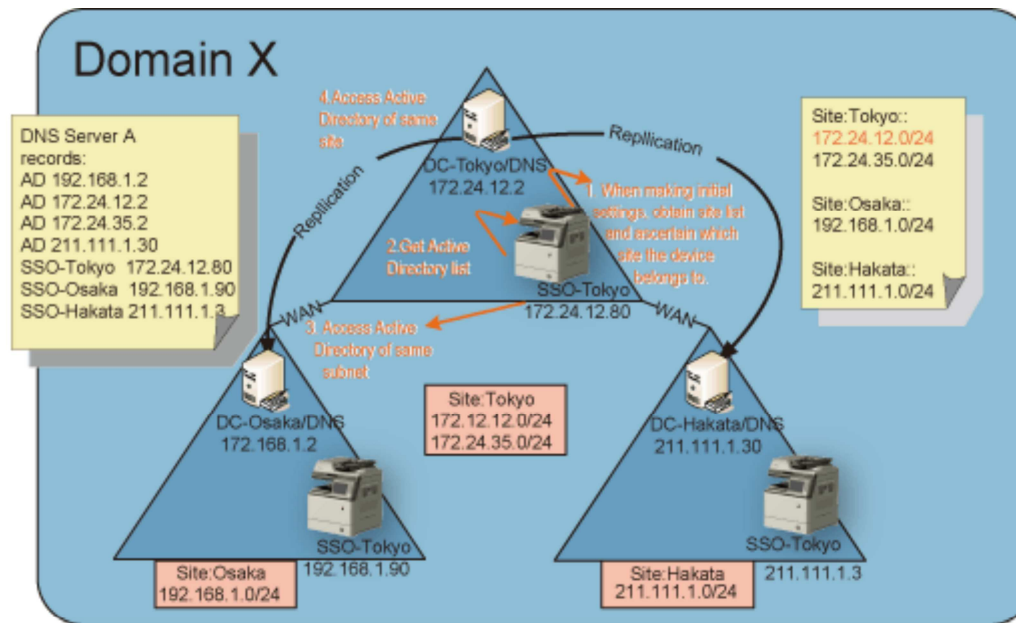
Switching between site internal access mode/ non site internal access mode, as well as detailed mode settings, are done via DMS or iWEMC.

Site internal access mode settings window (DMS)



The figure below shows a sample of processing Access Mode in Sites.

Sample of Processing Access Mode in Sites



1) SSO-Tokyo acquires site lists from Active Directories.

Note, however, that the Active Directories accessed in order to acquire site lists are in the order in which they were returned by DNS, so there is no guarantee that the same Active Directory will be accessed as in the initial settings (upon device settings or changes to NW settings, etc.).

[Site subnet list]

Site: Tokyo: = 172.24.12.0/24, 172.24.35.0/24

Site: Osaka: = 192.168.1.0/24

Site: Hakata: = 211.111.1.0/24

As a result, since SSO-Tokyo is 172.24.12.80, the subnet is 172.24.12.0/24, and is judged as belonging to site Tokyo.

2) The DNS server obtains its Active Directory list from the primary or secondary DNS, as set in the device.

[Active Directory]

172.24.12.2, 172.24.35.2, 192.168.1.2, 211.111.1.30

3) Of the Active Directories in 2), above, the ones that belong to the same site (Tokyo) are 172.24.12.2 and 172.24.35.2.

Of these, the Active Directory that is the same subnet as SS-Tokyo is 172.24.12.2.

Therefore, this one will be accessed.

4) If access fails at step 3), above, the other Active Directory of the same site, 172.24.35.2, will be accessed.

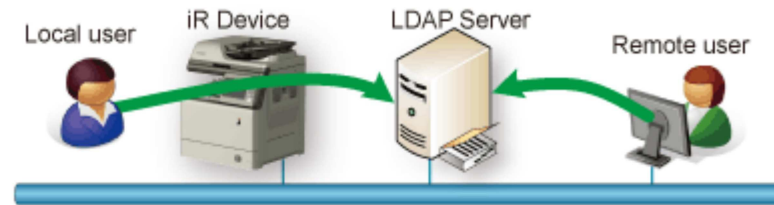
5) If access fails at step 4), above, also, SSO-Osaka and SSO-Hakata will be accessed (the order will depend on the order of the Active Directories in DNS). Note, however, that this is an optional operation.

Logging into other domains at multi-domain

At multi-domain, if another domain is logged into, based on the site/ subnet information retrieved in the home domain, the Active Directories of the login destination domain/ KDC address list are computed. In the event that the domain controller IP addresses of other domains are outside of the site access range, and only the domain controller within the site is programmed for access, an error message will be displayed to the effect that the site information is incorrect.

■ Server Authentication (LDAP Authentication)

It is one of the user authentication methods using SSO-H. User authentication is performed with the device linked with the LDAP Server on the network in an LDAP environment.



LDAP server authentication can be used for devices that support MEAP User Preference Service (MEAP Specification Ver.56) and MEAP Application Setting Information Management (MEAP Specification Ver.57).

As for models that do not support MEAP User Preference Service and MEAP Application Setting Information Management , [LDAP Server] cannot be selected as the type of the authentication server on the SSO-H Configuration page. Moreover, it is not possible to access the LDAP Server Management screen and the Add Server screen.

Simple bind (a method where the password is not encrypted) is used as the bind (authentication) between SSO-H and LDAP server. It is therefore strongly recommended to always use SSL connection from a security standpoint.

As for the version of LDAP, only Ver.3 is supported.

ON/OFF of SSL connection can be changed on the LDAP Server Management page.

The time-out value of connection is 60 seconds.

In the case of using LDAP server authentication, the characters entered as the user name are not case-sensitive, but the characters entered as the password are case-sensitive.

In the case of SSO-H, authentication is not allowed when the user name includes "*" (asterisk)". If authentication is performed with "*" (asterisk)" used in the user name, an authentication error occurs.

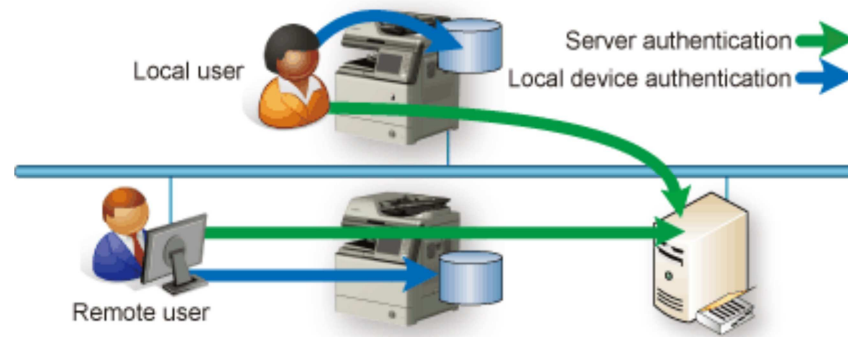
CAUTION:

Since department ID and password are not assigned to domain users, distributing setting information where the department ID is enabled to a device where the server authentication is enabled may make the device unable to be logged in. If the device has become unable to be logged in, follow "[Remedy to Be Performed When the Device Has Become Unable to Be Logged in](#)" in this manual.

■ Server authentication and local device authentication

It is a user authentication method provided with both the "server authentication" function and the "local device authentication" function.

It is possible to use server authentication to authenticate the users registered on the authentication server under normal conditions and use local device authentication when a user who cannot be added to the authentication server needs to be temporarily authenticated. If a trouble occurs in the authentication server, local device authentication can be used as an emergency measure until recovery from the trouble.

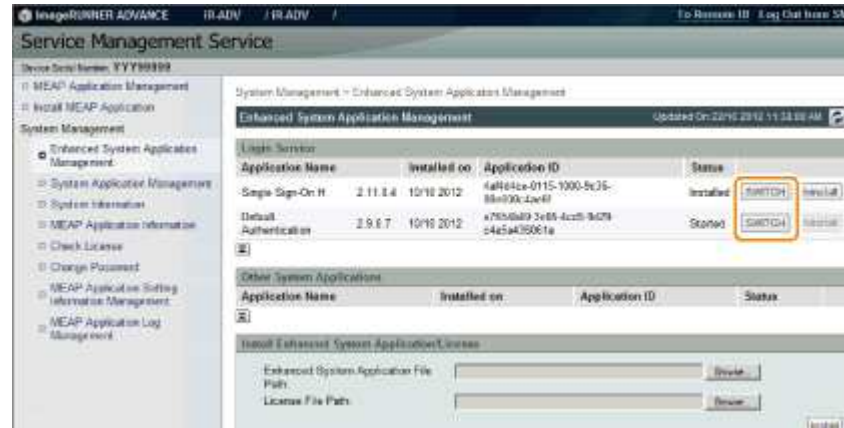


■ Steps to Change Login Services

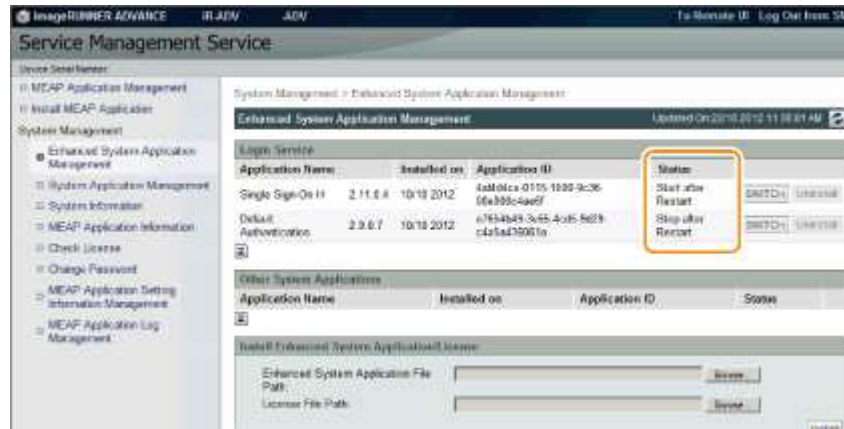
- 1) Click [Enhanced System Application Management] on [System Management].



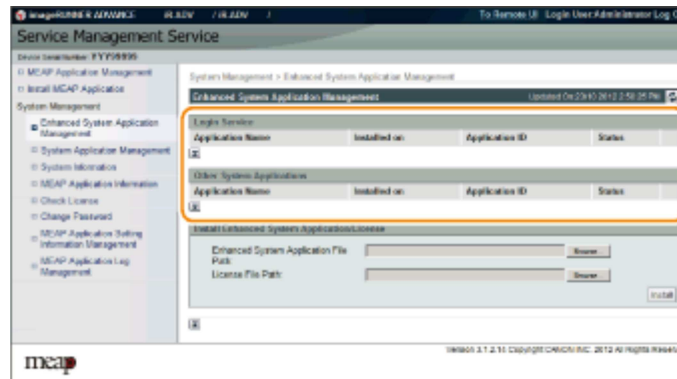
2) A page will appear showing the various selections you can make for the login service. Click [SWITCH] button for the login service to be used.



3) When login service application you have selected turns to Start after Restart, restart the device.



CAUTION:
 In case that the login method to a device is set to SSO-H, if you log in SMS with RLS authentication, no selection is displayed although it is the screen to change the login method.



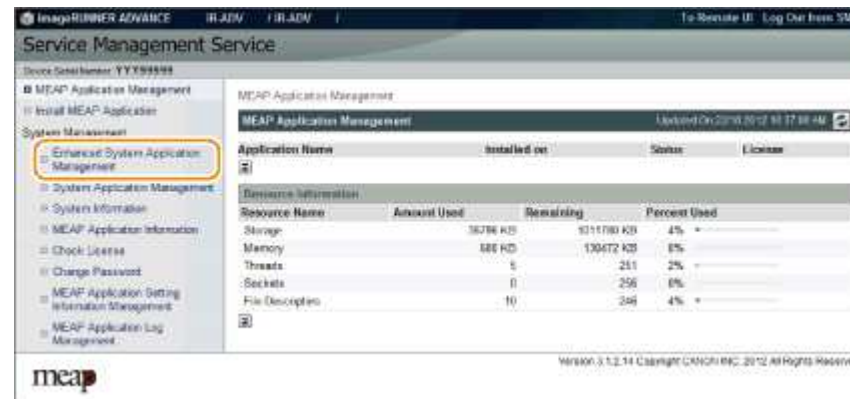
This is the specification to prevent the inconsistent setting which enables to stop SMS Installer Service (Password Authentication) by changing the login method to Default Authentication.

When you want to change the login method to a device, log in the SMS with the password authentication.

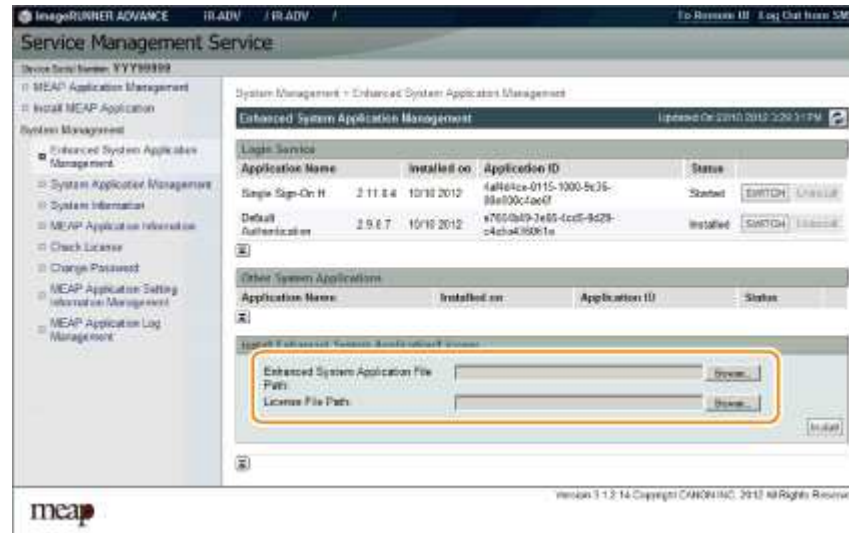
■ Login Service Installation Procedure

Follow the procedure show below to install login services.

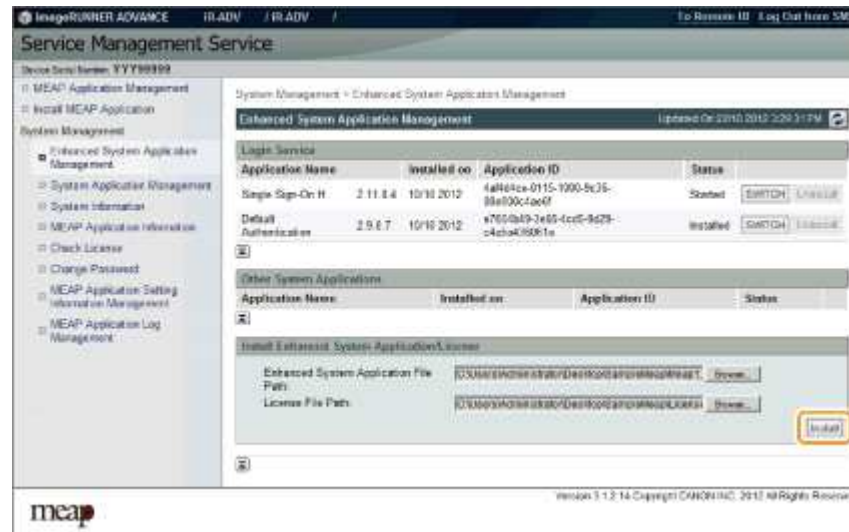
- 1) Access SMS, and select [System Management] > [Enhanced System Application Management].



- 2) Click the [Browse] button, and specify the enhanced system application file and license file.



3) Click [Install] button.



■ Login Service Uninstallation Procedure

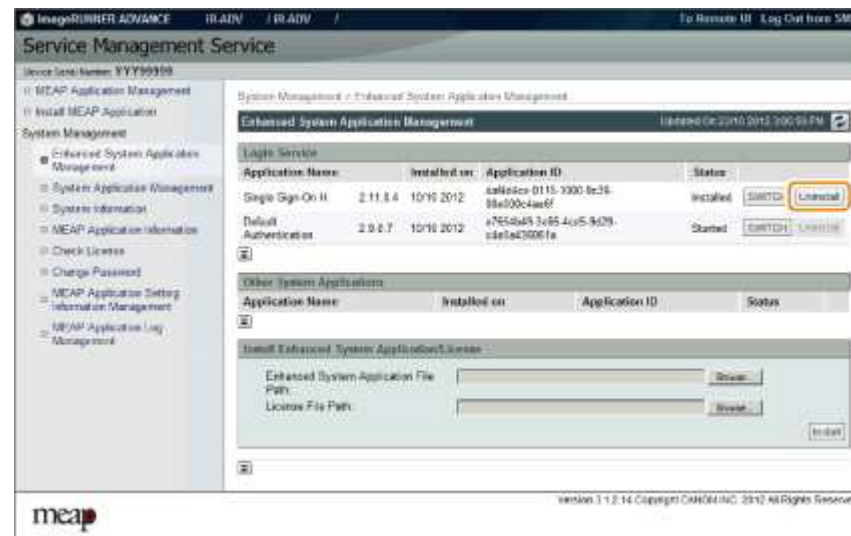
Follow the procedure show below to uninstall login services.

In order to uninstall a login service, the service needs to be stopped ("Installed" status). Default Authentication cannot be uninstalled even when the service is stopped.

1) Access SMS, and select [System Management] > [Enhanced System Application Management].



2) Click the [Uninstall] button of the login service you want to uninstall.



System Application Management

This function manages the login services for logging in to SMS.

There are two login methods: one is "password authentication" where you enter the password for SMS on the SMS login screen and log in, and the other is "RLS authentication" where you do not use the SMS login screen but enter the user ID and password on the RLS (Remote Login Service) screen for authentication.

■ Password authentication

Enter the password on the SMS login screen for authentication. Only one password can be set for SMS.

The login procedure is shown below.

1) Access SMS from the browser of a PC on the same network as the MEAP device. The URL is as follows.

URL: `https://<IP address of MEAP device>:8443/sms/`

Ex.) `https://172.16.188.240:8443/sms/`

Note:

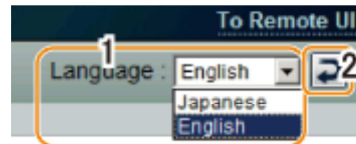
To encrypt the password information input when logging in, SSL of the login screen was made effective. However, it is redirected to new URL (effective SSL) even when accessing with URL (non-SSL) before.

2) Enter the password in the password entry field, and click the [Log In] button. The default password is “MeapSmsLogin.” (The password is case-sensitive.)



Note:

If you want to change the display language, select the language from the drop-down list of [Language] at the upper right of the login screen, and click the update button.



Note:

If the wrong password is entered, the following window is displayed. The user's system administrator may have changed the password, so confirm the password with the system administrator. Note that there is no special password for service.



■ RLS Authentication

Login without using the SMS login window but by entering the user ID and password for authentication in the RLS (Remote Login Service) window. The user information (user name and password) used is the information for server authentication or local device authentication. The login procedures are as follows.

1) Access SMS by RLS Authentication from the PC browser on the same network as the MEAP device.

URL: <https://<IP address of MEAP device>:8443/sms/rls/>

Ex.) <https://172.16.188.240:8443/sms/rls/>

Note:

- To encrypt the password information input when logging in, SSL of the login screen was made effective. However, it is redirected to new URL (effective SSL) even when accessing with URL (non-SSL) before.

Canon Login
iR-ADV / iR-ADV /

User Name:
Password:
Login Destination:

Enter a user name, password, and specify a Login Destination and click [Log In]

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Note:

- When the device authentication method used is server authentication, enter the user name, password and login destination registered with authentication server and then click 'Log In'.
- If the authentication method used is local device authentication, enter the user name, password and login destination registered in the device and click 'Log In' button.

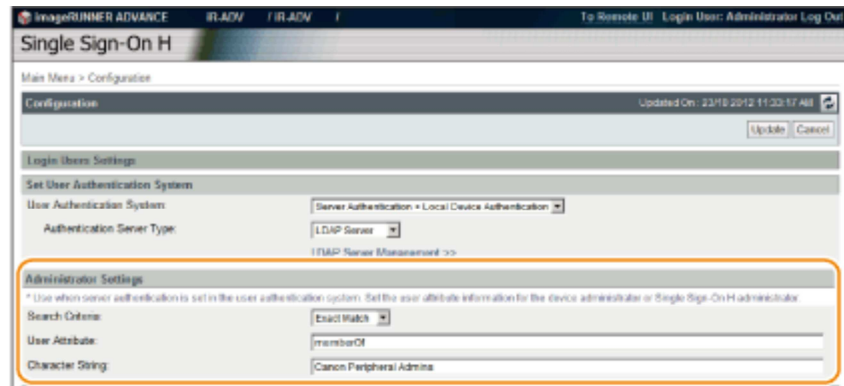
The user information is set as below for local device authentication by default. Both are case sensitive.

- User Name: Administrator
- Password: password

Note:

Only the following users may use SMS via RLS.

- For local device authentication, users with Administrator or Device Admin authority.
- In the case of server authentication, the users who belong to the group (default: Canon Peripheral Admins) specified as the device administrator on the SSO-H Configuration screen.



Note:

SMS Access can be gained also from Remote UI.

Access Remote UI and click on SMS shortcut shown on the lower right of the screen to gain access to SMS.

When only the password authentication is enabled, the password authentication screen is shown.

When only the RLS authentication is enabled, no further authentication is needed to access SMS. This is because users have already authorized upon accessing to Remote UI.



Setting the method to login to SMS

- Outline

The method to log into SMS can be specified by one of the following methods.

- If you want to change the password authentication settings: Use RLS authentication to log in, and change the settings.
- If you want to change the RLS authentication settings: Use password authentication to log in, and change the settings.

The following table shows the start/stop combinations of the two login methods.

Combination of Login Methods

	Start RLS Authentication	Stop RLS Authentication
Start Password Authentication	Login available with either method	Login available only with
Stop Password Authentication	Login available only with RLS Authentication	Setting unavailable

CAUTION:

If only login via RLS is programmed, login may be disabled for the following reasons.

- Authentication server is down
- Network problem, no communication with authentication server

In the event of either of these cases, try the following.

1. If local device authentication is active, try logging in with local device authentication.
2. If only server authentication is active, launch in MEAP safe mode from the device service mode.

After launching in MEAP safe mode, the Default Authentication will become active, and you will be able to login to SMS with password authentication. After logging into SMS, set the password authentication login to ON (active) and restore the device from MEAP safe mode to normal mode. Until the problem blocking authentication is resolved, log into SMS with password authentication.

● **Setting for login by Password Authentication**

The procedures for changing the password authentication Start/ stop settings are as follows.

- 1) Access SMS login screen by RLS Authentication from the PC browser on the same network as the MEAP device.

URL: <https://<IP address of MEAP device>:8443/sms/rls/>

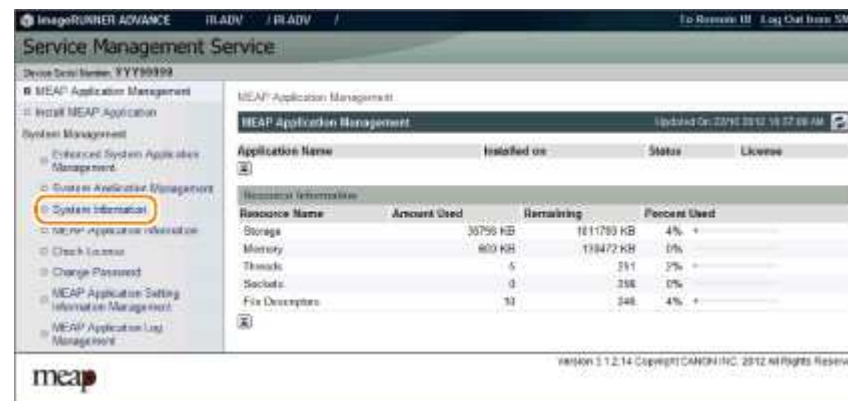
Ex.) <https://172.16.188.240:8443/sms/rls>

- 2) Enter the user name and the password of the user registered as an administrator, select the login destination, and then click the [Log In] button.

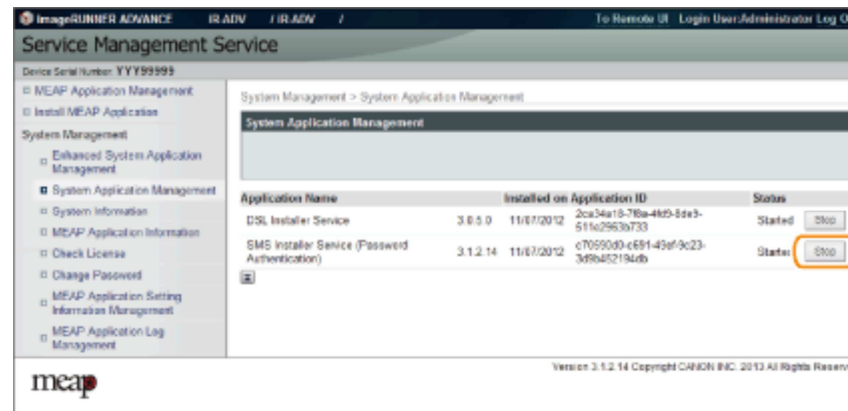
Login screen (In case authentication method is SSO-H)



3) Select [System Application Management]



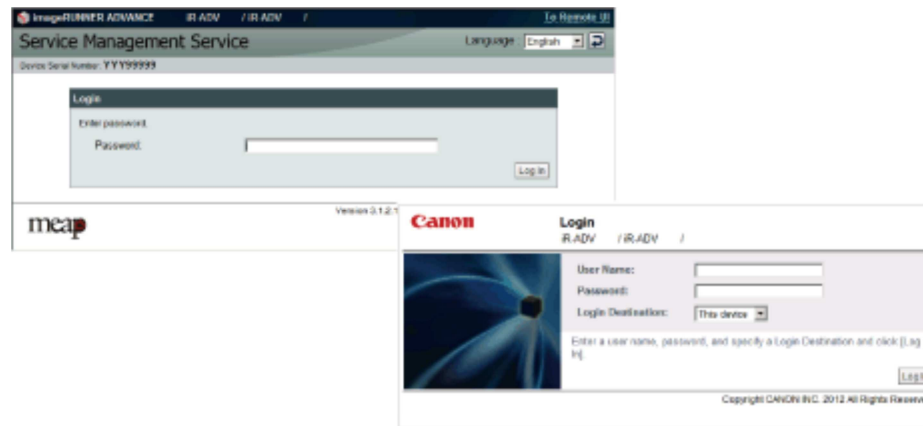
4) Click [Start] or [Stop] button shown in Status field of SMS Installer Service (Password Authentication) to check if the status is changed.



5) Logout once and login again to check to see that the setting is applied properly.

When clicking [Stop] to change the status to [Start], another password authentication login screen is firstly shown. When trying to access the password authentication screen after clicking [Start] to change the status to [Stop], the user is automatically redirected to RLS authentication screen.

Password authentication started screen and Password authentication stopped screen



● Setting for login by RLS Authentication

The procedures for changing the RLS authentication Start/ Stop settings are as follows.

- 1) Access the SMS login screen using the normal method (password authentication). The URL is shown below.

URL: <https://<IP address of MEAP device>:8443/sms/rls/>

Ex.) <https://172.16.188.240:8443/sms/rls>

- 2) Enter the password in the password entry field, and click the [Log In] button. The default password is "MeapSmsLogin". (Case sensitive)

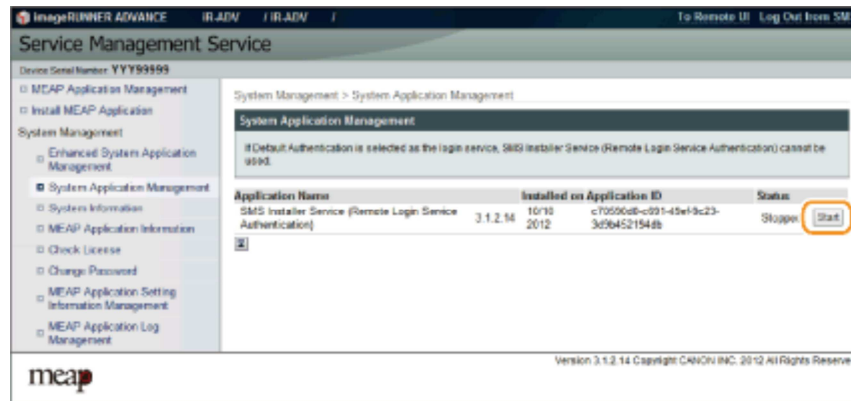
Login screen by Password Authentication



- 3) Select [System Application Management] on System Management menu.



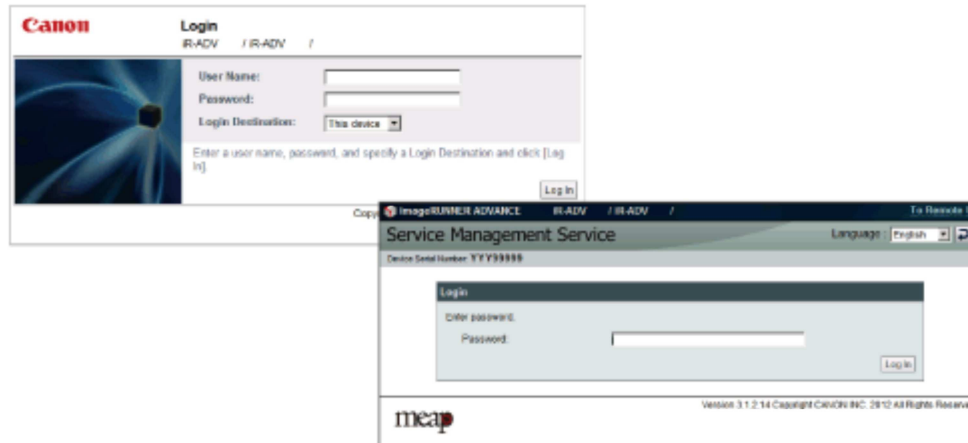
4) Click on [Start] or [Stop] button shown on Status field of SMS Installer Service (Remote Login Service Authentication) to check if the status is changed.



5) Log out and then log in again and access via the RLS authentication login window.

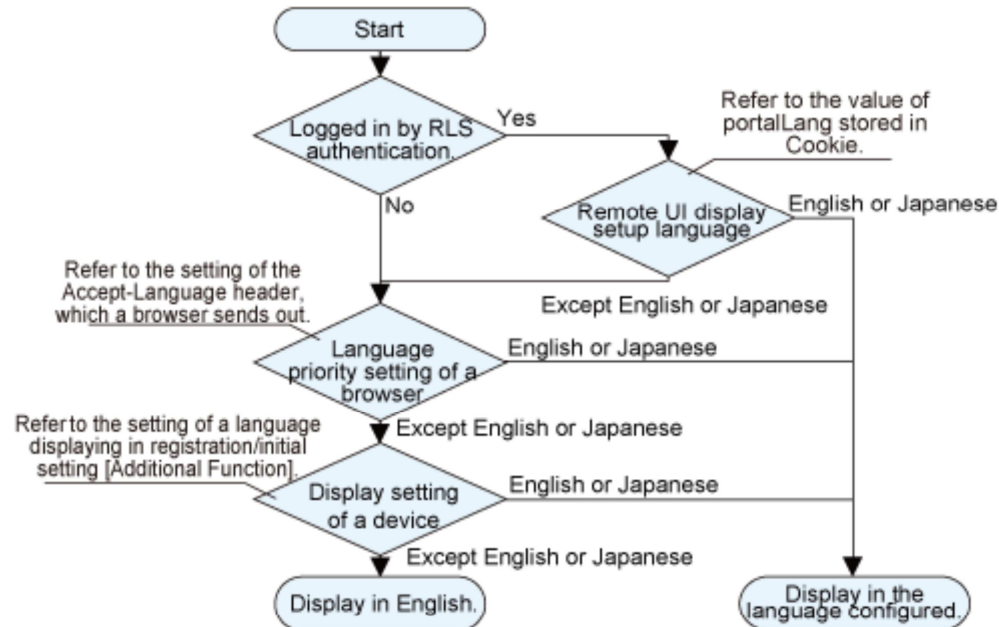
When RLS authentication is set to [Start], another RLS login screen is firstly shown. When accessing to RLS status screen with the setting of [Stop], the user will be redirected to the password authentication screen.

RLS authentication started screen and RLS authentication stopped screen



■ Initial Display Languages of SMS

SMS supports English and Japanese. Display language can be changed with selecting by the drop down list on a login page. The initial display language at the time of accessing SMS depends on the setting.



● When accessing by SMS Installer Service (Password Authentication)

It is referred in order of the language priority (setting of the Accept-Language header which a browser sends out) and the display-language setting in the "user mode". When the language setup is other than English or Japanese, it is displayed in English.

- **When accessing by SMS Installer Service (Remote Login Service Authentication).**

Initial display language is set by the language setting (value of portalLang storing in Cookie) selected by the remote UI screen. When the setting is other than English or Japanese, Selection of display language is performed in a similar way with the SMS Installer Service (Password Authentication) mentioned above.

MEAP Application System Information

- **Outline**

You can check the device's platform information and the MEAP application's system information.

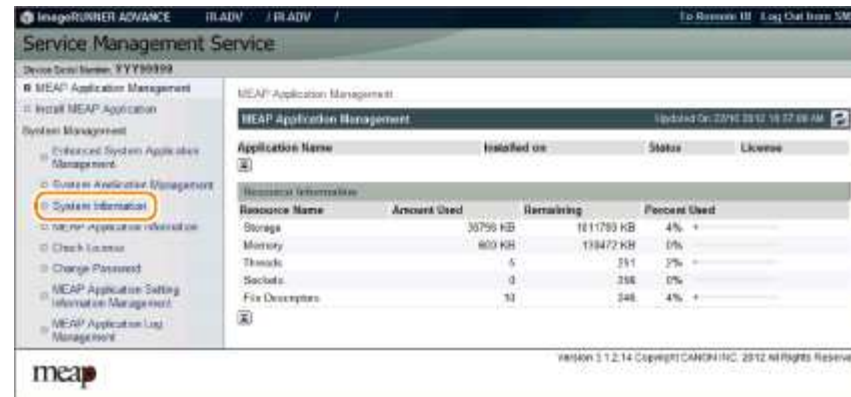
- **Checking the System Information**

System information that can be checked from the screen

- MEAP Specifications version (MEAP Spec Ver)
 - MEAP Contents version
 - Java Virtual Machine version
 - System application information
- The name of the installed system application
 - The installation date of the installed system application
 - Application ID of the installed system application
 - The status of the installed system application

The checking procedure is shown below.

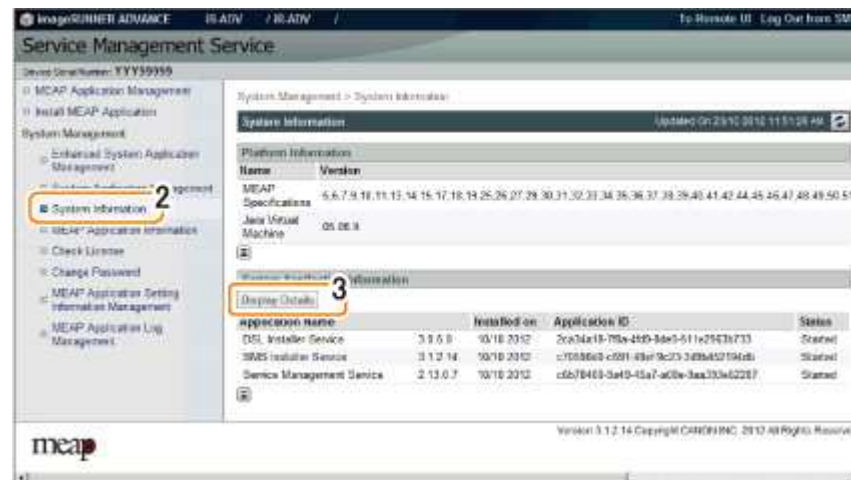
- 1) Log in to SMS.
- 2) Select [System Management] > [System Information] on System Management menu.



■ Display of System Information Details

The system information details can be displayed to check more than one pieces of information all at the same time: platform information, system application information, information on the installed MEAP applications, etc.

- 1) Log in to SMS.
- 2) Select [System Info] on System Management menu.
- 3) Click [Display Details] button.



- 4) System information of each application (including system applications) is shown in an additional window. Copy and paste all the information in a file to attach to AR reports as text information. This function is useful to check status information of each application.



■ Printing the System Information of a MEAP Application

MEAP system information can be printed out with iR device for confirmation.

Note:

The system information of the MEAP application that you checked in the previous section is exactly the same as the system information of the MEAP application that is output.

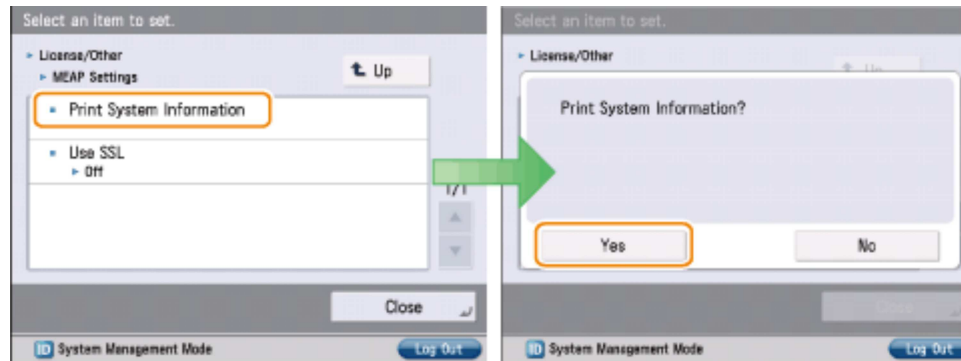
Follow the steps below when confirming information:

1) Select [Settings/ Registration] > [Management Settings] > [License/ Other] > [MEAP Settings] > [Print System Information] .

Note:

When System Manager ID and PIN are set, go to Top screen and log in as System Manager to continue jobs.

2) Press [Yes] button.



Note:

MEAP system information was printed out in PDL format conventionally. However, the information has been printed out in text format instead of PDL format, enabling iR devices without PDL installation to print out information (iR C3220 and later).

■ Content of MEAP system information

Application System Information

Application Name: C-Cabinet Gateway for MEAP
 Application ID/System Application Name: 03a46668-63e4-4636-9cbb-492b6cef05d5
 Application Version: 1.0.0
 Status: Resolved
 Installed on: Tue Oct 21 14:00:11 GMT+09:00 2003
 Vendor : Canon Inc.
 License Status : Installed
 Maximum Memory Usage : 1024
 Registered Service :

item	content
Application Name	It is the name (bundle-name) declared in a statement within the application program. It may not necessarily be identical to the name of the program.
Application ID/System Application Name	Application ID (application-id) items which are declared on the declaration statement in the application program are printed.

Application Version	It is the version of the application (bundle-version) declared in a statement within the application program.
Status	It indicates the status of the application in question; specifically, Installed: the application has been installed. Active: the application is being in use. Resolved: the application is at rest.
Installed On	It indicates the date on which the application was installed.
Vendor	It is the name of the vendor that developed the application, and is the name (bundle-vendor) declared in a statement within the application program.
License Status	It indicates the status of the license; specifically, None: no license is needed. Not Installed: no license has been installed. Installed: the appropriate license has been installed. Invalid: the license has been invalidated. Overlimit: the license has been used beyond its permitted limit.
License Expires After	It indicates the date after which the license expires. If the status of the license is 'none', this item will not be printed.
License Upper Limit	It indicates the limit imposed on individual counter readings. If the status of the license is 'none', this item will not be printed.
Counter Value	It is the current counter reading of a specific counter. If the status of the license is 'none', this item will not be printed.
Maximum Memory Usage	It indicates the maximum amount of memory that the application uses. It is the amount (maximum memory usage) declared in a statement within the application program, and is expressed in kilobytes.
Registered Service	It is a list of services that have been registered by the application with the MEAP framework. Some services may not have printable data.

MEAP Application Information

■ Outline

You can check the MEAP application installed on the device.

The following information can be checked on the MEAP application information screen.

Application Information

- Application Name
- Application ID
- Installed on
- Applet Number
- Resources Used (Storage, Memory, Threads, Sockets, File Descriptors)
- Description
- Manufacturer
- ContactAddress
- Category
- Version
- Copyright
- Applet-Name
- URL
- Export Package
- Export Service
- Import Package
- Import Service

License Information

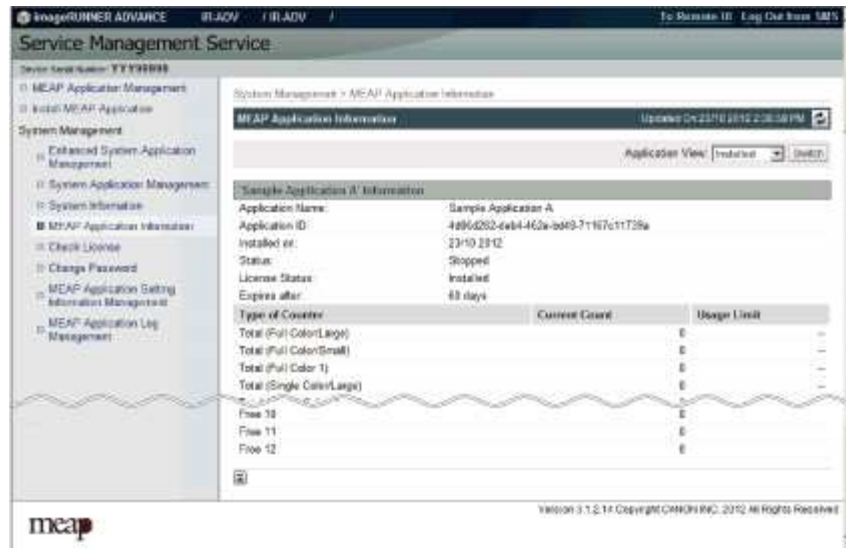
- Status
- Serial Number
- Expires after

■ Procedure to Check MEAP Application Information

- 1) Log in to SMS.
- 2) Select [System Management] > [MEAP Application Information] on System Management menu.



- 3) The MEAP application information screen appears. Scroll the screen and check the information of the target application.



Check License

■ Outline

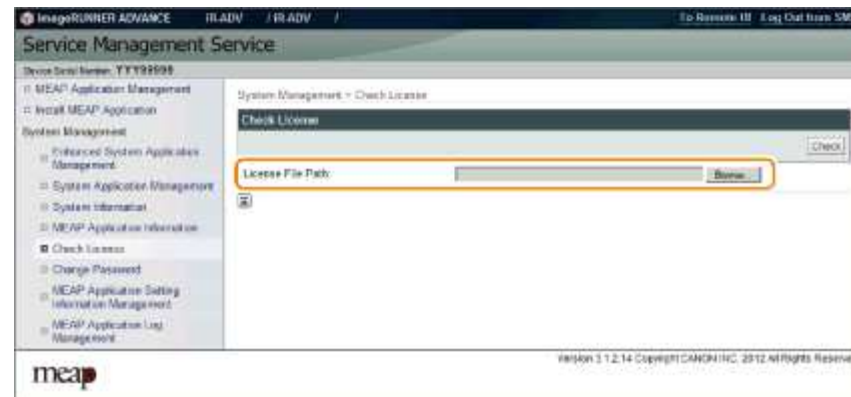
You can check the contents of the license file.

■ Procedure to Check the License File

- 1) Log in to SMS.
- 2) Select [System Management] > [Check License] on System Management menu.



3) Click the [Browse...] button, specify a license file, and click the [Check] button.



Changing SMS Login Password

■ Outline

You can change the password for logging into SMS.

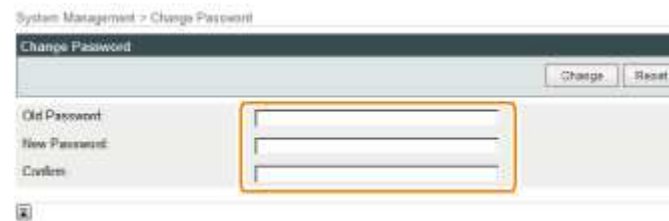
If you forgot the login password and you want to change the password back to the default value (MeapSmsLogin), see ["If you forgot the password \(SMS login password initialization\)"](#) in this chapter.

■ Procedure to Change the SMS Login Password

- 1) Log in to SMS.
- 2) Select [System Management] > [Change Password] on System Management menu.



3) Enter the current password and a new password, and then click the [Change] button.



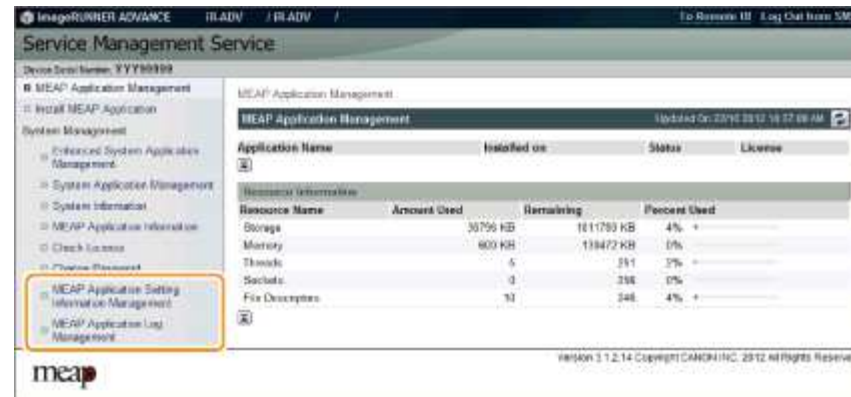
Note:

The [Reset] button on the [Change Password] screen is used to clear the value entered in the text field. It is not a button for changing the SMS login password back to the default value.

MEAP Application Setting Information Management and Log Management

■ Outline

The MEAP Application Setting Information Management page and the MEAP Application Log Management page provide menu related to "MEAP Application Configuration Service" for managing MEAP application setting information and menu related to "MEAP Application Log Service" for managing log information respectively.



● MEAP Application Configuration Service

This service is used to manage the MEAP application setting information. It has functions such as saving setting information to the MEAP area. Ver 57 of MEAP Specifications supports this service.

● MEAP Application Log Service

This service is used to collect MEAP application logs (debug logs and authentication logs).

Ver 58 of MEAP Specifications supports this service.

The collected logs can be downloaded or deleted in user mode.

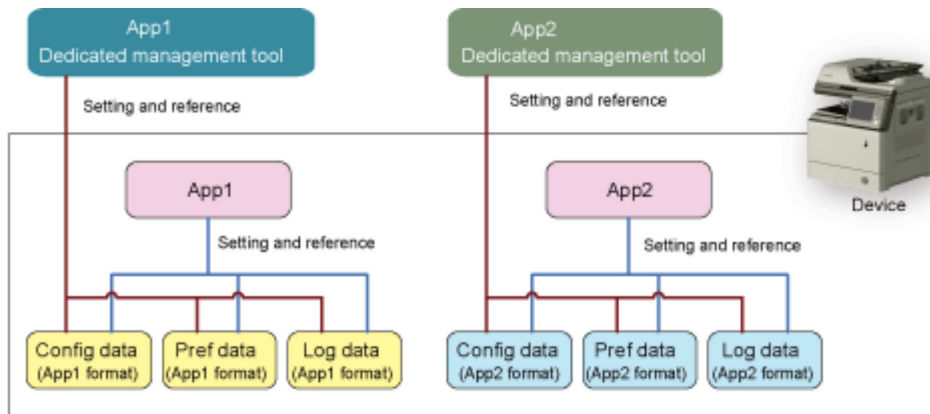
The settings such as the log level to be saved cannot be made from SMS.

These settings depend on the MEAP application. For detailed information, refer to the manual for the application.

■ Advantages Obtained When Using the Services

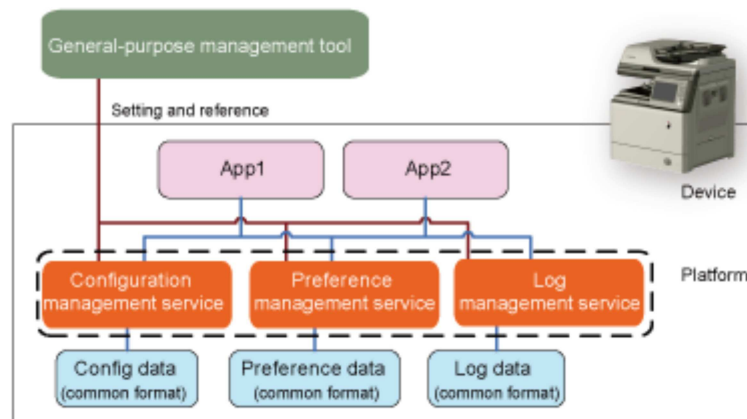
By using MEAP Application Setting Information Management and MEAP Application Log Service, as long as the MEAP application supports these services, you can collectively perform data management tasks.

● Devices and MEAP applications which do not support new functions



As for devices and MEAP applications that do not support the service, the setting information and log data are managed on an application-by-application basis.

- **Devices and MEAP applications which support new functions**



As for devices and MEAP applications that support the service, information can be collectively managed.

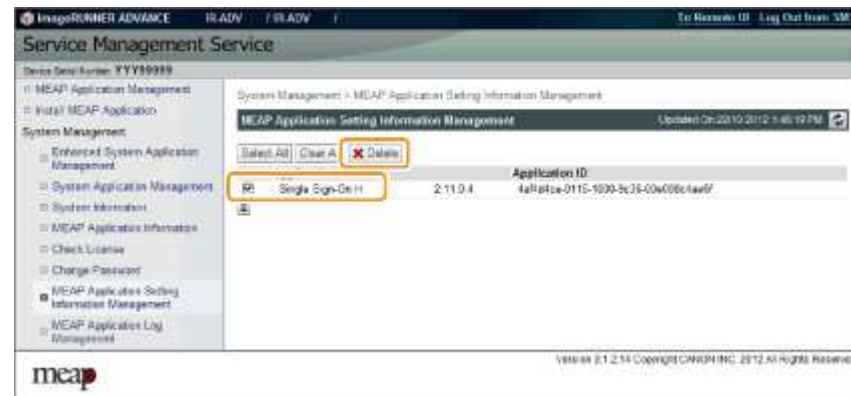
- **MEAP Application Setting Information Management**

The setting data (stored on the device) of the MEAP applications which support MEAP Application Setting Information Management can be deleted. The procedure is shown below.

- 1) Log in to SMS.
- 2) Select [System Management] > [MEAP Application Setting Information Management] on System Management menu.



3) Select an application you want to delete, and click the [Delete] button.



Note:
 If a MEAP application that contains setting data which can be shared (not dedicated to the application) is installed, the application name [Shared Setting Information of Applications] is displayed.

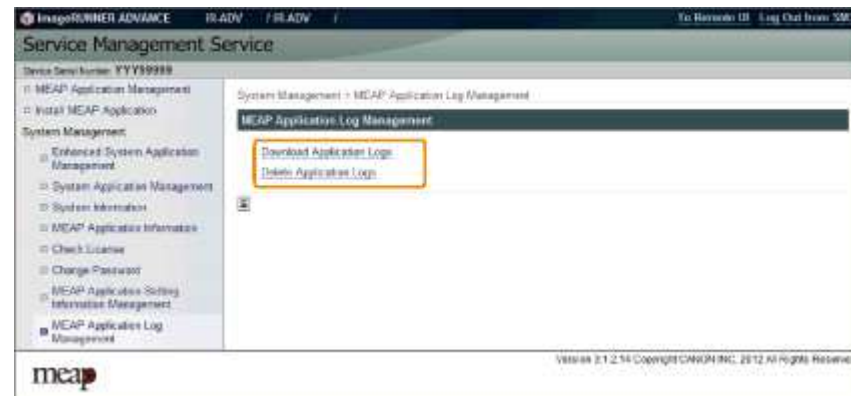
■ MEAP Application Log Management

The log data (stored on the device) of the MEAP applications which support MEAP Application Log Service can be downloaded or deleted. The procedure is shown below.

- 1) Log in to SMS.
- 2) Select [System Management] > [MEAP Application Log Management] on System Management menu.



3) Select [Download Application Logs] or [Delete Application Logs].



4) To download the logs

The file save dialog for the log file will appear. Specify the destination and save the file.



5) To delete the logs

The confirmation screen will appear to prompt you to delete the logs. Click the [Yes] button to delete the logs.



Maintenance

■ Backup of the MEAP Application Area and Recovery of the Backup Data Using SST

● Outline

When replacing or formatting the HDD, the data in the MEAP application area needs to be temporarily saved to your PC.

This chapter describes information on backing up the data in the MEAP application area and recovering the backup data.

In the case of MEAP-installed devices, the application is license-managed, so the application needs to be reinstalled and reconfigured when replacing or formatting the HDD.

In that case, a license for reinstallation needs to be downloaded and the customer data and configuration information need to be recovered, and these procedures pose heavy burdens on the service technician.

The area used for the MEAP application can be easily saved/recovered by using the backup function of SST (Service Support Tool).

This greatly reduces the work burden on the service technician.

Please note that the application cannot be illegally copied because the backup data can be recovered only when the iR device has the same serial number.

WARNING:

You must not perform any other work (including checking operation) until the HDD has been backed up. This arrangement is to prevent a mismatch of MEAP counter readings and the HDD contents, and any fault in operation arising as the result of failure to observe this will not be covered by the guarantee of operation.

Note:

The application that is installed with a reusable license can be reinstalled by using the same license.

● Backup Item Automatically Copied

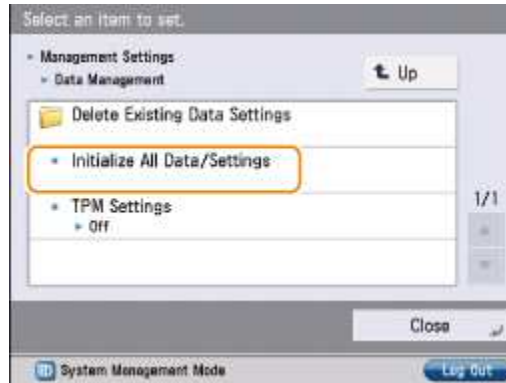
The following data are backed up using SST:

The following data are backed up (saved as Meapbackup.bin) using SST.

- MEAP applications.
- Setup data generated by MEAP applications (Note that image data stored in BOX will not be saved for MEAP applications using BOX function).
- User information data registered for local device authentication in SSO-H
- SMS password

CAUTION:

Do not execute [Initialize All Data/Settings] in user mode during the period from backup using SST to recovery of the data.



When [Initialize All Data/Settings] is executed, the key used to combine encrypted backup data (SMS password, etc.) is initialized, which makes it impossible to combine the data.

It means that SMS cannot be accessed even when the backup data has been recovered using SST.

If you inadvertently executed [Initialize All Data/Settings] and can no longer access SMS, the SMS login password needs to be initialized by following the procedure shown in "[When SMS Cannot Be Accessed](#)" in "[Login to SMS](#)" in this manual.

● **Data backed up using SST in the case of iR-ADV devices**

In the case of iR-ADV devices, menus are implemented as MEAP application. Therefore the following items can be also backed up (stored as Meapbackup.bin).

- Setting items of each menu in the main menu (Copy, Scan and Send, Fax, Scan and Store, Access Stored Files, Fax/I-Fax Inbox,).
 - Favorite settings
 - Default settings

- Settings of option shortcuts
- Previous settings
- Settings of quick menu
 - Button size information
 - Wallpaper settings
 - Quick menu button information
 - Restrict quick menu use

● Requirements for Backup Using the SST

The following conditions must be met for use of the function:

1) Device Firmware Version

Device Firmware Version for SST (Ver4.2x)

	Boot ROM	System	SST
iR-ADV C2030/C2020 series iR-ADV C2230/C2220 series iR-ADV 500/400 series	Boot ROM is not equipped.	Already supported since the 1st version.	The version supporting the corresponding devices.
imageRUNNER ADVANCE series other than above	Already supported since the 1st version.	Already supported since the 1st version.	The version supporting the corresponding devices.

2) SST Version

Version 4.2.x or later. An earlier version will not permit the use of the function. If needed, upgrade the SST.

3) Space for backup

To back up the HDD of the iR, the PC must have approx 1024MB of free space at maximum. Sizes of backup files depend on actual data capacities to be backed up.

■ Procedure for backing up the MEAP application area using SST

1) Switching Login Service / Backup of Login User Information

If SSO-H is used for the login service, switch to default authentication before backing up the user information. Although SST will back up local device user information, it is recommended to export the user information just in case. For local device user information backup, go to User Management page of SSO-H site and export the data. (The SSO-H login page opens with the URL "https://<device IP address>:8443/ss0/").

CAUTION:

- If a HDD of a system that uses SSO-H is formatted without changing the login service to the default authentication, the error message “The login service must be set again with SMS” appears and the system cannot start up when you attempt to restart the system after formatting.
- If this problem occurs, change the login service to SSO-H with SMS. If you cannot access to SMS since you do not have the IP address of the device, start the system with FIXIP mode -hold down the numeric keys 1 and 7 and turn the power switch on. The IP address “172.16.1.100” will be automatically assigned for the device. Then log in to SMS specifying the address.

2) Starting the device in Download Mode

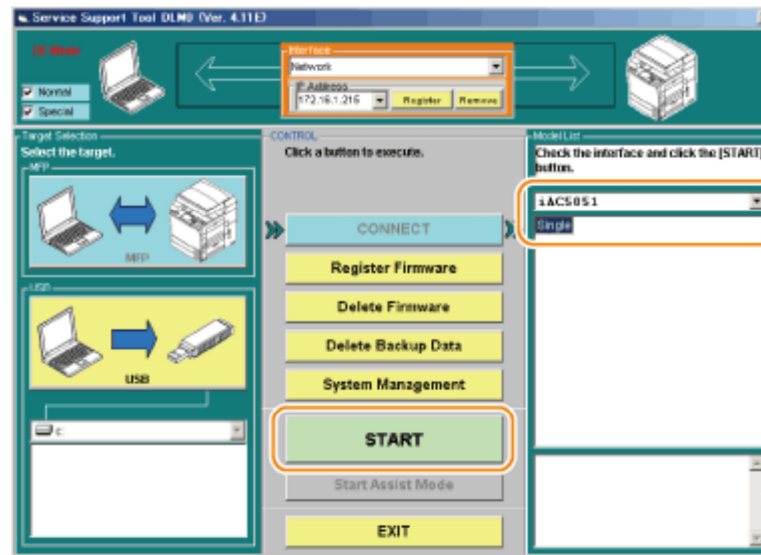
Press [2] and [8] buttons at the same time on the control panel and turn on the main power switch to start the device in Download Mode. Note that SST backup function is enabled only in Download Mode.

3) Connecting the main unit to the PC to start SST

Connect the main unit to the PC with SST installed using the crossing cable and the like to start SST on the PC.

4) Connecting the device using SST

When starting SST, select the target device type as Single and click [Start] button.



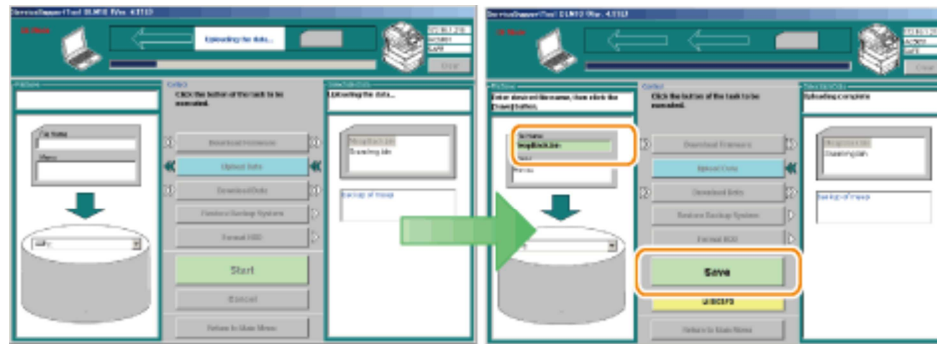
5) Generating backup data to transfer it to the PC (uploading)

Click [Upload Data] button of SST and select “Meapback.bin” as the item to be backed up to click [Start] button.

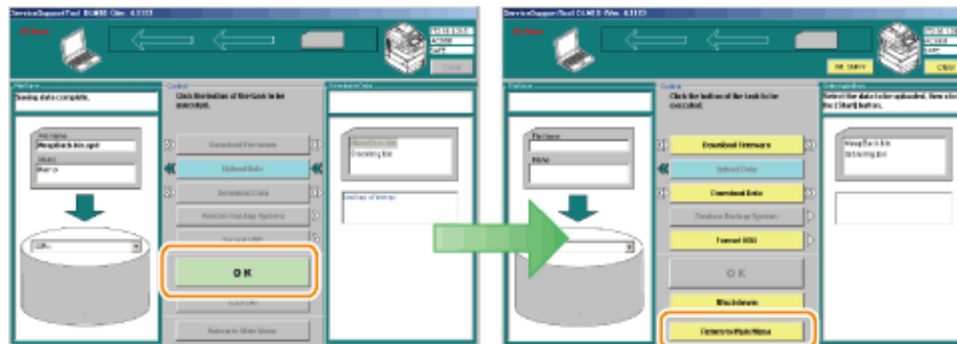


6) Saving backup data

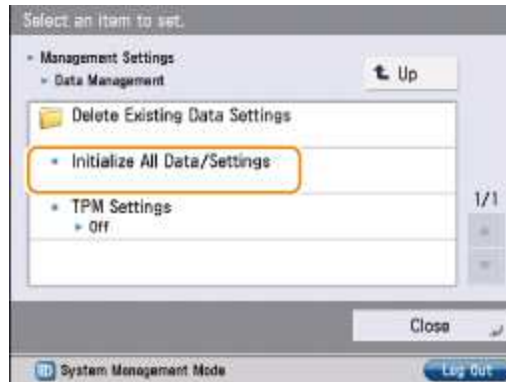
Upon the backup data transferred to the PC, enter an appropriate file name and click [OK] to save the backup data on the PC.



When the file is successfully saved, click [OK] button, and then click [Return to Menu] button.



CAUTION:
Do not execute [Initialize All Data/Settings] in user mode during the period from backup using SST to recovery of the data.



When [Initialize All Data/Settings] is executed, the key used to combine encrypted backup data (SMS password, etc.) is initialized, which makes it impossible to combine the data.

It means that SMS cannot be accessed even when the backup data has been recovered using SST.

If you inadvertently executed [Initialize All Data/Settings] and can no longer access SMS, the SMS login password needs to be initialized by following the procedure shown in "[When SMS Cannot Be Accessed](#)" in "[Login to SMS](#)" in this manual.

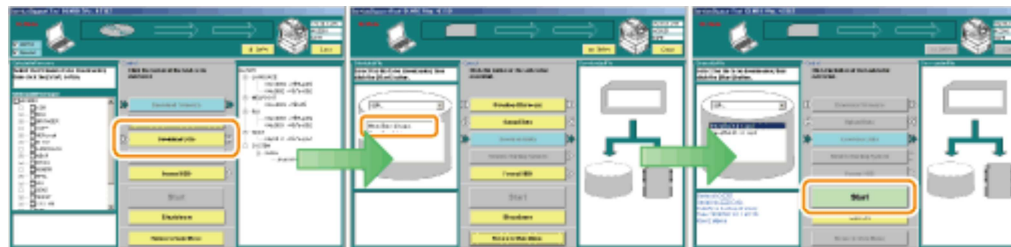
■ Procedures to Restore Backup Data

1) Connecting to the device

Connect the device using SST by following step 1 to step 4 of the [Procedure for backing up the MEAP application area using SST](#).

2) Restoring backup file

Click [Download Data] button and select the data backed up in the previous step (Meapback.bin) to click [Start Restoring Data]. Note that the data backed up in a different version cannot be restored.



3) Transferring Data

When the data is successfully transferred, click the [OK] button shown on the screen. To continue other jobs, click [Return to Menu] button.



- 4) Turn off and on the main power switch of the device to gain access in SMS to check that MEAP applications are surely restored.
- 5) Restore the backup data and setting saved. Note that the user information of the local device is included in the backup data, thus does not need to be restored.

■ Formatting and Replacing the HDD

● Outline

If the HDD is broken or does not function correctly due to failure of the system (excluding the MEAP application), it needs to be formatted or replaced.

When the HDD is formatted or replaced, the files of the MEAP application stored in it will be lost, so make a backup of the MEAP application area according to “[Procedure for backing up the MEAP application area using SST](#)” if possible. If a backup cannot be made, the MEAP application and the license files need to be reinstalled.

As for the MEAP counter information, it will not be lost because it is backed up just like the conventional counter.

If a backup cannot be made, a special license file (a license file for installation with the expiration date carried over from the current counter value) is required to reinstall the MEAP application. This special license file is treated as a service tool and cannot be obtained by a general user.

In order to obtain a special license file, a service technician needs to contact a person in charge of support of a sales company.

When contacting the person in charge of support, the service technician also needs to provide the serial number of the device and the name of the MEAP application installed.

In the support departments of regional headquarters of Canon, all license files of the applications that have been issued are filed according to device serial numbers, enabling you to obtain a series of license files through a single screen as long as you can identify the serial number of the device in question.

Note:

The application that is installed with a reusable license can be reinstalled by using the same license.

● Formatting the HDD

Procedure to format the hard disk

Follow the following procedure to format the HDD.

1) Connecting to the device

Connect the device using SST by following step 1 to step 4 of "[Procedure for backing up the MEAP application area using SST](#)".

2) Formatting the HDD

Select "Format HDD" from SST menu to format the HDD.

Note:

HDD can be formatted also by starting Download mode using the USB memory and executing formatting from the displayed menu.

● HDD replacement procedure

Outline

The procedure for replacing the HDD differs according to whether the HDD functions normally or not.

If the MEAP application area cannot be backed up

If the HDD does not function correctly due to failure or for other reason, the MEAP application area cannot be backed up. It is therefore necessary to reinstall the application after replacing the HDD. The procedure is shown below.

1) Preparation for replacement

Copy a set of license files for reinstalling the MEAP application (special licenses and reusable licenses) to a laptop for service operation.

Register a set of system files of a target product to SST. Or, prepare USB thumb drive of the System file transfer settlement.

2) Replacing the drive

Prepare the necessary service parts of the HDD, and replace the drive.

3) Formatting HDD

Format the HDD referring to [Procedure to format the hard disk](#).

4) Reinstalling the MEAP application

When the device has started normally, obtain the jar files of the MEAP applications from the user, and install them using the license files for reinstallation.

Installation method is the same as normal installation.

5) Importing user information

As necessary, make login service selections and import user information.

Note:

When you replace the HDD without uninstalling MEAP applications, make sure to reinstall the previously installed applications. Unless reinstalling them, MEAP counter will not be released and the message “The number of applications that can be installed has exceeded the limit. Try to install this application after uninstalling other applications.” is displayed so that the installation of new applications may not be accepted. If you want to install new applications in this case, once reinstall the applications in-stalled before formatting and uninstall unnecessary applications.

● If the MEAP application area can be backed up

If the MEAP application area can be backed up, it can be recovered after replacing the HDD, so it is not necessary to prepare the special licenses for reinstallation.

1) Preparation for replacement

Back up the MEAP application area of the device according to the procedure for backing up the MEAP application area using SST.

2) Replacing the drive

Prepare the necessary service parts of the HDD, and replace the drive.

3) Formatting HDD

Format the HDD referring to [Procedure to format the hard disk](#).

4) Restoring the backup file

Restore the backup data referring to the [Procedures to Restore Backup Data](#).

5) Importing user information

As necessary, make login service selections and import user information.

■ MEAP Safe Mode (level 2)

● Outline

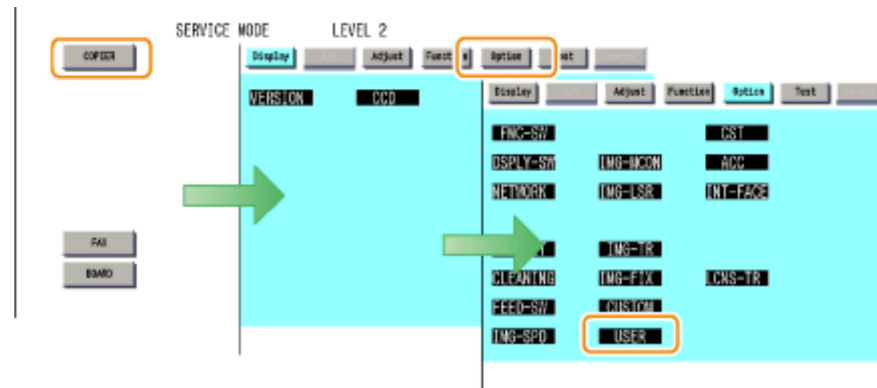
Use safe mode if you need to start up the system without worrying about extra applications. It will start up only those system software files (including SMS) that normally start up as default files while preventing MEAP applications and the like from starting up.

When you have made changes and restart the device, the control panel will indicate 'MPSF' in its lower right corner. The MEAP applications that may have been active before you shut down the equipment will not start up on their own. Make use of safe mode when restoring the system software as when MEAP applications or services cause a fault as the result of a conflict or wrong sequence of registration/use. You can access to SMS in this condition so that you can take necessary measures, for example, you can stop application that may cause the trouble.

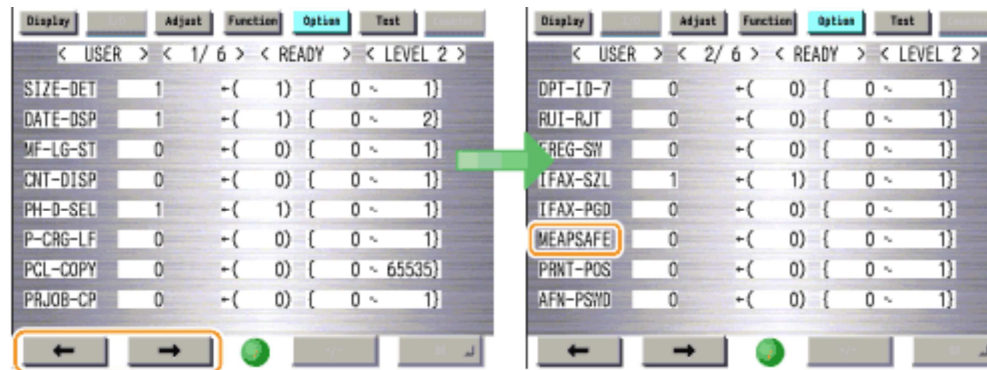
If default authentication has been selected, the mode of authentication remains valid; otherwise, the message "The login service must be set again with SMS" appears. Change the login service as necessary.

● Starting in Safe Mode

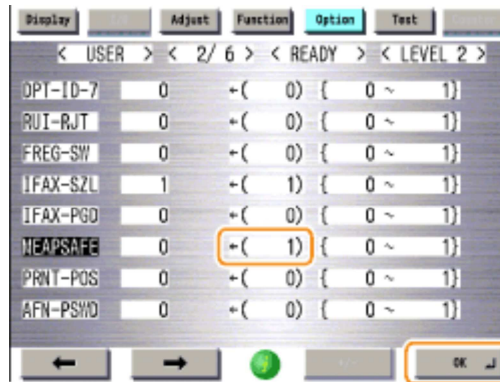
- 1) Startup [SERVICE MODE] in level 2.
- 2) Press [COPIER] > [Option] > [USER] buttons.



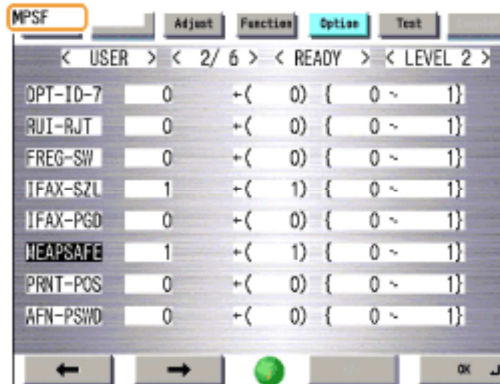
- 3) Press ← or → button for several times until [MEAPSAFE] button is shown. Click [MEAPSAFE] button.



- 4) Press the 1 key on the control panel keypad to change the setting to '1'; then, click [OK] button.



5) Check that the notation 'MPSF' has appeared in the upper left corner of the screen; then, restart the device.



Note:

If accessed to SMS in MEAP SAFE mode, the device started mode is shown on the title bar of the browser.

An example of the title bar displayed at the time of startup in MEAP SAFE mode

Service Management Service : <Device Name>:<Product Name>: Safe Mode



CAUTION:

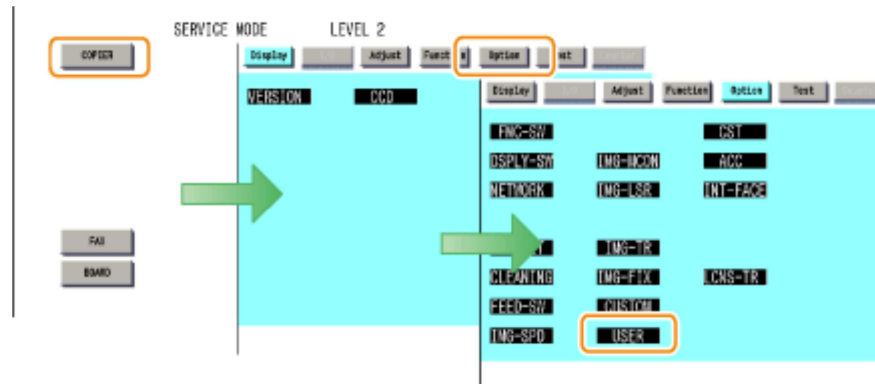
If the device has been started in MEAP SAFE mode, all the MEAP applications stop and the status becomes "Installed".

This status remains unchanged even if the MEAP SAFE mode is canceled and the device is started again in normal mode. It is therefore necessary to access SMS after normal startup and start the MEAP application.

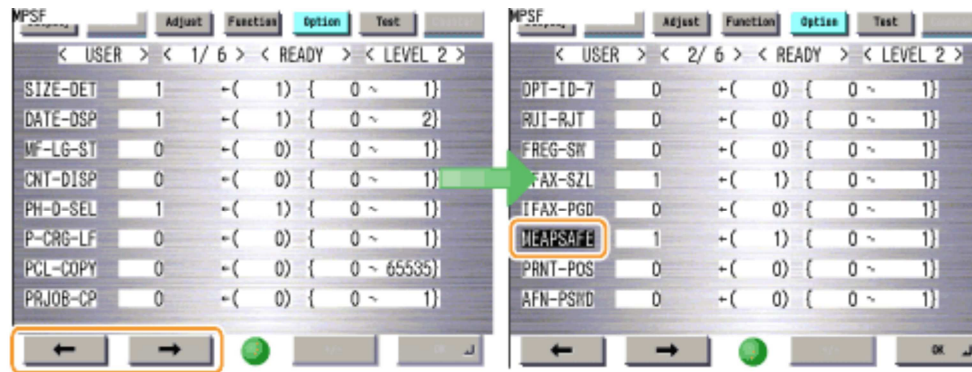


● **How to cancel MEAP SAFE mode**

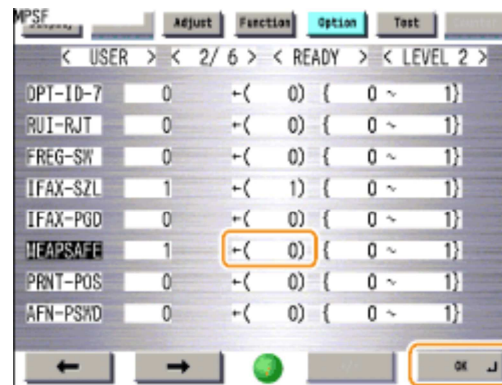
- 1) Startup [SERVICE MODE] in level 2.
- 2) Press [COPIER] >[Option] > [USER] buttons.



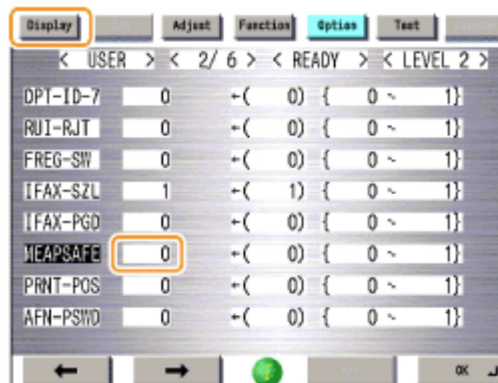
- 3) Press ← or → button for several times until [MEAPSAFE] button is shown. Click [MEAPSAFE] button.



4) Press the 0 key on the control panel keypad to change the setting to '0'; then, press [OK] button.



5) Start service mode again after rebooting the device, and check that the displayed setting value has changed to "0" and that [MPSF] is no longer displayed at the upper left of the screen.



■ Collection of MEAP Console Logs

● Overview

When debugging a MEAP application, console logs need to be collected in some cases.

The following shows how to collect MEAP console logs using commercially available terminal software and service mode.

● What to Prepare

- PC connected with the same network as the device
- Commercially available terminal software

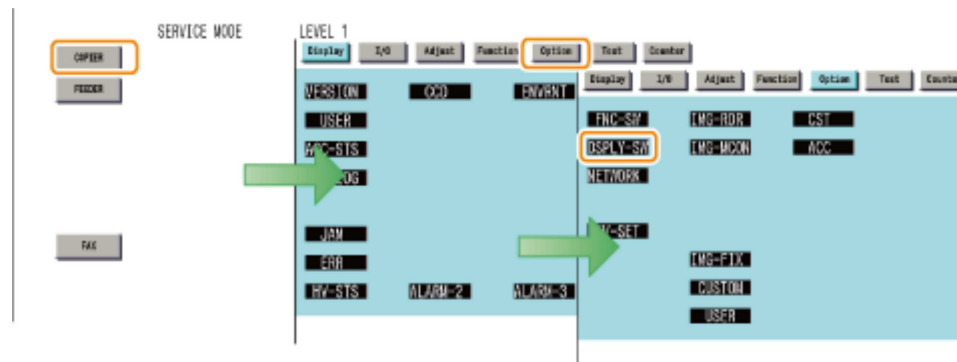
Note:

In the procedure shown in this manual, "Tera Term Pro" and "Hyper Terminal" are used as the terminal software.

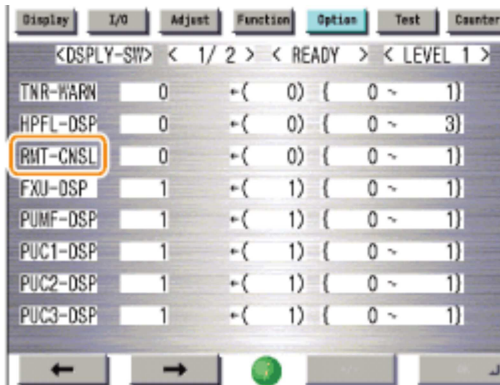
● Work Procedure

Device Setting Procedure

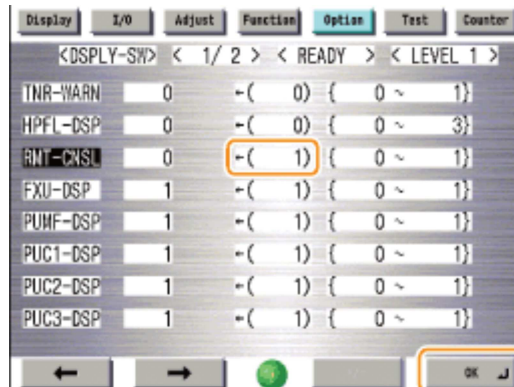
- 1) Start [SERVICE MODE] in Level 1.
- 2) Press [COPIER] > [Option] > [DSPLY-SW] buttons.



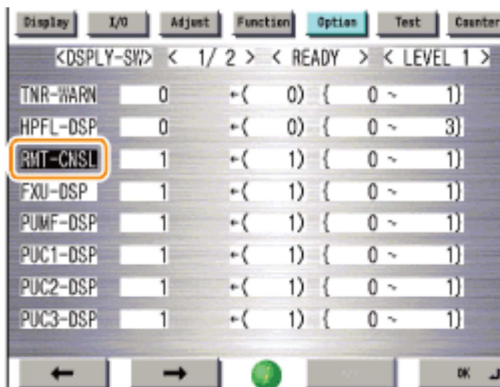
- 3) Press [RMT-CNSL] button.



4) Press either 1 (activate remote console function) on control panel (the numerical value input in the field is displayed), and press [OK] button.

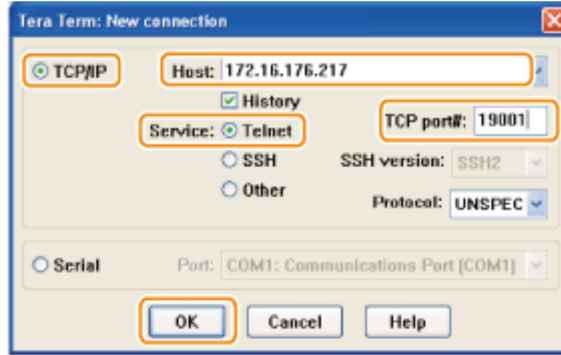


5) Check to see that it is reflected in setting field, and restart the device.



PC setting procedure (when Tera Term is used)

- 1) Install the terminal software on the PC.
- 2) Start the terminal software, make the following settings, and then click the "OK" button.

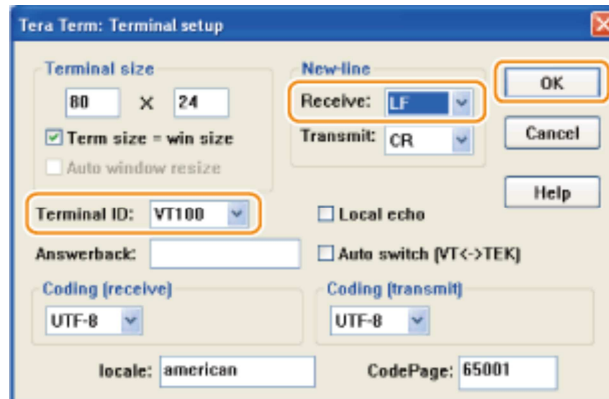


Connection	: Select [TCP/IP] (Default)
Host	: Device Host Name or IP Address
Service	: Select "Telnet"
TCP port#	: Enter 19001

- 3) The connection window will open. Select [Terminal...] from the [Setup] menu.

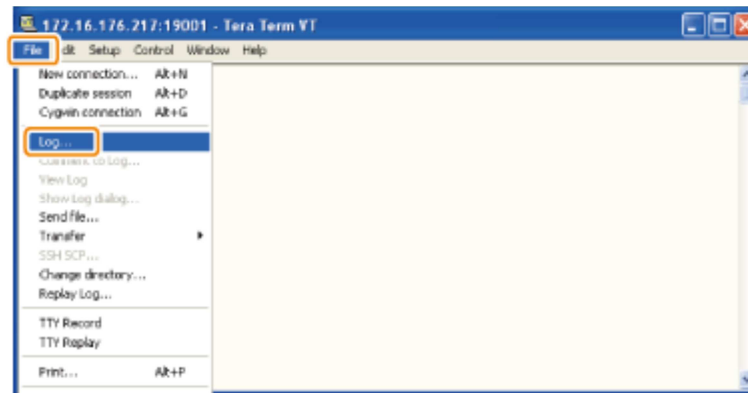


- 4) The terminal setting screen will appear. Make the following settings, and then click the "OK" button.

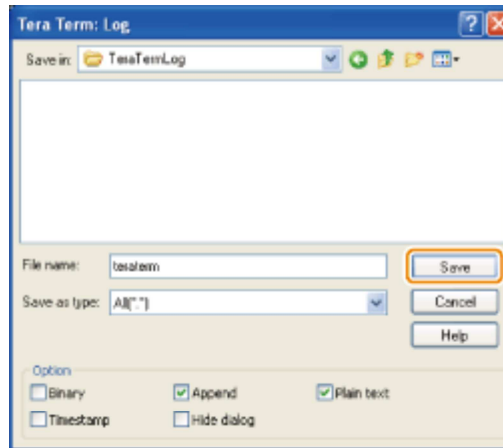


Terminal ID	: VT100
New-line Receive	: LF

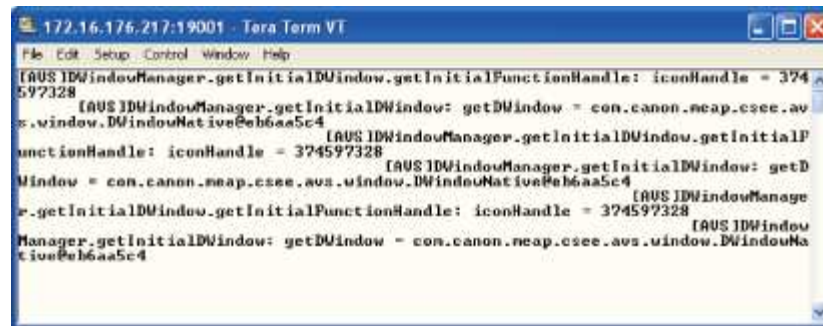
5) Select [Log...] from the [File] menu.



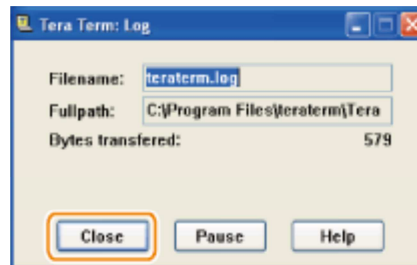
6) The dialog for specifying the save destination of the log file will appear. Set the save destination path and the file name, and then click the [Save] button.



7) Perform the operation whose log you want to collect.



8) Click the [Close] button in the log dialog.



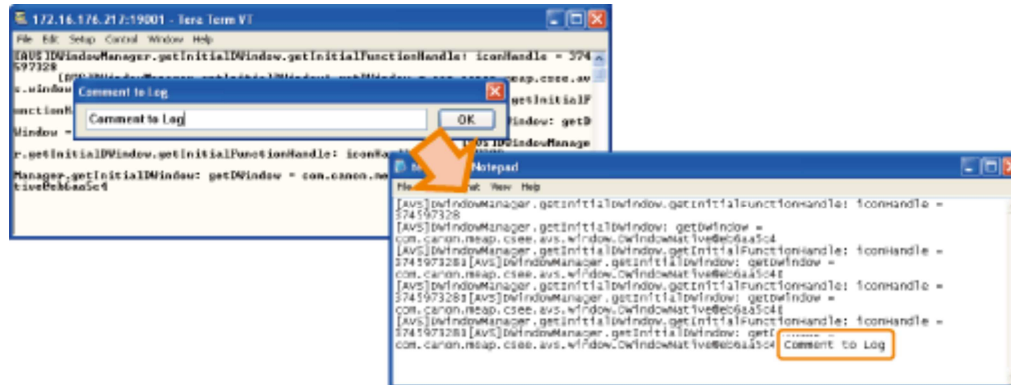
Note:
To suspend log collection, click the [Pause] button.

Note:

While collecting logs, the following operations are available from the [File] menu.

Comment to Log... :

You can add a comment to the log being collected. The added comment is reflected in the log file.



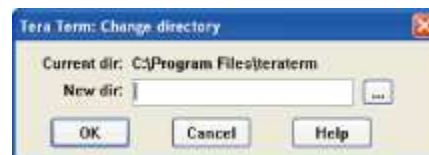
Show Log dialog... :

The logs that have been collected are pasted on Notepad and displayed.



Change directory... :

The preliminarily set save destination of the log file can be changed.



9) Open the file saved in the save destination, and check that the logs are stored correctly.

```
teraterm - Notepad
File Edit Format View Help
[Avs]DefWindowManager.getInitialWindow.getInitialFunctionHandle: fconhandle = 3745073;
[Avs]DefWindowManager.getInitialWindow.getWindow = com.computecap.sswc.avs.window.Dv
[Avs]DefWindowManager.getInitialWindow.getInitialFunctionHandle: fconhandle = 3745073;
```

Note:

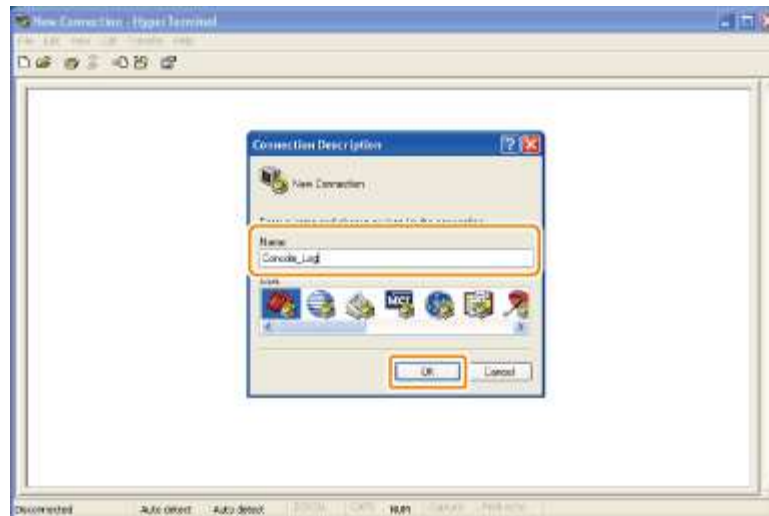
Depending on the MEAP application, the log output setting needs to be made in order to collect logs.

CAUTION:

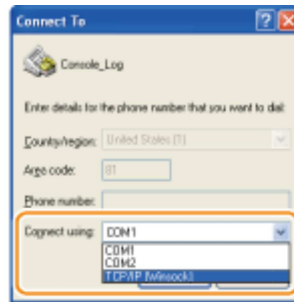
After collecting logs, the remote console function of the device needs to be disabled (select [SERVICE MODE] LEVEL1 > [COPIER] > [Option] > [DSPLY-SW] > [RMT-CNSL] > 0, and restart the device).

PC setting procedure (when Hyper Terminal is used)

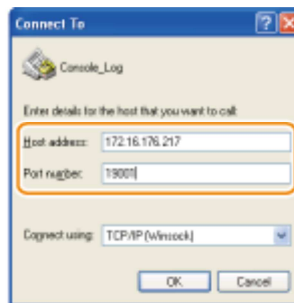
- 1) Start Hyper Terminal, set the connection name in the [Connect Description] dialog that appears on the screen, and then click the OK button.



- 2) Set [TCP/IP(Winsock)] for [Connect using].



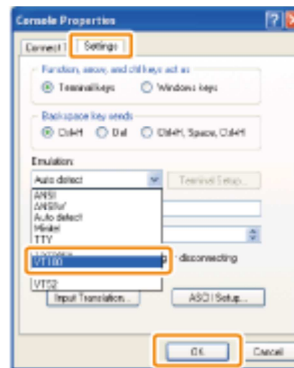
3) Enter the IP address of the target device in [Host address], and enter "19001" (fixed) in [Port number].



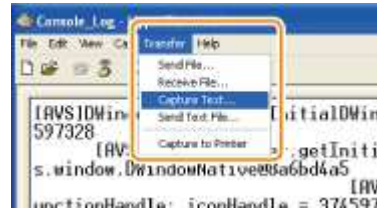
4) Click the "Properties" icon on the Hyper Terminal screen.



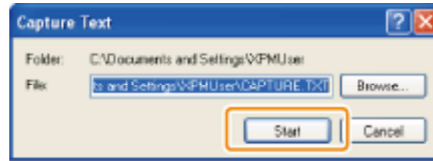
5) The [Console Properties] dialog will appear. Select the [Settings] tab, select [VT100] for [Emulation], and then click the [OK] button.



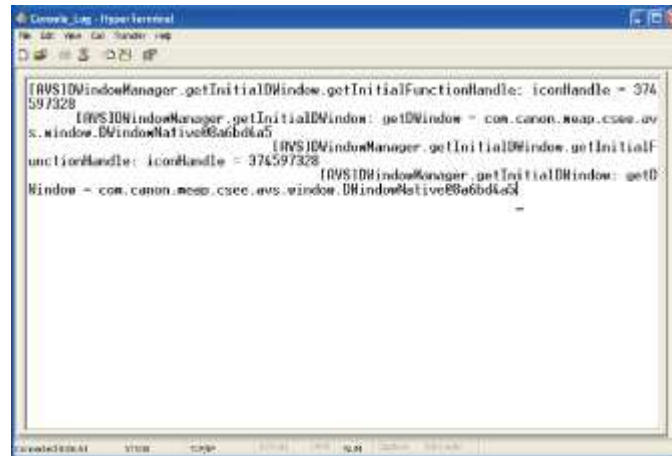
6) Return to the Hyper Terminal window, and select [Transfer] > [Capture Text...] from the menu.



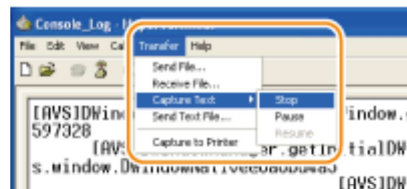
7) The dialog for specifying the save destination of the log file will appear. Specify the save destination.



8) Perform the operation whose log you want to collect.



9) Select [Transfer] > [Capture Text...] > [Stop] from the menu.



10) Open the file saved in the save destination, and check that the logs are stored correctly.



```
[Avs]bWindowManager.getInitialWindow.getInitialFunctionHandle:
1corhandle = 3745973288[Avs]bWindowManager.getInitialWindow:
getbWindow = cos.canon.sleep.csee.av5.window.bWindowat1ve8a6bd4a88
```

Note:

Depending on the MEAP application, the log output setting needs to be made in order to collect logs.

CAUTION:

After collecting logs, the remote console function of the device needs to be disabled (select [SERVICE MODE] LEVEL1 > [COPIER] > [Option] > [DSPLY-SW] > [RMT-CNSL] > 0, and restart the device).

■ Using USB Devices

● USB Driver

Two types of USB drivers

While the USB driver that can be used in iR series is only the USB driver designed exclusively for MEAP application (hereinafter referred to as “MEAP driver”), not only MEAP driver but also USB system driver (hereinafter referred to as “system driver”) can be used in iR-ADV series.

System driver and MEAP driver cannot be used together. When either of them is used, the other driver cannot be used.

USB driver setting (iR-ADV series):

System driver is active by default in iR-ADV series.

The driver can be changed in Settings/Registration (user mode).

Usually, It is not necessary to change the setting because it is specified in the MEAP application side.

Only in the case of a special MEAP application, it is necessary to change the USB driver setting.

For details, refer to specifications of MEAP application side.



Operating mode settings [Use MEAP driver as USB input device]	Conventional USB keyboard enabled MEAP application	Software keyboard application (System Driver/ MEAP Driver)	System driver supported MEAP application
ON * MEAP driver (conventional compatibility mode)	Can use USB keyboard. Can work only on the conventional applications that support the MEAP application driver.	Cannot use USB keyboards. (Device cannot be detected.)	Cannot use USB keyboards.
OFF (*default) * Native driver	Cannot use USB keyboards. (Device cannot be detected.)	Can use USB keyboards.	Can use USB keyboards. Via software keyboards only.

Note:
When any settings changes are made, the device must be restarted.

Setting the USB driver for each USB device (MEAP driver preference registration)

If it is set to use the system driver, the conventional applications that support the MEAP application driver cannot use the USB input device.

Therefore, for the USB drivers used by USB devices/MEAP applications, there is setting function (MEAP driver preference registration) to give priority to the MEAP driver.

If you register the ID of the USB device by using this function, the USB device can use the MEAP driver despite the Additional Function settings.

Using this function requires the conditions below:

- Supported MEAP SpecVer: 26

- Describe the idVendeor(VID) and idProductc(PID) of USB device in the manifest or activate/ deactivate the VID and PID by calling API from MEAP applications.

The driver setting that is used in a manifest file is reflected in the following timing.

When registering from a manifest file.

- The registration will be enabled when an application is activated and device is restarted.
- The registration will be disabled when an application is stopped and device is restarted.

Note:
 You can display/check the used driver setting at “USB device report print” described below regardless of whether it is registered from a manifest file or is registered from API.

Availability for MEAP application of the USB device A (either HID keyboard or Mass Storage) plugged to iR device

Registration status of USB device A	When the HID keyboard is installed > USB Settings: [Use MEAP Driver for USB Input Device] When the Mass Storage is installed > USB Settings: [Use MEAP Driver for External USB Device]	Native application	MEAP application		
			System driver supported application	System driver not supported/conventional application	Application with VID/PID declared in Manifest for x
Not registered	OFF	YES	YES	NO	
	ON	NO	NO	YES	
Registered	OFF	NO	NO	YES	YES
	ON	NO	NO	YES	YES

YES: USB device available NO: USB device not available

Availability for MEAP applications of USB devices B and C (either HID keyboard or Mass Storage) plugged to iR device

Registration status of USB device B	Setting to use MEAP driver (Additional Functions mode)	USB device	Native application	MEAP application		
				System driver supported application	System driver not supported / conventional application	Application with VID/PID declared in Manifest for B
Registered	Not used (Native driver to be used)	B	YES	YES	NO	
		C	YES	YES	NO	
	To be used	B	NO	NO	YES	
		C	NO	NO	YES	
Not registered	Not used (Native driver to be used)	B	NO	NO	YES	YES
		C	YES	YES	NO	NO
	To be used	B	NO	NO	YES	YES
		C	NO	NO	YES	YES

YES: USB device available

NO: USB device not available

Specifications for the use of USB keyboards

Characters that could be entered on the software keyboard displayed on the conventional control panel can be entered using a USB connected keyboard.

- When the software keyboard window is displayed, characters can be entered from the USB keyboard (in-line entry not possible).
- When the software keyboard window is not displayed, entered characters will not be remembered.
- The characters, which can be entered from a USB keyboard, is only a character, which can be entered from the software keyboard.
- Even if characters are entered from the USB keyboard, the software keyboard window will not change (the corresponding key does not invert or change color).
- Input from the USB keyboard can be accepted at the same time as input from the software keyboard or numeric keys.
- Since the device supports Plug and Play, the USB keyboard can be disconnected/ connected freely. However, do not disconnect and connect during in deep sleep (when in sleep with setting "low" at "the power consumption in sleep"). It is out of an operation guarantee to disconnect and connect the USB keyboard in deep sleep.
- When USB device is attached to iR device, iR devices do not shift to deep sleep mode.
- Keyboard layout changes according to the keyboard layout settings in the Settings/Registration screen. In addition, function keys and ten keys which are not displayed in the software keyboard cannot be used. (Keyboard which the operation check was conducted is 84-key Keyboard, but this does not mean that the operation of all 84-key Keyboards is guaranteed.)

Note:

The factory shipment default setting is to enable the use of native (main unit functionality) USB keyboards. Therefore, in order to use MEAP application keyboards, [Use MEAP driver for USB input device] under [System management settings (initial settings/ registration)] needs to be set to ON (factory shipment setting is OFF).

Operations change as described below in accordance with ON/ OFF settings.

ON: when using MEAP application keyboard

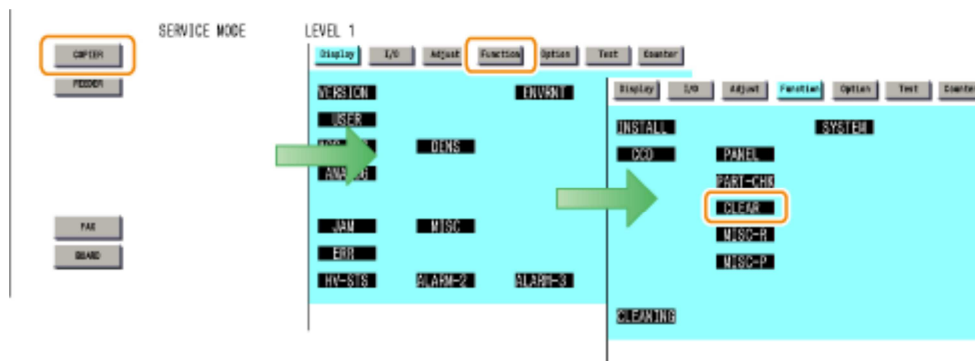
OFF: when using native (main unit functionality) keyboard (factory shipment default)

● Initialization of MEAP driver priority registration

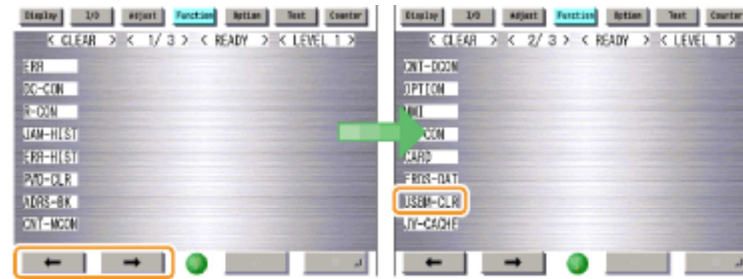
When any trouble occurs regarding USB driver settings and it is necessary to reset the setting information, you can reset the MEAP driver preference registration by using service mode.

Steps to initialize preference use registration

- 1) Start [SERVICE MODE] in Level 1.
- 2) Press [COPIER] > [Function] > [CLEAR] > buttons.



- 3) Press or button for several times until [USBM-CLR] is shown on the screen.
Press [USBM-CLR] button.



4) Press [OK] button to restart this device.

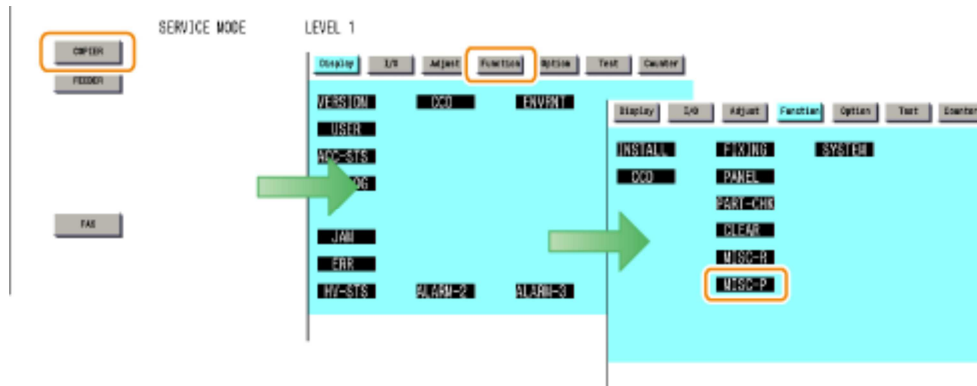


● USB Device report print

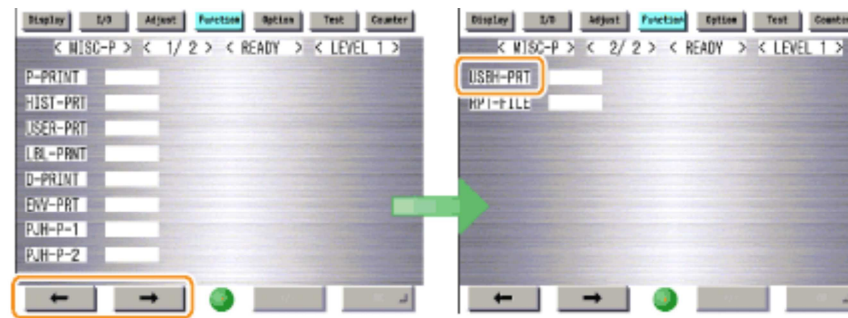
To check the vendor IDs (idVendor) and the product IDs (idProduct) registered in this device by means of declaration in Manifest file of MEAP applications, output the USB Device report print.

[Steps to output the USB Device report print](#)

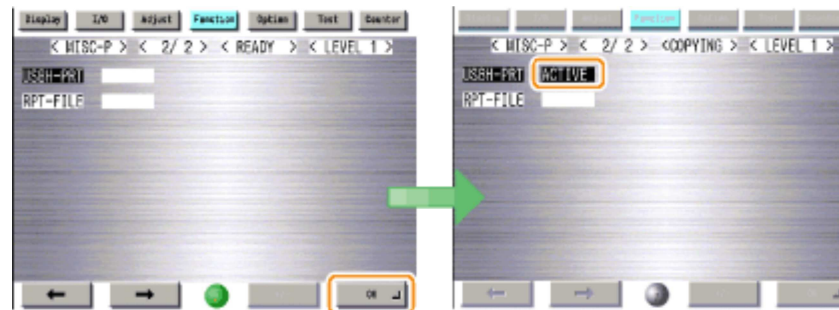
- 1) Start [SERVICE MODE] in Level 1.
- 2) Press [COPIER] > [Function] > [MISC-P] > buttons.



3) Press **←** or **→** button for several times until [USBH-PRT] is shown. Press [USBH-PRT] button.



4) When pressing [OK] button, [ACTIVE] blinks on the status field.



5) When [OK] is shown on the status field, the status print is output. Check the contents of the print.



Example of output result

```

*****
*** USB Device report print ***
*****

USB device information

T: Bus=01 Lev=02 Prnt=03 Port=01 Cnt=01 Dev#= 5 Spd=480 MxCh= 0
D: Ver=2.00 Cls=00(>ifc) Sub=00 Prot=00 MxPS=64 #Cfgs= 1
P: Vendor=066f ProdID=4210 Rev=10.02
S: Manufacturer=SigmaTel, Inc.
S: Product=STIr42xx
S: SerialNumber=0002F0F7261287A5
C:* #Ifs= 1 Cfg#= 1 Atr=80 MxPwr=100mA
I: If#= 0 Alt= 0 #EPs= 2 Cls=fe(app.) Sub=02 Prot=00 Driver=irda-usb
E: Ad=81(I) Atr=02(Bulk) MxPS=512 lvl=0ms
E: Ad=01(O) Atr=02(Bulk) MxPS=512 lvl=0ms

```

USB device information Content

Display the information of the USB device, which the device recognized.

If not displayed, there may be some fault occurred.

Some of standard optional devices are not displayed on a report.

The details of each item are as follows.

T : Topology

Internal hierarchical structure, which a USB device is connected, is shown. The number of a connected bus, the hierarchical structure and connection speed can be indicated.

D : Device

Information of USB devices is shown.

P : Product

Product information of USB devices is shown. Vendor ID and Product ID can be recognized here.

S : String

The character string embedded in a USB device is shown. A manufacture name and a product name can be recognized here.

C : Configure

The configuration information of a USB device is shown. * mark is to know whether it is active.

I : Interface

The interface information of a USB device is shown. Interface class and the driver to handle can be recognized.

The value and the content of Driver are as follows.

Labeling	Content
usbhid	It is displayed when the USB system driver is assigned to the input device connected.
usb-storage	It is displayed when storage devices (USB memory storage etc.) are connected.
irda-usb IrDA	It is displayed when the dongle is connected.
hub	It is displayed when HUB is connected.
gpusb	It is displayed when the USB driver only for MEAP application is assigned to the input device connected.
gpusbex	It is displayed when a USB device, which specific vendor ID/ Product ID are preferentially registered using a manifest and MEAP API, is connected and the USB driver only for MEAP application is assigned.

E:Endpoint

The Endpoint information of a USB device is shown.

Right or wrong of report output

Connecting device	Report printing
HID	Yes
Storage	Yes
FAX	No

Connecting device		Report printing
USB Device Port	IrDA	Yes
	Multimedia Card Reader	Yes
	IC Card Reader	Yes
Image Data Analyzer Board-A1		No
Hub	Internal Hub*	No
	External Hub	Yes

* USB Device Port-B1 Hub for device ports installed at the introduction

Note:

Some connecting devices such as the Image Data Analyzer Board and USB Device Port are not installed depending on the model.

[The content of MEAP preferred device information](#)

Display the information of the application or a USB device, which preferentially registered with MEAP application.

By seeing this information, it can check which Application ID of the MEAP application is in the status using a specific USB device.

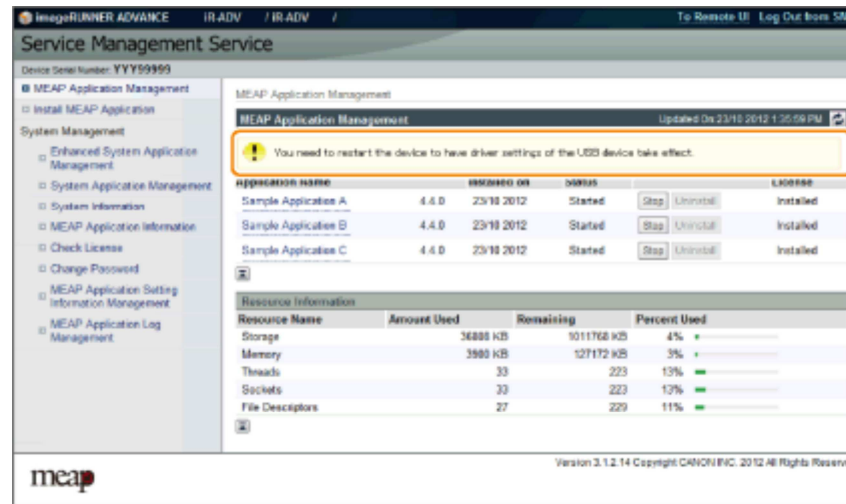
AppID : Application ID

VID : Vendor ID

PID : Product ID

Note:

By starting, stopping or uninstalling a MEAP application, the driver settings of the USB device may be changed. If the device needs to be restarted following this setting change, a message prompting the user to restart the device is displayed.



■ Integrated Authentication Function

● Sharing the Authentication Information

Separately managing the authentication information at login and the authentication information for MEAP applications creates inconveniences such as that the authentication process is executed many times.

In order to solve this problem, the device has an integrated authentication function. This function allows authentication information to be shared between MEAP applications in a MEAP environment.

The supported version of MEAP Specifications is Ver.59, which needs to be supported by both the device and the MEAP application in order to use this function.

There are 2 types of authentication information that can be shared: Volatile Credential whose registered information is discarded at the time of logout or shutdown of the device and Persistent Credential whose registered information is not discarded at the time of logout.

● Volatile Credential

Volatile Credential is used in cases where the authentication information is shared between applications which use the same security domain for authentication.

The credential is registered mainly by the login application, therefore the applications which access the security domain that was used for authentication by the login application can use the credential.

● Persistent Credential

Persistent Credential is used to help entry of authentication information when accessing a different security domain for authentication.

The credential is registered mainly by general MEAP applications, and the authentication information can be reused when the same user logs in for the second time or later.

● **Comparison of Functions**

		Volatile Credential	Persistent Credential
Registered information		Character strings and arbitrary Java objects	Character strings only User ID/Password/Domain/Arbitrary character strings
Lifetime	Registration	At login (the login application), and at any timing of registration by an application	At any timing of registration by an application
	Deletion	Can be used until logout/shutdown.	Can be used until deletion by the application or management tool.
Encryption of credential data		Not supported	Data retained on the HDD is encrypted.
Store (Save) to		Memory in the device	HDD in the device

● **Disabling the Integrated Authentication Function**

If you do not want Volatile Credential to be used from a security standpoint, the function can be disabled.

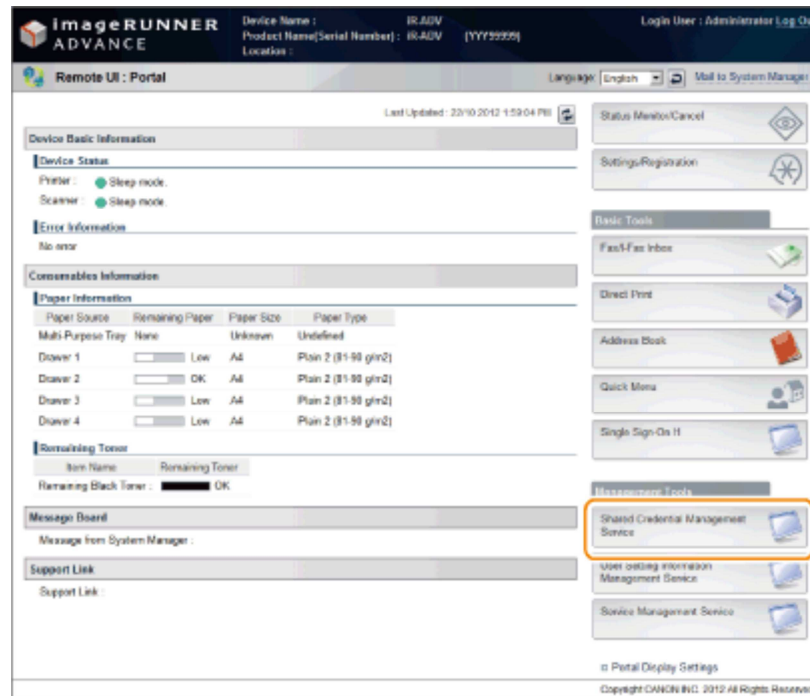
The function can be disabled from remote UI or service mode.

Persistent Credential cannot be disabled.

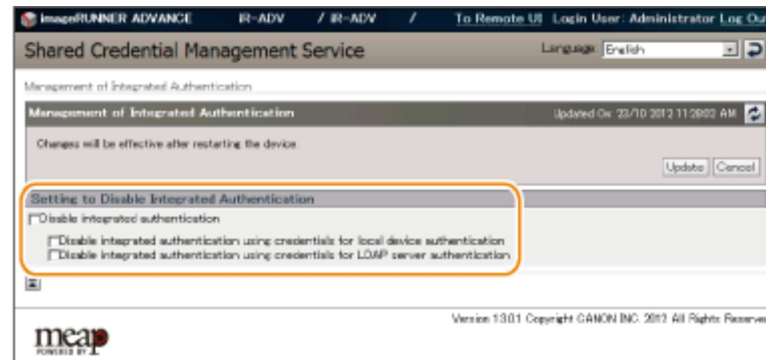
On the setting screen of remote UI, the function can be disabled on a protocol-by-protocol basis.

[Remote UI](#)

You can access the setting screen on remote UI for disabling integrated authentication as shown below.



Select the item you want to disable, and click the [Update] button.

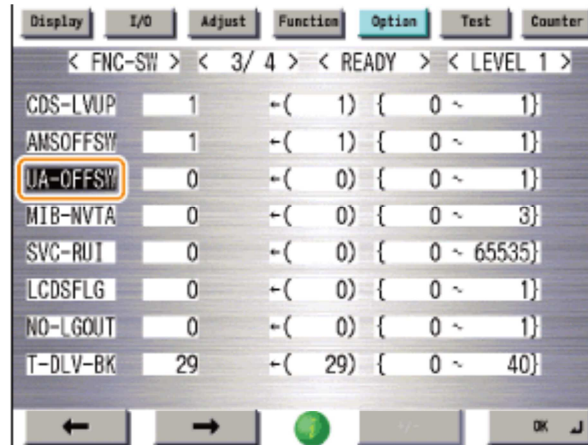


- [Disable integrated authentication]: The integrated authentication function is disabled regardless of the authentication method.
- [Disable integrated authentication using credentials for local device authentication]: The integrated authentication function is disabled only at the time of local device authentication.
- [Disable integrated authentication using credentials for LDAP server authentication]: The integrated authentication function is disabled only at the time of LDAP server authentication.

Service mode

The location of the service mode setting for disabling integrated authentication:

Setting value: 0 = Enabled, 1 = Disabled



■ Points to Note When Enabling the [Quick Startup Settings for Main Power] Setting

If some of the MEAP applications are running on the device, the following problems will occur.

● The [Quick Startup Settings for Main Power] setting cannot be enabled.

If a MEAP application that restricts the device from shifting to deep sleep mode is running, even when the setting of [Quick Startup Settings for Main Power] is enabled (On), the device starts normally instead of quick startup.

In that case, it does not affect the behavior of the MEAP application.

● Changes made in the settings of a MEAP application are not reflected.

If the startup setting [Quick Startup Settings for Main Power] is enabled (On), even when the Main Power Supply Switch of the machine is turned OFF, a shutdown process is not executed internally.

Therefore, in the case of a MEAP application where changes in settings are enabled when the device is restarted, changes in settings are not reflected just by changing the settings.

Follow either of the restart procedures shown below to enable the changes made in the settings.

- Execute restart from remote UI.
- Turn OFF the Main Switch, and then turn it ON within 20 seconds.

● After recovery from quick startup, MEAP applications do not work properly.

MEAP applications that are scheduled to execute processes at specified times may not work properly after recovery from quick restart. Unexpected problems such as that the application executes a task at an unexpected timing may occur. Problems may occur in the following two cases.

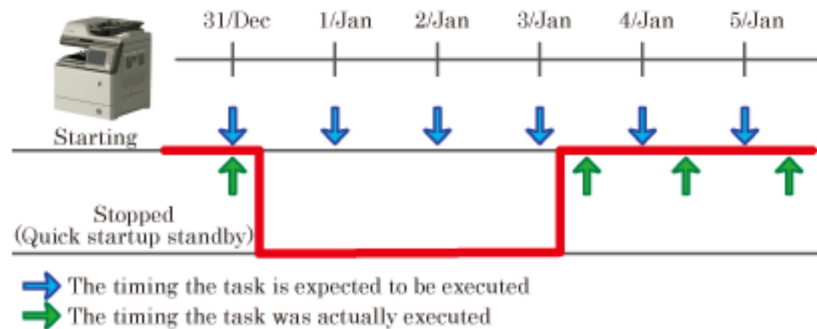
In the case of "Schedule: Execute the task every 24 hours"

A schedule is set to start the specified task at the specified time and repeat "fixed-delay execution".

If execution is delayed for some reason, the delay time is ignored.

Problem: If 24 hours have passed since the last execution of the task, the task is executed only once.

=> The task may be executed at a timing other than the time the user expects it to be executed.

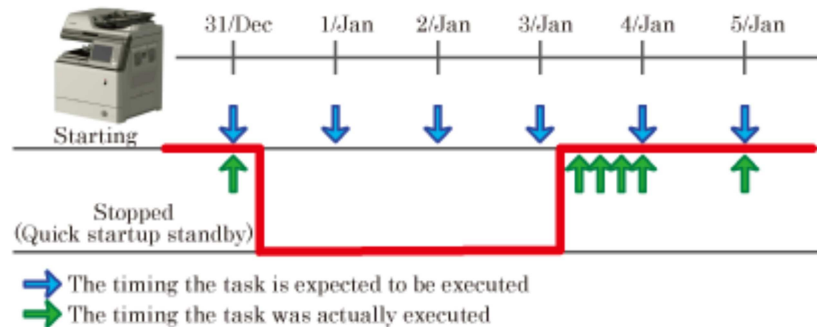


In the case of "Schedule: Execute the task at 00:00 every day"

A schedule is set to start the specified task at the specified time and repeat "fixed-rate execution".

If execution was delayed for some reason, two or more tasks are continuously executed to "make up for the delay".

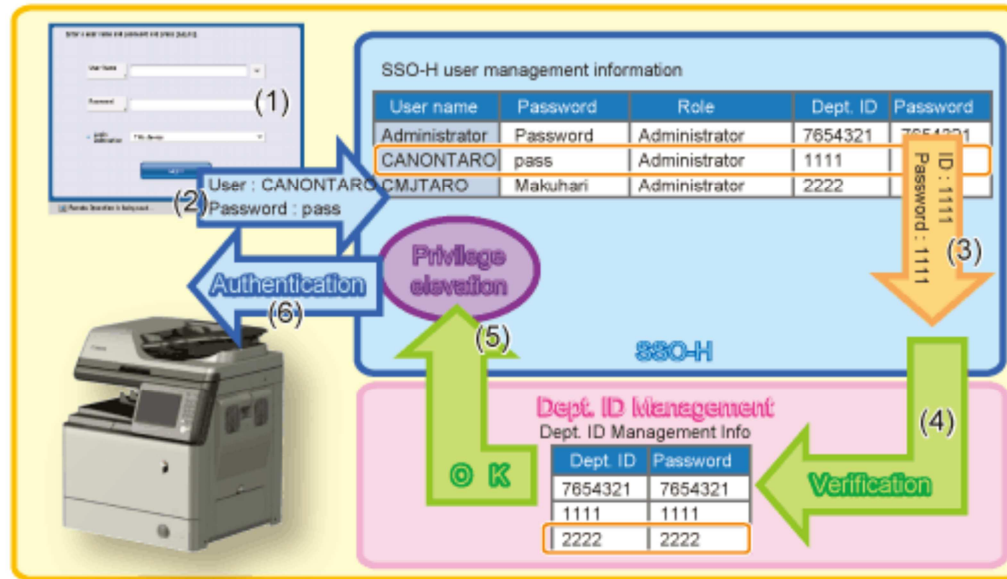
Problem: The tasks of Jan. 1, Jan. 2, and Jan. 3 are executed after quick startup.



■ Remedy to Be Performed When the Device Has Become Unable to Be Logged in

● Overview

Department ID Management and SSO-H (Local Device Authentication) manage user information separately. Therefore, in order to allow coexistence of Department ID Management and SSO-H, it is necessary that the information of SSO-H and the information of Department ID Management are the same.



- 1) The user enters the ID and password of SSO-H to a device where both SSO-H and Department ID Management are enabled.
- 2) SSO-H checks the entered ID and password with the SSO-H user information table.
- 3) SSO-H sends the department ID and password which correspond to the entered ID and password to the department ID management function.
- 4) The department ID management function checks the department ID and password sent from SSO-H with the user information table.
- 5) The user is elevated to the corresponding privilege.
- 6) The user is authenticated.

If the department ID and password registered in the user information of SSO-H do not coincide with the department ID and password registered in the Department ID Management, the authentication ends in failure and the user can no longer log in to the device.

Note :

Even if the department ID and password registered in the user information of SSO-H do not coincide with the department ID and password registered in the Department ID Management, login is possible when all of the following conditions are satisfied.

- System manager information of the device ([Settings/Registration] > [Management Settings] > [User Management] > [System Manager Information Settings]) is set.
- Login is performed as a user with the administrator right of SSO-H.

The user information of SSO-H does not coincide with the user information of Department ID Management in the following cases:

- The user information of SSO-H was different from that of Department ID Management when Department ID Management was enabled. Department ID Management was enabled before changing the department ID and password registered in SSO-H to match with the information of Department ID Management.

SSO-H user management information					Mismatch	Dept. ID Management info	
User name	Password	Role	Dept. ID	Password		Dept. ID	Password
Administrator	Password	Administrator	7654321	7654321		1111	1111
CANONTARO	pass	Administrator	1234	1234		2222	2222
CMJTARO	Makuhari	Administrator	5678	5678		3333	3333

- Only one of information was updated, resulting in mismatch.

Only the department ID and password registered in SSO-H or those in Department ID Management were changed.

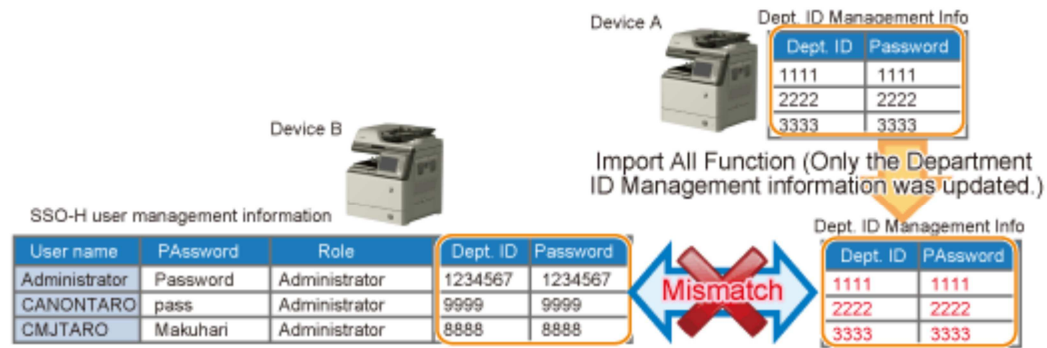
SSO-H user management information					Match	Dept. ID Management info	
User name	Password	Role	Dept. ID	Password		Dept. ID	Password
Administrator	Password	Administrator	7654321	7654321		7654321	7654321
CANONTARO	pass	Administrator	1234	1234		1234	1234
CMJTARO	Makuhari	Administrator	5678	5678		5678	5678

Only the SSO-H user information was updated

SSO-H user management information					Mismatch	Dept. ID Management info	
User name	Password	Role	Dept. ID	Password		Dept. ID	Password
Administrator	Password	Administrator	1234567	1234567		7654321	7654321
CANONTARO	pass	Administrator	9999	9999		1234	1234
CMJTARO	Makuhari	Administrator	8888	8888		5678	5678

- Only the information of Department ID Management was updated, resulting in mismatch.

Only the Department ID Management information was changed in "Import All Function", resulting in mismatch. (The SSO-H user information cannot be changed in Import All Function.)



● Remedy

If the device became unable to be logged in due to mismatch of the department ID/password, perform the following remedy.

Note :

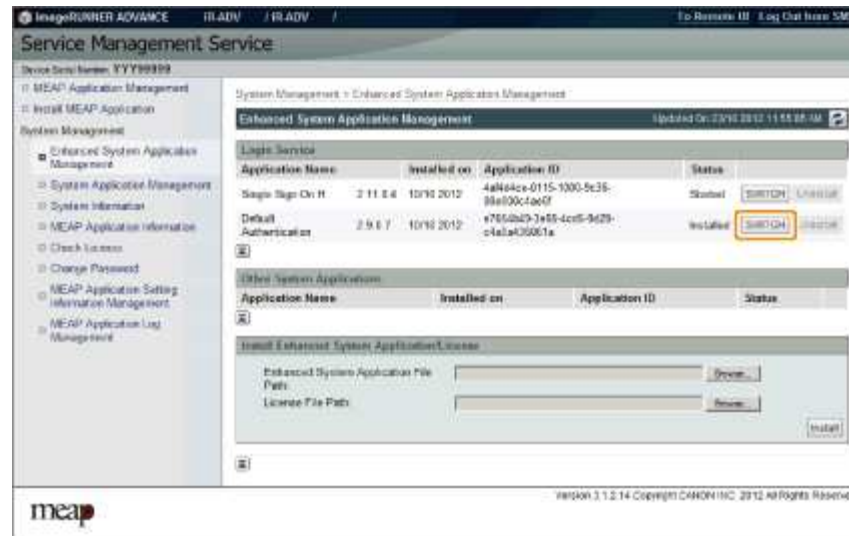
Since the device can be logged in if all of the following conditions are satisfied, performing only the step 6 of this section can clear the mismatch of the department ID/password.

- System manager information of the device ([Settings/Registration] > [Management Settings] > [User Management] > [System Manager Information Settings]) is set.
- Login is performed as a user with the administrator right of SSO-H.

Procedure

1) Change the authentication method to DA (Default Authentication).

Access SMS, and select [Default Authentication] in [Enhanced System Application Management] > [Login Service]. (How to log in to SMS can be found in "Login to SMS".)

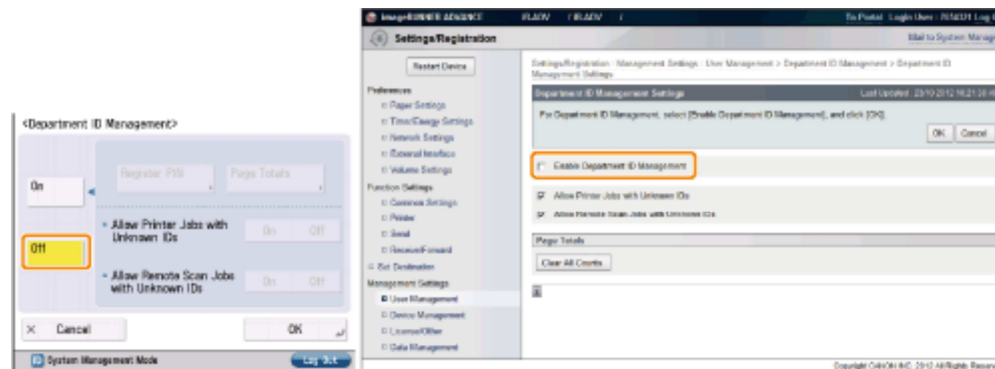


2) Restart the device.

Restart the device in order to reflect the changes in login service.

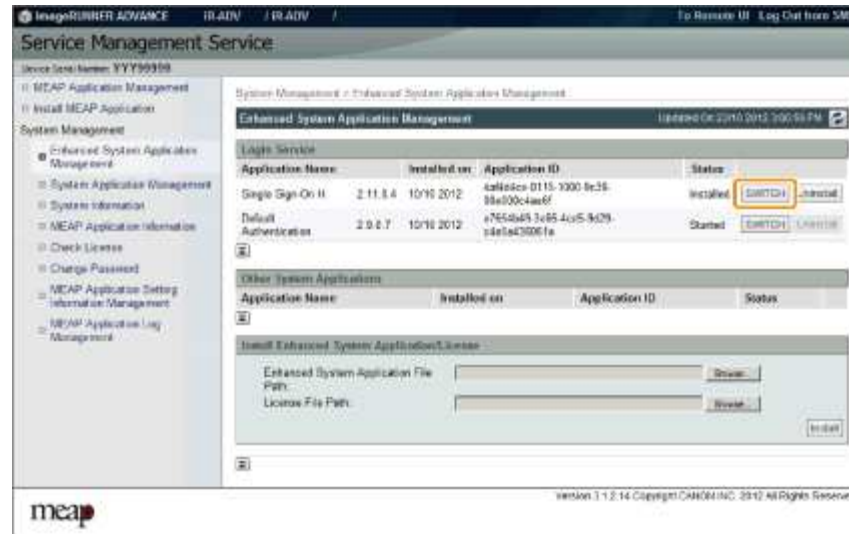
3) Disable Depart ID Management.

In user mode ([Settings/Registration]), select [Management Settings] > [User Management] > [Department ID Management] > [OFF]. In the case of remote UI, access [Settings/ Registration] > [Management Settings] > [User Management] > [Department ID Management] > [Department ID Management Settings], and deselect [Enable Department ID Management].



4) Change the authentication method back to SSO-H authentication.

Access SMS, and select [Single Sign-On H] in [Enhanced System Application Management] > [Login Service]. (How to log in to SMS can be found in "Login to SMS".)



5) Restart the device.

Restart the device in order to reflect the changes in login service.

6) Change the user registration information of SSO-H.

Access the URL shown below, and change the content to the information registered in Department ID Management.

Or, import the setting file whose content you want to use.

SSO-H user registration information edition screen:

(SSO management screen [Main Menu] > [User Management] > [Edit User Information] or <https://<IP address>:8443/sso/Edit>).

ImageRUNNER ADVANCE IR-ADV / IR-ADV / To Remote UI Login User: Administrator Log Out

Single Sign-On H

Main Menu > User Management > Edit User Information

Edit User Information Updated On: 2/10/2012 12:01:43 PM

Update Cancel

User Name: Administrator

Change password

Old Password: (Maximum: 32 Characters)

New Password: (Maximum: 32 Characters)

Confirm: (Maximum: 32 Characters)

Department ID: 7854321 (Maximum: 7 Characters)

Change PIN

PIN: (Maximum: 7 Characters)

Confirm: (Maximum: 7 Characters)

Displayed As: Administrator (Maximum: 32 Characters)

E-Mail Address:

Select Role to Set: Administrator

meap
Products by

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SSO-H user registration information import screen:

(SSO management screen [Main Menu] > [User Management] > [Import User Information] or (<https://<IP address>:8443/sso/Import>).

ImageRUNNER ADVANCE IR-ADV / IR-ADV / To Remote UI Login User: Administrator Log Out

Single Sign-On H

Main Menu > User Management > Import User Information

Import User Information Updated On: 2/10/2012 12:04:32 PM

Start Import Cancel

File Path: (Maximum: 255 Characters)

File Format: ROL Format

Where to Import Administrator Form is Selected

Encoding: Windows Latin-1 (CP1252)

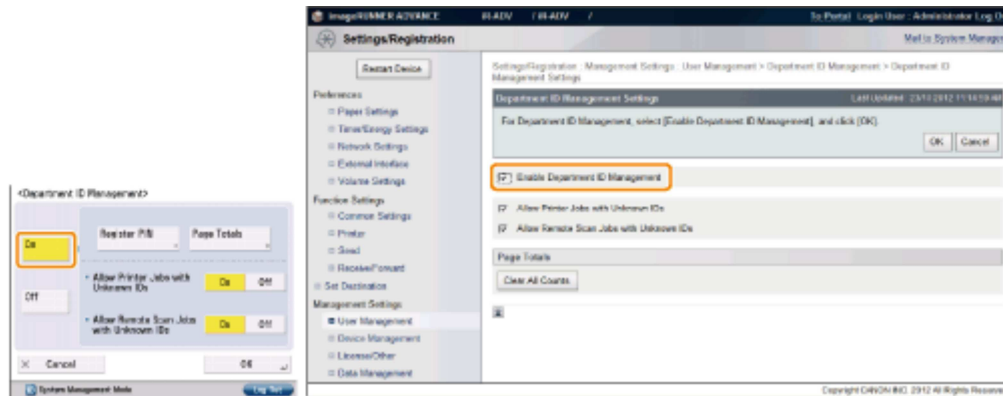
User Name Type: User ID

meap
Products by

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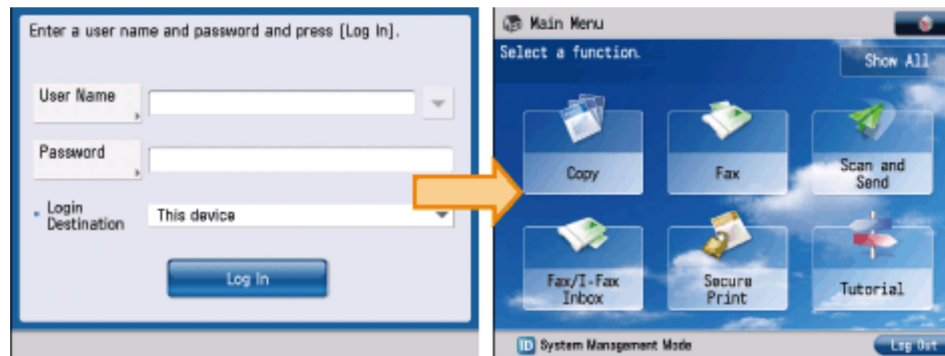
7) Enable Depart ID Management.

In user mode ([Settings/Registration]), select [Management Settings] > [User Management] > [Department ID Management] > [ON]. In the case of remote UI, access [Settings/ Registration] > [Management Settings] > [User Management] > [Department ID Management] > [Department ID Management Settings], and select [Enable Department ID Management].



8) Check that the device can be logged in.

Log off and then log on to check that the device can be logged in with an environment where Local Device Authentication and Department ID Management are enabled.



■ Reference material

● Glossary

Terms & Acronyms	Definitions and Explanations
Application	A program unit to provide users with solutions.
Application ID	An identifier assigned to each application. A unique ID is assigned to each MEAP application.
	A MEAP application type created in Java.

Terms & Acronyms	Definitions and Explanations
Applet (Applet Type Application)	This type of applications show buttons on the touch panel display.
Code Sign	Information to check if an application is genuine. An application marketed in the normal procedure has a code sign assigned by LMS. MEAP platform rejects applications without Canon code signs for being installed or executed on the device.
CPCA (Common Peripheral Controlling Architecture)	Common Peripheral Controlling Architecture. CPCA defines an object model of peripheral devices. A client can control a device by creating or modifying objects in the device.
CPCA Java CL (Class Library)	CPCA Java Class Library. A Java class library, which is used to control a device.
Default Authentication - Department ID Management	The login service used when the department ID control is used but other authentication controls are not used. When the Department ID control is turned on, the login dialog prompts the users to enter the department ID and password. The dialog appears the initial screen of both the control panel on the MEAP device and Remote UI
Device Specification ID	ID allocated to each device type. This represents CPCA API specification and the version number to use MFP generic functions or obtain information including maximum allowable copies.
Esplet (Esplet Type Application)	A MEAP application type created in Java. This type of applications do not show user interfaces either on Local UI or Web. Esplet is a coined word created by Canon, consisting of [Espresso] or Italian coffee and [let] derived from Applet/Service.
File Description	An identifier for the OS to identify the destination file requested by a program. A program descriptor includes an identifier and information such as a file name and size, which helps OS to judge the file to be edited.
HID class	HID stands for Human Interface Device, representing man-machine interfaces of PC components and peripheral devices. HID class means USB class classified as HID.
iR Native application	The functionalities that existing imageRUNNER has such as Copy, Universal Send and Mailbox.
ISV (Independent Software Vendor)	Independent Software Vendor. Software manufacturer who develops and/or sells applications and tools but does not entire computer systems. Refers application developer in this document.
J2ME	

Terms & Acronyms	Definitions and Explanations
(Java2 Platform Micro Edition)	Java 2 Platform Micro Edition. One of Java Platforms licensed by Sun Microsystems, Inc. It is applied for MEAP. Other devices such as cellular phones and PDA.
J2RE (Java 2 Runtime Environment)	A set of basic programs to run applications developed in the programming language of Java2. This set includes Java virtual machine providing runtime environment for Java applications among others. Java applets do not require J2RE since these are executed on Web browsers using Java runtime environment provided on browsers. However, standalone Java applications require Java runtime environment such as J2RE for execution. Runtime environments can be downloaded for free of charge from the Web site of Sun Microsystems, the Java developer.
Java	A programming language developed by Sun Microsystems, in the U. S. A. Low dependent on models and OSes and runs on various platforms. Taking advantage of this feature, many applications that runs on web servers uses Java. The MEAP platform uses J2ME - a type of Java.
JavaScript	A script language developed by Netscape Communications, in the U.S. A., runs on web browsers such as Netscape Navigator and Internet Explorer. Allows web designers to create interactive pages with HTML files such as animated buttons and display of timetables.
Java VM (Java Virtual Machine)	JAVA Virtual Machine. The Java byte code interpreter. The Virtual Machine acts as an interpreter for processing the byte code using the native instruction set.
License Access Number	A number issued for accessing license file. The Licensing server requires entries of application ID, expiration date/times information, and the number of access numbers, to issue license access numbers
License File	A software manufacture of a MEAP application provides the users with the license files. Specifies the terms of agreement that a user concludes with the manufacturer. Required for installing a MEAP application.
LMS (License Management System)	The license is required for installing a MEAP application in a MEAPenabled iR device. LMS is the server issuing [License Files] as well as license access numbers.
Login Service	Manages user information of MEAP device. Authenticates users with user names and passwords. Three login services are available for MEAP device - Default Authentication, which provides department ID control, SDL (Simple Device Login) and SSO (Single Sign-On).
Mass Storage class	Mass Storage means a storage device with large capacity, generally secondary storage devices. Mass Storage class means USB class classified in the secondary storage device group.
MEAP (Multifunction Embedded)	Multifunctional Embedded Application Platform. Provides an environment for executing application programs on a peripheral device. Uses the Java platform (J2ME - Java 2 platform Micro Edition) to run Java application for MEAP.

Terms & Acronyms	Definitions and Explanations
Application Platform)	
MEAP Contents	Required to install an MEAP application to a MEAP device.
MEAP Specifications (MEAP Spec Version)	MEAP Spec Version, the term used for the SDK. The version number that shows the APIs of the MEAP platform other than CPCA, such as network and security. The version number is not assigned for each device model. MEAP Application Runs on MEAP platform. Consists of application files (*.jar) and the license file (*.lic).
MEAP-enabled iR device	imageRUNNER (iR) devices with built-in MEAP platform.
MFP (Multi Function Peripheral)	Multi Function Peripheral. Peripheral device that supports more than one function, such as digital copier, printer, scanner, and fax.
OSGi (Open Service Gateway Initiative)	Open Service Gateway Initiative. See " http://www.osgi.org/ ".
Portal Service	The web portal to gain access to a MEAP-enabled device. This service has been integrated in Remote UI top page in iR ADVANCE series.
Protocol	<p>A set of rules applied to data transmission procedures over network. Major communication protocols include:</p> <ul style="list-style-type: none"> • FTP: File Transfer Protocol. This is a communication protocol or protocolimplemented commands to provide file transfer between a host and clients over TCP/IP network. • DHCP: An upward compatible protocol of BOOTP. This communication protocol allocates a dynamic IP address to each client machine upon communication startup on TCP/IP network and collects the allocated IP address when communication is completed. The server allocates one of multiple IP addresses and notifies the setup information to a client. • BOOTP: A communication protocol to automatically load setup information including IP address and a domain name from the server to a client on TCP/IP network. • RARP: A communication protocol to request IP address information via the network adaptor address (MAC address) of a client. • IPP: A communication protocol to execute remote printing between the print server and clients via Internet. • TCP/IP: A standard communication protocol required to access to Internet and other large-scale network.
Proxy Server	Provides functions to store data fetched from remote servers. When a user request to display a web page that has been displayed and stored in the proxy, the proxy server read the stored data but does not access the remote server where the

Terms & Acronyms	Definitions and Explanations
	original page is present, for efficient access services. When a proxy server receives a URL from a PC, it searches the file in the cache and sends it to the PC if the requested file is found. If the requested file is not stored in the cache, it accesses the remote server of the URL to acquire the file and, at the same time, stores the acquired file in the cache so that the proxy server can quickly send the file at the next request.
Redistribution module	A built-in module of an application created with SDK. Applications without this module cannot work on MEAP platform.
SDK (Software Development Kit)	The kit containing information and tools required for software development.
Service	A functional unit or an application program working on MEAP platform. [Applications] are generally termed [Services] in Java world.
Servlet (Servlet Type Application)	A MEAP application type created in Java. This type of applications is designed to show user interface on the Web browser.
SMS (Service Management Service)	The web-base service to provide user interfaces for application life cycle management.
Socket	A virtual interface of an application for network communication. A user only needs to specify a socket as a unit of an address and a port from an application. This establishes the network connection for data transmission, eliminating complication related to detailed communication procedures.
SSO-H (Single Sign-On H)	Login service providing features of both local device authentication and domain authentication. The former is the method that iR device independently authorizes users; whereas the latter is that iR device links to the domain controller on the network in the Active Directory environment to authorize users.
Thread	A unit for program execution. A multi-task system allowing multiple programs to run concurrently assigns a memory space and other resources independently to each program, providing users with a feel as if only a program is running. At least one thread is generated upon a program generated.
URL (Uniform Resource Locator)	The method to denote Web page locations on Internet and the like. For instance, a URL on the Web is denoted as [http://www.w3.org/default.html]. [http] at the beginning means that an address following this is in a web page on the Internet.
USB	Abbreviation of Universal Serial Bus. This is the interface standard to link between information devices.

Terms & Acronyms	Definitions and Explanations
USB system driver	The general-purpose driver that control the behavior of the device, there are HID class driver, Mass Storage class driver and so on.

■ **Option for exclusive individual measure**

● **Display Setting of Copy Icon (level2)**

Make a setting as to whether to display/hide the copy screen (copy tab) on the control panel.

This is the specification for users who want to customize hiding it on control panel.

Default value

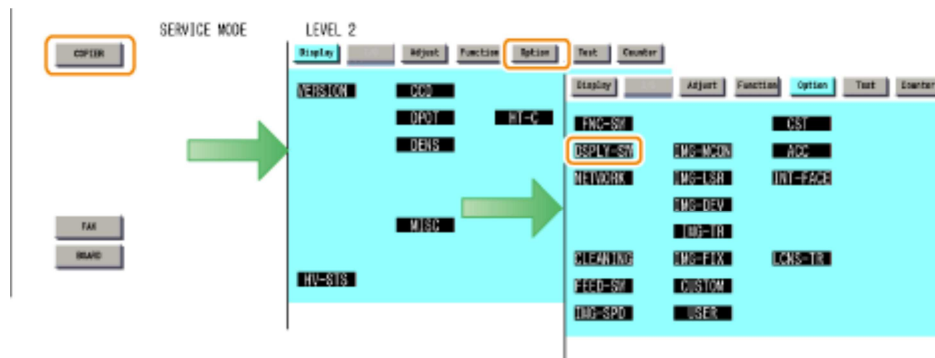
1: display

Setting range, item

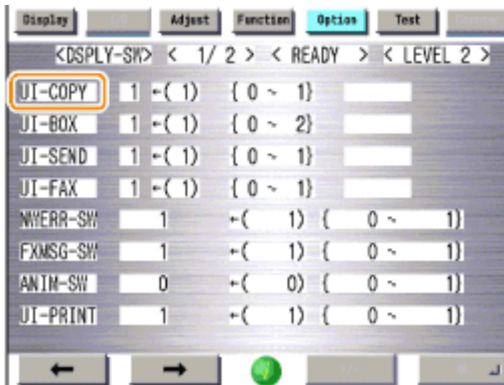
0: hide 1: display

Setting Procedure

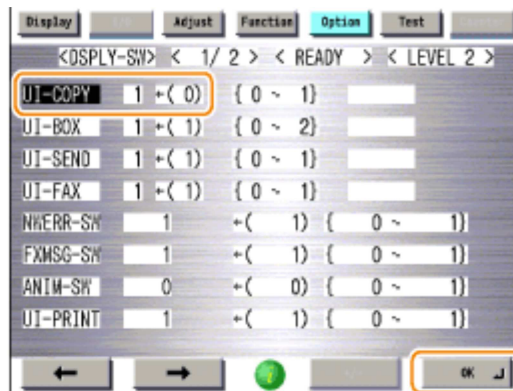
- 1) Start [SERVICE MODE] in Level 1.
- 2) Press [COPIER] > [Option] > [DSPLY-SW] buttons.



- 3) Press [UI-COPY] button.



4) Press either 0 (hide) or 1 (display) on control panel (the numerical value input in the field is displayed), and press [OK] button.



5) Check to see that it is reflected in setting field, and restart the device.

● Error at starting up the MEAP application/Setting to hide JAM screen (level 2)

In the case that operation is restricted by MEAP application, hide the warning screen of error/ JAM (such as JAM screen, door opening, no-toner). In the case that these errors occur, there will be a display indicating 'call the service personnel' etc.

Note:

Part of the warning screens is displayed if shifting to the device screen.

- As for the screens for jam and no-toner, the warning screen (animation) can be displayed by pressing the followings: [Device Screen] > [Recovery Procedure]
- As for the screen for door opening, the warning screen cannot be displayed because there is no display for [[Device Screen] > [Recovery Procedure]

Default value

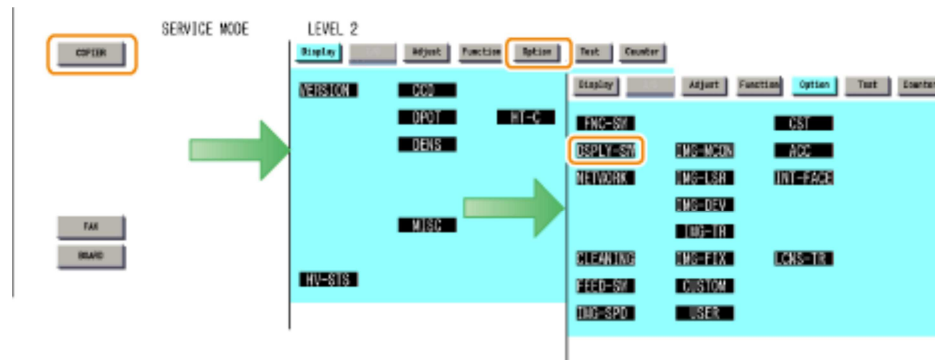
1: No activation of warning display

Setting range, item

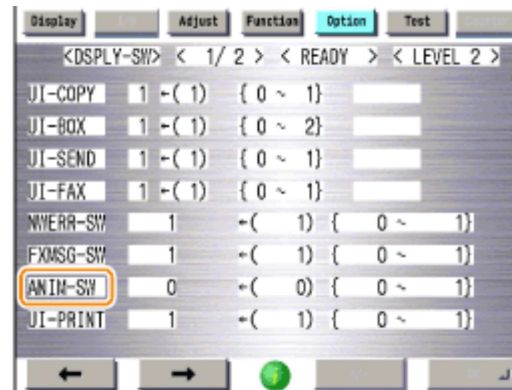
0: display warning screen 1: hide warning screen

Setting Procedure

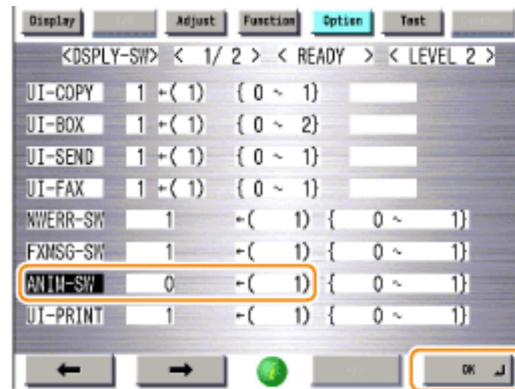
- 1) Start [SERVICE MODE] in Level 1.
- 2) Press [COPIER] > [Option] > [DSPLY-SW] buttons.



- 3) Press [ANIM-SW] button.



- 4) Press either 0 (display warning screen) or 1 (hide warning screen) on control panel (the numerical value input in the field is displayed), and press [OK] button.



5) Check to see that it is reflected in setting field, and restart the device.

Embedded RDS

Product Overview

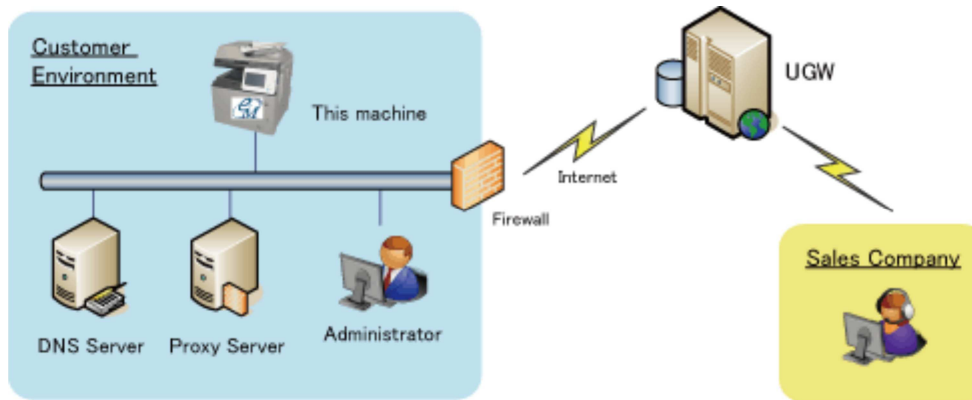
■ Overview

Embedded RDS (hereinafter referred to as E-RDS) is a monitoring program that runs on the host machine. When the monitoring option is enabled by making the setting on this machine, information such as the status change of the machine, counter information, and failure information are collected. The collected device information is sent to a remote maintenance server called UGW (Universal Gateway Server) via Internet, thus allowing for e-Maintenance/ imageWARE Remote (Remote Diagnosis System).

The following device information/ status can be monitored.

- Billing counts
- Parts counter
- Firmware info
- Service call error log
- Jam log
- Alarm log
- Status changes (Toner low/ out, etc.)

Since high confidentiality is required for the information shown above, it performs communication between this machine and the UGW using HTTPS/ SOAP protocol.



The e-Maintenance/ imageWARE Remote system configuration

■ **Features and benefits**

E-RDS embedded with a network module in advance can realize a front-end processing of e-Maintenance/ imageWARE Remote system without attaching any extra hardware equipment.

■ **Major Functions**

● **Service Browser**

Service browser is a web browsing functionality only for service technicians in charge, and is used for referring to the FAQ contents which is connected to UGW.

In order to grasp on which devices the service browser is enabled, when the status of the service browser is changed from disabled (0: OFF) to enabled, E-RDS sends the browser information to the UGW.

● **Service mode menu Transmission**

E-RDS sends the target service mode menu data to UGW in the following cases:

- When a specific alarm and service call error are detected
- When the setting is changed in service mode

The following shows the transmission timing and the target data for transmission in service mode menu:

Transmission timing	Transmitting data	Error retry
When the following alarm is detected. Alarm codes for transmission:	COPIER Display ANALOG HV-STS	No

Transmission timing	Transmitting data		Error retry
0x060002, // Fixing 0x060004 - 0x069999, // Fixing 0x090005 - 0x099999, // Dram 0x100006 - 0016, 0x100022 - 0099, 0x100101 - 9900, // Development 0x300001 - 0x309999 // High voltage		CCD DPOT DENS FIXING SENSOR MISC HT-C HV-TR P-PASCAL	
When the following service call error is detected. Error codes for transmission: E000 - E00F, // Fixing E020, // Development ATR E060 - E06F // High voltage	COPIER	Display ANALOG HV-STS CCD DPOT DENS FIXING SENSOR MISC HT-C HV-TR P-PASCAL	No
When a value is set to [COPIER - Adjust] subordinate's Service mode menu. (Transmission will be done at 60 min, later of setting)	COPIER	Adjust	Yes
When the first communication test is done. (For transmission process, 5 minutes after the execution)	COPIER	Display ANALOG HV-STS	Yes

Transmission timing	Transmitting data		Error retry
		CCD	
		DPOT	
		DENS	
		FIXING	
		SENSOR	
		MISC	
		HT-C	
		HV-TR	
		P-PASCAL	
	Adjust		

NOTE:

Target transmission data are only the items under LEVEL1 and 2 in the service mode.

Limitations

■ Service Mode Menu Transmission Function

- 1) In the following cases, service mode menu data is not transmitted.
 - When an unsent alarm log or service call log has been detected by E-RDS at power-on
 - When an alarm log or service call log to be resent due to a transmission failure is detected
 - When transmission of service mode menu executed at the time of detection of an alarm or a service call error ended in failure
 - If a new alarm or service call error occurs while service mode menu data is being obtained after detection of an alarm or a service call error, the data being obtained is not sent.
- 2) If alarms/service call errors successively occur, and if the time of the host machine is corrected or changed while the log is being sent, service mode menu data may not be properly sent. It is because a Link No.* may be applied to the old log although it should be applied to the new log.

* Link No.:

A common number for linking the service mode menu data with the alarm log/service call log data to be sent

After completion of log transmission, the service mode menu data is obtained, and is sent with this number attached.

- 3) Transmission of the data of changes made in service mode menu settings is not performed instantly, but performed when a specified period of 60 minutes elapse after the change of service mode menu settings is detected or when a communication test is performed at the time of power-on. (There is a time lag.)
- 4) When service mode menu settings ([COPIER] > [Adjust]) are made, transmission is performed even when no change is made in the target data to be transmitted.

Transmission of service mode data is also performed when changes are made in the service mode setting value not subject to transmission (items other than Level 1, 2) or when settlement of a value is performed without changing the setting value.

Service cautions

- 1) After clearing RAM of the Main Controller PCB, initialization of the E-RDS setting (ERDS-DAT) and a communication test (COM-TEST) need to be performed.

Failure to do so will result that the counter transmitting value to the UGW may become unusual.

Also, after replacing the main controller board, all settings must be reprogrammed.

- 2) The following settings in service mode must not be change unless there are specific instructions to do so. Changing these values will cause error in communication with UGW.

- Set port number of UGW

[SERVICE MODE] > [COPIER] > [Function] > [INSTALL] > [RGW-PORT]

Default : 443

- URL setting of UGW

[SERVICE MODE] > [COPIER] > [Function] > [INSTALL] > [RGW-ADR]

Default : https://a01.ugwdevice.net/ugw/agentif010

- 3) If the e-Maintenance/ imageWARE Remote contract of the device is invalid, be sure to turn OFF the E-RDS setting (E-RDS : 0).

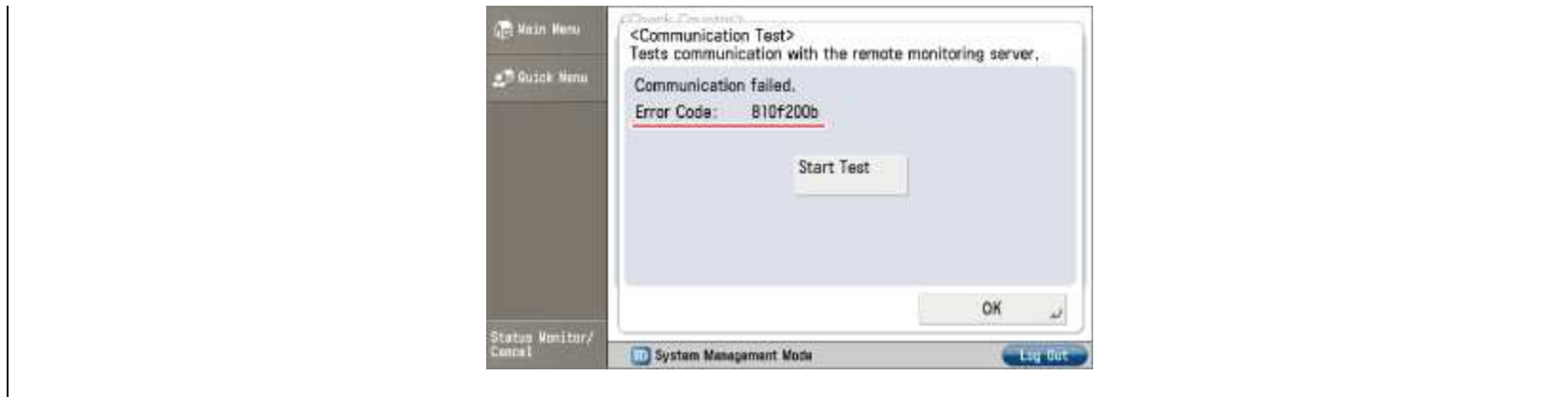
- 4) With this machine, a communication test can be conducted from the [Settings / Registration] key on the Control Panel. When conducting a communication test from the [Settings / Registration] key on the Control Panel, pay attention on the following points:

- During a communication test, do not take any actions such as pressing a key. Actions are not accepted until the communication test is completed (actions are ignored).
- When a communication test is being conducted from service mode or from the [Settings / Registration] key on the Control Panel, do not conduct a communication test from the other. These operations are not guaranteed.

NOTE:

*The user can conduct a communication test and seen the communication test result.

If the communication results in failure, an error code (a hexadecimal number, 8 digits) appears on the touch panel display.



E-RDS Setup

■ Confirmation and preparation in advance

To monitor this machine with e-Maintenance/ imageWARE Remote, the following settings are required.

(1) Advance confirmation

Confirm with the UGW administrator that the device to be monitored with e-Maintenance/ imageWARE Remote is registered in the UGW.

(2) Advance preparations

The following network-related information needs to be obtained from the user's system administrator in advance.

Information item 1

IP address settings

- Automatic setting : DHCP, RARP, BOOTP
- Manual setting : IP address, subnet mask and gateway address to be set

Information item 2

Is there a DNS server in use?

If there is a DNS server in use, find out the following.

- Primary DNS server address
- Secondary DNS server address

Information item 3

Is there a proxy server?

If there is a proxy server in use, find out the following.

- Proxy server address
- Port No. for proxy server

Information item 4

Is proxy server authentication required?

If proxy server authentication is required, find out the following.

- User name and password required for proxy authentication

(3) Network settings

Based on the results of the information obtained in (2) Advance preparations, make this machine network related settings.

See Users' Guide for detailed procedures.

CAUTION:

When changes are made to the above-mentioned network settings, be sure to reboot this machine.

■ Steps to E-RDS settings

- 1) Start [Service Mode] at Level 1.
- 2) Select [COPIER] > [Function] > [CLEAR] > [ERDS-DAT] and touch the [OK] button.

NOTE:

This operation initializes the E-RDS settings to factory setting values.

For the setting values to be initialized, see the section of "[Initializing E-RDS settings](#)".



3) Perform installation or deletion of the CA certificate if necessary, and reboot this machine.

- Installation of the CA certificate: Perform installation from SST or Remote UI.
- Deletion of the CA certificate: When the following operation is performed, the CA certificate in the factory setting is automatically installed.

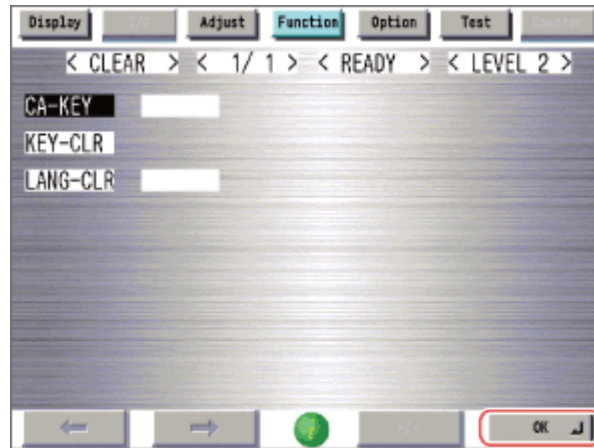
CAUTION:

After following procedure, the registered key and CA certificate are deleted, and only the CA certificate installed at the time of shipment is registered.

It is therefore necessary to check with the user in advance.

(1) Start [Service Mode] at Level 2.

(2) Select [COPIER] > [Function] > [CLEAR] > [CA-KEY] and touch the [OK] button.



"OK!" is displayed if the CA certificate is initialized. When "NG!" is displayed, see the section of "[Troubleshooting](#)" to execute the remedy, and then perform initialization of the CA certificate again and check to see if the CA certificate is initialized.



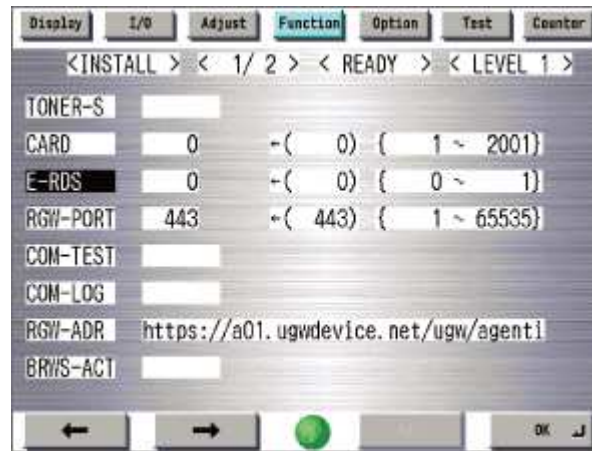
(3) Reboot this machine.

CAUTION:

If a key and a CA certificate have been registered in order to use a function other than E-RDS, it is necessary to register again from SST or Remote UI.

4) Start [Service Mode] at Level 1.

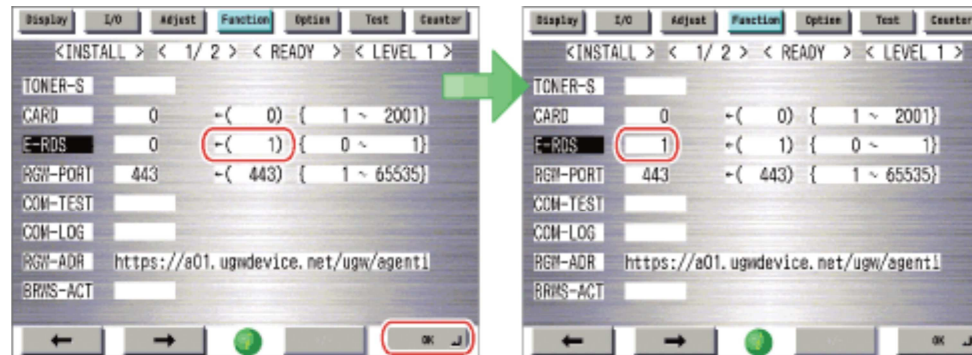
5) Select [COPIER] > [Function] > [INSTALL] > [E-RDS].



6) Touch the numeric button [1] on the control panel (the setting value is changed to 1) and touch the [OK] button. (The data is reflected to the setting value field.)

NOTE:

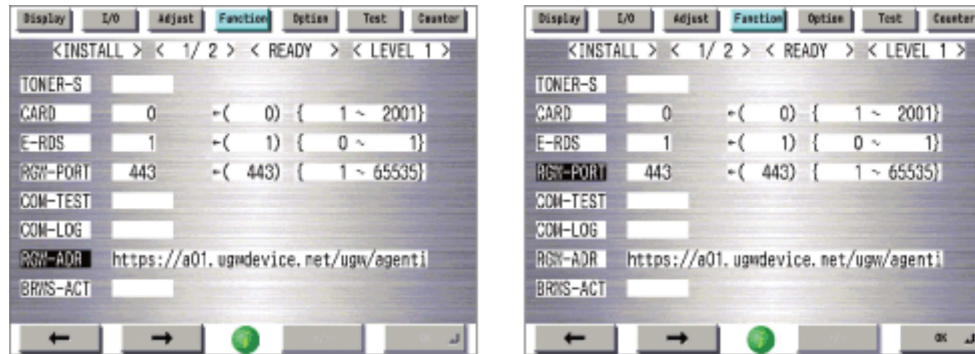
This operation enables the communication function with UGW.



CAUTION:

The following settings i.e. RGW-PORT and RGW-ADR in Service mode must not be change unless there are specific instructions to do so.

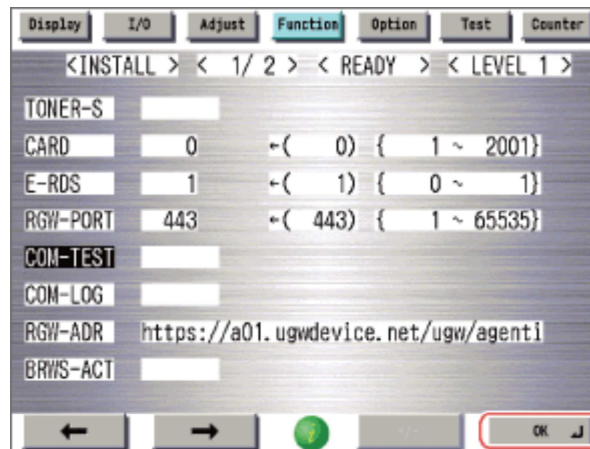
Changing these values will cause error in communication with UGW.



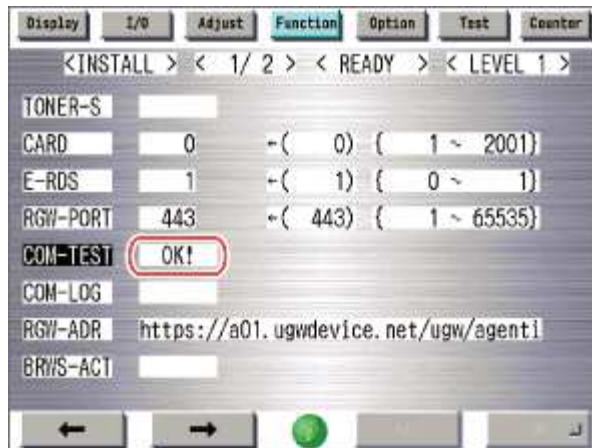
7) Select [COM-TEST] and then touch [OK].

NOTE:

This initiates the communication test between the device and the UGW.



If the communication is successful, "OK!" is displayed. If "NG!" (failed) appears, refer to the "[Troubleshooting](#)" and repeat until "OK!" is displayed.



NOTE:

The communication results with UGW can be distinguished by referring to the COM-LOG. By performing the communication test with UGW, E-RDS acquires schedule information and starts monitoring and meter reads operation.

■ Procedure for Service Call Completion

When the service technician completes the work for the service call, follow the instruction as described below to execute the service call completion work.

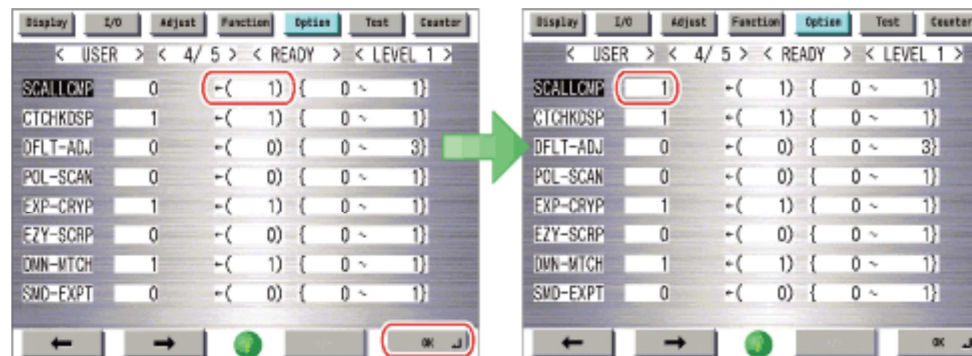
- 1) Start [Service Mode] at Level 1.
- 2) Select [COPIER] > [Option] > [USER] > [SCALLCMP].



3) Touch the numeric button [1] or [0] on the control panel (the setting value is changed to 1 or 0) and touch the [OK] button. (The data is reflected to the setting value field.)

NOTE:

E-RDS generates an alarm of service call completion at this timing, and sends the alarm to UGW.



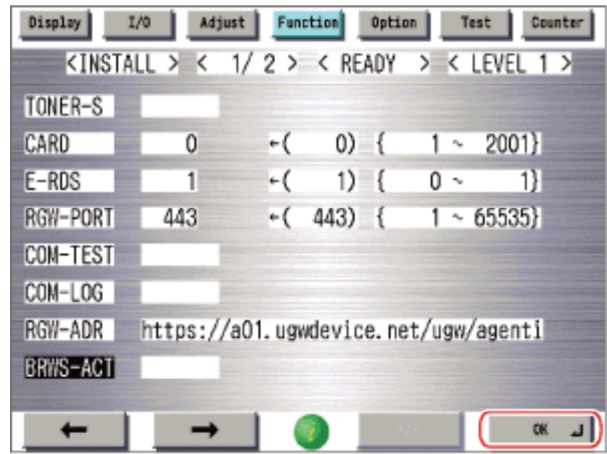
NOTE:

In the current condition, touching the [OK] button completes the service call regardless of whether 0 or 1 is set.

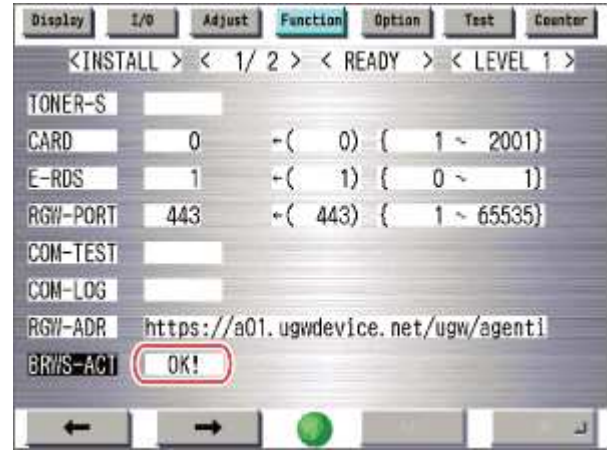
■ Steps to Service Browser settings

- 1) Start [Service Mode] at Level 1.
- 2) Select [COPIER] > [Function] > [INSTALL] > [BRWS-ACT] and then touch [OK].

NOTE:
When the status of the function is changed from disabled to enabled, E-RDS sends the browser information to the UGW.

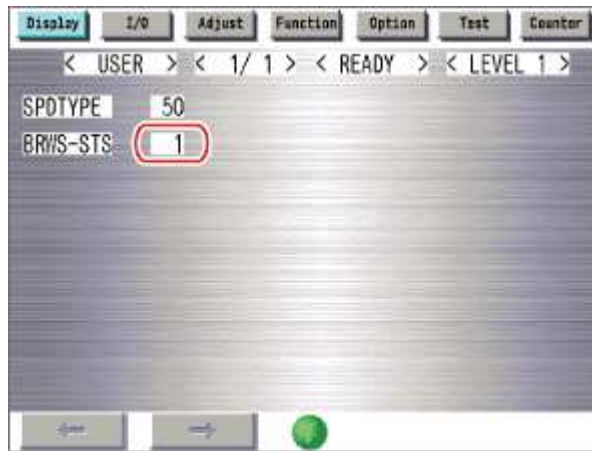


If the connection is established with UGW successfully, "OK!" is displayed. When "NG!" is displayed, perform the steps referring to ["Troubleshooting"](#) until connection is established with UGW.



- 3) Reboot this machine.

4) Make sure that "1 (: ACTIVE)" is set under [COPIER] > [Display] > [USER] > [BRWS-STX].



5) When the above-shown setting values are enabled, [Service Browser] is displayed in the Service Mode screen.



NOTE:

Generally, once service browsing is enabled (BRWS-STX : 1), it cannot be disabled (BRWS-STX : 0) again*. To disable service browsing, clear SRAM.

* The function is disabled (BRWS-STX: 2) by executing BRWS-ACT again.

■ **Initializing E-RDS settings**

It is possible to clear the SRAM data of E-RDS and change the E-RDS setting back to the default value.

● Initialization procedure

- 1) Start [Service Mode] at Level 1.
- 2) Select [COPIER] > [Function] > [CLEAR] > [ERDS-DAT] and then touch [OK].



● Setting values and data to be initialized

The following E-RDS settings, internal data, and Alarm filtering information are initialized.

- COPIER > Function > INSTALL > E-RDS
- COPIER > Function > INSTALL > RGW-ADR
- COPIER > Function > INSTALL > RGW-PORT
- COPIER > Function > INSTALL > COM-LOG

CAUTION:

In case of replacing the CA certificate file, even if initialization of E-RDS is executed, the status is not returned to the factory default. When installing the certificate file other than the factory default CA certificate file, it is required to delete the certificate file after E-RDS initialization and install the factory default CA certificate file.

For detailed procedures, see "[Steps to E-RDS settings](#) - step 3."

FAQ

No.1

Q: In what case does a communication test with UGW fail?

A: The following cases can be considered in the becoming "NG!" case.

1. Name resolution was failed due to an incorrect host name or DNS server has been halted.
2. Network cable is blocked off.
3. Proxy server settings is not correct.

No.2

Q: When does E-RDS send counter information to UGW? How many data is sent?

A: The schedule of data transmitting, the start time are determined by settings in the UGW side. The send time cannot be specified on the E-RDS side. Data is sent once every 16 hours.

The data size of counter information is approx. 285 KB.

No.3

Q: Will data which failed to be sent due to an error in communication with UGW be resent?

A: Data shown below will be resent.

- Jam log
- Service call log
- Alarm log
- Service mode menu

The newest data is resent only when the settings are changed in service mode.

- Browser information

It is resent only when the web browser option is enabled.

Data is resent endlessly (after 5, 10, 15, 20, 25, and 30 minutes since the occurrence of communication error; once 30 minutes have passed, it is resent at 30-minute intervals) until it is sent successfully. Resend continues even if the power is turned OFF and then ON.

No.4

Q: What is the upper limit of the number of COM-LOGs? What is the upper limit of the number of characters of error information displayed in a COM-LOG?

A: Up to 30 log data can be saved. The data size of error information is maximum 128 characters.

No.5

Q: Although Microsoft ISA as a proxy server is introduced, the authentication check is failed. Can E-RDS adopt with Microsoft ISA?

A: E-RDS must comply with "Basic" while "Integrated" authentication is used for Microsoft ISA (as default); therefore, authentication with E-RDS is available if you change the setting to "Basic" authentication on the server.

No.6

Q: Can I turn this machine power off during the e-Maintenance/ imageWARE Remote system operation?

A: While operating the e-Maintenance/ imageWARE Remote system, the power of the device must be ON. If power OFF is needed, do not leave the device power OFF for long time.

It will become "Device is busy, try later" errors if the power supply of network equipment such as HUB is made prolonged OFF.

No.7

Q: Although a Service call error may not be notified to UGW, the reason is what?

A: If a service technician in charge turns off the power supply of this machine immediately after error occurred once, It may be unable to notify to UGW because data processing does not take a time from the controller of this machine to NIC though, the data will be saved on the RAM.

If the power supply is blocked off while starting up, the data will be inevitably deleted.

No.8

Q: How does E-RDS operate while this machine is placed in the sleep mode?

A: While being in Real Deep Sleep, and if data to be sent is in E-RDS, the system wakes up asleep, then starts to send the data to the UGW. The system also waits for completion of data transmission and let the device to shift to asleep status again.

However, transition time to the Real Deep Sleep depends on the device, and the transition to sleep won't be done if the next data transmission will be done within 10 minutes.

No.9

Q: Is E-RDS compatible with Department counter?

A: No, E-RDS does not support Department counter.

No.10

Q: Is there any setting to be made on the device side to enable the service mode menu transmission function? Moreover, what is Service mode menu set as the object of transmission?

A: No steps peculiar to Transmitting Service mode menu. As for the data that applies to transmission of the service mode, see the "Service mode menu Transmission".

No.11

Q: What service browser data is transmitted to UGW by E-RDS in what timing?

A: The service browser data to be transmitted and the transmission timing are shown below.

Transmission timing	Detailed procedure	Transmission information	Error occurs
When the service browser is enabled from the disabled state [OFF]	1) Specify the service browser setting in the service mode menu. 2) Send browser information to UGW.	Service browser mode: [Register] WEB browser option: [ON] or [OFF] according to the license status	Retransmission is not performed. ("Disabling [OFF]" continues to be set.)

Transmission timing	Detailed procedure	Transmission information	Error occurs
	3) Once obtaining OK response from UGW, enable the service browser mode [ACTIVE]. (To use the setting, it is necessary to reboot this machine)		

No.12

Q: Counter information could not be sent at the scheduled send time due to the power of this machine being turned OFF. Will the counter information be sent later when the power of this machine is turned ON?

A: Yes. When a scheduled send such as that for counter could not be executed due to the power of this machine being turned OFF, etc., and the scheduled send time has already passed at power-on, the send is executed immediately.

The following shows data send according to the status of this machine.

Send types	Status of this machine		
	Power ON	Power OFF	Sleep
Scheduled send	Sent	Not sent ^{*1}	Sent ^{*2}
Immediate send (Service call log / Alarm log / Jam log)	Sent	-	Sent ^{*2}

*1: Immediately sent if the send time has already passed at power-on.

*2: Sent after recovery from sleep mode.

No.13

Q: What is the number of the network port used by E-RDS?

A: The port number used by E-RDS for communication with UGW is "443".

If this setting is changed, an error occurs during communication with UGW. Therefore this setting should not be changed unless otherwise instructed.

No.14

Q: After the setting for E-RDS was made, the IP address of the host machine was changed. In that case, is it necessary to execute COM-TEST again?

A: It is not necessary to execute COM-TEST again because the IP address used by E-RDS is automatically changed. However, it is necessary to restart the device to reflect the change in the setting of the IP address

Troubleshooting

No.1

Symptom: A communication test (COM-TEST) results NG!

Cause: Initial settings or network conditions is incomplete.

Remedy 1: Check and take actions mentioned below.

1) Check network connections

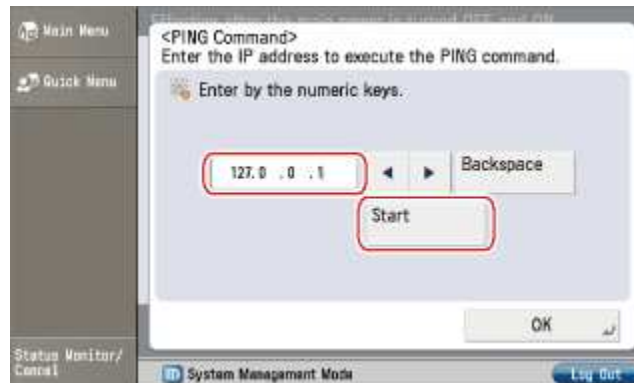
Is the status indicator LED for the HUB port to which this machine is connected ON?

YES: Proceed to Step 2).

NO: Check that the network cable is properly connected.

2) Confirm loop back address (* In case of IPv4)

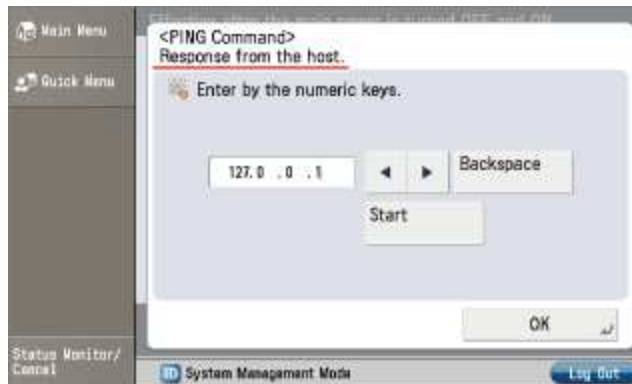
Select [Settings/Registration] > [Preferences] > [Network] > [TCP/IP Settings] > [IPv4 Settings] > [PING Command], enter "127.0.0.1", and touch the [Start] button.



Does the screen display "Response from the host."? (See the next figure.)

YES: Proceed to Step 3).

NO: There is a possibility that this machine's network settings are wrong. Check the details of the IPv4 settings once more.



3) Confirmation from another PC connected to same network.

Request the user to ping this machine from a PC connected to same network.

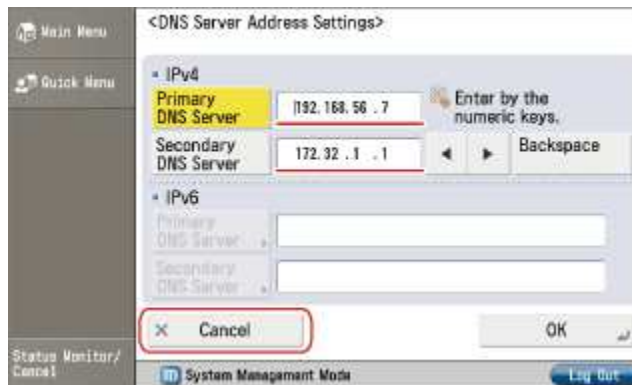
Does this machine respond?

YES: Proceed to Step 4).

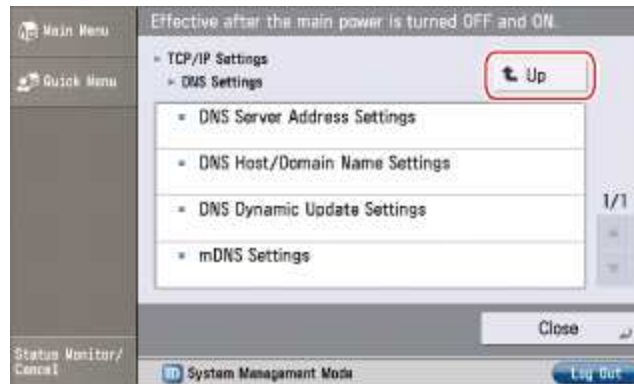
NO: Confirm the details of this machine's IP address and subnet mask settings.

4) Confirm DNS connection

(a) Select [Settings/Registration] > [Preferences] > [Network] > [TCP/IP Settings] > [DNS Settings] > [DNS Server Address Settings], write down the primary and secondary addresses of the DNS server, and touch the [Cancel] button.



(b) Touch the [Up] button.



(c) Select [IPv4 Settings] > [PING Command], enter the primary DNS server noted down in step a) as the IP address, and touch the [Start] button.

Does the screen display "Response from the host."?

YES: Proceed to Remedy 2.

NO: Enter the secondary DNS server noted down in step a) as the IP address, and then touch the [Start] button.

Does the screen display "Response from the host."?

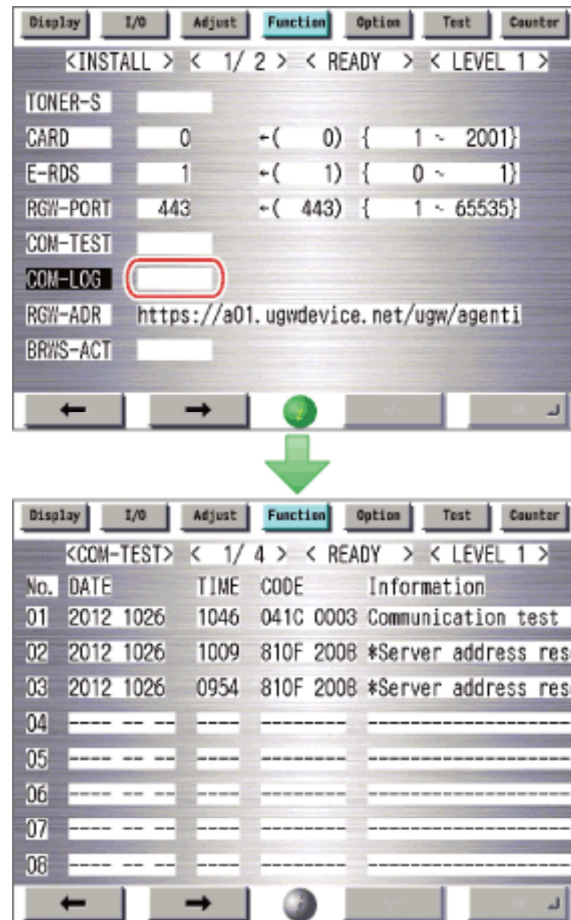
YES: Proceed to Remedy 2.

NO: There is a possibility that the DNS server address is wrong. Reconfirm the address with the user's system administrator.

Remedy 2: Troubleshooting using communication error log (COM-LOG)

1) Start [Service Mode] at Level 1.

2) Select [COPIER] > [Function] > [INSTALL] > [COM-LOG] and touch the blank field on the right side. The communication error log list screen is displayed.



NOTE:

- Only the initial part of error information is displayed in the communication error log list screen.
- "*" is added to the top of the error text in the case of an error in communication test (method name: getConfiguration or communicationTest) only.

3) When each line is selected, the communication error log detailed screen is displayed as shown in the figure below. (Example: No. 02)



NOTE:

- A detailed description of the error appears below 'Information'. (Max 128 characters)
- Touch the [OK] button to return to the communication error log list screen.

4) When a message is displayed, take an appropriate action referring to "[Error code and strings](#)".

No.2

Symptom: A communication test results NG! even if network setting is set properly.

Cause: The network environment is inappropriate, or RGW-ADR or RGW-PORT settings for E-RDS have been changed.

Remedy: The following points should be checked.

- 1) Check network conditions such as proxy server settings and so on.
- 2) Check the E-RDS setting values.
 - Check the communication error log from COM-LOG.
 - Check whether RGW-ADR or RGW-PORT settings has changed. If RGW-ADR or RGW-PORT settings has changed, restore initial values. For initial values, see "[Service cautions](#)".

No.3

Symptom: There was a log, indicating "Device is not ready, try later" in error details of COM-LOG list.

Cause: A certain problem occurred in networking.

Remedy: Check and take actions mentioned below.

- 1) Check networking conditions and connections.

2) Turn on the power supply of this machine and perform a communication test about 60 seconds later.

No.4

Symptom: "Unknown error" is displayed though a communication test (COM-TEST) has done successfully.

Cause: It could be a problem at the UGW side or the network load is temporarily faulty.

Remedy: Try again after a period of time. If the same error persists, check the UGW status with a network and UGW administrator.

No.5

Symptom: Enabling Service Browser (BRWS-ACT) results NG!

Cause: A communication test with UGW has not been performed, or a communication test result is NG!

Remedy: Perform a communication test, and check that the test with UGW finishes successfully.

No.6

Symptom: The display indicates that the service browser is enabled (BRWS-STS: 1), but the service browser fails to be activated.

Cause: The main power switch of this machine has not been turned OFF and then ON. ON/OFF of the service browser is enabled after reboot.

Remedy: Turn OFF and then ON the main power of this machine.

No.7

Symptom: Initializing the CA certificate (CA-KEY) results in NG!

Cause: Initialization process of the CA certificate has completed abnormally.

Remedy: Initialize the HDD.

No.8

Symptom: When a communication test (COM-TEST) is repeatedly executed, an error occurs.

Cause: During communication conducted after execution of a COM-TEST, another COM-TEST was executed again.

Remedy: When repeatedly executing COM-TEST, execute COM-TEST at intervals of 5 minutes or more.

Error code and strings

The following error information is displayed on the communication error log details screen.

(Here, "server" means UGW.)

- The error information are displayed in the following form.
[*] [Error strings] [Method name] [Error details provided by UGW]

NOTE:

"" is added to the top of the error text in the case of an error in communication test (method name: getConfiguration or communicationTest) only.

No.	Code	Error strings	Cause	Remedy
1	0000 0000	SUSPEND: mode changed.	Unmatched Operation Mode	Initialize the E-RDS setting (ERDS-DAT).
2	0500 0003	SUSPEND: Communication test is not performed.	Rebooting the device while the communication test had not been performed although E-RDS is enabled.	Perform a communication test (COM-TEST).
3	0xxx 0003	Server schedule is not exist	Blank schedule data have been received from UGW.	Perform and complete a communication test (COM-TEST).
4	0xxx 0003	Communication test is not performed	Communication test has not completed.	Perform and complete a communication test (COM-TEST).
5	84xx 0003	E-RDS switch is setted OFF	A communication test has been attempted with the E-RDS switch being OFF.	Set E-RDS switch (E-RDS) to 1, and then perform a communication test (COM-TEST).
6	8600 0002 8600 0003 8600 0101 8600 0201 8600 0305 8600 0306 8600 0401 8600 0403 8600 0414	Event Registration is Failed	Processing (event processing) within the device has failed.	Turn the device OFF/ ON. If the error persists, replace the device system software. (Upgrade)

No.	Code	Error strings	Cause	Remedy
	8600 0415			
7	8700 0306	SRAM version unmatch!	Improper value is written in at the head of the Main Controller PCB 2 SRAM domain of E-RDS.	Turn the device OFF/ ON.
8	8700 0306	SRAM AeRDS version unmatch!	Improper value is written in at the head of the Main Controller PCB 2 SRAM domain of Ae-RDS.	Turn the device OFF/ ON.
9	8xxx 0004	Operation is not supported	Method which E-RDS is not supporting attempted.	Contact help desk
10	8xxx 0101	Server response error (NULL)	Communication with UGW has been successful, but an error of some sort has prevented UGW from responding. When (Null) is displayed at the end of the message, this indicates that there has been an error in the HTTPS communication method.	Perform and complete a communication test (COM-TEST).
11	8xxx 0201 8xxx 0202 8xxx 0203 8xxx 0204 8xxx 0206	Server schedule is invalid	During the communication test, there has been some kind of error in the schedule values passed from UGW.	When the error occurs, report the details to the support section. After the UGW side has responded, try the communication test again.
12	8xxx 0207 8xxx 0208	Internal Schedule is broken	The schedule data in the inside of E- RDS is not right.	Perform a communication test (COM-TEST).
13	8xxx 0221	Server specified list is too big	Alarm/Alert filtering error: The number of elements of the list specified by the server is over restriction value.	Alert filtering is not supported by UGW.

No.	Code	Error strings	Cause	Remedy
14	8xxx 0222	Server specified list is wrong	Alarm filtering error: Unjust value is included in the element of the list specified by the server.	Alert filtering is not supported by UGW.
15	8xxx 0304	Device is busy, try later	The semaphore consumption error at the time of a communication test.	Try again a communication test after a period of time.
16	8xxx 0709	Tracking ID is not match	When upgrading firmware, the TrackingID notified by Updater differs from the thing of UGW designates.	Obtain the sublog, and contact the support department of the sales company.
17	8xxx 2000	Unknown error	Some other kind of communication error has occurred.	Perform and complete a communication test (COM-TEST).
18	8xxx 2001	URL Scheme error (not https)	The header of the URL of the registered UGW is not in https format.	Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010.
19	8xxx 2002	URL server specified is illegal	A URL different to that specified by the UGW has been set.	Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010.
20	8xxx 2003	Network is not ready, try later	Communication attempted without confirming network connection, just after booting up a device in which the network preparations are not ready.	Check the network connection, as per the initial procedures described in the troubleshooting. Perform a communication test (COM-TEST) about 60 seconds later, after turn on the device.
21	8xxx 2004	Server response error ([Hexadecimal]) [Error detailed in UGW]*1	Communication with UGW has been successful, but an error of some sort has prevented UGW from responding.	Try again after a period of time. Check detailed error code (Hexadecimal) and [Error details in UGW] from UGW displayed after the message.
22	8xxx 200A	Server connection error	<ul style="list-style-type: none"> TCP/IP communication fault The IP address of device is not set. 	<ul style="list-style-type: none"> Check the network connection, as per the initial procedures described in the troubleshooting. When proxy is used, make the settings for proxy, and check the status of the proxy server.
23	8xxx 200B	Server address resolution error	Server address name resolution has failed.	<ul style="list-style-type: none"> Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010. Check that Internet connection is available in the environment.
24	8xxx 2014	Proxy connection error	Could not connect to proxy server due to improper address.	Check proxy server address / port and re-enter as needed.

No.	Code	Error strings	Cause	Remedy
25	8xxx 2015	Proxy address resolution error	Could not connect to proxy server due to name resolution error of proxy address.	<ul style="list-style-type: none"> • Check that the proxy server name is correct. If the proxy server name is correct, check the DNS connection, as per the initial procedures described in the troubleshooting. • Specify the IP address as the proxy server name.
26	8xxx 201E	Proxy authentication error	Proxy authentication is failed.	Check the user name and password required in order to login to the proxy, and re-enter as needed.
27	8xxx 2028	Server certificate error	<ul style="list-style-type: none"> • No route certificate installed in device. • Certificate other than that initially registered in the user's operating environment is being used, but has not been registered with the device. • The date and time of the device is not correct. 	<ul style="list-style-type: none"> • Install the latest device system software. (Upgrade) • Correctly set the date and time of the device. • Execute CLEAR > CA-KEY, and turn OFF and then ON the device. (The CA certificate at the time of shipment is automatically installed.)
28	8xxx 2029	Server certificate verify error	The server certificate verification error occurred.	Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010 .
29	8xxx 2046	Server certificate expired	<ul style="list-style-type: none"> • The route certificate registered with the device has expired. • Certificate other than that initially registered in the user's operating environment is being used, but has not been registered with the device. • The device time and date is outside of the certificated period. 	Check that the device time and date are correctly set. If the device time and date are correct, upgrade to the latest system software.
30	8xxx 2047	Server response time out	Due to network congestion, etc., the response from UGW does not come within the specified time. (HTTPS level time out)	If this error occurs when the communication test is being run or Service Browser is being set, try again after a period of time.
31	8xxx 2048	Service not found	There is a mistake in the UGW URL, and UGW cannot be accessed. (Path is wrong)	Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010 .
32	8xxx 2052	URL error	The data which is not URL is inputted into URL field.	Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010 .

No.	Code	Error strings	Cause	Remedy
33	8xxx 2058	Unknown error	SOAP Client fails to obtain SOAP Response. Possibility of a problem in UGW or of a temporary problem in the network load.	Perform and complete a communication test (COM-TEST).
34	8xxx 2063	SOAP Fault	SOAP communication error has occurred.	Check that the value of port number of UGW (RGW-PORT) is 443.
35	xxxx xxxx	Device internal error	An internal error, such as memory unavailable, etc., has occurred during a device internal error phase.	Turn the device OFF/ ON. Or replace the device system software. (Upgrade)
36	xxxx xxxx	SUSPEND: Initialize Failure!	Internal error occurred at the initiating E-RDS.	Turn the device OFF/ ON.

*1: [Hexadecimal]: indicates an error code returned from UGW.

[Error details in UGW]: indicates error details returned from UGW.

Updater

Functional Overview

■ Overview

Updater provides functions that enable network communication with Content Delivery System (hereinafter CDS) to install firmware, MEAP applications and system options.

- Firmware Installation

Updater function enables users to distribute firmware through CDS via Internet. Particularly on e-Maintenance/UGW (called NETEYE in Japan)-enabled devices, firmware can be updated remotely, which effectively slashes costs incurred in field services.

- MEAP Application/System Option Installation

By linking devices to CDS and License Management System (providing the function to manage licenses; hereinafter LMS), applications can be installed in devices via Updater, regardless of those not embedded (MEAP application) or embedded (system options) in devices.

● Installing Firmware

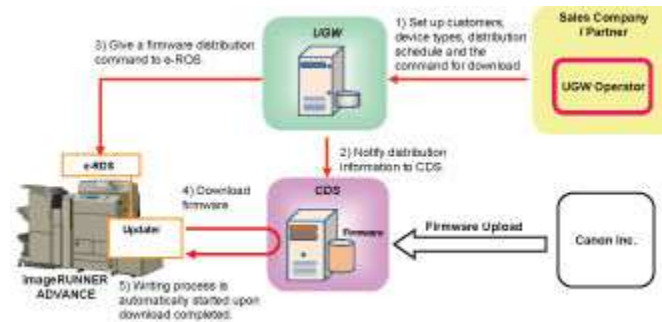
With link to Updater, service technicians provide firmware install services in the following 3 methods.

Distribution Method	Download Commanded by:	Update Timing	Downloadable Firmware Versions		
			Previous Ver	Current Ver	Newer Ver
a. UGW-linked Download / Update (Full-remote update)	UGW	Auto	No	Yes	Yes*1
b. UGW-linked Download (Remote Distribution / Update)	UGW	Manual	Yes	Yes	Yes
c. Manual Download / Update (On-site Update via Service mode)	Local UI	Auto	No	Yes	Yes*1
		Manual	Yes	Yes	Yes

*1:You can select the version allowed Remote Update.

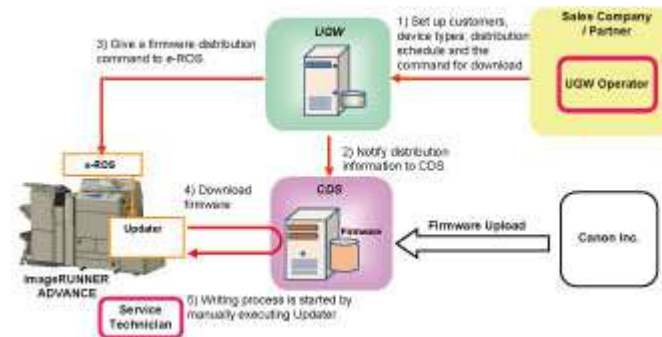
- a. UGW-linked Download and Update (Full-Remote Update)

If the device is linked to UGW and the distribution schedule and update setting are registered on UGW in advance, full remote firmware update is available on an imageRUNNER ADVANCE-series device. Upon downloaded from CDS, the firmware is updated on the device.



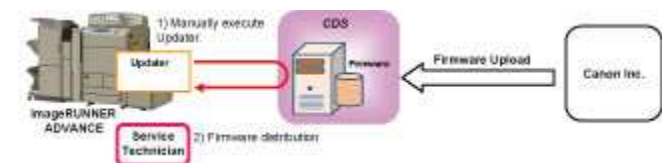
b. UGW-linked Download (Remote Distribution / Update)

If the device is linked to UGW and the distribution schedule is registered on UGW in advance, firmware can be distributed to an imageRUNNER ADVANCE-series device before a service technician actually visits the customer site. This allows the service technician to update the firmware manually immediately after completing device inspection.



c. Manual Download and Update (On-site Update via Service Mode)

If an imageRUNNER ADVANCE-series device has connection with the external network, a service technician can gain access to CDS via Service mode to download and update firmware. This allows service technicians to update the firmware as needed on the customer site even without PCs.



NOTE:

“External network” here means the network connecting the device to CDS via Internet.

NOTE:

Users are able to gain firmware distribution in the following 3 methods by introducing CDS. See User Manual for detailed information.

Distribution Method	Download Commanded by	Update	Downloadable Firmware Versions		
		Timing	Previous Ver	Current Ver	Newer Ver
Manual download/update via Local UI	Local UI	Auto	No	No	Yes *1
		Manual	No	No	Yes *1
Manual download/upload via Remote UI	Remote UI	Auto	No	No	Yes *1
		Manual	No	No	Yes *1
Special download/upload via Remote UI	Remote UI	-	Specific version only (Obtain it separately)		

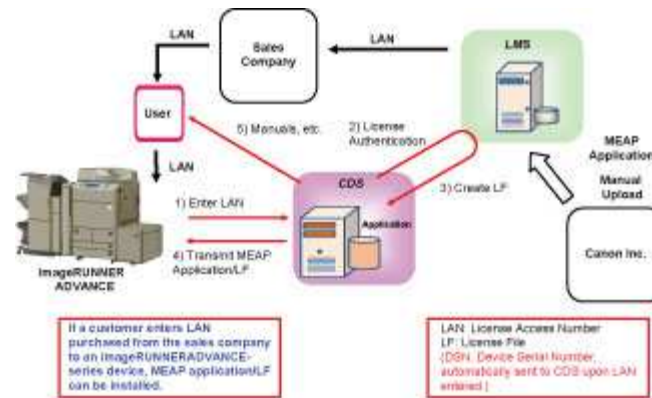
● **Installing MEAP Application/System Option**

The following is the installation method of MEAP application/system option which is enabled by applying CDS.

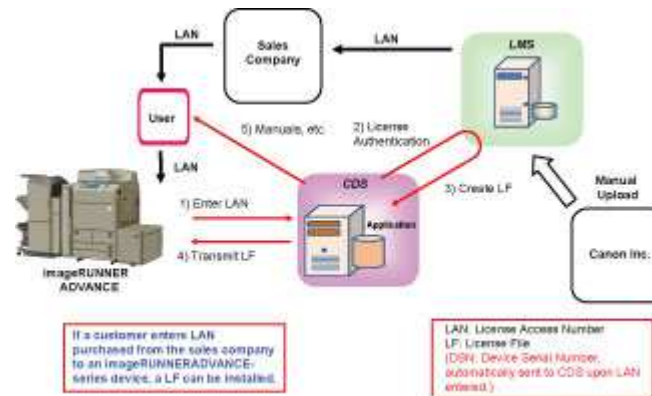
a. LMS-linked MEAP Application/System Option Installation

If an imageRUNNER ADVANCE-series device is connected to the external network, user or service technician can gain access to CDS from User mode to install a MEAP application or a system option.

Installing MEAP Application

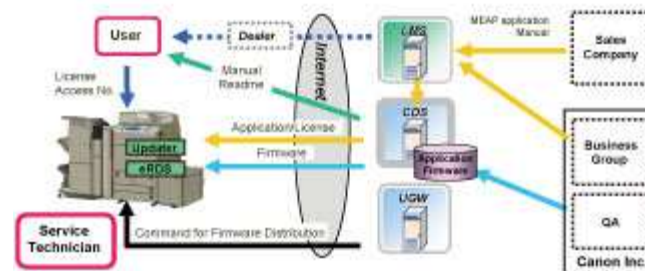


Installing System Option



System Configuration

The figure below schematically shows the system configuration.



■ List of Functions

The matrix below shows the list of functions provided by Updater.

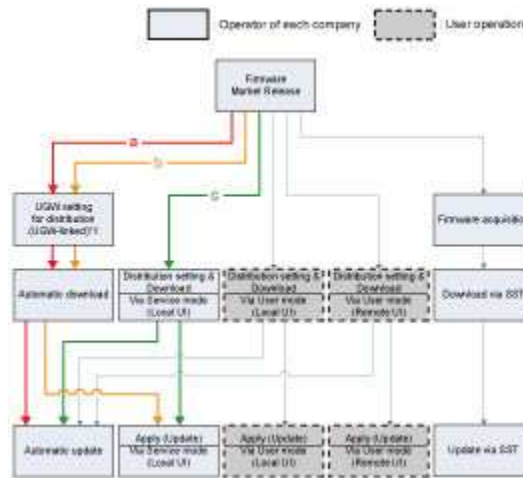
Category	Function	Service Mode	User Mode	Remote UI	UGW-linked
Firmware	Checking firmware compatibility	Yes	-	-	-
	Checking special firmware	Yes	-	-	-
	Checking latest firmware version	-	Yes	Yes	-
	Registering/deleting firmware distribution schedule	Yes	Yes	Yes	-
	Confirming and downloading firmware	Yes	Yes	Yes	Yes
	Updating downloaded firmware	Yes	Yes	Yes	-
	Cancelling downloaded firmware	Yes	Yes	Yes	-
	Acquiring firmware distribution information registered from UGW	-	-	-	Yes
	Notifying firmware version information	-	-	-	Yes
MEAP application/system option	Inquiring license for MEAP application/system option	-	Yes	Yes	-
	Installing MEAP application / system option	-	Yes	Yes	-
System Management	Settings	Yes	-	-	-
	Testing communications	Yes	Yes	Yes	-
	Displaying update logs	Yes	Yes	Yes	-
	Displaying system logs	Yes	Yes	Yes	-
Internal system error notification	Notifying internal system error occurrence to distribution server	Yes	Yes	Yes	Yes

■ Distribution Flow

● Firmware Installation Flow

Service technicians provide firmware install services in the following 3 methods.

- a: UGW-linked download and update
- b: UGW-linked download
- c: Manual download and update

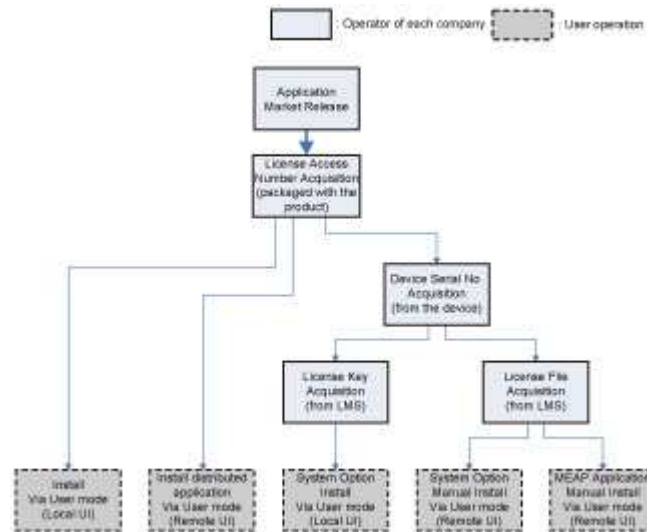


*1: Schedules for UGW-linked distribution are maintained on CDS.

● MEAP Application/System Option Installation Flow

MEAP application/system option installation method using service mode is not provided.

Be sure to use the user mode to install.



Limitations and Cautions

■ Limitations

Changing Date/Time on Device

When a user changes the date/time setting on the device (including change of the setting according to daylight saving time), the firmware distribution may not be performed as scheduled.

But there is not the problem if it is time adjustment of several minutes with NTP servers.

Change of Setting from Service mode

Any settings from Service mode will be enabled after restarting the device.

■ Cautions

Concurrent use of Updater functions

Multiple users cannot use Updater functions on a device concurrently by using it together with Remote UI.

Coexistence of Remote UI and other tools

Users logged in SMS (Service Management Service) are unable to use Update functions from Remote UI.

Using Updater function from Remote UI

Upon the following operations done, Updater functions are suspended from Remote UI for certain duration.

- When a user exits Web browser without clicking [Portal] or [Log Out] button in the setting of Remote Login Service via SMS
- When a user exits Web browser without clicking [Portal] button in the setting of not to use Remote Login Service via SMS.
- When a user exits Web browser without clicking [Log out from SMS] or [To Remote UI] button.

Wait for EOJ (end of job) Function

Firmware update will be triggered only after the following jobs are completed.

This is the Updater-specific specification.

Job/Function type	Receiving	Printing	Queued print jobs	Sending	Queued send jobs
COPY	-	Wait for EOJ	Wait for EOJ	-	-
PRINT	Wait for EOJ (end of job)	Wait for EOJ Wait for EOJ	-	-	
FAX	Wait for EOJ	Wait for EOJ	Wait for EOJ	Wait for EOJ	Wait for EOJ
I-FAX Receipt	Cancel processing to trigger update *	Wait for EOJ	Wait for EOJ	Wait for EOJ	Wait for EOJ
Report Print	-	Wait for EOJ	Wait for EOJ	-	-
SEND	-	-	-	Cancel processing to trigger update *	Cancel processing to trigger update *

*The data are guaranteed even if cut off in the middle of a job.It becomes the recovery object after the device reboot and carry out send / reception again.

Even during transfer, Pull SCAN job processing is cancelled soon after scanning is completed.

Firmware update is cancelled if the jobs are not completed within 10 minutes. If this occurs, the error code, 8x001106, will be returned (different numbers will be shown for x depending on the execution modes).

Firmware update is executed if the jobs stated above are not in the queue.

Follow the shutdown sequence to reboot the device after the firmware is updated.

Preparation

■ Overview of Preparation

The following should be prepared before using Updater.

- For updating of firmware

Installation Method	Setting Sales Company's HQ	Network Settings	Enabling UGW Link	Enabling [Update Firmware] Button of User Mode	Enabling [Manual Update] Button of User Mode (Remote UI)
UGW-linked Download and Update	Yes	Yes	Yes	-	-
UGW-linked Download	Yes	Yes	Yes	-	-
Manual Download and Update	Yes	Yes	-	-	-
Manual Download and Update via Local UI	Yes	Yes	-	Yes	-
Manual Download and Update via Remote UI	Yes	Yes	-	Yes	-
Special Download and Update via Remote UI	Yes	-	-	-	Yes

- For Install of Application

Installation Method	Network Settings	Enabling [Install Application/Options] Button of User Mode
LMS-linked Installation	Yes	-
LMA-linked installation via Local UI	Yes	Yes
LMS-linked installation via Remote UI	Yes	Yes

■ Setting Sales Company's HQ

When using devices input in the markets listed below, the default setting of Sales Company's HQ should be changed before obtaining firmware distributed from CDS. Unless the setting is changed properly, the desired firmware may not be able to be selected.

Market	Default Setting of Sales Company's HQ	Setting of Sales Company's HQ after Change
Canada	US	CA
Latin America	US/SG	LA
Hong Kong	SG	HK

Go to the following screen to change the setting of Sales Company's HQ.

--	--	--

Service Technician	Setting of Device Service Mode (Level 1)	COPIER > FUNCTION > INSTALL > CDS-CTL
--------------------	---	---------------------------------------

NOTE:

The list below shows the setting of Sales Company's HQ for CDS-CTS by market. Check and adhere to the appropriate setting for your market.

<List of Sales Company's HQ and the settings for CDS-CTL>

Japan = JP	China = CN
USA = US	Hong Kong = HK
Singapore = SG	Australia = AU
Europe = NL	Canada = CA
Korea = KR	Latin America= LA

■ Network Settings

● Connecting to External Network

The method of connecting to external network is similar to a normal network connection method. Refer to user manual of the device for details.

NOTE:

- See User Manual for how to connect the device to the external network.
- Before using UGW link or User mode, see the sections below to prepare as required.

"Enabling UGW Link"

"Enabling [Update Firmware] Button of User Mode"

"Enabling [Install Application/Options] Button of User Mode"

NOTE:

"External Network" here means the network connecting the device to CDS via Internet.

● Confirming URL Setting of Distribution Server

This section describes how to confirm the URL setting of the distribution server.

1. Start [Service Mode] at Level 1.
2. Press [Updater] button.



3. Press [Software Management Settings] button.



4. Press [Settings] button.



5. Ensure to enter "https://device.c-cdsknn.net/cds_soap/updaterif" in the field beside the [Delivery Server URL] button.

If the URL is not entered or a wrong URL is entered in the field, click [Delivery Server URL] button to show the virtual keypad. Check the URL and enter the correct one.



6. Press [OK] to set the entered items. Now the URL of the distribution server is successfully set.

● Communication Test

This section describes how to check if the communication is normally done to the distribution server and/or the file server.

NOTE:

Carry out the communication test with both Embedded RDS and CDS.

1. Start [Service Mode] at Level 1.
2. Press [Updater] button.



3. Press [Software Management Settings] button.



4. Press [Test Communication] button.



5. Press [Yes] button.



Obtain the download file information for communication test from the distribution server (to execute the communication test to the distribution server).

Using the download file information for communication test, the contents for test are downloaded from the file server (for the communication test to the file server).

6. Upon the communication test completed, the communication test result screen is shown.

Press [OK] button to exit this operation.



■ Enabling UGW Link

When installing the firmware in the method of “UGW-linked Download and Update” or “UGW-linked Download”, the following should be set before actually using UGW link.

Service Technician	Setting of Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-UGW (0 -> 1)
	Setting of UGW WebPortal	In [Customer Management] screen, set [Do not distribute firmware] to [Distribute firmware].
Sales Company's HQ	Setting of Authorities on UGW WebPortal	See "Analysis>Firmware Distribution Information" to grant the appropriate authorities to each account.

NOTE:

- See “imageWARE Remote Operator’s Manual / e-Maintenance Business Operation Manual” for how to operate UGW WebPortal.
- [Distribute Firmware] should be set on [Customer Management] screen for staff in charge of setting for [Enter customer information] or [Command for firmware distribution] in order to allow them to select the desired device on [Firmware Distribution Information] screen.
- If [Distribute Firmware] is not shown on [Customer Management] screen of UGW WebPortal, appropriate authorities may not be set to each account in Firmware Distribution Information. Contact the Sales Company HQ concerned for confirmation.

■ Enabling [Update Firmware] Button of User Mode

To allow users to install firmware using Updater, the setting of firmware installation should be set to ON for users in advance.

Service Technician	Setting of Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-FIRM (0 -> 1)
--------------------	--	---

- User Mode screen for Updater when the setting is not enabled (CDS-FIRM(0)):



- User Mode screen for Updater when the setting is enabled (CDS-FIRM(1)):



■ Enabling [Install Application/Options] Button of User Mode

To allow users to install applications using Updater, the setting of application installation should be set to ON for users in advance.

Service Technician	Setting of Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-MEAP (0 -> 1)
--------------------	--	---

- User Mode screen of Updater when the setting is not enabled (CDS-MEAP(0)):



- User Mode screen of Updater when the setting is enabled (CDS-MEAP(1)):



■ Enabling [Manual Update] Button of User Mode (Remote UI)

To allow users to install firmware from Updater using the file on Local PCs, the setting of firmware installation should be set to ON for users in advance.

Service Technician	Setting of Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >LOCLFIRM (0 -> 1)
--------------------	--	---

- Remote UI screen of Updater when the setting is not enabled (LOCLFIRM (0)):



- Remote UI screen of Updater when the setting is enabled (LOCLFIRM (1)):



System Management Operations

■ Various Setting

● Setting URL of Distribution Server

This section describes how to set URL of the distribution server.

1. Start [Service Mode] at Level 1.
2. Press [Updater] button.
3. Press [Software Management Settings] button.



4. Press [Settings] button.



5. Press [Delivery Server URL] to show the virtual keypad. Enter the URL.



- [Delivery Server URL]:

Enter the "https://device.c-cdsknn.net/cds_soap/updaterif".

6 Press [OK] to set the entered items. Now the URL of the distribution server is successfully set.

● Setting Log Level

This section describes how to set system log levels.

1. Start [Service Mode] at Level 1.
2. Press [Updater] button.
3. Press [Software Management Settings] button.



4. Press [Settings] button.



5. Select a log level from [Log Level] dropdown list.



- [Log Level]:

Select one of 5 levels ranging from [0] to [4].

See the table below for logs output in each level.

Log Level	Log Output				
	Trace	Information	Important Message	Ordinary Error	System Error
0	-	-	-	-	Yes
1	-	-	-	Yes	Yes

Log Level	Log Output				
	Trace	Information	Important Message	Ordinary Error	System Error
2	-	-	Yes	Yes	Yes
3	-	Yes	Yes	Yes	Yes
4	Yes	Yes	Yes	Yes	Yes

NOTE:

This list shows the contents of the Log Output.

Log Output	Description
Trace	Detailed logs for debug
Information	Logs related to operations done on the system
Important Message	Update logs output by firmware type Installation logs by MEAP application Logs related to enabled functions by system option
Ordinary Error	Logs for ordinary errors
System Error	Logs for internal system errors

6. Press [OK] button to set the selected log level. Now the log level is successfully set.

■ Displaying Logs

● Update Logs

This section describes how to confirm System Option/MEAP Application Installation Logs and Firmware Update Logs.

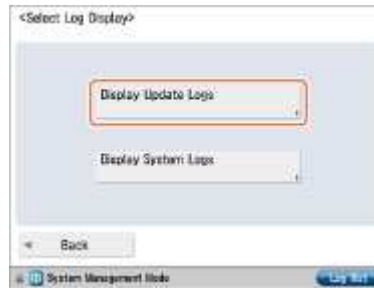
1. Start [Service Mode] at Level 1.
2. Press [Updater] button.
3. Press [Software Management Settings] button.



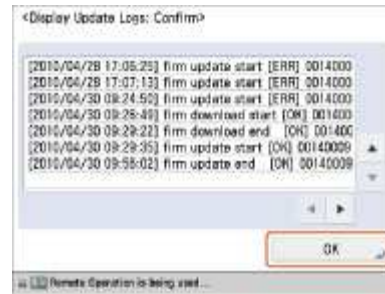
4. Press [Select Log Display] button.



5. Press [Display Update Logs] button.



6. System Option/MEAP Application Installation Logs and Firmware Update Logs are shown.
Press [OK] button to exit this operation.



● System Logs

This section describes how to confirm System Logs.

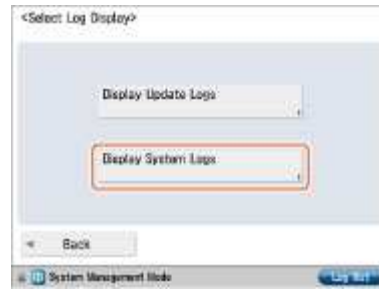
1. Start [Service Mode] at Level 1.
2. Press [Updater] button.
3. Press [Software Management Settings] button.



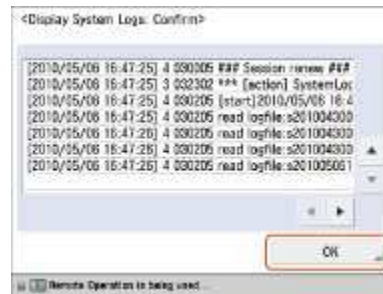
4. Press [Select Log Display] button.



5. Press [Display System Logs] button.



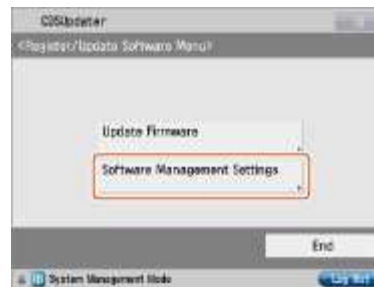
6. Updater internal logs are displayed.
Press [OK] button to exit this operation



● Communication Test

This section describes how to check if the communication is normally done to the distribution server and/or the file server.

1. Start [Service Mode] at Level 1.
2. Press [Updater] button.
3. Press [Software Management Settings] button.



4. Press [Test Communication] button.



5. Press [Yes] button.



Obtain the download file information for communication test from the distribution server (to execute the communication test to the distribution server).

Using the download file information for communication test, the contents for test are downloaded from the file server (for the communication test to the file server).

6. Upon the communication test completed, the communication test result screen is shown.

Press [OK] button to exit this operation.



NOTE:

Carry out the communication test with both Embedded RDS and CDS.

Maintenance

■ Upgrading Updater

The firmware installed in the device should be also upgraded when upgrading Updater. See the section of “Version Upgrade” , Chapter 6 “Troubleshooting” of this manual for more detailed information.

■ Formatting Hard Disk

Since Updater is a MEAP application, its contents can be temporarily saved in the MEAP application storage area on PC via SST during formatting or replacing HDD. See MEAP Service Manual for further information.

The settings initialized in format or replacement should be restored. See the section of "[Preparation](#)", “Updater” of Chapter 2 “Technology” of this manual for more detailed information.

NOTE:

When formatting or replacing HDD, distribution schedule, downloaded firmware (not updated yet) and logs (update/system logs) will be deleted.

■ How to Replace Controller Boards

The steps are different depending on which of 2 controller boards are to be replaced.

- Main Controller Board PCB 1
No steps follow.
- Main Controller Board PCB 2 (including SRAM)

The network and service mode setting should be set again after initialization. See the section of "[Preparation](#)", “Updater” of Chapter 2 “Technology” of this manual for more detailed information.

■ How to Replace Devices

All settings should be set again because no data are inherited. See the section of "[Preparation](#)", “Updater” of Chapter 2 “Technology” of this manual for more detailed information.

FAQ

■ FAQ on Installing Firmware

No.1

Q: Is it also possible to downgrade firmware with using CDS?

A: Firmware can be downgraded in some methods shown in the table below.

If download and update are performed consecutively, firmware can't be downgraded.

Distribution Method	Downgrade Possibility
UGW-linked Download and Update	No
UGW-linked Download	Yes
Manual Download and Update(Timing to Apply : Manual)	Yes
Manual Download and Update(Timing to Apply : Automatic)	No

No.2

Q: When installing firmware, does it take less time in “manual download and update” compared to “update via SST”?

A: It depends on the number of devices to update firmware.

When updating the firmware on a device, it takes more time in “manual download and update” compared to “update via SST” (It depend on network environment.).

As for the time to update firmware to multiple devices, “manual download and update” takes less time compared to “update via SST” because updating the firmware to multiple devices can be executed simultaneously.

No.3

Q: How can we confirm that the firmware is properly updated after “UGW-linked download and update” done?

A: You can confirm this in E-mail or the Device List on UGW-linked screen.

E-mail to notify firmware update will be sent from CDS server to the addresses set as destinations at the time of distribution setting to notify update completion.

On UGW-linked screen, search the device of your interest on [Select Device] screen to find the distribution status per device as shown in the search result.

No.4

Q: In the course of “UGW-linked download”, what will happen if the user downloads the firmware before the service technician update the firmware downloaded with “UGW-linked download” before?

A: The previously downloaded firmware in the method of “UGW-linked download” will be overridden by the subsequently downloaded one.

This is because only one downloaded firmware can be held on the device.

The firmware downloaded in the method of “Service mode-linked download” and “UGW-linked download” can be checked/deleted from User mode, but cannot be updated, so it cannot be updated by the user unnoticed by the service technician.

No.5

Q: What happens if the user registers another distribution schedule when the distribution schedule has been set in “manual download and update”?

A: The distribution schedule subsequently registered by the user will override the existing schedule. This is because only one distribution schedule can be held. Any existing distribution schedule is deleted and the newly registered distribution schedule is made valid.

No.6

Q: How is an individual response edition of firmware distributed?

A: Any individual response edition of firmware can be installed in all the methods provided by service technicians. Before installing the individual response edition, ensure to obtain the ID and password separately.

No.7

Q: If the device is down during firmware update, can the device be started using the older firmware version?

A: No, it is impossible to start the device using older versions. If this occurs, the service technician in charge should reinstall the firmware via SST. See the section of “Version Upgrade” of Chapter 6 “Troubleshooting” of this manual for more detailed information.

No.8

Q: If the device is down during firmware download, is it possible to download the firmware again?

A: Firmware cannot be downloaded again automatically. Instead, the error is notified in E-mail. The user should register the firmware distribution schedule again accordingly.

No.9

Q: Can we cancel the operation during firmware download?

A: Yes. [Cancel] button is shown.



No.10

Q: E-mail is sent to users to notify update completion. Can service technicians also receive such a notification?

A: Yes. The notification E-mail is also set for the service technician in charge if the user enters his/her E-mail address at the time of firmware distribution setting.

Multiple E-mail addresses can be entered in the field. Delimit each E-mail address with “,” (comma) or “;” (semicolon) when you enter multiple E-mail addresses in the field.

No.11

Q: How long does the firmware update take?

A: Approx. 30 min. However, this does not include the download time. Download time relies on the network environment.

■ FAQ on Installing MEAP Application/System Option

No.1

Q: What happens if a MEAP application is installed in the system with insufficient HDD free space?

A: An error message is shown. Upon starting installation, the MEAP application checks the required space against free space to judge installation availability.

No.2

Q: Can we cancel the operation during installation of MEAP application?

A: Yes: [Cancel] button is shown.

No.3

Q: Is the device automatically restarted after the system option is enabled?

A: The device is not automatically restarted. Users should restart the device manually.

■ FAQ on General Matters of Updater

No.1

Q: What preparation is needed in each installation method?

A: See the table below for preparation required in each installation method.

- For updating firmware

Installation Method	Setting Sales Company's HQ	Network Settings	Enabling UGW Link	Enabling [Update Firmware] Button of User Mode	Enabling [Manual Update] Button of User Mode (Remote UI)
UGW-linked Download and Update	Yes	Yes	Yes	-	-
UGW-linked Download	Yes	Yes	Yes	-	-
Manual Download and Update	Yes	Yes	-	-	-
Manual Download and Update via Local UI	Yes	Yes	-	Yes	-

Installation Method	Setting Sales Company's HQ	Network Settings	Enabling UGW Link	Enabling [Update Firmware] Button of User Mode	Enabling [Manual Update] Button of User Mode (Remote UI)
Manual Download and Update via Remote UI	Yes	Yes	-	Yes	-
Special Download and Update via Remote UI	Yes	-	-	-	Yes

- For install Application

Installation Method	Network Settings	Enabling [Install Application/Options] Button of User Mode
LMS-linked Installation	Yes	-
LMA-linked installation via Local UI	Yes	Yes
LMS-linked installation via Remote UI	Yes	Yes

No.2

Q: How can operations using Updater be masked on the users' side?

A: Be sure to perform the following from the service mode.

- Masking Firmware Installation

Setting Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-FIRM (1 -> 0)
Setting Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >LOCLFIRM (1 -> 0)

- Masking Application Installation

Setting Device Service Mode (Level 1)	COPIER >OPTION >FNC-SW >CDS-MEAP (1 -> 0)
---------------------------------------	--

No.3

Q: Can the communication be cancelled during the communication test?

A: Yes. During the communication test, "Cancel" button is displayed.

DCM

DCM

■ Overview

DCM (Device Configuration Management) is a function to migrate the setting values (of user mode and service mode). In terms of the description in the User's Guide, it is synonymous with "Import/Export All". Service mode setting values can be backed up/restored from the top screen of service mode.

The existing main controller did it only for the same main machine. DCM supports the following 3 patterns.

- The same machine (backup for the purpose of providing against emergency)
- A different machine of the same model (setting values are migrated collectively to multiple machines when replacing a host machine)
- A different model (e.g.: the setting values are copied from an old model to a new model)

● Where data is stored

Store the backup data in the following location.

- Remote UI > PC (RUI)
- iW EMC > iW EMC Server
- Service Mode > USB memory device/HDD of the machine (top screen of service mode)

● Setting values that can be backed up

The values changed by the user under [Settings/Registration] and those specified in service mode can be backed up.

Only setting values are backed up. Image data such as scanned image cannot be backed up.

- [Settings/Registration] value that a user set.
- Service mode setting values

● General limitations on DCM

- With DCM, stored data, MEAP application, and system option license cannot be migrated.
- A .dcm file exported to the internal HDD is not deleted even when the machine is restarted. Only 2 files at a maximum are stored in HDD. When there are more than 2 files, the old .dcm files are deleted from the oldest.

- Continuous import is not guaranteed. After importing a file, the machine must be restarted. If executing import without restart, NG is displayed and a file is not imported.
- When importing DCM file in service mode and user mode separately, perform it in the following procedures.
 - 1) Perform the import of the DCM data of the service mode earlier.
 - 2) Reboot the Host machine.
 - 3) Import the DCM data of the user mode.
- As for service mode, if the process is not completed within 5 minutes in the case of export and 15 minutes in the case of import, the item performed at that time is continued until it ends, but the final result becomes ERROR.
- Data to which no password is set when exporting service mode cannot be loaded from collective import from RUI. When assuming to perform collective import from RUI, password must be set to data to be exported.
- Following limitations are applied to password for DCM data:
 - Character string of software keyboard: 0 to 32 characters
 - No password is set when 0 character is entered. (The setting in which no password is set is allowed only for service mode.)
 - No space is allowed in the middle of a password.
 - Password is case sensitive.
- At the time of following setting, Host machine does not recognize USB memory. The DCM function is not usable, too.
 - Settings/Registration > Preferences > External Interface > USB Settings > Use MEAP Driver for External USB Device = On

● Restrictions about import/export by Remote UI

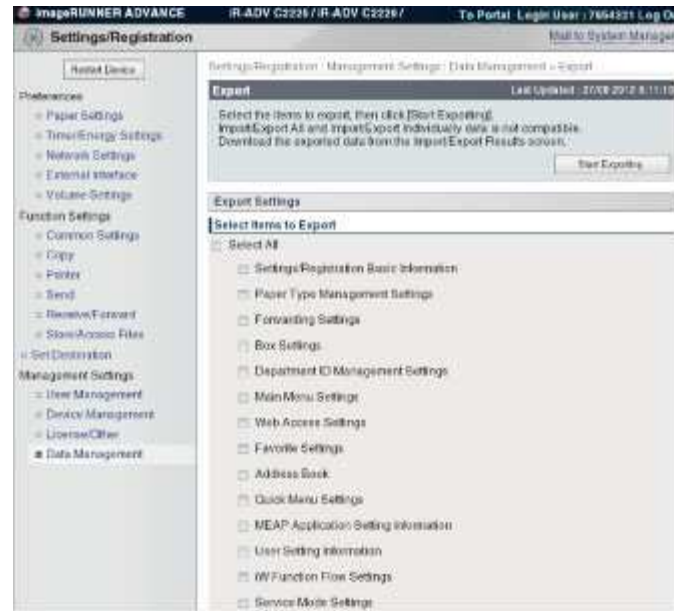
- An import/export process ends with error while the following specific job is executed;
 - Send job,
 - Forwarding job,
 - FAX reception job,
 - IFAX reception job
- If this function is executed with a print job simultaneously, it affects the operation such as; UI is locked, or a print job is cleared by reboot after import. So it requires careful operation.
- A device rejects an import/ export request during shut-down.
- If this function is executed with device information distribution or RUI import/ export (conventional function) simultaneously, the first coming job takes priority and they are controlled exclusively.
- If this function is executed with a firmware update by a CDS Updater simultaneously, a firmware update process takes priority, and this function is stopped temporarily by reboot.
- When error code is issued, this function ends with error.

- If the display language differs between export and import, a setting value of a text corrupts in some cases. The character corruption can be solved by changing the display language to the appropriate one.

● **Import/Export All from Remote UI**

The following settings information is available with the Import function in each case

- Settings/Registration Basic Information
- Box Settings
- Department ID Management Settings
- Main Menu Settings
- Favorite Settings
- Address Book
- Forwarding Settings
- Quick Menu Settings
- Paper Type Management Settings
- Web Access Settings
- MEAP Application Setting Information
- User Setting Information
- Workflow Composer
- Service Mode Settings(Display/hide of the service mode settings on the export screen)



Note:

Display/hide of the service mode settings on RUI can be switched by changing the setting in the following service mode.

Service mode L1 > Copier > Option > USER > SMD-EXPT

[0]: Hide the service mode settings. (Def.)

[1]: Display the service mode settings.

Collective Import Using Data Collectively Exported from RUI

For the reason of security, it is not appropriate that the user mode can be exported from service mode without user's permission. Because of that, it cannot be exported due to the specification. However, it is possible to import the setting values of user mode exported from RUI.

Preparation

PC and web browser

USB memory device to store the data of reference machine

Overall flow

1. Complete the device setting as a reference machine.

2. Export the data of reference machine including service mode from RUI.
3. Copy the data to the root of the USB memory device using a PC.
4. Connect the USB memory device to the copy destination machine.
5. Execute import by specifying the target files from RESTORE in service mode.

The following cases may be possible for the Import All function.

Case A:Importing all to your machine (Restoring the settings information to your machine for backups)

Case B:Importing all to the same model machine.

Case C:Importing all to the different model machine that supports the Import All function

Setting Information			Case A	Case B	Case C
Preferences	Paper Settings	Paper Settings	Yes	Yes	-
		Register Custom Size	Yes	Yes	-
		Paper Type Management Settings	Yes	Yes	Yes
	Display Settings	Default Screen after Startup/Restoration	Yes	Yes	Yes
		Default Screen (Status Monitor/Cancel)	Yes	Yes	Yes
		Display Fax Function	Yes	Yes	Yes
		Store Location Display Settings	Yes	Yes	Yes
		Language/Keyboard Switch On/Off	Yes	Yes	Yes
		Language/Keyboard Switch	Yes	Yes	Yes
		Use Keyboard Shift Lock Feature	Yes	Yes	Yes
		Display Remaining Paper Message	Yes	Yes	Yes
		No. of Copies/Job Duration Status	Yes	Yes	Yes
		Display Original Scanning Cleaning Area	Yes	Yes	Yes
		Paper Type Selection Screen Priority	Yes	Yes	Yes
		mm/Inch Entry Switch	Yes	Yes	Yes
		ID/User Name Display On/Off	Yes	Yes	Yes
		Timer/Energy Settings	Date/Time Settings	Yes	Yes

Setting Information			Case A	Case B	Case C	
		Time Format	Yes	Yes	Yes	
		Quick Startup Settings for Main Power	Yes	Yes	Yes	
		Auto Reset Time	Yes	Yes	Yes	
		Restrict Auto Reset Time	Yes	Yes	Yes	
		Function After Auto Reset	Yes	Yes	Yes	
		Auto Sleep Time	Yes	Yes	Yes	
		Sleep Mode Energy Use	Yes	Yes	Yes	
		Auto Sleep Weekly Timer	Yes	Yes	Yes	
		Sleep Mode Exit Time Settings	Yes	Yes	Yes	
	Network	Confirm Network Connection Set. Changes	Yes	Yes	Yes	
		TCP/IP Settings				
		IPv4 Settings	Use IPv4	Yes	Yes	Yes
			IP Address Settings			
			IP Address	Yes	-	-
			Subnet Mask	Yes	Yes	Yes
			Gateway Address	Yes	Yes	Yes
			DHCP Option Settings	Yes	Yes	Yes
		IPv6 Settings	Use IPv6	Yes	Yes	Yes
			Stateless Address Settings	Yes	Yes	Yes
	Manual Address Settings		Yes	-	-	
	Use DHCPv6		Yes	Yes	Yes	
Preferences	Network	DNS Settings	DNS Server Address Settings	Yes	Yes	Yes
			DNS Host/Domain Name Settings	Yes	-	-

Setting Information			Case A	Case B	Case C	
		DNS Dynamic Update Settings	Yes	Yes	Yes	
		mDNS SettingsUse mDNS/mDNS Name	Yes	Yes	Yes	
		WINS Settings	Yes	Yes	Yes	
		LPD Print Settings	Yes	Yes	Yes	
		RAW Print Settings	Yes	Yes	Yes	
		SNTP Settings	Yes	Yes	Yes	
		FTP Print Settings	Yes	Yes	Yes	
		WSD Settings	Yes	Yes	Yes	
		Use FTP PASV Mode	Yes	Yes	Yes	
		Multicast Discovery Settings	Yes	Yes	Yes	
		Use HTTP	Yes	Yes	Yes	
		Proxy Settings	Yes	Yes	Yes	
		NetWare Settings	Yes	Yes	Yes	
		SNMP Settings	Yes	Yes	Yes	
		Dedicated Port Settings	Yes	Yes	Yes	
		Use Spool Function	Yes	Yes	Yes	
		Startup Settings	Yes	Yes	Yes	
		Ethernet Driver Settings	Yes	Yes	Yes	
		Firewall Settings	Yes	Yes	Yes	
		External Interface	USB Settings	Yes	Yes	Yes
		Accessibility	Key Repetition Settings	Yes	Yes	Yes
Reversed Display (Color)	Yes		Yes	Yes		
Adjustment/Maintenance	Adjust Image Quality	Correct Density	Yes	Yes	Yes	

Setting Information			Case A	Case B	Case C
		Fine Adjust Zoom	Yes	-	-
Function Settings	Common	Paper Feed Settings	Yes	Yes	-
		Print Settings			
		Output Report Default Settings	Yes	Yes	Yes
		Register Characters for Page No./Watermark	Yes	Yes	Yes
		Secure Watermark	Yes	Yes	Yes
		Scan Settings			
		Streak Prevention	Yes	Yes	-
		Color Scan Speed/Image Quality Priority	Yes	Yes	-
		Remote Scan Gamma Value	Yes	Yes	-
		Auto Online	Yes	Yes	Yes
		Auto Offline	Yes	Yes	Yes
		Generate File			
		High Compression Image Quality Level	Yes	Yes	Yes
		Function Settings	Common	OCR (Text Searchable) Settings	Yes
Trace & Smooth Settings	Yes			Yes	Yes
OOXML Settings	Yes			Yes	Yes
Specify Minimum PDF Version	Yes			Yes	Yes
Format PDF to PDF/A	Yes			Yes	Yes
Optimize PDF for Web	Yes			Yes	Yes
256-bit AES Settings for Encrypted PDF	Yes			Yes	Yes
Rights Management Server Settings	Yes			Yes	Yes
Set Authentication Method	Yes			Yes	Yes
Copy	Auto Collate		Yes	Yes	-

Setting Information			Case A	Case B	Case C
		Register/Edit Favorite Settings	Yes	Yes	-
		Change Default Settings	Yes	Yes	-
		Register Options Shortcuts	Yes	Yes	-
	Send	Common Settings	Yes	Yes	Yes
		E-Mail/I-Fax Settings	Yes	Yes	Yes
		Fax Settings	Yes	Yes	Yes
	Receive/Forward	Common Settings	Yes	Yes	Yes
		Fax Settings	Yes	Yes	Yes
		Memory RX Inbox PIN	Yes	Yes	Yes
	Store/Access Files	Common Settings	Yes	Yes	-
		Network Settings	Yes	Yes	Yes
		Memory Media Settings	Yes	Yes	Yes
	Secure Print	Simple Authentication Settings	Yes	Yes	Yes
		Only Allow Encrypted Print Jobs	Yes	Yes	Yes
	Set Destination	Change Default Display of Address Book		Yes	Yes
Address Book PIN		Yes	Yes	Yes	
Manage Address Book Access Numbers		Yes	Yes	Yes	
Include Pswd. When Exporting Address Book		Yes	Yes	Yes	
Register LDAP Server		Yes	Yes	-	
Auto Search When Using LDAP Server		Yes	Yes	Yes	
Register/Edit LDAP Search Conditions		Yes	Yes	-	
Acquire Remote Address Book		Acquire Address Book	Yes	Yes	Yes
		Remote Address Book Server Address	Yes	Yes	Yes
		Communication Timeout	Yes	Yes	Yes

Setting Information				Case A	Case B	Case C
		Fax TX Line Auto Select Adjustment		Yes	Yes	Yes
		Register Destinations		Yes	Yes	Yes
		Rename Address List		Yes	Yes	Yes
		Register One-Touch		Yes	Yes	Yes
Management Settings	Device Management	Device Information Settings		Yes	-	-
		Device Information Delivery Settings				
		Register Destinations		Yes	Yes	-
		Set Auto Delivery		Yes	Yes	-
		Restrict Receiving Device Information		Yes	Yes	Yes
		Restrict Receiving for Each Function		Yes	Yes	Yes
		Report Settings		Yes	Yes	Yes
		Display Job Status Before Authentication		Yes	Yes	Yes
		Display Log		Yes	Yes	Yes
	Format Encryption Method to FIPS 140-2		Yes	Yes	Yes	
	User Management	System Manager/Contact Person Information Settings	System Manager/Contact Person Information Settings	Yes	Yes	Yes
		Department ID Management	Register PIN	Yes	Yes	Yes
Main Menu Settings		Setting File		Yes	Yes	Yes
Quick Menu Settings		Button File		Yes	Yes	-
Workflow Composer	Flow Data File			Yes	Yes	Yes
	Operation Setting File			Yes	Yes	Yes
MEAP User Setting Information			Data	Yes	Yes	Yes
MEAP Application Setting Information			Data	Yes	Yes	Yes
Web Access Settings*		Favorites		Yes	Yes	Yes

Setting Information		Case A	Case B	Case C
	Settings	Yes	Yes	Yes

■ Service mode setting values that can be backed up by DCM

The numbers shown in the Compatibility level are explained in the table below.

The thing without mention is impossible of import.

Compatibility level (Lv)	Description
Case A	Can import to a device of the same model and same SN only.
	Usable for the purpose of backup/restore.
Case B	Can import to a device of a same model.
Case C	Can import to a device of a different model also.

● Service Mode

Initial screen	Large	Middle	Small	Case A	Case B	Case C
COPIER	ADJUST	ADJ-XY	ADJ-X	Yes	-	-
			ADJ-Y	Yes	-	-
			ADJ-S	Yes	-	-
			ADJ-Y-DF	Yes	-	-
			STRD-POS	Yes	-	-
			ADJ-X-MG	Yes	-	-
		AE	AE-TBL	Yes	Yes	-
		BLANK	BLANK-T	Yes	-	-
			BLANK-B	Yes	-	-
		CCD	W-PLT-X	Yes	-	-
			W-PLT-Y	Yes	-	-

Initial screen	Large	Middle	Small	Case A	Case B	Case C	
			W-PLT-Z	Yes	-	-	
			SH-TRGT	Yes	-	-	
			DFTAR-R	Yes	-	-	
			DFTAR-G	Yes	-	-	
			DFTAR-K	Yes	-	-	
		DENS	DENS-ADJ	Yes	-	-	
			DENS-PRT	Yes	-	-	
		DEVELOP	DE-OFST	Yes	-	-	
		FEED-ADJ	REGIST	Yes	-	-	
			LOOP-CST	Yes	-	-	
			LOOP-MF	Yes	-	-	
			ADJ-REFE	Yes	-	-	
			LOOPREFE	Yes	-	-	
			RG-HF-SP	Yes	-	-	
			ADJ-RE-L	Yes	-	-	
			LOOP-THK	Yes	-	-	
			LOOP-SP	Yes	-	-	
			LOOP-ENV	Yes	-	-	
			ADJ-PTMG	Yes	-	-	
			COPIER	ADJUST	HV-PRI	OFST1-DC	Yes
OFST1-AC	Yes					-	-
HV-TR	TR-OFST	Yes			-	-	
LASER	PVE-OFST	Yes			-	-	
	POWER	Yes			-	-	

Initial screen	Large	Middle	Small	Case A	Case B	Case C
			LOW-PWR	Yes	-	-
			LDADJ1-K	Yes	-	-
			LDADJ2-K	Yes	-	-
			LDADJ3-K	Yes	-	-
			LDADJ4-K	Yes	-	-
			LDADJ5-K	Yes	-	-
			LDADJ6-K	Yes	-	-
		MISC	SEG-ADJ	Yes	-	-
			K-ADJ	Yes	-	-
			ACS-ADJ	Yes	-	-
			ACS-EN	Yes	-	-
			ACS-CNT	Yes	-	-
			C1-ADJ-Y	Yes	-	-
			C2-ADJ-Y	Yes	-	-
			C3-ADJ-Y	Yes	-	-
			C4-ADJ-Y	Yes	-	-
			MF-ADJ-Y	Yes	-	-
		ACS-EN2	Yes	-	-	
		ACS-CNT2	Yes	-	-	
		PASCAL	OFST-P-K	Yes	-	-
	FUNCTION	INSTALL	E-RDS	Yes	Yes	Yes
			RGW-PORT	Yes	Yes	Yes
			RGW-ADR	Yes	Yes	Yes
			CDS-CTL	Yes	Yes	Yes

Initial screen	Large	Middle	Small	Case A	Case B	Case C
			BIT-SVC	Yes	Yes	Yes
	OPTION	ACC	COIN	Yes	-	-
			CARD-SW	Yes	-	-
			CC-SPSW	Yes	-	-
			UNIT-PRC	Yes	-	-
			MIN-PRC	Yes	-	-
			MAX-PRC	Yes	-	-
			SRL-SPSW	Yes	-	-
			PDL-THR	Yes	-	-
			CR-TYPE	Yes	Yes	-
	CLEANING	FX-CN-SW	Yes	-	-	
COPIER	OPTION	CST	U1-NAME	Yes	Yes	Yes
			U2-NAME	Yes	Yes	Yes
			U4-NAME	Yes	Yes	Yes
			ENV1	Yes	Yes	-
			CST1-P1	Yes	Yes	-
			CST2-P1	Yes	Yes	-
			CST3-P1	Yes	Yes	-
			CST4-P1	Yes	Yes	-
			CST1-U1	Yes	Yes	-
			CST1-U2	Yes	Yes	-
			CST1-U4	Yes	Yes	-
			CST2-U1	Yes	Yes	-
			CST2-U2	Yes	Yes	-

Initial screen	Large	Middle	Small	Case A	Case B	Case C
			CST2-U4	Yes	Yes	-
			CST3-U1	Yes	Yes	-
			CST3-U2	Yes	Yes	-
			CST3-U4	Yes	Yes	-
			CST4-U1	Yes	Yes	-
			CST4-U2	Yes	Yes	-
			CST4-U4	Yes	Yes	-
		CUSTOM	TEMP-TBL	Yes	-	-
			ABK-TOOL	Yes	Yes	Yes
			FLK-RD	Yes	-	-
			TMP-TBL	Yes	-	-
		DSPLY-SW	UI-COPY	Yes	Yes	Yes
			UI-BOX	Yes	Yes	Yes
			UI-SEND	Yes	Yes	Yes
			UI-FAX	Yes	Yes	Yes
			NWERR-SW	Yes	Yes	Yes
			ANIM-SW	Yes	Yes	Yes
			UI-PRINT	Yes	Yes	Yes
			UI-RSCAN	Yes	Yes	Yes
			UI-WEB	Yes	Yes	Yes
			RMT-CNSL	Yes	Yes	Yes
			UI-SBOX	Yes	Yes	Yes
			UI-MEM	Yes	Yes	Yes
UI-NAVI	Yes	Yes	Yes			

Initial screen	Large	Middle	Small	Case A	Case B	Case C
			FXU-DSP	Yes	Yes	-
			PUMF-DSP	Yes	Yes	-
			PUC1-DSP	Yes	Yes	-
COPIER	OPTION	DSPLY-SW	PUC2-DSP	Yes	Yes	-
			PUC3-DSP	Yes	Yes	-
			PUC4-DSP	Yes	Yes	-
			UI-CUSTM	Yes	Yes	Yes
			USER-DSP	Yes	Yes	Yes
			SDTM-DSP	Yes	Yes	Yes
			WT-WARN	Yes	Yes	Yes
			TR-DSP	Yes	Yes	Yes
			SPEL-DSP	Yes	Yes	Yes
			DRM-DSP	Yes	Yes	-
		ENV-SET	ENVP-INT	Yes	Yes	Yes
			IMG-BLD1	Yes	-	-
			IMG-BLD2	Yes	-	-
		FEED-SW	SP-SW	Yes	-	-
		FNC-SW	MODEL-SZ	Yes	-	-
			SENS-CNF	Yes	-	-
			CONFIG	Yes	-	-
			FAN-EXTN	Yes	-	-
			SZDT-SW	Yes	-	-
			SVMD-ENT	Yes	Yes	Yes

Initial screen	Large	Middle	Small	Case A	Case B	Case C
			KSIZE-SW	Yes	Yes	-
			PDF-RDCT	Yes	Yes	Yes
			SJB-UNW	Yes	Yes	Yes
			CARD-RNG	Yes	Yes	-
			SJOB-CL	Yes	Yes	Yes
			USB-RCNT	Yes	Yes	Yes
			UNLMTBND	Yes	-	-
			MIBCOUNT	Yes	Yes	Yes
			PSWD-SW	Yes	Yes	Yes
			SM-PSWD	Yes	Yes	Yes
			RPT2SIDE	Yes	Yes	Yes
			INVALPDL	Yes	Yes	-
			CDS-FIRM	Yes	Yes	Yes
			CDS-MEAP	Yes	Yes	Yes
			CDS-UGW	Yes	Yes	Yes
			LOCLFIRM	Yes	Yes	Yes
			SDLMTWRN	Yes	Yes	Yes
			FAX-INT	Yes	Yes	Yes
			CDS-LVUP	Yes	Yes	Yes
COPIER	OPTION	FNC-SW	WTM-DENS	Yes	-	-
			AMSOFFSW	Yes	Yes	Yes
			UA-OFFSW	Yes	Yes	Yes
			MIB-NVTA	Yes	Yes	-
			SVC-RUI	Yes	Yes	-

Initial screen	Large	Middle	Small	Case A	Case B	Case C
			LCDSFLG	Yes	Yes	Yes
			NO-LGOUT	Yes	Yes	Yes
			T-DLV-BK	Yes	-	-
			JM-ERR-D	Yes	-	-
			JM-ERR-R	Yes	-	-
			DFTSCNSZ	Yes	Yes	Yes
			DLVFN-SW	Yes	-	-
			ASLPMAX	Yes	Yes	Yes
		IMG-FIX	FIX-CLN	Yes	-	-
			FIX-TEMP	Yes	-	-
			TEMPCON2	Yes	-	-
			FIX-LOW	Yes	-	-
			FX-S-TMP	Yes	-	-
			TMP-TBL2	Yes	-	-
			TMP-TBL4	Yes	-	-
			TMP-TBL5	Yes	-	-
			TMP-TBL6	Yes	-	-
			TMP-TBL7	Yes	-	-
			RAG-CONT	Yes	-	-
			TMP-TBLC	Yes	-	-
			FIX-PR	Yes	-	-
			TMP-TB12	Yes	-	-
			TMP-TB13	Yes	-	-
			TMP-TB14	Yes	-	-

Initial screen	Large	Middle	Small	Case A	Case B	Case C	
			TMP-TB15	Yes	-	-	
			TMP-TB16	Yes	-	-	
		IMG-LSR	SC-PR-SW	Yes	-	-	
		IMG-MCON	PASCAL	Yes	-	-	
			SHARP	Yes	Yes	-	
			TMC-SLCT	Yes	-	-	
			VP-ART	Yes	-	-	
			VP-TXT	Yes	-	-	
			PASCL-TY	Yes	Yes	-	
			REGM-SEL	Yes	-	-	
			C-S-P-D	Yes	Yes	-	
		COPIER	OPTION	IMG-MCON	C-S-C-D	Yes	Yes
LIN-OFST	Yes				Yes	-	
BGE-OFS	Yes				-	-	
IMG-RDR	DFDST-L1			Yes	-	-	
	DFDST-L2			Yes	-	-	
	UNK-A5R			Yes	Yes	Yes	
IMG-SPD	PSP-PR1			Yes	-	-	
IMG-TR	HUM-SW			Yes	-	-	
	TROPT-SW			Yes	-	-	
	TR-BS-SW			Yes	Yes	-	
INT-FACE	NWCT-TM			Yes	-	-	
NETWORK	IFAX-LIM			Yes	Yes	Yes	
	SMTPTXPN			Yes	Yes	Yes	

Initial screen	Large	Middle	Small	Case A	Case B	Case C
			SMTPRXPN	Yes	Yes	Yes
			POP3PN	Yes	Yes	Yes
			FTPTXPN	Yes	Yes	Yes
			STS-PORT	Yes	Yes	Yes
			CMD-PORT	Yes	Yes	Yes
			NS-CMD5	Yes	Yes	Yes
			NS-GSAPI	Yes	Yes	Yes
			NS-NTLM	Yes	Yes	Yes
			NS-PLNWS	Yes	Yes	Yes
			NS-PLN	Yes	Yes	Yes
			NS-LGN	Yes	Yes	Yes
			MEAP-PN	Yes	Yes	Yes
			CHNG-STG	Yes	Yes	Yes
			CHNG-CMD	Yes	Yes	Yes
			MEAP-SSL	Yes	Yes	Yes
			LPD-PORT	Yes	Yes	Yes
			WUEV-SW	Yes	Yes	Yes
			WUEV-INT	Yes	Yes	Yes
			WUEV-POT	Yes	Yes	Yes
			WUEV-RTR	Yes	Yes	Yes
			WUEN-LIV	Yes	Yes	Yes
			IFX-CHIG	Yes	Yes	Yes
			DNSTRANS	Yes	Yes	Yes
			PROXYRES	Yes	Yes	Yes

Initial screen	Large	Middle	Small	Case A	Case B	Case C
			WOLTRANS	Yes	Yes	Yes
			802XTOUT	Yes	Yes	Yes
			IKERETRY	Yes	Yes	Yes
COPIER	OPTION	NETWORK	SPDALDEL	Yes	Yes	Yes
			NCONF-SW	Yes	Yes	Yes
			IKEINTVL	Yes	Yes	Yes
			IPSDEBLV	Yes	Yes	Yes
			SP-LINK	Yes	Yes	Yes
			AFS-JOB	Yes	Yes	Yes
			AFC-EVNT	Yes	Yes	Yes
			ILOGMODE	Yes	Yes	Yes
			ILOGKEEP	Yes	Yes	Yes
			IPTBROAD	Yes	Yes	Yes
			PFWFTPRT	Yes	Yes	Yes
			IPMTU	Yes	Yes	Yes
			DDNSINTV	Yes	Yes	Yes
			VLAN-SW	Yes	Yes	Yes
		VLAN-PKT	Yes	Yes	Yes	
		USER	COPY-LIM	Yes	Yes	-
		SLEEP	Yes	Yes	Yes	
		SIZE-DET	Yes	-	-	
		COUNTER1	Yes	Yes	Yes	
		COUNTER2	Yes	Yes	Yes	
COUNTER3	Yes	Yes	Yes			

Initial screen	Large	Middle	Small	Case A	Case B	Case C
			COUNTER4	Yes	Yes	Yes
			COUNTER5	Yes	Yes	Yes
			COUNTER6	Yes	Yes	Yes
			DATE-DSP	Yes	Yes	Yes
			CONTROL	Yes	-	-
			MF-LG-ST	Yes	Yes	Yes
			CNT-DISP	Yes	Yes	Yes
			PH-D-SEL	Yes	-	-
			COPY-JOB	Yes	Yes	-
			P-CRG-LF	Yes	-	-
			CPRT-DSP	Yes	Yes	Yes
			PCL-COPY	Yes	Yes	Yes
			CNT-SW	Yes	Yes	Yes
			PRJOB-CP	Yes	Yes	Yes
			DPT-ID-7	Yes	Yes	Yes
			RUI-RJT	Yes	Yes	Yes
			FREG-SW	Yes	Yes	Yes
			IFAX-SZL	Yes	Yes	Yes
			IFAX-PGD	Yes	Yes	Yes
COPIER	OPTION	USER	MEAPSAFE	Yes	Yes	-
			PRNT-POS	Yes	Yes	Yes
			AFN-PSWD	Yes	Yes	Yes
			PTJAM-RC	Yes	Yes	Yes
			PDL-NCSW	Yes	Yes	-

Initial screen	Large	Middle	Small	Case A	Case B	Case C
			PS-MODE	Yes	Yes	Yes
			CNCT-RLZ	Yes	Yes	Yes
			COUNTER7	Yes	Yes	Yes
			COUNTER8	Yes	Yes	Yes
			LDAP-SW	Yes	Yes	Yes
			FROM-OF	Yes	Yes	Yes
			DOM-ADD	Yes	Yes	Yes
			FILE-OF	Yes	Yes	Yes
			MAIL-OF	Yes	Yes	Yes
			IFAX-OF	Yes	Yes	Yes
			LDAP-DEF	Yes	Yes	Yes
			FREE-DSP	Yes	-	-
			TNRB-SW	Yes	Yes	Yes
			CLR-TIM	Yes	Yes	Yes
			HDCR-DSW	Yes	Yes	Yes
			SCALL-SW	Yes	Yes	Yes
			SCALLCMP	Yes	Yes	Yes
			USBH-DSP	Yes	Yes	Yes
			USBM-DSP	Yes	Yes	Yes
			USBI-DSP	Yes	Yes	Yes
			CTCHKDSP	Yes	Yes	Yes
			DFLT-ADJ	Yes	Yes	Yes
			USBR-DSP	Yes	Yes	Yes
			POL-SCAN	Yes	Yes	Yes

Initial screen	Large	Middle	Small	Case A	Case B	Case C
			JA-SBOX	Yes	Yes	Yes
			JA-DFAX	Yes	Yes	Yes
			JA-REP	Yes	Yes	Yes
			JA-FREP	Yes	Yes	Yes
			JA-BOX	Yes	Yes	Yes
			JA-FORM	Yes	Yes	Yes
			JA-PREV	Yes	Yes	Yes
			JA-PULL	Yes	Yes	Yes
			JA-PDLB	Yes	Yes	Yes
			JA-JOBK	Yes	Yes	Yes
			JA-JDF	Yes	Yes	Yes
COPIER	OPTION	USER	JA-RUI	Yes	Yes	Yes
			JA-WEB	Yes	Yes	Yes
			EXP-CRYP	Yes	Yes	Yes
			EZY-SCRP	Yes	Yes	Yes
			DMN-MTCH	Yes	Yes	Yes
			SNDSTREN	Yes	Yes	Yes
			FAXSTREN	Yes	Yes	Yes
FEEDER	ADJUST		DOCST	Yes	-	-
			LA-SPEED	Yes	-	-
			LA-SPD2	Yes	-	-
			DOC-LNGH	Yes	-	-
	OPTION		UNK-A5R	Yes	Yes	Yes
SORTER	OPTION		MD-SPRTN	Yes	-	-

■ Import/export by service mode (external)

The following shows the procedure for importing and exporting the service mode setting values in service mode. With export by which data is collected from the machine, service mode setting values can be backed up. With import, data backed up from service mode and that backed up from remote UI can be restored.

The save destination of backup data can be selected from either a USB memory device or HDD of the machine.

● Export

Preparation

- USB memory device

* Required when exporting to an external USB memory device.

It needs to have been formatted to be recognized by the device. No firmware registration is necessary.

Overall flow

Select the save destination between the internal HDD or external USB memory device depending on the use case.

Procedure

1. Select external USB memory device as save destination (LIST=1)
2. Register password
3. Export to external USB memory device
4. Remove USB memory device

Exporting data to an external USB memory device

1. Connect the USB memory device and check that it has been mounted. (When using the external USB memory device)



2. Log in to service mode and press BACKUP.



3. Select LIST after the screen moves to <BACKUP>.



4. When saving to the external USB memory device, select 1 and press OK.



5. The names of .dcm files saved in the external USB memory device are displayed.



6. Select PASSWD, enter a password from the software keyboard, and then press OK.



Note:

Limitations regarding the DCM data password

- Character string of software keyboard: 0 to 32 characters
- No password is set when 0 character is entered. (The setting in which no password is set is allowed only for service mode.)
- No space is allowed in the middle of a password.
- Password is case sensitive.

Limitations regarding the DCM data no password

- The exported data cannot import from remote UI without appointing a password. You can import only from service mode UI.

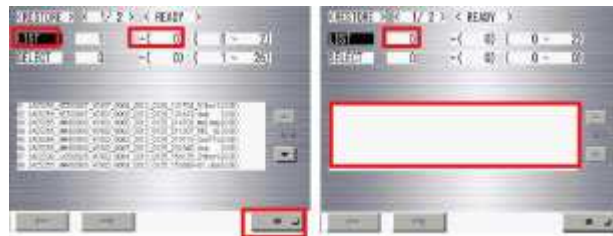
7. After registering the password, select BACKUP. Press OK to execute export.



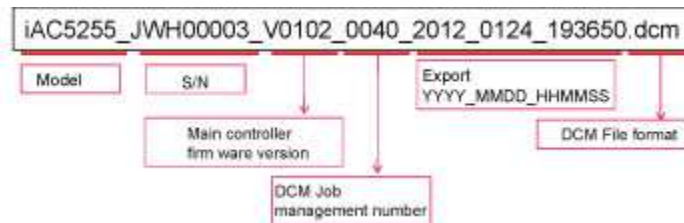
8. "OK!" is displayed in the status column when the processing is successfully completed. Press <-.



9. After access to the USB memory device has occurred, select LIST=0 and press OK. Unmount the USB memory device. It can also be removed by pressing the Remove button on the main menu.



Reference:



● Import

Preparation

- USB memory device

Note:

- Required when importing from an external USB memory device.
- It needs to have been formatted to be recognized by the device. No firmware registration is necessary.
- When necessary, copy the files which you want to import using a PC in advance.
- Be sure to store them in the root folder of the USB memory device.
- Do not change the extension from .dcm. (only .dcm files can be recognized.)
- It is desirable to connect the USB memory device before entering service mode.

Overall flow

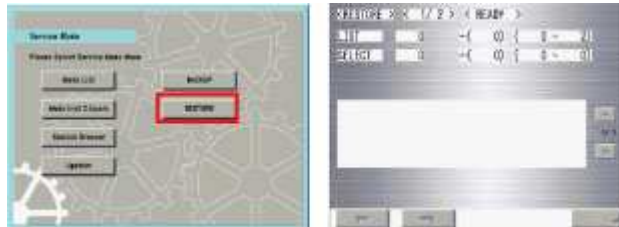
Procedure for restoring data from an external USB memory device.

Procedure

1. Select external USB memory device as save destination (LIST=1)
2. Names of saved DCM data files are displayed
3. Register password
4. Import from external USB memory device
5. Remove USB memory device
6. Specification of export file name

Procedure for restoring data from an external USB memory device

1. Connect the USB memory device. (When using the external USB memory device)
2. Log in to service mode and press RESTORE.



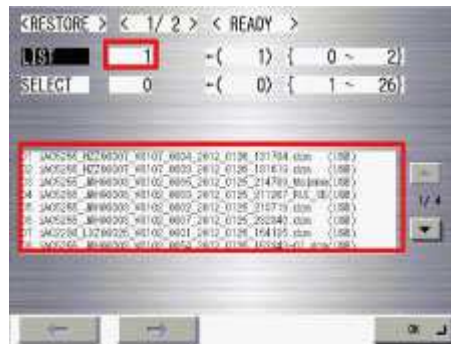
3. Select LIST after the screen moves to <RESTORE>.



4. When referring to the external USB memory device, select 1 and press OK.



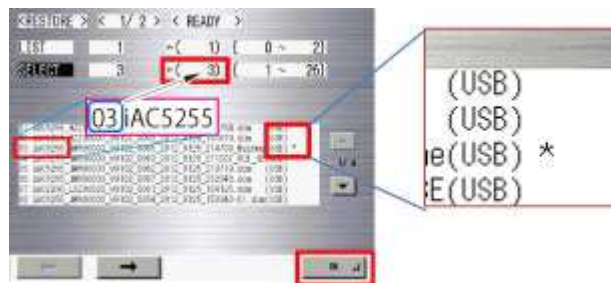
5. The names of .dcm files referred to in the external USB memory device are displayed.



6. Select SELECT.



7. Enter the selection number displayed on the left side of the file to be selected and press OK.



8. When the correct file is displayed, press ->.



Note:

Specification of file selection display

- "*" is displayed on the right side of the file to indicate that the file has been selected in SELECT.
- USB memory device: Up to 8 files are displayed in a screen.

9. Select PASSWD, enter a password from the software keyboard, and then press OK.

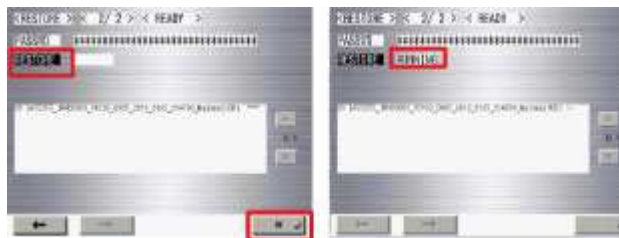


Note:

Specification of file selection display

- "<-" is displayed on the right side of the file to indicate that the selection of the file has been confirmed.
- "****" is displayed after the password is entered.

10. After registering the password, select RESTORE. Press OK to execute import.



11. OK!" is displayed in the status column when the processing is successfully completed. Press <-.



12. After access to the USB memory device has occurred, select LIST=0 and press OK. Unmount the USB memory device. It can also be removed by pressing the Remove button on the main menu.



■ Import/export by service mode (internal)

When selecting the HDD of the machine at execution of BACKUP from the top screen of service mode, service mode settings can be saved. Setting values of Main Controller 2, Reader Controller, DC Controller, etc. can be collectively saved. It can be used when recovering the initial status after having tried multiple setting changes temporarily for troubleshooting, etc.

Note:

DCM must not be used when replacing a PCB.

Be sure to use a method such as backup of SRAM of the Main Controller 2/service mode backup of DCON/RCON.

DCM enables to back up only service mode setting values. There is still necessary information other than setting values when replacing a PCB.

SRAM backup or service mode backup enables to save data other than setting values.

● Export

Preparation

There is no need to newly prepare for saving data to the HDD of the machine.

Overall flow

Here is a procedure for exporting data of the HDD of the machine.

Procedure

1. Select internal HDD as save destination (LIST=2)
2. Register password
3. Import from the internal HDD

Procedure for backing up data to the HDD of the machine

1. Select LIST after the screen moves to <BACKUP>.



2. Select LIST after the screen moves to <BACKUP>.



3. When saving to the internal HDD, select 2 and press OK.



4. The names of .dcm files saved in the internal HDD are displayed.



5. Select PASSWD, enter a password from the software keyboard, and then press OK.



Note:

Limitations regarding the DCM data password

- Character string of software keyboard: 0 to 32 characters
- No password is set when 0 character is entered. (The setting in which no password is set is allowed only for service mode.)
- No space is allowed in the middle of a password.
- Password is case sensitive.

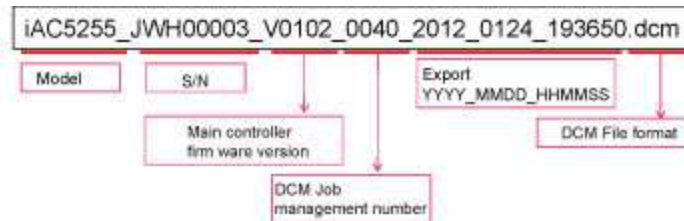
6. After registering the password, select BACKUP. Press OK to execute export.



7. OK!" is displayed in the status column when the processing is successfully completed. Press <-.



Reference:



● Import

Preparation

There is no need to newly prepare for saving data to the HDD of the machine.

Overall flow

Here is a procedure for Importing data of the HDD of the machine.

Procedure

1. Select internal HDD as save destination (LIST=2)
2. Register password
3. Import from the internal HDD

Import from the internal HDD

1. Log in to service mode and press RESTORE.



2. Select LIST after the screen moves to <RESTORE>.



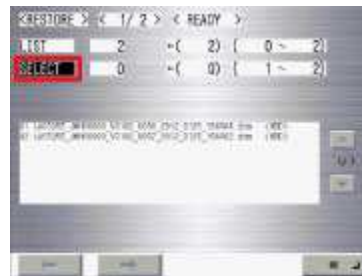
3. When referring to the internal HDD, select 2 and press OK.



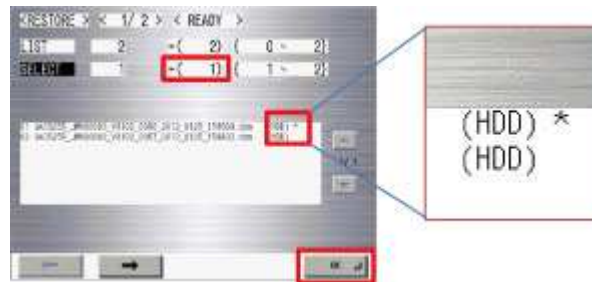
4. The names of .dcm files referred to in the internal HDD are displayed.



5. Select PASSWD.



6. Enter the selection number displayed on the left side of the file to be selected.



7. When the correct file is displayed, press ->.



Note:

Specification of file selection display

- " *" is displayed on the right side of the file to indicate that the file has been selected in SELECT.
- HDD : Up to 2 files are displayed in a screen.

8. Select PASSWD, enter a password from the software keyboard, and then press OK.

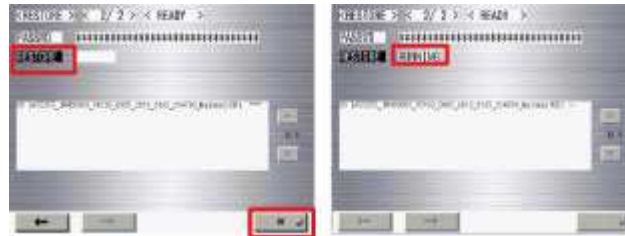


Note:

Specification of file selection display

- "<-" is displayed on the right side of the file to indicate that the selection of the file has been confirmed.
- "****" is displayed after the password is entered.

9. After registering the password, select RESTORE. Press OK to execute import.



10. OK!" is displayed in the status column when the processing is successfully completed. Press <-.



List of periodically replacement parts, consumable parts and locations for cleaning

Periodically Replacement Parts

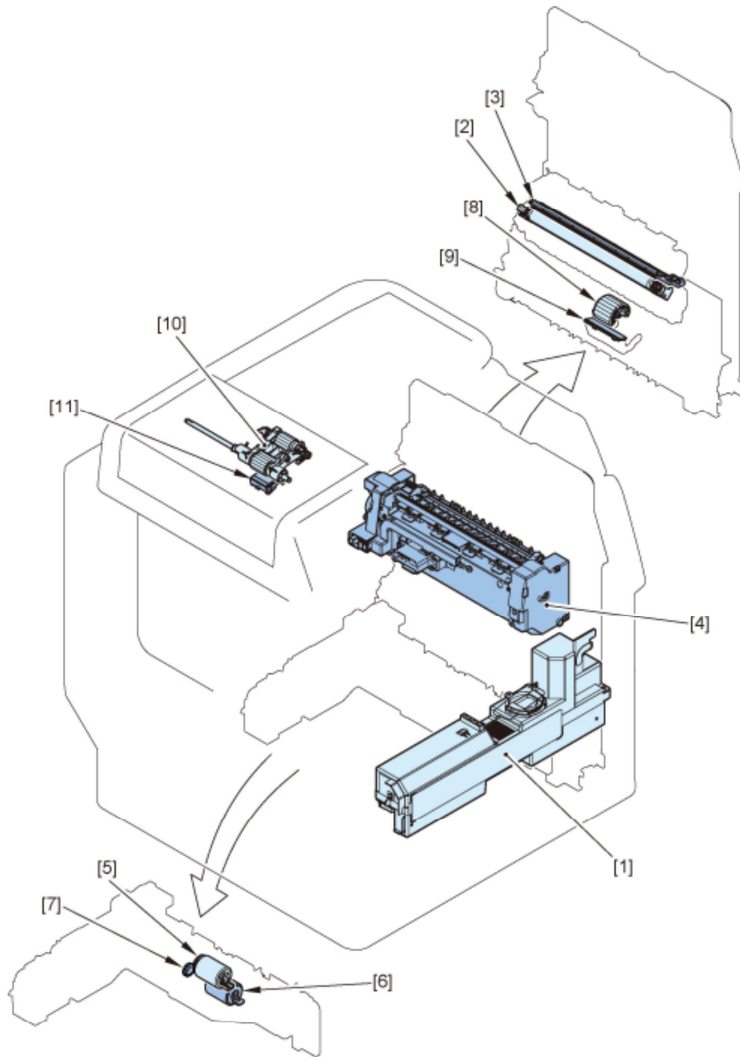
There are no periodically replacement parts in this machine.

Consumable parts

●: Replaced (consumables)

No.	Type	Item	Parts number	Q'ty	Estimated life	Work interval						Parts counter (Service mode: COPIER> COUNTER)		Remarks
						Every 80,000 sheets	Every 90,000 sheets	Every 100,000 sheets	Every 150,000 sheets	Every 160,000 sheets	Every 180,000 sheets			
1	Image Formation System	Waste Toner Container	FM4-8035	1	100,000 sheets			●				DRBL-1	WST-TNR	Specified with 6% original.
2		Transfer Roller	FM4-6522	1	180,000 sheets						●	DRBL-1	TR-ROLL	-
3		Static Eliminator	FM1-A131	1	90,000 sheets		●					DRBL-1	SP-SC-EL	-
4	Fixing System	Fixing Assembly	120V: FM1-A680 230V: FM1-A681	1	160,000 sheets					●		DRBL-1	FX-UNIT	-
5	Pickup system	Cassette Feed Roller	FC6-7083	1	80,000 sheets	●						DRBL-1	C1-FD-RL	Other than China
			FC7-9502											
6		Cassette Separation Roller	FC6-6661	1	80,000 sheets	●						DRBL-1	C1-SP-RL	Other than China
	FE3-1295													For China only
7	Cassette Pickup Idler Gear	FU0-0043	1	80,000 sheets	●						-	-	For China only	
8	Multi-purpose Tray Pickup Roller	FL2-3897	1	150,000 sheets				●			DRBL-1	M-FD-RL	-	
9	Multi-purpose Tray Separation Pad	FL3-4890	1	150,000 sheets				●			DRBL-1	M-SP-PD	-	
10	ADF Pickup Roller Unit	FM4-7732	1	80,000 sheets	●						DRBL-2	DF-FD-RL	-	

No.	Type	Item	Parts number	Q'ty	Estimated life	Work interval						Parts counter		Remarks
						Every 80,000 sheets	Every 90,000 sheets	Every 100,000 sheets	Every 150,000 sheets	Every 160,000 sheets	Every 180,000 sheets	(Service mode: COPIER> COUNTER)		
11	Original Exposure and Feed System	ADF Separation Pad	FL3-7878	1	80,000 sheets	•						DRBL-2	DF-SP-PD	-

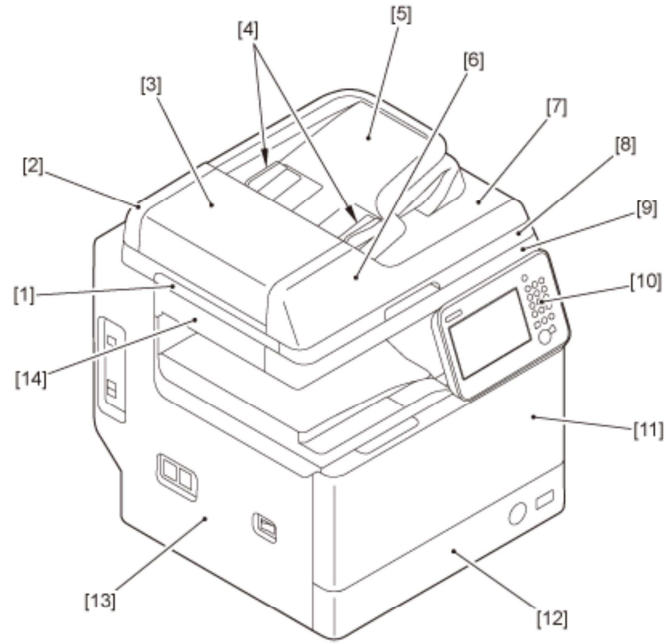


- [1] Waste Toner Container
- [2] Transfer Roller
- [3] Static Eliminator
- [4] Fixing Assembly
- [5] Cassette Feed Roller
- [6] Cassette Separation Roller
- [7] Cassette Pickup Idler Gear
- [8] Multi-purpose Tray Pickup Roller
- [9] Multi-purpose Tray Separation Pad
- [10] ADF Pickup Roller Unit
- [11] ADF Separation Pad

List of Parts

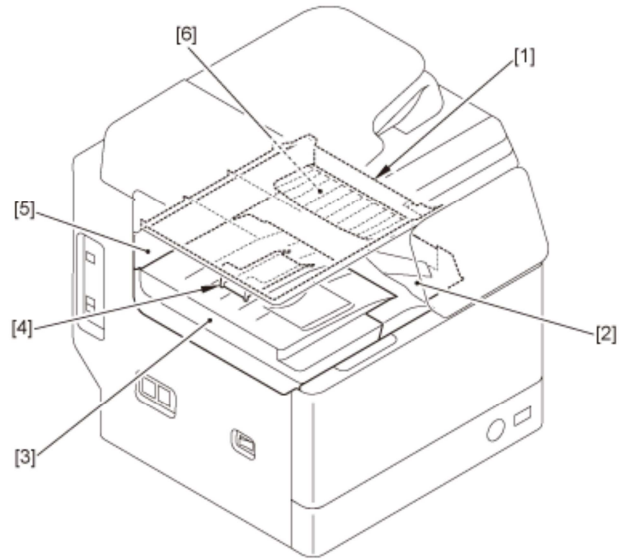
External View

■ Front Side



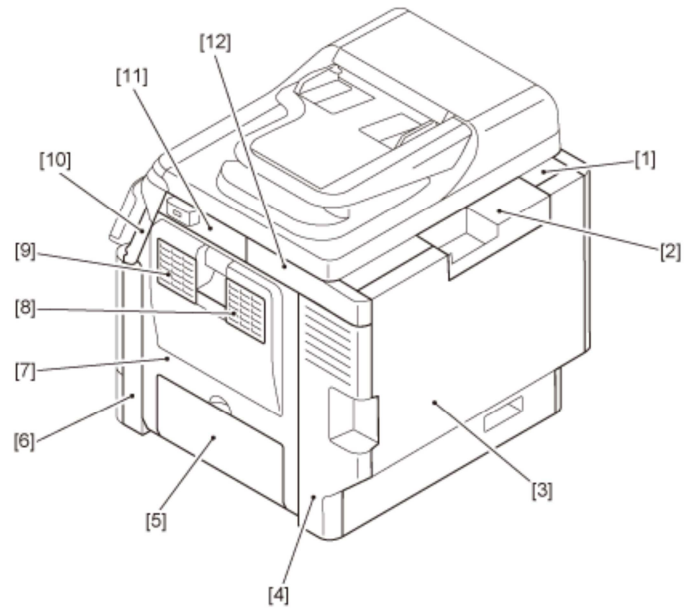
No.	Name	Reference
[1]	ADF Left Cover	-
[2]	ADF Rear Cover	-
[3]	ADF Upper Cover	(Reference)
[4]	Side Guide Plate	-
[5]	Original Pickup Tray	(Reference)
[6]	ADF Front Upper Cover	-
[7]	Original Delivery Tray	-
[8]	ADF Front Lower Cover	-
[9]	Reader Front Cover	(Reference)

No.	Name	Reference
[10]	Control Panel Unit	(Reference)
[11]	Front Cover	(Reference)
[12]	Cassette	-
[13]	Left Cover	(Reference)
[14]	Reader Left Cover	-



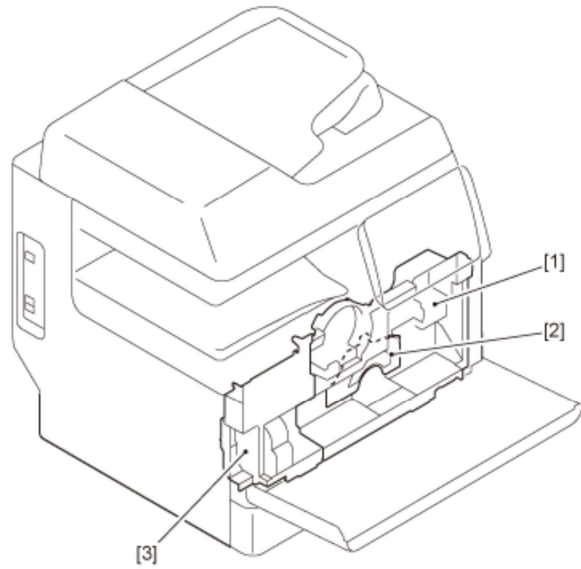
No.	Name	Reference
[1]	Reader Bottom Cover	(Reference)
[2]	Delivery Inner Cover	(Reference)
[3]	Delivery Outer Cover	(Reference)
[4]	Delivery Stopper	-
[5]	Inner Rear Cover	(Reference)
[6]	Reverse Tray	-

■ Rear Side



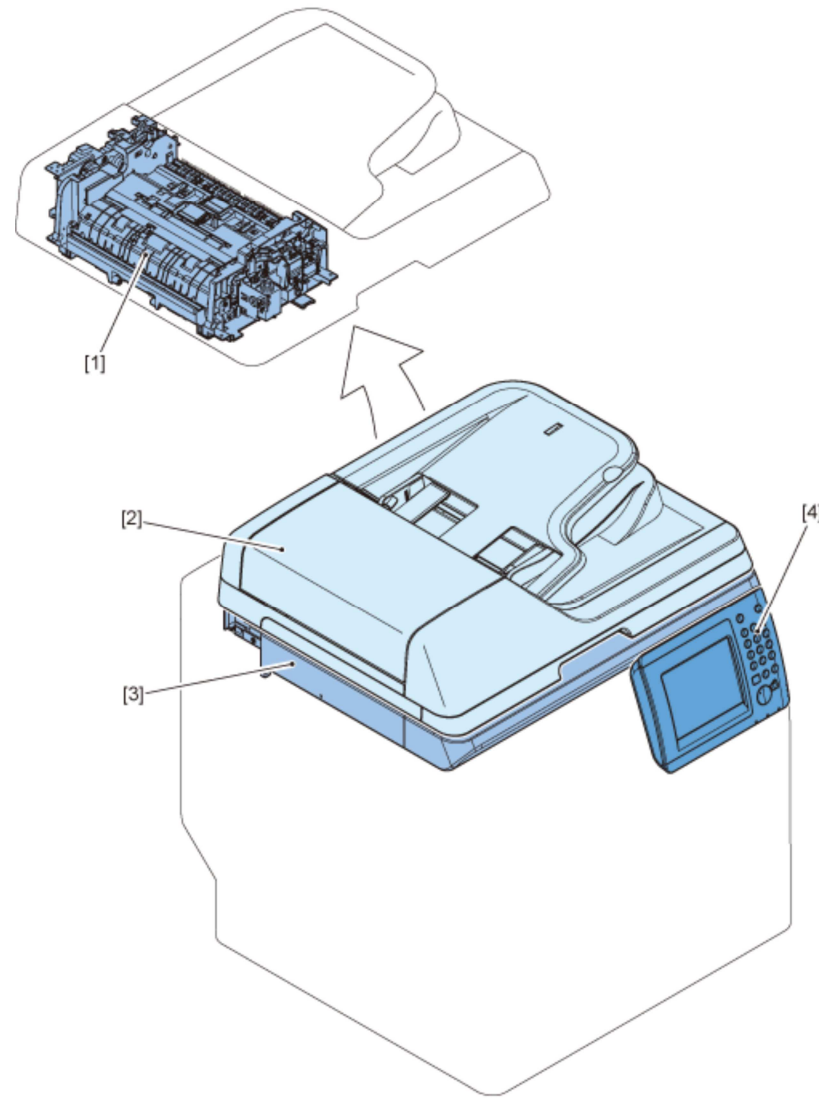
No.	Name	Reference
[1]	Reader Rear Cover	(Reference)
[2]	Reader Controller Cover	-
[3]	Rear Cover	(Reference)
[4]	Right Rear Cover	(Reference)
[5]	Multi-purpose Tray Pickup Unit	-
[6]	Right Front Cover	(Reference)
[7]	Right Door Unit	(Reference)
[8]	Right Rear Fan Cover	-
[9]	Right Front Fan Cover	-
[10]	Support Column Cover	(Reference)
[11]	Reader Right Front Cover	-
[12]	Reader Right Rear Cover	-

■ Internal View



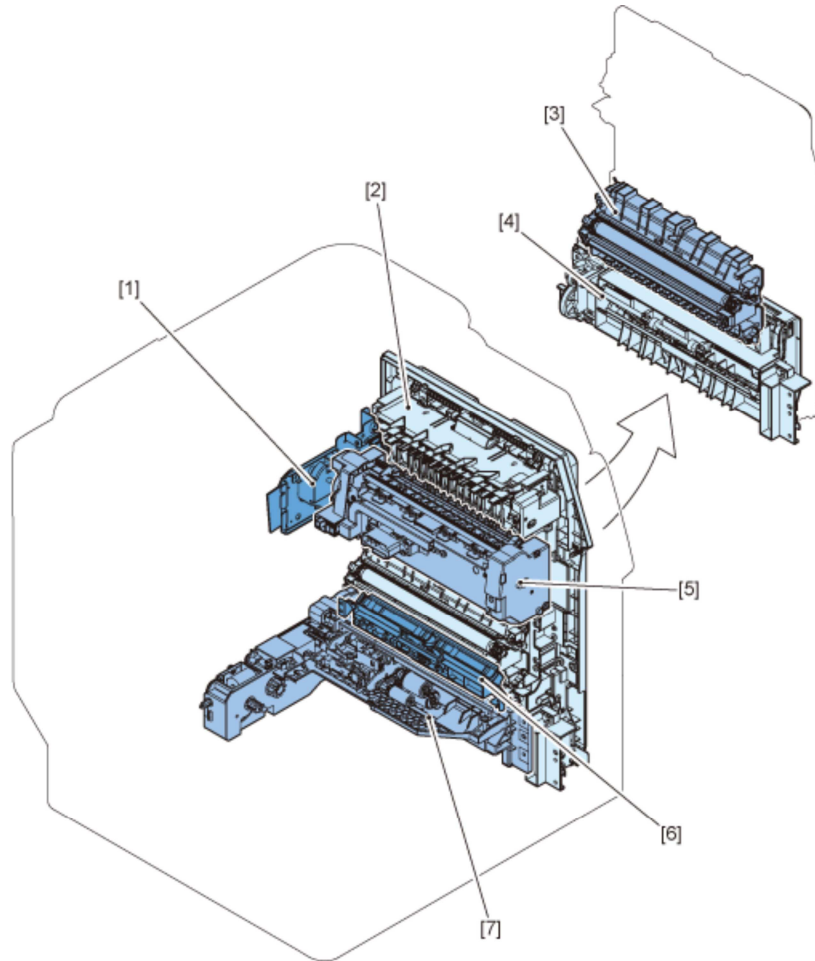
No.	Name	Reference
[1]	Right Inner Cover	(Reference)
[2]	Developing Assembly Replacement Inner Cover	-
[3]	Left Inner Cover	(Reference)

List of Main Unit



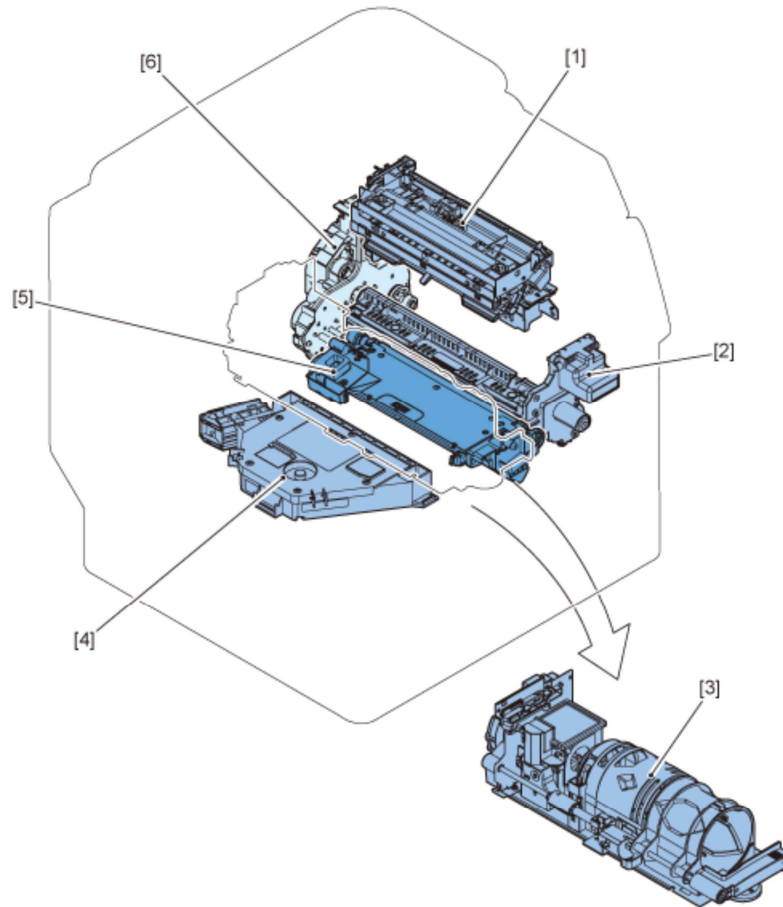
No.	Name	Reference	Adjustment during parts replacement
[1]	ADF Pickup Unit	(Reference)	-
[2]	ADF Unit	(Reference)	(Reference)
[3]	Reader Unit	(Reference)	-

No.	Name	Reference	Adjustment during parts replacement
[4]	Control Panel Unit	(Reference)	-



No.	Name	Reference	Adjustment during parts replacement
[1]	Fixing Drive Unit	(Reference)	-
[2]	Right Door Unit	(Reference)	-
[3]	Transfer Unit	-	-

No.	Name	Reference	Adjustment during parts replacement
[4]	Multi-purpose Tray Unit	-	-
[5]	Fixing Assembly	(Reference)	-
[6]	Pre-registration Guide Unit	-	-
[7]	Cassette Pickup Unit	(Reference)	-



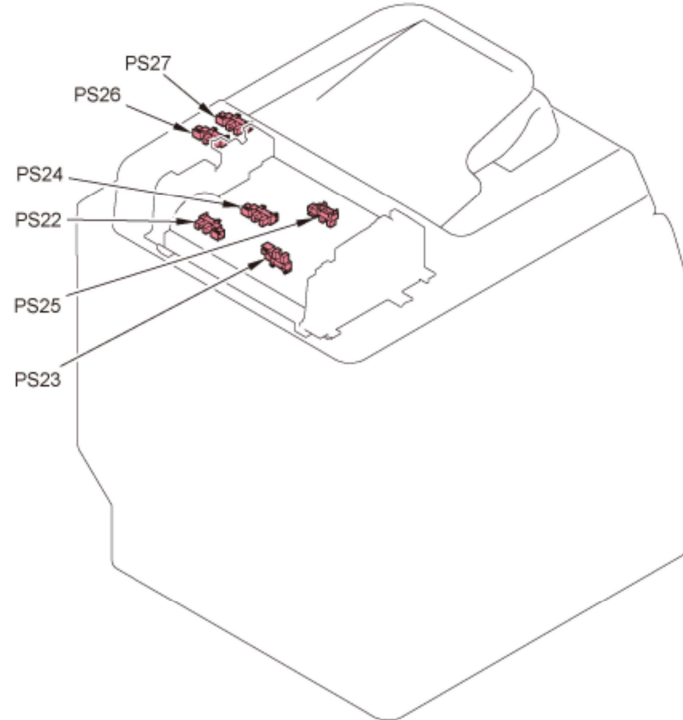
No.	Name	Reference	Adjustment during parts replacement
[1]	Delivery/Reverse Unit	(Reference)	-
[2]	Drum Unit	(Reference)	-

No.	Name	Reference	Adjustment during parts replacement
[3]	Hopper Unit	(Reference)	-
[4]	Laser Scanner Unit	(Reference)	(Reference)
[5]	Developing Assembly	(Reference)	-
[6]	Main Drive Unit	(Reference)	-

Electrical Components

■ ADF Unit

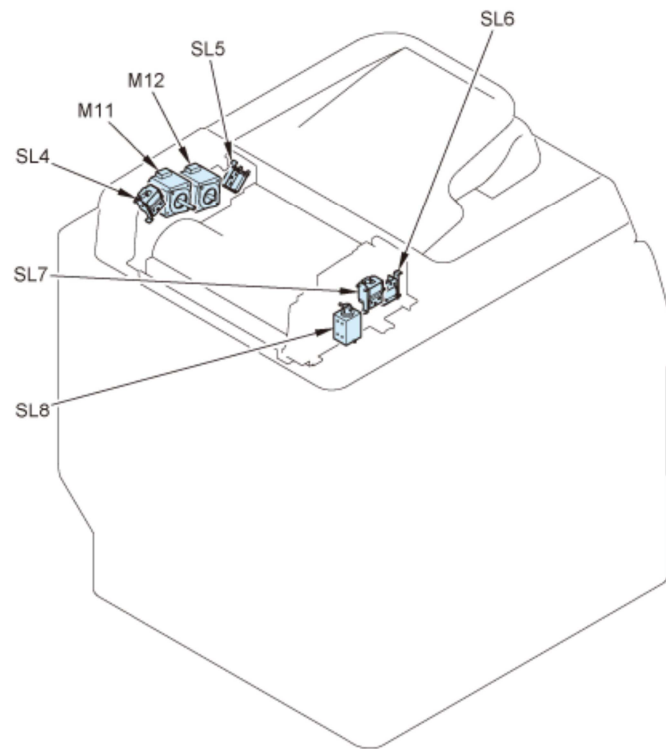
● Sensor



No.	Name	Main Unit	Reference	Adjustment during parts replacement
PS22	Lead Sensor	ADF Pickup Unit	-	-

No.	Name	Main Unit	Reference	Adjustment during parts replacement
PS23	Registration Sensor	ADF Pickup Unit	-	-
PS24	Stay Sensor	ADF Pickup Unit	-	-
PS25	Reversal Sensor	ADF Pickup Unit	-	-
PS26	Timing Sensor	ADF Pickup Unit	-	-
PS27	Original Set Sensor	ADF Pickup Unit	-	-

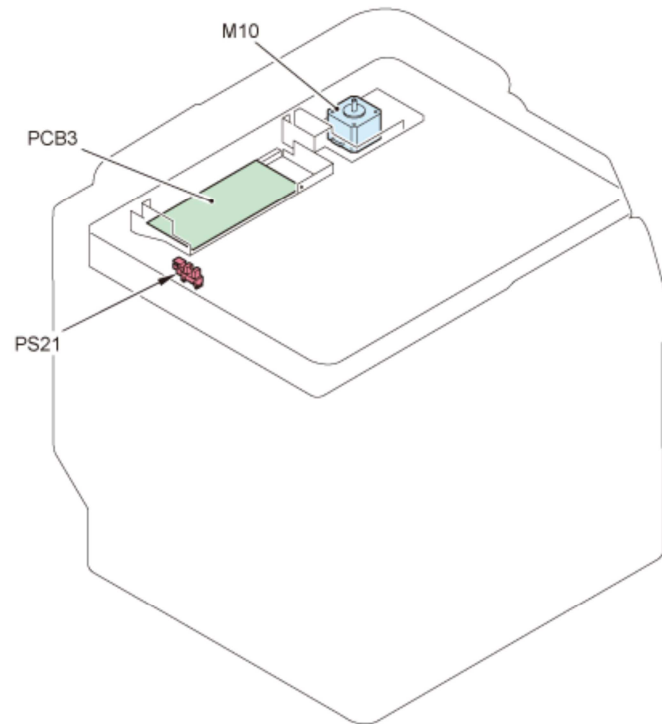
● Solenoid/Motor



No.	Name	Main Unit	Reference	Adjustment during parts replacement
SL4	Registration Solenoid	ADF Pickup Unit	-	-
SL5	Pickup Solenoid	ADF Pickup Unit	-	-
SL6	Flapper Solenoid 2	ADF Pickup Unit	-	-

No.	Name	Main Unit	Reference	Adjustment during parts replacement
SL7	Flapper Solenoid 1	ADF Pickup Unit	-	-
SL8	Roller Release Solenoid	ADF Pickup Unit	-	-
M11	Feed Motor	ADF Pickup Unit	-	-
M12	Delivery Reversal Motor	ADF Pickup Unit	-	-

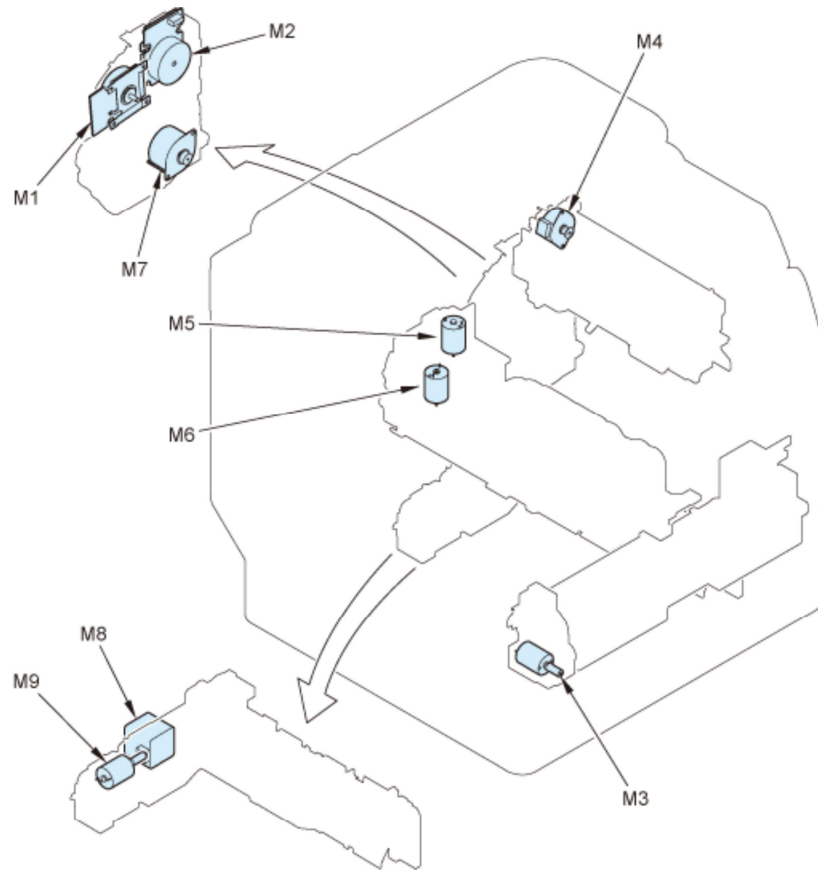
■ Reader Unit



No.	Name	Main Unit	Reference	Adjustment during parts replacement
PS21	Original Size Sensor 1	Reader Unit	-	-
PCB3	Reader Controller PCB	Reader Unit	(Reference)	-
M10	Reader Motor	Reader Unit	-	-

■ Printer Unit

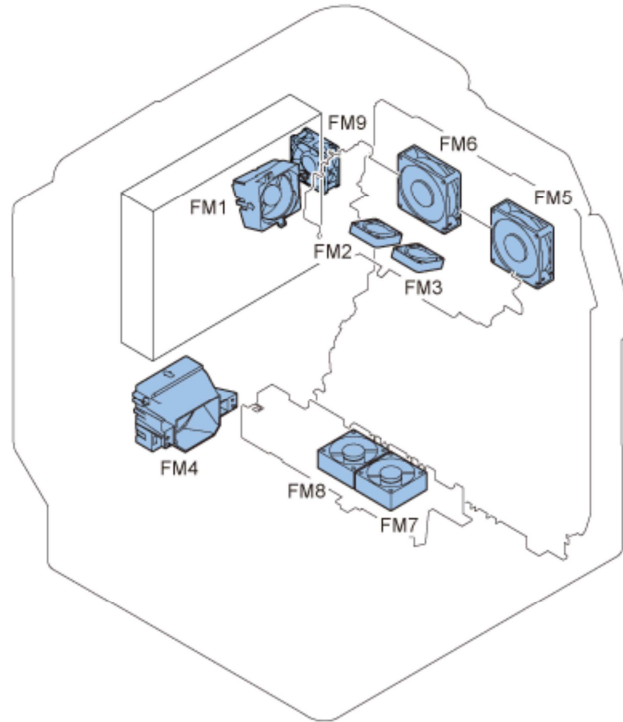
● Motor



No.	Name	Main Unit	Reference	Adjustment during parts replacement
M1	Fixing Motor	Fixing Drive Unit	-	-
M2	Main Motor	Main Drive Unit	-	-
M3	Waste Toner Motor	Main Unit	-	-
M4	Reverse Feed Motor	Delivery/Reverse Unit	-	-
M5	Bottle Motor	Hopper Unit	-	-
M6	Hopper Motor	Hopper Unit	-	-

No.	Name	Main Unit	Reference	Adjustment during parts replacement
M7	Duplex Feed Motor	Main Drive Unit	-	-
M8	Pickup Motor	Main Unit	-	-
M9	Lifter Motor	Cassette Pickup Unit	-	-

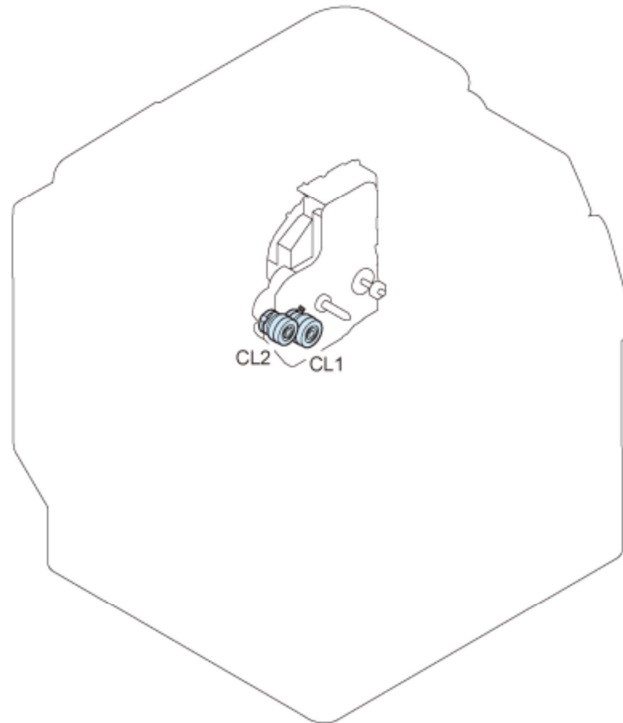
● FAN



No.	Name	Main Unit	Reference	Adjustment during parts replacement
FM1	Delivery Cooling Fan (Rear)	Main Unit	-	-
FM2	Delivery Cooling Fan (Center)	Delivery/Reverse Unit	-	-
FM3	Delivery Cooling Fan (Front)	Delivery/Reverse Unit	-	-
FM4	Power Supply Cooling Fan	Main Unit	-	-
FM5	Heat Exhaust Fan (Front)	Right Door Unit	-	-

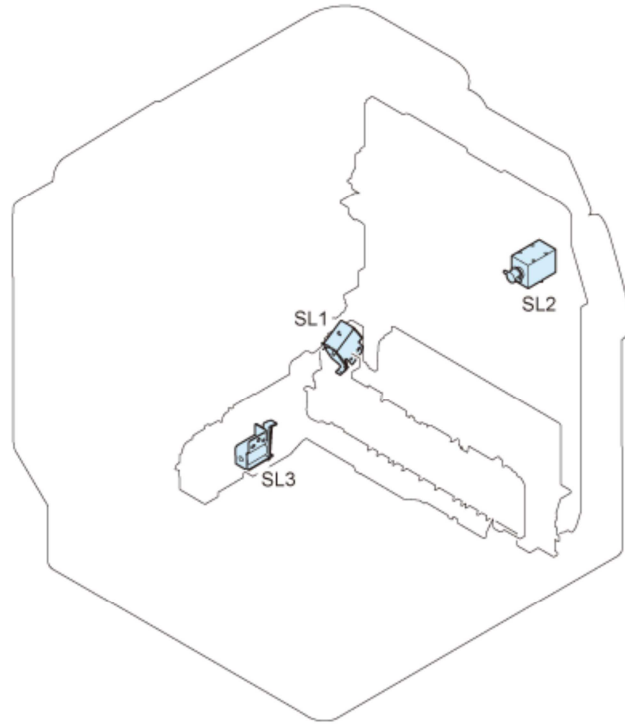
No.	Name	Main Unit	Reference	Adjustment during parts replacement
FM6	Heat Exhaust Fan (Rear)	Right Door Unit	-	-
FM7	Developing Cooling Fan (Front)	Main Unit	-	-
FM8	Developing Cooling Fan (Rear)	Main Unit	-	-
FM9	Main Controller Cooling Fan	Main Unit	-	-

● Clutch



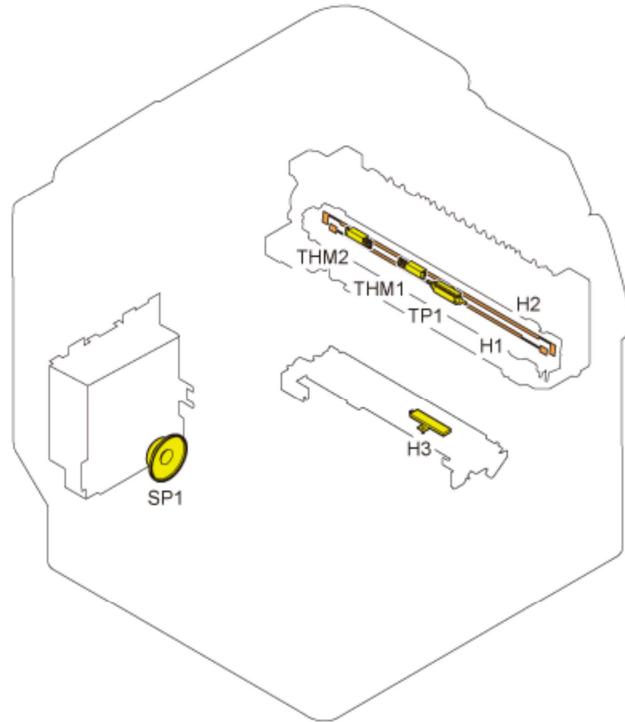
No.	Name	Main Unit	Reference	Adjustment during parts replacement
CL1	Registration Clutch	Main Drive Unit	-	-
CL2	Developing Cylinder Clutch	Main Drive Unit	-	-

● Solenoid



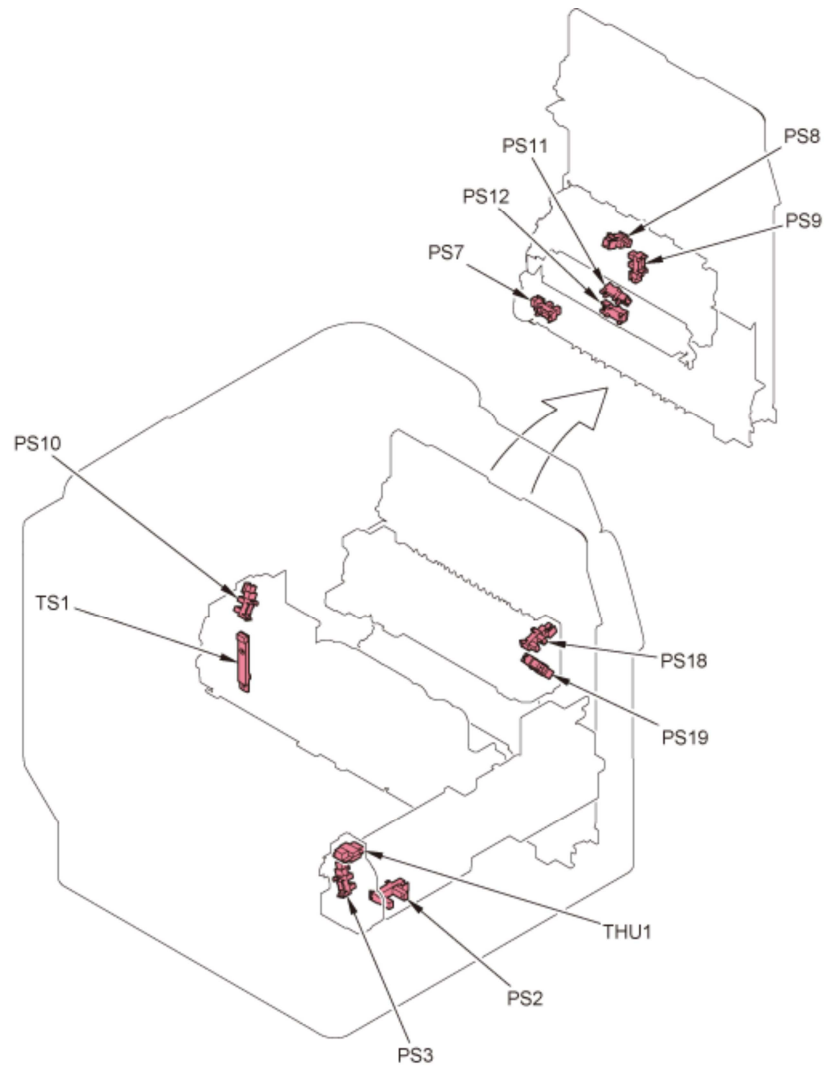
No.	Name	Main Unit	Reference	Adjustment during parts replacement
SL1	Multi-purpose Tray Pickup Solenoid	Multi-purpose Tray Unit	-	-
SL2	Reverse Feed Solenoid	Right Door Unit	-	-
SL3	Cassette Pickup Solenoid	Cassette Pickup Unit	-	-

● **Heater/Speaker**



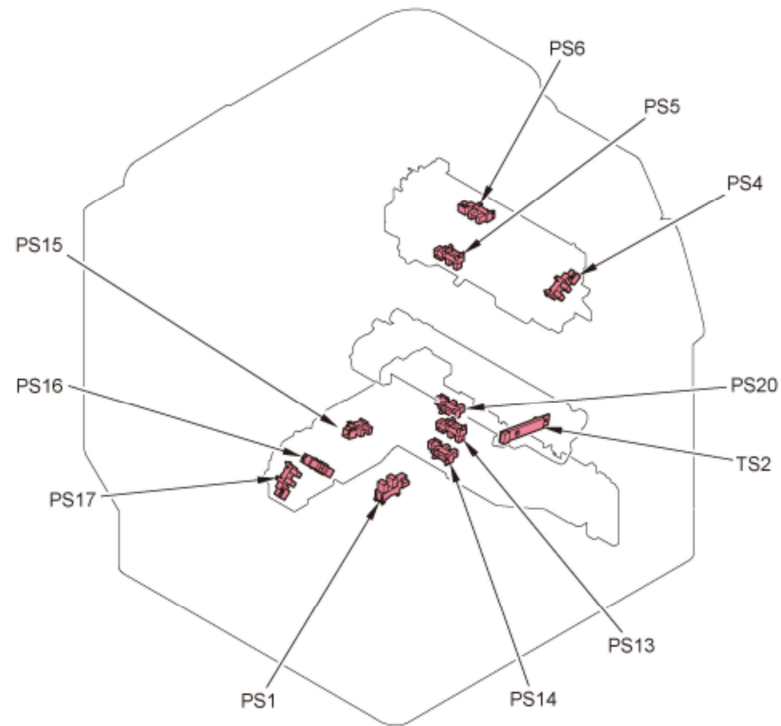
No.	Name	Main Unit	Reference	Adjustment during parts replacement
THM1	Fixing Main Thermistor	Fixing Assembly	-	-
THM2	Fixing Sub Thermistor	Fixing Assembly	-	-
TP1	Fixing Thermoswitch	Fixing Assembly	-	-
H1	Fixing Heater	Fixing Assembly	-	-
H2	Sub Heater	Fixing Assembly	-	-
H3	Drum Heater	Drum Heater Unit	-	-
SP1	Speaker	Main Unit	-	-

● Sensor



No.	Name	Main Unit	Reference	Adjustment during parts replacement
PS2	Waste Toner Full Sensor	Main Unit	-	-
PS3	Waste Toner Motor Rotation Sensor	Main Unit	-	-
PS7	Multi-purpose Tray Paper Sensor	Multi-purpose Tray Unit	-	-
PS8	Duplex Feed Sensor	Right Door Unit	-	-

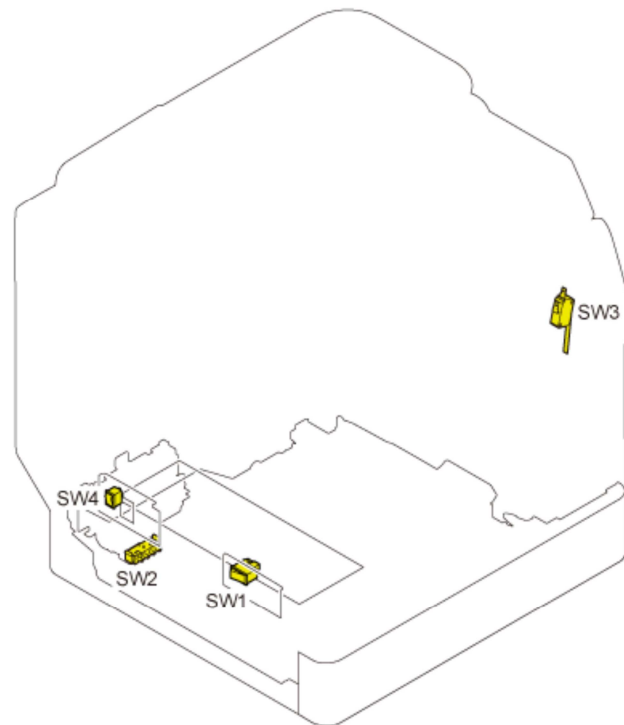
No.	Name	Main Unit	Reference	Adjustment during parts replacement
PS9	Arch Sensor	Transfer Unit	-	-
PS10	Bottle Rotation Sensor	Hopper Unit	-	-
PS11	Registration Sensor	Main Unit	-	-
PS12	Pre-registration Sensor	Main Unit	-	-
PS18	Fixing Pressure Release Sensor	Fixing Assembly	-	-
PS19	Fixing Paper Sensor	Fixing Assembly	-	-
THU1	Environment Sensor	Main Unit	-	-
TS1	Hopper Toner Sensor	Hopper Unit	-	-



No.	Name	Main Unit	Reference	Adjustment during parts replacement
PS1	Front Cover Sensor	Main Unit	-	-
PS4	Delivery Paper Full Sensor	Delivery/Reverse Unit	-	-

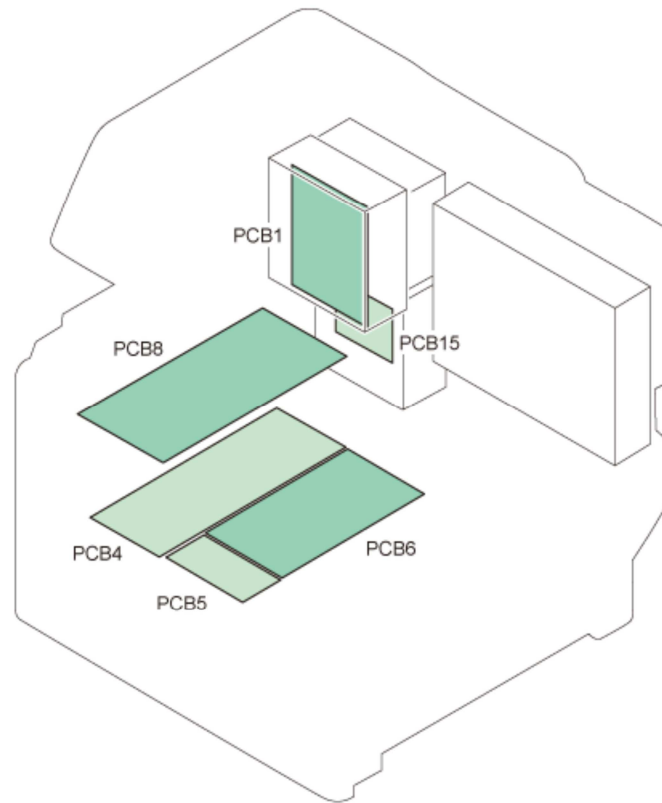
No.	Name	Main Unit	Reference	Adjustment during parts replacement
PS5	Delivery Sensor	Delivery/Reverse Unit	-	-
PS6	Reverse Sensor	Delivery/Reverse Unit	-	-
PS13	Cassette Pickup Sensor	Cassette Pickup Unit	-	-
PS14	Cassette Lifting Plate Sensor	Cassette Pickup Unit	-	-
PS15	Cassette Paper Sensor	Cassette Pickup Unit	-	-
PS16	Cassette Paper Level Sensor A	Cassette Pickup Unit	-	-
PS17	Cassette Paper Level Sensor B	Cassette Pickup Unit	-	-
PS20	Transparency Sensor	Cassette Pickup Unit	-	-
TS2	Developing Assembly Toner Sensor	Developing Assembly	-	-

● Switch



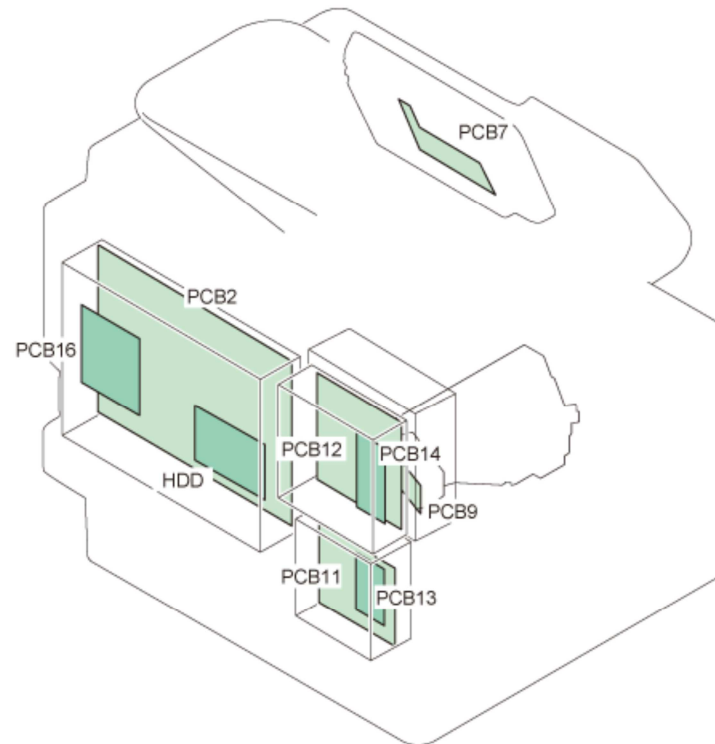
No.	Name	Main Unit	Reference	Adjustment during parts replacement
SW1	Power Switch	Main Unit	-	-
SW2	Cassette Size Detection Switch	Main Unit	-	-
SW3	Cover Switch	Main Unit	-	-
SW4	Drum Heater Switch	Drum Heater Unit	-	-

● PCB



No	Name	Main Unit	Reference	Adjustment during parts replacement
PCB1	DC Controller PCB	Main Unit	(Reference)	(Reference)
PCB4	AC Driver PCB	Main Unit	(Reference)	-

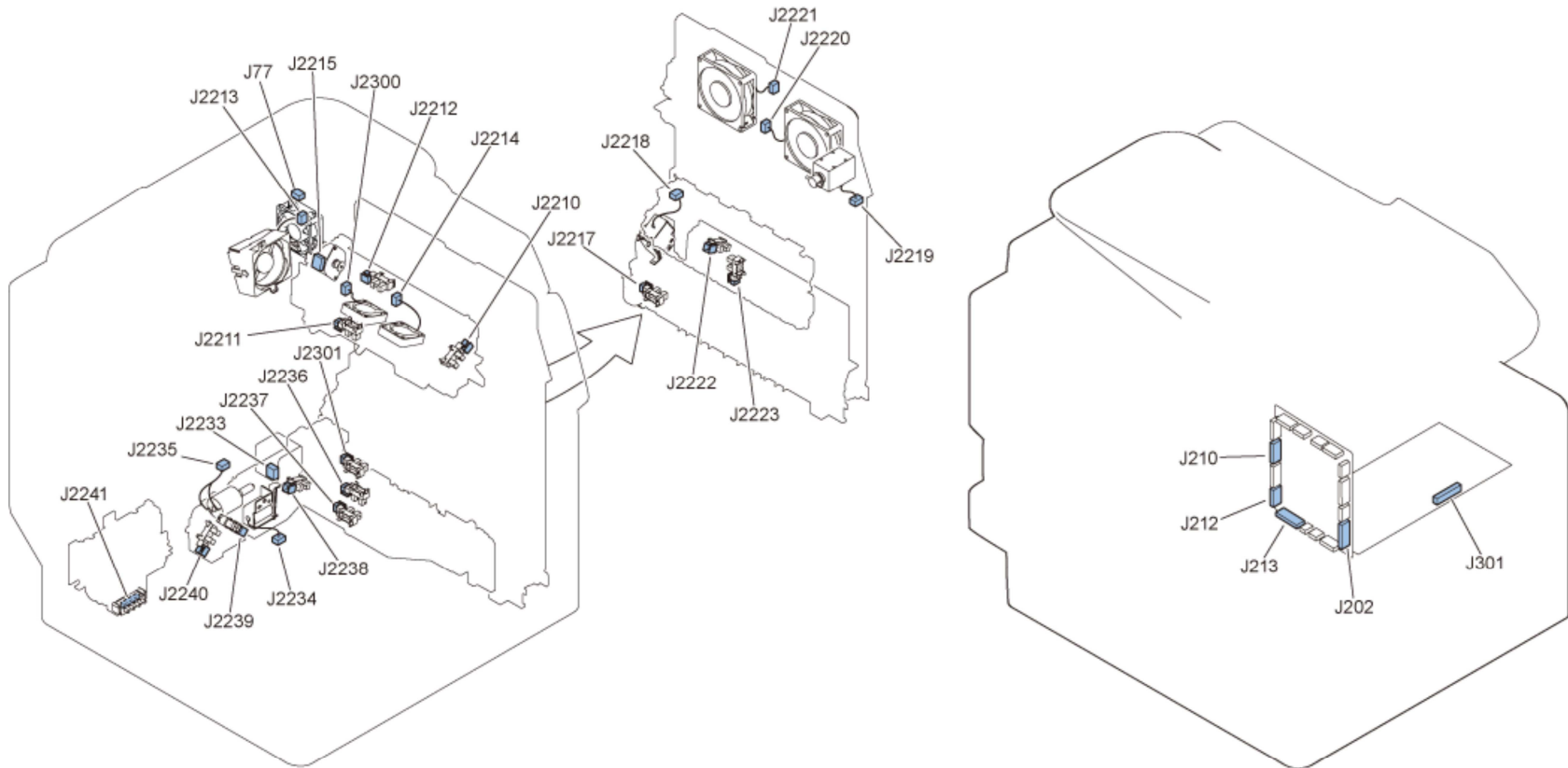
PCB5	All-night Power Supply PCB	Main Unit	-	-
PCB6	12/24V Power Supply PCB	Main Unit	-	-
PCB8	HVT PCB	Main Unit	(Reference)	-
PCB15	Off-hook PCB	FAX Board Unit	-	-



No.	Name	Main Unit	Reference	Adjustment during parts replacement
PCB2	Main Controller PCB	Main Unit	(Reference)	
PCB7	Control Panel CPU PCB	Control Panel Unit	(Reference)	-
PCB9	Laser Driver PCB	Laser Scanner Unit	-	(Reference)
PCB11	G3 FAX PCB	FAX Board Unit	-	-
PCB12	2nd Line G3 FAX PCB	FAX Board Unit	-	-
PCB13	Modular PCB	FAX Board Unit	-	-
PCB14	2nd Line Modular PCB	FAX Board Unit	-	-

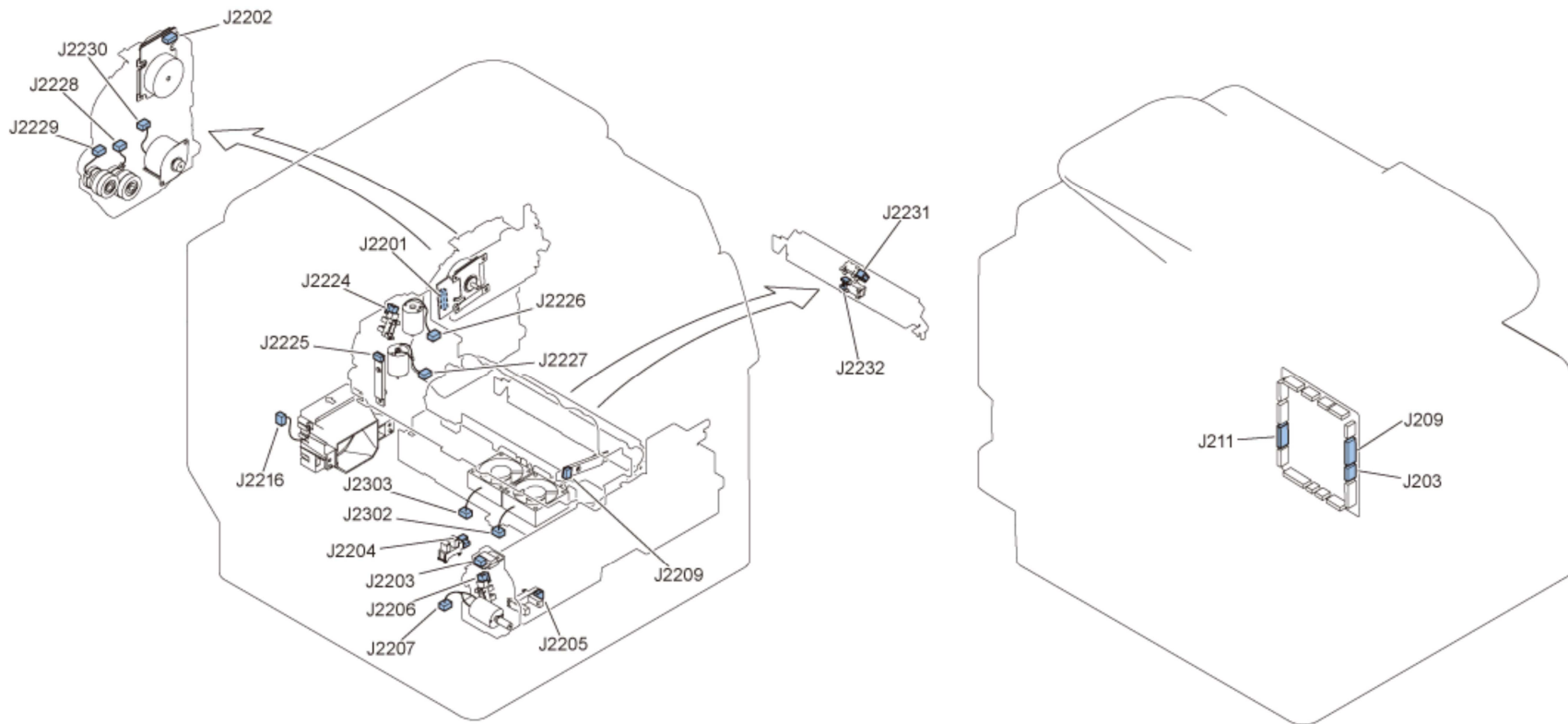
No.	Name	Main Unit	Reference	Adjustment during parts replacement
PCB16	HDD Encryption PCB	HDD Data Encryption Kit	-	-

List of Connectors



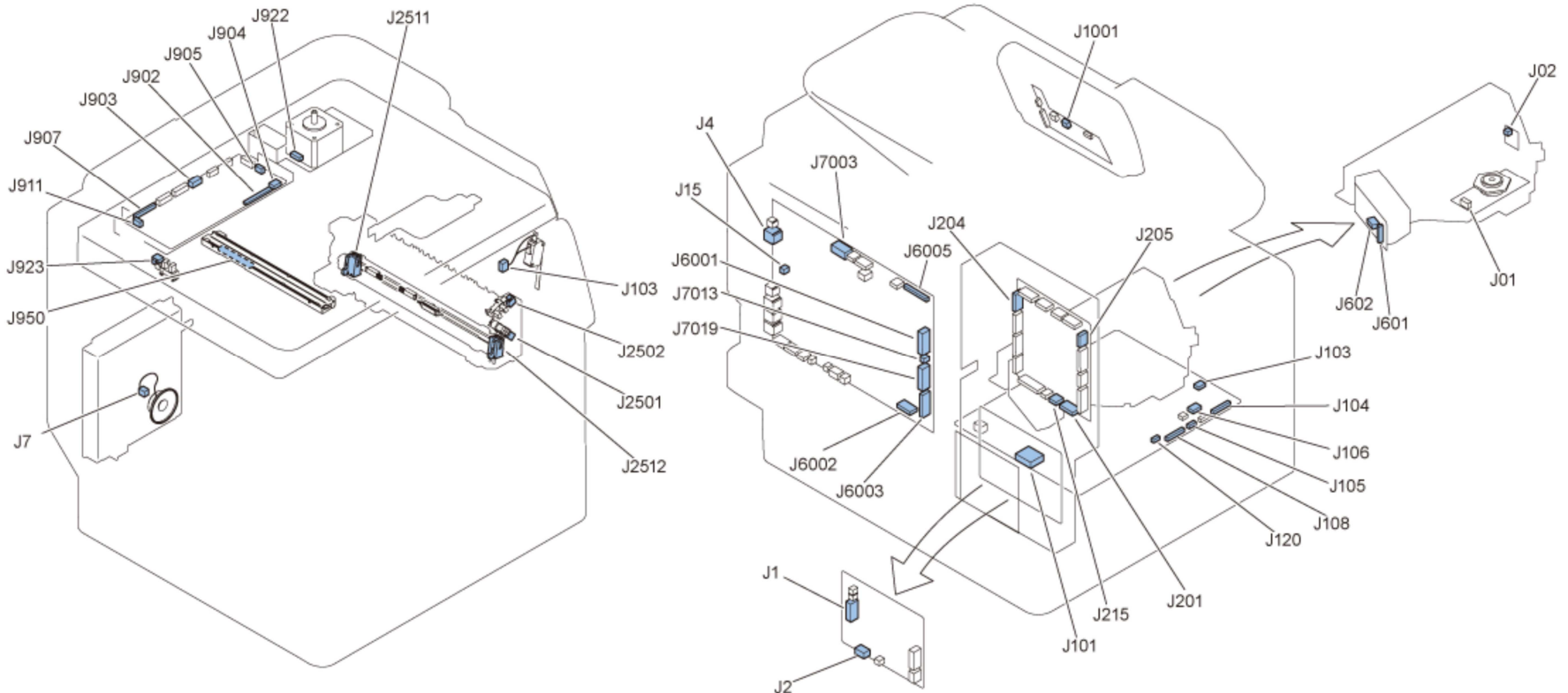
Jack No.	Symbol	Name	Relay Connector	Relay Connector	Jack No.	Symbol	Name	Remarks
J202	PCB1	DC Controller PCB			J301	PCB8	HVT PCB	
J210	PCB1	DC Controller PCB			J2213	FM2	Delivery Cooling Fan (Center)	
J210	PCB1	DC Controller PCB	J21	J40	J2300	FM1	Delivery Cooling Fan (Rear)	
J210	PCB1	DC Controller PCB	J21	J40	J2214	FM3	Delivery Cooling Fan (Front)	
J210	PCB1	DC Controller PCB	J21		J2210	PS4	Delivery Paper Full Sensor	

Jack No.	Symbol	Name	Relay Connector	Relay Connector	Jack No.	Symbol	Name	Remarks
J210	PCB1	DC Controller PCB	J21		J2211	PS5	Delivery Sensor	
J210	PCB1	DC Controller PCB	J21		J2212	PS6	Reverse Sensor	
J210	PCB1	DC Controller PCB	J21		J2215	M4	Reverse Feed Motor	
J212	PCB1	DC Controller PCB	J14		J2218	SL1	Multi-purpose Tray Pickup Solenoid	
J212	PCB1	DC Controller PCB	J8		J2219	SL2	Reverse Feed Solenoid	
J212	PCB1	DC Controller PCB	J8		J2220	FM5	Heat Exhaust Fan (Front)	
J212	PCB1	DC Controller PCB	J8		J2221	FM6	Heat Exhaust Fan (Rear)	
J212	PCB1	DC Controller PCB	J8		J2222	PS8	Duplex Feed Sensor	
J212	PCB1	DC Controller PCB	J8	J5	J2223	PS9	Arch Sensor	
J212	PCB1	DC Controller PCB	J8		J2217	PS7	Multi-purpose Tray Paper Sensor	
J213	PCB1	DC Controller PCB	J20		J2233	M8	Pickup Motor	
J213	PCB1	DC Controller PCB	J13		J2241	SW2	Cassette Size Detection Switch	
J213	PCB1	DC Controller PCB	J9		J2234	SL3	Cassette Pickup Solenoid	
J213	PCB1	DC Controller PCB	J9		J2235	M9	Lifter Motor	
J213	PCB1	DC Controller PCB	J9		J2236	PS13	Cassette Pickup Sensor	
J213	PCB1	DC Controller PCB	J9		J2237	PS14	Cassette Lifting Plate Sensor	
J213	PCB1	DC Controller PCB	J9		J2238	PS15	Cassette Paper Sensor	
J213	PCB1	DC Controller PCB	J9		J2239	PS16	Cassette Paper Level Sensor A	
J213	PCB1	DC Controller PCB	J9		J2240	PS17	Cassette Paper Level Sensor B	
J213	PCB1	DC Controller PCB	J9		J2301	PS20	Transparency Sensor	



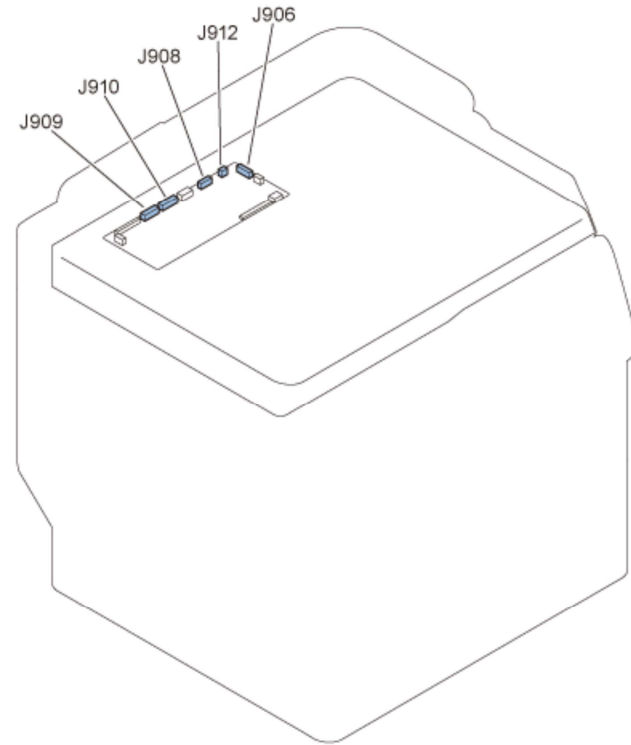
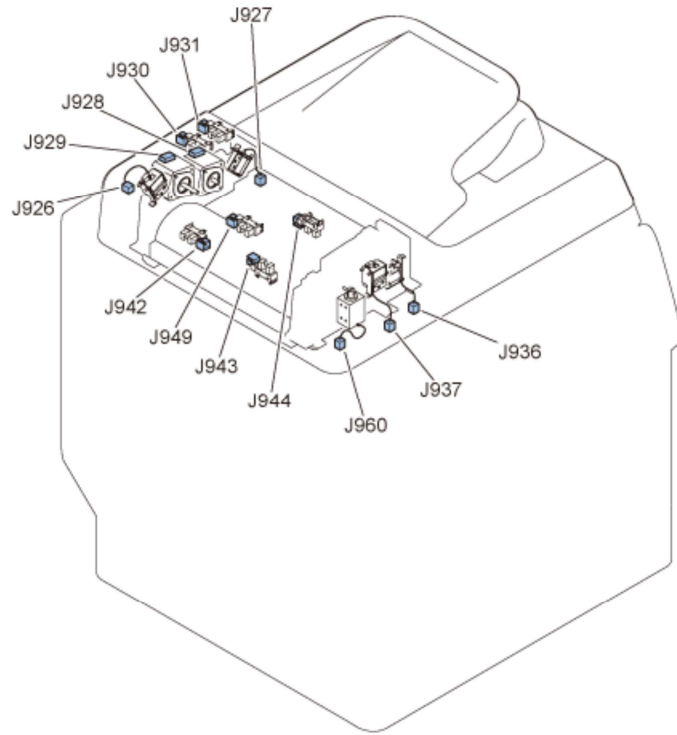
Jack No.	Symbol	Name	Relay Connector	Relay Connector	Jack No.	Symbol	Name	Remarks
J203	PCB1	DC Controller PCB	J1		J2201	M1	Fixing Motor	
J203	PCB1	DC Controller PCB	J2		J2202	M2	Main Motor	
J203	PCB1	DC Controller PCB	J50		J2230	M7	Duplex Feed Motor	
J209	PCB1	DC Controller PCB	J22		J2203	THU1	Environment Sensor	
J209	PCB1	DC Controller PCB	J22		J2206	PS3	Waste Toner Motor Rotation Sensor	
J209	PCB1	DC Controller PCB	J22		J2207	M3	Waste Toner Motor	
J209	PCB1	DC Controller PCB	J15	J3	J2209	TS2	Developing Assembly Toner Sensor	
J209	PCB1	DC Controller PCB	J15		J2204	PS1	Front Cover Sensor	
J209	PCB1	DC Controller PCB	J15		J2205	PS2	Waste Toner Full Sensor	
J209	PCB1	DC Controller PCB	J15	J60	J2302	FM7	Developing Cooling Fan (Front)	
J209	PCB1	DC Controller PCB	J15	J60	J2303	FM8	Developing Cooling Fan (Rear)	

Jack No.	Symbol	Name	Relay Connector	Relay Connector	Jack No.	Symbol	Name	Remarks
J211	PCB1	DC Controller PCB	J6		J2224	PS10	Bottle Rotation Sensor	
J211	PCB1	DC Controller PCB	J6		J2225	TS1	Hopper Toner Sensor	
J211	PCB1	DC Controller PCB	J6		J2226	M5	Bottle Motor	
J211	PCB1	DC Controller PCB	J6		J2227	M6	Hopper Motor	
J211	PCB1	DC Controller PCB			J2228	CL1	Registration Clutch	
J211	PCB1	DC Controller PCB			J2229	CL2	Developing Cylinder Clutch	
J211	PCB1	DC Controller PCB	J7		J2231	PS11	Registration Sensor	
J211	PCB1	DC Controller PCB	J7		J2232	PS12	Pre-registration Sensor	



Jack No.	Symbol	Name	Relay Connector	Relay Connector	Jack No.	Symbol	Name	Remarks
J201	PCB1	DC Controller PCB			J104	PCB4	AC Driver PCB	
J204	PCB1	DC Controller PCB			J6001	PCB2	Main Controller PCB	

Jack No.	Symbol	Name	Relay Connector	Relay Connector	Jack No.	Symbol	Name	Remarks
J205	PCB1	DC Controller PCB			J105	PCB4	AC Driver PCB	
J215	PCB1	DC Controller PCB			J01	-	Laser Scanner Motor	
J4	PCB2	Main Controller PCB			J1001	PCB7	Control Panel CPU PCB	
J15	PCB2	Main Controller PCB			J77	FM9	Main Controller Cooling Fan	
J6001	PCB2	Main Controller PCB			J204	PCB1	DC Controller PCB	
J6002	PCB2	Main Controller PCB			J602	PCB9	Laser Driver PCB	
J6002	PCB2	Main Controller PCB			J02	PCB10	BD PCB	
J6003	PCB2	Main Controller PCB			J601	PCB9	Laser Driver PCB	
J6005	PCB2	Main Controller PCB			J907	PCB3	Reader Controller PCB	
J7003	PCB2	Main Controller PCB			J106	PCB4	AC Driver PCB	
J7010	PCB2	Main Controller PCB	J70		J120	PCB4	AC Driver PCB	
J7013	PCB2	Main Controller PCB	J74		J2	PCB11	G3 FAX PCB	
J7019	PCB2	Main Controller PCB			J1	PCB11	G3 FAX PCB	
J7021	PCB2	Main Controller PCB	J78		J25	SW1	Main Switch	
J902	PCB3	Reader Controller PCB			J950	-	CIS Unit	
J903	PCB3	Reader Controller PCB			J108	PCB4	AC Driver PCB	
J905	PCB3	Reader Controller PCB			J922	M10	Reader Motor	
J911	PCB3	Reader Controller PCB			J923	PS21	CIS HP Sensor	
J105	PCB4	AC Driver PCB			J2216	FM4	Power Supply Cooling Fan	
J101	PCB6	Power Supply PCB	J2510		J2502	PS18	Fixing Pressure Release Sensor	
J101	PCB6	Power Supply PCB	J2510		J2501	PS19	Fixing Paper Sensor	
J101	PCB6	Power Supply PCB	J2510		J2511	H1,H2	Fixing Heater,Sub Heater	
-	-	-			J2512	H1,H2	Fixing Heater,Sub Heater	
J101	PCB6	Power Supply PCB	J2510		-	THM1	Fixing Main Thermistor	
J101	PCB6	Power Supply PCB	J2510		-	THM2	Fixing Sub Thermistor	
J101	PCB6	Power Supply PCB	J2510		-	TP1	Fixing Thermoswitch	
J103	PCB6	Power Supply PCB			J103	SW3	Cover Switch	
J7	PCB11	FAX PCB			J7	SP1	Speaker	



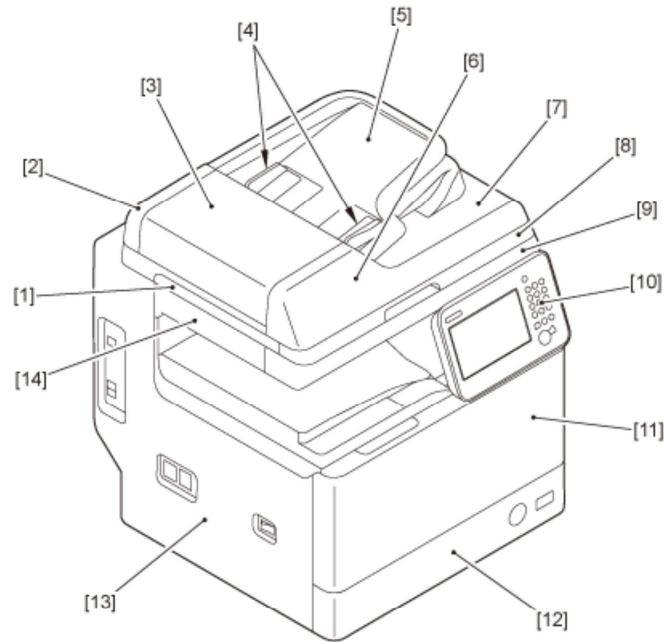
Jack No.	Symbol	Name	Relay Connector	Relay Connector	Jack No.	Symbol	Name	Remarks
J906	PCB3	Reader Controller PCB			J928	M12	Delivery Reversal Motor	
J906	PCB3	Reader Controller PCB			J929	M11	Feed Motor	
J908	PCB3	Reader Controller PCB	J925		J936	SL6	Flapper Solenoid 2	
J908	PCB3	Reader Controller PCB	J925		J937	SL7	Flapper Solenoid 1	
J908	PCB3	Reader Controller PCB			J926	SL4	Registration Solenoid	
J908	PCB3	Reader Controller PCB			J927	SL5	Pickup Solenoid	
J909	PCB3	Reader Controller PCB			J930	PS26	Timing Sensor	
J909	PCB3	Reader Controller PCB			J931	PS27	Original Set Sensor	
J910	PCB3	Reader Controller PCB	J947		J949	PS25	Reversal Sensor	
J910	PCB3	Reader Controller PCB	J956		J944	PS24	Stay Sensor	
J910	PCB3	Reader Controller PCB	J933		J943	PS23	Registration Sensor	
J910	PCB3	Reader Controller PCB	J933		J942	PS22	Lead Sensor	

Jack No.	Symbol	Name	Relay Connector	Relay Connector	Jack No.	Symbol	Name	Remarks
J912	PCB3	Reader Controller PCB	J958		J960	SL8	Roller Release Solenoid	

External Cover/Internal System

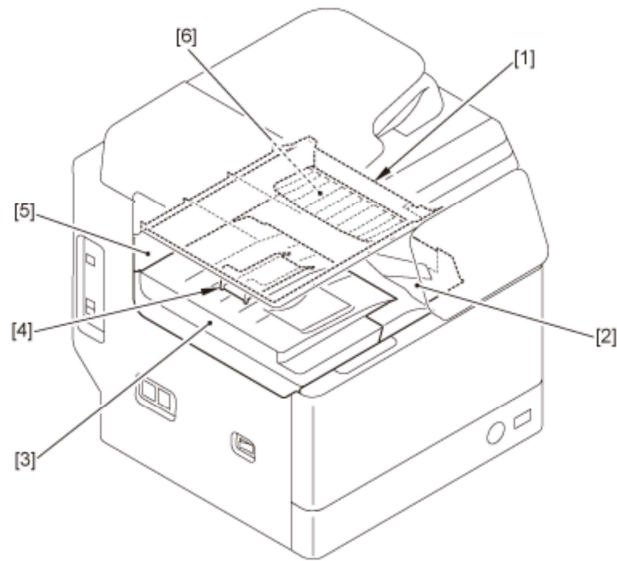
Location

■ Front Side



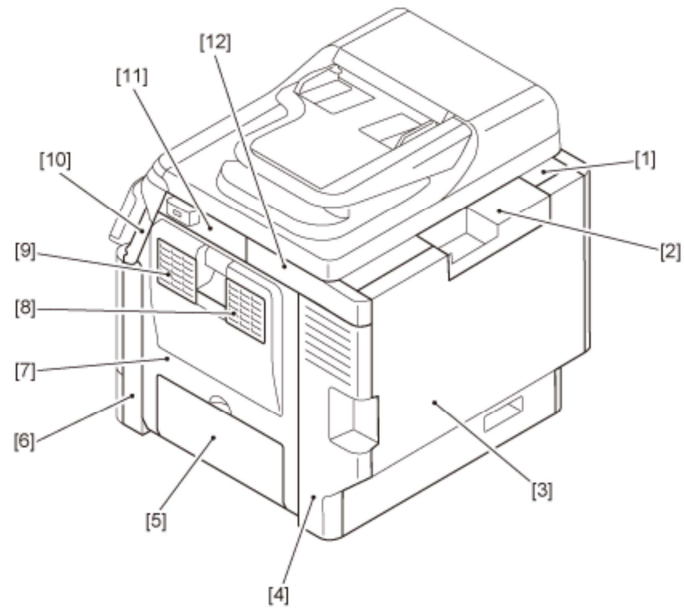
No.	Name	Reference
[1]	ADF Left Cover	-
[2]	ADF Rear Cover	-
[3]	ADF Upper Cover	(Reference)
[4]	Side Guide Plate	-
[5]	Original Pickup Tray	(Reference)
[6]	ADF Front Upper Cover	-
[7]	Original Delivery Tray	-

No.	Name	Reference
[8]	ADF Front Lower Cover	-
[9]	Reader Front Cover	(Reference)
[10]	Control Panel Unit	(Reference)
[11]	Front Cover	(Reference)
[12]	Cassette	-
[13]	Left Cover	(Reference)
[14]	Reader Left Cover	-



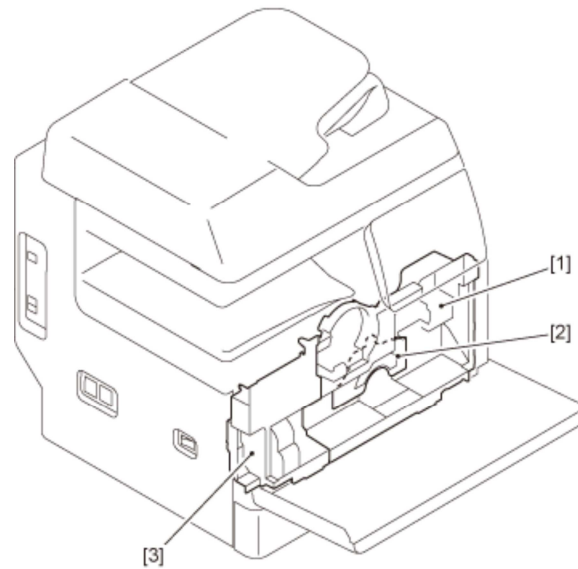
No.	Name	Reference
[1]	Reader Bottom Cover	(Reference)
[2]	Delivery Inner Cover	(Reference)
[3]	Delivery Outer Cover	(Reference)
[4]	Delivery Stopper	-
[5]	Inner Rear Cover	(Reference)
[6]	Reverse Tray	-

■ Rear Side



No.	Name	Reference
[1]	Reader Rear Cover	(Reference)
[2]	Reader Controller Cover	(Reference)
[3]	Rear Cover	(Reference)
[4]	Right Rear Cover	(Reference)
[5]	Multi-purpose Tray Pickup Unit	-
[6]	Right Front Cover	(Reference)
[7]	Right Door Unit	(Reference)
[8]	Right Rear Fan Cover	-
[9]	Right Front Fan Cover	-
[10]	Support Column Cover	(Reference)
[11]	Reader Right Front Cover	-
[12]	Reader Right Rear Cover	-

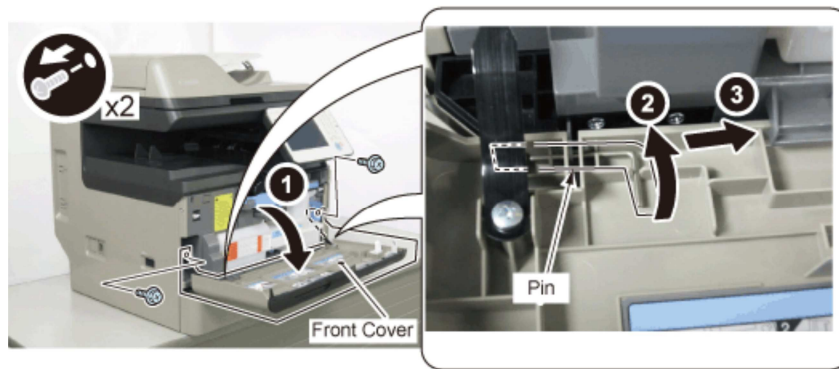
■ Internal View



No.	Name	Reference
[1]	Right Inner Cover	(Reference)
[2]	Developing Assembly Replacement Inner Cover	-
[3]	Left Inner Cover	(Reference)

Removing the Front Cover

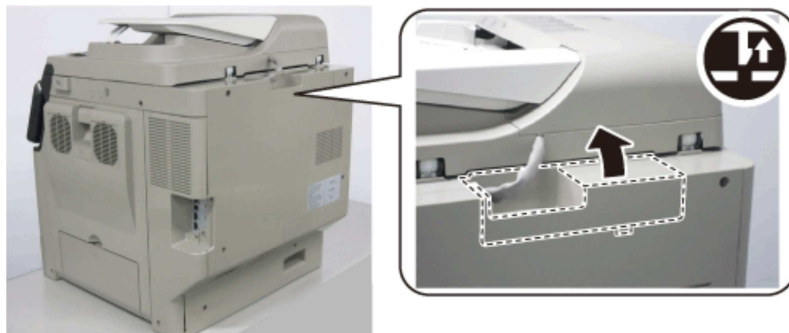
- 1) Open the Front Cover.
- 2) Remove the Front Cover .
 - 2 Screws
 - 2 Pins



Removing the Reader Controller Cover

1) Remove the Reader Controller Cover.

- 1 Claw

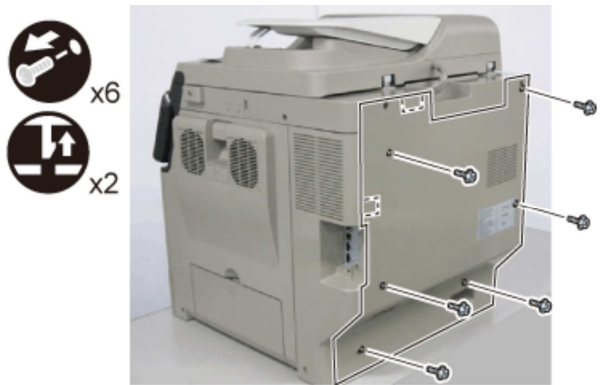


Removing the Rear Cover

1) Remove the Reader Controller Cover. ([Reference](#))

2) Remove the Rear Cover.

- 6 Screws
- 2 Claws



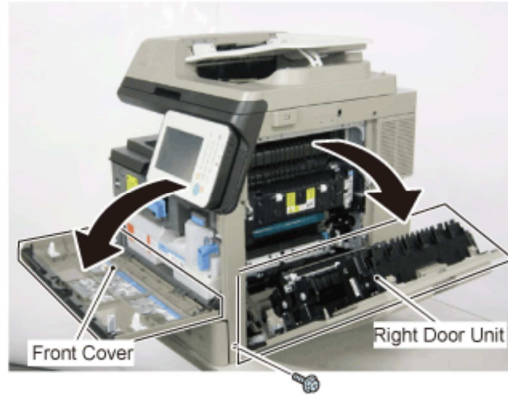
Removing the Right Front Cover

NOTE:

The following shows the 3 claws and 2 bosses of the Right Front Cover.

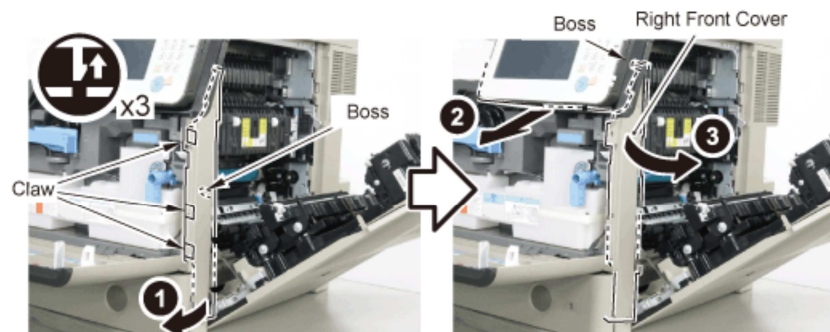


1) Open the Front Cover and Right Door Unit, and remove the screw.



2) Remove the Right Front Cover.

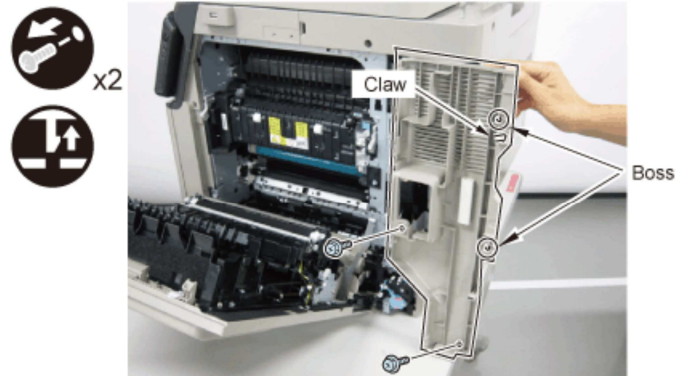
- 3 Claws
- 2 Bosses



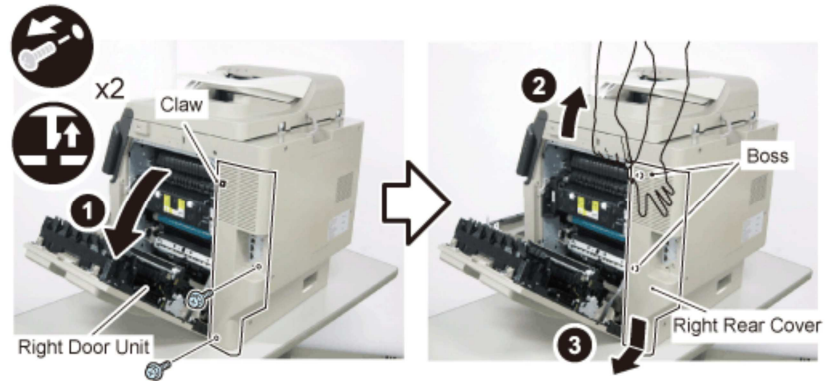
Removing the Right Rear Cover

NOTE:

The following shows the 1 claw, 2 bosses.



- 1) Open the Right Door Unit .
- 2) Remove the Right Rear Cover.
 - 2 Screws
 - 1 Claw
 - 2 Bosses



Removing the Right Door Unit

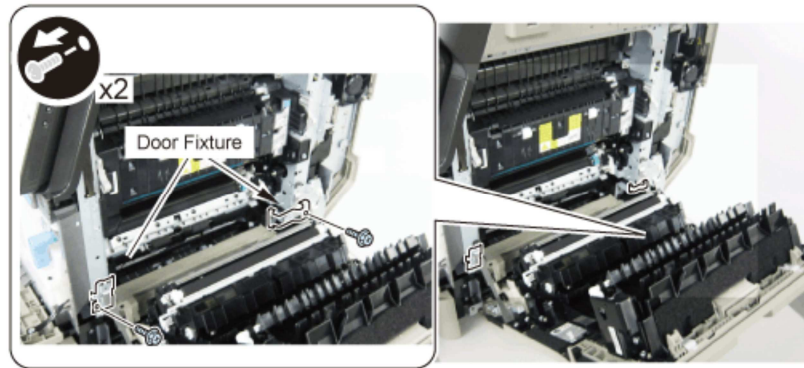
■ Preparation

- 1) Remove the Right Front Cover.([Reference](#))
- 2) Remove the Right Rear Cover.([Reference](#))

■ Procedure

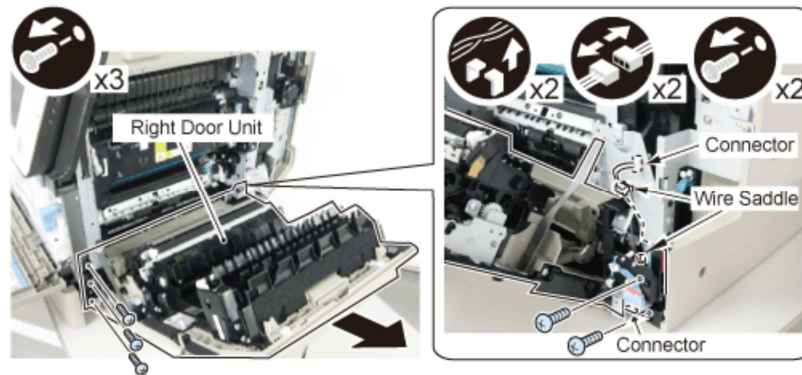
- 1) Open the cassette.
- 2) While holding the Right Door Unit, remove the 2 Door Fixtures on the Rear and Front.

- 2 Screws



3) Remove the Right Door Unit.

- 2 Wire Saddles
- 2 Connectors
- 5 Screws



Removing the Left Cover

■ Preparation

- 1) Remove the Rear Cover.([Reference](#))
- 2) Remove the Delivery Outer Cover.([Reference](#))

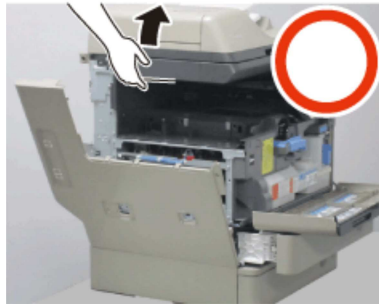
■ Procedure

- 1) Open the cassette, and remove the Left Cover while lifting the host machine.
- 1 Screw

- 4 Claws

CAUTION:

When lifting the host machine, hold the rear side of the bottom of the Reader Unit.



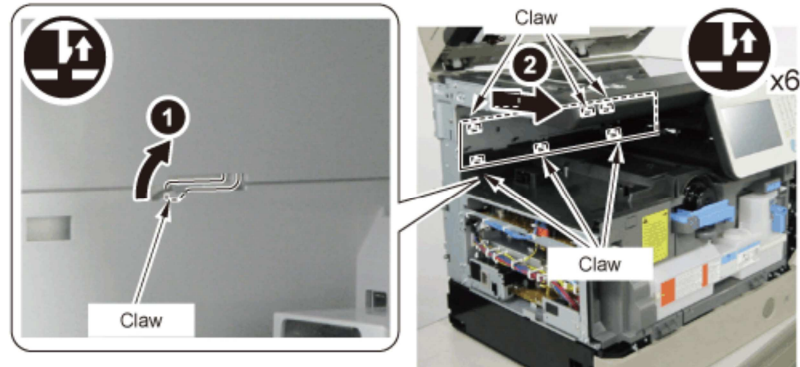
Removing the Inner Rear Cover

■ Preparation

- 1) Remove the Rear Cover. [\(Reference\)](#)
- 2) Remove the Delivery Outer Cover. [\(Reference\)](#)
- 3) Remove the Left Cover. [\(Reference\)](#)

■ Procedure

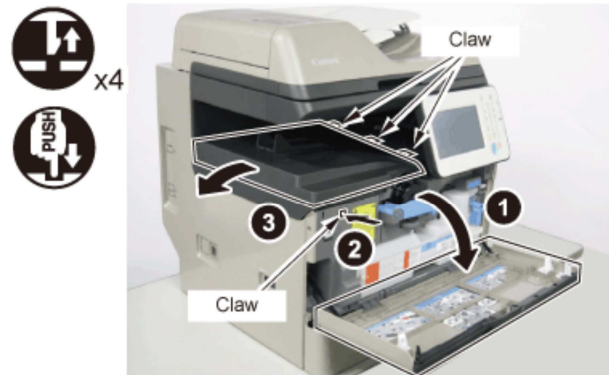
- 1) Remove the Inner Rear Cover.
- 7 Claws



Removing the Delivery Outer Cover

■ Procedure

- 1) Open the Front Cover, and remove the Delivery Outer Cover.
 - 4 Claws



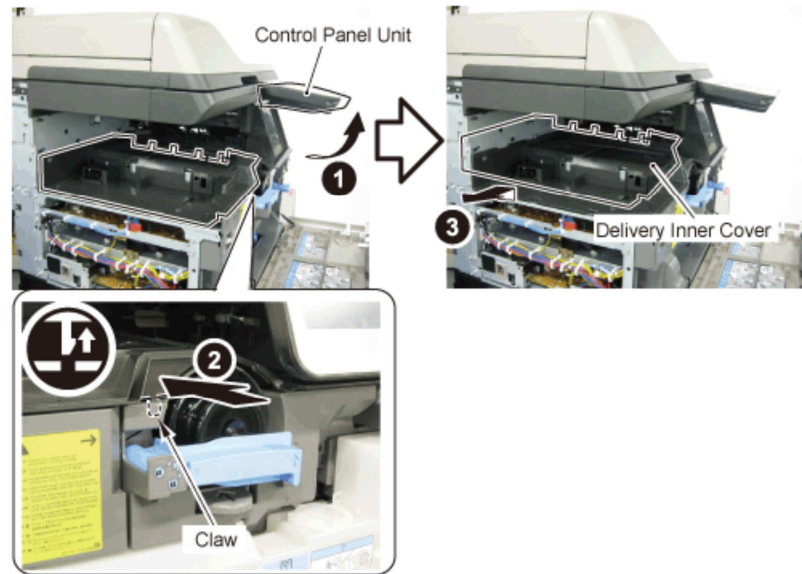
Removing the Delivery Inner Cover

■ Preparation

- 1) Remove the Rear Cover.(Reference)
- 2) Remove the Delivery Outer Cover.(Reference)
- 3) Remove the Left Cover.(Reference)
- 4) Remove the Inner Rear Cover.(Reference)

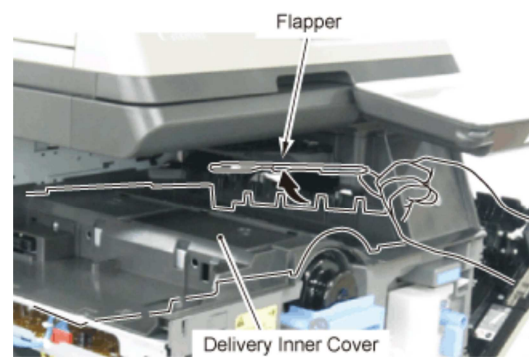
■ Procedure

- 1) Lift the Control Panel Unit.
 - 2) Remove the Delivery Inner Cover.
- 1 Claw



CAUTION:

Be sure to install the Delivery Inner Cover while lifting the flapper when assembling.



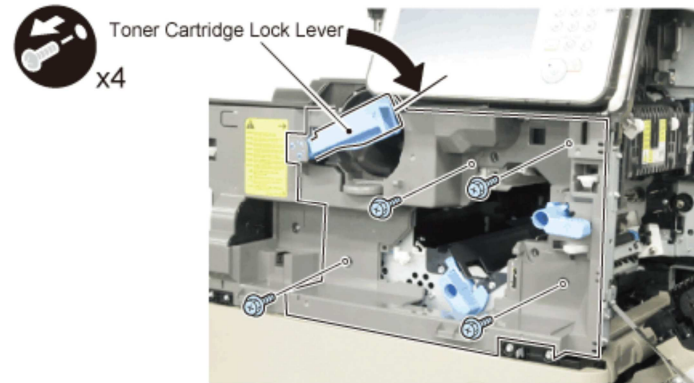
Removing the Right Inner Cover

■ Preparation

- 1) Remove the Toner Cartridge.(Reference)
- 2) Remove the Waste Toner Container.(Reference)
- 3) Remove the Drum Unit.(Reference)
- 4) Remove the Developing Assembly.(Reference)
- 5) Remove the Front Cover.(Reference)
- 6) Remove the Right Front Cover.(Reference)

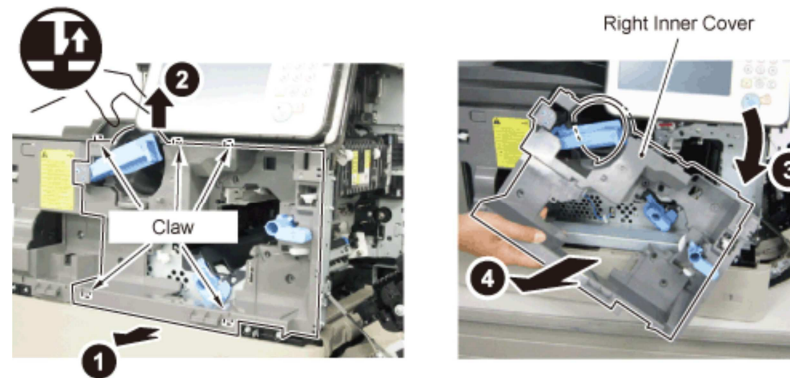
■ Procedure

- 1) Return the Toner Cartridge Lock Lever to the original position, and remove the 4 screws.



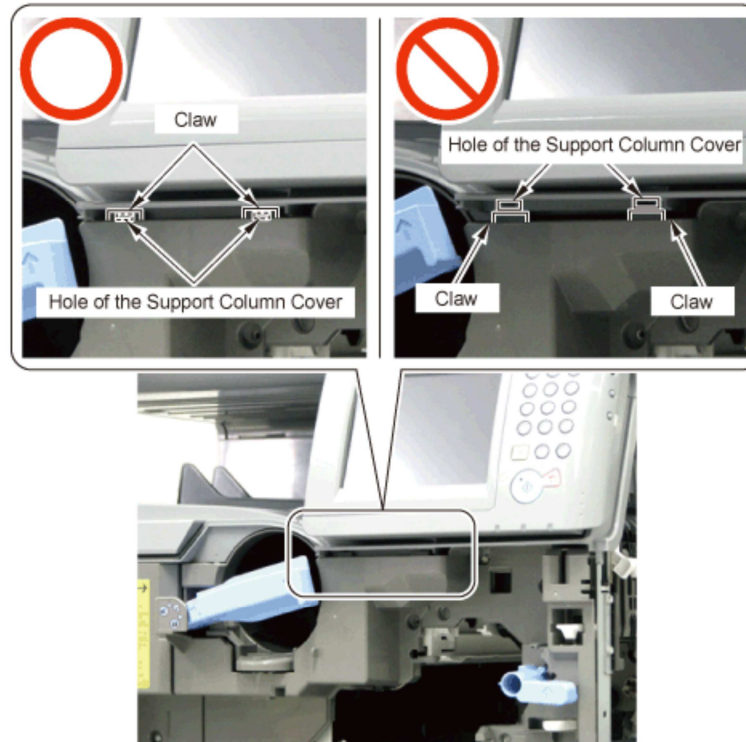
- 2) Remove the Right Inner Cover.

- 5 Claws



CAUTION:

Be sure to fit the 2 hooks at the upper side of the Right Inner Cover into the 2 holes of the Support Column Cover when assembling.



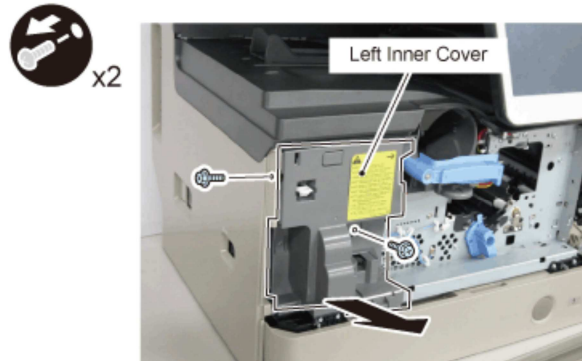
Removing the Left Inner Cover

■ Preparation

- 1) Remove the Toner Cartridge.([Reference](#))
- 2) Remove the Waste Toner Container.([Reference](#))
- 3) Remove the Drum Unit.([Reference](#))
- 4) Remove the Developing Assembly.([Reference](#))
- 5) Remove the Front Cover.([Reference](#))
- 6) Remove the Right Front Cover.([Reference](#))
- 7) Remove the Right Inner Cover.([Reference](#))

■ Procedure

- 1) Remove the Left Inner Cover.
 - 2 Screws



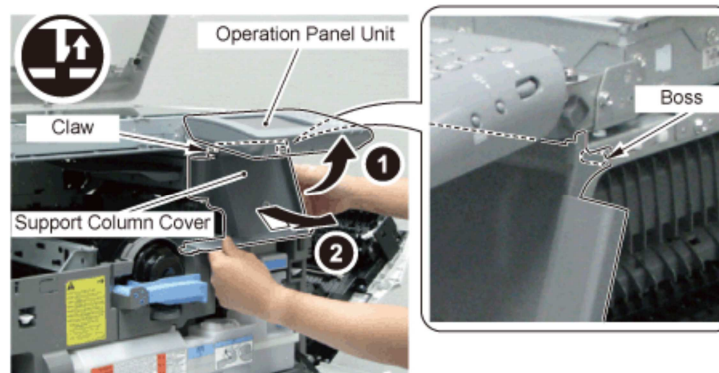
Removing the Support Column Cover

■ Preparation

- 1) Remove the Rear Cover.(Reference)
- 2) Remove the Delivery Outer Cover.(Reference)
- 3) Remove the Left Cover.(Reference)
- 4) Remove the Inner Rear Cover.(Reference)
- 5) Remove the Delivery Inner Cover.(Reference)
- 6) Remove the Reader Front Cover.(Reference)
- 7) Remove the Right Front Cover.(Reference)

■ Procedure

- 1) Lift the Control Panel Unit, and remove the Support Column Cover.
 - 1 Claw
 - 1 Boss



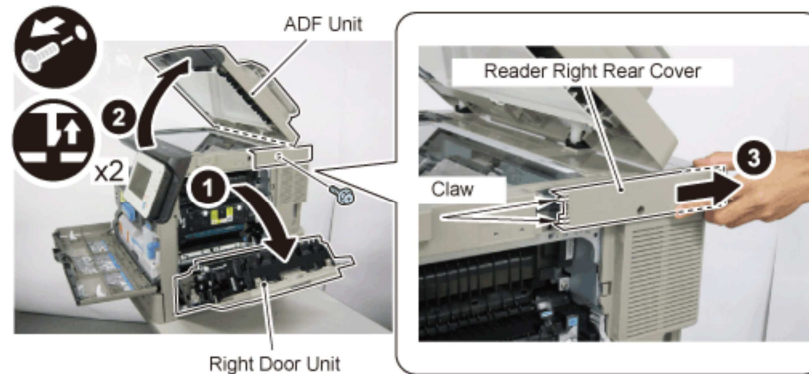
Removing the Reader Front Cover

■ Preparation

- 1) Remove the Rear Cover.(Reference)
- 2) Remove the Delivery Outer Cover.(Reference)
- 3) Remove the Left Cover.(Reference)
- 4) Remove the Inner Rear Cover.(Reference)

■ Procedure

- 1) Open the Right Door Unit, and open the ADF Unit.
- 2) Remove the Reader Right Rear Cover.
 - 1 Screw
 - 2 Claws

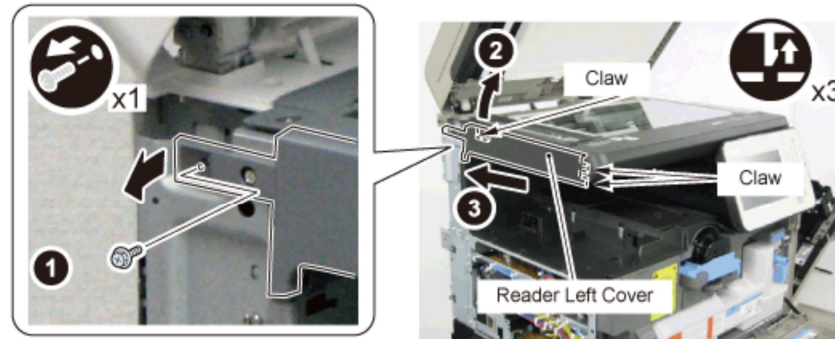


- 3) Remove the Reader Right Front Cover.
 - 1 Screw
 - 1 Boss



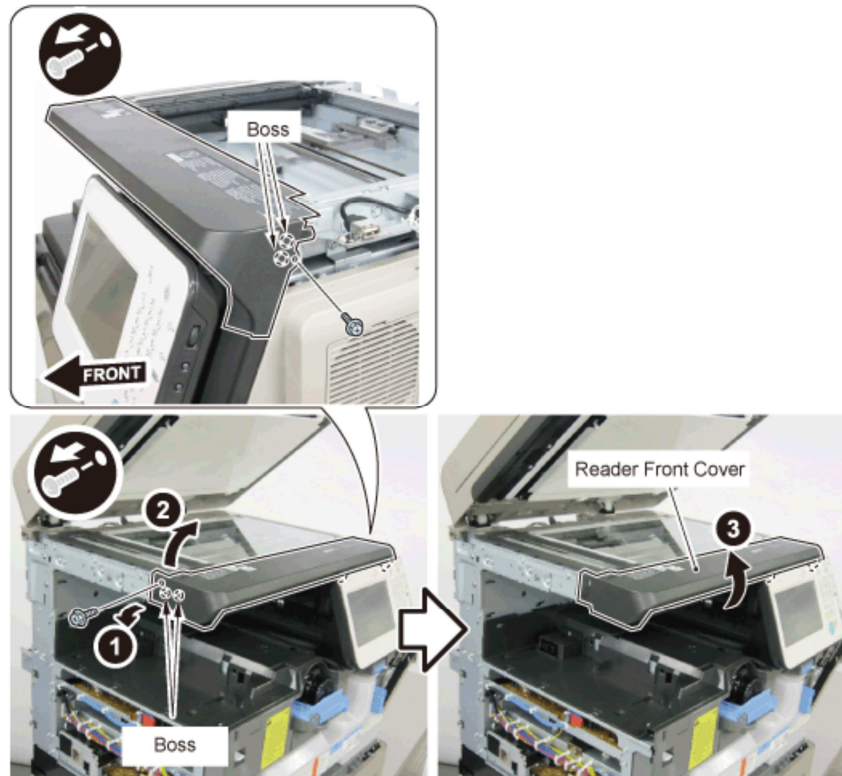
4) Remove the Reader Left Cover.

- 1 Screw
- 3 Claws



5) Remove the Reader Front Cover.

- 2 Screws
- 4 Bosses



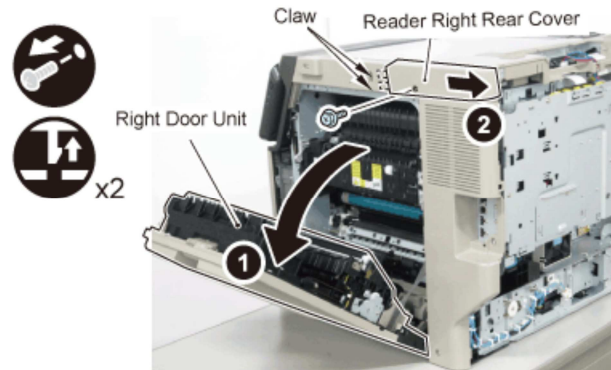
Removing the Reader Rear Cover

■ Preparation

- 1) Remove the ADF Unit.([Reference](#))
- 2) Remove the Rear Cover.([Reference](#))
- 3) Remove the Delivery Outer Cover.([Reference](#))
- 4) Remove the Left Cover.([Reference](#))

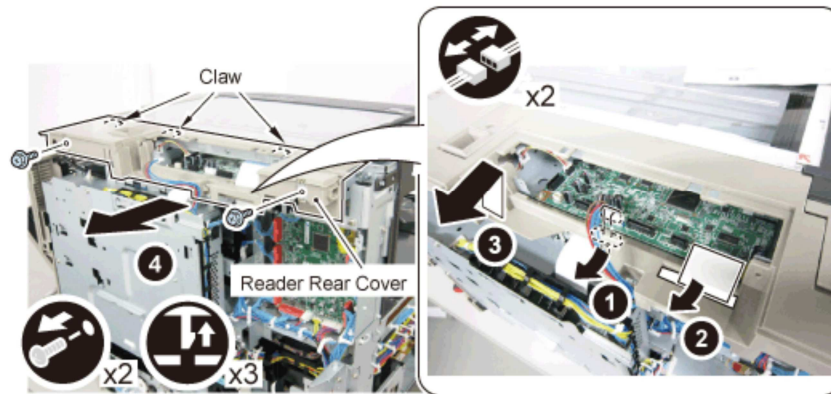
■ Procedure

- 1) Open the Right Door Unit, and remove the Reader Right Rear Cover.
 - 1 Screw
 - 2 Claws



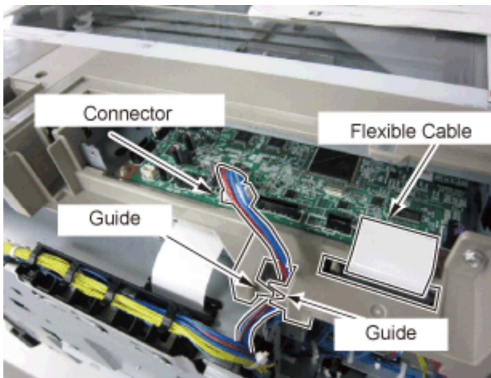
2) Remove the Reader Rear Cover.

- 1 Connector
- 1 Flexible Cable
- 2 Screws
- 3 Claws



CAUTION:

Put the Flexible Cable through the part in the Rear Guide where the Flexible Cable is to be passed when assembling



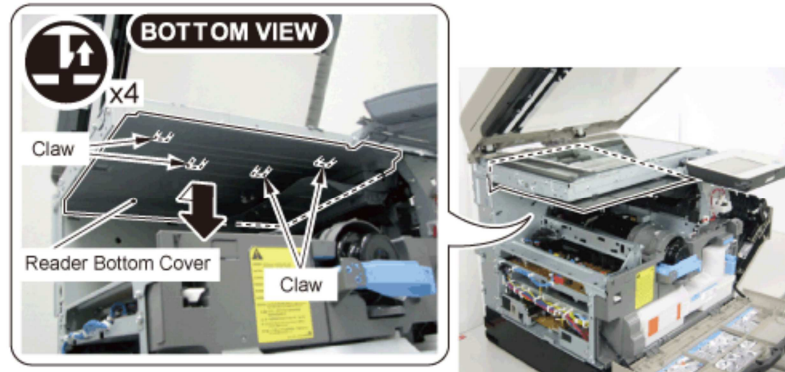
Removing the Reader Bottom Cover

■ Preparation

- 1) Remove the Rear Cover.([Reference](#))
- 2) Remove the Delivery Outer Cover.([Reference](#))
- 3) Remove the Left Cover.([Reference](#))
- 4) Remove the Inner Rear Cover.([Reference](#))
- 5) Remove the Delivery Inner Cover.([Reference](#))
- 6) Remove the Reader Front Cover.([Reference](#))
- 7) Remove the Right Front Cover.([Reference](#))
- 8) Remove the Support Column Cover.([Reference](#))

■ Procedure

- 1) Remove the Reader Bottom Cover.
 - 4 Claws



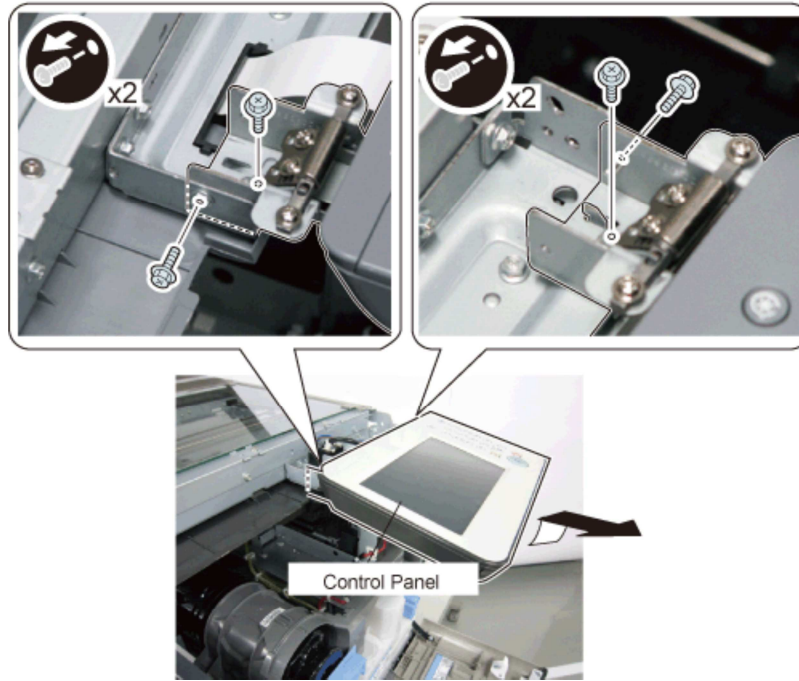
Removing the Control Panel Unit

■ Preparation

- 1) Remove the Rear Cover. ([Reference](#))
- 2) Remove the Delivery Outer Cover. ([Reference](#))
- 3) Remove the Left Cover. ([Reference](#))
- 5) Remove the Inner Rear Cover. ([Reference](#))
- 6) Remove the Reader Front Cover. ([Reference](#))

■ Procedure

- 1) Remove the the Control Panel Unit.
 - 4 Screws



- 2) Control Panel Unit removed on the step 1) put on the copy board glass. Remove the Control Panel Lower Cover and Control Panel Lower Rear Cover.
- 4 Screws

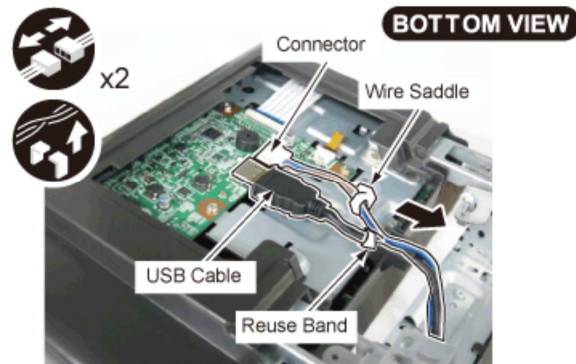


NOTE:

When putting the Control Panel Unit on Copyboard glass, be sure to put paper on the copy board glass to protect the panel surface.

- 3) Remove the USB Cable and Connector, then remove the Control Panel Unit.

- 1 Reuse Band
- 1 Wire Saddle

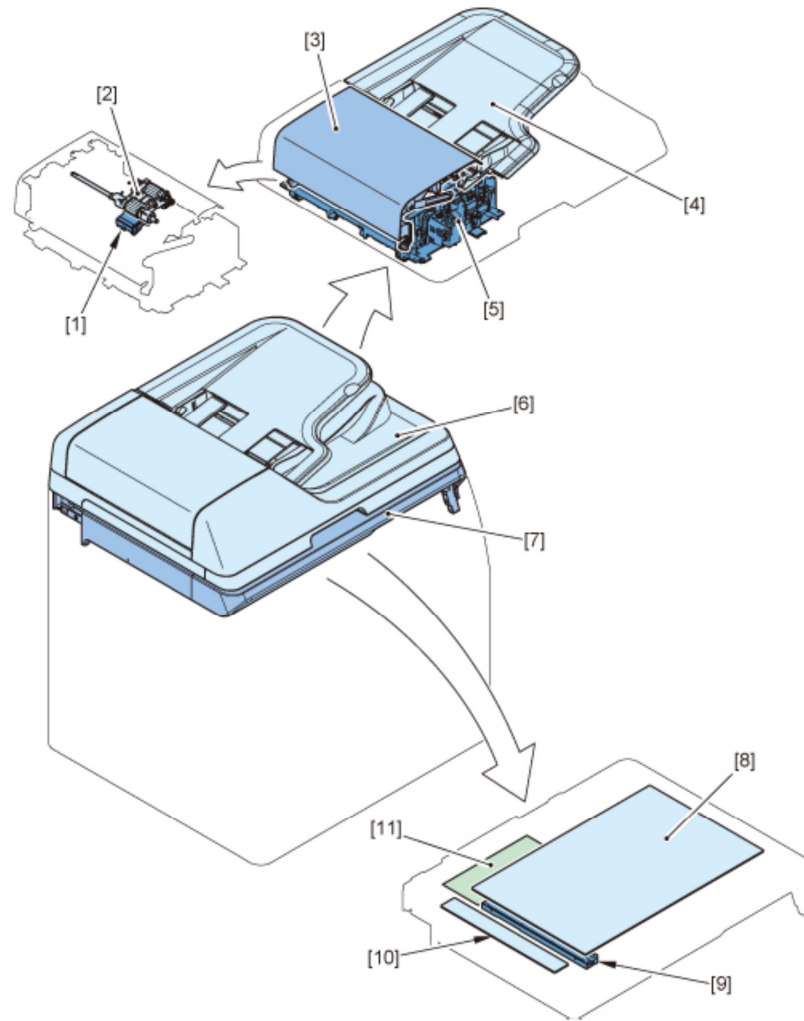


CAUTION:

When the control panel unit is reassembled, confirm that the cables are correctly put back in the cable guide of the control panel unit. If the cables are not correctly put in the cable guide, the cables may be damaged by the open/close operation of the control panel unit.

Original Exposure/Feed System

Location



No.	Name	Main Unit	Reference	Adjustment during parts replacement
[1]	ADF Separation Pad	ADF Pickup Unit	(Reference)	-
[2]	ADF Pickup Roller Unit	ADF Upper Cover Unit	(Reference)	-
[3]	ADF Upper Cover Unit	ADF Unit	(Reference)	-
[4]	Original Pickup Tray	ADF Unit	(Reference)	-
[5]	ADF Pickup Unit	ADF Unit	(Reference)	-

No.	Name	Main Unit	Reference	Adjustment during parts replacement
[6]	ADF Unit	Main Unit	(Reference)	(Reference)
[7]	Reader Unit	Main Unit	(Reference)	-
[8]	Copyboard Glass	Reader Unit	(Reference)	(Reference)
[9]	CIS Unit	Reader Unit	(Reference)	(Reference)
[10]	ADF Reading Glass	Reader Unit	(Reference)	(Reference)
[11]	Reader Controller PCB	Reader Unit	(Reference)	-

Removing the Copyboard Glass

■ Procedure

CAUTION:

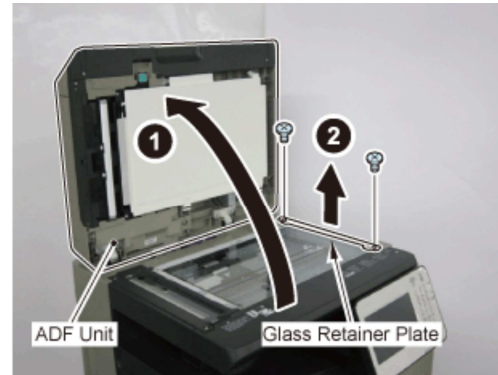
- Place the removed Copyboard Glass on a cloth, etc. to avoid damaging the bottom sheet.
- When removing the Copyboard Glass, take care not to touch the glass surface.
- If the surface becomes dirty, clean it with lint free paper.



- 1) Open the ADF Unit.
- 2) Remove the Glass Retainer Plate.
 - 2 Screws



x2



3) Remove the Copyboard Glass.

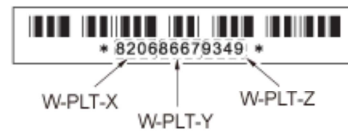


■ After Replacement

- 1) Enter the value indicated on the platen glass as shown in the following service mode:
(Lv.1) COPIER> ADJUST> CCD> W-PLT-X/Y/Z (White level data entry of white plate)

CAUTION:

Be sure to make the white plate data adjustment before ADF white level adjustment.



- 2) Write down the new numerical value in the service label.
- 3) Take the action stated below in the service mode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1/2/3/4 (White level adj in book/ADF mode)

3-1) Place a sheet of paper that the user usually uses on the Copyboard Glass, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1

Read the white level (B&W) in the BOOK mode. (Check the transparency of the Copyboard Glass)

3-2) Place a sheet of paper that the user usually uses on the ADF, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL2

Read the white level (B&W) in the ADF mode. (Check the transparency of the ADF Reading Glass.)

3-3) Place a sheet of paper that the user usually uses on the Copyboard Glass, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL3

Read the white level (Color) in the BOOK mode. (Check the transparency of the Copyboard Glass)

3-4) Place a sheet of paper that the user usually uses on the ADF, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL4

Read the white level (Color) in the ADF mode. (Check the transparency of the ADF Reading Glass.)

NOTE:

The result of the adjustment is reflected to COPIER> ADJUST> CCD> DFTAR-K/ DFTAR-R/ DFTAR-G/ DFTAR-B.

Removing the ADF Reading Glass

■ Procedure

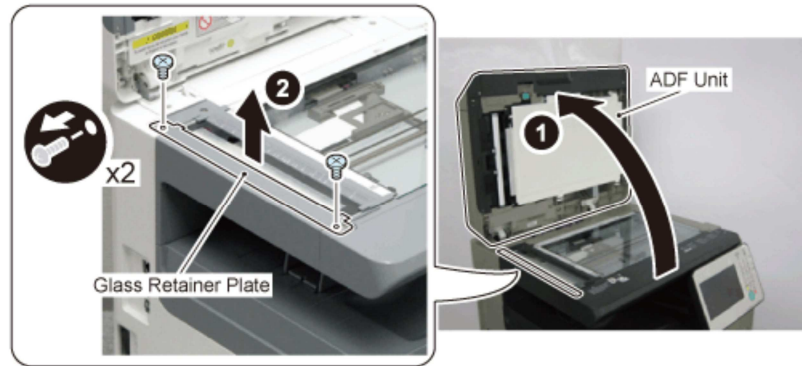
CAUTION:

- Place the removed ADF Reading Glass on a cloth, etc. to avoid damaging the bottom sheet.
- When removing the ADF Reading Glass, take care not to touch the glass surface.
- If the surface becomes dirty, clean it with lint free paper.

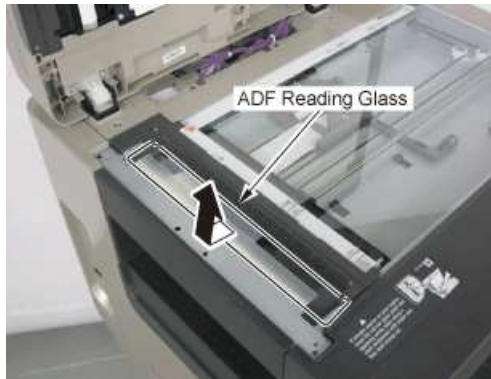
1) Open the ADF Unit.

2) Remove the Glass Retainer Plate.

- 2 Screws

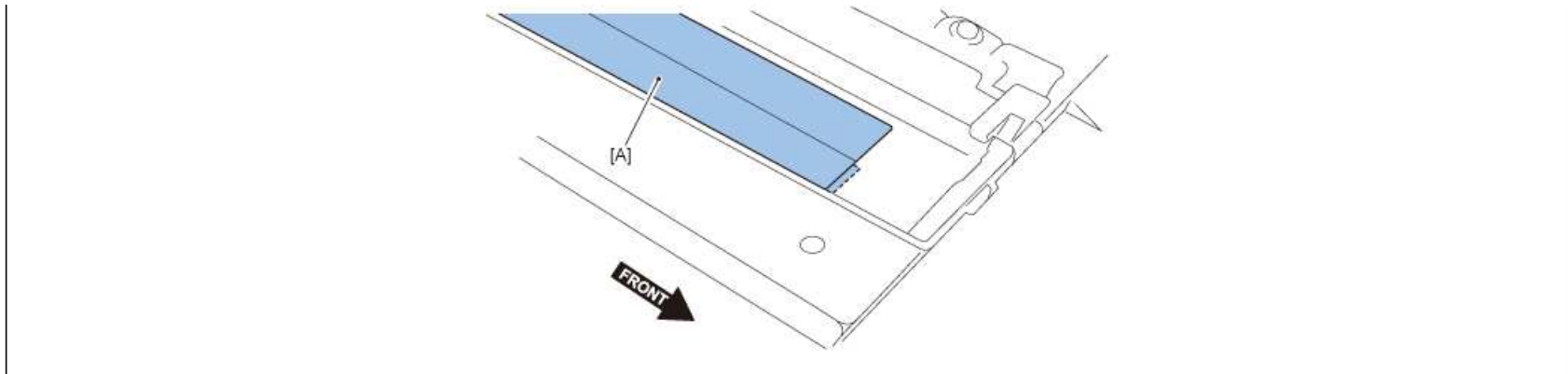


3) Remove the ADF Reading Glass.



CAUTION:

- When removing the ADF Reading Glass, take care not to touch the glass surface.
- Attached soiling may cause white line/black line in the images.
- If soiling is attached, clean it with lint free paper moistened with alcohol.
- When installing the ADF Reading Glass, be sure that the sheet material [A] of the ADF Reading Glass is on the left front side.



■ After Replacement

1) Take the action stated below in the service mode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1/2/3/4 (White level adj in book/ADF mode)

1-1) Place a sheet of paper that the user usually uses on the Copyboard Glass, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1

Read the white level (B&W) in the BOOK mode. (Check the transparency of the Copyboard Glass)

1-2) Place a sheet of paper that the user usually uses on the ADF, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL2

Read the white level (B&W) in the ADF mode. (Check the transparency of the ADF Reading Glass.)

1-3) Place a sheet of paper that the user usually uses on the Copyboard Glass, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL3

Read the white level (Color) in the BOOK mode. (Check the transparency of the Copyboard Glass)

1-4) Place a sheet of paper that the user usually uses on the ADF, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL4

Read the white level (Color) in the ADF mode. (Check the transparency of the ADF Reading Glass.)

NOTE:

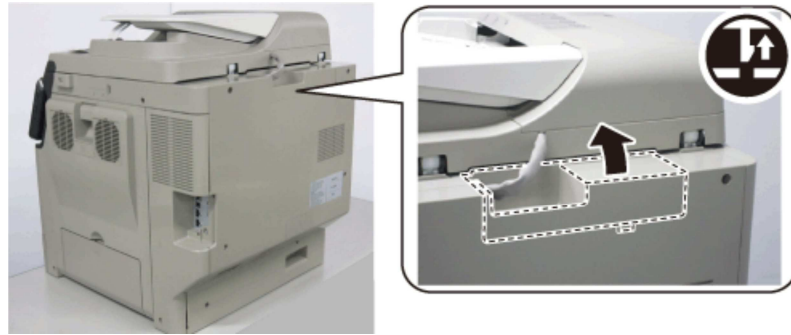
The result of the adjustment is reflected to COPIER> ADJUST> CCD> DFTAR-K/ DFTAR-R/ DFTAR-G/ DFTAR-B.

Removing the ADF Unit

■ Procedure

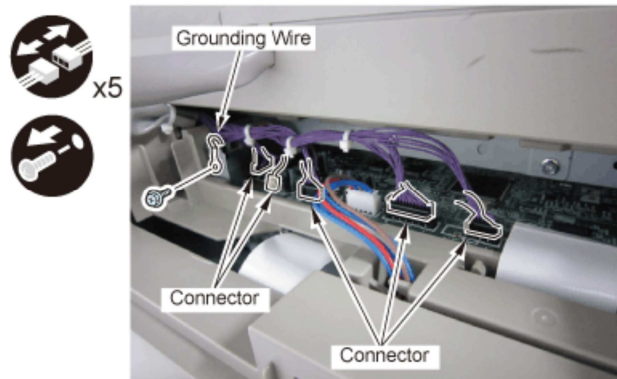
1) Remove the Reader Controller Cover.

- 1 Claw



2) Remove the 5 connectors and the Grounding Wire of the ADF Harness.

- 1 Screw



3) Open the ADF Unit and remove it.



■ After Replacement

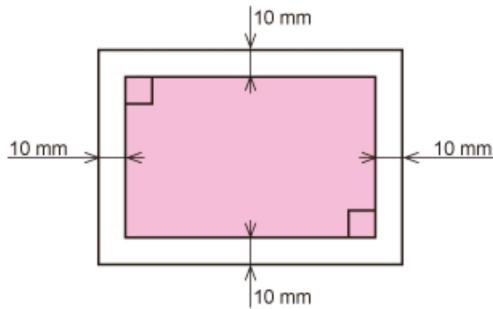
<Prepare before Adjustment>

Prepare a test chart. A test chart is made when there is no test chart.

A test chart is drawn the rectangle that the end of 4 is smaller by 10 mm than a paper, and a test chart is made in the form of A4 or LTR.

NOTE:

Write a character and a mark to know the direction of the copied image.



<Procedure after Replacement>

CAUTION:

When ADF was exchanged or removed from the leader, you must do all adjustment of the following six items.

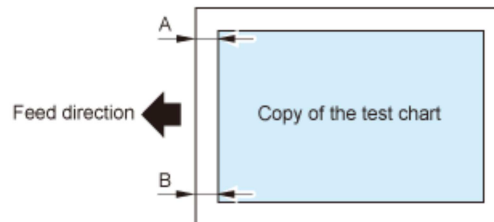
● **1. Adjustment of the Degree of a Right Angle**

- 1) Set a test chart on ADF, and give one sheet of copy.
- 2) Confirm the degree of a right angle of the image on the leading edge of the test chart and the copied form.

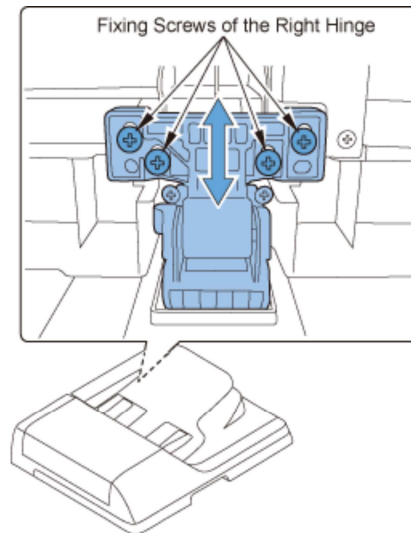
Measure the dimension of A and B at the leading edge of the copied form.

When the amount of skew is not in the following standard, adjust it from the step 3).

- Standard Value: $A - B = 0 \pm 1.5 \text{ mm}$



- 3) Loosen the 4 Fixing Screws of the Right Hinge, and then move the hinge to adjust the squareness.



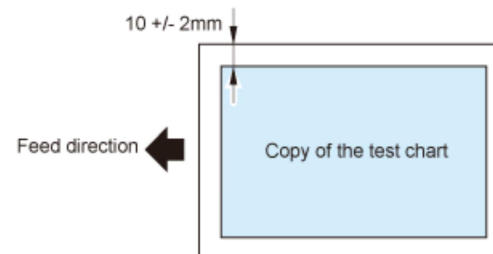
4) After completion of the adjustment, tighten the 4 Fixing Screws of the Right Hinge you loosened in step 3).

● 2. Adjustment of the Image Position (Horizontal Scanning Direction)

- 1) Set a test chart on ADF, and give one sheet of copy.
- 2) Compare the horizontal registration of the test chart and the copy of the test chart.

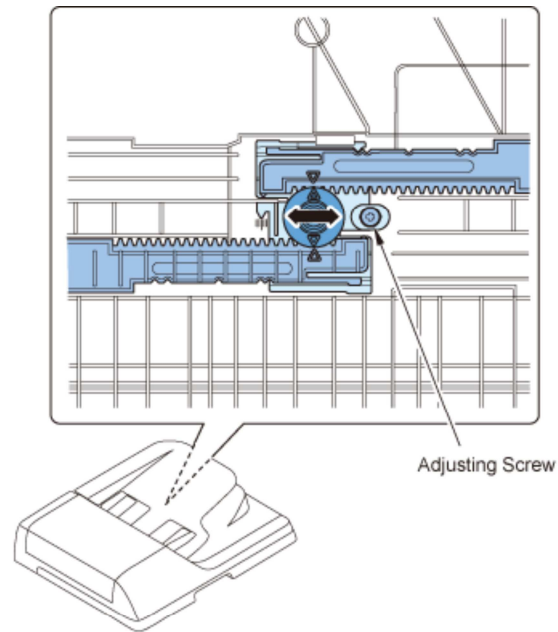
When the horizontal registration is not in the following standard, adjust it with a process of <Mechanical Adjustment> or <Service Mode Adjustment>.

- Standard Value: within 10 +/- 2 mm



<Mechanical Adjustment>

- 1) Loosen the Adjusting Screw of the Original Pickup Tray.
- 2) Move the slide guide in front/rear with reference to the scale marks.
 - When a copied image moves to the rear: Move the slide guide in the front.
 - When a copied image moves to the front: Move the slide guide in the rear.



3) After completion of the adjustment, tighten the Adjusting Screws you loosened in step 1).

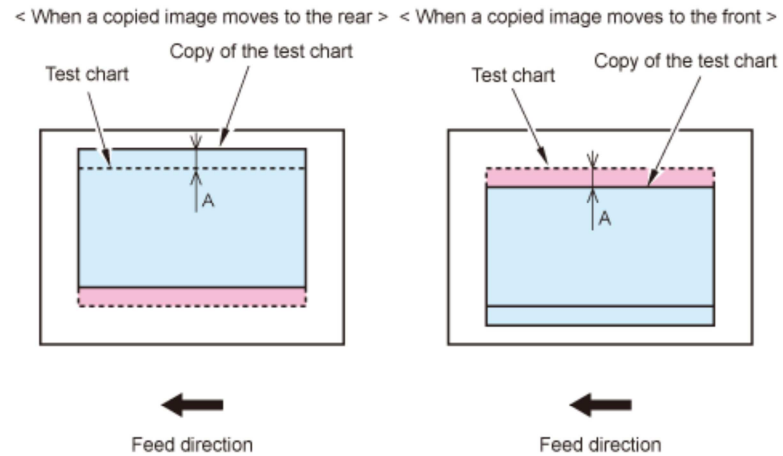
<Service Mode Adjustment>

1) Select the item in the service mode.

(LV.1) COPIER> ADJUST> ADJ-XY> ADJ-Y-DF

2) Input value, and adjust an image.

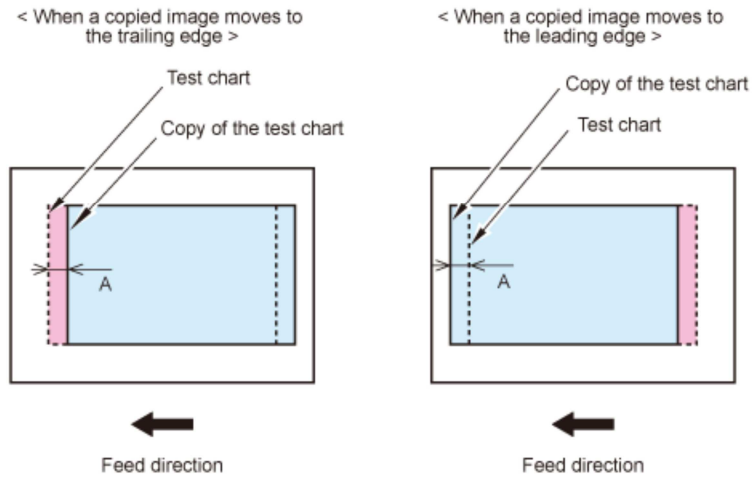
- When a copied image moves to the rear: Increase value
- When a copied image moves to the front: Decrease value
- Adjustment unit: 0.1 mm



- 3) Write the new changed value in the service label.
- 4) Exit the service mode.

● 3. Adjustment of the Image Position (Vertical Scanning Direction)

- 1) Set a test chart on ADF, and give one sheet of copy.
- 2) Compare the leading edge registration of the test chart and the copy of the test chart.
Carry out the following process when adjustment is necessary.
- 3) Select the item in the service mode.
(LV.1) FEEDER> ADJUST> DOCST
- 4) Input value, and adjust an image.
 - When a copied image moves to the trailing edge: Increase value
 - When a copied image moves to the leading edge: Decrease value
 - Adjustment unit: 0.1 mm



5) Write the new changed value in the service label.

6) Exit the service mode.

CAUTION:

Confirm that the Degree of a Right Angle is correct after you finish this adjustment.

Adjust again from the Adjustment of the Degree of a Right Angle when the Degree of a Right Angle is not correct.

● **4. Fine Adjustment of Image Magnification (1-sided/Vertical Scanning Direction)**

1) Set the image of the test chart upward in ADF, and give one sheet of copy.

2) Compare the image length of the feed direction of the test chart and the copy of the test chart.

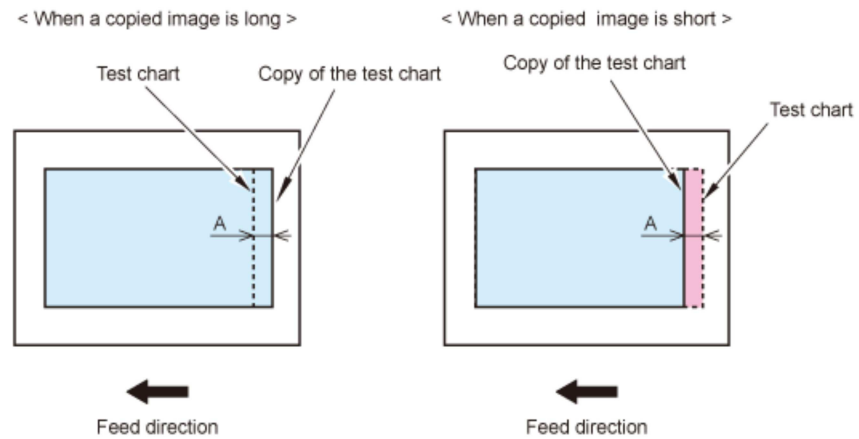
Carry out the following process when adjustment is necessary.

3) Select the item in the service mode.

(LV.1) FEEDER> ADJUST> LA-SPEED

4) Input value, and adjust an image.

- When a copied image is long: Decrease value (The feeding speed increases)
- When a copied image is short: Increase value (The feeding speed decreases)
- Adjustment unit: 0.1 %



5) Write the new changed value in the service label.

6) Exit the service mode.

● 5. Fine Adjustment of Image Magnification (2-sided/Vertical Scanning Direction)

1) Set the image of the test chart downward in ADF, and give one sheet of copy.

2) Compare the image length of the feed direction of the test chart and the copy of the test chart.

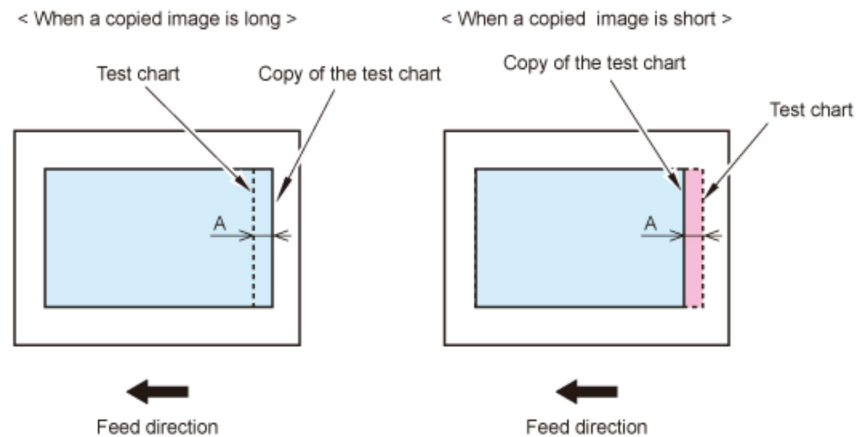
Carry out the following process when adjustment is necessary.

3) Select the item in the service mode.

(LV.1) FEEDER> ADJUST> LA-SPD2

4) Input value, and adjust an image.

- When a copied image is long: Decrease value (The feeding speed increases)
- When a copied image is short: Increase value (The feeding speed decreases)
- Adjustment unit: 0.1 %



5) Write the new changed value in the service label.

6) Exit the service mode.

● 6. Adjustment the White Level for ADF Scanning

1) Take the action stated below in the service mode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1/2/3/4 (White level adj in book/ADF mode)

1-1) Place a sheet of paper that the user usually uses on the Copyboard Glass, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1

Read the white level (B&W) in the BOOK mode. (Check the transparency of the Copyboard Glass)

1-2) Place a sheet of paper that the user usually uses on the ADF, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL2

Read the white level (B&W) in the ADF mode. (Check the transparency of the ADF Reading Glass.)

1-3) Place a sheet of paper that the user usually uses on the Copyboard Glass, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL3

Read the white level (Color) in the BOOK mode. (Check the transparency of the Copyboard Glass)

1-4) Place a sheet of paper that the user usually uses on the ADF, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL4

Read the white level (Color) in the ADF mode. (Check the transparency of the ADF Reading Glass.)

NOTE:

The result of the adjustment is reflected to COPIER> ADJUST> CCD> DFTAR-K/ DFTAR-R/ DFTAR-G/ DFTAR-B.

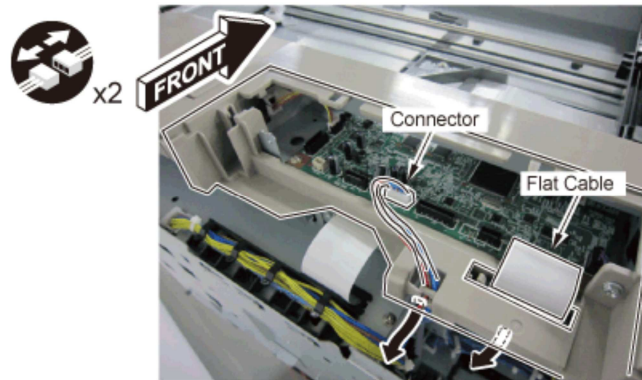
Removing the Reader Unit

■ Preparation

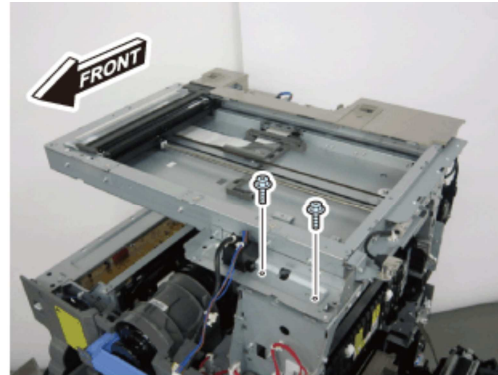
- 1) Remove the ADF Unit.[\(Reference\)](#)
- 2) Remove the Rear Cover.[\(Reference\)](#)
- 3) Remove the Delivery Outer Cover.[\(Reference\)](#)
- 4) Remove the Left Cover.[\(Reference\)](#)
- 5) Remove the Inner Rear Cover.[\(Reference\)](#)
- 6) Remove the Delivery Inner Cover.[\(Reference\)](#)
- 7) Remove the Reader Front Cover.[\(Reference\)](#)
- 8) Remove the Right Front Cover.[\(Reference\)](#)
- 9) Remove the Support Column Cover.[\(Reference\)](#)
- 10) Remove the Reader Bottom Cover.[\(Reference\)](#)
- 11) Remove the Control Panel Unit.[\(Reference\)](#)

■ Procedure

- 1) Disconnect the connector and the Flat Cable, and pull them out to the part at the lower side of the Reader Rear Cover.

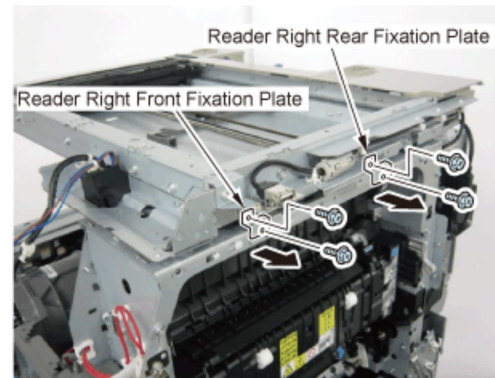


- 2) Pass the Flat Cable through the hole of the plate and downward.
- 3) Remove the 2 Screws



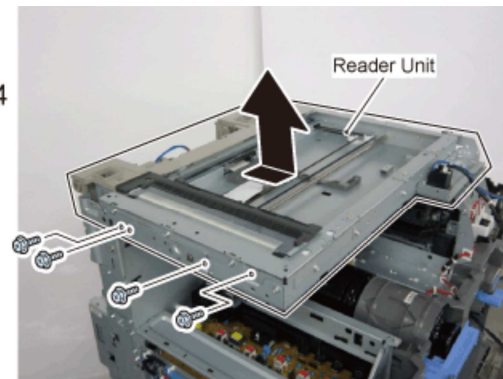
4) Remove the Reader Right Front Fixation Plate and the Reader Right Rear Fixation Plate .

- 4 Screws



5) Remove the Reader Unit.

- 4 Screws



Removing the Reader Controller PCB

NOTE:

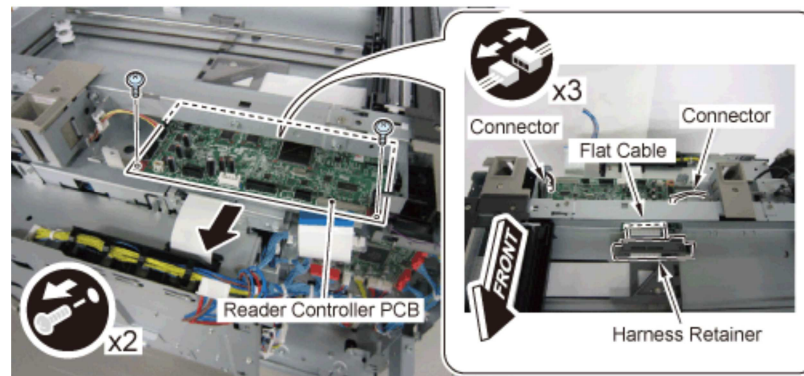
The Reader Controller PCB does not memorize a reader-related service mode.
Therefore the measures after replacing the Reader Controller PCB are not necessary.

■ Preparation

- 1) Remove the ADF Unit.[\(Reference\)](#)
- 2) Remove the Rear Cover.[\(Reference\)](#)
- 3) Remove the Delivery Outer Cover.[\(Reference\)](#)
- 4) Remove the Left Cover.[\(Reference\)](#)
- 5) Remove the Reader Rear Cover.[\(Reference\)](#)
- 6) Remove the Copyboard Glass.[\(Reference\)](#)

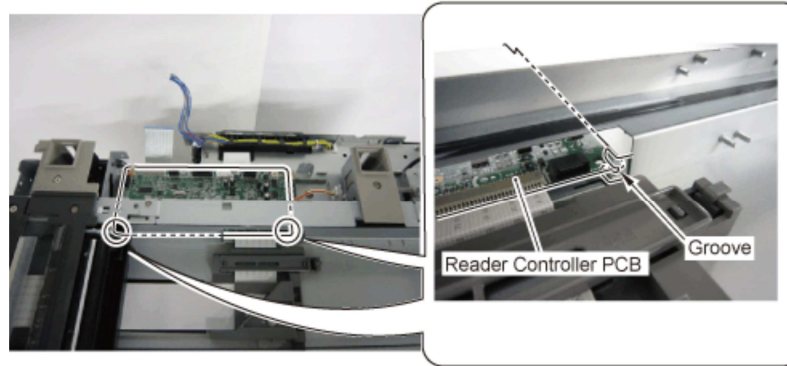
■ Procedure

- 1) Remove the Reader Controller PCB.
 - 1 Harness Retainer
 - 2 Connectors
 - 1 Flat Cables
 - 2 Screws



CAUTION:

Fit the Reader Controller PCB into the 2 grooves of the plate when assembling.



Removing the CIS Unit

■ Preparation

- 1) Remove the Copyboard Glass. ([Reference](#))

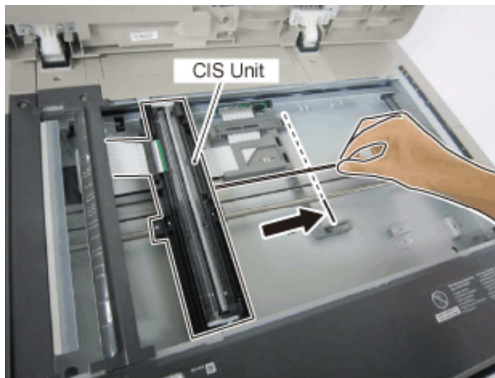
■ Procedure

CAUTION:

- Be sure not to touch the Document Reading Part of the CIS Unit when disassembling/assembling.

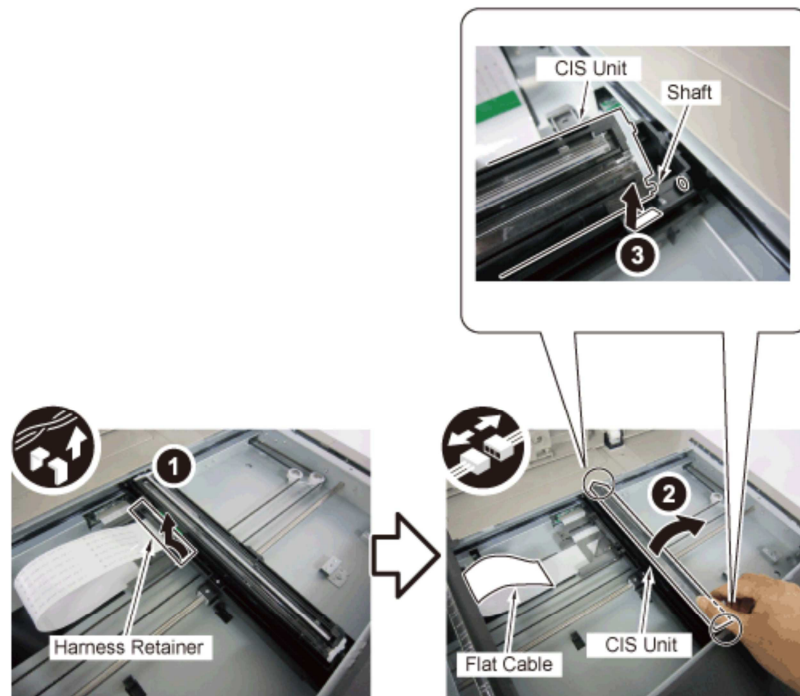


- 1) Move the CIS Unit to the center.



2) Remove the CIS Unit.

- 1 Harness Retainer
- 1 Flat Cable
- 2 Shafts



■ After Replacement

1. When uploading of backup data succeeds before replacement.

1) Restoring the backup data

(Lv.2) COPIER> FUNCTION> SYSTEM> RSRAMRES

2) After turn OFF/ON the main power switch, make a copy and check the copied image.

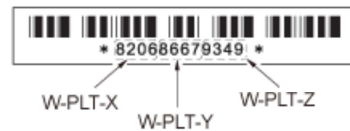
2. When uploading of backup data fails before replacement.

1) Enter the value indicated on the platen glass as shown in the following service mode:

(Lv.1) COPIER> ADJUST> CCD> W-PLT-X/Y/Z (White level data entry of white plate)

CAUTION:

Be sure to make the white plate data adjustment before ADF white level adjustment.



2) Write down the new numerical value in the service label.

3) Take the action stated below in the service mode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1/2/3/4 (White level adj in book/ADF mode)

3-1) Place a sheet of paper that the user usually uses on the Copyboard Glass, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1

Read the white level (B&W) in the BOOK mode. (Check the transparency of the Copyboard Glass)

3-2) Place a sheet of paper that the user usually uses on the ADF, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL2

Read the white level (B&W) in the ADF mode. (Check the transparency of the ADF Reading Glass.)

3-3) Place a sheet of paper that the user usually uses on the Copyboard Glass, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL3

Read the white level (Color) in the BOOK mode. (Check the transparency of the Copyboard Glass)

3-4) Place a sheet of paper that the user usually uses on the ADF, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL4

Read the white level (Color) in the ADF mode. (Check the transparency of the ADF Reading Glass.)

NOTE:

The result of the adjustment is reflected to COPIER> ADJUST> CCD> DFTAR-K/ DFTAR-R/ DFTAR-G/ DFTAR-B.

4) Take the action stated below in the service mode.

(Lv.1) COPIER> FUNCTION> CCD> CCD-ADJ (Adjustment of CIS gain/offset of CIS)

4-1) Place 10 or more sheets of standard white paper (The whitest paper form which a user is using except for the color paper.) on the Copyboard Glass.

- 4-2) Select this item and press OK key.
- 4-3) The auto-adj is performed for about 30 sec. <ACTIVE> is displayed on the LCD.
- 4-4) <OK!> is displayed and the auto-adj is completed.
- 4-5) Turn OFF/ON the main power switch.

CAUTION:

When turning OFF/ON the main power switch is not carried out, E315-510 error (Device timeout) occurs at the time as the copy.

NOTE:

The NG is indicated after about 70 sec.

The adjusted value reflect in COPIER> DISPLAY> CCD> OFST (BW1 to BW11 and CL1 to CL11) and COPIER> DISPLAY> CCD> GAIN-BW/GAIN-CL.

- 5) Make a copy and check the copied image.

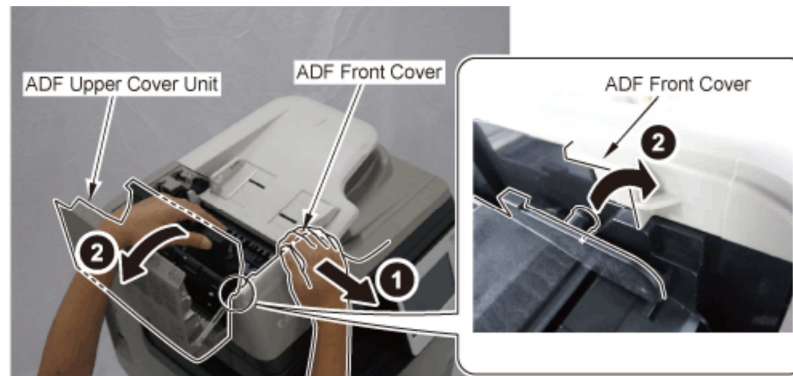
Removing the ADF Upper Cover Unit

■ Procedure

CAUTION:

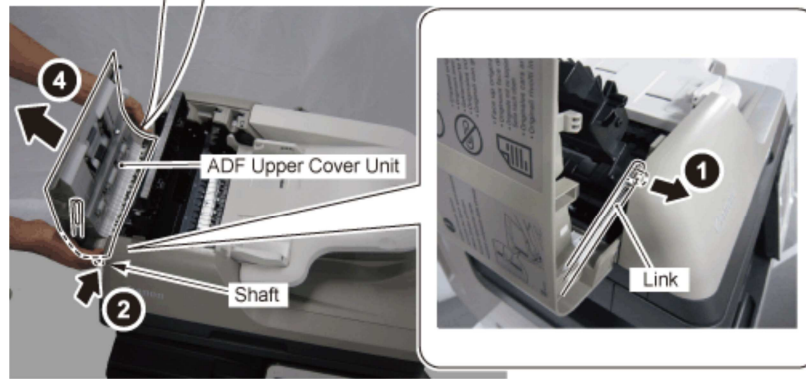
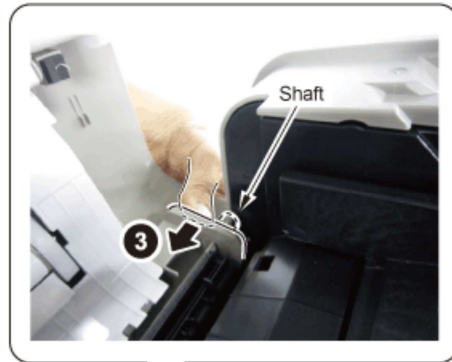
Be sure not to touch the surface of the Roller and the Pad when disassembling/assembling.

- 1) While pulling the part of the ADF Front Cover, release the part which works as an open/close stopper and open the ADF Upper Cover Unit.



- 2) Remove the ADF Upper Cover Unit.

- 1 Link
- 2 Shafts



3) Return the Pickup Upper Guide to the original position.



Removing the ADF Separation Pad

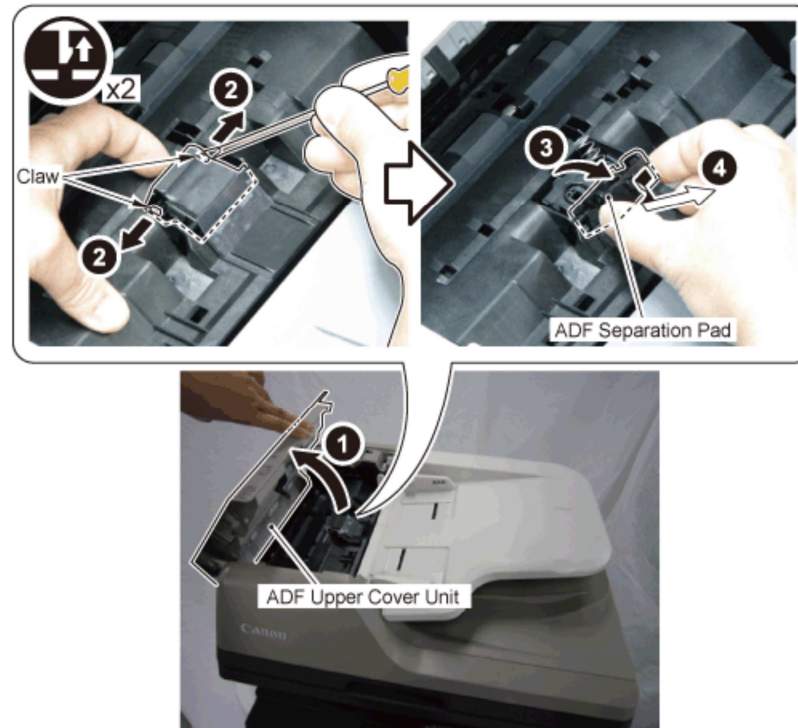
■ Procedure

CAUTION:

Be sure not to touch the surface of the pad when disassembling/assembling.

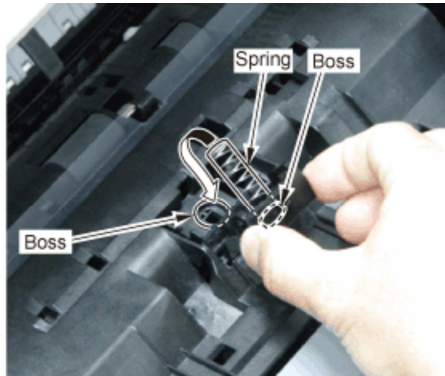
1) Open the ADF Upper Cover Unit, and remove the ADF Separation Pad.

- 2 Claws



CAUTION:

Be sure to fit the Spring of the ADF Separation Pad into the 2 bosses when assembling.



Removing the ADF Pickup Roller Unit

■ Preparation

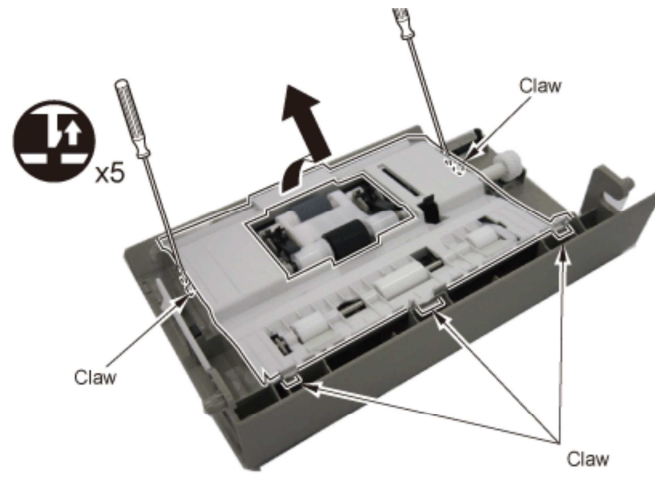
- 1) Remove the ADF Upper Cover Unit. ([Reference](#))

■ Procedure

CAUTION:

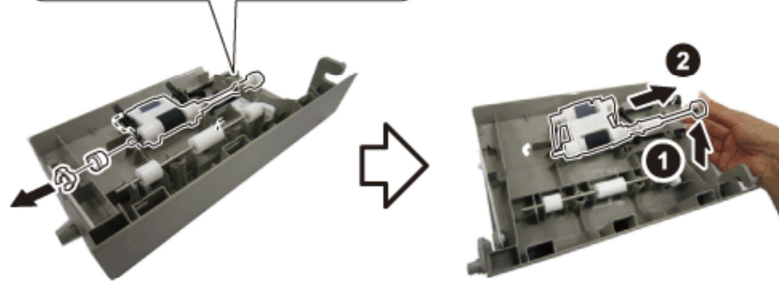
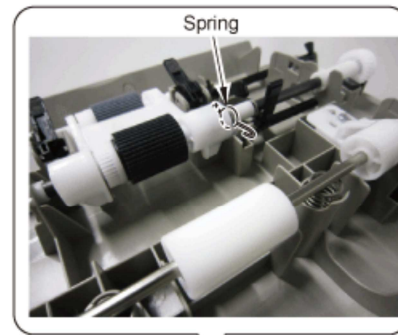
Be sure not to touch the surface of the roller when disassembling/assembling.

- 1) Remove the Pickup Upper Cover Lower Guide.
 - 5 Claws



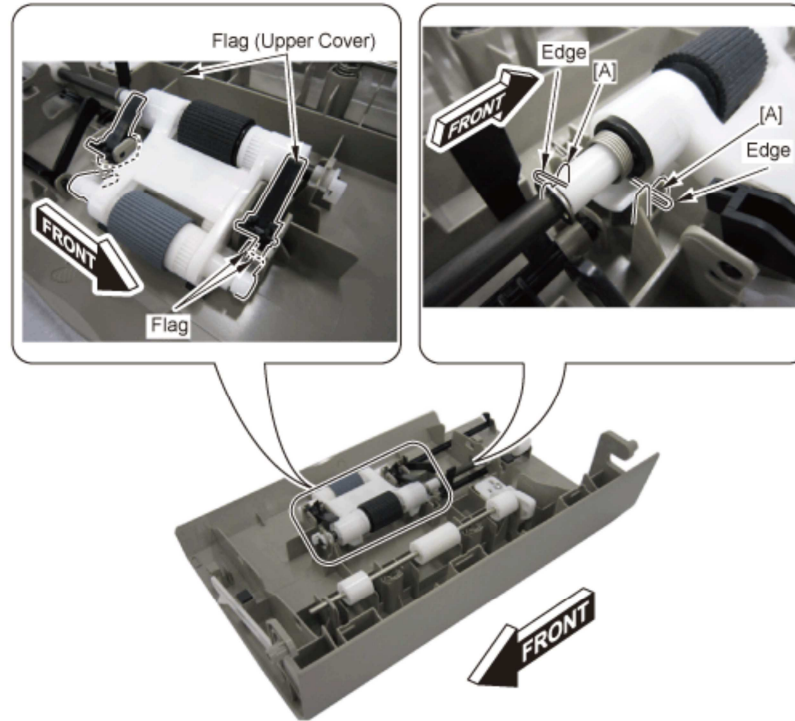
2) Remove the Pickup Roller Unit.

- 1 Clip
- 1 Bushing
- 1 Spring



CAUTION:

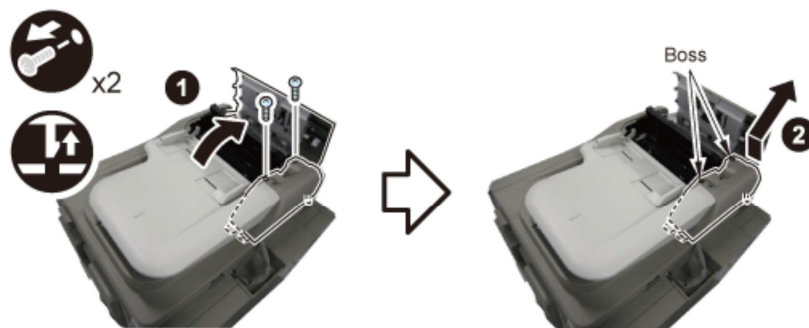
- Be sure to install the 4 flags of the ADF Pickup Roller Unit under the 2 flags of the Upper Cover Unit when assembling.
- Hook the 2 edges of the spring on the 2 grooves [A] when assembling.



Removing the Original Pickup Tray

■ Procedure

- 1) Open the ADF Upper Cover Unit, and remove the ADF Rear Cover.
 - 2 Screws
 - 1 Claw
 - 2 Bosses



2) Remove the Original Pickup Tray Unit.

- 2 Shafts



Removing the ADF Pickup Unit

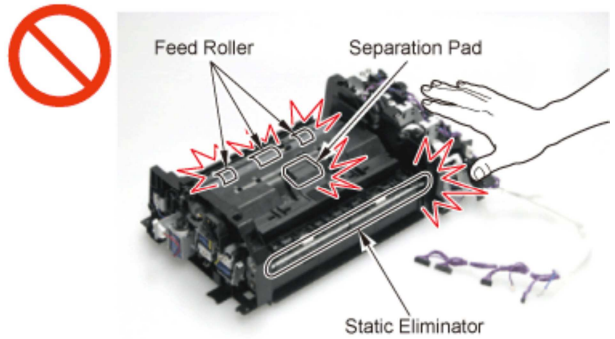
■ Preparation

- 1) Remove the ADF Upper Cover Unit.(Reference)
- 2) Remove the Original Pickup Tray.(Reference)

■ Procedure

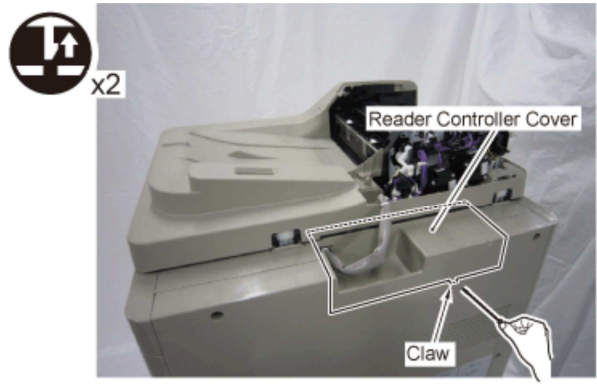
CAUTION:

Be sure not to touch the surface of the Static Eliminator, the Separation Pad and the Feed Roller when disassembling/assembling.



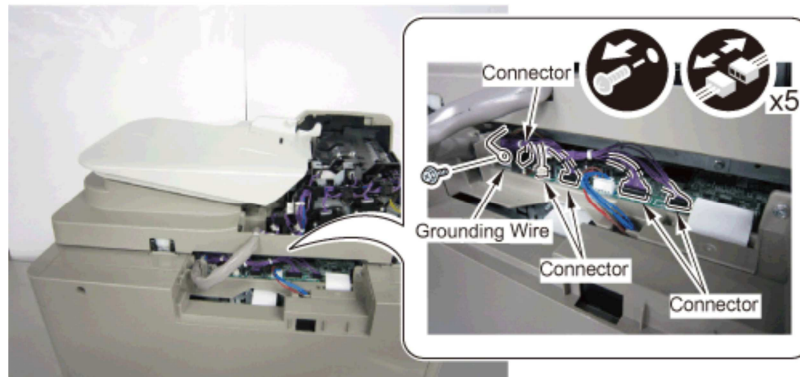
1) Remove the Reader Controller Cover.

- 1Claw



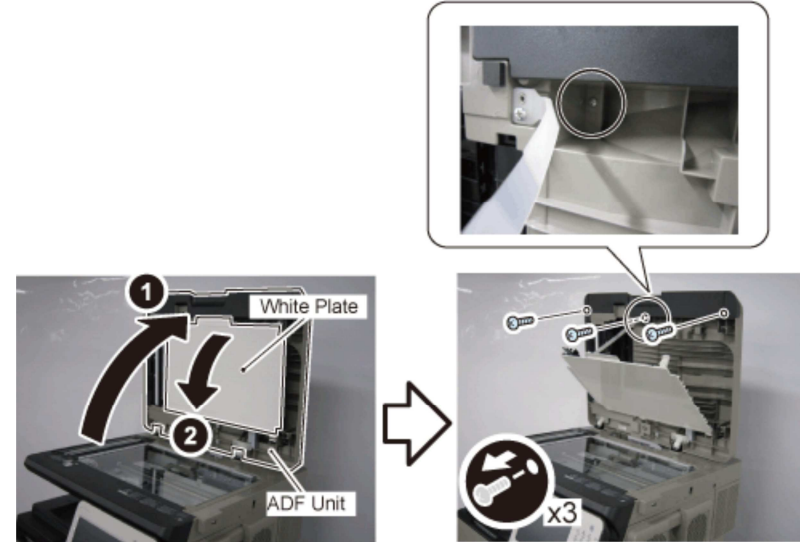
2) Remove the 5 connectors and the Grounding Wire of the ADF Harness.

- 1 Screw



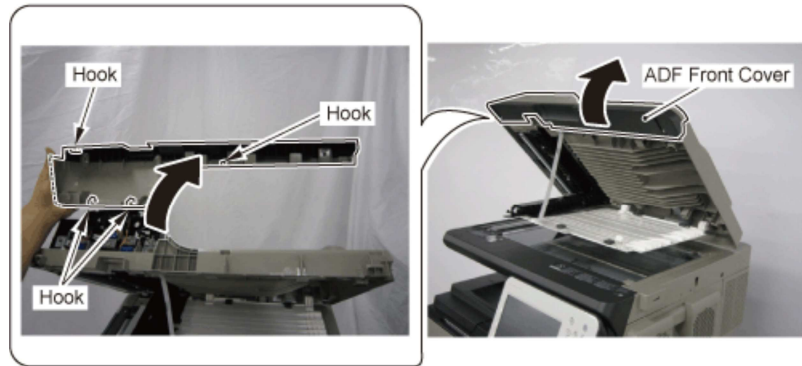
3) Open the ADF Unit.

4) Open the White Plate, and remove the 3 screws.

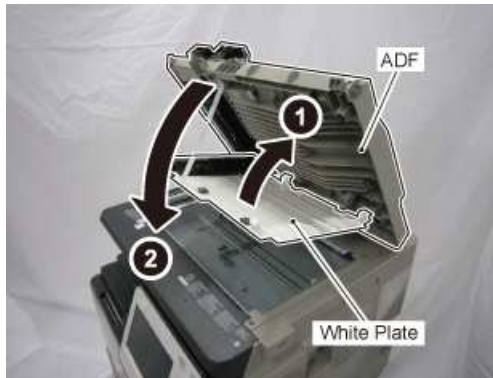


5) Remove the ADF Front Cover.

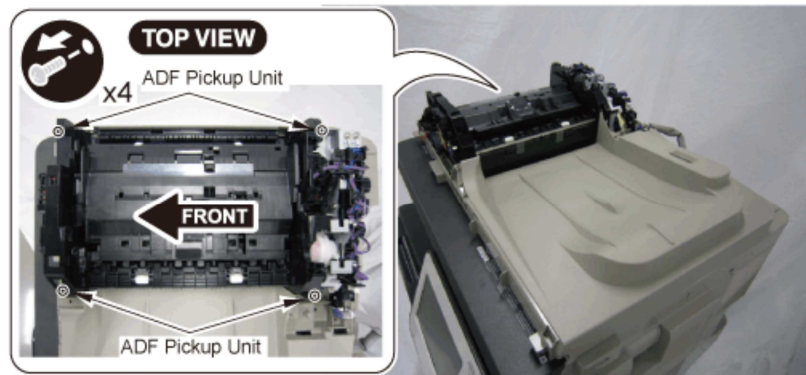
- 4 Hooks



6) Close the White Plate and the ADF.



7) Remove the 4 screws.

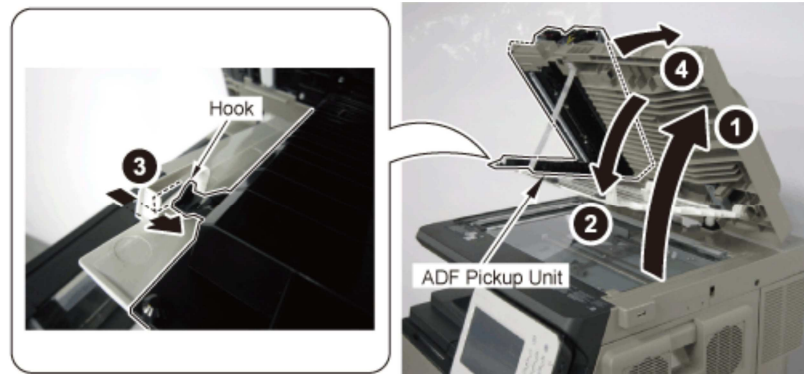


8) Remove the ADF Pickup Unit.

- 1 Hook

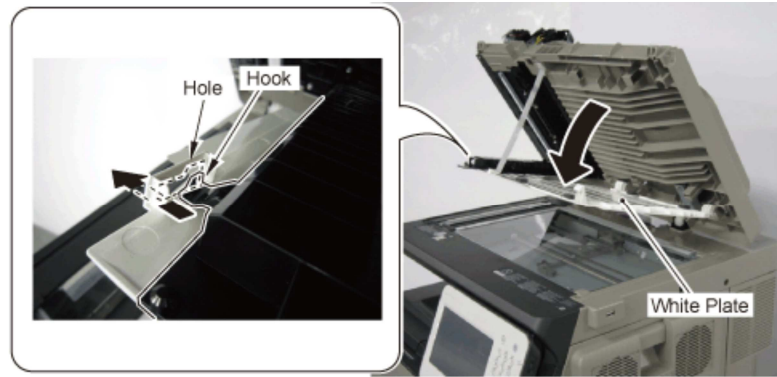
CAUTION:

When removing the ADF Pickup Unit, be careful that the ADF Unit becomes open due to its own weight becoming smaller.



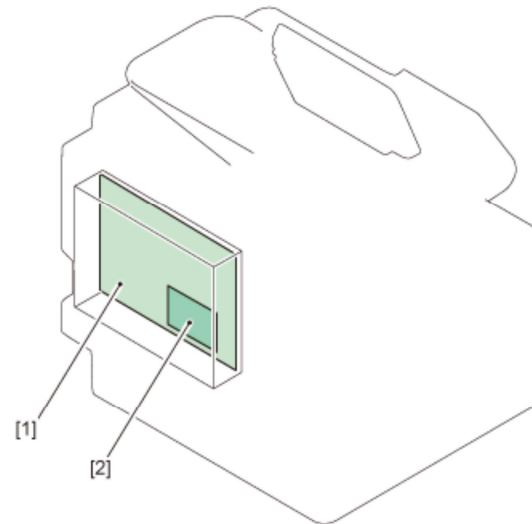
CAUTION:

When installing the ADF Pickup Unit, be sure to open the ADF Lower Guide and hook the hook at the lower side on the hole of the White Plate.



Main Controller System

Location



No.	Name	Main Unit	Reference	Adjustment during parts replacement
[1]	Main Controller PCB	Main Unit	(Reference)	
[2]	HDD Unit	Main Unit	(Reference)	

Reamoving the Main Controller PCB

■ Preparation before Replacement

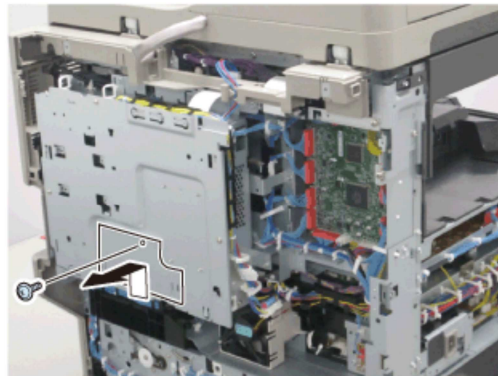
- 1) Backup of the set/registered dataUse the Remote UI.
Use the Remote UI: Management Settings > Data Management > Import/Export
Target data:
 - Address List
 - Forwarding Settings
- 2) Printing the set/registered data
Use the service mode : (Lv.1) COPIER > FUNCTION > MISC-P > USER-PRT
List of the set/registered data which cannot be backed up is printed."

■ Preparation

- 1) Remove the Reader Controller Cover. ([Reference](#))
- 2) Remove the Rear Cover. ([Reference](#))

■ Procedure

- 1) Remove the Main Controller Sub Cover.
 - 1 Screw



- 2) Remove the Main Controller Cover.
 - 2 Connectors
 - 4 Screws

NOTE:

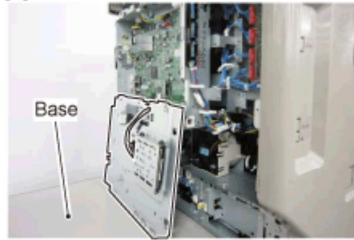
The HDD Unit is being installed on the Main Controller Cover.



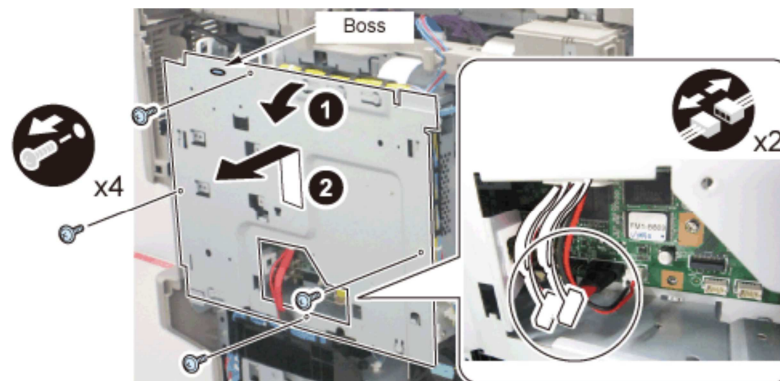
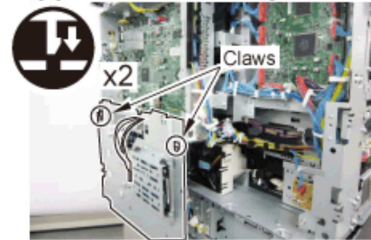
NOTE:

When the operation is done with the Main Controller Cover opened, the condition of [A] or [B] can do.

[A].When the Cover is rested on the base.

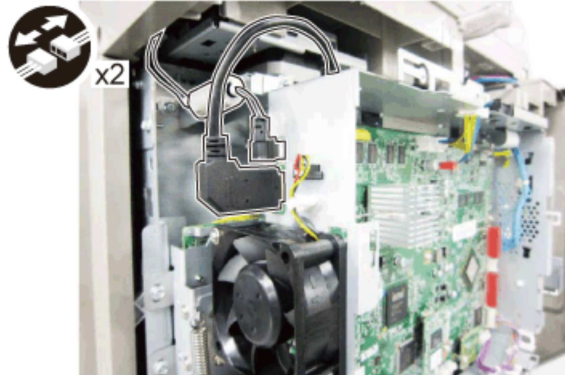


[B].When the Cover is caught in the claw.



3) Disconnect the USB Cable and the Control Panel Communication Cable.

- 2 Connectors

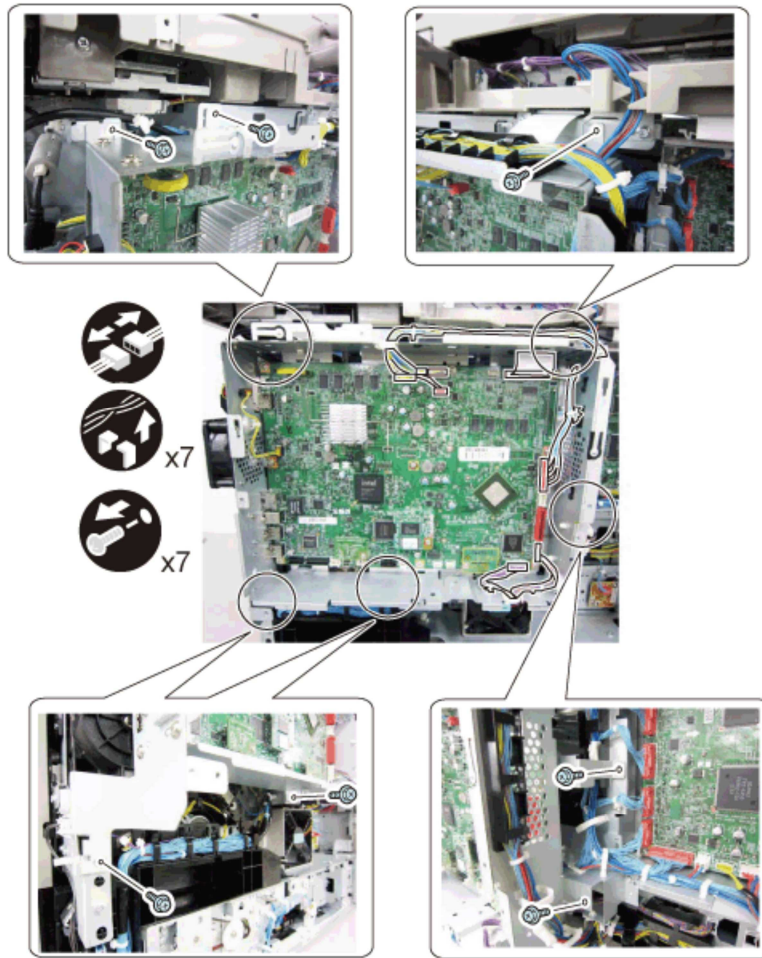


4) Remove the Main Controller Unit.

- Disconnect all connectors on the Main Controller PCB.
- 3 Wire Saddles
- 3 Edge Saddles
- 2 Harness Guides
- 5 Reuse Bands
- 7 Screws

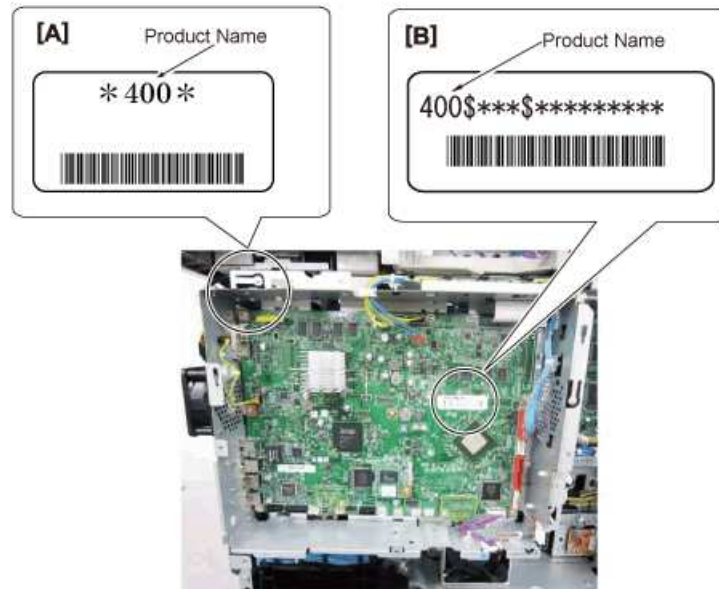
NOTE:

When the FAX Unit is being installed, perform the operation after remove the Fax Unit.



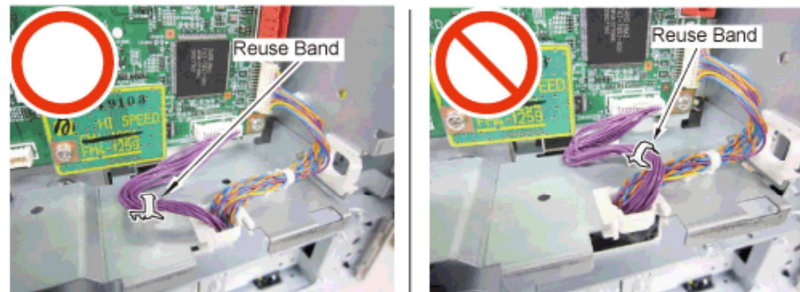
CAUTION:

When installing the Controller Unit, install the Controller Unit that the Speed Label is the same as the Product Name.
The Speed Label is being pasted on [A] or [B].



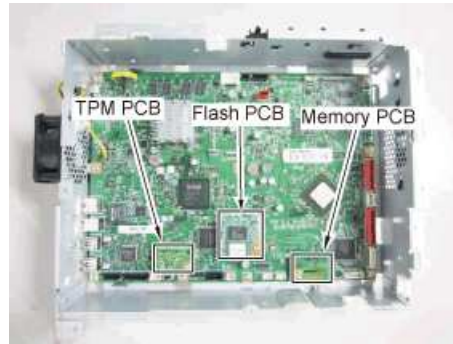
NOTE:

When the reuse band is installing as shown, do not mistake the place to install it.



■ **After Replacement**

- 1) Transfer the parts from old PCB to new PCB.
 - TPM PCB
 - Flash PCB
 - Memory PCB



CAUTION:

Do not transfer the following parts to another machine (a machine of a different serial number.).

The machine will not start up normally, and may become unrecoverable in some cases.

- Main Controller PCB
- Flash PCB
- Memory PCB

2) After installing the parts, turn ON the main power switch.

3) Restoring the backup data

Use the Remote UI : Management Settings > Data Management > Import/Export

4) Resetting/registering the data

While referring to the list of set/registered data which was printed before replacement, reset/register the data.

5) When the user generates and adds the encryption key, certificate and/or CA certificate, request the user to generate them again.

Reamoving the HDD Unit

■ Preparation before Replacement

1) Backup of the set/registered data

Use the Remote UI : Management Settings > Data Management > Import/Export

Target data:

- Address List
- Forwarding Settings
- Web Access Favorites

2) Printing the set/registered data

Use the service mode : (Lv.1) COPIER > FUNCTION > MISC-P > USER-PRT

List of the set/registered data which cannot be backed up is printed."

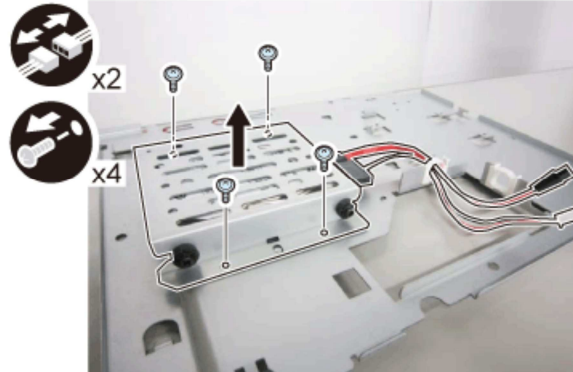
- 3) Use SST to upload Meapback.bin to the Flash PCB on the Main Controller.
(When Meapback.bin cannot be uploaded, use another method. Refer to Backup Data.)

■ Preparation

- 1) Remove the Reader Controller Cover. ([Reference](#))
- 2) Remove the Rear Cover. ([Reference](#))
- 3) Remove the Main Controller Sub Cover. ([Reference](#))
- 4) Remove the Main Controller Cover. ([Reference](#))

■ Procedure

- 1) Remove the HDD Unit.
 - 2 Connectors
 - 4 Screws



NOTE:

When Installing the HDD Unit, reuse the connector removed with step 1).

■ After Replacement

- 1) HDD format
 - 1-1) Start with the safe mode. (While pressing 2 and 8 keys simultaneously, turn ON the main power switch.)
 - 1-2) Use SST to format all partitions.
- 2) Initializing the key, certificate and CA certificate
(Lv.2) COPIER > FUNCTION > CLEAR > CA-KEY
- 3) Turning OFF and ON the main power switch
- 4) Restoring the backup data

Use the Remote UI : Management Settings > Data Management > Import/Export

5) Restore the backup data.

5-1) Use RUI: Management Settings > Data Management > Import/Export

5-2) Download Meapback.bin using SST.

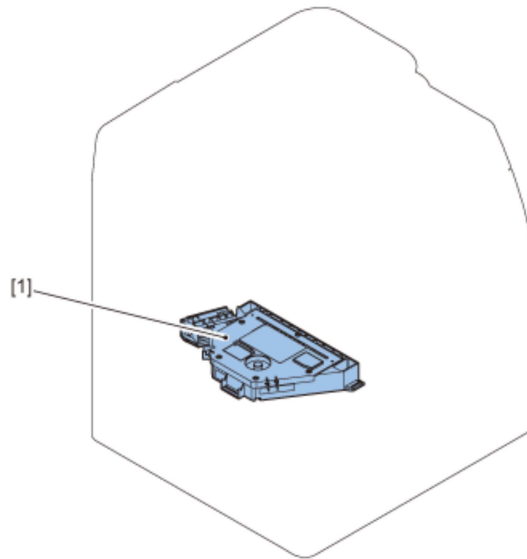
6) Resetting/registering the data

While referring to the list of set/registered data which was printed before replacement, reset/register the data.

7) When the user generates and adds the encryption key, certificate and/or CA certificate, request the user to generate them again.

Laser Exposure System

Location



No.	Name	Main Unit	Reference	Adjustment during parts replacement
[1]	Laser Scanner Unit	Main Unit	(Reference)	(Reference)

Removing the Laser Scanner Unit

■ Preparation

1) Remove the Rear Cover.[\(Reference\)](#)

2) Remove the Delivery Outer Cover.[\(Reference\)](#)

3) Remove the Left Cover.([Reference](#))

4) Remove the HVT PCB.([Reference](#))

■ Procedure

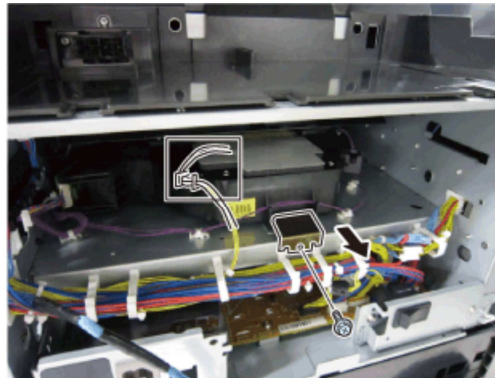
CAUTION:

Be sure not to disassemble the Laser Scanner Unit because it requires adjustment.

1) Remove the Laser Scanner Fixation Plate.

- 1 Screw

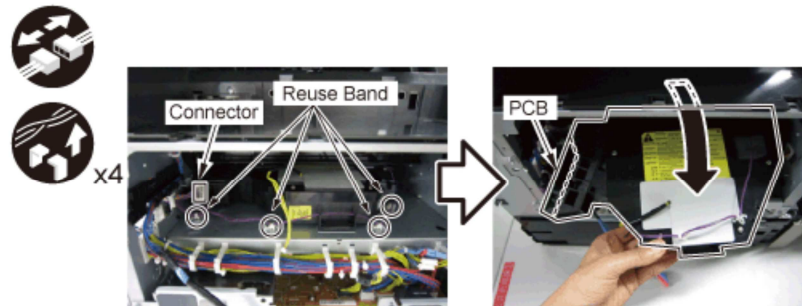
2) Free the harness from the guide.



3) Remove the 3 Reuse Bands and the connector, and pull out the Laser Scanner Unit to the front.

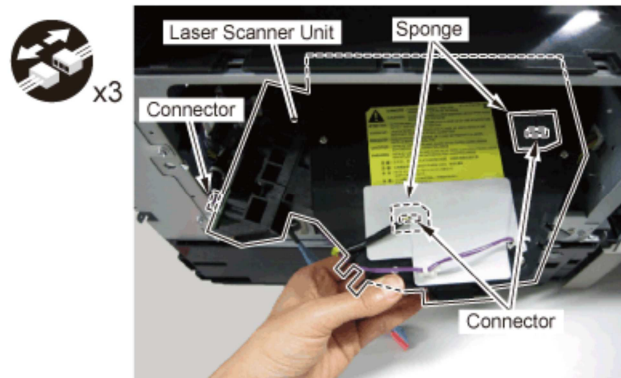
CAUTION:

When disassembling/assembling, be careful not to touch the PCB [4] installed in the Laser Scanner Unit. (Touching the PCB may change the adjustment value as the PCB is equipped with laser intensity adjustment volume resistor.)



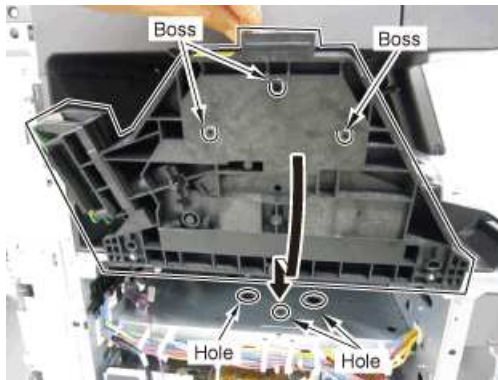
4) Remove the Laser Scanner Unit.

- 2 Sponges
- 3 Connectors



CAUTION:

Be sure to fit the 3 bosses of the Laser Scanner Unit into the 3 holes of the plate of the host machine when assembling.



■ After Replacement

1) When replacing the laser unit, enter the values recorded on the label affixed to the laser unit to be replaced for the following in the service mode:



Trailing edge OFF adjustment for the laser:

A. (LV1) COPIER> ADJUST> LASER> PVE-OFST> 136

Magnification between the lasers:

B. (LV1) COPIER> ADJUST> LASER> LDADJ1-K> -10

C. (LV1) COPIER> ADJUST> LASER> LDADJ2-K> 0

D. (LV1) COPIER> ADJUST> LASER> LDADJ3-K> 147

Phase difference between the lasers:

E. (LV1) COPIER> ADJUST> LASER> LDADJ4-K> 93

F. (LV1) COPIER> ADJUST> LASER> LDADJ5-K> 16

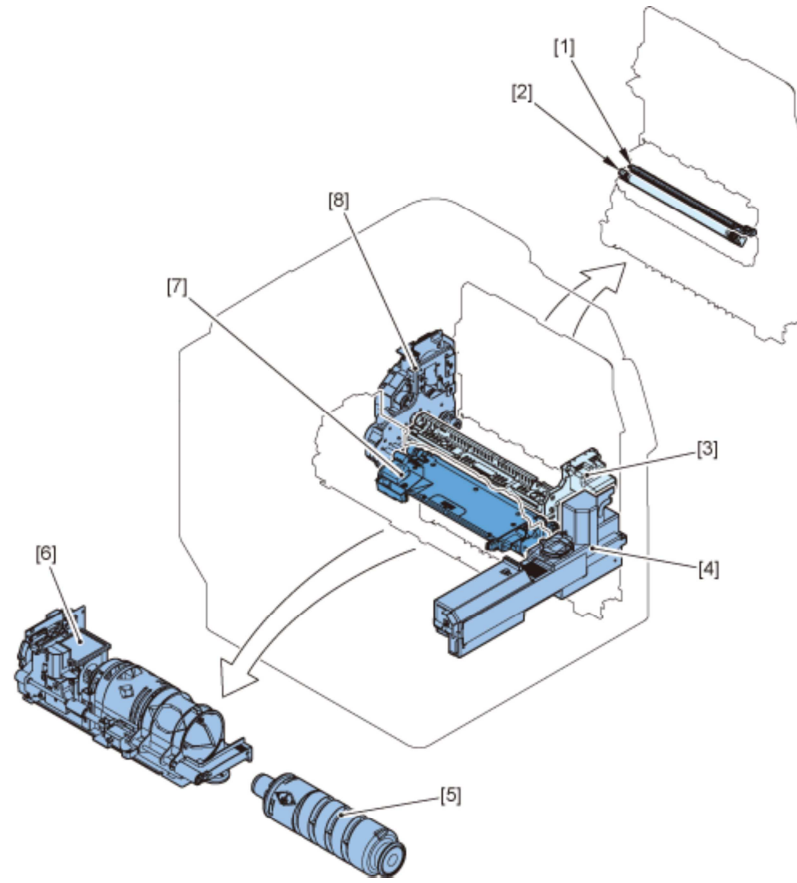
G. (LV1) COPIER> ADJUST> LASER> LDADJ6-K> 117

2) Write the new changed value in the service label.

3) Exit the service mode.

Image Formation System

Location



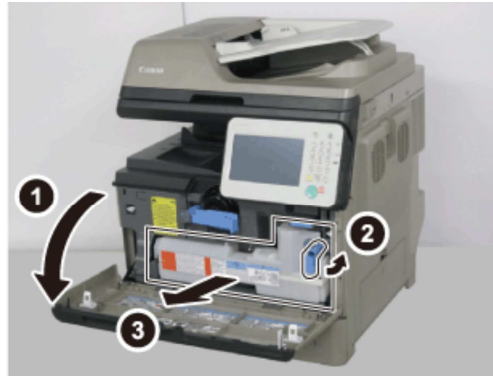
No.	Name	Main Unit	Reference	Adjustment during parts replacement
[1]	Separation Static Charge Eliminator	Transfer Unit	(Reference)	
[2]	Transfer Roller	Transfer Unit	(Reference)	
[3]	Drum Unit	Main Unit	(Reference)	
[4]	Waste Toner Container	Main Unit	(Reference)	
[5]	Toner Cartridge	Main Unit	(Reference)	
[6]	Hopper Unit	Main Unit	(Reference)	
[7]	Developing Assembly	Main Unit	(Reference)	
[8]	Main Drive Unit	Main Unit	(Reference)	

Removing the Waste Toner Container

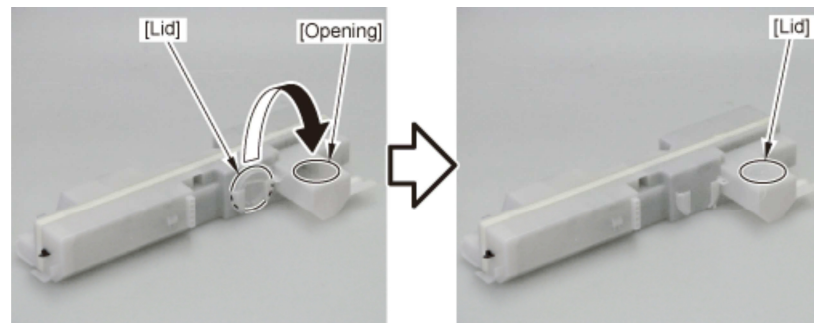
■ Procedure

● Disassembling Procedure

1) Open the Front Cover, turn the Lock Lever, and then remove the Waste Toner Container.



2) Remove the lid attached on the surface of the Waste Toner Container, and cover the opening of the container with the lid to prevent spills.



● Assembling Procedure

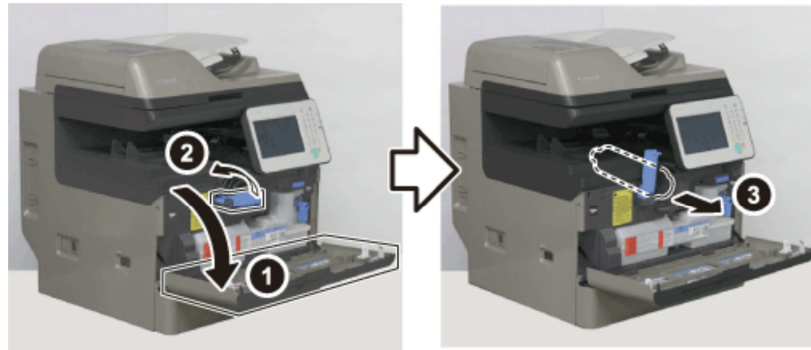
1) Install the Waste Toner Container, turn the Lock Lever, and then close the Front Cover.



Removing the Toner Cartridge

■ Procedure

1) Open the Front Cover, release the Toner Cartridge Lock Lever, and then remove the Toner Cartridge.



Removing the Drum Unit

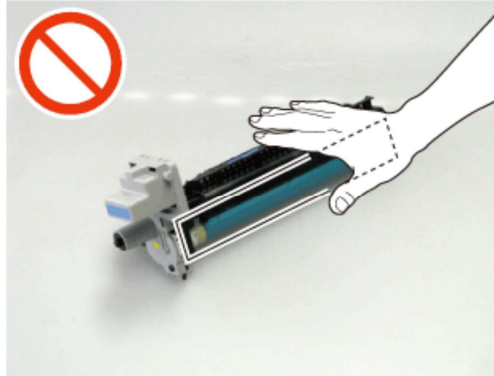
■ Preparation

1) Remove the Waste Toner Container. ([Reference](#))

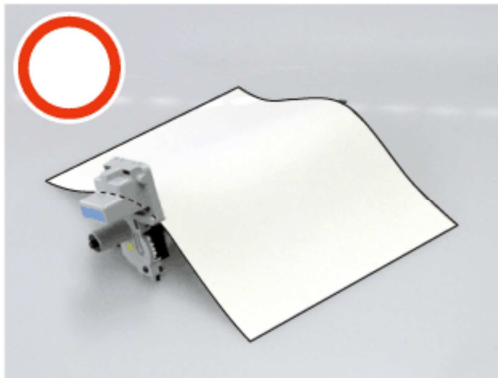
■ Procedure

CAUTION:

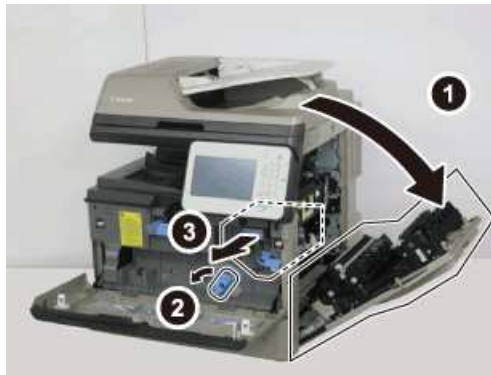
- Be sure not to touch the drum of the Drum Cartridge when disassembling/assembling.



- Be sure to block light to the removed Drum Cartridge using paper.



- 1) Open the Right Door Unit, release the Developing Pressure Lock Lever.
- 2) Remove the Drum Cartridge.



Removing the Developing Assembly

■ Preparation

- 1) Remove the Waste Toner Container. [\(Reference\)](#)
- 2) Remove the Drum Unit. [\(Reference\)](#)

■ Procedure

CAUTION:

- Place paper, and then place the Developing Assembly.
- Be sure not to tilt the Developing Assembly to prevent toner from spilling from the Toner Duct when disassembling/assembling



CAUTION:

- Be sure not to touch the Developing Cylinder when disassembling/assembling.



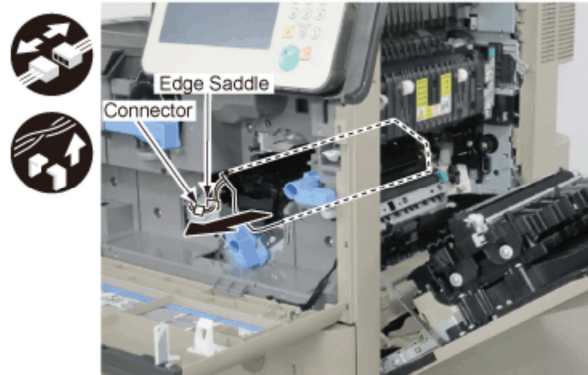
1) Remove the Developing Assembly Replacement Inner Cover.

- 2 Claws



2) Remove the Developing Assembly.

- 1 Edge Saddle
- 1 Connector



Removing the Transfer Roller

■ Procedure

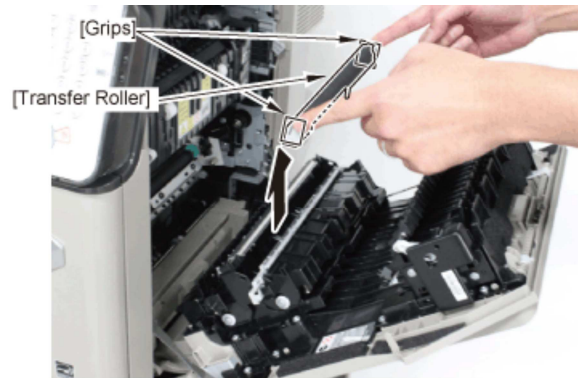
● Disassembling Procedure

CAUTION:

Be sure not to touch the surface of the Transfer Roller when disassembling/assembling.

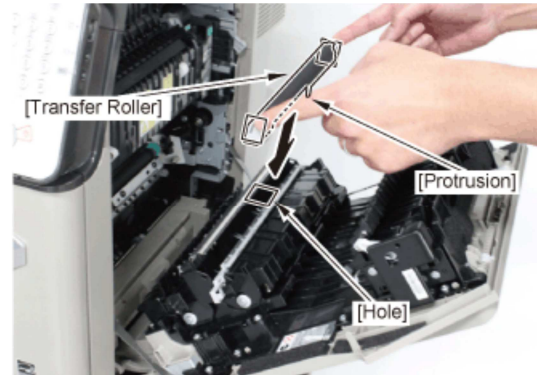


1) Open the Right Door Unit, hold the grips at the front and rear, and then remove the Transfer Roller.



● Assembling Procedure

1) Install the Transfer Roller by fitting the protrusion of the Transfer Roller Holder into the hole of the Transfer Unit.



2) Close the Right Door Unit.

Removing the Separation Static Eliminator

■ Procedure

● Disassembling Procedure

CAUTION:

Be sure not to touch the surface of the Transfer Roller when disassembling/assembling.

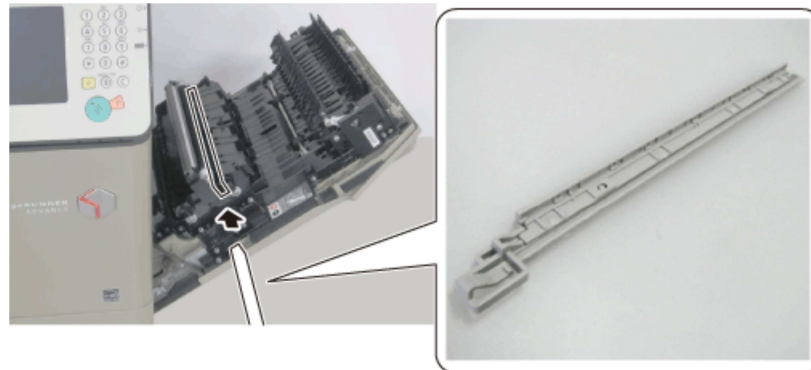


1) Open the Right Door Unit, and remove the Separation Static Eliminator.



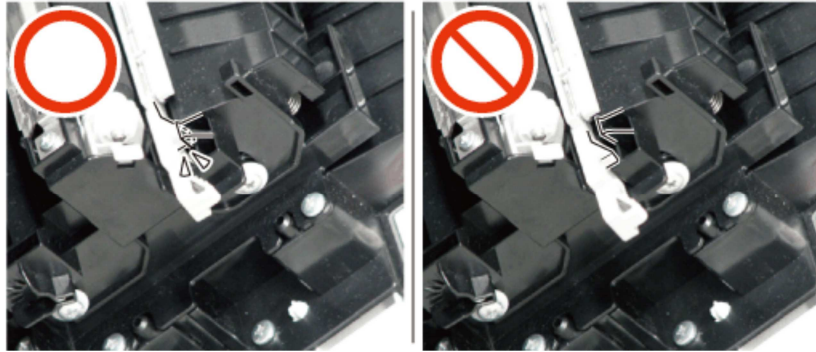
● **Assembling Procedure**

1) Install the Separation Static Eliminator.



CAUTION:

Be sure to hook the claw of the grip on the protrusion of the Transfer Unit when assembling.



2) Close the Right Door Unit.

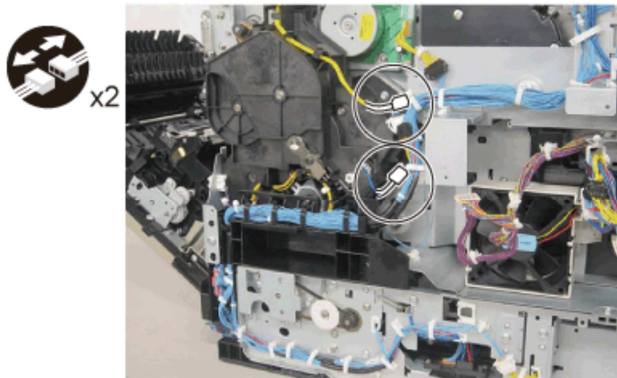
Removing the Main Drive Unit

■ Preparation

- 1) Remove the Rear Cover.[\(Reference\)](#)
- 2) Remove the Right Rear Cover.[\(Reference\)](#)
- 3) Remove the Waste Toner Container.[\(Reference\)](#)
- 4) Remove the Drum Unit.[\(Reference\)](#)
- 5) Remove the Main Controller PCB.[\(Reference\)](#)

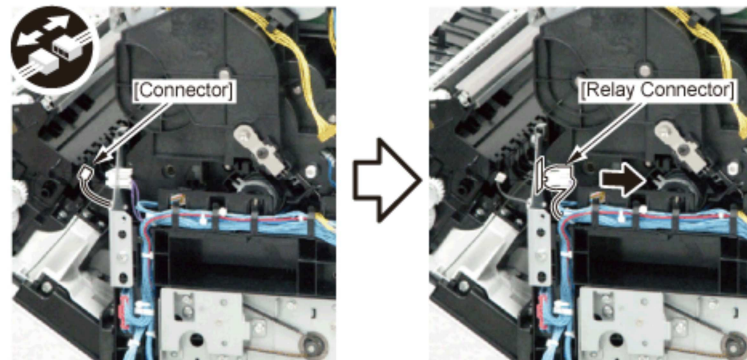
■ Procedure

- 1) Disconnect the 2 Connectors.



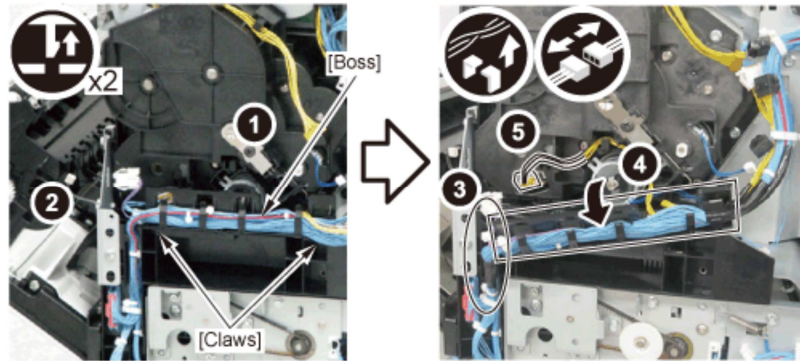
2) Disconnect the Relay Connector from the hole of the plate.

- 1 Connector



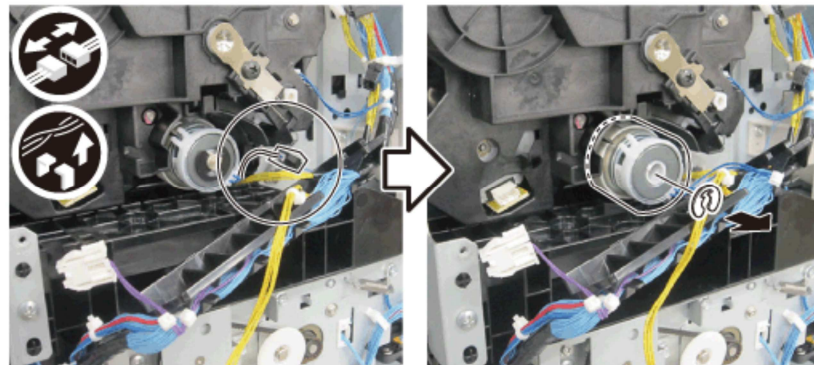
3) Remove the Harness Guide.

- 1 Boss
- 2 Claws
- 1 Connector



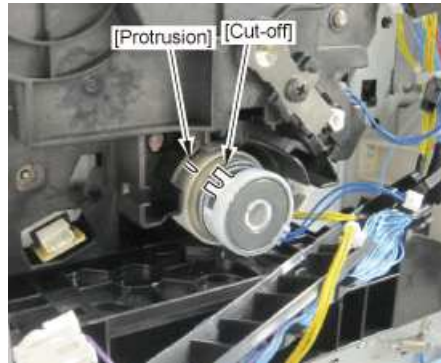
4) Remove the Registration Clutch.

- 1 Connector
- 1 E-ring



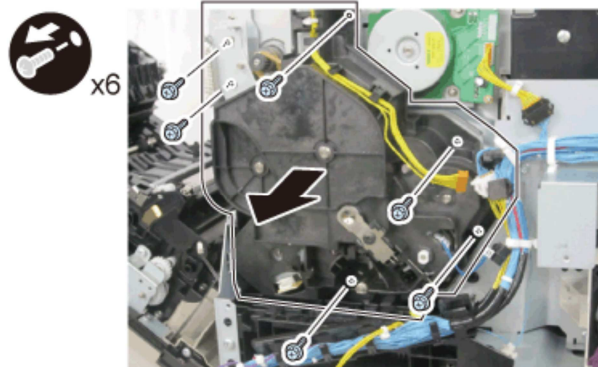
CAUTION:

When assembling the Registration Clutch, be sure to align the cut-off of the clutch with the protrusion of the Drive Unit



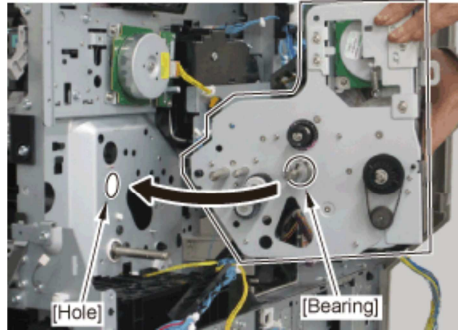
5) Remove the Drive Unit.

- 6 Screws



CAUTION:

Be sure to fit the bearing of the Drive Unit into the hole of the plate on the host machine side when assembling.



Removing the Hopper Unit

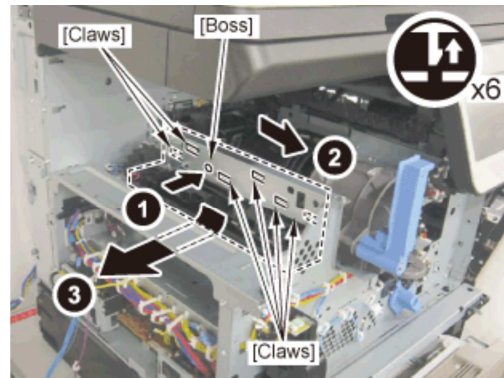
■ Preparation

- 1) Remove the Rear Cover.([Reference](#))
- 2) Remove the Delivery Outer Cover.([Reference](#))
- 3) Remove the Left Cover.([Reference](#))
- 4) Remove the Toner Cartridge.([Reference](#))
- 5) Remove the Waste Toner Container.([Reference](#))
- 6) Remove the Drum Unit.([Reference](#))
- 7) Remove the Developing Assembly.([Reference](#))
- 8) Remove the Front Cover.([Reference](#))
- 9) Remove the Fixing Assembly.([Reference](#))
- 10) Remove the Right Front Cover.([Reference](#))
- 11) Remove the Right Inner Cover.([Reference](#))
- 12) Remove the Left Inner Cover.([Reference](#))
- 13) Remove the Inner Rear Cover.([Reference](#))
- 14) Remove the Delivery Inner Cover.([Reference](#))
- 15) Remove the HVT PCB.([Reference](#))
- 16) Remove the Laser Scanner Unit.([Reference](#))

■ Procedure

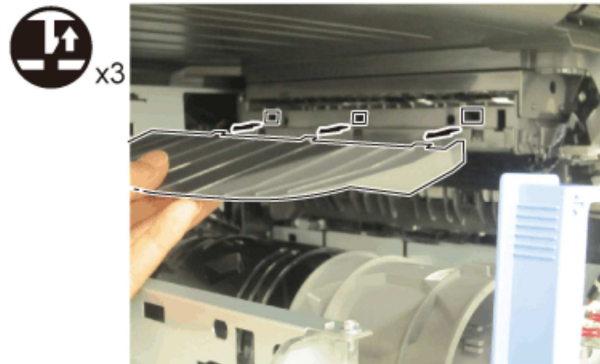
● Disassembling Procedure

- 1) Remove the High Voltage Main Guide.
 - 1 Boss
 - 6 Claws



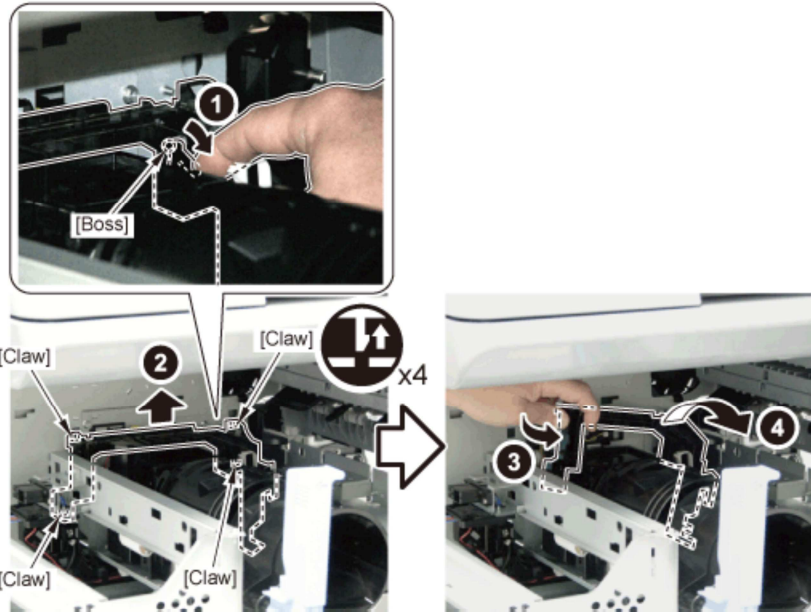
2) Remove the Reverse Tray.

- 3 Claws



3) Remove the High Voltage Upper Guide.

- 1 Boss
- 4 Claws

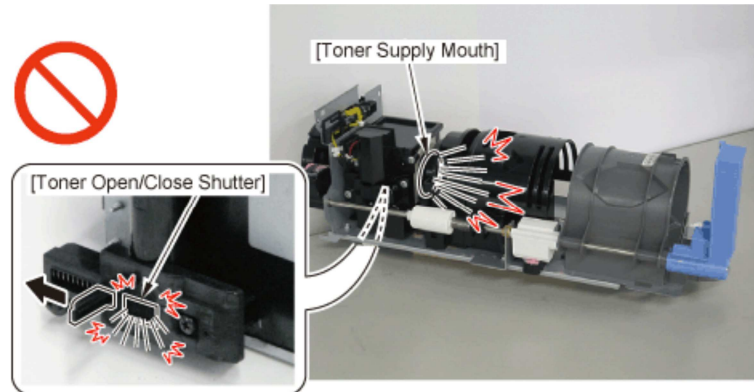


4) Remove the Hopper Unit.

- 1 Connector
- 1 Edge Saddle
- 4 Screws

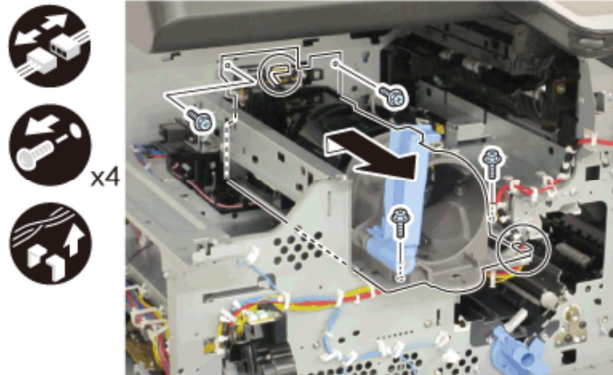
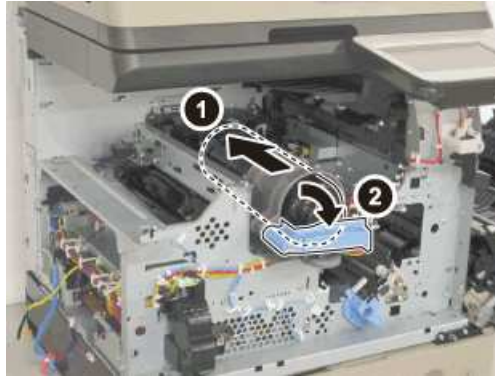
CAUTION:

When removing the Hopper Unit, be sure not to spill toner from the Toner Supply Mouth and the Toner Open/Close Shutter.



NOTE:

Since installation of the Toner Container decreases the possibility of toner scattering, it is recommended to install the Toner Container when there is no problem with it.

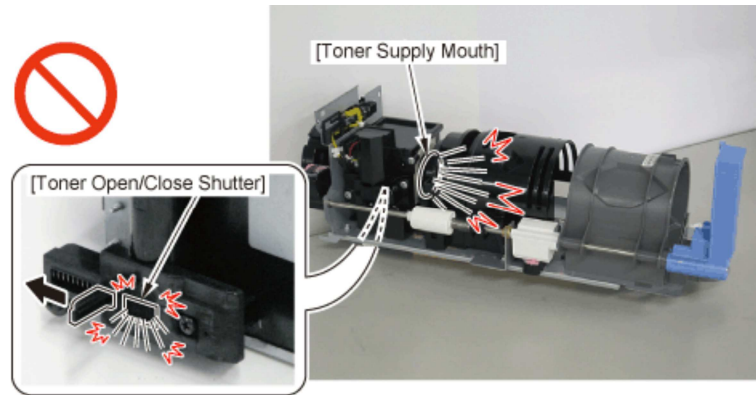


● Assembling Procedure

- 1) Install the Hopper Unit.
 - 1 Connector
 - 1 Edge Saddle
 - 4 Screws

CAUTION:

When installing the Hopper Unit, be sure not to spill toner from the Toner Supply Mouth and the Toner Open/Close Shutter.



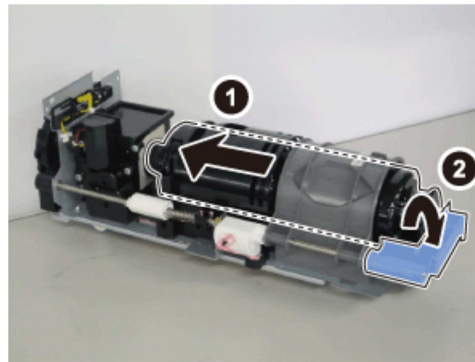
CAUTION:

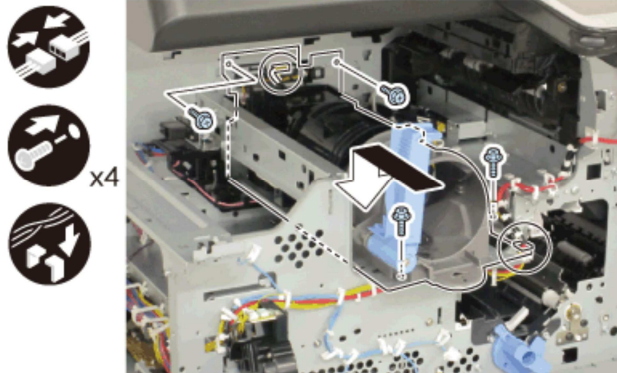
When installing the Hopper Unit with toner inside, be sure to install it after removing the Support Column Cover. There is a high possibility of toner scattering during the work if it is not removed.

Removing the Support Column Cover ([Reference](#))

NOTE:

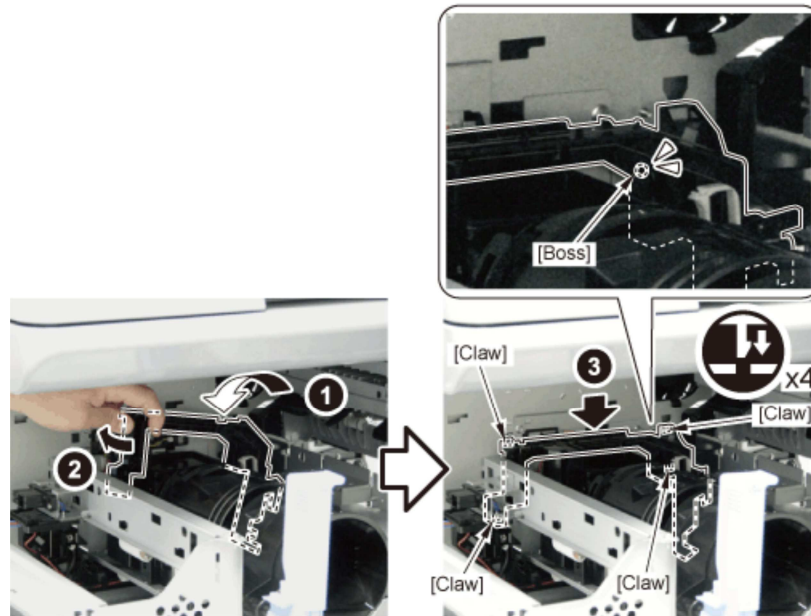
Since installation of the Toner Container decreases the possibility of toner scattering, it is recommended to install the Toner Container when there is no problem with it.





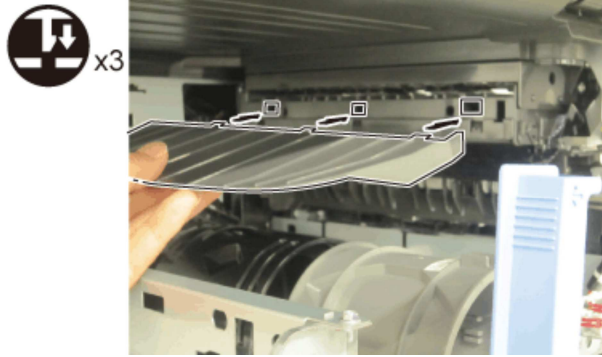
2) Install the High Voltage Upper Guide.

- 1 Boss
- 4 Claws



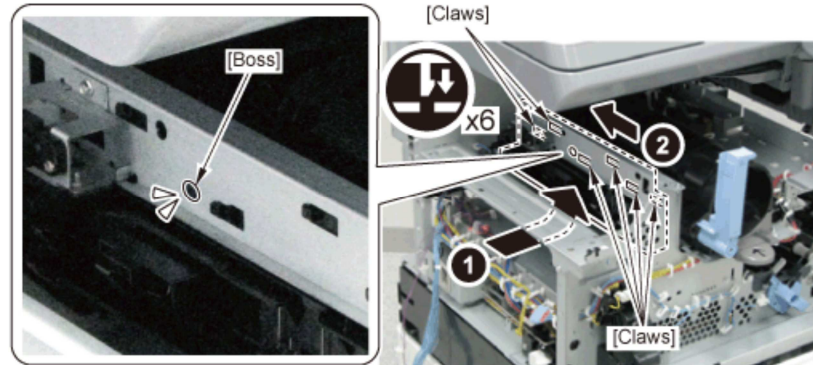
3) Install the Reverse Tray.

- 3 Claws



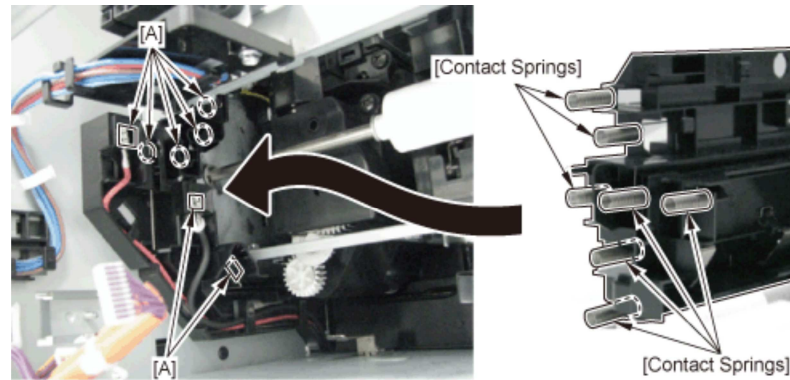
4) Install the High Voltage Main Guide.

- 1 Boss
- 6 Claws



CAUTION:

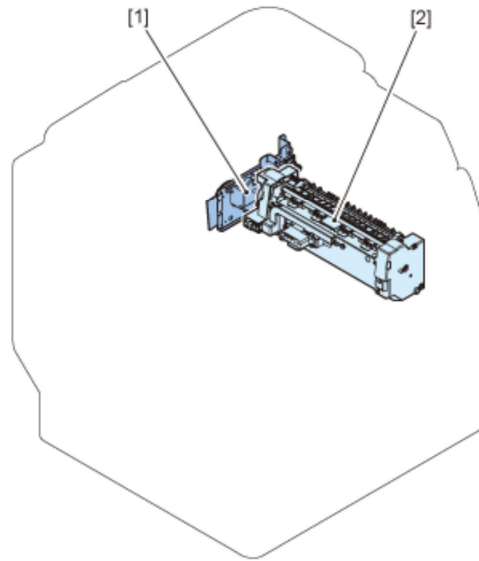
When assembling the High Voltage Main Guide, be sure that the 7 Contact Springs are in contact with the [A] part of the High Voltage Lower Guide.



- 5) Install the Laser Scanner Unit.
- 6) Install the HVT PCB.
- 7) Install the Delivery Inner Cover.
- 8) Install the Inner Rear Cover.
- 9) Install the Left Inner Cover.
- 10) Install the Right Inner Cover.
- 11) Install the Right Front Cover.
- 12) Install the Fixing Assembly.
- 13) Install the Front Cover.
- 14) Install the Developing Assembly.
- 15) Install the Drum Unit.
- 16) Install the Waste Toner Container.
- 17) Install the Toner Cartridge.
- 18) Install the Left Cover.
- 19) Install the Delivery Outer Cover.
- 20) Install the Rear Cover.

Fixing System

Location



No.	Name	Main Unit	Reference	Adjustment during parts replacement
[1]	Fixing Drive Unit	Main Unit	(Reference)	
[2]	Fixing Assembly	Main Unit	(Reference)	

Removing the Fixing Assembly

CAUTION:

- Be sure to start removing the Fixing Assembly after it is cooled down enough. The Fixing Assembly right after printing may cause burn injury.
- Be sure not to disassemble the Fixing Assembly because it requires adjustment.

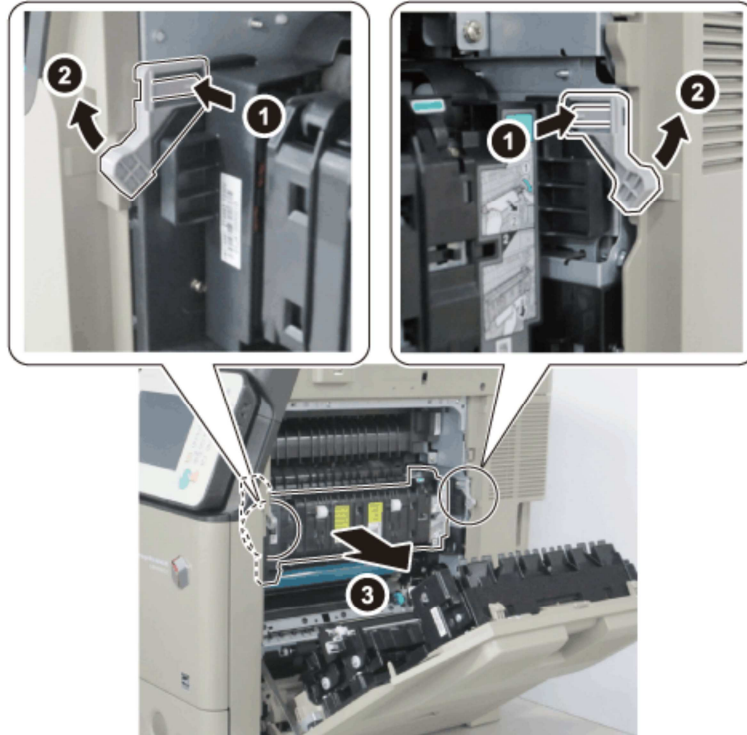
■ Procedure

● Disassembling Procedure

- 1) Open the Right Door Unit.



2) Release the 2 Fixing Lock Levers, and remove the Fixing Assembly.



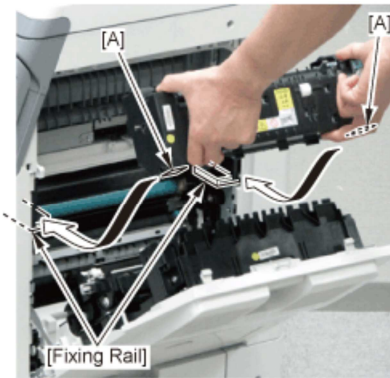
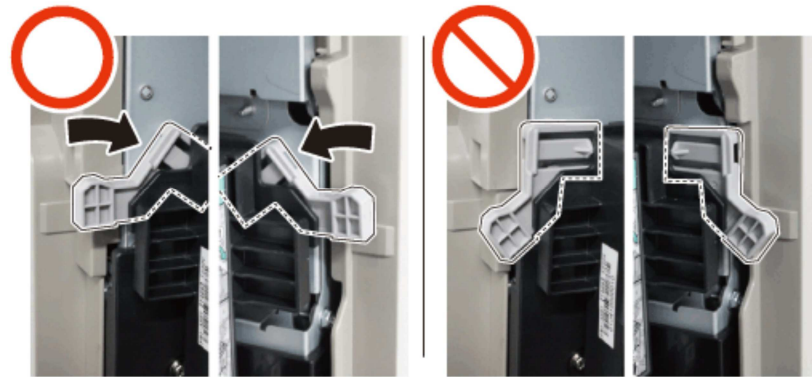
● **Assembling Procedure**

1) Install the Fixing Assembly by putting the 2 edges [A] of the bottom of the Fixing Assembly into the 2 Fixing Rails.



CAUTION:

Be sure that the lock of the 2 Fixing Lock Levers is released when installing.



2) Lock the 2 Fixing Lock Levers, and secure the Fixing Assembly.



3) Close the Right Door Unit.

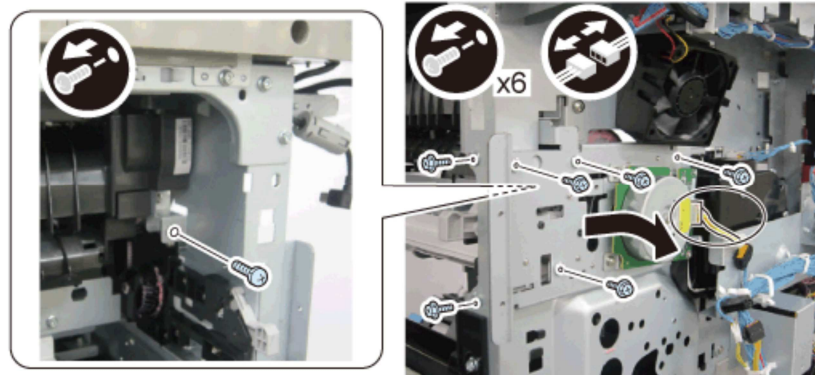
Removing the Fixing Drive Unit

■ Preparation

- 1) Remove the Rear Cover.(Reference)
- 2) Remove the Right Rear Cover.(Reference)
- 3) Remove the Waste Toner Container.(Reference)
- 4) Remove the Drum Unit.(Reference)
- 5) Remove the Main Controller PCB.(Reference)
- 6) Remove the Main Drive Unit.(Reference)
- 7) Remove the Fixing Assembly.(Reference)

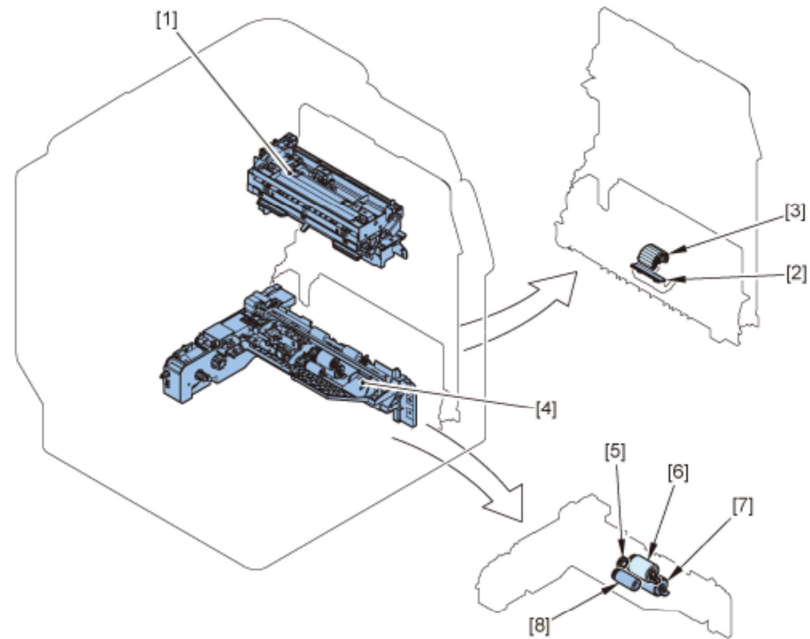
■ Procedure

- 1) Remove the Fixing Drive Unit.
 - 6 Screws (RS Tightening)
 - 1 Screw (with washer)
 - 1 Connector



Pickup Feed System

Location



No.	Name	Main Unit	Reference	Adjustment during parts replacement
[1]	Delivery/Reverse Unit	Main Unit	(Reference)	
[2]	Multi-purpose Tray Separation Pad	Transfer Unit	(Reference)	
[3]	Multi-purpose Tray Pickup Roller	Transfer Unit	(Reference)	
[4]	Cassette Pickup Unit	Main Unit	(Reference)	
[5]	Cassette Pickup Idler Gear	Cassette Pickup Unit	(Reference)	
[6]	Cassette Feed Roller	Cassette Pickup Unit	(Reference)	
[7]	Cassette Separation Roller	Cassette Pickup Unit	(Reference)	
[8]	Cassette Pickup Roller	Cassette Pickup Unit	(Reference)	

Removing the Cassette Feed Roller

■ Procedure

CAUTION:

Be sure not to touch the surface of the roller when disassembling/assembling.

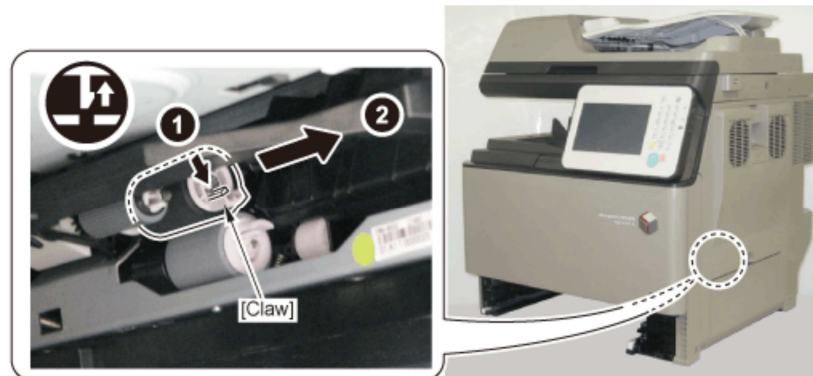


● **Disassembling Procedure**

1) Remove the cassette.



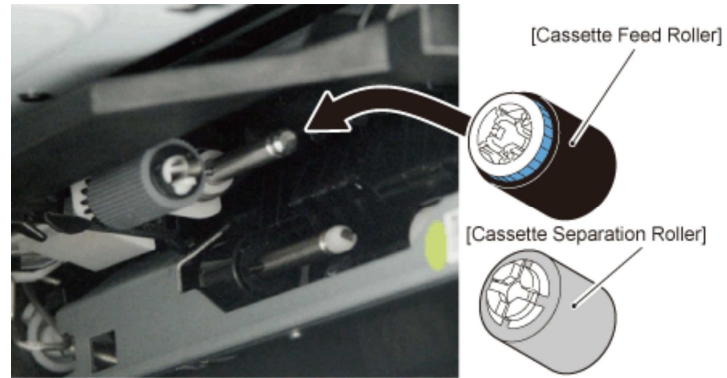
2) Release the claw of the Cassette Feed Roller, and remove the Cassette Feed Roller.



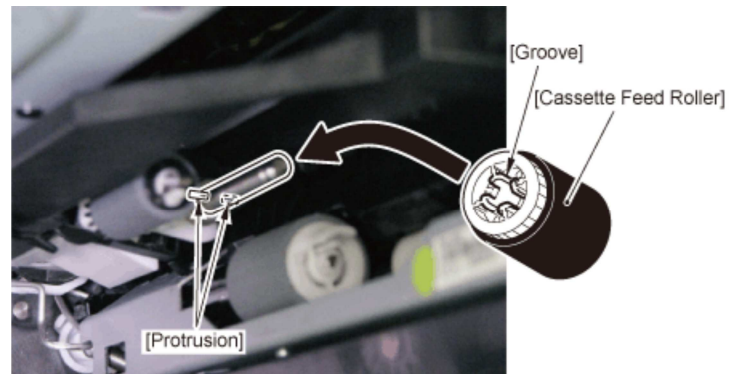
● Assembling Procedure

CAUTION:

Be sure to install the Cassette Feed Roller to the shaft at the upper side and the Cassette Separation Roller to the shaft at the lower side when assembling.



1) Install the Cassette Feed Roller by aligning the protrusion of the Feed Roller Shaft with the groove of the Cassette Feed Roller.



2) Return the cassette to the original position.

Removing the Cassette Separation Roller

■ Procedure

CAUTION:

Be sure not to touch the surface of the roller when disassembling/assembling.

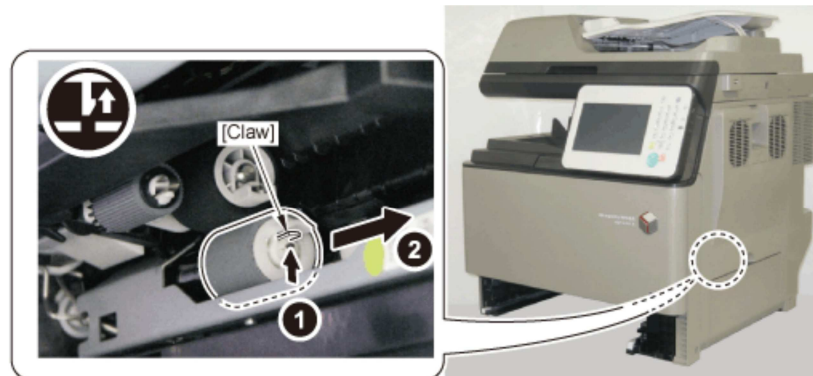


● **Disassembling Procedure**

1) Remove the cassette.



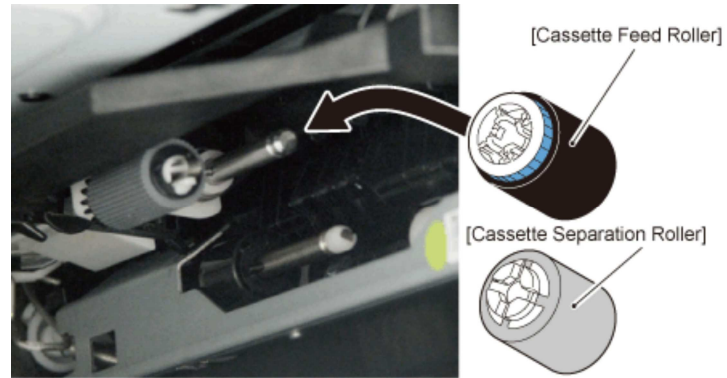
2) Release the claw of the Cassette Separation Roller, and remove the Cassette Separation Roller.



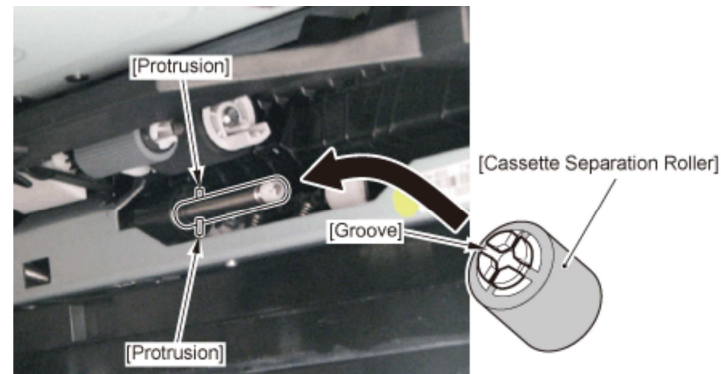
● Assembling Procedure

CAUTION:

Be sure to install the Cassette Feed Roller to the shaft at the upper side and the Cassette Separation Roller to the shaft at the lower side when assembling.



1) Install the Cassette Separation Roller by aligning the protrusion of the Separation Roller Shaft with the groove of the Cassette Separation Roller.



2) Return the cassette to the original position.

Removing the Cassette Pickup Roller

■ Procedure

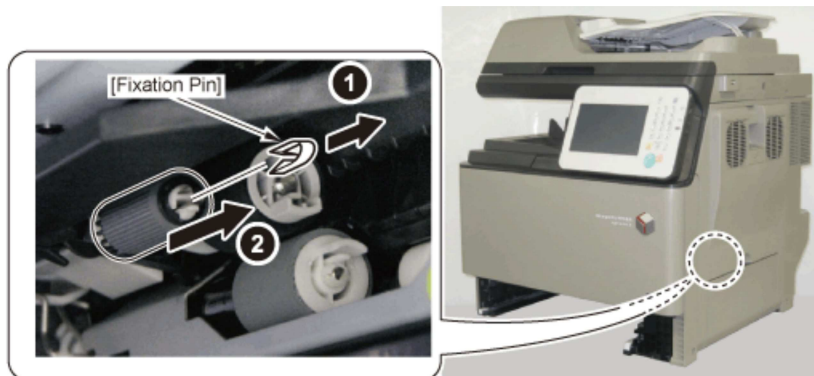
CAUTION:

Be sure not to touch the surface of the roller when disassembling/assembling.

1) Remove the cassette.



2) Remove the Fixation Pin, and remove the Cassette Feed Roller.



Removing the Cassette Pickup Idler Gear

■ Preparation

- 1) Remove the Cassette Feed Roller..([Reference](#))
- 2) Remove the Cassette Pickup Roller.([Reference](#))

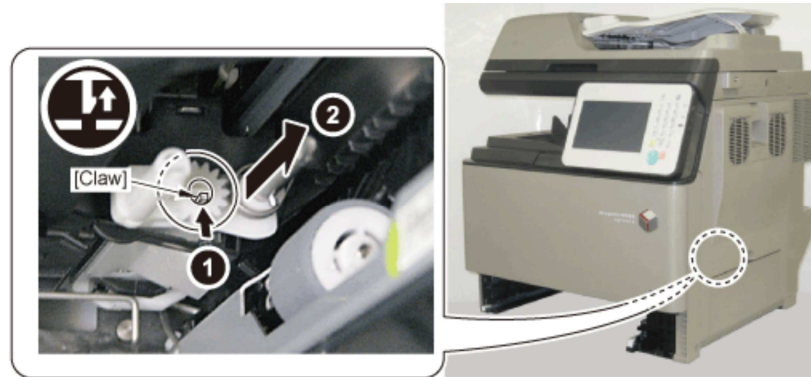
■ Procedure

CAUTION:

Be sure not to touch the surface of the roller when disassembling/assembling.

1) Remove the Cassette Pickup Idler Gear.

- 1 Claw



Removing the Cassette Pickup Unit

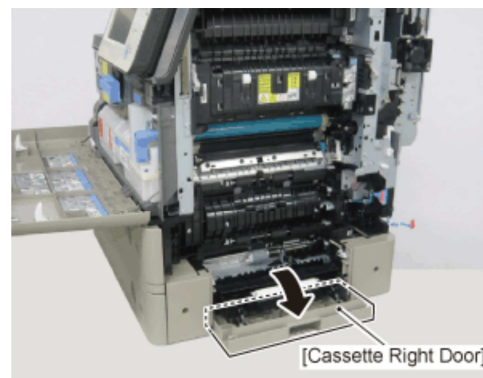
■ Preparation

- 1) Remove the Right Front Cover.(Reference)
- 2) Remove the Right Rear Cover.(Reference)
- 3) Remove the Right Door Unit.(Reference)

■ Procedure

NOTE:

When an option cassette is installed, open the Option Cassette Right Door.

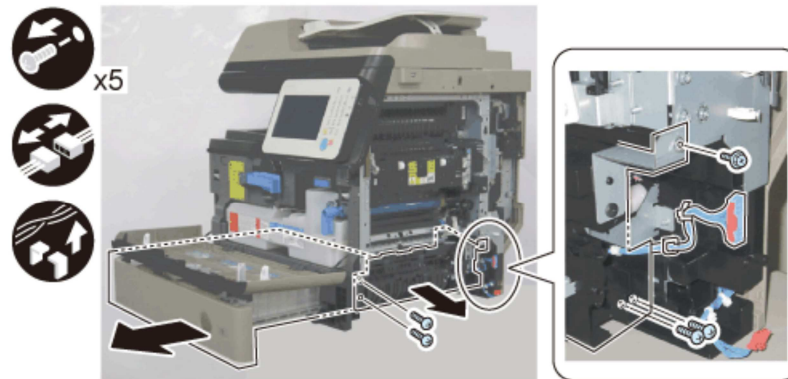
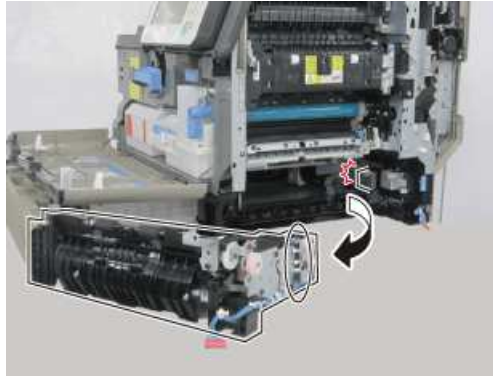


- 1) Pull out the cassette, and remove the Cassette Pickup Unit.

- 1 Connector
- 1 Wire Saddle
- 1 Screw (RS Tightening)
- 4 Screws (Tapping)

CAUTION:

When pulling out the Pickup Unit at disassembly/assembly, be sure not to cause open circuit by making the harness get caught in the part.

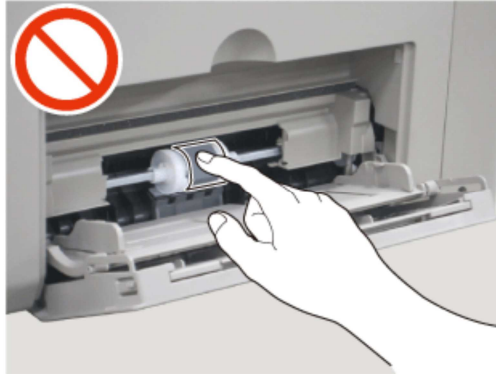


Removing the Multi-purpose Tray Pickup Roller

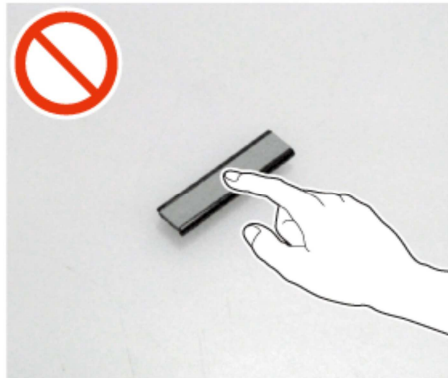
- Procedure
- Disassembling Procedure

CAUTION:

- Be sure not to touch the surface of the roller when disassembling/assembling.



- Be sure not to touch the surface of the pad when disassembling/assembling.

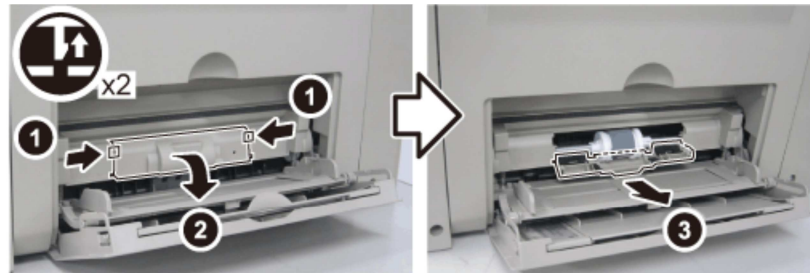


1) Open the Multi-purpose Tray Pickup Tray.

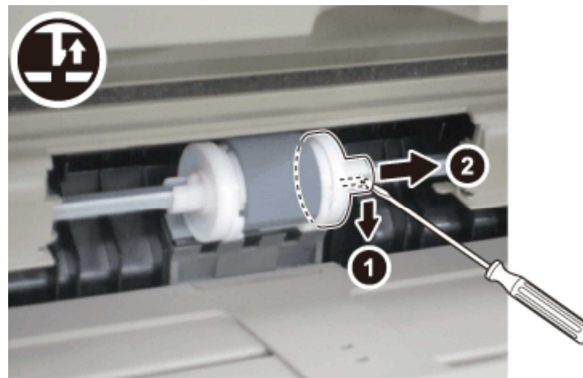


2) Remove the Pickup Roller Cover.

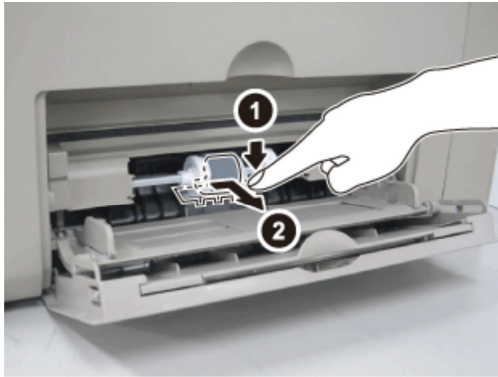
- 2 Claws



3) Release the claw of the Pickup Roller Holder on the right and left, and move the Pickup Roller Holder.

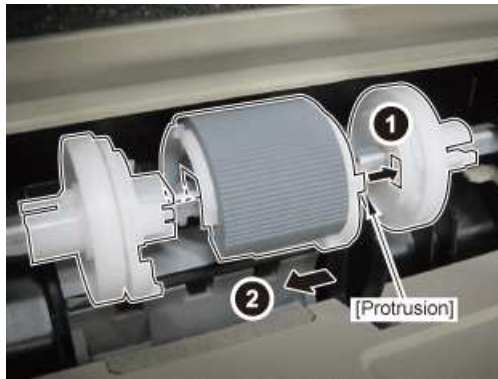


4) Lower the Multi-purpose Tray Separation Pad, and remove the Multi-purpose Tray Pickup Roller.

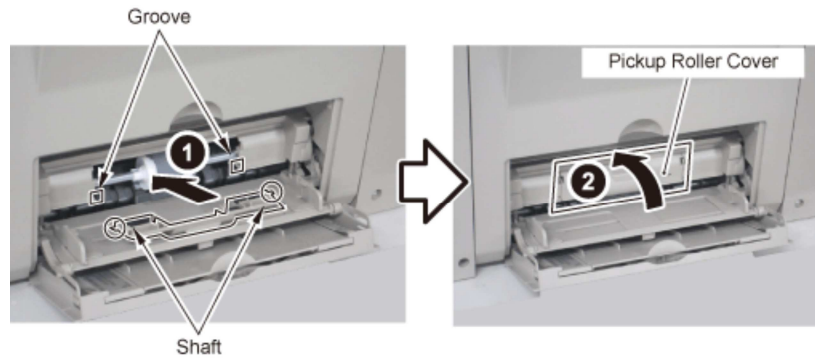


● **Assembling Procedure**

- 1) Install the Pickup Roller by aligning the protrusion of the new Pickup Roller with the groove of the Pickup Roller Holder.
- 2 Pickup Roller Holders



- 2) Install the Pickup Roller Cover by aligning the 2 grooves of the Pickup Tray Cover with the 2 shafts of the Pickup Roller Cover.



3) Close the Multi-purpose Tray Pickup Tray.



Removing the Multi-purpose Tray Separation Pad

■ Preparation

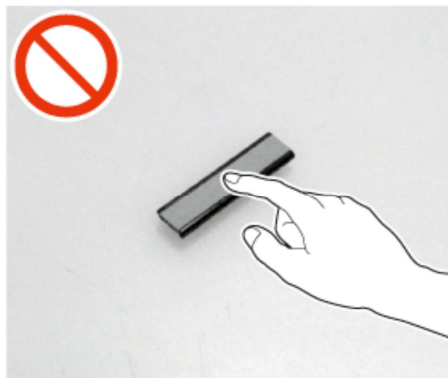
1) Remove the Multi-purpose Tray Pickup Roller. ([Reference](#))

■ Procedure

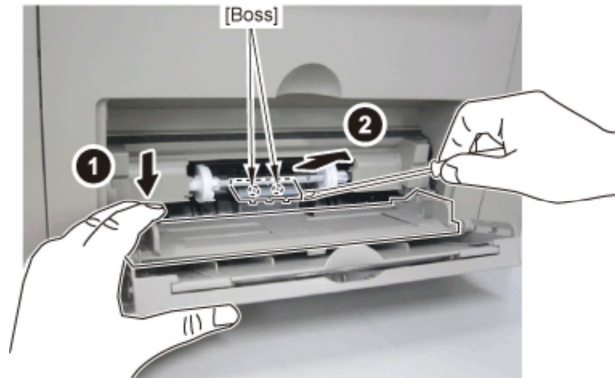
● Disassembling Procedure

CAUTION:

Be sure not to touch the surface of the pad when disassembling/assembling.

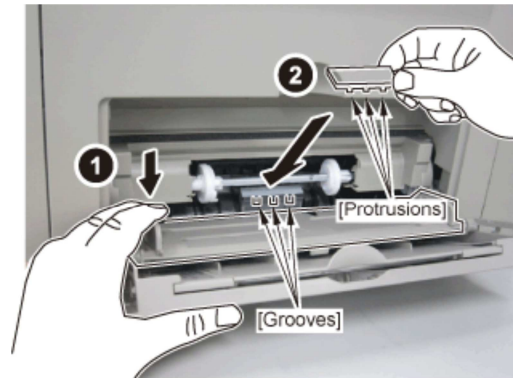


1) Lower the Multi-purpose Tray Pickup Tray, release the 2 bosses of the Multi-purpose Tray Separation Pad, and then remove the Multi-purpose Tray Separation Pad.



● Assembling Procedure

- 1) Install the Multi-purpose Tray Separation Pad by aligning the 3 protrusions of the new Multi-purpose Tray Separation Pad with the 3 grooves of the Separation Pad Holder.



Removing the Delivery/Reverse Unit

■ Preparation

- 1) Remove the Fixing Assembly. [\(Reference\)](#)
- 2) Remove the Rear Cover. [\(Reference\)](#)
- 3) Remove the Right Rear Cover. [\(Reference\)](#)

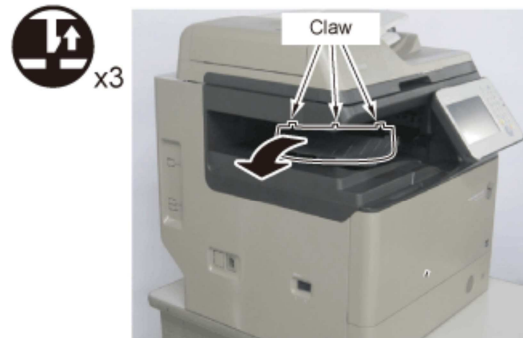
NOTE:

Remove the Main Controller Unit to improve the operability.

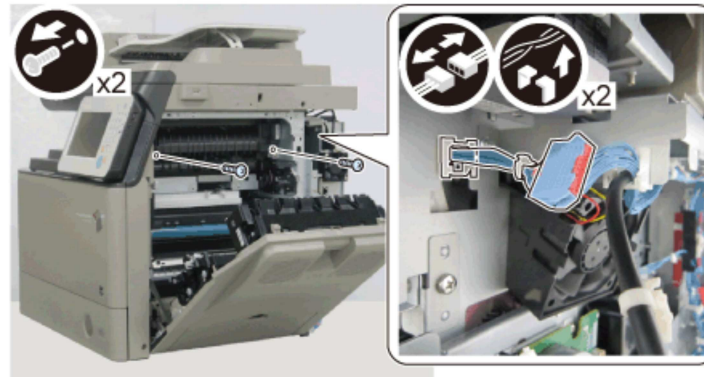
■ Procedure

- 1) Remove the Reverse Tray.

- 3 Claws

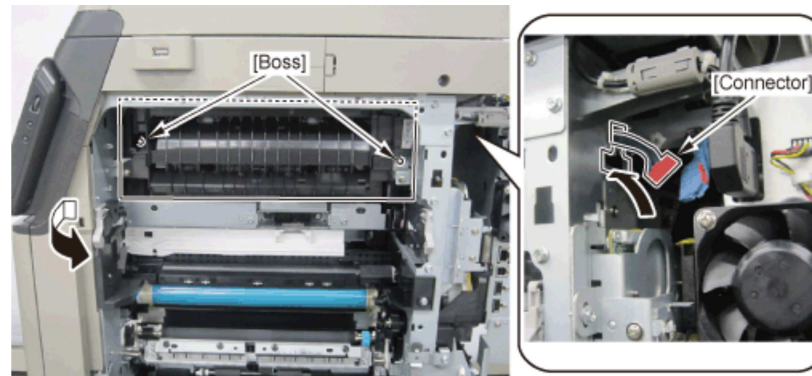


2) Disconnect the connector, and remove the Wire Saddle, the Edge Saddle and the 2 screws.



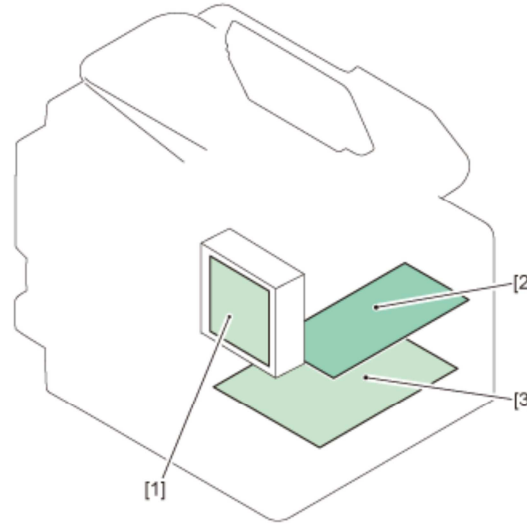
3) While putting the connector into the inside of the host machine, remove the Delivery/Reverse Unit.

- 2 Bosses



External Auxiliary System

Location



No.	Name	Main Unit	Reference	Adjustment during parts replacement
[1]	DC Controller PCB	Main Unit	(Reference)	(Reference)
[2]	HVT PCB	Main Unit	(Reference)	-
[3]	Power Supply PCB	Main Unit	(Reference)	-

Removing the DC Controller PCB

■ Preparation before Replacement

- 1) Backup of the Service Mode data.
(Lv.2) COPIER> FUNCTION> SYSTEM> DSRAMBUP
After "ACTIVE" is displayed for approx 2 minutes, "OK!" is displayed.
If necessary, output the service mode setting values by P-PRINT before execution.
(Lv.1) COPIER> FUNCTION> MISC-P> P-PRINT
- 2) After the above execution is completed, turn OFF the main power supply.

■ Preparation

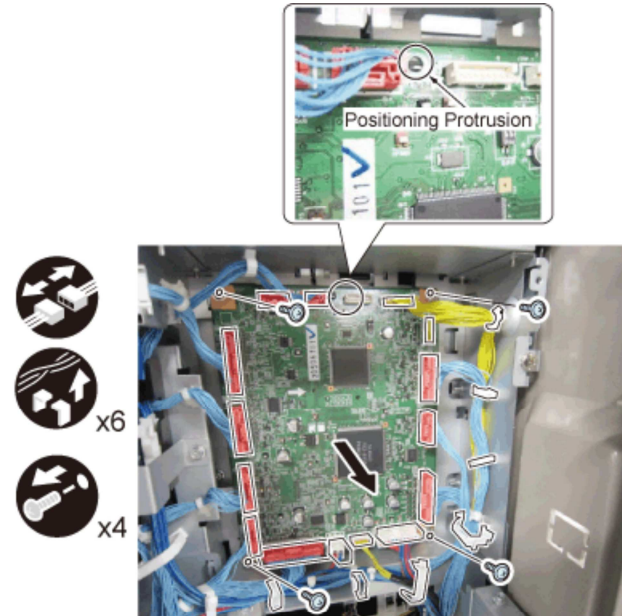
- 1) Remove the Reader Controller Cover.([Reference](#))
- 2) Remove the Rear Cover.([Reference](#))

NOTE:

When the FAX Unit is being installed, perform the operation after remove the Fax Unit.

■ Procedure

- 1) Remove the DC Controller PCB
 - Disconnect all connectors on the Main Controller PCB.
 - 6 Wire Saddles
 - 1 Reuse Bands
 - 1 Positioning Protrusion
 - 4 Screws



■ After Replacement

- 1) Restore of the Service Mode data.
(Lv.2) COPIER> FUNCTION> SYSTEM> DSRAMRES
- 2) If uploading of backup data fails before replacement due to the damage to the DC controller PCB, enter the values of service mode items recorded on the service label or P-PRINT.
- 3) Turn OFF and then ON the main power switch.

(Turning OFF/ON the main power switch allows the values entered for the service mode items to take effect.)

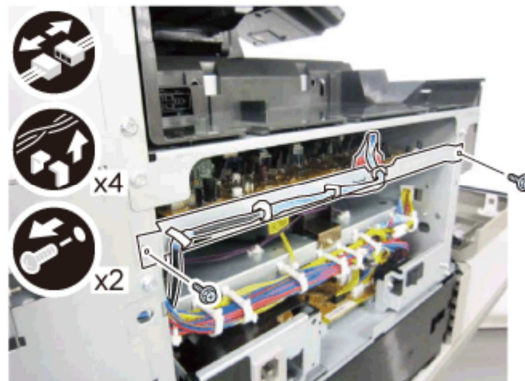
Removing the HVT PCB

■ Preparation

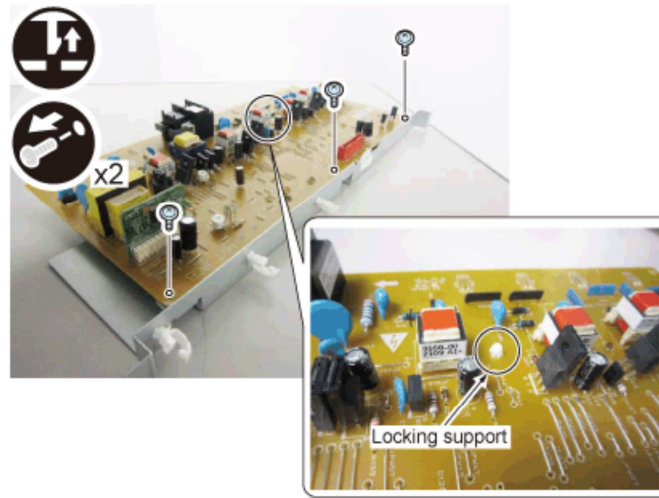
- 1) Remove the Reader Controller Cover. ([Reference](#))
- 2) Remove the Rear Cover. ([Reference](#))
- 3) Remove the Delivery Outer Cover. ([Reference](#))
- 4) Remove the Left Cover. ([Reference](#))

■ Procedure

- 1) Remove the HVT Unit.
 - 1 Connector
 - 3 Wire Saddles
 - 1 Edge Saddles
 - 2 Screws

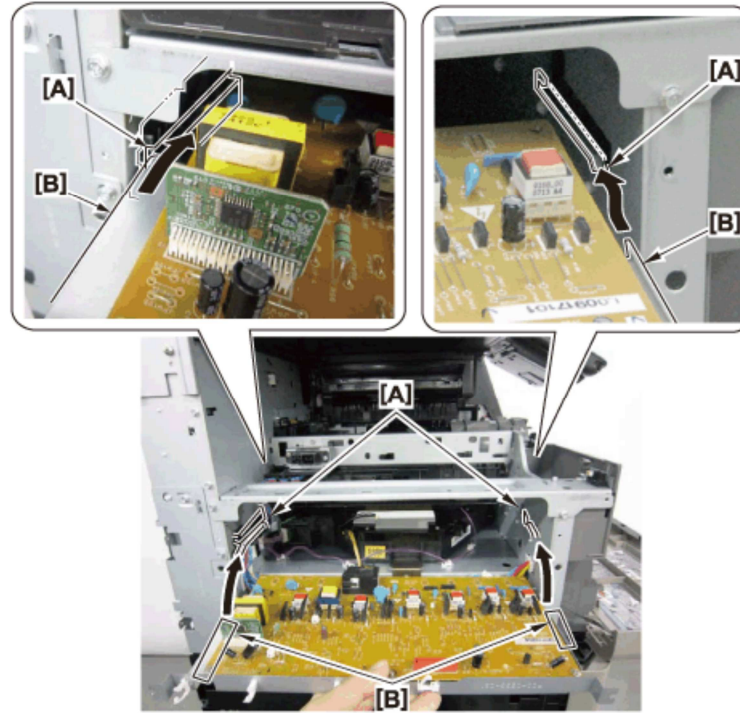


- 2) Remove the HVT PCB.
 - 1 Locking support
 - 3 Screws



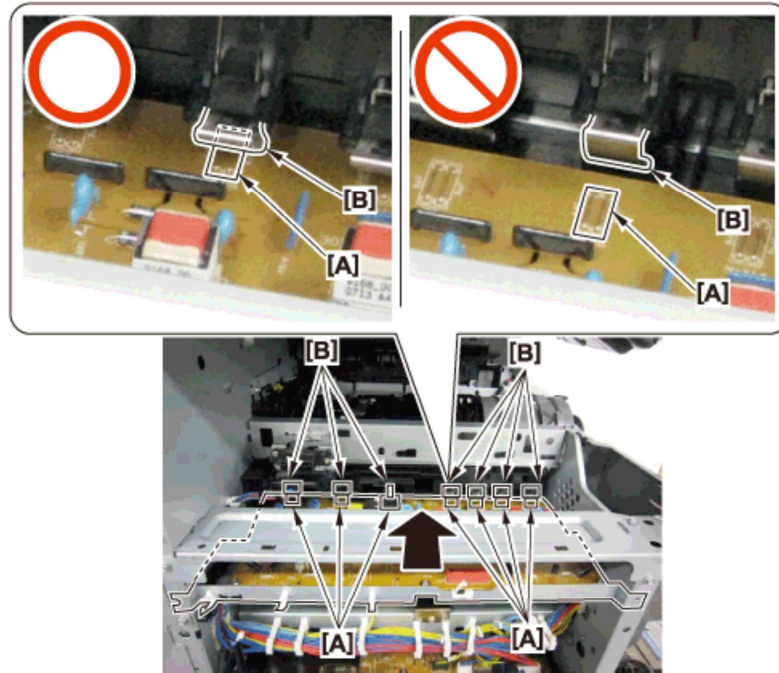
CAUTION:

Be sure to fit the 2 edges [B] of the plate of the HVT PCB into the 2 rails [A] on the host machine side when assembling.



CAUTION:

Be sure that the 7 contact points [A] of the HVT PCB are in contact with the 7 Contact Springs [B] of the High Voltage Main Guide when assembling.



Removing the Power Supply PCB

■ Preparation

- 1) Remove the Reader Controller Cover. ([Reference](#))
- 2) Remove the Rear Cover. ([Reference](#))
- 3) Remove the Delivery Outer Cover. ([Reference](#))
- 4) Remove the Left Cover. ([Reference](#))

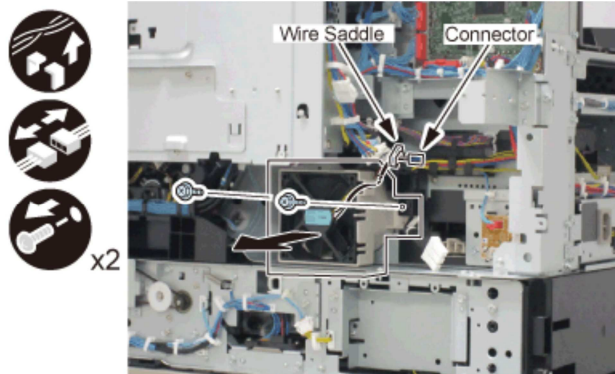
■ Procedure

- 1) Remove the Fixing Connector.
 - 1 Connector



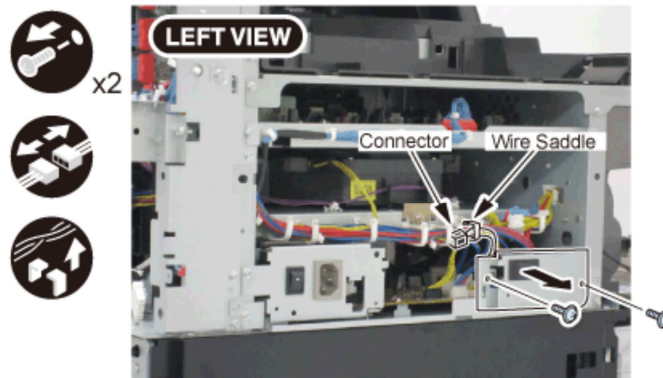
2) Remove the Power Supply Fan Unit.

- 1 Wire Saddle
- 1 Connector
- 2 Screws



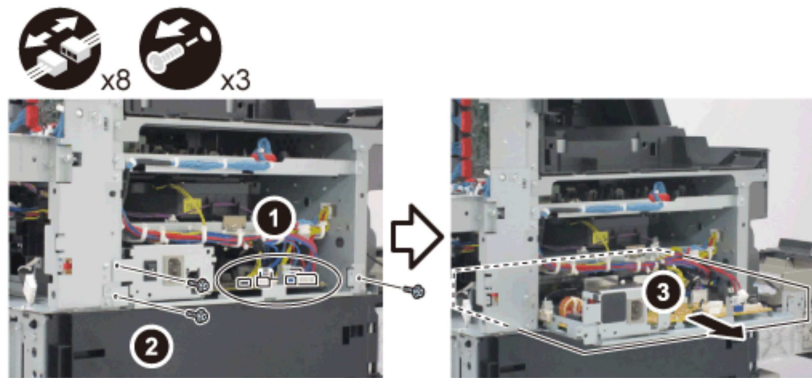
3) Remove the Power Switch Unit.

- 2 Screws
- 1 Connector
- 1 Wire Saddle



4) Remove the Power Supply PCB.

- 3 Screws
- 8 Connectors



Overview

Adjustment when replacing parts

This section describes adjustment required in field service works when replacing parts.



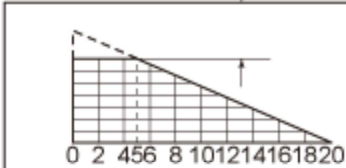

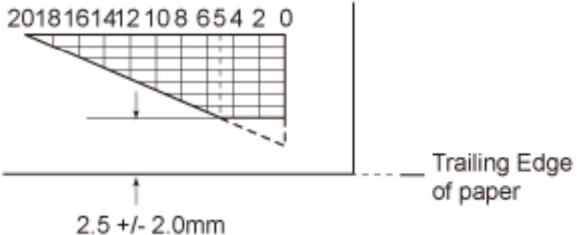
The parts are classified by function into the following 2 blocks.

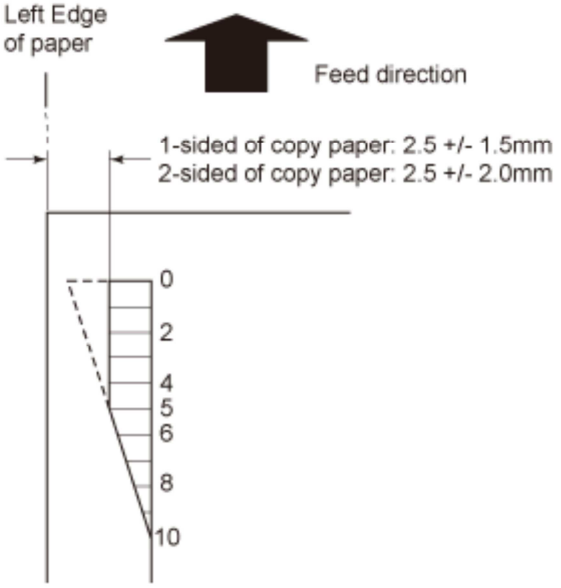
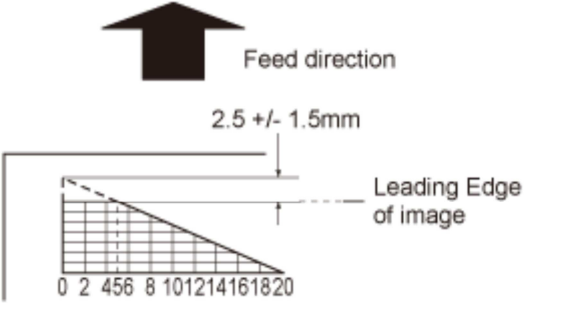
Parts Name	Actions at Parts Replacement	Reference
Original Exposure and Feed System	Reader	
	Copyboard Glass	Reference
	ADF Reading Glass	Reference
	CIS Unit	Reference
	ADF	ADF Unit
Laser Scanner Unit	Laser Scanner Unit	Reference
Controller System	HDD	
	Main Controller PCB	
	DC Controller PCB	Reference
	TPM PCB	
	Flash PCB	

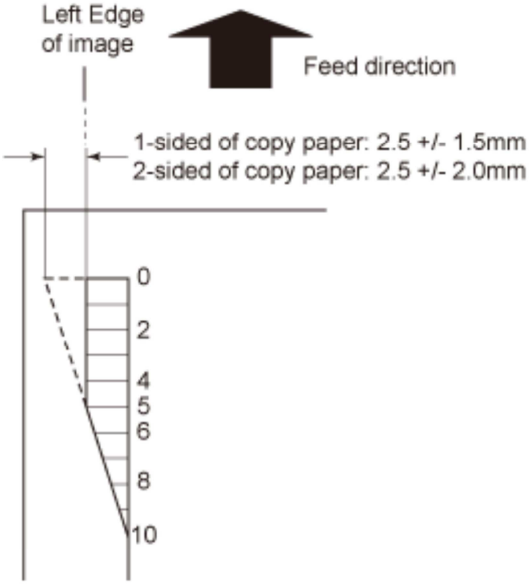
Image Position Adjustment

This section describes remedies when adjusting the basic image position.

Item	Specification value	Reference
Leading Edge Margin Adjustment	1-sided: 2.5 +/- 1.5 (mm) 2-sided: 2.5 +/- 2.0 (mm)	Reference

Item	Specification value	Reference
	<p style="text-align: center;">  Feed direction </p> <p> 1-sided of copy paper: 2.5 +/- 1.5mm 2-sided of copy paper: 2.5 +/- 2.0mm </p> <p style="text-align: right;">  Leading Edge of paper </p> 	
Trailing Edge Margin Adjustment	<p> 1-sided: 2.5 +/- 2.0 (mm) 2-sided: 2.5 +/- 2.0 (mm) </p> <p style="text-align: center;">  Feed direction </p> 	Reference
Left Margin Adjustment	<p> 1-sided: 2.5 +/- 1.5 (mm) 2-sided: 2.5 +/- 2.0 (mm) </p>	Reference

Item	Specification value	Reference
		
Leading Edge Non-image Width Adjustment	<p>1-sided: 2.5 +/- 1.5 (mm) 2-sided: 2.5 +/- 1.5 (mm)</p> 	Reference
Left Edge Non-image Width Adjustment	<p>1-sided: 2.5 +/- 1.5 (mm) 2-sided: 2.5 +/- 2.0 (mm)</p>	Reference

Item	Specification value	Reference
	 <p>Left Edge of image</p> <p>↑ Feed direction</p> <p>1-sided of copy paper: 2.5 +/- 1.5mm 2-sided of copy paper: 2.5 +/- 2.0mm</p> <p>0 2 4 5 6 8 10</p>	
Adjustment of the Image Position of the ADF	-	Reference

When Replacing the Parts

Original Exposure and Feed System (Reader)

■ Copyboard Glass

<Procedure of Replacement>

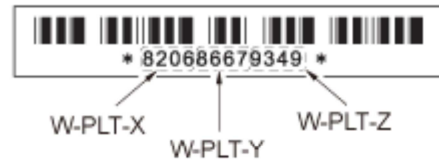
"Removing the Copyboard Glass."

<Procedure after Replacement>

- 1) Enter the value indicated on the platen glass as shown in the following service mode:
(Lv.1) COPIER> ADJUST> CCD> W-PLT-X/Y/Z (White level data entry of white plate)

CAUTION:

Be sure to make the white plate data adjustment before ADF white level adjustment.



2) Write down the new numerical value in the service label.

3) Take the action stated below in the service mode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1/2/3/4 (White level adj in book/ADF mode)

3-1) Place a sheet of paper that the user usually uses on the Copyboard Glass, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1

Read the white level (B&W) in the BOOK mode. (Check the transparency of the Copyboard Glass)

3-2) Place a sheet of paper that the user usually uses on the ADF, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL2

Read the white level (B&W) in the ADF mode. (Check the transparency of the ADF Reading Glass.)

3-3) Place a sheet of paper that the user usually uses on the Copyboard Glass, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL3

Read the white level (Color) in the BOOK mode. (Check the transparency of the Copyboard Glass)

3-4) Place a sheet of paper that the user usually uses on the ADF, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL4

Read the white level (Color) in the ADF mode. (Check the transparency of the ADF Reading Glass.)

NOTE:

The result of the adjustment is reflected to COPIER> ADJUST> CCD> DFTAR-K/ DFTAR-R/ DFTAR-G/ DFTAR-B.

■ **ADF Reading Glass**

<Procedure of Replacement>

"Removing the ADF Reading Glass."

<Procedure after Replacement>

1) Take the action stated below in the service mode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1/2/3/4 (White level adj in book/ADF mode)

1-1) Place a sheet of paper that the user usually uses on the Copyboard Glass, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1

Read the white level (B&W) in the BOOK mode. (Check the transparency of the Copyboard Glass)

1-2) Place a sheet of paper that the user usually uses on the ADF, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL2

Read the white level (B&W) in the ADF mode. (Check the transparency of the ADF Reading Glass.)

1-3) Place a sheet of paper that the user usually uses on the Copyboard Glass, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL3

Read the white level (Color) in the BOOK mode. (Check the transparency of the Copyboard Glass)

1-4) Place a sheet of paper that the user usually uses on the ADF, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL4

Read the white level (Color) in the ADF mode. (Check the transparency of the ADF Reading Glass.)

NOTE:

The result of the adjustment is reflected to COPIER> ADJUST> CCD> DFTAR-K/ DFTAR-R/ DFTAR-G/ DFTAR-B.

■ CIS Unit

<Preparation before Replacement>

1) Backup of the Service Mode data.

(Lv.2) COPIER> FUNCTION> SYSTEM> RSRAMBUP

<Procedure of Replacement>

"Removing the CIS Unit."

<Procedure after Replacement>

1. When uploading of backup data succeeds before replacement.

1) Restoring the backup data

(Lv.2) COPIER> FUNCTION> SYSTEM> RSRAMRES

- 2) After turn OFF/ON the main power switch, make a copy and check the copied image.
2. When uploading of backup data fails before replacement.

- 1) Enter the value indicated on the platen glass as shown in the following service mode:
(Lv.1) COPIER> ADJUST> CCD> W-PLT-X/Y/Z (White level data entry of white plate)

CAUTION:

Be sure to make the white plate data adjustment before ADF white level adjustment.



- 2) Write down the new numerical value in the service label.

- 3) Take the action stated below in the service mode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1/2/3/4 (White level adj in book/ADF mode)

- 3-1) Place a sheet of paper that the user usually uses on the Copyboard Glass, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1

Read the white level (B&W) in the BOOK mode. (Check the transparency of the Copyboard Glass)

- 3-2) Place a sheet of paper that the user usually uses on the ADF, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL2

Read the white level (B&W) in the ADF mode. (Check the transparency of the ADF Reading Glass.)

- 3-3) Place a sheet of paper that the user usually uses on the Copyboard Glass, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL3

Read the white level (Color) in the BOOK mode. (Check the transparency of the Copyboard Glass)

- 3-4) Place a sheet of paper that the user usually uses on the ADF, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL4

Read the white level (Color) in the ADF mode. (Check the transparency of the ADF Reading Glass.)

NOTE:

The result of the adjustment is reflected to COPIER> ADJUST> CCD> DFTAR-K/ DFTAR-R/ DFTAR-G/ DFTAR-B.

4) Take the action stated below in the service mode.

(Lv.1) COPIER> FUNCTION> CCD> CCD-ADJ (Adjustment of CIS gain/offset of CIS)

4-1) Place 10 or more sheets of standard white paper (The whitest paper form which a user is using except for the color paper.) on the Copyboard Glass.

4-2) Select this item and press OK key.

4-3) The auto-adj is performed for about 30 sec. <ACTIVE> is displayed on the LCD.

4-4) <OK!> is displayed and the auto-adj is completed.

4-5) Turn OFF/ON the main power switch.

CAUTION:

When turning OFF/ON the main power switch is not carried out, E315-510 error (Device timeout) occurs at the time as the copy.

NOTE:

The NG is indicated after about 70 sec.

The adjusted value reflect in COPIER> DISPLAY> CCD> OFST (BW1 to BW11 and CL1 to CL11) and COPIER> DISPLAY> CCD> GAIN-BW/GAIN-CL.

5) Make a copy and check the copied image.

Original Exposure and Feed System (ADF)

■ ADF Unit

<Procedure of Replacement>

"Removing the ADF Unit."

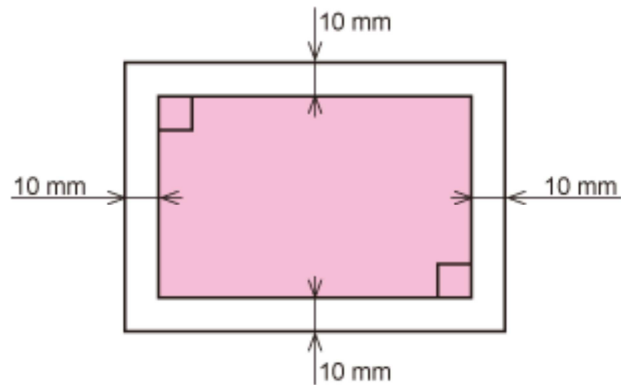
<Prepare before Adjustment>

Prepare a test chart. A test chart is made when there is no test chart.

A test chart is drawn the rectangle that the end of 4 is smaller by 10 mm than a paper, and a test chart is made in the form of A4 or LTR.

NOTE:

Write a character and a mark to know the direction of the copied image.



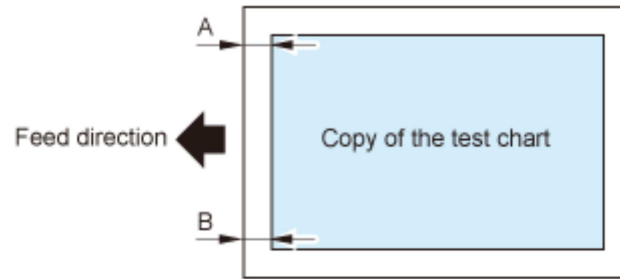
<Procedure after Replacement>

CAUTION:

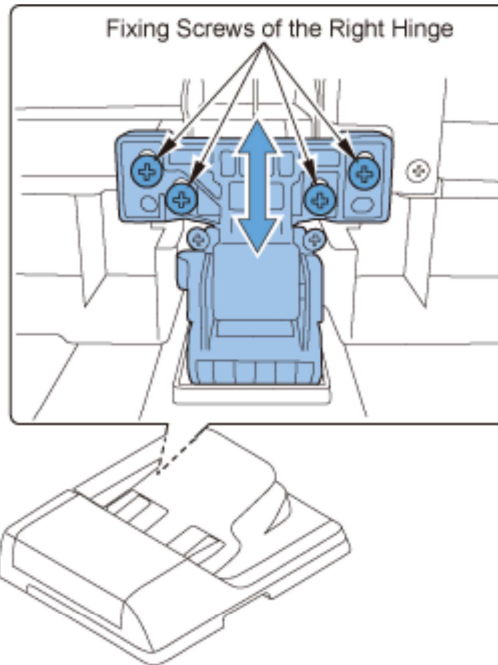
When ADF was exchanged or removed from the leader, you must do all adjustment of the following six items.

● **1. Adjustment of the Degree of a Right Angle**

- 1) Set a test chart on ADF, and give one sheet of copy.
- 2) Confirm the degree of a right angle of the image on the leading edge of the test chart and the copied form.
Measure the dimension of A and B at the leading edge of the copied form.
When the amount of skew is not in the following standard, adjust it from the step 3).
 - Standard Value: $A - B = 0 \pm 1.5 \text{ mm}$



3) Loosen the 4 Fixing Screws of the Right Hinge, and then move the hinge to adjust the squareness.



4) After completion of the adjustment, tighten the 4 Fixing Screws of the Right Hinge you loosened in step 3).

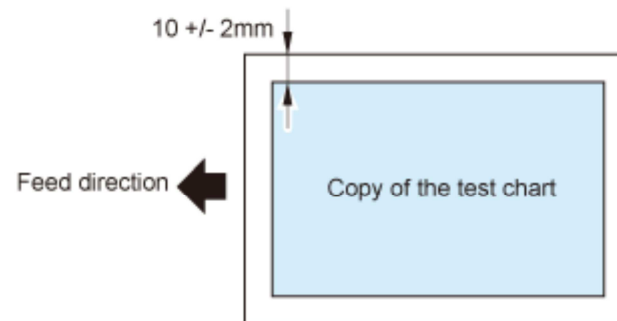
● 2. Adjustment of the Image Position (Horizontal Scanning Direction)

1) Set a test chart on ADF, and give one sheet of copy.

2) Compare the horizontal registration of the test chart and the copy of the test chart.

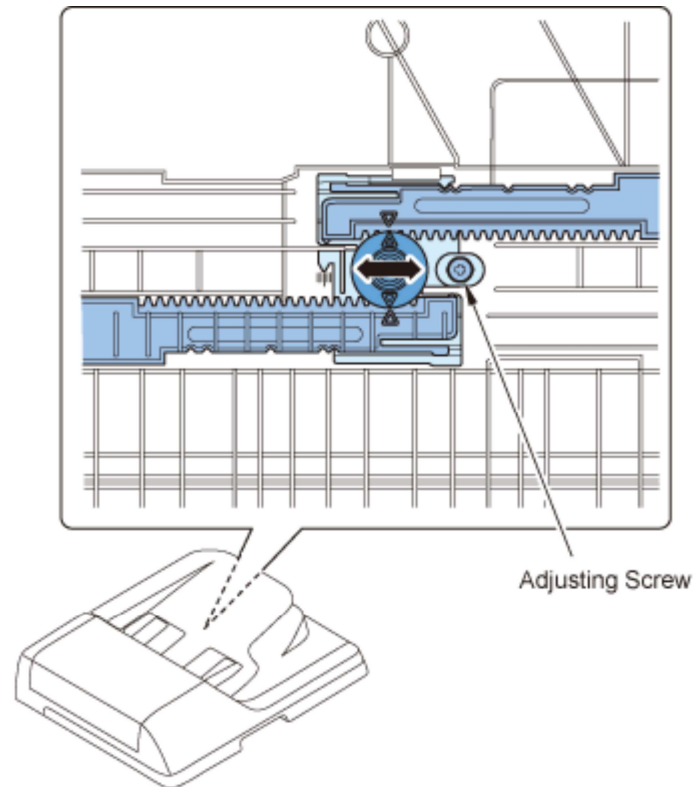
When the horizontal registration is not in the following standard, adjust it with a process of <Mechanical Adjustment> or <Service Mode Adjustment>.

- Standard Value: within 10 +/- 2 mm



<Mechanical Adjustment>

- 1) Loosen the Adjusting Screw of the Original Pickup Tray.
- 2) Move the slide guide in front/rear with reference to the scale marks.
 - When a copied image moves to the rear: Move the slide guide in the front.
 - When a copied image moves to the front: Move the slide guide in the rear.



3) After completion of the adjustment, tighten the Adjusting Screws you loosened in step 1).

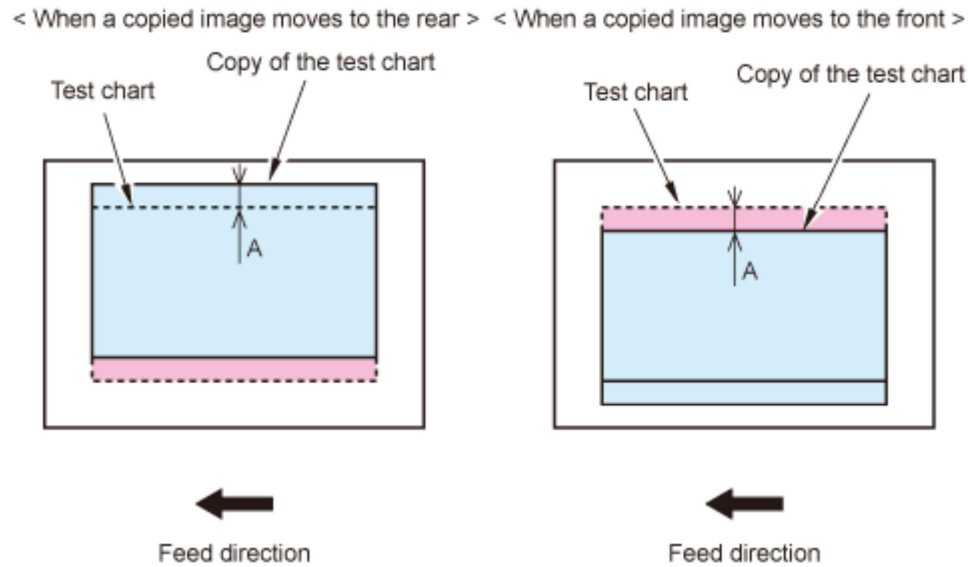
<Service Mode Adjustment>

1) Select the item in the service mode.

(LV.1) COPIER> ADJUST> ADJ-XY> ADJ-Y-DF

2) Input value, and adjust an image.

- When a copied image moves to the rear: Increase value
- When a copied image moves to the front: Decrease value
- Adjustment unit: 0.1 mm



3) Write the new changed value in the service label.

4) Exit the service mode.

● 3. Adjustment of the Image Position (Vertical Scanning Direction)

1) Set a test chart on ADF, and give one sheet of copy.

2) Compare the leading edge registration of the test chart and the copy of the test chart.

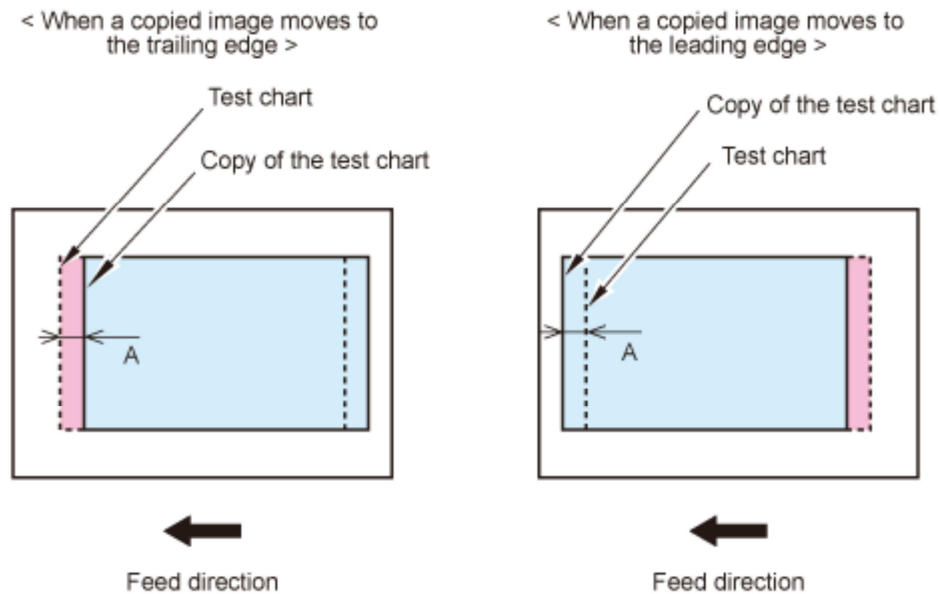
Carry out the following process when adjustment is necessary.

3) Select the item in the service mode.

(LV.1) FEEDER> ADJUST> DOCST

4) Input value, and adjust an image.

- When a copied image moves to the trailing edge: Increase value
- When a copied image moves to the leading edge: Decrease value
- Adjustment unit: 0.1 mm



- 5) Write the new changed value in the service label.
- 6) Exit the service mode.

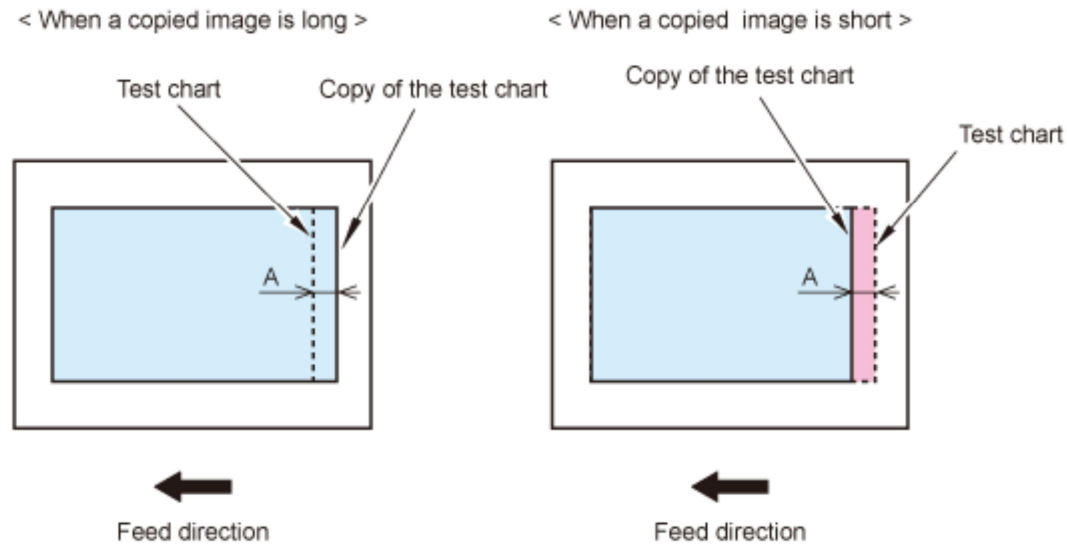
CAUTION:

Confirm that the Degree of a Right Angle is correct after you finish this adjustment.
Adjust again from the Adjustment of the Degree of a Right Angle when the Degree of a Right Angle is not correct.

● **4. Fine Adjustment of Image Magnification (1-sided/Vertical Scanning Direction)**

- 1) Set the image of the test chart upward in ADF, and give one sheet of copy.
- 2) Compare the image length of the feed direction of the test chart and the copy of the test chart.
Carry out the following process when adjustment is necessary.
- 3) Select the item in the service mode.
(LV.1) FEEDER> ADJUST> LA-SPEED
- 4) Input value, and adjust an image.
 - When a copied image is long: Decrease value (The feeding speed increases)

- When a copied image is short: Increase value (The feeding speed decreases)
- Adjustment unit: 0.1 %



- 5) Write the new changed value in the service label.
- 6) Exit the service mode.

● 5. Fine Adjustment of Image Magnification (2-sided/Vertical Scanning Direction)

- 1) Set the image of the test chart downward in ADF, and give one sheet of copy.
- 2) Compare the image length of the feed direction of the test chart and the copy of the test chart.

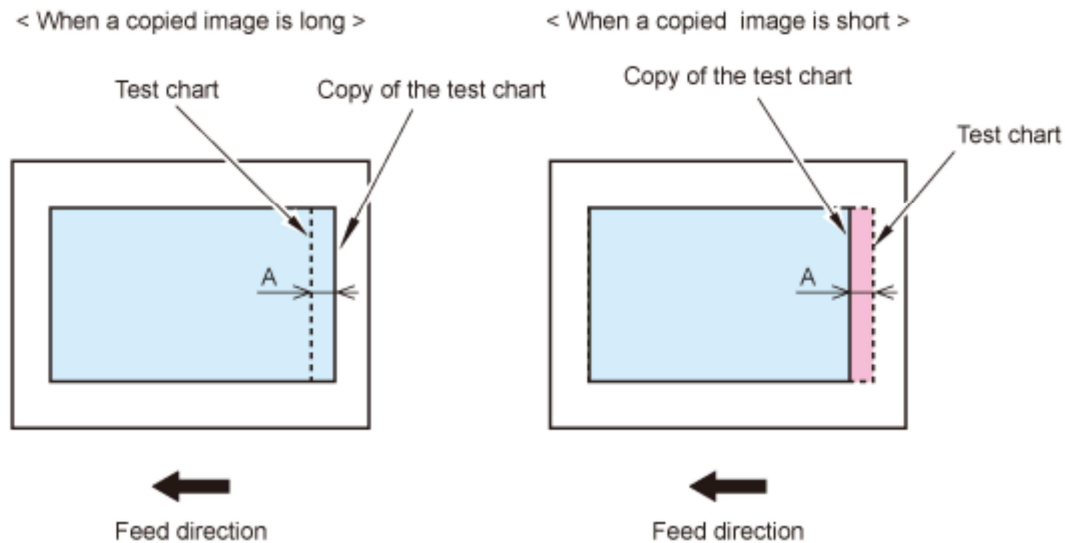
Carry out the following process when adjustment is necessary.

- 3) Select the item in the service mode.

(LV.1) FEEDER> ADJUST> LA-SPD2

- 4) Input value, and adjust an image.

- When a copied image is long: Decrease value (The feeding speed increases)
- When a copied image is short: Increase value (The feeding speed decreases)
- Adjustment unit: 0.1 %



5) Write the new changed value in the service label.

6) Exit the service mode.

● 6. Adjustment the White Level for ADF Scanning

1) Take the action stated below in the service mode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1/2/3/4 (White level adj in book/ADF mode)

1-1) Place a sheet of paper that the user usually uses on the Copyboard Glass, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL1

Read the white level (B&W) in the BOOK mode. (Check the transparency of the Copyboard Glass)

1-2) Place a sheet of paper that the user usually uses on the ADF, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL2

Read the white level (B&W) in the ADF mode. (Check the transparency of the ADF Reading Glass.)

1-3) Place a sheet of paper that the user usually uses on the Copyboard Glass, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL3

Read the white level (Color) in the BOOK mode. (Check the transparency of the Copyboard Glass)

1-4) Place a sheet of paper that the user usually uses on the ADF, enter the following servicemode.

(Lv.1) COPIER> FUNCTION> CCD> DF-WLVL4

Read the white level (Color) in the ADF mode. (Check the transparency of the ADF Reading Glass.)

NOTE:

The result of the adjustment is reflected to COPIER> ADJUST> CCD> DFTAR-K/ DFTAR-R/ DFTAR-G/ DFTAR-B.

Original Exposure and Feed System (Laser Scanner Unit)

■ Laser Scanner Unit

<Procedure of Replacement>

"Removing the Laser Scanner Unit."

<Procedure after Replacement>

- 1) When replacing the laser unit, enter the values recorded on the label affixed to the laser unit to be replaced for the following in the service mode:



Trailing edge OFF adjustment for the laser:

A. (LV1) COPIER> ADJUST> LASER> PVE-OFST> 136

Magnification between the lasers:

B. (LV1) COPIER> ADJUST> LASER> LDADJ1-K> -10

C. (LV1) COPIER> ADJUST> LASER> LDADJ2-K> 0

D. (LV1) COPIER> ADJUST> LASER> LDADJ3-K> 147

Phase difference between the lasers:

E. (LV1) COPIER> ADJUST> LASER> LDADJ4-K> 93

F. (LV1) COPIER> ADJUST> LASER> LDADJ5-K> 16

G. (LV1) COPIER> ADJUST> LASER> LDADJ6-K> 117

- 2) Write the new changed value in the service label.

3) Exit the service mode.

When Replacing the Parts (Controller System)

HDD

Before Replacing	<p>1) Backup of the set/registered data Use the Remote UI. Management Settings > Data Management > Import/Export Target data:</p> <ul style="list-style-type: none">• Address List• Forwarding Settings• Web Access Favorites <p>2) Printing the set/registered data Use the service mode. (Lv.1) COPIER > FUNCTION > MISC-P > USER-PRT List of the set/registered data which cannot be backed up is printed." 3) Use SST to upload Meapback.bin to the Flash PCB on the Main Controller. (When Meapback.bin cannot be uploaded, use another method. Refer to Backup Data.)</p>
After Replacing	<p>1) HDD format</p> <ul style="list-style-type: none">1-1) Start with the safe mode. (While pressing 2 and 8 keys simultaneously, turn ON the main power switch.)1-2) Use SST to format all partitions. <p>2) Initializing the key, certificate and CA certificate (Lv.2) COPIER > FUNCTION > CLEAR > CA-KEY</p> <p>3) Turning OFF and ON the main power switch</p> <p>4) Restoring the backup data Use the Remote UI. Management Settings > Data Management > Import/Export</p> <p>5) Restore the backup data.</p> <ul style="list-style-type: none">5-1) Use RUI: Management Settings > Data Management > Import/Export5-2) Download Meapback.bin using SST.

	<p>6) Resetting/registering the data While referring to the list of set/registered data which was printed before replacement, reset/register the data.</p> <p>7) When the user generates and adds the encryption key, certificate and/or CA certificate, request the user to generate them again.</p>
Points to Note when Using the HDD	When using the HDD of the other machine (different serial number), be sure to format the HDD after the installation. If the HDD is not formatted, the operation cannot be guaranteed.

Main controller PCB

Before Replacing	<p>1) Backup of the set/registered data Use the Remote UI. Use the Remote UI: Management Settings > Data Management > Import/Export Target data:</p> <ul style="list-style-type: none"> • Address List • Forwarding Settings <p>2) Printing the set/registered data Use the service mode. (Lv.1) COPIER > FUNCTION > MISC-P > USER-PRT List of the set/registered data which cannot be backed up is printed."</p>
Replacement	<p>Transferring the parts from old PCB to new PCB</p> <ul style="list-style-type: none"> • Memory PCB • Flash PCB • TPM PCB
Aftter Replacing	<p>1) After installing the parts, turn ON the main power switch.</p> <p>2) Restoring the backup data Use the Remote UI. Management Settings > Data Management > Import/Export</p> <p>3) Resetting/registering the data While referring to the list of set/registered data which was printed before replacement, reset/register the data.</p> <p>4) When the user generates and adds the encryption key, certificate and/or CA certificate, request the user to generate them again.</p>
Prohibited Operation	<p>Do not transfer the following parts to another model (which has a different serial number). If you fail to do so, the Main Body does not activate normally and this might cause to fail the restoration.</p>

- Main Controller PCB
- Flash PCB
- TPM PCB
- Memory PCB

DC Controller PCB

Procedure of Replacement	"Removing the DC Controller PCB."
Before Replacing	<p>1) Backup of the Service Mode data. (Lv.2) COPIER> FUNCTION> SYSTEM> DSRAMBUP After "ACTIVE" is displayed for approx 2 minutes, "OK!" is displayed. If necessary, output the service mode setting values by P-PRINT before execution. (Lv.1) COPIER> FUNCTION> MISC-P> P-PRINT</p> <p>2) After the above execution is completed, turn OFF the main power supply.</p>
After Replacing	<p>1) Restore of the Service Mode data. (Lv.2) COPIER> FUNCTION> SYSTEM> DSRAMRES</p> <p>2) If uploading of backup data fails before replacement due to the damage to the DC Controller PCB, enter the values of service mode items recorded on the service label or P-PRINT.</p> <p>3) Turn OFF and then ON the main power switch. (Turning OFF/ON the main power switch allows the values entered for the service mode items to take effect.)</p>

Image Position Adjustment

Copy 10 sheets from each pickup position to check that the image margin and non-image area is within the standard.

- Each Cassette
- Multi-purpose Tray

If it is not within the standard, go through the following procedures to adjust it.

CAUTION:

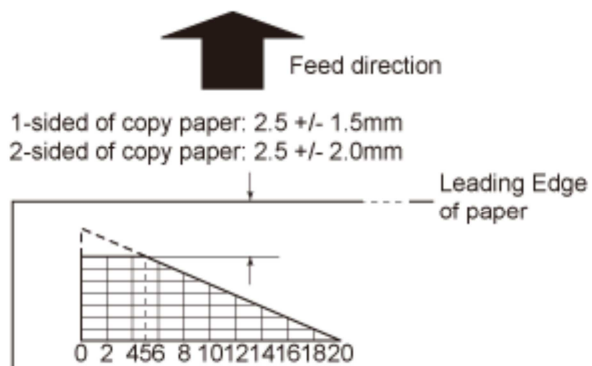
If changing the value of service mode item in this adjustment, enter the changed value in the service label.

Leading Edge Margin Adjustment

■ Standard

1-sided: 2.5 +/- 1.5 mm

2-sided: 2.5 +/- 2.0 mm



■ Service Mode Adjustment Method

<Adjustment of regist start timing: 1/1 speed>

(Lv.1) COPIER> ADJUST> FEED-ADJ> REGIST

- Adjustment unit: 0.1 mm
- Increase value: Leading Edge Margin becomes larger.
- Decrease value: Leading Edge Margin becomes smaller.

<Adjustment of regist start timing: 1/2 speed>

(Lv.1) COPIER> ADJUST> FEED-ADJ> RG-HF-SP

- Adjustment unit: 0.1 mm
- Increase value: Leading Edge Margin becomes smaller.
- Decrease value: Leading Edge Margin becomes larger.

<Adjustment of Leading Edge Margin>

(Lv.1) COPIER> ADJUST> BLANK> BLANK-T

- Adjustment unit: 1 pixel (0.0423 mm)

- Increase value: Leading Edge Margin becomes larger.
- Decrease value: Leading Edge Margin becomes smaller.

<Adjustment of ADF image lead edge margin>

(Lv.1) FEEDER> ADJUST> DOCST

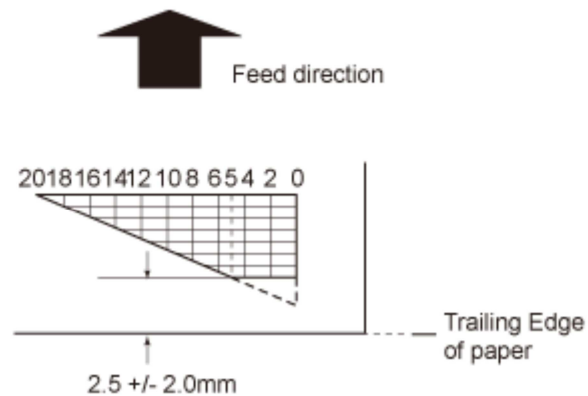
- Adjustment unit: 0.1 mm
- Increase value: Leading Edge Margin becomes smaller.
- Decrease value: Leading Edge Margin becomes larger.

Trailing Edge Margin Adjustment

■ Standard

1-sided: 2.5 +/- 2.0 mm

2-sided: 2.5 +/- 2.0 mm



■ Service Mode Adjustment Method

<Adjustment of Trailing Edge Margin>

(Lv.1) COPIER> ADJUST> BLANK> BLANK-B

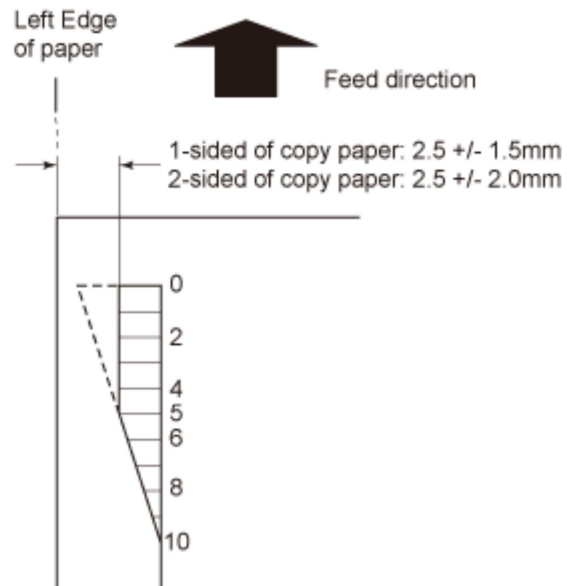
- Adjustment unit: 1 pixel (0.0423 mm)
- Increase value: Trailing Edge Margin becomes larger.
- Decrease value: Trailing Edge Margin becomes smaller.

Left Margin Adjustment

■ Standard

1-sided: 2.5 +/- 1.5 mm

2-sided: 2.5 +/- 2.0 mm



■ Service Mode Adjustment Method (1-sided)

<Enter Cassette1 side register adjustment value>

(Lv.2) COPIER> ADJUST> MISC> C1-ADJ-Y

- Adjustment unit: 0.1 mm
- Increase value: Left Margin becomes larger.
- Decrease value: Left Margin becomes smaller.

<Enter MP Tray side register adjustment value>

(Lv.2) COPIER> ADJUST> MISC> MF-ADJ-Y

- Adjustment unit: 0.1 mm
- Increase value: Left Margin becomes larger.

- Decrease value: Left Margin becomes smaller.

■ Service Mode Adjustment Method (2-sided)

<Adjustment of the write start position of image in horizontal scanning direction: 2-sided>

(Lv.1) COPIER> ADJUST> FEED-ADJ> ADJ-REFE

- Adjustment unit: 0.1 mm
- Increase value: Left Margin becomes larger.
- Decrease value: Left Margin becomes smaller.

<Adjustment of the write start position of image in horizontal scanning direction: 2-sided of the large paper (Bigger paper than LTR)>

(Lv.1) COPIER> ADJUST> FEED-ADJ> ADJ-RE-L

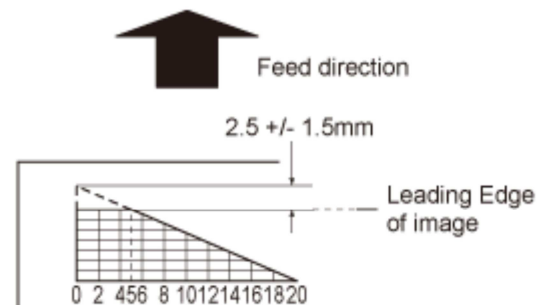
- Adjustment unit: 0.1 mm
- Increase value: Left Margin becomes larger.
- Decrease value: Left Margin becomes smaller.

Leading Edge Non-image Width Adjustment

■ Standard

1-sided: 2.5 +/- 1.5 mm

2-sided: 2.5 +/- 1.5 mm



■ Service Mode Adjustment Method

<Adjustment of image position in book mode: vertical scanning direction>

(Lv.1) COPIER> ADJUST> ADJ-XY> ADJ-X

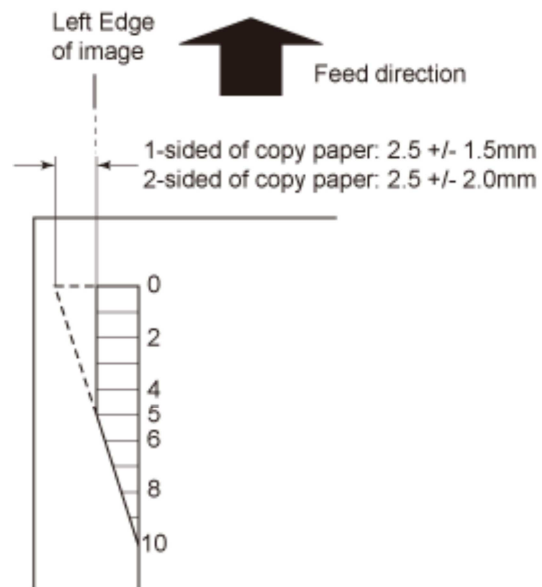
- Adjustment unit: 0.1 mm
- Increase value: Leading Edge of image is moved to the Leading Edge direction.
- Decrease value: Leading Edge of image is moved to the Trailing Edge direction.

Left Edge Non-image Width Adjustment

■ Standard

1-sided: 2.5 +/- 1.5 mm

2-sided: 2.5 +/- 2.0 mm



■ Service Mode Adjustment Method

<Adjustment of image position in book mode: horizontal scanning direction>

(Lv.1) COPIER> ADJUST> ADJ-XY> ADJ-Y

- Adjustment unit: 0.1 mm
- Increase value: Left Edge of image is moved to the Left Edge direction.
- Decrease value: Left Edge of image is moved to the Right Edge direction.

<Adjustment of image position in ADF mode: horizontal scanning direction>

(Lv.1) COPIER> ADJUST> ADJ-XY> ADJ-Y-DF

- Adjustment unit: 0.1 mm
- Increase value: Left Edge of image is moved to the Left Edge direction.
- Decrease value: Left Edge of image is moved to the Right Edge direction.

Adjustment of the Image Position of the ADF

- Adjustment of the Degree of a Right Angle ([Reference](#))
- Adjustment of the Image Position (Horizontal Scanning Direction) ([Reference](#))
- Adjustment of the Image Position (Vertical Scanning Direction) ([Reference](#))
- Fine Adjustment of Image Magnification (1-sided/Vertical Scanning Direction) ([Reference](#))
- Fine Adjustment of Image Magnification (2-sided/Vertical Scanning Direction) ([Reference](#))

Initial Check

List of Initial Check Items

Item	No.	Check Items	Check
Site environment	1	The value of power voltage is +/- 10% of the specified voltage.	
	2	The machine is not in a high-temperature/high-humidity place (near the water tap, water boiler, or humidifier), a cold place, a place near fire, or a dusty place.	
	3	The machine is not in a place that generates ammonia gas	
	4	The machine is not in a place of direct sunlight.	
	5	The machine is installed in a well-ventilated place where the machine stands horizontally.	
	6	The power plug of the machine is connected to the output	
Checking the paper	1	The Canon-recommended paper is used.	
	2	The paper is not moistened. Set paper by taking it out from a new package to output.	
Checking the paper setting	1	Paper that is within the specified volume is correctly set in the Cassette and Multi-purpose Tray.	
	2	When using transparency film, the transparency is set in the correct direction in the Multi-purpose Tray.	
Checking the consumable parts	1	Check the list of consumable parts for periodical replacement and locations for cleaning, and replace parts that reach the estimated life.	
Checking the periodical servicing items	2	Check the list of consumable parts for periodical replacement and locations for cleaning, and execute maintenance work for the parts that reach the maintenance timing.	

Checking the Units/Check Items of Function System

Do not move a machine that has been stone-cold in a warehouse into a warm room on all on a sudden. (This generates condensation inside the machine, and causes various types of troubles)

Item	No.	Check Items	Check
Reader	1	Check for scar, soiling or foreign particle in the Scanner System (CIS/ White Plate/ Copyboard Glass).	

Item	No.	Check Items	Check
	2	Check that the CIS Unit moves smoothly. Check for soiling on the rail.	
	3	Check for flicker with CIS.	
	4	Check for condensation in the Scanner System.	
Image Formation	1	The Drum Unit/Toner Bottle is securely installed.	
	2	Check for scar or soiling on the Photosensitive Drum.	
	3	Check for wear, scar, soiling or deformation on the Transfer Roller.	
Fixing	1	Check for wear, scar, soiling or deformation on the Fixing Film/Pressure Roller.	
	2	Check if the Fixing Main Thermistor is open circuit.	
	3	Check for electrical continuity of the Thermoswitch	
Pickup Feed	1	Check for foreign particle such as paper lint.	
	2	Check if paper dust is accumulated on the Cassette Pickup / Feed / Separation Roller. Check for wear, scar, soiling or deformation.	
	3	Check for wear, scar, soiling or deformation on the Registration Roller/Paper Path Roller.	
	4	Check for wear, scar, soiling or deformation on the Feed Guide.	
	5	Check for an error such as folding at the leading edge/curl/ripple/moist of the paper.	
	6	Check if the symptom improves by using the Canon-recommended paper/transparency film.	
Drive	1	Check for load in the drive system.	
	2	Check for wear or crack of the gear.	
Cassette	1	Check that the Cassette is correctly set. Check that the paper size is correctly specified. Check that the same symptom does not occur when replacing with a normal cassette.	
	2	Check that the Cassette Lifting Plate moves smoothly. Check for deformation.	
	3	Check hat the Side Guide Plate/Trailing Edge Guide Plate in the Cassette is correctly set.	
General items	1	Check for operation of the Sensor/Clutch/Motor/Solenoid. Check for poor contact of the connector. (Check the power supply and signal transmission path with general circuit diagram)	
	2	Check for a caught wire in wiring/loosened screw.	

Item	No.	Check Items	Check
	3	Check that the External Covers are all attached.	
	4	Check that the Main Power Switch/Control Panel Power Switch is turned ON.	
	5	Check that the power cables/signal cables are correctly routed to the options.	
	6	Check for blowout of a fuse on the PCBs.	
	7	Check that the user uses the machine correctly	
Others	1	<p>Do not move a machine that has been stone-cold in a warehouse into a warm room on all on a sudden. (This generates condensation inside the machine, and causes various types of troubles)</p> <ul style="list-style-type: none"> • E100 error by condensation of the BD Sensor • Light image density by condensation of the Contact Image Sensor and Copyboard Glass. • Failure in paper feeding by condensation of the Pickup/Feed Guide 	
	2	<p>In the case of the symptom described above, be sure to dry wipe the units of the pickup/feed system</p> <p>Condensation tends to occur when unpacking a Toner Bottle/Drum Unit that has been kept in a cold place and brought into a warm room. To prevent condensation, be sure to make the part sufficiency accustomed to the room temperature (leave it for 1 to 2 hours) before unpacking.</p>	

Test Print

Overview

The following test print types are available with this machine, and you can check for failure of an image with 'Yes' described in the check items in the table below.

When no failure is found in the test print in normal output mode, it can be caused in PDL input or Reader.

Steps to Select a Test Print Type

PG TYPE	Pattern	Image check item											
		Gradation	Fogging	Transfer failure	Black line	White line	Uneven pitch	Uneven density	Right angle accuracy Straight line accuracy	Side registration	Shock	Magnification ratio	
0	Normal copy/print	-	-	-	-	-	-	-	-	-	-	-	-
1	Grid	-	-	-	-	-	-	-	-	Yes	Yes	-	Yes
2	17 gradations Tbic rank 2	Yes	-	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-
3	17 gradations 600dpi (134-line screen or 141-line screen)	Yes	-	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-
4	Solid white	-	Yes	-	Yes	-	-	-	-	-	-	-	-
5	Halftone (density: 80H, Tbic rank 2, without image correction)	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	Yes	-
6	Halftone (density: 80H, 134-line screen or 141-line screen, without image correction)	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	Yes	-
7	Solid black	-	Yes	Yes	-	Yes	Yes	Yes	Yes	-	-	-	-
8	Horizontal line (4 dots, 27 spaces)	-	-	-	-	-	-	-	-	Yes	-	-	-
9		-	-	-	-	-	-	-	-	Yes	-	-	-

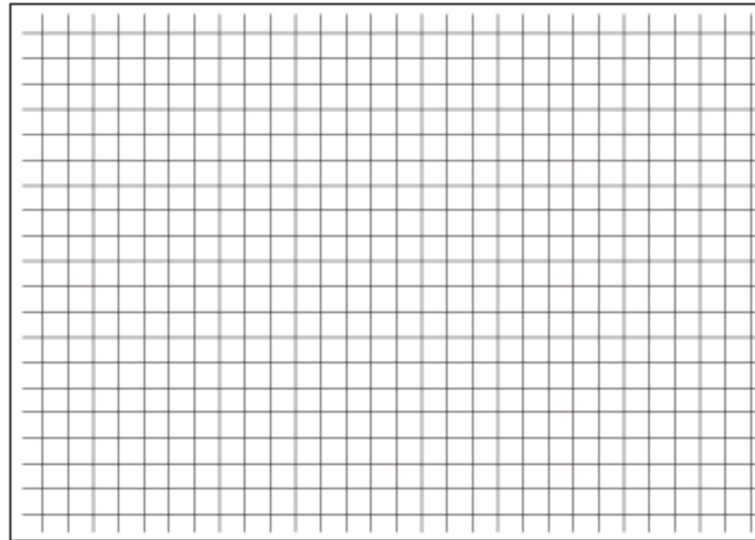
PG TYPE	Pattern	Image check item										
		Gradation	Fogging	Transfer failure	Black line	White line	Uneven pitch	Uneven density	Right angle accuracy Straight line accuracy	Side registration	Shock	Magnification ratio
15 to 50	For development											

Operation Procedure

- 1) Select COPIER> TEST> PG> TYPE.
- 2) Select 1-sided (0) or 2-sided (1). : COPIER> TEST> PG> 2-SIDE
- 3) Enter the number of sheets to output. : COPIER> TEST> PG> PG-QTY
- 4) Select a pickup cassette and press the Start key. : COPIER> TEST> PG> PG-PICK
 - 1: Cassette1, 2: Cassette2 (OP), 3: Cassette3 (OP), 4: Cassette4 (OP), 5: Multi-purpose Tray
- 5) The machine outputs the test pattern.

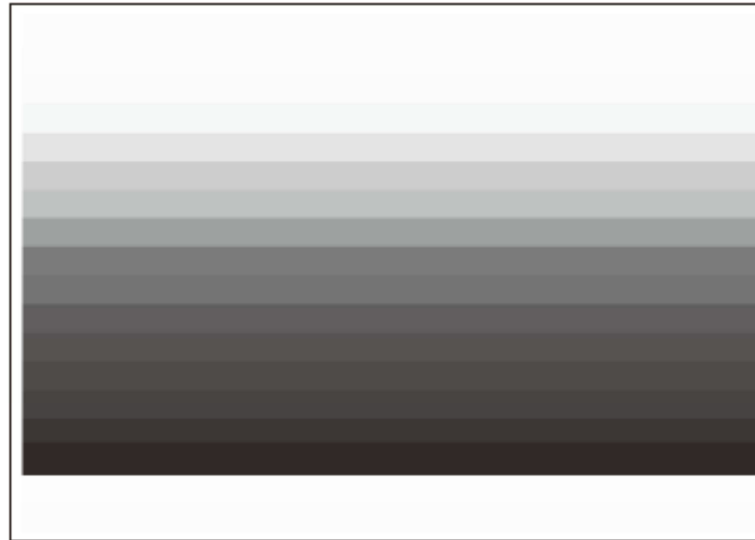
How to View the Test Print

■ Grid (TYPE = 1)



Check item	Check method	Assumed cause
Right angle accuracy/Straight line accuracy	Check whether lines in the horizontal/vertical scanning directions are paralleled to the paper and these lines are at right angles to one another.	Feed system failure or Laser Scanner Unit failure is considered.
Side registration	Check the left margin.	Floor at the installation site is extremely distorted, or the feed system failure is considered.
Magnification ratio	Check whether the grid is printed at 9.99mm intervals. (Check the image on the second side at duplex printing.)	Roller's feed system failure or laser exposure system failure (drum, Laser Scanner) is considered.

■ 17 gradations (TYPE = 2/3)



Check item	Check method	Assumed cause
Gradation	Check whether gradation in density is made appropriately.	Drum failure, laser exposure system failure or developing system failure is considered.
Transfer failure	Check the evenness of density. Check whether uneven image or foggy image appears.	Transfer system failure or transfer roller failure is considered.
Black line	Check whether black lines appear on the image.	Laser light path failure, developing system failure, cleaning (drum) failure or transfer roller failure is considered.
White line	Check whether white lines appear on the image.	Developing system failure is considered.
Uneven pitch	Check whether lines appear on the image in the horizontal scanning direction.	Drum failure, developing system failure, laser exposure system failure or drive-related failure is considered.
Uneven density	Check the density difference between the front and rear sides.	Drum failure or developing system failure is considered.

■ Solid white (TYPE = 4)



Check item	Check method	Assumed cause
Fogging	Check whether foggy image appears in the blank area.	Drum failure, laser exposure system failure or developing system failure is considered.
Black line	Check whether black lines appear on the image.	Laser light path failure, developing system failure, cleaning (drum) failure or transfer roller failure is considered.

■ **Halftone (TYPE = 5/6/11/12/13/14)**



Check item	Check method	Assumed cause
Fogging	Check whether foggy image appears in the blank area.	Drum failure, laser exposure system failure or developing system failure is considered.
Transfer failure	Check the evenness of halftone density. Check whether uneven image or foggy image appears.	Transfer system failure or transfer roller failure is considered.
Black line	Check whether black lines appear on the image.	Laser light path failure, grid failure, developing system failure, cleaning (drum) failure or transfer roller failure is considered.
White line	Check whether white lines appear on the image.	Developing system failure is considered.
Uneven pitch	Check whether lines appear on the image in the horizontal scanning direction.	Drum failure, developing system failure, laser exposure system failure or drive-related failure is considered.
Uneven density	Check the density difference between the front and rear sides.	Drum failure or developing system failure is considered.
Side registration	Check the left margin.	Floor at the installation site is extremely distorted, or the feed system failure is considered.
Shock	Check whether horizontal lines appear on the image.	Roller's feed system failure or laser exposure system failure (drum, Laser Scanner) is considered.

■ **Solid black (TYPE = 7)**



Check item	Check method	Assumed cause
Fogging	Check whether foggy image appears in the blank area.	Drum failure, laser exposure system failure or developing system failure is considered.
Transfer failure	Check the evenness of density. Check whether uneven image or foggy image appears.	Transfer system failure is considered.
White line	Check whether white lines appear on the image.	Developing system failure is considered.
Uneven pitch	Check whether lines appear on the image in the horizontal scanning direction.	Drum failure, developing system failure, laser exposure system failure or drive-related failure is considered.
Uneven density	Check the density difference between the front and rear sides.	Drum failure or developing system failure is considered.

■ **Horizontal line (TYPE = 8/9/10)**



Check item	Check method	Assumed cause
Right angle accuracy/Straight line accuracy	Check whether lines in the horizontal/vertical scanning directions are paralleled to the paper and these lines are at right angles to one another.	Feed system failure or Laser Scanner Unit failure is considered.

Troubleshooting Items

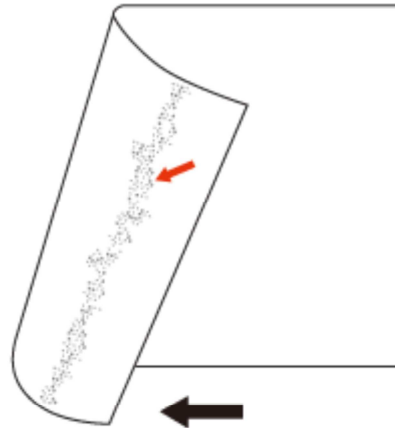
List of Troubleshooting Items

Category	Item	Description	Reference
Image Failure	Soiling	Toner soiling at the back side of paper	Reference
		Soiling at the leading/trailing edge of paper	Reference
	Toner bleed/white spot	Poor transfer of the image, hollow character	Reference
		Image smear/toner bleed/condensation	Reference
Operation failure	Paper jam	Large curl of paper	Reference

Category	Item	Description	Reference
		Jam of thin paper (63g/cm ² or lighter)	Reference
		Jam of paper with solid image when the leading edge margin is small (1 to 4mm)	Reference
	Failure in setting	The toner bottle set lever cannot be operated or is hard to operate.	Reference

Image Failure

■ Toner soiling at the back side of paper



[Location]

Fixing Assembly (circumference of Pressure Roller: 94mm)

Transfer Roller (roller circumference: 50mm)

[Cause]

Fixing Assembly: Toner on the paper comes off and adheres to the Pressure Roller, and then the toner adheres to the back side of the paper.

Transfer Roller: Toner remains on the Drum that has stopped at the time of paper jam, and then the residual toner on the Drum adheres to the Transfer Roller during a recovery operation.

[Condition]

Fixing Assembly: Under conditions that causes poor fixing performance, such as low temperature environment, or when feeding a large number of sheets of halftone image. Or the Fixing Unit comes to the end of its life for replacement.

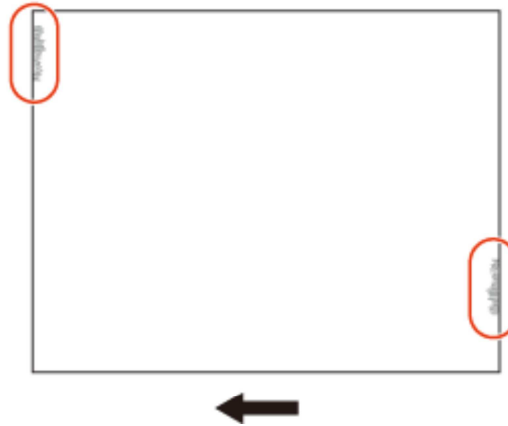
Transfer Roller: When a paper jam occurs. Or the Transfer Roller comes to the end of its life for replacement

[Field Remedy]

Fixing assembly: Service mode(Lv.2)> COPIER> FUNCTION> CLEANING> FIX-CLN> OK

Transfer Roller: Service mode(Lv.2)> COPIER> FUNCTION> CLEANING> TR-CLN> OK

■ Soiling at the leading/trailing edge of paper



[Location]

Pre-transfer Guide,

Fixing Inlet Guide

[Cause]

- Pre-transfer Guide: The leading edge or trailing edge of paper touches the toner adhered to the Pre-transfer Upper Guide.
- Fixing Inlet Guide: The leading edge or trailing edge of paper touches the toner adhered to the Fixing Inlet Upper Guide.

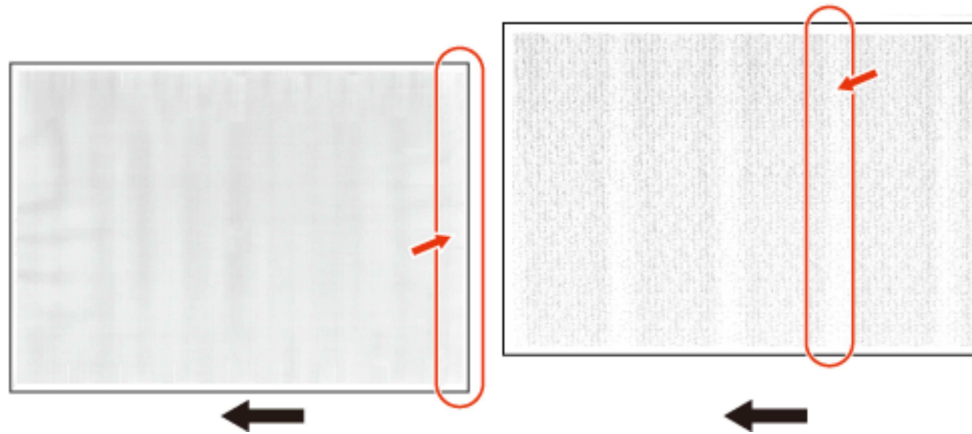
[Condition]

When a high print chart, such as halftone or black, is continuously fed.

[Field Remedy]

Clean the toner-adhered Guide with lint-free paper.

■ Poor transfer of the image, hollow character



[Location]

Transfer Roller (roller circumference: 50mm)

[Cause]

- Because of insufficient transfer output due to highly-resistive paper caused by reduced moisture content in paper by having the paper left untouched in a low humidity environment
- Because of insufficient transfer output due to highly-resistive paper caused by increased moisture content in paper by having the paper left untouched in a high humidity environment

[Condition]

- Paper left untouched in a low humidity environment
- Paper left untouched in a high humidity environment

[Field Remedy]

- Service mode (Lv.2)> COPIER> OPTION> IMG-TR> TROPT-SW> -2 to 1
 - 2: Transfer output voltage moreover decreases.
 - 1: Transfer output voltage decreases.
 - 0: OFF
 - 1: Transfer output voltage increases.

■ **Image smear/toner bleed/condensation**



[Location]

Photosensitive Drum (circumference:94mm)

[Cause]

Discharge products generated from the Charging Roller adhere to the Drum, attract water molecules and cause low resistance, which loses the ability to create the desired latent image, resulting in bleed text image.

[Condition]

The first operation in the day under a high temperature and high humidity environment

[Field Remedy]

- Service mode (Lv.2)> COPIER> OPTION> ENV-SET> IMG-BLD1> 0 to 3
 - 0: OFF
 - 1: Extend warm-up rotation for 60 seconds
 - 2: Extend for 120 seconds
 - 3: Extend for 240 seconds
- When "1-3" under "Service mode(Lv.2)> COPIER> OPTION> ENV-SET> IMG-BLD1" are set, the item is displayed in the user mode. Only setting value "2" can work in the user.
 - [Settings/Registration]> [Adjustment/Maintenance]> [Clean Drum]> [Start]
- Install an option Drum Heater

■ Large curl of paper

[Location]

Fixing Assembly

[Cause]

Excess heat from fixing changes moisture content between the front and back of paper, which causes large curl.

[Condition]

Paper left untouched in a high humidity environment

[Field Remedy]

- Service mode (Lv.2)> COPIER> OPTION> IMG-FIX> TMP-TBLC> 0 to 3
 - 0: Auto
 - 1: OFF
 - 2: N1 mode with plain paper 1/2 (Target temperature becomes low.)
 - 3: N3 mode with plain paper 1/2 (Target temperature becomes moreover low.)

■ Paper jam in solid image when the leading edge margin is small (1 to 4mm)

[Location]

Fixing Assembly

[Cause]

When handling a solid image with small leading edge margin (1 to 4mm), it causes poor paper separation from the Fixing Film and paper jam can occur by separation failure.

[Condition]

Paper left untouched in a high humidity environment, solid image with small leading edge margin

[Field Remedy]

- Service mode (Lv.2)> COPIER> OPTION> FEED-SW> SP-SW> 0 to 2
 - 0: OFF
 - 1/2: Separation priority mode
 - Or Service mode (Lv.2)> COPIER> OPTION> IMG-FIX> TMP-TBLC> 0 to 3
 - 0: Auto
 - 1: OFF
 - 2: N1 mode with plain paper 1/2 (Target temperature becomes low.)
 - 3: N3 mode with plain paper 1/2 (Target temperature becomes moreover low.)
- * Selecting "SP-SW > 1/2" or "TMP-TBLC > 3" makes a wider leading edge margin and avoids paper jam by separation failure.
- * Selecting "TMP-TBLC > 2/3" also improves paper curl; however, it reduces productivity

■ Jam with thin paper (63g/m2 or lighter)

[Location]

Photosensitive Drum, Fixing Assembly

[Cause]

Separation performance drops due to weak rigidity of paper, which causes paper jam at the Cleaner Assembly or Fixing Assembly by separation failure.

[Condition]

When using thin paper lighter than 64g/m2

[Field Remedy]

- Service mode (Lv.1)> COPIER> OPTION> IMG-FIX> TMP-TBL5> 0 to 2
 - 0: OFF
 - 1: thin paper mode
 - 2: S-thin paper mode
- *When using 52g/m2 paper, "2" must be selected.

■ The toner bottle set lever cannot be operated or is hard to operate.

[Location]

Toner bottle set lever

[Cause]

- When sealing force of the Toner Bottle Cap is large although it is within the specified range, the lever operation force to open/close the cap can be large.
- The toner bottle has not been fully pushed into the rear to hear a sound.

[Condition]

- When opening a new toner bottle cap that has large sealing force although it is within the specified range
- When repeatedly setting a bottle that contains toner in an undesirable manner

[Field Remedy]

- Once the toner bottle set lever rotates by approximately 45 degrees, pulling the toner bottle while rotating the set-on lever can easily set the toner bottle.
- Operate the lever after the toner bottle is securely pushed into the rear.

Version Upgrade

Overview

■ Overview of Version Upgrade

The system software version is upgraded in 2 steps, downloading and writing the new version of the system software.

● Downloading System Software

This machine supports the following 3 downloading methods.

1. Download via the service support tool (hereinafter referred to as “SST”)

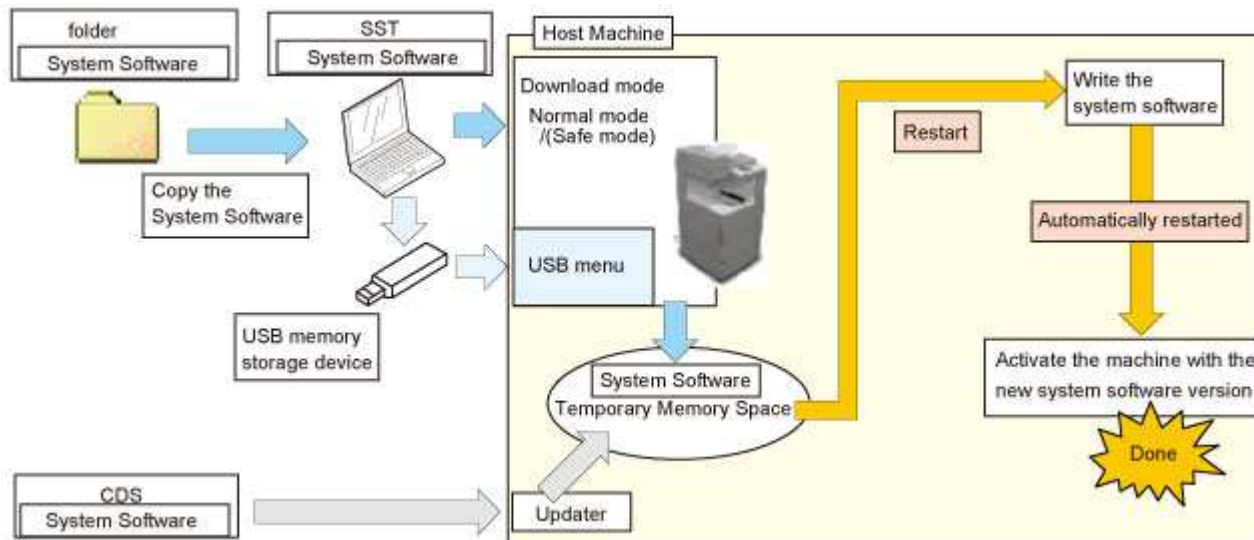
Connect the machine to the PC by the cross cable to download the system software using SST installed in the PC.

2. Download using the USB memory storage device

Insert the USB memory storage device to the slot of the machine and download the system software stored in the device.

3. Download via Contents Delivery System (hereinafter referred to as “CDS”)

Download the system software directly to the machine from CDS via Internet.



■ Download mode

When upgrading the version using SST or USB memory storage device, it is necessary to enter download mode.

● Starting the download mode

Enter download mode by selecting Copier > FUNCTION > SYSTEM > DOWNLOAD in service mode (recommended).

Press and hold 2 and 8 keys simultaneously on the numeric keypad, and turn ON the power switch.

The above operation makes this machine to be in static IP address automatically and recovers to enable the download in the same way as before.

■ Writing System Software

The system software downloaded in either of the abovementioned methods is stored in the temporary storage space of the FLASH PCB.

After the system software is successfully downloaded and this machine is restarted, writing process to the system area of the FLASH PCB is started.

When the main power switch of this machine is turned OFF during the writing process, it may render the machine unable to start.

This machine supports the remote version upgrade via CDS. When upgrading the system software via CDS, a warning message is shown on the control panel to alert the user not to turn OFF the power switch.

When the system software is successfully written, the machine is automatically restarted with the downloaded system software.

If any error occurs during the writing process, the machine is restarted with the previous firmware (the version before upgrade). Therefore, after version upgrade, be sure to check in service mode by following COPIER > DISPLAY > VERSION if version upgrade has been properly completed.

■ System Software Configuration

The table below shows the system software configuration for this machine.

Software to be upgraded		Display on SST		How to upgrade versions			Remarks
		Registered name of product	Name of system software	SST	USB memory	CDS	
Host Machine	SafeCont	iA500	SYSTEM	yes	yes	yes	
	StdCont			yes	yes	yes	
	Language Module		LANGUAGE	yes	yes	yes	
	Printer Controller		DCON	yes	yes	yes	

Software to be upgraded		Display on SST		How to upgrade versions			Remarks
		Registered name of product	Name of system software	SST	USB memory	CDS	
	FAX Board Boot Program		G3CCB	yes	yes	yes	Super G3 FAX Board-AM1/Super G3 2nd Line FAX Board-AM1
	FAX Board Main Program		G3CCM	yes	yes	yes	Super G3 FAX Board-AM1/Super G3 2nd Line FAX Board-AM1
Finisher	Finisher Controller	FIN_R1	FIN_CON	yes	yes	yes	Staple Finisher-R1
Cassette	Cassette Module Controller	CST_AA1	CST_CON	yes	yes	yes	Cassette Module-AA1

The finisher and cassette of this machine support version upgrade via the host machine in any of the abovementioned methods, i.e., via SST, USB memory storage device or CDS.

■ Note on download process

CAUTION: Never turn OFF the power during the download/ writing process

Turning OFF the power during the download/ writing process of the system software may cause a failure of machine startup at power-on.

When the machine fails to be started after turning the power ON, be sure to start in safe mode (by pressing 2 and 8 keys simultaneously on the numeric keypad).

CAUTION: Note on version upgrade completion

Even if the version upgrade is failed, the machine is properly restarted with the previous version; therefore, be sure to execute the following after completion of version upgrade to see if version upgrade has been properly completed

COPIER > DISPLAY >VERSION

NOTE:

With the previous models, the error code of E753-0001 occurs when downloading the system software for the option that is not installed. With this machine, however, no error occurs even if downloading the system software for the option that is not installed.

Version Upgrade via SST

■ Overview

The system software can be downloaded via SST in either of the two modes below.

- Assist mode (recommended)
- Single mode

The assist mode has the following features:

- Automatically identifies the connecting model
- Automatically searches the new version of the system software for the connecting model
- Automatically downloads the system software in the combination of the versions, which the operation has been checked.

This machine consists of multiple system software that mutually interacts during operation; therefore, it is necessary to download all the system software in the combination of the versions, which the operation has been checked. Basically, use the assist mode to download the system software of this machine.

NOTE:

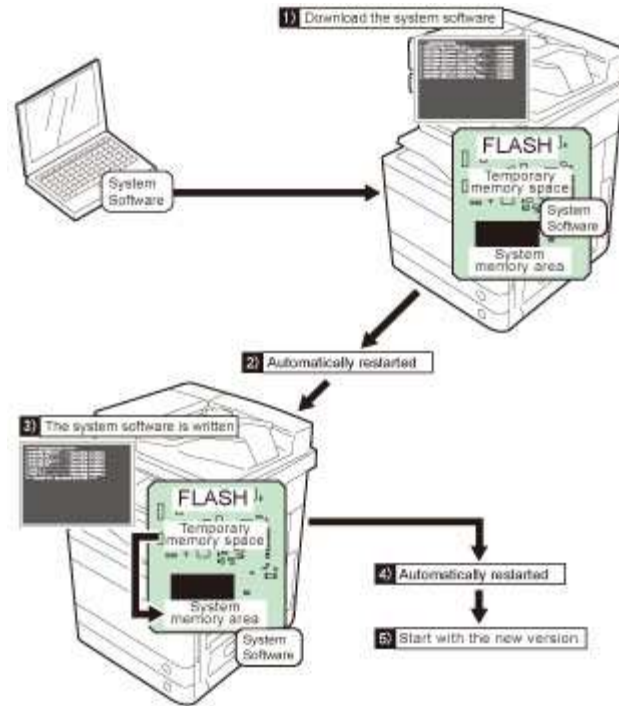
Use the single mode only in the following cases:

- When downloading a part of system software such as the DCON or an option.
- When uploading/ downloading the backup data.

● Downloading System Software

The system software is stored in the temporary storage space of the FLASH PCB immediately after downloading from the PC. When this machine is restarted after the download process, the system software is written in the system area of the FLASH PCB and the data in the temporary storage space is deleted.

This machine is automatically restarted after the writing process is completed. When the writing process is successfully completed, the machine is restarted with the new version of the system software. When an error occurs, the machine restarted with previous version of the system software.



■ Registering System Software

● System file storage folder to SST

Register the system software stored in the system file storage folder to SST.

NOTE:

When the system software has been compressed, decompress the compression file and then register the file to SST.

Preparation

Requirements:

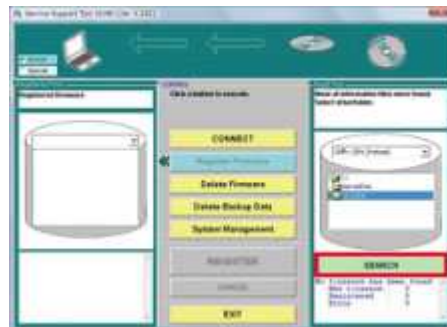
- PC with SST Ver.4.73 or later installed
- The system software for this machine

Steps to register the system software

- 1) Start the PC.
- 2) Start SST.
- 3) Click the “Register System Software” button.



- 4) Select the folder containing the system software and click the “Search” button.



NOTE:

“XXXX” in the figure describes the version of system software.

- 5) A list of system software in the folder is displayed.
Deselect the checkbox of unnecessary folder(s) and/or system software and click the “Register” button.
- 6) Click the “OK” button after the message telling completion of system software registration is displayed.



■ Connection

The following IP address is automatically assigned for this machine at startup in download mode.

- IP address: 172.16.1.100
- Subnet mask: 255.255.255.0

When the PC with SST installed is connected to this machine, change the PC network address as follows:

- IP address: 172.16.1.160
- Subnet mask: 255.255.255.0
- Default gateway: arbitrary

CAUTION:

While the PC is connected to the network, changing to the abovementioned settings may cause network failures due to an IP address conflict, etc. Ensure that the PC is disconnected from the network when you change the PC network settings. Alternatively use the cross cable to connect to this machine.

Preparation

Requirements

- PC with SST Ver.4.73 or later installed and the system software for this machine is registered.
- Cross cable
 - 10Base-T: Category 3 or 5
 - 100Base-T: Category 5
 - 1000Base-T: Enhanced Category 5 (CAT5e) or later

CAUTION:

Disconnect USB memory storage devices if connected.

This machine disables the communication to SST if any USB memory storage device is recognized. SST and the USB memory storage device cannot be used concurrently.

Procedure

- 1) Connect this machine and the PC with SST installed with the cross cable.
- 2) Turn ON the main power switch of this machine.
- 3) Enter service mode to start the machine in download mode.

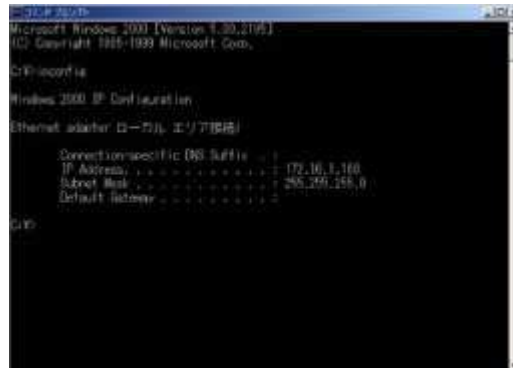
COPIER > FUNCTION > SYSTEM > DOWNLOAD; and press [OK].

- 4) Check the IP address of the PC.

Go to Start menu to select the following: Program > Accessory > Command Prompt.

Type IPCONFIG and press the [Return] key to see the network settings of the PC.

If any discrepancies from the description in the figure below are found, change the network settings of the PC.



CAUTION:

The network settings cannot be shown with IPCONFIG if the PC is disconnected from the network. To check the settings, ensure that this machine is turned ON, and connect the PC and this machine with the cross cable.

■ Downloading System Software (Assist mode)

- 1) Start this machine and enter download mode. (COPIER > FUNCTION > SYSTEM > DOWNLOAD)
- 2) Connect the PC to this machine and start SST.

- 3) Click the “Start Assist Mode” button.
Skip this step when starting SST in assist mode.



If newer combination of the system software is stored in SST, the new combination is automatically selected.

NOTE:
If only the existing system software combination is stored, none of them are selected. Any versions of the existing system software can be downloaded by manual selection.

- 4) Click the “Start” button.



Writing process is started when download is completed.

The machine is restarted twice during the writing process (at completion of writing processes other than SafeCont and at completion of writing process of SafeCont).

Upon completion of the writing process, the main menu is displayed.

NOTE: Download confirmation modes

Download is confirmed in any of the following 2 modes:

Downloading of the difference only: "Skip the existing versions and confirm whether to download the downgraded versions"

Downloading of the system software in the version that is not installed in the machine: "Confirm whether to download the existing versions/ downgraded versions"

Download is not executed when the target software is in the same version.

Overwrite all versions

Regardless of version upgrade or downgrade, all versions of the system software are downloaded without the confirmation message.

By default, "Skip the existing versions and confirm whether to download the downgraded versions" is selected.

5) Click the "Next" button.



6) Disconnect the cross cable from the machine.

7) Enter service mode to check the version of the system software.

8) Click the "OK" button.

The main menu is displayed.

NOTE:

When an error occurs during version upgrade, the machine is normally started with the previous version of the system software (the version before the upgrade). After version upgrade, be sure to check if the version of the system software is changed to the version you downloaded.

■ Downloading System Software (in single mode)

The following is the sample steps to download the DCON (the other components of the system software can be downloaded similarly)

1) Start the machine in download mode.

2) Connect the PC to this machine and start SST.

3) Select the model to be connected and “Single”, check the network settings. Click the “Start” button.



NOTE:

The following device information is shown at the right top of SST screen.

- IP address
- Model name
- Download mode



4) Select the DCON version to be downloaded and click the “Start” button.

Multiple files of system software can be selected in this step. Selecting SYSTEM automatically selects the language software that supports the selected system.



NOTE: Download confirmation modes

Download is confirmed in any of the following 2 modes:

- Downloading of the difference only: “Skip the existing versions and confirm whether to download the downgraded versions”
- Overwrite all versions

Regardless of version upgrade or downgrade, all versions of the system software are downloaded without the confirmation message.

“Skip the existing versions and confirm whether to download the downgraded versions” can be selected when the checkbox for SYSTEM is selected. There is no choice but to select “Overwrite all versions” when the checkbox for SYSTEM is not selected.

NOTE: Checking execution status for download

Once download is started, the process up to the writing process is automatically executed. You cannot interrupt or add the process in the middle of the operation. The following confirmation message is displayed when downloading is executed.



5) When download is completed, click the “OK” button.

Return to the main menu screen.

This machine is automatically restarted.

The downloaded system software is written on the FLASH PCB.

6) Enter service mode to check the version.

■ Formatting HDD

● Overview

Only HDD formatting is available on this machine. HDD formatting can be executed in the following cases:

- When installing the HDD from other machine installed
- When the HDD seems to be faulty and it is highly possible to solve the problem by formatting.

Executing Format ALL on the machine in use deletes all the user data in the HDD as well as the MEAP application; therefore, be sure to gain agreement with the user.

For normal version update, there is no need to format the HDD.

HDD can be formatted only in single mode.

When the HDD format is initiated, the formatting is executed at next start-up. In such cases, startup time will take longer than normal.

● Steps of Formatting

- 1) Enter download mode.
- 2) Connect the PC to the machine and start SST.
- 3) Select the model to be connected and “Single”. Check the network settings and click the “Start” button.



4) Click the “Format HDD” button.



5) Click the “Execute Format” button.



HDD is formatted at next startup.

The startup will take longer than normal for the HDD format.

■ Backup

● Overview

When replacing the Controller PCB, the data stored in the PCB can be temporary saved and migrated to the new PCB by using the backup function.

- Backup via SST

Backup data	File name to be downloaded/ uploaded
Flash data	Sraming.bin (available to upload/ download)
MEAP application	MeapBack.bin (available to upload/ download)
For R&D use	Sublog.bin (Do not select this file)

- Although backup of SramImg.bin can be executed with SST, the file is actually saved in the FLASH PCB.
- MeapBack is the MEAP application and its data stored in the FLASH/HDD.

(MeapBack is saved in the FLASH PCB for a FLASH (memory) model while it is saved in the HDD for a HDD model)

- Backup via service mode

Backup data	Service mode
Backup of DC Controller PCB	COPIER > FUNCTION > SYSTEM DSRAMBUP (backup) COPIER > FUNCTION > SYSTEM DSRAMRES (restoration)

- Data is saved in the FLASH PCB.

NOTE:

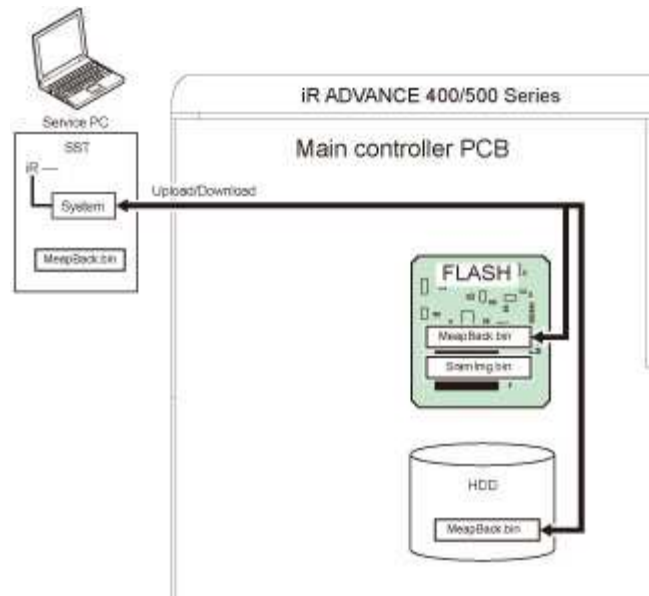
Before replacing the DC Controller PCB, backup the data in service mode. The backup data can be restored in service mode after replacing the DC Controller PCB. This enables to maintain the setting data including service mode stored in the old DC Controller PCB.

● **Steps to Upload Data**

CAUTION:

Do not select Sublog.bin

The backup data can be downloaded only on the machine from which the data was uploaded.



Listed below are the sample steps to upload MeapBack.

- 1) Enter download mode.
- 2) Connect the PC to the machine and start SST.
- 3) Select the model to be connected and "Single". Check the network settings and click the "Start" button.



- 4) Click the "Upload Data" button.



5) Select "MeapBack.bin" and click the "Start" button.



6) Enter the file name to be saved and comments when necessary. Click the "Save" button.



7) Click the "OK" button.

● Steps to Download Data

CAUTION:

The backup data can be downloaded to the machine from which the data was uploaded.

Listed below are the sample steps to download MeapBack.

- 1) Enter download mode.
- 2) Connect the PC to the machine and start SST.
- 3) Select the model to be connected and “Single”. Check the network setting and click the “Start” button.



- 4) Click the “Download Data” button.



- 5) Select the data to be downloaded and click the “Start” button.



- 6) When the data is successfully downloaded, click the “OK” button.
- 7) Restart the machine.

■ Optional language support

This is the explanation on how to download optional language firmware prepared locally by sales company.

The following basic languages and a normal languages are installed in this machine at the time of factory shipment.

General area	
Basic languages	English, Japanese
Normal languages	German, French, Italy, Spanish

Asian area	
Basic languages	English, Japanese
Normal languages	Simplified Chinese, Traditional Chinese, Korean

Besides these languages, you can install optional languages for which sales company prepared.

You can install basic languages, normal languages, optional languages, collectively 8 languages. The optional languages are prepared for in European area and Asian area.

The optional languages are shown below:

- European area
 - Bulgarian, Catalan, Czech, Danish, Greek, Estonian, Finnish, Croatian, Hungarian, Dutch, Norwegian, Polish, Portuguese, Romanian, Russian, Slovak, Slovenian, Swedish, Turkish,
- Asian area
 - Vietnamese and Thai.

The number of the installable languages

The number of the installable languages in this machine which are basic languages, normal languages, optional languages, collectively 8 languages.

2 basic languages and 4 normal languages are already installed. So you can install only 2 optional languages.

First, select the optional language to be downloaded in the Assist Mode and exported to the USB memory.

Optional language confirmation message appears in the Assist Mode.

The firmware of the selected optional language is exported to the USB memory.

The elimination of normal languages and optional languages

There are 2 kinds of language modules. One is the basic module which saved in system area, the other is the indication module which saved in other area.

Usually the indication module is used in UI. If there is not the indication module, it is made from the basic module.

If you want to eliminate languages from this machine, you have to delete both of the basic module and the indication module.

You can delete the indication module only in the normal mode. The deletion of the basic module is only in the download mode.

To eliminate normal languages and optional languages, you select following service mode.

Copier > FUNCTION > CLEAR > LANG-CLR (Level-2)

By selecting this service mode, the indication module of normal languages and optional languages are deleted, then the download mode is activated automatically.

At this time, installing firmware set(including SYSTEM) without the deletion languages by SST or USB memory, the basic module is deleted.

The basic languages(English and Japanese) are included in SYSTEM and these languages cannot be deleted.

The use case and execution methods

Work contents	SST	USB	CDS
Installing the optional languages to the machine of the normal languages.	Available	Available	Available
Eliminating the optional languages and restore to the normal languages	Available	Available	N/A
Interchanging the optional languages	Available	Available	N/A
Installing the more than 3 optional languages after eliminating the normal languages	Available	Available	N/A
Updating the machine of the optional languages	Available	Available	Available

● Optional language selection

"Optional Language Setting" is added to "System Management".

By default, "Don't download optional language" is selected.

When "Download optional language" is selected, up to two optional languages can be selected. The firmware of the optional languages on the list are excluded from Assist Mode necessary firmware. Assist Mode can be executed without registering the optional language firmware to SST.



● Optional language confirmation

When either of the following conditions is satisfied, the optional language confirmation message appears when "Start" button is clicked.

Optional language is selected in the "Optional Language Setting" of "System Management".

Any optional language is installed to the connected machine.

Maximum number of the optional languages installed to the machine is two.

The optional language already installed to the connected machine is always selected, and it cannot be removed from the machine with SST.

Even if the firmware of the installed optional language is not registered to SST, it is counted as the installed optional language.

The number of the selectable optional languages in the "Optional Language Setting" is equivalent to the maximum number of optional languages.

The number of the optional languages to be added to the machine is equivalent to the maximum number of optional languages minus the number of the optional languages installed to the machine.

Error will not occur even the number of the installed optional languages is greater than the maximum number of the optional languages.

In such a case, any new optional language cannot be added, but the firmware of the installed optional language is downloaded in the Assist Mode.

The picture shown below is the example of the case that Finnish is installed to the machine, and Danish and Dutch are selected in the "Optional Language Setting".

Only two optional languages can be installed to the machine and Finnish is already installed.

Therefore, either Danish or Dutch can be installed to the machine.



- **Firmware to be exported to USB memory**

When the firmware of the selected optional language in "Optional Language Setting" is installed to SST, it is exported to the USB memory.

The firmware of the other optional languages are not exported to the USB memory.

When Danish and Dutch are selected in the "Optional Language Setting", the firmware of these languages are exported to the USB memory as shown below.

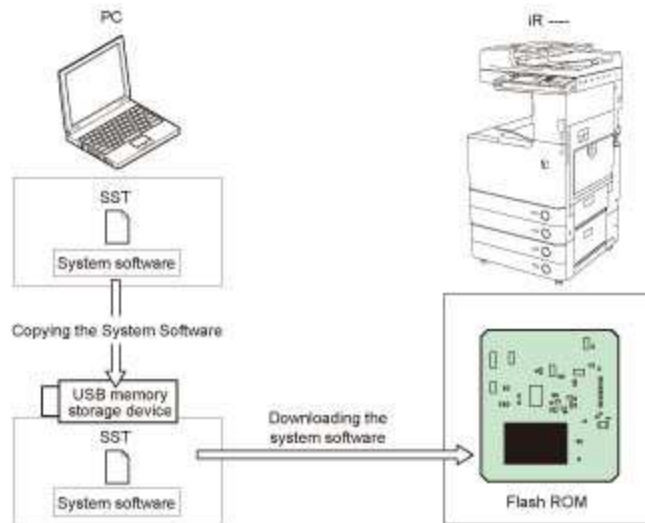


Version Upgrade using USB Memory Storage Device

- **Relation between SST and USB memory storage device**

When using the USB memory storage device for version upgrade, the system software should be copied to the USB memory storage device. By inserting the USB memory storage device to the slot of the machine, the system software can be upgraded.

The figure below shows the relation between SST and USB memory storage device.



When downloading the system software, enter download mode by any of the following methods.

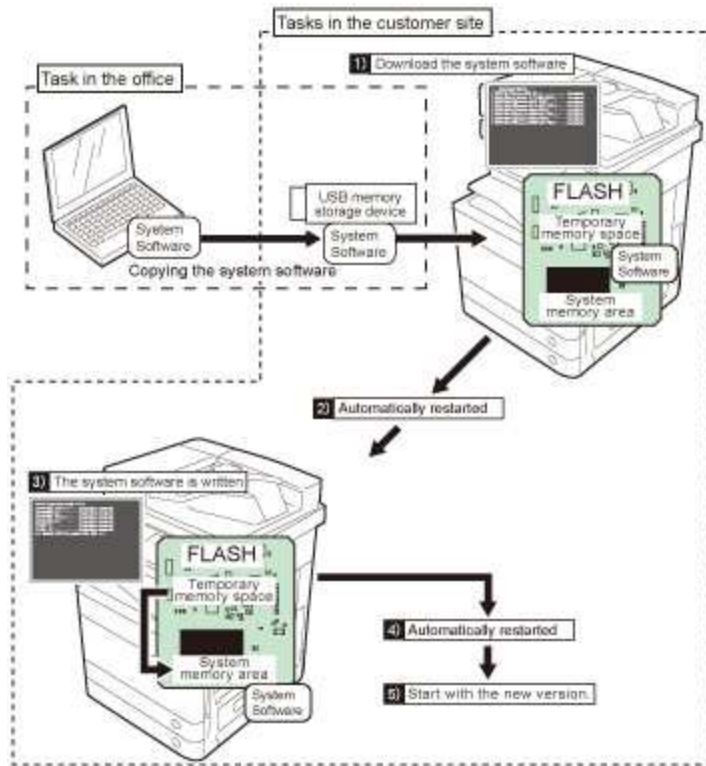
- Select the following in service mode (recommended):
COPIER > FUNCTION > SYSTEM > DOWNLOAD; and click [OK].
- Press and hold 2 and 8 keys simultaneously on the numeric keypad when turning ON the power switch.

NOTE:

It takes 2 to 3 minutes to enter the download mode from the service mode because the machine is restarted. Do not turn OFF the power during that time.

● Downloading System Software

The system software is updated according to the set of versions selected from the USB menu. The system software is stored in the temporary storage space on the FLASH PCB immediately after the system software is downloaded. After the download process, the system software is written in the system area on the FLASH PCB and the data saved in the temporary storage space is deleted. This machine is automatically restarted when the writing process is completed. When writing process is successfully completed, the machine is restarted with the new version of the system software. When an error occurs, the machine is restarted with the previous version of the system software.



■ Registering System Software

● System software storage folder to SST

Register the system software stored in the folder to SST.

NOTE:

When the system software has been compressed, decompress the compression file and then register to SST.

Preparation

Requirements:

- PC with SST Ver.4.73 or later installed
- The system software for this machine

Steps to register the system software

- 1) Start the PC.
- 2) Start SST.
- 3) Click the “Register System Software” button.



4) Select the folder in which the system software is saved and click the “Search” button.



NOTE:

“XXXX” in the figure describes the version of system software.

5) A list of system software in the folder is displayed.

Deselect the checkbox of unnecessary folder(s) and/or system software and click the “Register” button.



6) Click the “OK” button when the message telling completion of system software registration is displayed.



● SST to USB memory storage device

Register the system software registered in SST to the USB memory storage device.

NOTE:

Although only one version of software can be saved with the existing machines, multiple versions of software can be saved simultaneously in the USB memory storage device with this machine (up to 9 versions of software can be saved)

Preparation

Requirements:

- PC with SST Ver.4.73 or later installed
- USB memory storage device (*)
 - *: Requirements for USB memory storage devices
 - Interface: USB1.1 or later (USB2.0 is recommended)

Memory capacity: 1GB or more is recommended (the total file size of the system software is approx. 350MB)

Format: FAT (FAT16), FAT32 (NTFS and HFS are not supported). The memory is formatted in a partition (multiple partitions are not supported)

Unusable USB memory storage device: the memory that is protected by a password or the encryption technology.

Steps to register the system software

- 1) Start the PC.
- 2) Insert the USB memory storage device to the USB port of the PC.
- 3) Start SST.
- 4) Click the USB icon shown in “Select the target” screen.



- 5) Select the drive (removable disk) where the USB memory storage device is inserted.



- 6) Select the “Series” (IRA500).



7) Select the version to register. After selecting the version, click confirm button.

NOTE:
Only one version can be registered at once. In addition, a single system software can be registered.



8) Wait for approx. 1 minute so the firmware to be written is displayed. When the following screen is displayed, click start button.



NOTE:

In the case of using USB1.1, it takes approx. up to 10 minutes for writing. In the case of using USB2.0, it takes approx. up to 3minutes so it is recommended to use USB memory supporting USB2.0.

9) When the system software is successfully registered to the USB memory storage device, click the “OK” button.



■ Connection

CAUTION:

This machine does not communicate with SST once it recognizes a USB memory storage device. Therefore, SST and a USB memory device cannot be used at the same time.

Preparation

Requirements: a USB memory storage device, which the system software for this machine is registered.

Procedure

- 1) Remove the network cable if any network cable is connected to this machine.
- 2) Turn ON the power of the machine and enter download mode from the service mode.
Select the following in service mode: COPIER > FUNCTION > SYSTEM > DOWNLOAD; and click [OK].
- 3) The following screen is displayed.

```
Info Version : 02.06
[[[[[ Wait for USB/SD Connect Menu ]]]]]
[Insert]: Start shutdown sequence
-----
Waiting SD connection
Checking disk
-----
Do not turn OFF the power without executing the shutdown sequence.
```

4) Connect the USB memory storage device to the USB port.

NOTE:
The USB port at the back of the device can be used as well.

5) When the machine recognizes the USB memory storage device, the following menu is displayed on the control panel.

```
[[[[[[[[[[[ Root Menu (000) ]]]]]]]]]]]
[?] : Select Version
[4] : Clear/Format
[5] : Backup/Restore
[Insert]: Start shutdown sequence
-----
Do not turn OFF the power without executing the shutdown sequence.
```

CAUTION:
Depending on the manufacturer or the model, this machine may fail to recognize the USB memory storage device. This machine retries recognition of a USB memory storage device for up to 60 seconds after power-ON. The above menu is not displayed if the machine fails to recognize a USB memory storage device within the time period. In such a case, use another USB memory storage device.

■ Upgrading System Software

● Menu/ Function Overview



Downloading System Software

[1]: Select Version

To select system software (to be downloaded after the selection)

[4]: Clear/Format

To delete or format all the data in the FLASH PCB/HDD

[5]: Backup/Restore

To backup or restore the data in Meepback/Sraming

[Reset]: Shutdown

To execute shutdown sequence

Press the key on the control panel to select or execute the functions.

● Points to Note When Operating/ Using System Software

NOTE:

For normal download of system software, it is recommended to execute from the download menu --- [1]: Upgrade (Auto).

CAUTION: Do not turn OFF the power during the download/writing process

To prevent unnecessary error, do not turn OFF the power during downloading or writing of the system software although the machine can be normally started using the previous version thanks to the recovery mechanism when an error occurs.

CAUTION: Note when the power is turned OFF

Be sure to execute the following procedure to quit download mode.

Pressing the [Reset] key and then the [0] key on the menu screen initiates the shutdown sequence. Once the message on the touch panel disappears, turn OFF the main power switch.

■ Selecting System Software

● [1]: Select Version

Select the version to be used (from the system software versions saved in the USB memory).



Selecting version gets into the download menu.

■ Downloading/ Writing System Software (Automatic)

● [1]: Upgrade (Auto)

The versions are compared among the host machine, options and the system software in the USB memory storage device, and only the newest version of the system software in the USB memory is downloaded to the temporary storage space in the FLASH PCB.

This machine is automatically restarted after the writing process is completed. When the writing process is successfully completed, the machine is restarted with the new version of the system software. When an error occurs, the machine is restarted with the previous version of the system software.

Procedure

- 1) Enter download mode.
- 2) Connect the USB memory storage device to the USB port.
- 3) Press [1] and select the version of system software to be used on the screen for selecting version.
- 4) Select [1]: Update (Auto) to start download.

[1] to [0]: Execute download/ any key other than [0]: Return to the menu screen

- 2) Connect the USB memory storage device to the USB port.
- 3) Press [1] and select the version of system software to be used on the screen for selecting version.
- 4) Select [2]: Update (w Confirmation) to start downloading.

[2] - [0]: Execute download/ any key other than [0]: Return to the menu screen

During the download process, download status is displayed on the control panel.

NOTE:

When the system software version in the USB memory storage device is older than the system software version in the device, a confirmation message as to whether to overwrite or not is displayed on a module basis. Press the key on the control panel.

[0]: Overwrite/ any key other than [0]: Not to overwrite

When download is completed, this machine is automatically restarted to start writing to the system software area in the FLASH PCB. When writing to the Dcon (ACC1, CCM or CCB if there is an option) is completed, the machine is automatically restarted. After writing of SafeCont is completed, the machine is automatically restarted again.

5) When the main menu is displayed, press the removal key at the bottom right on the touch panel and select removal of memory media device, and then remove the USB memory storage device.

● [3]: Upgrade (Overwrite all)

Regardless of the system software version in the machine, all the system software in the USB memory storage device is downloaded.

This machine is automatically restarted once writing process is completed. When writing process is successfully completed, the machine is restarted with the new version of the system software. When an error occurs, the machine is restarted with the previous version of the system software.

NOTE:

All firmware update may take up to 25 minutes. To reduce downtime, we recommend using Auto under normal condition.

Operation Procedure

- 1) Enter download mode.
- 2) Connect the USB memory storage device to the USB port.
- 3) Press [1] and select the version of system software to be used on the screen for selecting version.
- 4) Select [3]: Update (Overwrite all) to start downloading.

[3] - [0]: Execute download/ any key other than [0]: Return to the menu screen

During the download process, download status is displayed on the control panel.

When download is completed, this machine is automatically restarted to start writing to the system software in the FLASH PCB. When writing to the Dcon (ACC1, CCM or CCB if there is an option) is completed, the machine is automatically restarted. After writing of SafeCont is completed, the machine is automatically restarted again.

- 5) When the main menu is displayed, press the removal key at the bottom right on the touch panel and select removal of memory media device, and then remove the USB memory storage device.

■ Formatting FLASH PCB or HDD

● Format Overview

The following 3 types of formatting/initialization methods are available with this machine. With this machine, there is no function to format BOOTDEV only, which was available with the existing machines.



- Disk Format: To initialize the entire HDD
- Flash Format: To initialize the entire FLASH PCB
- HDD Encryption Board Initialize: To initialize the HDD Encryption Board

For normal version update, there is no need to format the FLASH PCB/ HDD.

● [1]: Disk Format

To format the entire HDD

Executing format on the machine in use deletes all the user data in the HDD as well as the MEAP application (caution); therefore, be sure to gain agreement with the user.

Formatting is necessary when replacing a service part HDD. Note that recovery is not available by HD-CLEAR in service mode.

Operation Procedure

- 1) Enter download mode.
- 2) Connect the USB memory storage device to the USB port.

3) Press the key on the control panel.

[4] - [1] - [0]: Execute format/ any key other than [0]: Return to the menu screen



Formatting is executed when the power is turned ON the next time. The message showing data initialization and wait time are displayed.

● [2]: FLASH Format

To clear all the user data in the FLASH PCB

Executing format with the machine in use deletes all the user data in the FLASH PCB as well as the MEAP application (note); therefore, be sure to gain agreement with the user.

After executing format of the FLASH PCB, the user data in the FLASH PCB is initialized and the machine is started. Download of system software is not necessary because the system software is restored from the backup.

Operation Procedure

- 1) Enter download mode.
- 2) Connect the USB memory storage device to the USB port.
- 3) Press the key on the control panel.

[4] - [2] - [0]: Execute format/ any key other than [0]: Return to the menu screen

Formatting is executed when the power is turned ON the next time. The message showing data initialization and wait time are displayed.

● [3]HDD Encryption Board Initialize

To execute when using the HDD and the HDD Encryption Board that were used with the other machine.

When initializing the Encryption Board, the data in the HDD becomes inaccessible. Therefore, to the HDD format is necessary for reuse. Be sure to obtain agreement with the user because formatting the HDD deletes all the user data and MEAP application (note).

Operation Procedure

- 1) Enter download mode.
- 2) Connect the USB memory storage device to the USB port.

3) Press the key on the control panel.

[4] - [3] - [0]: Execute format/ any key other than [0]: Return to the menu screen

Formatting is executed when the power is turned ON the next time. The message showing data initialization and wait time are displayed.

■ Backup/ Restore

● [5]: Backup/Restore

Backup/Restoration of the data in the FLASH can be executed.

It is used to temporarily save the data stored in the FLASH to the HDD and to restore it after replacement.

Operation Procedure

1) Enter download mode.

2) Connect the USB memory storage device to the USB port.

3) Press the key on the control panel.

[5] - [1] - [0]: Execute backup/ any key other than [0]: Return to the menu screen



The following message is displayed when the backup process is completed.



4) The restoration process follows the same procedure as the backup procedure.

NOTE:

If there is no advance data backup, restoration is not available.

■ **Other menus**

● **[6]: Other Menu 2**

This item is not used

Overview

Outline

■ Outline

This chapter describes various codes which are displayed when a failure occurs on the product. These are classified into 3 codes as follows.

Code type	Explanation	Reference
Error code	This code is displayed when an error occurs on the machine.	Reference
Jam code	This code is displayed when a jam occurs inside the machine.	Reference
Alarm code	This code is displayed when a function of the machine is malfunctioned.	Reference

Error code notation

An error code is shown in 7-digit [E000XXX] on the display on the operation panel. However, [000] in 2 to 4 digit is not used. Thus, an error code is described as [EXXX] using 5 to 7 digit in the service manual. (e.g.: E012 = E000012)

■ Location code

Error code, jam code, and alarm code include the location information.

Location information is displayed as 2-digit numbers as follows.

In the jam display screen, the “L” row corresponds to the location code.

Device	JAM	ERR	ALARM
imageRUNNER ADVANCE 500/400 Series	Printer engine = 00 ADF=01	Main Controller = 00 Reader+ADF=04 Printer engine = 05	Others of listed below
CASSETTE UNIT-AA1	00	05	04
Staple Finisher-R1	02	02	61
FAX Board	-	07	-

■ Pickup position code

When jam occurs, pickup location is indicated with the following pickup position code.

In the jam display screen, the “P” row corresponds to the pickup position code.

Pickup position	Pickup position code
At Finisher jam/At error avoidance jam/At ADF jam without pickup operation (at SEND, Inbox, etc.)	00
Cassette 1	01
Cassette 2	02
Cassette 3	03
Cassette 4	04
Multi-purpose Tray	05
Duplex (At duplex printing, jam occurs after paper passes through the Duplex Feed Sensor (PS8).)	06

■ Points to Note When Clearing MN-CON

- Execution of clearing MN-COM deletes all data in Address Book, Forwarding Settings, Settings/Registration (Preferences), Adjustment/Maintenance, Function Settings, Set Destination, Management Settings, TPM Settings, etc. Before execution of this operation, ask user to back up the data and get approval for this operation.
- When clearing MN-CON while any login application other than Default Authentication is, error such as not displayed login screen occurred. In this case, access SMS once and switch login application to Default Authentication to recover to the normal status.

■ Points to Note When Clearing HDD

As a remedy for error codes (E602-XXXX), HDD partition is selected and the target partition may be cleared.

When clearing partition, be sure to check which data will be deleted by referring Detail of HDD partition and explain to the user before starting work.

Error Code

Error Code Details

■ E000 to E197

E Code	Detail Code	Location	Item	Description
E000	0001	05	Title	Fixing Assembly low temperature error
			Description	The detected temperature of the Fixing Main Thermistor (THM1) failed to reach the specified temperature at the fixing start control.
			Remedy	<ol style="list-style-type: none"> 1. Perform the following to clear the error: COPIER > FUNCTION > CLEAR > ERR in the Service Mode; then, turn the power switch to OFF and then ON. 2. Check the connection of the Fixing Assembly. (Connection error of the Drawer, connector disconnection, open circuit) 3. Check the connection between the AC Driver PCB (PCB4) and Fixing Assembly. 4. Replace the Fixing Assembly. 5. Replace the AC Driver PCB (PCB4). 6. Replace the DC Controller PCB (PCB1).
E001	0000	05	Title	Fixing Assembly high temperature error
			Description	The Fixing Main Thermistor (THM1) detected 250 degrees C or higher for 200msec or longer on end.
			Remedy	<ol style="list-style-type: none"> 1. Perform the following to clear the error: COPIER > FUNCTION > CLEAR > ERR in the Service Mode; then, turn the power switch to OFF and then ON. 2. Check the connection of the Fixing Assembly. (Connection error of the Drawer, connector disconnection, open circuit) 3. Check the connection between the AC Driver PCB (PCB4) and Fixing Assembly. 4. Replace the Fixing Assembly. 5. Replace the AC Driver PCB (PCB4). 6. Replace the DC Controller PCB (PCB1).
E001	0001	05	Title	Fixing Assembly high temperature error (hardware detection)
			Description	The hardware circuit detected overheating of the Fixing Main Thermistor (THM1) or Fixing Sub Thermistor (THM2) for 30msec or longer on end.
			Remedy	<ol style="list-style-type: none"> 1. Perform the following to clear the error: COPIER > FUNCTION > CLEAR > ERR in the Service Mode; then, turn the power switch to OFF and then ON. 2. Check the connection of the Fixing Assembly. (Connection error of the Drawer, connector disconnection, open circuit) 3. Check the connection between the AC Driver PCB (PCB4) and Fixing Assembly. 4. Replace the Fixing Assembly. 5. Replace the AC Driver PCB (PCB4). 6. Replace the DC Controller PCB (PCB1).
E001	0002	05	Title	Fixing Assembly high temperature error

E Code	Detail Code	Location	Item	Description
			Description	The Fixing Sub Thermistor (THM2) detected 295 degrees C or higher for 200msec or longer on end.
			Remedy	<ol style="list-style-type: none"> 1. Perform the following to clear the error: COPIER > FUNCTION > CLEAR > ERR in the Service Mode; then, turn the power switch to OFF and then ON. 2. Check the connection of the Fixing Assembly. (Connection error of the Drawer, connector disconnection, open circuit) 3. Check the connection between the AC Driver PCB (PCB4) and Fixing Assembly. 4. Replace the Fixing Assembly. 5. Replace the AC Driver PCB (PCB4). 6. Replace the DC Controller PCB (PCB1).
E002	0000	05	Title	Fixing Assembly temperature rise error
			Description	<ol style="list-style-type: none"> 1. The Fixing Main Thermistor (THM1) detected the temperature of lower than 115 degrees C for 400msec or longer on end 6.0 seconds later after detecting 100 degrees C. 2. The Fixing Main Thermistor (THM1) detected the temperature of lower than 150 degrees C for 400msec or longer on end 6.0 seconds later after detecting 140 degrees C.
			Remedy	<ol style="list-style-type: none"> 1. Perform the following to clear the error: COPIER > FUNCTION > CLEAR > ERR in the Service Mode; then, turn the power switch to OFF and then ON. 2. Check the connection of the Fixing Assembly. (Connection error of the Drawer, connector disconnection, open circuit) 3. Check the connection between the AC Driver PCB (PCB4) and Fixing Assembly. 4. Replace the Fixing Assembly. 5. Replace the AC Driver PCB (PCB4). 6. Replace the DC Controller PCB (PCB1).
E003	0000	05	Title	Fixing Assembly temperature decrease error (during printing)
			Description	<ol style="list-style-type: none"> 1. The Fixing Main Thermistor (THM1) detected the temperature of lower than 80 degrees C for 200msec or longer on end. 2. The Fixing Sub Thermistor (THM2) detected the temperature of lower than 60 degrees C for 200msec or longer on end.
			Remedy	<ol style="list-style-type: none"> 1. Perform the following to clear the error: COPIER > FUNCTION > CLEAR > ERR in the Service Mode; then, turn the power switch to OFF and then ON. 2. Check the connection of the Fixing Assembly. (Connection error of the Drawer, connector disconnection, open circuit) 3. Check the connection between the AC Driver PCB (PCB4) and Fixing Assembly. 4. Replace the Fixing Assembly. 5. Replace the AC Driver PCB (PCB4). 6. Replace the DC Controller PCB (PCB1).

E Code	Detail Code	Location	Item	Description
E004	0000	05	Title	Thermistor disconnection detection error
			Description	The disconnection of the thermistor connector was detected for 30msec on end.
			Remedy	<ol style="list-style-type: none"> 1. Check the connection of the Fixing Assembly. (Connection error of the Drawer, connector disconnection, open circuit) 2. Check the connection between the AC Driver PCB (PCB4) and Fixing Assembly. 3. Replace the Fixing Assembly. 4. Replace the AC Driver PCB (PCB4). 5. Replace the DC Controller PCB (PCB1).
E010	0001	05	Title	Main Motor (M2) rotation error
			Description	The lock signal was not detected for 2.0 seconds while detecting the signal every 100msec since starting the drive of the motor.
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection between the Main Motor (M2) and the DC Controller PCB (PCB1). 2. Replace the Main Motor (M2). 3. Replace the DC Controller PCB (PCB1).
E010	0002	05	Title	Main Motor (M2) rotation error
			Description	The lock signal was not detected 5 times in a row for 500msec while detecting the signal every 100msec during driving (after the lock signal detection).
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection between the Main Motor (M2) and the DC Controller PCB (PCB1). 2. Replace the Main Motor (M2). 3. Replace the DC Controller PCB (PCB1).
E013	0000	05	Title	Waste Toner Motor (M3) rotation error
			Description	<p>The same level of the lock signal was detected 375 times in a row while detecting the signal every 2msec.</p> <p>* If paper is being fed, the error occurs after the paper has been delivered.</p>
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection between the Waste Toner Motor (M3) and the DC Controller PCB (PCB1). 2. Replace the Waste Toner Motor (M3). 3. Replace the DC Controller PCB (PCB1).
E014	0001	05	Title	Fixing Motor (M1) rotation error
			Description	The lock signal was not detected for 2.0 seconds while detecting the signal every 100msec since starting the drive of the motor.

E Code	Detail Code	Location	Item	Description
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection between the Fixing Motor (M1) and the DC Controller PCB (PCB1). 2. Replace the Fixing Motor (M1). 3. Replace the DC Controller PCB (PCB1).
E014	0002	05	Title	Fixing Motor (M1) rotation error
			Description	The lock signal was not detected 5 times in a row for 500msec while detecting the signal every 100msec during driving (after the lock signal detection).
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection between the Fixing Motor (M1) and the DC Controller PCB (PCB1). 2. Replace the Fixing Motor (M1). 3. Replace the DC Controller PCB (PCB1).
E014	0003	05	Title	Fixing Motor (M1) pressure release error
			Description	The pressure release of the Fixing Assembly was not detected for 3.0 seconds during the pressure release drive.
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection between the Fixing Pressure Release Sensor (PS18) or the Fixing Motor (M1) and the DC Controller PCB (PCB1). 2. Replace the Fixing Pressure Release Sensor (PS18). 3. Replace the Fixing Motor (M1). 4. Replace the DC Controller PCB (PCB1).
E014	0004	05	Title	Fixing Motor (M1) pressurization error
			Description	The pressurization of the Fixing Assembly was not detected for 3.0 seconds during the pressurization drive.
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection between the Fixing Pressure Release Sensor (PS18) or the Fixing Motor (M1) and the DC Controller PCB (PCB1). 2. Replace the Fixing Pressure Release Sensor (PS18). 3. Replace the Fixing Motor (M1). 4. Replace the DC Controller PCB (PCB1).
E020	0000	05	Title	Detection of the toner clog between the Hopper Unit and the Developing Assembly
			Description	<p>When the Developing Assembly Toner Sensor (TS2) detected "toner-absent" and the Hopper Toner Sensor (TS1) detected "toner-present", the Developing Assembly Toner Sensor (TS2) did not detect "toner-present" though the Hopper Motor (M6) rotated by 194 times at intervals of 1.0 second with having turned on the Developing Cylinder Clutch (CL2).</p> <p>* If paper is being fed, the error occurs after the paper has been delivered.</p>

E Code	Detail Code	Location	Item	Description
			Remedy	<ol style="list-style-type: none"> 1. Check the rotation of the Hopper Motor Gear. (If it is rotating, the sensor may not be detecting correctly. In that case, perform the following to supply toner to the Developing Assembly: COPIER > FUNCTION > INSTALL > TONER-S in the Service Mode.) 2. Replace the Developing Assembly. 3. Replace the Hopper Unit. 4. Replace the DC Controller PCB (PCB1).
E024	0000	05	Title	Connector disconnection of the Developing Assembly Toner Sensor (TS2)
			Description	<p>The connection signal of the Developing Assembly Toner Sensor (TS2) was not detected 10 times in a row for 100msec.</p> <p>* If paper is being fed, the error occurs after the paper has been delivered.</p>
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection between the Developing Assembly and the DC Controller PCB (PCB1). 2. Replace the Developing Assembly. 3. Replace the DC Controller PCB (PCB1).
E024	0001	05	Title	Disconnection of the Developing Assembly Toner Sensor (TS2)
			Description	<ol style="list-style-type: none"> 1. At normal speed: The Developing Assembly Toner Sensor (TS2) signal was detected 7500 times in a row at intervals of 100msec. 2. At low speed: The Developing Assembly Toner Sensor (TS2) signal was detected 4500 times in a row at intervals of 100msec. <p>* If paper is being fed, the error occurs after the paper has been delivered.</p>
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection between the Developing Assembly and the DC Controller PCB (PCB1). 2. Replace the Developing Assembly. 3. Replace the DC Controller PCB (PCB1).
E025	0000	05	Title	Connector disconnection of the Hopper Toner Sensor (TS1)
			Description	<p>The connection signal of the Hopper Toner Sensor (TS1) was not detected 10 times in a row for 100msec.</p> <p>* If paper is being fed, the error occurs after the paper has been delivered.</p>
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection between the Hopper Unit and the DC Controller PCB (PCB1). 2. Replace the Hopper Unit. 3. Replace the DC Controller PCB (PCB1).
E025	0001	05	Title	Bottle Motor (M5) rotation error

E Code	Detail Code	Location	Item	Description
			Description	The same level of the Bottle Motor (M5) lock signal was detected 230 times in a row while detecting the signal every 2.0msec. * If paper is being fed, the error occurs after the paper has been delivered.
			Remedy	1. Check the connector connection between the Bottle Motor (M5) and the DC Controller PCB (PCB1). 2. Replace the Bottle Motor (M5). 3. Replace the DC Controller PCB (PCB1).
E110	0001	05	Title	Laser Scanner Motor rotation error
			Description	After startup of the Laser Scanner Motor, the speed lock signal of the Laser Scanner Motor was not detected although a specified period of time had passed. *When the same status was detected again after executing an error retry.
			Remedy	1. Check the connector connection between the Laser Scanner Unit and the DC Controller PCB (PCB1). 2. Replace the Laser Scanner Unit. 3. Replace the DC Controller PCB (PCB1).
E110	0002	05	Title	Laser Scanner Motor rotation error
			Description	After the speed lock of the Laser Scanner Motor settled, the speed lock signal was not detected 10 times in a row at intervals of 100msec. *When the same status was detected again after executing an error retry.
			Remedy	1. Check the connector connection between the Laser Scanner Unit and the DC Controller PCB (PCB1). 2. Replace the Laser Scanner Unit. 3. Replace the DC Controller PCB (PCB1).
E110	0003	05	Title	Laser Scanner Motor rotation error
			Description	The speed lock signal of the Laser Scanner Motor was not detected although 6.5 seconds (when switching from low speed to normal speed) or 8.0 seconds (when switching from normal speed to low speed) had passed. *When the same status was detected again after executing an error retry.
			Remedy	1. Check the connector connection between the Laser Scanner Unit and the DC Controller PCB (PCB1). 2. Replace the Laser Scanner Unit. 3. Replace the DC Controller PCB (PCB1).
E196	0000	05	Title	EEPROM access error

E Code	Detail Code	Location	Item	Description
			Description	During communication with EEPROM, the communication failed to retry 20 times after the communication error had occurred. * If paper is being fed, the error occurs after the paper has been delivered.
			Remedy	1. Replace the DC Controller PCB (PCB1).
E197	0000	05	Title	Laser Driver PCB communication error
			Description	Error in communication with the Laser Driver PCB (communication data failure) *When the same status was detected again after executing an error retry.
			Remedy	1. Check the connector connection between the Laser Scanner Unit and the Main Controller PCB (PCB2) or the DC Controller PCB (PCB1). 2. Replace the Laser Scanner Unit. 3. Replace the Main Controller PCB (PCB2). 4. Replace the DC Controller PCB (PCB1).
E197	0001	05	Title	Laser Driver PCB communication error
			Description	Error in communication with the Laser Driver PCB (serial communication failure) *When the same status was detected again after executing an error retry.
			Remedy	1. Check the connector connection between the Laser Scanner Unit and the Main Controller PCB (PCB2) or the DC Controller PCB (PCB1). 2. Replace the Laser Scanner Unit. 3. Replace the Main Controller PCB (PCB2). 4. Replace the DC Controller PCB (PCB1).
E197	0003	05	Title	Connector disconnection of the Laser Scanner Unit
			Description	The disconnection of the Laser Scanner Unit was detected.
			Remedy	1. Check the connector connection between the Laser Scanner Unit and the Main Controller PCB (PCB2) or the DC Controller PCB (PCB1). 2. Replace the Laser Scanner Unit. 3. Replace the Main Controller PCB (PCB2). 4. Replace the DC Controller PCB (PCB1).

■ **E202 to E355**

E Code	Detail Code	Location	Item	Description

E Code	Detail Code	Location	Item	Description
E202	0001	04	Title	CIS Unit home position detection error
			Description	The CIS HP Sensor (PS24) did not detect the CIS Unit.
			Remedy	<ol style="list-style-type: none"> 1. Check the connection of the Flexible Cable between the Reader Controller PCB (PCB3) and the Main Controller PCB (PCB2). 2. Replace the Flexible Cable. 3. Replace the CIS HP Sensor (PS24). 4. Replace the Reader Motor (M10). 5. Replace the Reader Controller PCB (PCB3). 6. Replace the Main Controller PCB (PCB2).
E202	0002	04	Title	CIS Unit home position detection error
			Description	The CIS Unit did not come off the CIS HP Sensor (PS24).
			Remedy	<ol style="list-style-type: none"> 1. Check the connection of the Flexible Cable between the Reader Controller PCB (PCB3) and the Main Controller PCB (PCB2). 2. Replace the Flexible Cable. 3. Replace the CIS HP Sensor (PS24). 4. Replace the Reader Motor (M10). 5. Replace the Reader Controller PCB (PCB3). 6. Replace the Main Controller PCB (PCB2).
E240	0000	05	Title	Controller communication error
			Description	A serial communication error was detected during normal operation.
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection between the DC Controller PCB (PCB1) and the Main Controller PCB (PCB2). 2. Replace the DC Controller PCB (PCB1).
E240	0001	05	Title	Controller communication error
			Description	A serial communication error was detected during printing.
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection between the DC Controller PCB (PCB1) and the Main Controller PCB (PCB2). 2. Replace the DC Controller PCB (PCB1).
E246	0001	00	Title	System error
			Description	System error

E Code	Detail Code	Location	Item	Description
			Remedy	Contact the service company office
E246	0002	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E246	0003	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E246	0005	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E247	0001	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E247	0002	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E247	0003	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E247	0004	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E248	0000	04	Title	Reader backup data read error
			Description	The verification of the reader backup data failed to match.

E Code	Detail Code	Location	Item	Description
			Remedy	1. Check the connector connection between the Reader Controller PCB (PCB3) and the Main Controller PCB (PCB2). 2. Replace the Reader Controller PCB (PCB3). 3. Replace the Main Controller PCB (PCB2).
E261	0000	05	Title	Zero cross signal error
			Description	The zero cross signal was not detected for 500msec or longer while the relay turned to on. *When the same status was detected again after executing an error retry.
			Remedy	1. Check the connector connection. (All connectors on the DC Controller PCB) 2. Replace the DC Controller PCB (PCB1). 3. Replace the AC Driver PCB (PCB4).
E315	0007	00	Title	Image process device error
			Description	JBIG encode error
			Remedy	1. Turn OFF and then ON the main power. 2. Check connection of Main Controller PCB. 3. Replace Main Controller PCB (PCB2).
E315	000d	00	Title	Image process device error
			Description	JBIG decode error
			Remedy	1. Delete the current job. 2. Turn OFF and then ON the main power. 3. Check connection of Main Controller PCB. 4. Replace the DDR-SDRAM, the HDD and Main Controller PCB (PCB2) at the same time.
E315	000e	00	Title	Image process device error
			Description	Error at software decoding
			Remedy	1. Delete the current job. 2. Turn OFF and then ON the main power. 3. Check connection of Main Controller PCB. 4. Replace the DDR-SDRAM, the HDD and Main Controller PCB (PCB2) at the same time.
E315	000f	00	Title	Image process device error
			Description	Error at MemoryCopy
			Remedy	

E Code	Detail Code	Location	Item	Description
				<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Check connection of Main Controller PCB. 3. Replace Main Controller PCB (PCB2).
E315	0027	00	Title	Image process device error
			Description	ROTU timeout error
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Check connection of Main Controller PCB. 3. Replace Main Controller PCB (PCB2).
E315	0035	00	Title	Image process device error
			Description	MemFill timeout error
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Check connection of Main Controller PCB. 3. Replace Main Controller PCB (PCB2).
E315	0100	00	Title	Image process device error
			Description	PRIO overrun
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Check connection of Main Controller PCB. 3. Replace Main Controller PCB (PCB2).
E315	0500	00	Title	Device timeout
			Description	An image synchronous signal from the Main Controller PCB to the Reader is not received within 30 seconds.
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB (including the flat cable). 3. Replace the flat cable. 4. Replace the Main Controller PCB (PCB2).
E315	0501	00	Title	Device abnormal completion
			Description	An abnormal signal from the Main Controller PCB to the Reader is detected.
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB (including the flat cable).

E Code	Detail Code	Location	Item	Description
				3. Replace the flat cable. 4. Replace the Main Controller PCB (PCB2).
E315	0510	00	Title	Device timeout
			Description	An image synchronous signal from the Main Controller PCB to the Reader is not received within 30 seconds.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB (including the flat cable). 3. Replace the flat cable. 4. Replace the Main Controller PCB (PCB2).
E315	0511	00	Title	Device abnormal completion
			Description	An abnormal signal from the Main Controller PCB to the Reader is detected.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB (including the flat cable). 3. Replace the flat cable. 4. Replace the Main Controller PCB (PCB2).
E315	0520	00	Title	Device timeout
			Description	An image synchronous signal from the Main Controller PCB to the Reader is not received within 30 seconds.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB (including the flat cable). 3. Replace the flat cable. 4. Replace the Main Controller PCB (PCB2).
E315	0521	00	Title	Device abnormal completion
			Description	An abnormal signal from the Main Controller PCB to the Reader is detected.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB (including the flat cable). 3. Replace the flat cable. 4. Replace the Main Controller PCB (PCB2).
E315	0530	00	Title	Device timeout
			Description	An image synchronous signal from the Main Controller PCB to the Reader is not received within 30 seconds.

E Code	Detail Code	Location	Item	Description
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB (including the flat cable). 3. Replace the flat cable. 4. Replace the Main Controller PCB (PCB2).
E315	0531	00	Title	Device abnormal completion
			Description	An abnormal signal from the Main Controller PCB to the Reader is detected.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB (including the flat cable). 3. Replace the flat cable. 4. Replace the Main Controller PCB (PCB2).
E315	0540	00	Title	Device timeout
			Description	An image synchronous signal from the Main Controller PCB to the Reader is not received within 30 seconds.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB (including the flat cable). 3. Replace the flat cable. 4. Replace the Main Controller PCB (PCB2).
E315	0541	00	Title	Device abnormal completion
			Description	An abnormal signal from the Main Controller PCB to the Reader is detected.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB (including the flat cable). 3. Replace the flat cable. 4. Replace the Main Controller PCB (PCB2).
E315	0550	00	Title	Device timeout
			Description	An image synchronous signal from the Main Controller PCB to the Reader is not received within 30 seconds.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB (including the flat cable). 3. Replace the flat cable. 4. Replace the Main Controller PCB (PCB2).
E315	0551	00	Title	Device abnormal completion

E Code	Detail Code	Location	Item	Description
			Description	An abnormal signal from the Main Controller PCB to the Reader is detected.
			Remedy	1. Turn OFF and then ON the main power. 2. Check the connection of the Main Controller PCB (including the flat cable). 3. Replace the flat cable. 4. Replace the Main Controller PCB (PCB2).
E350	0000	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E350	0001	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E350	0002	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E350	0003	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E350	3000	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E351	0000	00	Title	Main Controller PCB communication error
			Description	Main Controller PCB communication error.
			Remedy	1. Turn OFF and then ON the main power 2. Disconnect and then connect the connector of the Main Controller PCB. 3. Replace the Main Controller PCB (PCB2).
E354	0001	00	Title	System error

E Code	Detail Code	Location	Item	Description
			Description	System error
			Remedy	Contact the service company office
E354	0002	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E355	0001	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E355	0002	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E355	0003	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E355	0004	00	Title	System error
			Description	System error
			Remedy	Contact the service company office

■ **E500 to E583**

E Code	Detail Code	Location	Item	Description
E500	0000	02	Title	Communication error
			Description	As for the communication with the Finisher and the Host Machine, the retry of the communication was over the specified number of times.
			Remedy	

E Code	Detail Code	Location	Item	Description
				<ol style="list-style-type: none"> 1. Check the installation of the Host Machine and the Finisher. 2. Check the connector connection between the DC Controller PCB (PCB1) and the Finisher Controller PCB (PCB1). 3. Replace the Finisher Controller PCB (PCB1). 4. Replace the DC Controller PCB (PCB1).
E530	0001	02	Title	Front Alignment Motor (M4) error
			Description	At initialization of the Front Alignment Plate, the Front Alignment Plate failed to move from the Front Alignment Plate HP Sensor (S4) although the Front Alignment Motor (M4) was driven for 10mm.
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection of the Front Alignment Plate HP Sensor (S4) or the Front Alignment Motor (M4). 2. Replace the Front Alignment Plate HP Sensor (S4). 3. Replace the Front Alignment Motor (M4). 4. Replace the Finisher Controller PCB (PCB1).
E530	0002	02	Title	Front Alignment Motor (M4) error
			Description	At initialization of the Front Alignment Plate, the Front Alignment Plate failed to be detected by the Front Alignment Plate HP Sensor (S4) although the Front Alignment Motor (M4) was driven for 780msec.
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection of the Front Alignment Plate HP Sensor (S4) or the Front Alignment Motor (M4). 2. Replace the Front Alignment Plate HP Sensor (S4). 3. Replace the Front Alignment Motor (M4). 4. Replace the Finisher Controller PCB (PCB1).
E531	8001	02	Title	Staple Motor (M9) error
			Description	The Stapler failed to move from the Staple HP Sensor (S11) within the staple execution time (450msec).
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection of the Staple Unit. 2. Replace the Staple Unit. 3. Replace the Finisher Controller PCB (PCB1).
E531	8002	02	Title	Staple Motor (M9) error
			Description	After execution of staple operation, the Staple Unit could not be detected by the Staple HP Sensor (S11) within 460msec although the motor was operated in the positive direction. And then, the Staple Unit could not be detected by the Staple HP Sensor (S11) within 460msec although the motor was rotated in the negative direction.

E Code	Detail Code	Location	Item	Description
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection of the Staple Unit. 2. Replace the Staple Unit. 3. Replace the Finisher Controller PCB (PCB1).
E537	0001	02	Title	Rear Alignment Motor (M5) error
			Description	At initialization of the Rear Alignment Plate, the Rear Alignment Plate failed to move from the Rear Alignment Plate HP Sensor (S5) although the Rear Alignment Motor (M5) was driven for 10mm.
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection of the Rear Alignment Plate HP Sensor (S5) or the Rear Alignment Motor (M5). 2. Replace the Rear Alignment Plate HP Sensor (S5). 3. Replace the Rear Alignment Motor (M5). 4. Replace the Finisher Controller PCB (PCB1).
E537	0002	02	Title	Rear Alignment Motor (M5) error
			Description	At initialization of the Rear Alignment Plate, the Rear Alignment Plate failed to be detected by the Rear Alignment Plate HP Sensor (S5) although the Rear Alignment Motor (M5) was driven for 760msec.
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection of the Rear Alignment Plate HP Sensor (S5) or the Rear Alignment Motor (M5). 2. Replace the Rear Alignment Plate HP Sensor (S5). 3. Replace the Rear Alignment Motor (M5). 4. Replace the Finisher Controller PCB (PCB1).
E540	0001	02	Title	Stack Tray Shift Motor (M8) error
			Description	The Stack Tray shifting operation could not be completed although the Stack Tray Shift Motor (M8) was driven for 4.0 seconds.
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection of the Stack Tray Paper Height Sensor (S9) or the Stack Tray Shift Motor (M8). 2. Replace the Stack Tray Paper Height Sensor (S9). 3. Replace the Stack Tray Shift Motor (M8). 4. Replace the Finisher Controller PCB (PCB1).
E575	0001	02	Title	Gripper Motor (M7) error
			Description	When the Gripper Motor (M7) was driven, the Gripper failed to move from the Gripper HP Sensor (S7) although the Gripper Encoder Sensor (S8) detected the rotation of 100 clocks.
			Remedy	

E Code	Detail Code	Location	Item	Description
				<ol style="list-style-type: none"> 1. Check the connector connection of the Gripper HP Sensor (S7), Gripper Encoder Sensor (S8) or the Gripper Motor (M7). 2. Replace the Gripper HP Sensor (S7). 3. Replace the Gripper Encoder Sensor (S8). 4. Replace the Gripper Motor (M7). 5. Replace the Finisher Controller PCB (PCB1).
E575	0002	02	Title	Gripper Motor (M7) error
			Description	The Gripper failed to be detected by the Gripper HP Sensor (S7) although the Gripper Motor (M7) was driven for specified times (1.7 seconds at initialization or 1.4 seconds at normal operation).
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection of the Gripper HP Sensor (S7) or the Gripper Motor (M7). 2. Replace the Gripper HP Sensor (S7). 3. Replace the Gripper Motor (M7). 4. Replace the Finisher Controller PCB (PCB1).
E575	0004	02	Title	Gripper Motor (M7) clock error
			Description	When the Gripper Motor (M7) was driven, the Gripper Encoder Sensor (S8) detected the rotation of 400 clocks or more.
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection of the Gripper Encoder Sensor (S8) or the Gripper Motor (M7). 2. Replace the Gripper Encoder Sensor (S8). 3. Replace the Gripper Motor (M7). 4. Replace the Finisher Controller PCB (PCB1).
E577	0001	02	Title	Paddle Motor (M3) error
			Description	The Paddle failed to move from the Paddle HP Sensor (S3) although the Paddle Motor (M3) was driven for 175 steps.
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection of the Paddle HP Sensor (S3) or the Paddle Motor (M3). 2. Replace the Paddle HP Sensor (S3). 3. Replace the Paddle Motor (M3). 4. Replace the Finisher Controller PCB (PCB1).
E577	0002	02	Title	Paddle Motor (M3) error
			Description	The Paddle failed to be detected by the Paddle HP Sensor (S3) although the Paddle Motor (M3) was driven for 2.0 seconds.
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection of the Paddle HP Sensor (S3) or the Paddle Motor (M3). 2. Replace the Paddle HP Sensor (S3).

E Code	Detail Code	Location	Item	Description
				3. Replace the Paddle Motor (M3). 4. Replace the Finisher Controller PCB (PCB1).
E583	0001	02	Title	Tray Auxiliary Guide Motor (M6) error
			Description	The Tray Auxiliary Guide failed to move from the Tray Auxiliary Guide HP Sensor (S6) although the Tray Auxiliary Guide Motor (M6) was driven for 30mm.
			Remedy	1. Check the connector connection of the Tray Auxiliary Guide HP Sensor (S6) or the Tray Auxiliary Guide Motor (M6). 2. Replace the Tray Auxiliary Guide HP Sensor (S6). 3. Replace the Tray Auxiliary Guide Motor (M6). 4. Replace the Finisher Controller PCB (PCB1).
E583	0002	02	Title	Tray Auxiliary Guide Motor (M6) error
			Description	The Tray Auxiliary Guide failed to be detected by the Tray Auxiliary Guide HP Sensor (S6) although the Tray Auxiliary Guide Motor (M6) was driven for 1.8 seconds.
			Remedy	1. Check the connector connection of the Tray Auxiliary Guide HP Sensor (S6) or the Tray Auxiliary Guide Motor (M6). 2. Replace the Tray Auxiliary Guide HP Sensor (S6). 3. Replace the Tray Auxiliary Guide Motor (M6). 4. Replace the Finisher Controller PCB (PCB1).

■ E602 to E996

E Code	Detail Code	Location	Item	Description
E602	0001	00	Title	HDD detection error
			Description	HDD fails to be Ready. HDD is not formatted. Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.
			Remedy	1. Turn OFF the main power and check connection of the HDD cable. Then, turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0; and select and execute the following: [3]:HD-CLEAR = 1; and then turn OFF and ON the power. 3. Start in safe mode to format the HDD (all the data in the HDD is erased).

E Code	Detail Code	Location	Item	Description
				4. Replace the HDD. 5. Replace Main Controller PCB (PCB2).
E602	0002	00	Title	File system error on the HDD
			Description	The file system failed to be initialized properly at startup Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.
			Remedy	1. Turn OFF and then ON the main power. 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Erase partition (all the partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 1: [1]:CHK-TYPE = 1, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power. 5. Start in safe mode to format the HDD (all the data in the HDD is erased). 6. Replace the HDD.
E602	0003	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system at startup Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.
			Remedy	1. Turn OFF and then ON the main power. 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power. 4. Start in safe mode to format the HDD (all the data in the HDD is erased). 5. Replace the HDD.
E602	0012	00	Title	File system error on the HDD
			Description	Error in file system writing after startup
			Remedy	

E Code	Detail Code	Location	Item	Description
				<p>1. Turn OFF and then ON the main power.</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>4. Start in safe mode to format the HDD (all the data in the HDD is erased).</p> <p>5. Replace the HDD.</p>
E602	0013	00	Title	File system error on the HDD
			Description	I/O error occurred in the file system after startup
			Remedy	<p>1. Turn OFF and then ON the main power.</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>4. Start in safe mode to format the HDD (all the data in the HDD is erased).</p> <p>5. Replace the HDD.</p>
E602	0101	00	Title	File system error on the HDD
			Description	<p>The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup</p> <p>Error, the system of the host machine has not been started normally.</p> <p>Therefore the error code is not recorded in the log.</p>
			Remedy	<p>1. Turn OFF and then ON the main power.</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 4: [1]:CHK-TYPE = 4, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Start in safe mode to format the HDD (all the data in the HDD is erased).</p> <p>4. Replace the HDD.</p>
E602	0111	00	Title	File system error on the HDD
			Description	Error in file system writing after startup, I/O error occurred in the file system after startup
			Remedy	

E Code	Detail Code	Location	Item	Description
				<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 4: [1]:CHK-TYPE = 4, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Start in safe mode to format the HDD (all the data in the HDD is erased). 4. Replace the HDD.
E602	0201	00	Title	File system error on the HDD
			Description	<p>The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.</p>
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Start in safe mode to format the HDD (all the data in the HDD is erased). 3. Replace the HDD.
E602	0211	00	Title	File system error on the HDD
			Description	Error in file system writing after startup, I/O error occurred in the file system after startup
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Start in safe mode to format the HDD (all the data in the HDD is erased). 3. Replace the HDD.
E602	0301	00	Title	File system error on the HDD
			Description	<p>The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.</p>
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Erase partition (all the partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.

E Code	Detail Code	Location	Item	Description
				5. Start in safe mode to format the HDD (all the data in the HDD is erased). 6. Replace the HDD.
E602	0311	00	Title	File system error on the HDD
			Description	Error in file system writing after startup, I/O error occurred in the file system after startup
			Remedy	1. Turn OFF and then ON the main power. 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Erase partition (all the partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power. 5. Start in safe mode to format the HDD (all the data in the HDD is erased). 6. Replace the HDD.
E602	0501	00	Title	File system error on the HDD
			Description	The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.
			Remedy	1. Turn OFF and then ON the main power. 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Erase partition (all the partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power. 5. Start in safe mode to format the HDD (all the data in the HDD is erased). 6. Replace the HDD.
E602	0511	00	Title	File system error on the HDD
			Description	Error in file system writing after startup, I/O error occurred in the file system after startup

E Code	Detail Code	Location	Item	Description
			Remedy	<p>1. Turn OFF and then ON the main power.</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased).</p> <p>6. Replace the HDD.</p>
E602	0601	00	Title	File system error on the HDD
			Description	<p>The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup</p> <p>Error, the system of the host machine has not been started normally.</p> <p>Therefore the error code is not recorded in the log.</p>
			Remedy	<p>1. Turn OFF and then ON the main power.</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased).</p> <p>6. Replace the HDD.</p>
E602	0611	00	Title	File system error on the HDD
			Description	Error in file system writing after startup, I/O error occurred in the file system after startup
			Remedy	<p>1. Turn OFF and then ON the main power.</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased).</p>

E Code	Detail Code	Location	Item	Description
				<p>Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased).</p> <p>Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased).</p> <p>6. Replace the HDD.</p>
E602	0701	00	Title	File system error on the HDD
			Description	<p>The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup</p> <p>Error, the system of the host machine has not been started normally.</p> <p>Therefore the error code is not recorded in the log.</p>
			Remedy	<p>1. Turn OFF and then ON the main power.</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased).</p> <p>Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased).</p> <p>Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased).</p> <p>6. Replace the HDD.</p>
E602	0711	00	Title	File system error on the HDD
			Description	Error in file system writing after startup, I/O error occurred in the file system after startup
			Remedy	<p>1. Turn OFF and then ON the main power.</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased).</p> <p>Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased).</p> <p>Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p>

E Code	Detail Code	Location	Item	Description
				5. Start in safe mode to format the HDD (all the data in the HDD is erased). 6. Replace the HDD.
E602	0801	00	Title	File system error on the HDD
			Description	The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.
			Remedy	1. Turn OFF and then ON the main power. 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Erase partition (all the partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power. 5. Start in safe mode to format the HDD (all the data in the HDD is erased). 6. Replace the HDD.
E602	0811	00	Title	File system error on the HDD
			Description	Error in file system writing after startup, I/O error occurred in the file system after startup
			Remedy	1. Turn OFF and then ON the main power. 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Erase partition (all the partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power. 5. Start in safe mode to format the HDD (all the data in the HDD is erased). 6. Replace the HDD.
E602	0901	00	Title	File system error on the HDD
			Description	

E Code	Detail Code	Location	Item	Description
				<p>The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.</p>
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Erase partition (all the partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power. 5. Start in safe mode to format the HDD (all the data in the HDD is erased). 6. Replace the HDD.
E602	0911	00	Title	File system error on the HDD
			Description	Error in file system writing after startup, I/O error occurred in the file system after startup
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Erase partition (all the partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power. 5. Start in safe mode to format the HDD (all the data in the HDD is erased). 6. Replace the HDD.
E602	1001	00	Title	File system error on the HDD
			Description	<p>The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.</p>
			Remedy	

E Code	Detail Code	Location	Item	Description
				<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 6: [1]:CHK-TYPE = 6, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Start in safe mode to format the HDD (all the data in the HDD is erased). 4. Replace the HDD.
E602	1011	00	Title	File system error on the HDD
			Description	Error in file system writing after startup, I/O error occurred in the file system after startup
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 6: [1]:CHK-TYPE = 6, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Start in safe mode to format the HDD (all the data in the HDD is erased). 4. Replace the HDD.
E602	1101	00	Title	File system error on the HDD
			Description	The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Erase partition (all the partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power. 5. Start in safe mode to format the HDD (all the data in the HDD is erased). 6. Replace the HDD.
E602	1111	00	Title	File system error on the HDD
			Description	Error in file system writing after startup, I/O error occurred in the file system after startup
			Remedy	

E Code	Detail Code	Location	Item	Description
				<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Erase partition (all the partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power. 5. Start in safe mode to format the HDD (all the data in the HDD is erased). 6. Replace the HDD.
E602	1201	00	Title	File system error on the HDD
			Description	<p>The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.</p>
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Erase partition (all the partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power. 5. Start in safe mode to format the HDD (all the data in the HDD is erased). 6. Replace the HDD.
E602	1211	00	Title	File system error on the HDD
			Description	Error in file system writing after startup, I/O error occurred in the file system after startup
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power. 3. Erase partition (all the partition data is erased).

E Code	Detail Code	Location	Item	Description
				<p>Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased).</p> <p>Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased).</p> <p>6. Replace the HDD.</p>
E602	1301	00	Title	File system error on the HDD
			Description	<p>The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup</p> <p>Error, the system of the host machine has not been started normally.</p> <p>Therefore the error code is not recorded in the log.</p>
			Remedy	<p>1. Turn OFF and then ON the main power.</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 7: [1]:CHK-TYPE = 7, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Start in safe mode to format the HDD (all the data in the HDD is erased).</p> <p>4. Replace the HDD.</p>
E602	1311	00	Title	File system error on the HDD
			Description	Error in file system writing after startup, I/O error occurred in the file system after startup
			Remedy	<p>1. Turn OFF and then ON the main power.</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 7: [1]:CHK-TYPE = 7, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Start in safe mode to format the HDD (all the data in the HDD is erased).</p> <p>4. Replace the HDD.</p>
E602	1401	00	Title	File system error on the HDD
			Description	<p>The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup</p> <p>Error, the system of the host machine has not been started normally.</p> <p>Therefore the error code is not recorded in the log.</p>
			Remedy	<p>1. Turn OFF and then ON the main power.</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the</p>

E Code	Detail Code	Location	Item	Description
				<p>power.</p> <p>3. Erase partition (all the partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased).</p> <p>6. Replace the HDD.</p>
E602	1411	00	Title	File system error on the HDD
			Description	Error in file system writing after startup, I/O error occurred in the file system after startup
			Remedy	<p>1. Turn OFF and then ON the main power.</p> <p>2. Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [2]:HD-CHECK = 1; and then turn OFF and ON the power.</p> <p>3. Erase partition (all the partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and select and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and On the power.</p> <p>5. Start in safe mode to format the HDD (all the data in the HDD is erased).</p> <p>6. Replace the HDD.</p>
E602	FF01	00	Title	File system error on the HDD
			Description	<p>The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup</p> <p>Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.</p>
			Remedy	<p>1. Turn OFF and then ON the main power.</p> <p>2. Start in safe mode to format the HDD (all the data in the HDD is erased).</p> <p>3. Replace the HDD.</p>
E602	FF11	00	Title	File system error on the HDD
			Description	Error in file system writing after startup, I/O error occurred in the file system after startup
			Remedy	

E Code	Detail Code	Location	Item	Description
				<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Start in safe mode to format the HDD (all the data in the HDD is erased). 3. Replace the HDD.
E602	2000	00	Title	Error in authentication between the host machine and the Encryption Board
			Description	I/O error occurred in the file system after startup
			Remedy	<ol style="list-style-type: none"> 1. After checking connection of the Encryption Board, remove and then install the board, and then turn OFF and ON the main power. 2. Execute key clear by SST (to make an unformatted disc). Execute step 3 because starting an unformatted disc causes E602-0001 <ol style="list-style-type: none"> 3. Start in safe mode and format the HDD.
E604	0512	00	Title	Image memory is faulty or insufficient
			Description	512MB memory needs to be installed (insufficient memory for the model)
			Remedy	1. Install a 512MB or larger main memory
E604	1024	00	Title	Image memory is faulty or insufficient
			Description	1024MB memory needs to be installed (insufficient memory for the model)
			Remedy	1. Install a 1024MB or larger main memory
E604	1536	00	Title	Image memory is faulty or insufficient
			Description	1536MB memory needs to be installed (insufficient memory for the model)
			Remedy	1. Install a 1536MB or larger main memory
E611	0000	07	Title	An error code to prevent repeated resend due to power shutdown during FAX transmission
			Description	Repeated rebooting and resending in a short period of time
			Remedy	<ol style="list-style-type: none"> 1. Clear the FAX job information. Execute the following: COPIER > FUNCTION > CLEAR > FCTX-CLR <ol style="list-style-type: none"> 2. Turn OFF and ON the main power.
E613	0512	00	Title	Image memory is faulty or insufficient
			Description	No necessary memory at Main Controller PCB
			Remedy	Make a 512MB memory at Main Controller PCB (PCB2).

E Code	Detail Code	Location	Item	Description
E613	1024	00	Title	Image memory is faulty or insufficient
			Description	No necessary memory at Main Controller PCB
			Remedy	Make a 1024MB memory at Main Controller PCB (PCB2).
E613	1536	00	Title	Image memory is faulty or insufficient
			Description	No necessary memory at Main Controller PCB
			Remedy	Make a 1536MB memory at Main Controller PCB (PCB2).
E614	0001	00	Title	Flash PCB detection error
			Description	Unable to recognize the Flash PCB. The Flash PCB is not formatted.
			Remedy	1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB. 5. Replace Main Controller PCB (PCB2).
E614	0002	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB. 5. Replace Main Controller PCB (PCB2).
E614	0003	00	Title	Error in file system on the Flash PCB
			Description	I/O error occurred in the file system at startup
			Remedy	1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased).

E Code	Detail Code	Location	Item	Description
				Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB. 5. Replace Main Controller PCB (PCB2).
E614	0004	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB. 5. Replace Main Controller PCB (PCB2).
E614	0005	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB. 5. Replace Main Controller PCB (PCB2).
E614	0006	00	Title	Error in file system on the Flash PCB
			Description	Bootable is not found on the Flash PCB.
			Remedy	1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.

E Code	Detail Code	Location	Item	Description
				4. Replace the Flash PCB and reinstall the system using SST or USB. 5. Replace Main Controller PCB (PCB2).
E614	0007	00	Title	Error in file system on the Flash PCB
			Description	The ICC Profile is not found on the Flash PCB.
			Remedy	1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB. 5. Replace Main Controller PCB (PCB2).
E614	0008	00	Title	Error in file system on the Flash PCB
			Description	Thai font is not found on the Flash PCB.
			Remedy	1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB. 5. Replace Main Controller PCB (PCB2).
E614	0009	00	Title	Error in file system on the Flash PCB
			Description	The font for Print Report is not found on the Flash PCB.
			Remedy	1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB. 5. Replace Main Controller PCB (PCB2).
E614	0010	00	Title	Error in file system on the Flash PCB

E Code	Detail Code	Location	Item	Description
			Description	Simplified Chinese, Hangul, and traditional Chinese fonts are not found on the Flash PCB.
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB. 5. Replace Main Controller PCB (PCB2).
E614	0011	00	Title	Error in file system on the Flash PCB
			Description	Simplified Chinese, Hangul, and traditional Chinese fonts are not found on the Flash PCB.
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB. 5. Replace Main Controller PCB (PCB2).
E614	0012	00	Title	Error in file system on the Flash PCB
			Description	The web browser archive is not found on the Flash PCB.
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power. 2. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 4. Replace the Flash PCB and reinstall the system using SST or USB. 5. Replace Main Controller PCB (PCB2).
E614	0013	00	Title	Error in file system on the Flash PCB
			Description	Error in file system writing after startup
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF the main power and check connection of the Flash PCB, and then turn ON the main power.

E Code	Detail Code	Location	Item	Description
				<p>2. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key), Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>4. Replace the Flash PCB and reinstall the system using SST or USB.</p> <p>5. Replace Main Controller PCB (PCB2).</p>
E614	0101	00	Title	Error in file system on the Flash PCB
			Description	<p>The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup</p> <p>Error, the system of the host machine has not been started normally.</p> <p>Therefore the error code is not recorded in the log.</p>
			Remedy	<p>1. Turn OFF and then ON the main power.</p> <p>2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>3. Replace the Flash PCB and install the system using SST or USB.</p> <p>4. Replace Main Controller PCB (PCB2).</p>
E614	0111	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly after startup, Error in file system writing after startup
			Remedy	<p>1. Turn OFF and then ON the main power.</p> <p>2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>3. Replace the Flash PCB and install the system using SST or USB.</p> <p>4. Replace Main Controller PCB (PCB2).</p>
E614	0201	00	Title	Error in file system on the Flash PCB
			Description	<p>The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup</p> <p>Error, the system of the host machine has not been started normally.</p> <p>Therefore the error code is not recorded in the log.</p>
			Remedy	<p>1. Turn OFF and then ON the main power.</p> <p>2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>3. Replace the Flash PCB and install the system using SST or USB.</p> <p>4. Replace Main Controller PCB (PCB2).</p>
E614	0213	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly after startup, Error in file system writing after startup

E Code	Detail Code	Location	Item	Description
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 3. Replace the Flash PCB and install the system using SST or USB. 4. Replace Main Controller PCB (PCB2).
E614	0302	00	Title	Error in file system on the Flash PCB
			Description	<p>The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.</p>
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 3. Replace the Flash PCB and install the system using SST or USB. 4. Replace Main Controller PCB (PCB2).
E614	0312	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly after startup, Error in file system writing after startup
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 3. Replace the Flash PCB and install the system using SST or USB. 4. Replace Main Controller PCB (PCB2).
E614	0501	00	Title	Error in file system on the Flash PCB
			Description	<p>The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.</p>
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Initialize the corresponding partition (all the data in the corresponding partition is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]HD-CLEAR = 1, and then turn OFF and ON the power. 4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 5. Replace the Flash PCB and install the system using SST or USB. 6. Replace Main Controller PCB (PCB2).

E Code	Detail Code	Location	Item	Description
E614	0511	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly after startup, Error in file system writing after startup
			Remedy	<p>1. Turn OFF and then ON the main power.</p> <p>2. Initialize the corresponding partition (all the data in the corresponding partition is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 5: [1]:CHK-TYPE = 5, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>5. Replace the Flash PCB and install the system using SST or USB.</p> <p>6. Replace Main Controller PCB (PCB2).</p>
E614	0601	00	Title	Error in file system on the Flash PCB
			Description	<p>The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup</p> <p>Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.</p>
			Remedy	<p>1. Turn OFF and then ON the main power.</p> <p>2. Initialize the corresponding partition (all the data in the corresponding partition is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 3: [1]:CHK-TYPE = 3, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>5. Replace the Flash PCB and install the system using SST or USB.</p> <p>6. Replace Main Controller PCB (PCB2).</p>
E614	0611	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly after startup, Error in file system writing after startup
			Remedy	<p>1. Turn OFF and then ON the main power.</p> <p>2. Initialize the corresponding partition (all the data in the corresponding partition is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 3: [1]:CHK-TYPE = 3, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE =</p>

E Code	Detail Code	Location	Item	Description
				0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 5. Replace the Flash PCB and install the system using SST or USB. 6. Replace Main Controller PCB (PCB2).
E614	0701	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.
			Remedy	1. Turn OFF and then ON the main power. 2. Initialize the corresponding partition (all the data in the corresponding partition is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 3: [1]:CHK-TYPE = 3, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 5. Replace the Flash PCB and install the system using SST or USB. 6. Replace Main Controller PCB (PCB2).
E614	0711	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly after startup, Error in file system writing after startup
			Remedy	1. Turn OFF and then ON the main power. 2. Initialize the corresponding partition (all the data in the corresponding partition is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 3: [1]:CHK-TYPE = 3, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 5. Replace the Flash PCB and install the system using SST or USB. 6. Replace Main Controller PCB (PCB2).
E614	0801	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup

E Code	Detail Code	Location	Item	Description
				Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Initialize the corresponding partition (all the data in the corresponding partition is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 3: [1]:CHK-TYPE = 3, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 5. Replace the Flash PCB and install the system using SST or USB. 6. Replace Main Controller PCB (PCB2).
E614	0811	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly after startup, Error in file system writing after startup
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Initialize the corresponding partition (all the data in the corresponding partition is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 3: [1]:CHK-TYPE = 3, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 5. Replace the Flash PCB and install the system using SST or USB. 6. Replace Main Controller PCB (PCB2).
E614	0901	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 3. Replace the Flash PCB and install the system using SST or USB. 4. Replace Main Controller PCB (PCB2).
E614	0911	00	Title	Error in file system on the Flash PCB

E Code	Detail Code	Location	Item	Description
			Description	The file system failed to be initialized properly after startup, Error in file system writing after startup
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 3. Replace the Flash PCB and install the system using SST or USB. 4. Replace Main Controller PCB (PCB2).
E614	1001	00	Title	Error in file system on the Flash PCB
			Description	<p>The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup</p> <p>Error, the system of the host machine has not been started normally.</p> <p>Therefore the error code is not recorded in the log.</p>
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Initialize the corresponding partition (all the data in the corresponding partition is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 5. Replace the Flash PCB and install the system using SST or USB. 6. Replace Main Controller PCB (PCB2).
E614	1011	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly after startup, Error in file system writing after startup
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Initialize the corresponding partition (all the data in the corresponding partition is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 2: [1]:CHK-TYPE = 2, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Erase all partitions that can be initialized (all of erasable partition data is erased). Press (user mode key) => (2, 8) => (user mode key),Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 5. Replace the Flash PCB and install the system using SST or USB. 6. Replace Main Controller PCB (PCB2).
E614	1101	00	Title	Error in file system on the Flash PCB
			Description	

E Code	Detail Code	Location	Item	Description
				The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.
			Remedy	1. Turn OFF and then ON the main power. 2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 3. Replace the Flash PCB and install the system using SST or USB. 4. Replace Main Controller PCB (PCB2).
E614	1111	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly after startup, Error in file system writing after startup
			Remedy	1. Turn OFF and then ON the main power. 2. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 3. Replace the Flash PCB and install the system using SST or USB. 4. Replace Main Controller PCB (PCB2).
E614	1201	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.
			Remedy	1. Turn OFF and then ON the main power. 2. Initialize the corresponding partition (all the data in the corresponding partition is erased). Select the following to enter 2: [1]:CHK-TYPE = 2, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 3. Erase all partitions that can be initialized (all of erasable partition data is erased). Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power. 4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB. 5. Replace the Flash PCB and install the system using SST or USB. 6. Replace Main Controller PCB (PCB2).
E614	1211	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly after startup, Error in file system writing after startup
			Remedy	1. Turn OFF and then ON the main power. 2. Initialize the corresponding partition (all the data in the corresponding partition is erased).

E Code	Detail Code	Location	Item	Description
				<p>Select the following to enter 2: [1]:CHK-TYPE = 2, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>3. Erase all partitions that can be initialized (all of erasable partition data is erased).</p> <p>Select the following to enter 0: [1]:CHK-TYPE = 0, and execute the following: [3]:HD-CLEAR = 1, and then turn OFF and ON the power.</p> <p>4. Start in safe mode and format the Flash PCB, and then reinstall the system using SST or USB.</p> <p>5. Replace the Flash PCB and install the system using SST or USB.</p> <p>6. Replace Main Controller PCB (PCB2).</p>
E614	4000	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Check the cable or the power connector.</p> <p>2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power.</p> <p>3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.</p>
E614	4001	00	Title	Error in file system on the Flash PCB
			Description	Error in file system writing after startup
			Remedy	<p>1. Check the cable or the power connector.</p> <p>2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power.</p> <p>3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.</p>
E614	4002	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	<p>1. Check the cable or the power connector.</p> <p>2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power.</p> <p>3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.</p>
E614	4003	00	Title	Error in file system on the Flash PCB

E Code	Detail Code	Location	Item	Description
			Description	I/O error occurred in the file system at startup
			Remedy	<ol style="list-style-type: none"> 1. Check the cable or the power connector. 2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power. 3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.
E614	4010	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	<ol style="list-style-type: none"> 1. Check the cable or the power connector. 2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power. 3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.
E614	4011	00	Title	Error in file system on the Flash PCB
			Description	Error in file system writing after startup
			Remedy	<ol style="list-style-type: none"> 1. Check the cable or the power connector. 2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power. 3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.
E614	4012	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup
			Remedy	<ol style="list-style-type: none"> 1. Check the cable or the power connector. 2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power. 3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.
E614	9000	00	Title	Error in file system on the Flash PCB

E Code	Detail Code	Location	Item	Description
			Description	SRAM device access-related error
			Remedy	<p>1. Check the cable or the power connector.</p> <p>2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power.</p> <p>3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.</p>
E614	9001	00	Title	Error in file system on the Flash PCB
			Description	Error in securing memory/invalid memory
			Remedy	<p>1. Check the cable or the power connector.</p> <p>2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power.</p> <p>3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.</p>
E614	9002	00	Title	Error in file system on the Flash PCB
			Description	Setting file error
			Remedy	<p>1. Check the cable or the power connector.</p> <p>2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power.</p> <p>3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.</p>
E614	9003	00	Title	Error in file system on the Flash PCB
			Description	Parameter error
			Remedy	<p>1. Check the cable or the power connector.</p> <p>2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power.</p> <p>3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.</p>
E614	9004	00	Title	Error in file system on the Flash PCB

E Code	Detail Code	Location	Item	Description
			Description	Startup error
			Remedy	<ol style="list-style-type: none"> 1. Check the cable or the power connector. 2. If the above measure does not solve the problem, start in safe mode to format the entire Flash PCB, reinstall the system using SST or USB (System, Lang, RUI), and then turn OFF and ON the main power. 3. The Flash PCB is detected as faulty; therefore, replace the Flash PCB and reinstall the system using SST or USB.
E614	FF01	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly at startup, I/O error occurred in the file system at startup Error, the system of the host machine has not been started normally. Therefore the error code is not recorded in the log.
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Replace the Flash PCB and install the system using SST or USB. 3. Replace Main Controller PCB (PCB2).
E614	FF11	00	Title	Error in file system on the Flash PCB
			Description	The file system failed to be initialized properly after startup, Error in file system writing after startup
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the main power. 2. Replace the Flash PCB and install the system using SST or USB. 3. Replace Main Controller PCB (PCB2).
E674	0001	07	Title	FAX Board communication error
			Description	The specified number of errors was detected with FAX Board communication
			Remedy	<ol style="list-style-type: none"> 1. Check wire connection between the FAX Board and the Main Controller PCB. 2. Replace the FAX Board. 3. Replace the Main Controller PCB (PCB2).
E674	0004	07	Title	FAX Board communication error
			Description	Error in access of the modem IC used by FAX
			Remedy	<ol style="list-style-type: none"> 1. Check wire connection between the FAX Board and the Main Controller PCB. 2. Replace the FAX Board. 3. Replace the Main Controller PCB (PCB2).
E674	0008	07	Title	FAX Board communication error

E Code	Detail Code	Location	Item	Description
			Description	Error in access of the port IC used by OnBoardFax
			Remedy	1. Check wire connection between the FAX Board and the Main Controller PCB. 2. Replace the FAX Board. 3. Replace the Main Controller PCB (PCB2).
E674	000C	07	Title	FAX Board communication error
			Description	An error was detected in access of the modem IC or port IC used by Fax
			Remedy	1. Check wire connection between the FAX Board and the Main Controller PCB. 2. Replace the FAX Board. 3. Replace the Main Controller PCB (PCB2).
E674	0010	07	Title	FAX Board communication error
			Description	Error in timer device to be used by FAX at activation
			Remedy	1. Replace the Main Controller PCB (PCB2).
E674	0011	07	Title	FAX Board communication error
			Description	Error when the timer device to be used by FAX is started
			Remedy	1. Replace the Main Controller PCB (PCB2).
E674	0030	07	Title	FAX Board communication error
			Description	Checksum error of USB-FAX MAINROM
			Remedy	When the power is turned ON, get in the download mode from service mode to execute downloading of USBFAX MAINROM.
E674	0100	07	Title	FAX Board communication error
			Description	After completion of fax communication, writing of the communication information (log) failed, and the log cannot be read.
			Remedy	Turn OFF and then ON the power. (Points to note) All the previous communication information will be cleared.
E674	0200	07	Title	HDD access error
			Description	An error occurred when accessing the HDD.

E Code	Detail Code	Location	Item	Description
			Remedy	<ol style="list-style-type: none"> 1. Turn OFF and then ON the power. 2. System all format and installation 3. Replace the HDD. 4. Replace the Main Controller PCB.
E677	0003	00	Title	Print server error
			Description	Error is detected by checking of the mother board at startup of the print server
			Remedy	<ol style="list-style-type: none"> 1. Check cable connection and turn ON the power again. 2. Reinstall the printer server.
E711	0001	05	Title	Communication error (retransmission request reception error)
			Description	Communication between the Host Machine and the Finisher was lost.
			Remedy	<ol style="list-style-type: none"> 1. Check the installation of the Host Machine and the Finisher. 2. Check the connector connection between the DC Controller PCB (PCB1) and the Finisher Controller PCB (PCB1). 3. Replace the Finisher Controller PCB (PCB1). 4. Replace the DC Controller PCB (PCB1).
E713	0000	05	Title	Error in communication with the Finisher (communication retry failure)
			Description	The communication did not connect again although the error retry was executed after failing to communicate with the Finisher.
			Remedy	<ol style="list-style-type: none"> 1. Check the installation of the Host Machine and the Finisher. 2. Check the connector connection between the DC Controller PCB (PCB1) and the Finisher Controller PCB (PCB1). 3. Replace the Finisher Controller PCB (PCB1). 4. Replace the DC Controller PCB (PCB1).
E716	0000	05	Title	Error in communication with the Cassette Module
			Description	The communication did not connect again although the error retry was executed after failing to communicate with the Cassette Module.
			Remedy	<ol style="list-style-type: none"> 1. Check the installation of the Host Machine and the Cassette Module. 2. Check the connector connection between the DC Controller PCB (PCB1) and the Cassette Module Controller PCB (PCB101). 3. Replace the Cassette Module Controller PCB (PCB101). 4. Replace the DC Controller PCB (PCB1).

E Code	Detail Code	Location	Item	Description
E719	0001	00	Title	Coin vendor error
			Description	Error when the coin vendor is started - The Coin Vendor, which must have been connected before the power was turned OFF, is not connected when the power is turned ON
			Remedy	Check cable connection between the charging management equipment and the host machine. While the charging management equipment is connected for operation, clear the error in the case of switching to the operation without the charging management equipment. (To prevent a misuse by removing the charging management equipment, this error code is displayed.)
E719	0002	00	Title	Coin vendor error
			Description	IPC error at coin vendor operation - Open circuit of IPC, unable to recover the IPC communication - When open circuit of the pickup/delivery signal cable is detected - Invalid connection is detected
			Remedy	Check cable connection between the charging management equipment and the host machine. While the charging management equipment is connected for operation, clear the error in the case of switching to the operation without the charging management equipment. (To prevent a misuse by removing the charging management equipment, this error code is displayed.)
E719	0003	00	Title	Coin vendor error
			Description	- Communication error with the coin manager occurs during unit price acquisition at startup.
			Remedy	Check cable connection between the charging management equipment and the host machine. While the charging management equipment is connected for operation, clear the error in the case of switching to the operation without the charging management equipment. (To prevent a misuse by removing the charging management equipment, this error code is displayed.)
E719	0004	00	Title	Coin vendor error
			Description	The coin vendor was connected to a model that does not support the coin vendor
			Remedy	1. Disconnect the coin vendor.

E Code	Detail Code	Location	Item	Description
E719	0011	00	Title	Coin vendor error
			Description	Error when the NewCardReader is started - The NewCardReader, which must have been connected before the power was turned OFF, is not connected when the power is turned ON.)
			Remedy	Check cable connection between the charging management equipment and the host machine. While the charging management equipment is connected for operation, clear the error in the case of switching to the operation without the charging management equipment. (To prevent a misuse by removing the charging management equipment, this error code is displayed.)
E719	0012	00	Title	Coin vendor error
			Description	IPC error at NewCardReader operation Open circuit of IPC, unable to recover the IPC communication
			Remedy	Check cable connection between the charging management equipment and the host machine. While the charging management equipment is connected for operation, clear the error in the case of switching to the operation without the charging management equipment. (To prevent a misuse by removing the charging management equipment, this error code is displayed.)
E719	0031	00	Title	Serial communication error when the NewCardReader is started
			Description	Unable to start communication with the Serial NewCardReader at startup
			Remedy	1. Check if the cable of Serial NewCardReader is open circuit. 2. Remove the Serial NewCardReader. COPIER > Function > CLEAR > CARD COPIER > Function > CLEAR > ERR
E719	0032	00	Title	Serial communication error after the NewCardReader was started
			Description	Although communication with the Card Reader was possible at startup, it became unavailable in the middle of communication
			Remedy	Check if the NewCardReader cable is open circuit
E730	1001	00	Title	PDL software error
			Description	Initialization error

E Code	Detail Code	Location	Item	Description
			Remedy	1. PDL reset processing (user mode > function settings > printer > printer settings > utility > Reset Printer). 2. Turn OFF and then ON the power.
E730	100A	00	Title	PDL software error
			Description	Systematic fatal error occurs
			Remedy	1. PDL reset processing (user mode > function settings > printer > printer settings > utility > Reset Printer). 2. Turn OFF and then ON the power.
E730	A006	00	Title	PDL communication error
			Description	No reply from PDL. No reply from PDL due to failure or absence of the controller firmware
			Remedy	1. PDL reset processing (user mode > function settings > printer > printer settings > utility > Reset Printer). 2. Turn OFF and then ON the power. 3. Check connection of Main Controller PCB. 4. Reinstall the controller firmware. 5. Replace Main Controller PCB (PCB2).
E730	A007	00	Title	Mismatched PDL version
			Description	Mismatch in version of the control software between the host machine and the PDL.
			Remedy	System all format and installation.
E730	B013	00	Title	PDL embedded font error
			Description	Broken font data
			Remedy	1. Turn OFF and then ON the power. 2. Reinstall the system using SST or USB. 3. System all format and reinstall the system using SST or USB.
E730	C000	00	Title	Initialization error
			Description	An error, such as failure in memory retrieval at startup, occurs
			Remedy	1. System all format and installation. 2. Replace Main Controller PCB (PCB2).
E730	C001	00	Title	HDD access error

E Code	Detail Code	Location	Item	Description
			Description	An error occurs when accessing to the HDD
			Remedy	1. Start in safe mode to format the HDD (all the data in the HDD is erased). 2. Replace the HDD. 3. Replace Main Controller PCB (PCB2).
E731	3000	00	Title	Error in Main Controller PCB
			Description	Unable to recognize the Surf board
			Remedy	1. Check connection of Main Controller PCB. 2. Replace Main Controller PCB (PCB2).
E731	3001	00	Title	Error in Main Controller PCB
			Description	Failure in Surf initialization
			Remedy	1. Check connection of Main Controller PCB. 2. Replace Main Controller PCB (PCB2).
E731	3002	00	Title	Error in Main Controller PCB
			Description	Failure in Surf initialization
			Remedy	1. Check connection of Main Controller PCB. 2. Replace Main Controller PCB (PCB2).
E731	3015	00	Title	Error in Main Controller PCB
			Description	Although it works normally at the software side, there is no video data into CL1-G
			Remedy	1. Check connection of Main Controller PCB. 2. Replace Main Controller PCB (PCB2).
E732	0010	00	Title	Scanner communication error
			Description	Vertical Synchronizing signal detection error
			Remedy	1. Check the connection of the Connector with the Reader. 2. Check the power of the Reader (check if the initialization operation is executed at startup). 3. Replace the Reader Relay PCB. 4. Replace the Main Controller PCB.
E740	0002	00	Title	Ethernet Board error

E Code	Detail Code	Location	Item	Description
			Description	Invalid MAC address
			Remedy	1. Replace the LAN card
E740	0003	00	Title	Ethernet Board error
			Description	Invalid MAC address
			Remedy	1. Replace the LAN card
E743	0000	00	Title	DDI communication error
			Description	SCI error, reception data NG, reception timeout, SEQ timeout error
			Remedy	1. Turn OFF and then ON the power. 2. Check connection of the cable between the Reader and the Controller. 3. Check voltage (+24V and +12V) on the Reader Controller PCB. 4. Replace the Reader Controller PCB (PCB3). 5. Replace Main Controller PCB (PCB2).
E744	0001	00	Title	Language file error
			Description	Mismatch between the language version in the Flash PCB and the Bootable version
			Remedy	Use SST or USB memory to reinstall the correct language file. Or reinstall the entire software.
E744	0002	00	Title	Language file error
			Description	Too large language size in the Flash PCB
			Remedy	Format the Flash PCB and reinstall the system because more than necessary language files may have been installed.
E744	0003	00	Title	Language file error
			Description	Unable to find the language described in Config.txt in the Flash that should be switched.
			Remedy	Reinstall the system.
E744	0004	00	Title	Language file error
			Description	Unable to switch to the language in the Flash PCB
			Remedy	Use SST or USB to reinstall the system.
E744	2000	00	Title	System error

E Code	Detail Code	Location	Item	Description
			Description	System error
			Remedy	Contact the service company office
E746	0021	00	Title	Engine ID error
			Description	Self-check error of Image Analysis Board (HW board used for PCAM)
			Remedy	1. Replace the Image Analysis Board (HW board used for PCAM). 2. As a temporary measure, remove the Image Analysis Board and get in service mode: COPIER > OPTION > LCNS-TR > ST-JBLK (Lv2); set ST-JBLK from 1 to 0, and turn OFF and then ON the power.
E746	0022	00	Title	Engine ID error
			Description	Wrong version of Image Analysis Board
			Remedy	1. Update the firmware of the Image Analysis Board. 2. As a temporary measure, remove the Image Analysis Board and get in service mode: COPIER > OPTION > LCNS-TR > ST-JBLK (Lv2); set ST-JBLK from 1 to 0, and turn OFF and then ON the power.
E746	0023	00	Title	Engine ID error
			Description	No reply from the Image Analysis Board
			Remedy	1. Check if the Image Analysis Board is correctly installed. 2. Turn OFF and then ON the power. 3. If the problem is not fixed, replace the Option Board. 4. As a temporary measure, remove the Image Analysis Board and get in service mode: COPIER > OPTION > LCNS-TR > ST-JBLK (Lv2); set ST-JBLK from 1 to 0, and turn OFF and then ON the power.
E746	0024	00	Title	Engine ID error
			Description	Operation error of the Image Analysis Board
			Remedy	1. Turn OFF and then ON the power. 2. If the problem is not fixed, replace the Image Analysis Board. 3. As a temporary measure, remove the Image Analysis Board and get in service mode: (Lv2) COPIER > OPTION > LCNS-TR > ST-JBLK ; set ST-JBLK from 1 to 0, and turn OFF and then ON the power.
E746	0031	00	Title	Engine ID error

E Code	Detail Code	Location	Item	Description
			Description	Hardware error
			Remedy	1. Turn OFF and then ON the power. 2. Replace the TPM PCB.
E746	0032	00	Title	Engine ID error
			Description	TPM key mismatch
			Remedy	Format the system Use SST or USB memory to format the HDD, and then execute downloading of the system software. See Chapter 6 Upgrading for details. For reference, the method using USB memory is shown below: 1. Prepare USB memory in which the system software was registered.
E746	0033	00	Title	Engine ID error
			Description	Mismatched data in the TPM
			Remedy	Recovery is available if backup of the TPM has been executed. 1. Connect the USB memory in which the TPM key is saved. 2. Management Settings > Data Management > TPM Settings; click [Restore TPM key]. 3. Enter the password that was specified at the time of backup work. 4. Once the restore completion screen is displayed, click [OK] and remove the USB memory, and then turn OFF and ON the main power switch. When backup of the TPM key is not executed System format is necessary. Use SST or USB memory to format the HDD, and then download the system software.
E746	0034	00	Title	TPM auto recovery error
			Description	An error occurs when clearing the HDD while the TPM setting is ON
			Remedy	The symptom is recovered by turning OFF and then ON the power
E746	0035	00	Title	TPM version error
			Description	TPM which cannot be used in this machine was installed.
			Remedy	Install the supported TPM.
E747	1201	00	Title	PDL rendering error
			Description	Image processing IC error

E Code	Detail Code	Location	Item	Description
			Remedy	1. Turn OFF and then ON the power (send the data to Inc because running the data which generated an error code causes another error code). 2. Replace Main Controller PCB (PCB2).
E748	2010	00	Title	Flash PCB error
			Description	Unable to find IPL (startup program)
			Remedy	Replace the Flash PCB and install the system using SST or USB
E748	2021	00	Title	Main Controller PCB access error
			Description	Necessary H/W on Main Controller PCB is not detected
			Remedy	1. Clean the terminal of Main Controller PCB, and remove and then install Main Controller PCB. 2. Replace Main Controller PCB (PCB2).
E748	2023	00	Title	Main Controller PCB access error
			Description	Unable to initialize memory DDR2-SDRAM at the Main Controller PCB
			Remedy	1. Clean the terminal of DDR2-SDRAM, and remove and then install the DDR2-SDRAM. 2. Replace the DDR2-SDRAM.
E748	2024	00	Title	Main Controller PCB access error
			Description	The CPU at the Main Controller PCB failed to complete initialization
			Remedy	1. Clean the terminal of DDR2-SDRAM, and remove and then install the DDR2-SDRAM. 2. Check power state of Main Controller PCB and check around the connector. 3. Replace Main Controller PCB.
E748	9000	00	Title	System error
			Description	System error
			Remedy	Contact the service company office
E749	0002	00	Title	Rebooting instruction due to change of MEAP configuration
			Description	There is a change in configuration that requires turning OFF and then ON the power
			Remedy	The symptom is recovered by turning OFF and then ON the power
E749	0003	00	Title	Booting instruction due to change in mAccele configuration

E Code	Detail Code	Location	Item	Description
			Description	There is a change in configuration that requires turning OFF and then ON the power
			Remedy	The symptom is recovered by turning OFF and then ON the power
E749	0005	00	Title	Booting instruction due to change in hardware configuration
			Description	There is a change in configuration that requires turning OFF and then ON the power
			Remedy	The symptom is recovered by turning OFF and then ON the power
E749	0006	00	Title	Restart direction due to configuration change.
			Description	The option such as the Finisher and ADF was installed or removed when all of following conditions were met and the machine configuration is changed when the main power switch is turned ON. - Settings/Registration > Preferences > Timer/Energy Settings > Quick Startup at Power-on > ON - The Main Power Switch is turned OFF - The power plug of the machine is connected to the output.
			Remedy	It is recovered by turning OFF and then ON the main power. CAUTION This machine provides power to some PCBs even when in the main power OFF status. The power supply is not completely OFF by just turning OFF the main power switch and therefore, the machine is unable to detect a configuration change. When disconnecting and then connecting a connector, always disconnect the power plug. Refer to the Service Manual > Chapter 2 > External and Controls > Quick Startup for details.
E753	0001	00	Title	Downloading error
			Description	Firmware update error This symptom occurs when trying to update the firmware of an option that is not installed
			Remedy	1. Check the log to identify the location of the download error. Check if the target option is installed. When the target option is not installed: -> The symptom is recovered by turning OFF and then ON the power (because there is nothing to update) When the target option is installed: -> Check if the target option is properly installed and see if the software to download is for the correct target option, and then execute downloading again.
E804	0000	00	Title	Power Supply Cooling Fan (FM4) error
			Description	When detecting a failure of the Power Supply Cooling Fan (FM4).

E Code	Detail Code	Location	Item	Description
			Remedy	1. Check the connector connection between the Power Supply Cooling Fan (FM4) and the AC Driver PCB (PCB4). 2. Replace the Power Supply Cooling Fan (FM4).
E805	0000	05	Title	Heat Exhaust Fan (Rear) (FM6) error
			Description	The lock signal was detected for 5.0 seconds while the Heat Exhaust Fan (Rear) (FM6) was being stopped. *The same status was detected again after executing an error retry.
			Remedy	1. Check the connector connection between the Heat Exhaust Fan (Rear) (FM6) and the DC Controller PCB (PCB1). 2. Replace the Heat Exhaust Fan (Rear) (FM6). 3. Replace the DC Controller PCB (PCB1).
E805	0001	05	Title	Heat Exhaust Fan (Rear) (FM6) rotation error
			Description	The lock signal was not detected for 5.0 seconds while the Heat Exhaust Fan (Rear) (FM6) was being driven. *The same status was detected again after executing an error retry.
			Remedy	1. Check the connector connection between the Heat Exhaust Fan (Rear) (FM6) and the DC Controller PCB (PCB1). 2. Replace the Heat Exhaust Fan (Rear) (FM6). 3. Replace the DC Controller PCB (PCB1).
E805	0002	05	Title	Heat Exhaust Fan (Front) (FM5) error
			Description	The lock signal was detected for 5.0 seconds while the Heat Exhaust Fan (Front) (FM5) was being stopped. *The same status was detected again after executing an error retry.
			Remedy	1. Check the connector connection between the Heat Exhaust Fan (Front) (FM5) and the DC Controller PCB (PCB1). 2. Replace the Heat Exhaust Fan (Front) (FM5). 3. Replace the DC Controller PCB (PCB1).
E805	0003	05	Title	Heat Exhaust Fan (Front) (FM5) rotation error
			Description	The lock signal was not detected for 5.0 seconds while the Heat Exhaust Fan (Front) (FM5) was being driven. *The same status was detected again after executing an error retry.
			Remedy	

E Code	Detail Code	Location	Item	Description
				<ol style="list-style-type: none"> 1. Check the connector connection between the Heat Exhaust Fan (Front) (FM5) and the DC Controller PCB (PCB1). 2. Replace the Heat Exhaust Fan (Front) (FM5). 3. Replace the DC Controller PCB (PCB1).
E820	0000	05	Title	Developing Cooling Fan (Front) (FM7) error
			Description	<p>The lock signal was detected for 5.0 seconds while the Developing Cooling Fan (Front) (FM7) was being stopped.</p> <p>*The same status was detected again after executing an error retry.</p>
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection between the Developing Cooling Fan (Front) (FM7) and the DC Controller PCB (PCB1). 2. Replace the Developing Cooling Fan (Front) (FM7). 3. Replace the DC Controller PCB (PCB1).
E820	0001	05	Title	Developing Cooling Fan (Front) (FM7) rotation error
			Description	<p>The lock signal was not detected for 5.0 seconds while the Developing Cooling Fan (Front) (FM7) was being driven.</p> <p>*The same status was detected again after executing an error retry.</p>
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection between the Developing Cooling Fan (Front) (FM7) and the DC Controller PCB (PCB1). 2. Replace the Developing Cooling Fan (Front) (FM7). 3. Replace the DC Controller PCB (PCB1).
E820	0002	05	Title	Developing Cooling Fan (Rear) (FM8) error
			Description	<p>The lock signal was detected for 5.0 seconds while the Developing Cooling Fan (Rear) (FM8) was being stopped.</p> <p>*The same status was detected again after executing an error retry.</p>
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection between the Developing Cooling Fan (Rear) (FM8) and the DC Controller PCB (PCB1). 2. Replace the Developing Cooling Fan (Rear) (FM8). 3. Replace the DC Controller PCB (PCB1).
E820	0003	05	Title	Developing Cooling Fan (Rear) (FM8) rotation error
			Description	<p>The lock signal was not detected for 5.0 seconds while the Developing Cooling Fan (Rear) (FM8) was being driven.</p> <p>*The same status was detected again after executing an error retry.</p>

E Code	Detail Code	Location	Item	Description
			Remedy	1. Check the connector connection between the Developing Cooling Fan (Rear) (FM8) and the DC Controller PCB (PCB1). 2. Replace the Developing Cooling Fan (Rear) (FM8). 3. Replace the DC Controller PCB (PCB1).
E822	0000	05	Title	Delivery Cooling Fan (Front) (FM3) error
			Description	The lock signal was detected for 5.0 seconds while the Delivery Cooling Fan (Front) (FM3) was being stopped. *The same status was detected again after executing an error retry.
			Remedy	1. Check the connector connection between the Delivery Cooling Fan (Front) (FM3) and the DC Controller PCB (PCB1). 2. Replace the Delivery Cooling Fan (Front) (FM3). 3. Replace the DC Controller PCB (PCB1).
E822	0001	05	Title	Delivery Cooling Fan (Front) (FM3) rotation error
			Description	The lock signal was not detected for 5.0 seconds while the Delivery Cooling Fan (Front) (FM3) was being driven. *The same status was detected again after executing an error retry.
			Remedy	1. Check the connector connection between the Delivery Cooling Fan (Front) (FM3) and the DC Controller PCB (PCB1). 2. Replace the Delivery Cooling Fan (Front) (FM3). 3. Replace the DC Controller PCB (PCB1).
E822	0002	05	Title	Delivery Cooling Fan (Center) (FM2) error
			Description	The lock signal was detected for 5.0 seconds while the Delivery Cooling Fan (Center) (FM2) was being stopped. *The same status was detected again after executing an error retry.
			Remedy	1. Check the connector connection between the Delivery Cooling Fan (Center) (FM2) and the DC Controller PCB (PCB1). 2. Replace the Delivery Cooling Fan (Center) (FM2). 3. Replace the DC Controller PCB (PCB1).
E822	0003	05	Title	Delivery Cooling Fan (Center) (FM2) rotation error
			Description	The lock signal was not detected for 5.0 seconds while the Delivery Cooling Fan (Center) (FM2) was being driven. *The same status was detected again after executing an error retry.

E Code	Detail Code	Location	Item	Description
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection between the Delivery Cooling Fan (Center) (FM2) and the DC Controller PCB (PCB1). 2. Replace the Delivery Cooling Fan (Center) (FM2). 3. Replace the DC Controller PCB (PCB1).
E822	0004	05	Title	Delivery Cooling Fan (Rear) (FM1) error
			Description	<p>The lock signal was detected for 5.0 seconds while the Delivery Cooling Fan (Rear) (FM1) was being stopped.</p> <p>*The same status was detected again after executing an error retry.</p>
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection between the Delivery Cooling Fan (Rear) (FM1) and the DC Controller PCB (PCB1). 2. Replace the Delivery Cooling Fan (Rear) (FM1). 3. Replace the DC Controller PCB (PCB1).
E822	0005	05	Title	Delivery Cooling Fan (Rear) (FM1) rotation error
			Description	<p>The lock signal was not detected for 5.0 seconds while the Delivery Cooling Fan (Rear) (FM1) was being driven.</p> <p>*The same status was detected again after executing an error retry.</p>
			Remedy	<ol style="list-style-type: none"> 1. Check the connector connection between the Delivery Cooling Fan (Rear) (FM1) and the DC Controller PCB (PCB1). 2. Replace the Delivery Cooling Fan (Rear) (FM1). 3. Replace the DC Controller PCB (PCB1).
E880	0001	00	Title	Controller Fan error
			Description	Lock of Controller Fan is detected
			Remedy	<p>Check if the connector is connected</p> <p>If the connector is OK, replace Controller Fan.</p>
E881	0001	00	Title	CPU abnormal temperature rising error
			Description	Abnormal temperature of the Main Controller CPU
			Remedy	<ol style="list-style-type: none"> 1. Send cold air to the device. 2. If there is a shielding object around the inlet, remove it to secure enough space. 3. Check the fan, and remove dust or replace the fan if it has an abnormality such as abnormal sound. 4. Replace the Main Controller PCB.

E Code	Detail Code	Location	Item	Description
E996	0071	04	Title	Frequent error avoidance jam (ADF)
			Description	Frequent error avoidance jam (ADF)
			Remedy	Depending on the setting of JM-ERR-R in service mode, "010071" jam is displayed as an error. Collect log and contact to the sales companies. To cancel the setting, select COPIER> OPTION> FNC-SW> JM-ERR-R, and set JM-ERR-R to 0.
E996	0CA0	05	Title	Frequent error avoidance jam (PRINTER)
			Description	Frequent error avoidance jam (PRINTER)
			Remedy	Make "000CA0" jam to be displayed as an error by setting JM-ERR-D in service mode. Collect log and contact to the sales companies. To cancel the setting, select COPIER> OPTION> FNC-SW> JM-ERR-D, and set JM-ERR-D to 0.

Jam Code

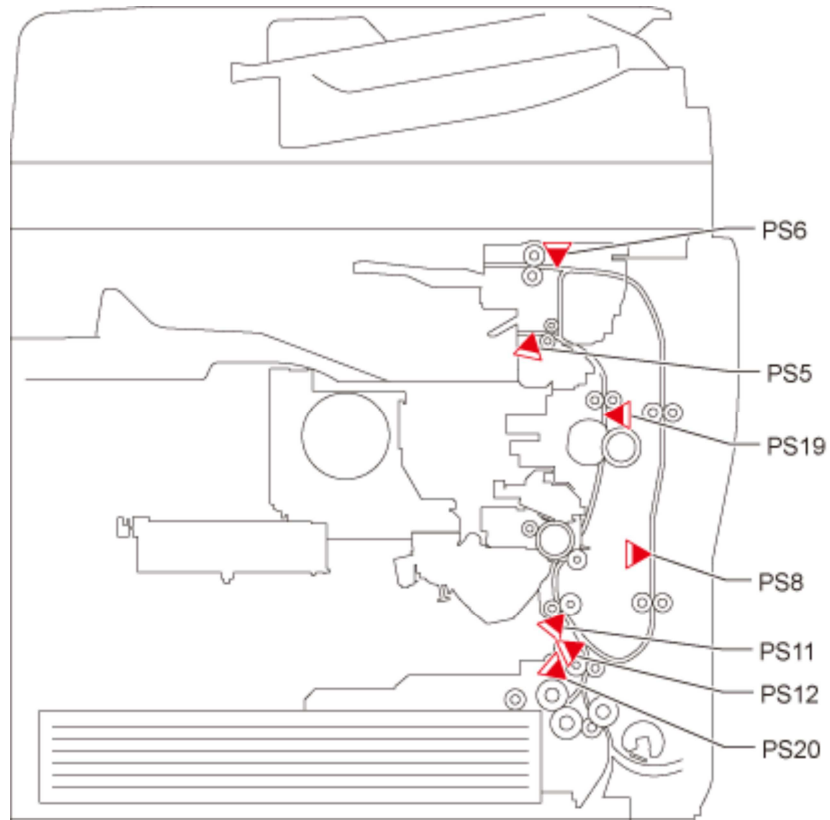
Jam Type

Jam types are shown below.

Type	Meaning
DELAY	Delay jam
STNRY	Stationary jam
OVERLAP	Double feed detection
TIMING NG	Timing error
OHP NG	Incorrect paper
ADF OP	ADF open
COVER OP	Cover open
RESIDUAL	Residual jam
PICKUP NG	Pickup error

Type	Meaning
POWER ON	Power ON
DOOR OP	Door open
SEQ NG	Sequence jam
DELAY ESC	Delay jam while ejecting to the escape delivery tray
OTH JAM	Other jams
STNRY ESC	Stationary jam while ejecting to the escape delivery tray
STP	Staple
SDL STP	Saddle stitch staple
INIT ROT	Residual (at initial rotation)
UP DEVICE	Upper stream device jam
OTHER	Others
ERROR	Error evasion jam
RETRY ERR	Retry error
STOP	Press Stop key
ROT	Keeps rotating
PROGRAM	Program
TIME OUT	Time-out
PUNCH	Punch
MEDIA NG	Misprint

Host machine



ACC ID	Jam Code	Type	Sensor ID	Sensor Name
00	0101	DELAY	PS12	Pre-Registration Sensor
00	0201	STNRY	PS12	Pre-Registration Sensor
00	0A01	POWER ON	PS12	Pre-Registration Sensor
00	0105	DELAY	PS11	Registration Sensor
00	0205	STNRY	PS11	Registration Sensor
00	0A05	POWER ON	PS11	Registration Sensor
00	0107	DELAY	PS19	Fixing Paper Sensor
00	0207	STNRY	PS19	Fixing Paper Sensor

ACC ID	Jam Code	Type	Sensor ID	Sensor Name
00	0A07	POWER ON	PS19	Fixing Paper Sensor
00	0108	DELAY	PS5	Delivery Sensor
00	0208	STNRY	PS5	Delivery Sensor
00	0A08	POWER ON	PS5	Delivery Sensor
00	010A	DELAY	PS6	Reverse Sensor
00	020A	STNRY	PS6	Reverse Sensor
00	0A0A	POWER ON	PS6	Reverse Sensor
00	010B	DELAY	PS20	Transparency Sensor
00	020B	STNRY	PS20	Transparency Sensor
00	0A0B	POWER ON	PS20	Transparency Sensor
00	010D	DELAY	PS8	Duplex Feed Sensor
00	020D	STNRY	PS8	Duplex Feed Sensor
00	0A0D	POWER ON	PS8	Duplex Feed Sensor
00	0B00	DOOR OP	-	-
00	0CA0	SEQ NG *2	-	-
00	0CF1	ERROR *1	-	-
00	0D91	OTHER	-	-
00	FF01	SEQ NG *2	-	-
00	FF02	SEQ NG *2	-	-
00	FF03	SEQ NG *2	-	-
00	FF04	SEQ NG *2	-	-
00	FF05	SEQ NG *2	-	-
00	FF06	SEQ NG *2	-	-
00	FF07	SEQ NG *2	-	-

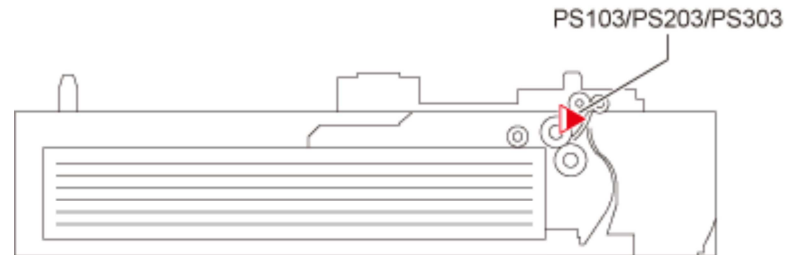
*1: The state is recovered by opening and closing the Door, or turning OFF and then ON the power supply.
 If the same jam is detected regardless of the operation above, the error code is displayed.

Detected error is either of the following.

E010,E014,E110,E197-0000,E197-0001,E261,E805,E822,E820

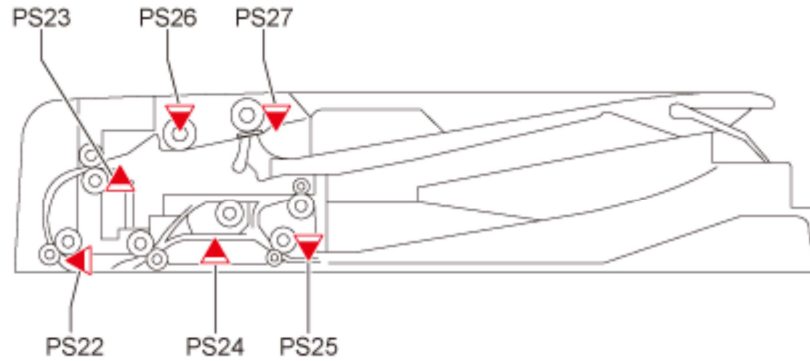
*2: The state is recovered by opening and closing the Door, or turning OFF and then ON the power supply.

CASSETTE UNIT-AA1



ACC ID	Jam Code	Type	Sensor ID	Sensor Name
00	0102	DELAY	PS103	Cassette 2 Retry Sensor
00	0202	STNRY	PS103	Cassette 2 Retry Sensor
00	0A02	POWER ON	PS103	Cassette 2 Retry Sensor
00	0103	DELAY	PS203	Cassette 3 Retry Sensor
00	0203	STNRY	PS203	Cassette 3 Retry Sensor
00	0A03	POWER ON	PS203	Cassette 3 Retry Sensor
00	0104	DELAY	PS303	Cassette 4 Retry Sensor
00	0204	STNRY	PS303	Cassette 4 Retry Sensor
00	0A04	POWER ON	PS303	Cassette 4 Retry Sensor

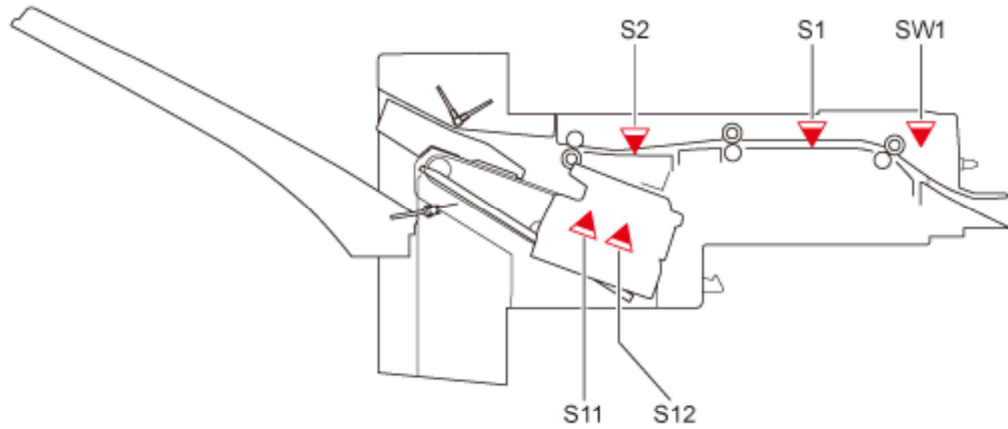
ADF



ACC ID	Jam Code	Type	Sensor ID	Sensor Name
01	0003	DELAY	PS23	Registration Sensor
01	0004	STNRY	PS23	Registration Sensor
01	0005	DELAY	PS22	Lead Sensor
01	0006	STNRY	PS22	Lead Sensor
01	0009	DELAY	PS24	Stay Sensor
01	000A	STNRY	PS24	Stay Sensor
01	000B	DELAY	PS25	Reversal Sensor
01	000C	STNRY	PS25	Reversal Sensor
01	0044	STNRY (first original)	PS23	Registration Sensor
01	0045	DELAY (first original)	PS22	Lead Sensor
01	0046	STNRY (first original)	PS22	Lead Sensor
01	0049	DELAY (first original)	PS24	Stay Sensor
01	004A	STNRY (first original)	PS24	Stay Sensor
01	004B	DELAY (first original)	PS25	Reversal Sensor
01	004C	STNRY (first original)	PS25	Reversal Sensor
01	0071	TIMING NG	-	-
01	0084	STNRY	PS23	Registration Sensor

ACC ID	Jam Code	Type	Sensor ID	Sensor Name
		(first original at re-pickup)		
01	0094	RESIDUAL	PS23/PS22/PS25	Registration Sensor, Lead Sensor, Reversal Sensor
01	0095	PICKUP NG	PS27	Original Set Sensor

Staple Finisher-R1



ACC ID	Jam Code	Type	Sensor ID	Sensor Name
02	1001	DELAY	S1	Inlet Sensor
02	1004	DELAY	S2	Delivery Sensor
02	1104	STNRY	S2	Delivery Sensor
02	1F01	TIMING	S1	Inlet Sensor
02	1500	STP	S11/S12	Stapler HP Sensor, Stapler Edging Sensor
02	1401	DOOR OP	SW1/S1	Front Door Switch, Inlet Sensor
02	1404	DOOR OP	SW1/S2	Front Door Switch, Delivery Sensor
02	1301	POWER ON	S1	Inlet Sensor
02	1304	POWER ON	S2	Delivery Sensor

ACC ID	Jam Code	Type	Sensor ID	Sensor Name
02	2F77	ERROR *1	-	-
02	2F30	ERROR *1	-	-
02	2F37	ERROR *1	-	-
02	2F83	ERROR *1	-	-
02	2F75	ERROR *1	-	-
02	2F40	ERROR *1	-	-
02	2F31	ERROR *1	-	-

*1: The state is recovered by opening and closing the Door, or turning OFF and then ON the power supply.

If the same jam is detected regardless of the operation above, the error code is displayed.

Alarm Code

Alarm Code Details

Alarm Code	Title	A. movement /B. cause /C. measures
00-0246	System error	Contact the service company office
00-0247	System error	Contact the service company office
04-0010	Jam left untouched (RDS creates)	
04-0011	Cassette 1 paper feed retry error	Movement: Nothing in particular. Cause: The paper does not picked up even if the paper feed retry operation is carried out 4 times. Measures: Check the Cassette 1 Pickup and Feed and Separation Rollers. -> Check whether a scrap of paper remains around the paper feed area or not.
04-0012	Cassette 2 paper feed retry error	Movement: Nothing in particular. Cause: The paper does not picked up even if the paper feed retry operation is carried out 4 times. Measures: Check the Cassette 2 Pickup and Feed and Separation Rollers. -> Check whether a scrap of paper remains around the paper feed area or not.

Alarm Code	Title	A. movement /B. cause /C. measures
04-0013	Cassette 3 paper feed retry error	Movement: Nothing in particular. Cause: The paper does not picked up even if the paper feed retry operation is carried out 4 times. Measures: Check the Cassette 3 Pickup and Feed and Separation Rollers. -> Check whether a scrap of paper remains around the paper feed area or not.
04-0014	Cassette 4 paper feed retry error	Movement: Nothing in particular. Cause: The paper does not picked up even if the paper feed retry operation is carried out 4 times. Measures: Check the Cassette 4 Pickup and Feed and Separation Rollers. -> Check whether a scrap of paper remains around the paper feed area or not.
04-0017	Multi-purpose tray paper feed retry error	Movement: Nothing in particular. Cause: The paper does not picked up even if the paper feed retry operation is carried out 4 times. Measures: Check the Multi-purpose Tray Pickup and Pullout Rollers. -> Check whether a scrap of paper remains around the paper feed area or not.
10-0020	Toner cartridge prior delivery alarm	An alarm for requesting a prior delivery is sent to UGW as the value of Toner level detect value has reached the value set in COPIER > OPTION > FNC-SW > T-DLV-BK.
10-0100	Toner cartridge replace notice	The replacement of the Toner Cartridge was detected.
11-0001	Waste toner container full	Movement: A message "The waste toner container is full." is displayed on the Control Panel, and the machine is stopped. Cause: The capacity of the Waste Toner Container became full. Measures: Replace the Waste Toner Container.
11-0010	Waste toner container near full	Movement: Displayed a message by an operation panel (A continuation print is possible) Cause: The capacity of the Waste Toner Container became near full.
31-0002	Power supply relay durability alarm	
31-0005	Environment sensor reading alarm	Movement: It becomes as follow: environment temperature= 0 degC, environment humidity= 0%. Cause: Connection of the Environment Sensor cannot be detected. Measures: 1) Check the connection of the Environment Sensor (THU1). 2) Replace the Environment Sensor (THU1).
31-0008	HDD failure prediction alarm	Movement: HDD failure is expected to occur in a short time due to occurrence of physical error in HDD. It does not occur in the HDD of mirroring configuration. Cause: Error in the S.M.A.R.T. value of HDD Measures: 1. Back up the data stored in HDD.

Alarm Code	Title	A. movement /B. cause /C. measures
		2. Replace the HDD. 3. Restore the data. S.M.A.R.T. (Self-Monitoring Analysis and Reporting Technology): Self-diagnosis function built in the HDD. The occurrence rate of reading error, reading and writing speed, the total number of Motor start-up and stop times, the total length of power-on time, etc. are monitored.
31-0009	FLASH failure prediction alarm	Movement: FLASH failure is expected to occur in a short time due to occurrence of physical error in FLASH. It does not occur in the FLASH of mirroring configuration. Cause: Error in the S.M.A.R.T. value of FLASH Measures: 1. Back up the data stored in FLASH. 2. Replace the FLASH. 3. Restore the data. S.M.A.R.T. (Self-Monitoring Analysis and Reporting Technology): Self-diagnosis function built in the FLASH. The occurrence rate of reading error, reading and writing speed, the total number of Motor start-up and stop times, the total length of power-on time, etc. are monitored.
35-0013	Transfer Roller replacement completion alarm	The replacement completion button of Transfer Roller was pushed.
35-0073	Drum Unit replacement completion alarm	The replacement completion button of Drum Unit was pushed.
35-0075	Static Eliminator replacement completion alarm	The replacement completion button of Static Eliminator was pushed.
35-0076	Fixing Assembly replacement completion alarm	The replacement completion button of Fixing Assembly was pushed.
35-0077	MP Pickup Roller replacement completion alarm	The replacement completion button of MP Pickup Roller was pushed.
35-0078	MP Separation Pad replacement completion alarm	The replacement completion button of MP Separation Pad was pushed.
35-0080	Cassette 1 Feed Roller replacement completion alarm	The replacement completion button of Cassette 1 Feed Roller was pushed.

Alarm Code	Title	A. movement /B. cause /C. measures
35-0081	Cassette 1 Separation Roller replacement completion alarm	The replacement completion button of Cassette 1 Separation Roller was pushed.
35-0083	Cassette 2 Feed Roller replacement completion alarm	The replacement completion button of Cassette 2 Feed Roller was pushed.
35-0084	Cassette 2 Separation Roller replacement completion alarm	The replacement completion button of Cassette 2 Separation Roller was pushed.
35-0086	Cassette 3 Feed Roller replacement completion alarm	The replacement completion button of Cassette 3 Feed Roller was pushed.
35-0087	Cassette 3 Separation Roller replacement completion alarm	The replacement completion button of Cassette 3 Separation Roller was pushed.
35-0089	Cassette 4 Feed Roller replacement completion alarm	The replacement completion button of Cassette 4 Feed Roller was pushed.
35-0090	Cassette 4 Separation Roller replacement completion alarm	The replacement completion button of Cassette 4 Separation Roller was pushed.
40-0073	Drum Unit (Bk) prior delivery alarm	An alarm for requesting a prior delivery is sent to UGW as the value of COPIER > COUNTER > LF > K-DRM-LF has reached the value set in COPIER > OPTION > FNC-SW > D-DLV-BK.
50-0010	Alarm due to original separation failure	Movement: Nothing in particular. Cause: Condition unable to separate 1st sheet of original from the ADF occurs 3 times. Measures: Check the rotation of the Delivery Reversal Motor (M12) -> Check the operation of the Pickup Solenoid (SL5) -> Check the life of the Pickup and Feed Rollers and Separation Pad -> Check if the paper lint is at the pickup slot.
61-0001	Finisher staple alarm	Movement: A user message is displayed on the Control Panel. If staple job is being processed during a print job, printing is stopped. Measures: Load staples.
70-0086	Upgrading-related alarm	Upgrading process is failed.

Alarm Code	Title	A. movement /B. cause /C. measures
73-0004	LIPS	Overflow of work memory for translator
73-0006	LIPS	Error in configuration acquisition/management
73-0007	LIPS	Memory management error in LIPS
73-0008	LIPS	File management error in LIPS
73-0009	LIPS	Reception data management error
73-0010	LIPS	Page control error
73-0011	LIPS	Macro management error
73-0012	LIPS	Color management error
73-0013	LIPS	Layout control error
73-0014	LIPS	Font management error
73-0015	LIPS	Letter drawing error
73-0016	LIPS	Graphic drawing error
73-0017	LIPS	Image drawing error
73-0018	LIPS	Display error to LCD
73-0019	LIPS	Text mode command error layer error
73-0020	LIPS	Vector mode command error layer error
73-0021	LIPS	Utility execution control error
73-0022	LIPS	Database management error in LIPS
73-0023	LIPS	Menu control error in LIPS
73-0024	LIPS	Boot error in LIPS
73-0025	LIPS	When the graphic library is in use for image processing, if the memory allocation is failed.
73-0026	LIPS	Data format error of image mode
76-0001	Font	No memory for internal font
76-0002	Font	Fails to assure the work area to analyze the font that is downloaded at "Resource Download".

Alarm Code	Title	A. movement /B. cause /C. measures
76-0003	Font	Fails to access the file that stores the font.
76-0004	Font	Fails to allocate the FM work memory.
76-0005	Font	Fails to analyze the internal font.
76-0006	Font	Alignment of font data is wrong.
76-0007	Font	Failed to allocate work memory with scaler. There are 3 types depending on where to occur.
76-0008	Font	Failed to allocate work memory with scaler. There are 3 types depending on where to occur.
77-0001	PDL	Fails to allocate the memory
77-0002	PDL	Failure of rendering
77-0003	PDL	DGL entry invalid
77-0005	PDL	Other errors
77-0006	PDL	DLG memory insufficient
78-0003	GL	GL entry invalid
78-0005	GL	System memory full
79-0001	In-house developed PCL	PCL initialization error
79-0002	In-house developed PCL	PCL processing error
79-0003	In-house developed PCL	Overflow of work memory for translator
79-0004	In-house developed PCL	Download overflow
80-0001	BDL	Admin error
80-0003	BDL	DataArea error
80-0010	BDL	Graphics error
80-0011	BDL	Char error
80-0015	BDL	Print data cannot process this version.
80-0016	BDL	Overflow of work memory for translator
80-0018	BDL	Syntax error

Alarm Code	Title	A. movement /B. cause /C. measures
80-0019	BDL	In case of invalid data format in BDL custom mode.
81-0001	Imaging	Fails to allocate the memory
81-0002	Imaging	Failure of rendering
81-0003	Imaging	Overflow of work memory for translator
81-0004	Imaging	Imaging initialization error
81-0005	Imaging	Imaging processing error
83-0005	CanonPDF	PDF memory full
83-0015	CanonPDF	PDF data decode error
83-0016	CanonPDF	PDF print range error
83-0017	CanonPDF	PDF error
83-0018	CanonPDF	PDF analysis error Un-supported transparent object exists.
83-0020	ESCP	
83-0021	I5577	
83-0022	HPGL	
83-0023	N201	
84-0001	XPS memory full error	
84-0002	XPS spool full error	
84-0003	XPS print range error	
84-0004	XPS document data error	
84-0005	XPS page data error	
84-0006	XPS image data error	
84-0007	XPS font data error	
84-0008		

Alarm Code	Title	A. movement /B. cause /C. measures
	XPS non-support image error	
84-0009	XPS rendering error	

Overview

Overview

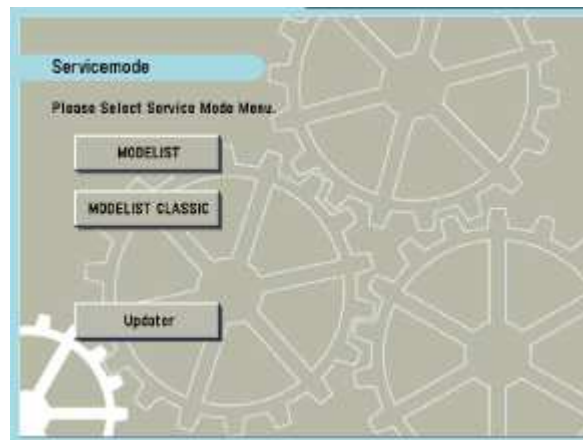
Instructions on how to use service mode items can be found within the service mode itself.
The information explains what items have been added or changed from previous models.

Entering Service Mode

Contact the sales company for the method to enter service mode

Service Mode Menu

TOP Screen



"MODELIST"

A brand new additional mode in the host machine.

A function that can be used as a reference on how to use each item in Service Mode is installed. The new function, which will be described later, is available in MODELIST Mode.

"MODELIST CLASSIC"

This mode is same as the old machine. The new function, which will be described later, is not available in the MODELIST CLASSIC Mode.

"Updater"

This is a MEAP application with functions of network communication to Content Delivery System V1.0 (hereinafter CDS) and installation of firmware, MEAP applications or system options. (Refer to Updater V1.0 service manual.)

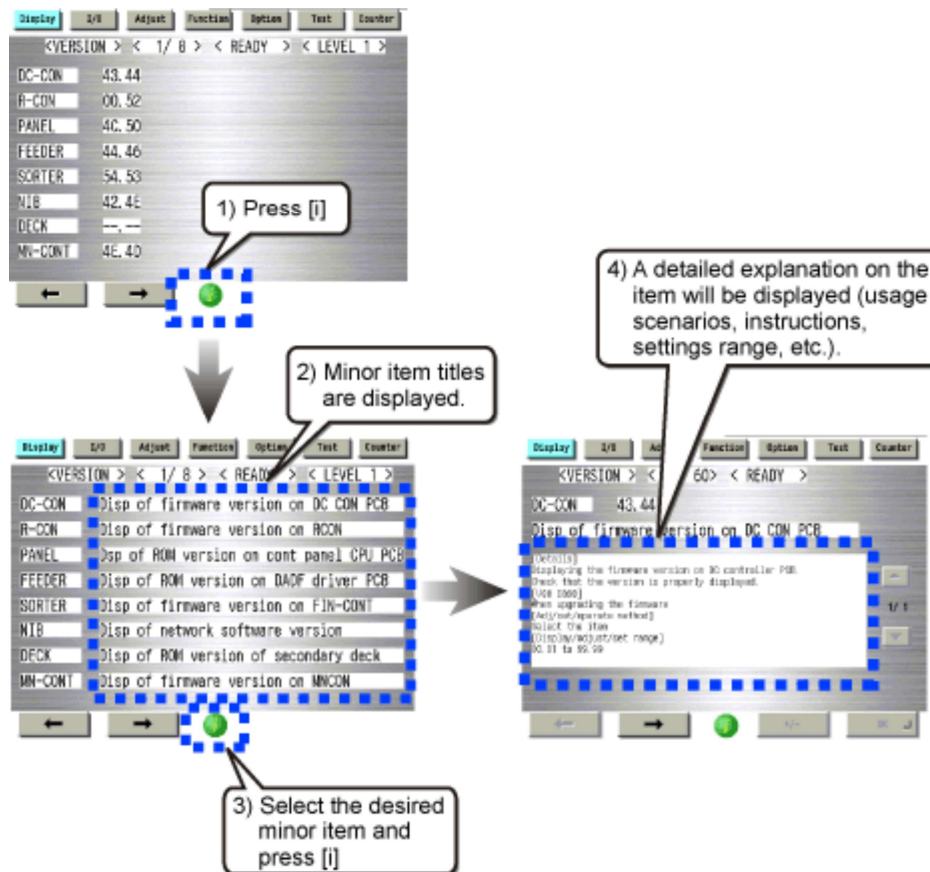
If "MODELIST " or "MODELIST CLASSIC " or "Updater" is pressed, the screen will switch to initial screen for each mode..

Service mode item explanations

Explanatory texts for the initial window, main items, sub items and minor items can be displayed.

Select the desired initial window, main item, sub item or minor item, then pres [i] (Information button) to display an explanatory text (hereafter, service mode contents) on the selected item.

E.g., COPIER> DISPLAY> Version window



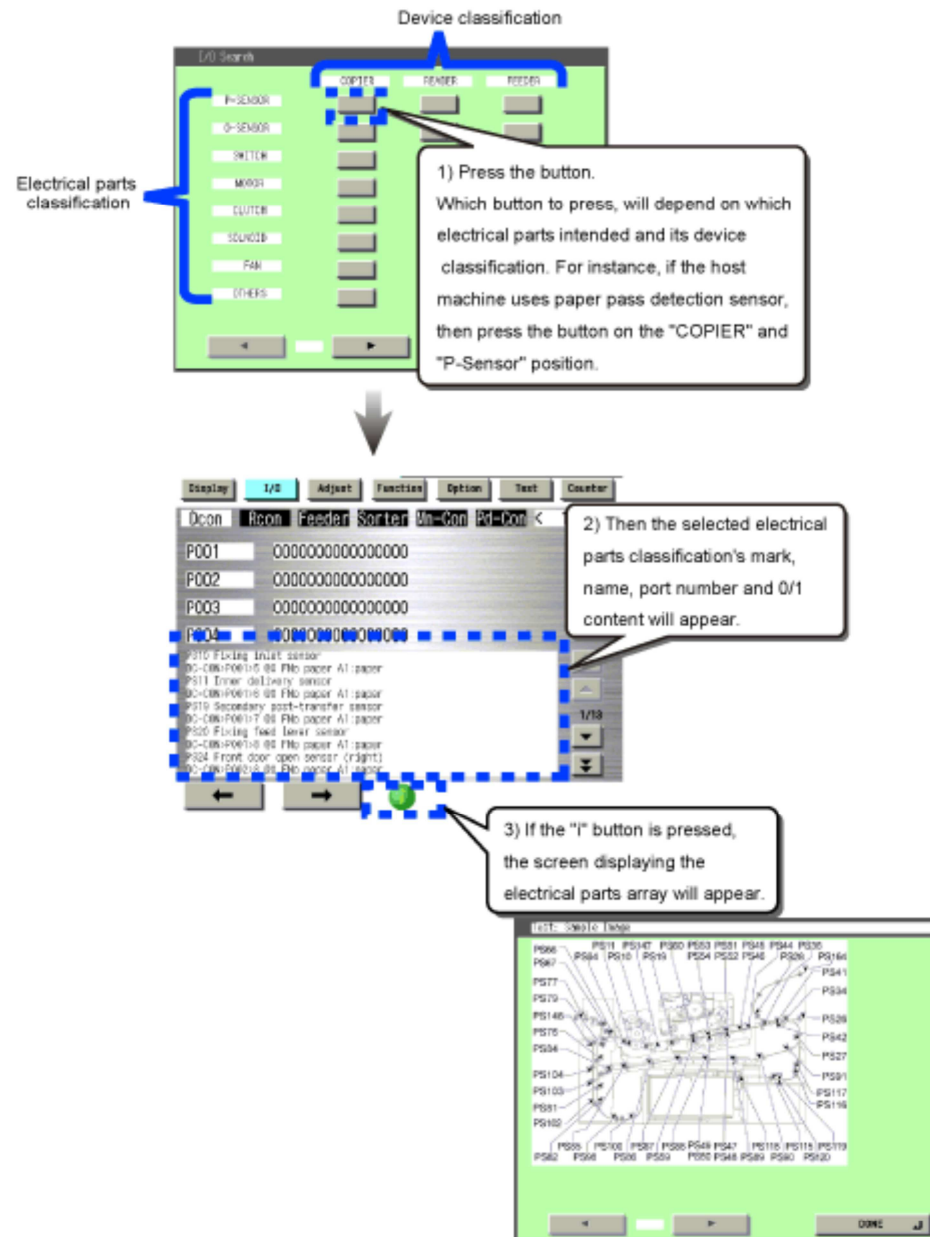
- The service mode contents can be displayed in J/E/F/I/G/S languages.

- Service mode contents, like system software, can be upgraded by SST.

I/O information enhancement

On the COPIER > I/O, the mode to confirm input output signal of electrical parts used (sensor, motor, fan, etc), makes it easier to look for the intended electrical part.

And the screen will also display the input output signal.



Display of Error Code/Alarm Code description

The detail description of each code can be viewed on the error code and alarm code occurrence record screen.

ERROR CODE : COPIER> DISPLAY>ERR

No.	DATE	TIME1	TIME2	CODE	DTL	L	P
09	0102	0304	050				
10	----	----	----				
11	0102	0304	050				
12	0102	0304	050				
13	0102	0304	050				
14	0102	0304	0506	E0748	4910	00	00
15	0102	0304	0506	E0804	0002	00	00
16	0102	0304	0506	E0804	0003	00	00

ALARM CODE : COPIER> DISPLAY> ALARM-2

COPIER> DISPLAY> ALARM-3



COPIER> OPTION> BODY, Item Segmentation

On the current machine, there are extremely many items in the COPIER> OPTION> BODY (in related to host machine specification), that it is difficult to reach the intended item.

In order to reach the intended item in shorter time, all items inside the BODY is classified to 15 categories.

Classification	Name	Description
Function switching	FNC-SW	Language, cassette, paper size type, NAVI/DA connection, count-up spec., document size detection, dirt detection level
Display switching/ display timing	DSPLY-SW	UI (User Interface) display related
Image related (fixing)	IMG-FIX	Fixing related
Image related (transfer)	IMG-TR	Transfer related
Image related (developing)	IMG-DEV	Developer related
Image related (laser/ latent image)	IMG-LSR	Laser, latent image related

Classification	Name	Description
Image related (reader/ ADF)	IMG-RDR	Reader, ADF image related
Image related (controller, other general items)	IMG-MCON	MN-CON image related, and image related items other than those referred to above.
Image quality/ copy speed	IMG-SPD	Power down sequence
Cleaning	CLEANING	Cleaning of charging unit, drum, transfer roller, etc.
Environment settings	ENV-SET	Temperature, humidity, environmental heater, condensation, log acquisition
Paper feed (pickup, delivery)	FEED-SW	Stack performance, motor speed adjustment, delivery functions, etc.
Noise reduction	SOUND	Noise related
Network	NETWORK	Network settings, IFAX, SEND, E-RDS, etc.
Customization	CUSTOM	Customization

Security features

To prevent unauthorized access to Service Mode, Password set is enabled.

■ Related service modes

- COPIER> OPTION> FNC-SW> PSWD-SW (Level1)
Set password type for transition to service mode.
<Setting range>
0: No password (default)
1: Service engineer
2: System administrator and Service engineer.
- COPIER> OPTION> FNC-SW> SM-PSWD (Level2)
Password for service engineer for transition to service mode.
- <Setting range>

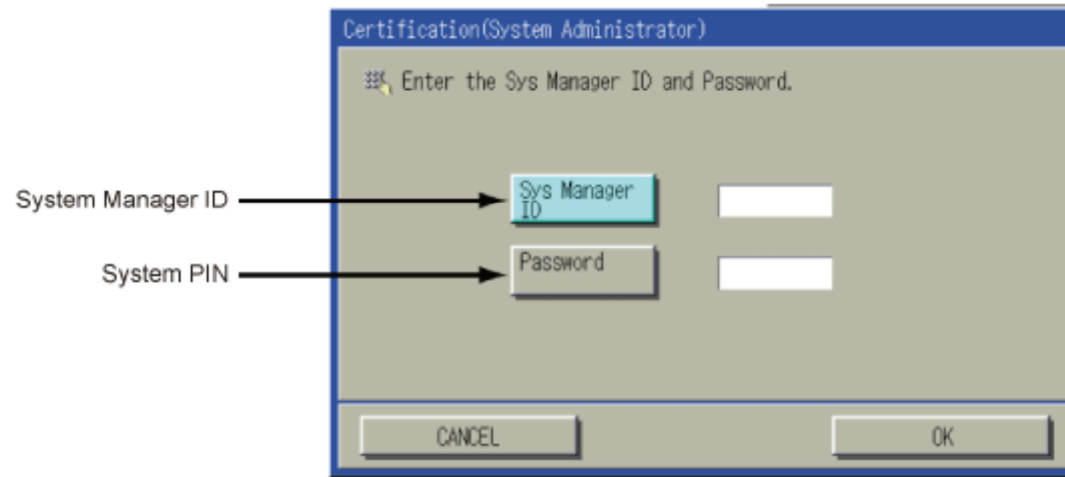
To reinforce the security, change the password from a default.

***** (eight digit numeral) [default: 11111111]

After the above setting, to enter Service Mode, enter password screen will appear.

1) Enter System Manager ID> enter System PIN> press OK button.

(System Manager ID and System PIN can be set up in [Settings/Registration> Management Settings> User Management> System Manager Information Settings].)



2) After entering the password for service technician (Service mode: COPIER> Option> FNC-SW> SM-PSWD), press OK button.



MEMO :

If Service Engineer's password is forgotten, password function is cancelable by using

Service Support Tool (SST).

Switching Screen (Level 1 < - > 2)

Switching screens between level 1 and 2 has been made easier.

When level 1 screen is displayed, press <LEVEL 1> in the right upper side of the screen, and it will switch to level 2.

Display I/O Adjust Function Option Test Counter

<VERSION > < 1/ 8 > < READY > < LEVEL 1 >

DC-CON	43.44
R-CON	00.52
PANEL	4C.50
FEEDER	44.46
SORTER	54.53
NIB	42.4E
DECK	--. --
MN-CONT	4E.4D



← → ⓘ

Display I/O Adjust Function Option Test Counter

<VERSION > < 1/ 7 > < READY > < LEVEL 2 >

LANG-CS	53.43
LANG-DA	41.44
LANG-EL	4C.45
LANG-ES	53.45
LANG-ET	54.45
LANG-FI	49.46
LANG-HU	55.48
LANG-KO	4F.4B

← → ⓘ

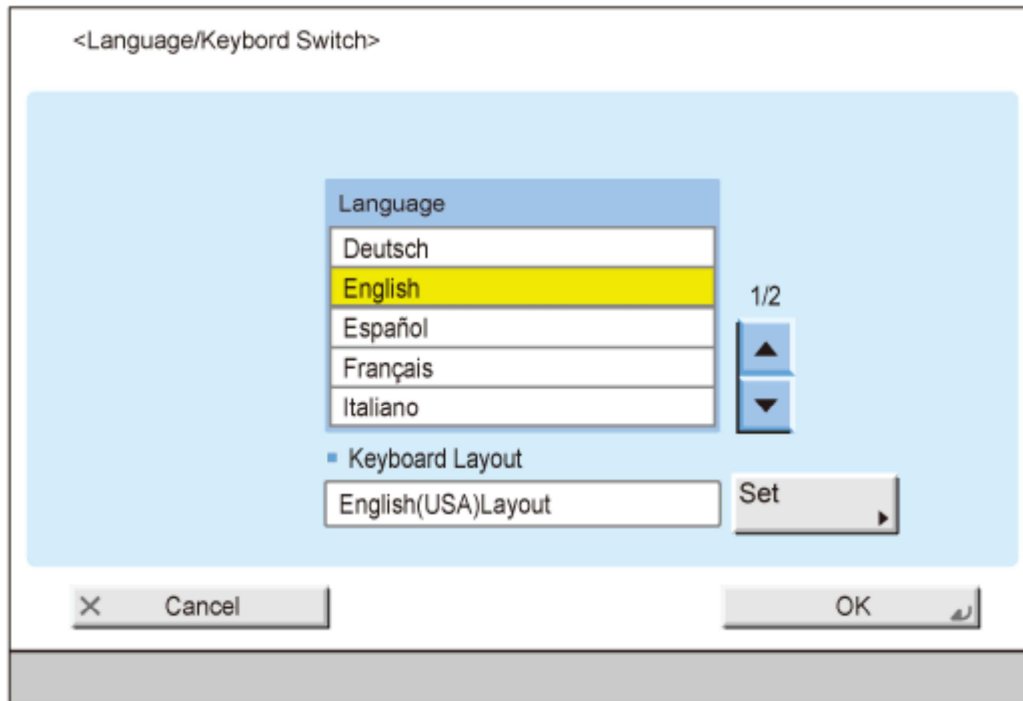
Language switch

The language of the explanatory text displayed in the Service Mode can be switched by performing the below language switch operation in User Mode

The explanatory text can be displayed by installing the Service Mode Content (SCMNT) in HDD.

Service Mode Content (SCMNT) can be installed and upgraded on SST.

Settings/Registration> Preferences> Display Settings> Language/Keyboard Switch



NOTE:

If the Service Mode Content (SMCNT) of the concerned language is not installed, English explanatory text will be displayed.

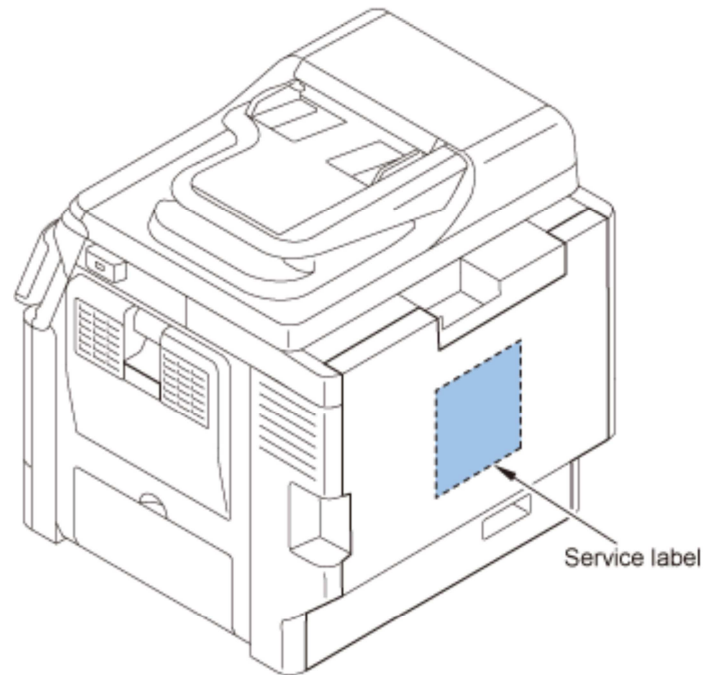
If English-language Service Mode Content (SMCNT) is not installed either, explanatory text can't be displayed.

Back-up of service mode

In factory setting, adjustments are made for each machine, and adjustment values are written in the service label.

When you replaced the CIS unit or the DC controller PCB, or executed the RAM clear function, adjustment values for ADJUST or OPTION return to default. Therefore, when you made adjustments and changed values of the Service Mode in the field, be sure to write down the changed values in the service label. When there is no relevant field in the service label, write down the values in a blank field.

Service label: The inside of the Rear Cover



Service Label

The item of Service Label.

		Factory	Field1	Field2	Field3			Factory	Field1	Field2	Field3
COPIER > ADJUST						COPIER > ADJUST					
ADJ-XY	ADJ-X					LASER	PVE-OFST				
	ADJ-Y						LDADJ1-K				
	ADJ-S						LDADJ2-K				
	ADJ-Y-DF						LDADJ3-K				
	STRD-POS						LDADJ4-K				
	ADJ-X-MG						LDADJ5-K				
BLANK	BLANK-T					LDADJ6-K					
	BLANK-B					C1-ADJ-Y					
CCD	W-PLT-X					MISC	C2-ADJ-Y				
	W-PLT-Y						C3-ADJ-Y				
	W-PLT-Z						C4-ADJ-Y				
DEVELOP	DE-OFST						MF-ADJ-Y				
FEED-ADJ	REGIST					PASCAL	OFST-P-K				
	ADJ-REFE										
	RG-HF-SP										
HV-PRI	OFST1-DC										
	OFST1-AC										
HV-TR	TR-OFST					FEEDER > ADJUST					
Body No :							DOCST				
							LA-SPEED				
							LA-SPD2				
							DOC-LNGH				

COPIER

DISPLAY

■ VERSION

COPIER>DISPLAY>VERSION

COPIER>DISPLAY>VERSION

DC-CON	Dspl of DCON firmware version
Lv.1 Details	To display the firmware version of DC Controller PCB.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
PANEL	Dspl of Control Panel CPU PCB ROM version
Lv.1 Details	To display the ROM version of Control Panel CPU PCB.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
ECO	Dspl of ECO-ID PCB ROM version
Lv.1 Details	To display the ROM version of ECO-ID PCB
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
SORTER	Dspl of FIN-CONT firmware version
Lv.1 Details	To display the firmware version of Finisher Controller PCB.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
NIB	Dspl of network software version
Lv.1 Details	To display the version of the network software.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
MN-CONT	Dspl of MNCON firmware version
Lv.1 Details	To display the firmware version of Main Controller PCB.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION

LANG-EN	Dspl of English language file version
Lv.1 Details	To display the version of English language file.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
LANG-FR	Dspl of French language file version
Lv.1 Details	To display the version of French language file.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
LANG-DE	Dspl of German language file version
Lv.1 Details	To display the version of German language file.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
LANG-IT	Dspl of Italian language file version
Lv.1 Details	To display the version of Italian language file.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
LANG-JP	Dspl of Japanese language file ver
Lv.1 Details	To display the version of Japanese language file.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
LANG-CS	Dspl of Czech language file version
Lv.2 Details	To display the version of Czech language file.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION

LANG-DA	Dspl of Danish language file version
Lv.2 Details	To display the version of Danish language file.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
LANG-EL	Dspl of Greek language file version
Lv.2 Details	To display the version of Greek language file.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
LANG-ES	Dspl of Spanish language file version
Lv.1 Details	To display the version of Spanish language file.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
LANG-ET	Dspl of Estonian language file ver
Lv.2 Details	To display the version of Estonian language file.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
LANG-FI	Dspl of Finnish language file version
Lv.2 Details	To display the version of Finnish language file.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
LANG-HU	Dspl of Hungarian language file ver
Lv.2 Details	To display the version of Hungarian language file.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION

LANG-KO	Dspl of Korean language file version
Lv.2 Details	To display the version of Korean language file.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
LANG-NL	Dspl of Dutch language file version
Lv.2 Details	To display the version of Dutch language file.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
LANG-NO	Dspl of Norwegian language file ver
Lv.2 Details	To display the version of Norwegian language file.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
LANG-PL	Dspl of Polish language file version
Lv.2 Details	To display the version of Polish language file.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
LANG-PT	Dspl of Portuguese language file ver
Lv.2 Details	To display the version of Portuguese language file.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
LANG-RU	Dspl of Russian language file version
Lv.2 Details	To display the version of Russian language file.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION

LANG-SL	Dspl of Slovenian language file ver
Lv.2 Details	To display the version of Slovenian language file.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
LANG-SV	Dspl of Swedish language file version
Lv.2 Details	To display the version of Swedish language file.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
LANG-TW	Dspl of Chinese language file ver: trad
Lv.2 Details	To display the version of Chinese language file (traditional).
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
LANG-ZH	Dspl of Chinese language file ver: smpl
Lv.2 Details	To display the version of Chinese language file (simplified).
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
LANG-BU	Dspl of Bulgarian language file ver
Lv.2 Details	To display the version of Bulgarian language file.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
LANG-CR	Dspl of Croatian language file ver
Lv.2 Details	To display the version of Croatian language file.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
LANG-RM		Dspl of Romanian language file ver
Lv.2	Details	To display the version of Romanian language file.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
LANG-SK		Dspl of Slovak language file version
Lv.2	Details	To display the version of Slovak language file.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
LANG-TK		Dspl of Turkish language file version
Lv.2	Details	To display the version of Turkish language file.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
LANG-CA		Dspl of Catalan language file version
Lv.2	Details	To display the version of Catalan language file. “--.--” is displayed when no file is found.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
FAX1		Dspl of 1-line FAX PCB ROM version
Lv.1	Details	To display the ROM version of 1-line FAX PCB. “NULL” is displayed if the PCB is not connected.
	Use case	When upgrading the firmware
	Display/adj/set range	ASCII character string (12 digits)
FAX2/3/4		Dspl of 2-line FAX PCB ROM version
Lv.1	Details	To display the ROM version of 2-line FAX PCB. “NULL” is displayed if the PCB is not connected.

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	ASCII character string (12 digits)
IOCS		Dspl of BIOS version
Lv.1	Details	To display the BIOS version.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-FR		Dspl of COPY appli French file version
Lv.1	Details	To display the French language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-IT		Dspl of COPY appli Italian file version
Lv.1	Details	To display the Italian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-DE		Dspl of COPY appli German file version
Lv.1	Details	To display the German language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-ES		Dspl of COPY appli Spanish file version
Lv.1	Details	To display the Spanish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-ZH		Dspl COPY appli Chinese file ver: smpl
Lv.2	Details	To display the simplified Chinese language file version of COPY application (JAVA UI).

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-TW		Dspl of COPY appli Chinese file ver:trad
Lv.2	Details	To display the traditional Chinese language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-KO		Dspl of COPY appli Korean file version
Lv.2	Details	To display the Korean language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-CS		Dspl of COPY appli Czech file version
Lv.2	Details	To display the Czech language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-DA		Dspl of COPY appli Danish file version
Lv.2	Details	To display the Danish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-EL		Dspl of COPY appli Greek file version
Lv.2	Details	To display the Greek language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-ET		Dspl of COPY appli Estonian file version
Lv.2	Details	To display the Estonian language file version of COPY application (JAVA UI).

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-FI		Dspl of COPY appli Finnish file version
Lv.2	Details	To display the Finnish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-HU		Dspl of COPY appli Hungarian file version
Lv.2	Details	To display the Hungarian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-NL		Dspl of COPY appli Dutch file version
Lv.2	Details	To display the Dutch language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-NO		Dspl of COPY appli Norwegian file version
Lv.2	Details	To display the Norwegian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-PL		Dspl of COPY appli Polish file version
Lv.2	Details	To display the Polish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-PT		Dspl of COPY appli Portuguese file ver
Lv.2	Details	To display the Portuguese language file version of COPY application (JAVA UI).

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-RU		Dspl of COPY appli Russian file version
Lv.2	Details	To display the Russian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-SL		Dspl of COPY appli Slovenian file version
Lv.2	Details	To display the Slovenian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-SV		Dspl of COPY appli Swedish file version
Lv.2	Details	To display the Swedish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-ID		Dspl of COPY appli Indonesian file ver
Lv.2	Details	To display the Indonesian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-BU		Dspl of COPY appli Bulgarian file version
Lv.2	Details	To display the Bulgarian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-CR		Dspl of COPY appli Croatian file version
Lv.2	Details	To display the Croatian language file version of COPY application (JAVA UI).

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-RM		Dspl of COPY appli Romanian file version
Lv.2	Details	To display the Romanian language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-SK		Dspl of COPY appli Slovak file version
Lv.2	Details	To display the Slovak language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-TK		Dspl of COPY appli Turkish file version
Lv.2	Details	To display the Turkish language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-CA		Dspl of COPY appli Catalan file version
Lv.2	Details	To display the Catalan language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-TH		Dspl of COPY appli Thai file version
Lv.2	Details	To display the Thai language file version of COPY application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
COPY-VN		Dspl of COPY appli Vietnamese file ver
Lv.2	Details	To display the Vietnamese language file version of COPY application (JAVA UI).

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-FR		Dspl of SEND appli French file version
Lv.1	Details	To display the French language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-IT		Dspl of SEND appli Italian file version
Lv.1	Details	To display the Italian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-DE		Dspl of SEND appli German file version
Lv.1	Details	To display the German language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-ES		Dspl of SEND appli Spanish file version
Lv.1	Details	To display the Spanish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-ZH		Dspl SEND appli Chinese file ver: smpl
Lv.2	Details	To display the simplified Chinese language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-TW		Dspl of SEND appli Chinese file ver:trad
Lv.2	Details	To display the traditional Chinese language file version of SEND application (JAVA UI).

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-KO		Dspl of SEND appli Korean file version
Lv.2	Details	To display the Korean language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-CS		Dspl of SEND appli Czech file version
Lv.2	Details	To display the Czech language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-DA		Dspl of SEND appli Danish file version
Lv.2	Details	To display the Danish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-EL		Dspl of SEND appli Greek file version
Lv.2	Details	To display the Greek language file version of the SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-ET		Dspl of SEND appli Estonian file version
Lv.2	Details	To display the Estonian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-FI		Dspl of SEND appli Finnish file version
Lv.2	Details	To display the Finnish language file version of SEND application (JAVA UI).

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-HU		Dspl of SEND appli Hungarian file version
Lv.2	Details	To display the Hungarian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-NL		Dspl of SEND appli Dutch file version
Lv.2	Details	To display the Dutch language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-NO		Dspl of SEND appli Norwegian file version
Lv.2	Details	To display the Norwegian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-PL		Dspl of SEND appli Polish file version
Lv.2	Details	To display the Polish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-PT		Dspl of SEND appli Portuguese file ver
Lv.2	Details	To display the Portuguese language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-RU		Dspl of SEND appli Russian file version
Lv.2	Details	To display the Russian language file version of SEND application (JAVA UI).

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-SL		Dspl of SEND appli Slovenian file version
Lv.2	Details	To display the Slovenian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-SV		Dspl of SEND appli Swedish file version
Lv.2	Details	To display the Swedish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-ID		Dspl of SEND appli Indonesian file ver
Lv.2	Details	To display the Indonesian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-BU		Dspl of SEND appli Bulgarian file version
Lv.2	Details	To display the Bulgarian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-CR		Dspl of SEND appli Croatian file version
Lv.2	Details	To display the Croatian language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-RM		Dspl of SEND appli Romanian file version
Lv.2	Details	To display the Romanian language file version of SEND application (JAVA UI).

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-SK		Dspl of SEND appli Slovak file version
Lv.2	Details	To display the Slovak language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-TK		Dspl of SEND appli Turkish file version
Lv.2	Details	To display the Turkish language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-CA		Dspl of SEND appli Catalan file version
Lv.2	Details	To display the Catalan language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-TH		Dspl of SEND appli Thai file version
Lv.2	Details	To display the Thai language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SEND-VN		Dspl of SEND appli Vietnamese file ver
Lv.2	Details	To display the Vietnamese language file version of SEND application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-FR		Dspl of useful func intro French file ver
Lv.1	Details	To display the version of French language file of Introduction to Useful Features application.

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-IT		Dspl useful func intro Italian file ver
Lv.1	Details	To display the version of Italian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-DE		Dspl of useful func intro German file ver
Lv.1	Details	To display the version of German language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-ES		Dspl useful func intro Spanish file ver
Lv.1	Details	To display the version of Spanish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-ZH		Useful func intro Chinese file ver: smpl
Lv.2	Details	To display the version of simplified Chinese language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-TW		Useful func intro Chinese file ver: trad
Lv.2	Details	To display the version of traditional Chinese language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-KO		Dspl of useful func intro Korean file ver
Lv.2	Details	To display the version of Korean language file of Introduction to Useful Features application.

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-CS		Dspl of useful func intro Czech file ver
Lv.2	Details	To display the version of Czech language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-DA		Dspl of useful func intro Danish file ver
Lv.2	Details	To display the version of Danish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-EL		Dspl of useful func intro Greek file ver
Lv.2	Details	To display the version of Greek language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-ET		Dspl useful func intro Estonian file ver
Lv.2	Details	To display the version of Estonian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-FI		Dspl useful func intro Finnish file ver
Lv.2	Details	To display the version of Finnish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-HU		Dspl useful func intro Hungarian file ver
Lv.2	Details	To display the version of Hungarian language file of Introduction to Useful Features application.

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-NL		Dspl of useful func intro Dutch file ver
Lv.2	Details	To display the version of Dutch language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-NO		Dspl useful func intro Norwegian file ver
Lv.2	Details	To display the version of Norwegian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-PL		Dspl of useful func intro Polish file ver
Lv.2	Details	To display the version of Polish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-PT		Dspl useful func intro Portuguese filever
Lv.2	Details	To display the version of Portuguese language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-RU		Dspl useful func intro Russian file ver
Lv.2	Details	To display the version of Russian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-SL		Dspl useful func intro Slovenian file ver
Lv.2	Details	To display the version of Slovenian language file of Introduction to Useful Features application.

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-SV		Dspl useful func intro Swedish file ver
Lv.2	Details	To display the version of Swedish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-ID		Dspl of useful func intro Indon file ver
Lv.2	Details	To display the version of Indonesian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-BU		Dspl useful func intro Bulgarian file ver
Lv.2	Details	To display the version of Bulgarian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-CR		Dspl useful func intro Croatian file ver
Lv.2	Details	To display the version of Croatian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-RM		Dspl useful func intro Romanian file ver
Lv.2	Details	To display the version of Romanian language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-SK		Dspl of useful func intro Slovak file ver
Lv.2	Details	To display the version of Slovak language file of Introduction to Useful Features application.

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-TK		Dspl useful func intro Turkish file ver
Lv.2	Details	To display the version of Turkish language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-CA		Dspl useful func intro Catalan file ver
Lv.2	Details	To display the version of Catalan language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-TH		Dspl useful func intro Thai file version
Lv.2	Details	To display the version of Thai language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
INTRO-VN		Useful func intro Vietnamese file ver
Lv.2	Details	To display the version of Vietnamese language file of Introduction to Useful Features application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-FR		Dspl of custom menu French file version
Lv.1	Details	To display the version of French language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-IT		Dspl of custom menu Italian file version
Lv.1	Details	To display the version of Italian language file for custom menu application.

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-DE		Dspl of custom menu German file version
Lv.1	Details	To display the version of German language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-ES		Dspl of custom menu Spanish file version
Lv.1	Details	To display the version of Spanish language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-ZH		Dspl custom menu Chinese file ver: simpl
Lv.2	Details	To display the version of simplified Chinese language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-TW		Dspl of custom menu Chinese file ver:trad
Lv.2	Details	To display the version of traditional Chinese language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-KO		Dspl of custom menu Korean file version
Lv.2	Details	To display the version of Korean language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-CS		Dspl of custom menu Czech file version
Lv.2	Details	To display the version of Czech language file for custom menu application.

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-DA		Dspl of custom menu Danish file version
Lv.2	Details	To display the version of Danish language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-EL		Dspl of custom menu Greek file version
Lv.2	Details	To display the version of Greek language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-ET		Dspl of custom menu Estonian file version
Lv.2	Details	To display the version of Estonian language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-FI		Dspl of custom menu Finnish file version
Lv.2	Details	To display the version of Finnish language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-HU		Dspl of custom menu Hungarian file ver
Lv.2	Details	To display the version of Hungarian language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-NL		Dspl of custom menu Dutch file version
Lv.2	Details	To display the version of Dutch language file for custom menu application.

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-NO		Dspl of custom menu Norwegian file ver
Lv.2	Details	To display the version of Norwegian language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-PL		Dspl of custom menu Polish file version
Lv.2	Details	To display the version of Polish language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-PT		Dspl of custom menu Portuguese file ver
Lv.2	Details	To display the version of Portuguese language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-RU		Dspl of custom menu Russian file version
Lv.2	Details	To display the version of Russian language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-SL		Dspl of custom menu Slovenian file ver
Lv.2	Details	To display the version of Slovenian language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-SV		Dspl of custom menu Swedish file version
Lv.2	Details	To display the version of Swedish language file for custom menu application.

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-ID		Dspl of custom menu Indonesian file ver
Lv.2	Details	To display the version of Indonesian language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-BU		Dspl of custom menu Bulgarian file ver
Lv.2	Details	To display the version of Bulgarian language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-CR		Dspl of custom menu Croatian file version
Lv.2	Details	To display the version of Croatian language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-RM		Dspl of custom menu Romanian file version
Lv.2	Details	To display the version of Romanian language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-SK		Dspl of custom menu Slovak file version
Lv.2	Details	To display the version of Slovak language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-TK		Dspl of custom menu Turkish file version
Lv.2	Details	To display the version of Turkish language file for custom menu application.

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-CA		Dspl of custom menu Catalan file version
Lv.2	Details	To display the version of Catalan language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-TH		Dspl of custom menu Thai file version
Lv.2	Details	To display the version of Thai language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
CSTMN-VN		Dspl of custom menu Vietnamese file ver
Lv.2	Details	To display the version of Vietnamese language file for custom menu application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-FR		Dspl of accessibility French file version
Lv.1	Details	To display the version of French language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-IT		Dspl of accessibility Italian file ver
Lv.1	Details	To display the version of Italian language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-DE		Dspl of accessibility German file version
Lv.1	Details	To display the version of German language file for Accessibility application.

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-ES		Dspl of accessibility Spanish file ver
Lv.1	Details	To display the version of Spanish language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-ZH		Dspl Accessibility Chinese file ver: smpl
Lv.2	Details	To display the version of simplified Chinese language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-TW		Dspl accessibility Chinese file ver:trad
Lv.2	Details	To display the version of traditional Chinese language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-KO		Dspl of accessibility Korean file version
Lv.2	Details	To display the version of Korean language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-CS		Dspl of accessibility Czech file version
Lv.2	Details	To display the version of Czech language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-DA		Dspl of accessibility Danish file version
Lv.2	Details	To display the version of Danish language file for Accessibility application.

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-EL		Dspl of accessibility Greek file version
Lv.2	Details	To display the version of Greek language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-ET		Dspl of accessibility Estonian file ver
Lv.2	Details	To display the version of Estonian language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-FI		Dspl of accessibility Finnish file ver
Lv.2	Details	To display the version of Finnish language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-HU		Dspl of accessibility Hungarian file ver
Lv.2	Details	To display the version of Hungarian language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-NL		Dspl of accessibility Dutch file version
Lv.2	Details	To display the version of Dutch language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-NO		Dspl of accessibility Norwegian file ver
Lv.2	Details	To display the version of Norwegian language file for Accessibility application.

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-PL		Dspl of accessibility Polish file version
Lv.2	Details	To display the version of Polish language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-PT		Dspl of accessibility Portuguese file ver
Lv.2	Details	To display the version of Portuguese language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-RU		Dspl of accessibility Russian file ver
Lv.2	Details	To display the version of Russian language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-SL		Dspl of accessibility Slovenian file ver
Lv.2	Details	To display the version of Slovenian language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-SV		Dspl of accessibility Swedish file ver
Lv.2	Details	To display the version of Swedish language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-ID		Dspl of accessibility Indonesian file ver
Lv.2	Details	To display the version of Indonesian language file for Accessibility application.

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-BU		Dspl of accessibility Bulgarian file ver
Lv.2	Details	To display the version of Bulgarian language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-CR		Dspl of accessibility Croatian file ver
Lv.2	Details	To display the version of Croatian language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-RM		Dspl of accessibility Romanian file ver
Lv.2	Details	To display the version of Romanian language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-SK		Dspl of accessibility Slovak file version
Lv.2	Details	To display the version of Slovak language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-TK		Dspl of accessibility Turkish file ver
Lv.2	Details	To display the version of Turkish language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-CA		Dspl of accessibility Catalan file ver
Lv.2	Details	To display the version of Catalan language file for Accessibility application.

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-TH		Dspl of accessibility Thai file version
Lv.2	Details	To display the version of Thai language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ACSBT-VN		Dspl of accessibility Vietnamese file ver
Lv.2	Details	To display the version of Vietnamese language file for Accessibility application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
ERS-FR		Dspl of ERS French file version
Lv.1	Details	To display the version of French language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-IT		Dspl of ERS Italian file version
Lv.1	Details	To display the version of Italian language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-DE		Dspl of ERS German file version
Lv.1	Details	To display the version of German language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
	Supplement/memo	ERS: Error Recovery System
ERS-ES		Dspl of ERS Spanish file version
Lv.1	Details	To display the version of Spanish language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-ZH		Dspl of ERS Chinese file ver:smpl
Lv.2	Details	To display the version of simplified Chinese language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-TW		Dspl of ERS Chinese file ver:trad
Lv.2	Details	To display the version of traditional Chinese language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-KO		Dspl of ERS Korean file version
Lv.2	Details	To display the version of Korean language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-CS		Dspl of ERS Czech file version
Lv.2	Details	To display the version of Czech language file for ERS application.
	Use case	When upgrading the firmware

COPIER>DISPLAY>VERSION		
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-DA		Dspl of ERS Danish file version
Lv.2	Details	To display the version of Danish language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-EL		Dspl of ERS Greek file version
Lv.2	Details	To display the version of Greek language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-ET		Dspl of ERS Estonian file version
Lv.2	Details	To display the version of Estonian language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-FI		Dspl of ERS Finnish file version
Lv.2	Details	To display the version of Finnish language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-HU		Dspl of ERS Hungarian file version
Lv.2	Details	To display the version of Hungarian language file for ERS application.

COPIER>DISPLAY>VERSION		
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-NL		Dspl of ERS Dutch file version
Lv.2	Details	To display the version of Dutch language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-NO		Dspl of ERS Norwegian file version
Lv.2	Details	To display the version of Norwegian language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-PL		Dspl of ERS Polish file version
Lv.2	Details	To display the version of Polish language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-PT		Dspl of ERS Portuguese file ver
Lv.2	Details	To display the version of Portuguese language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-RU		Dspl of ERS Russian file version

COPIER>DISPLAY>VERSION

Lv.2 Details	To display the version of Russian language file for ERS application.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
Supplement/memo	ERS: Error Recovery System
ERS-SL	Dspl of ERS Slovenian file version
Lv.2 Details	To display the version of Slovenian language file for ERS application.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
Supplement/memo	ERS: Error Recovery System
ERS-SV	Dspl of ERS Swedish file version
Lv.2 Details	To display the version of Swedish language file for ERS application.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
Supplement/memo	ERS: Error Recovery System
ERS-ID	Dspl of ERS Indonesian file ver
Lv.2 Details	To display the version of Indonesian language file for ERS application.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
Supplement/memo	ERS: Error Recovery System
ERS-BU	Dspl of ERS Bulgarian file version
Lv.2 Details	To display the version of Bulgarian language file for ERS application.
Use case	When upgrading the firmware
Display/adj/set range	00.01 to 99.99
Supplement/memo	ERS: Error Recovery System

COPIER>DISPLAY>VERSION		
ERS-CR		Dspl of ERS Croatian file version
Lv.2	Details	To display the version of Croatian language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-RM		Dspl of ERS Romanian file version
Lv.2	Details	To display the version of Romanian language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-SK		Dspl of ERS Slovak file version
Lv.2	Details	To display the version of Slovak language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-TK		Dspl of ERS Turkish file version
Lv.2	Details	To display the version of Turkish language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-CA		Dspl of ERS Catalan file version
Lv.2	Details	To display the version of Catalan language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99

COPIER>DISPLAY>VERSION		
	Supplement/memo	ERS: Error Recovery System
ERS-TH		Dspl of ERS Thai file version
Lv.2	Details	To display the version of Thai language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
ERS-VN		Dspl of ERS Vietnamese file version
Lv.2	Details	To display the version of Vietnamese language file for ERS application.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
	Supplement/memo	ERS: Error Recovery System
BCT		Dspl of self diagnosis tool version
Lv.1	Details	To display the version of self diagnosis tool.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
LANG-TH		Dspl of Thai language file version
Lv.2	Details	To display the version of Thai language file.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
LANG-VN		Dspl of Vietnamese language file ver
Lv.2	Details	To display the version of Vietnamese language file.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-FR		Dspl of BOX appli French file version

COPIER>DISPLAY>VERSION		
Lv.1	Details	To display the version of French language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-IT		Dspl of BOX appli Italian file version
Lv.1	Details	To display the version of Italian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-DE		Dspl of BOX appli German file version
Lv.1	Details	To display the version of German language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-ES		Dspl of BOX appli Spanish file version
Lv.1	Details	To display the version of Spanish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-ZH		Dspl of BOX appli Chinese file ver:smpl
Lv.2	Details	To display the version of simplified Chinese language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-TW		Dspl of BOX appli Chinese file ver:trad
Lv.2	Details	To display the version of traditional Chinese language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-KO		Dspl of BOX appli Korean file version

COPIER>DISPLAY>VERSION		
Lv.2	Details	To display the version of Korean language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-CS		Dspl of BOX appli Czech file version
Lv.2	Details	To display the version of Czech language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-DA		Dspl of BOX appli Danish file version
Lv.2	Details	To display the version of Danish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-EL		Dspl of BOX appli Greek file version
Lv.2	Details	To display the version of Greek language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-ET		Dspl of BOX appli Estonian file version
Lv.2	Details	To display the version of Estonian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-FI		Dspl of BOX appli Finnish file version
Lv.2	Details	To display the version of Finnish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-HU		Dspl of BOX appli Hungarian file version

COPIER>DISPLAY>VERSION		
Lv.2	Details	To display the version of Hungarian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-NL		Dspl of BOX appli Dutch file version
Lv.2	Details	To display the version of Dutch language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-NO		Dspl of BOX appli Norwegian file version
Lv.2	Details	To display the version of Norwegian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-PL		Dspl of BOX appli Polish file version
Lv.2	Details	To display the version of Polish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-PT		Dspl of BOX appli Portuguese file ver
Lv.2	Details	To display the version of Portuguese language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-RU		Dspl of BOX appli Russian file version
Lv.2	Details	To display the version of Russian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-SL		Dspl of BOX appli Slovenian file version

COPIER>DISPLAY>VERSION		
Lv.2	Details	To display the version of Slovenian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-SV		Dspl of BOX appli Swedish file version
Lv.2	Details	To display the version of Swedish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-ID		Dspl of BOX appli Indonesian file ver
Lv.2	Details	To display the version of Indonesian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-BU		Dspl of BOX appli Bulgarian file version
Lv.2	Details	To display the version of Bulgarian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-CR		Dspl of BOX appli Croatian file version
Lv.2	Details	To display the version of Croatian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-RM		Dspl of BOX appli Romanian file version
Lv.2	Details	To display the version of Romanian language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-SK		Dspl of BOX appli Slovak file version

COPIER>DISPLAY>VERSION		
Lv.2	Details	To display the version of Slovak language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-TK		Dspl of BOX appli Turkish file version
Lv.2	Details	To display the version of Turkish language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-CA		Dspl of BOX appli Catalan file version
Lv.2	Details	To display the version of Catalan language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-TH		Dspl of BOX appli Thai file version
Lv.2	Details	To display the version of Thai language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
BOX-VN		Dspl of BOX appli Vietnamese file version
Lv.2	Details	To display the version of Vietnamese language file for BOX application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-FR		Dspl of SC appli French file version
Lv.1	Details	To display the version of French language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-IT		Dspl of SC appli Italian file version

COPIER>DISPLAY>VERSION		
Lv.1	Details	To display the version of Italian language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-DE		Dspl of SC appli German file version
Lv.1	Details	To display the version of German language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-ES		Dspl of SC appli Spanish file version
Lv.1	Details	To display the version of Spanish language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-ZH		Dspl of SC appli Chinese file ver:smpl
Lv.2	Details	To display the version of simplified Chinese language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-TW		Dspl of SC appli Chinese file ver:trad
Lv.2	Details	To display the version of traditional Chinese language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-KO		Dspl of SC appli Korean file version
Lv.2	Details	To display the version of Korean language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-CS		Dspl of SC appli Czech file version

COPIER>DISPLAY>VERSION		
Lv.2	Details	To display the version of Czech language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-DA		Dspl of SC appli Danish file version
Lv.2	Details	To display the version of Danish language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-EL		Dspl of SC appli Greek file version
Lv.2	Details	To display the version of Greek language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-ET		Dspl of SC appli Estonian file version
Lv.2	Details	To display the version of Estonian language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-FI		Dspl of SC appli Finnish file version
Lv.2	Details	To display the version of Finnish language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-HU		Dspl of SC appli Hungarian file version
Lv.2	Details	To display the version of Hungarian language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-NL		Dspl of SC appli Dutch file version

COPIER>DISPLAY>VERSION		
Lv.2	Details	To display the version of Dutch language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-NO		Dspl of SC appli Norwegian file version
Lv.2	Details	To display the version of Norwegian language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-PL		Dspl of SC appli Polish file version
Lv.2	Details	To display the version of Polish language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-PT		Dspl of SC appli Portuguese file ver
Lv.2	Details	To display the version of Portuguese language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-RU		Dspl of SC appli Russian file version
Lv.2	Details	To display the version of Russian language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-SL		Dspl of SC appli Slovenian file version
Lv.2	Details	To display the version of Slovenian language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-SV		Dspl of SC appli Swedish file version

COPIER>DISPLAY>VERSION		
Lv.2	Details	To display the version of Swedish language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-ID		Dspl of SC appli Indonesian file ver
Lv.2	Details	To display the version of Indonesian language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-BU		Dspl of SC appli Bulgarian file version
Lv.2	Details	To display the version of Bulgarian language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-CR		Dspl of SC appli Croatian file version
Lv.2	Details	To display the version of Croatian language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-RM		Dspl of SC appli Romanian file version
Lv.2	Details	To display the version of Romanian language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-SK		Dspl of SC appli Slovak file version
Lv.2	Details	To display the version of Slovak language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-TK		Dspl of SC appli Turkish file version

COPIER>DISPLAY>VERSION		
Lv.2	Details	To display the version of Turkish language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-CA		Dspl of SC appli Catalan file version
Lv.2	Details	To display the version of Catalan language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-TH		Dspl of SC appli Thai file version
Lv.2	Details	To display the version of Thai language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
SC-VN		Dspl of SC appli Vietnamese file version
Lv.2	Details	To display the version of Vietnamese language file for Self Copy application (JAVA UI).
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
OPT-CAS1		Dspl option Cassette 1 firmware version
Lv.1	Details	To display the firmware version of option Cassette 1.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
OPT-CAS2		Dspl option Cassette 2 firmware version
Lv.1	Details	To display the firmware version of option Cassette 2.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99
OPT-CAS3		Dspl option Cassette 3 firmware version

COPIER>DISPLAY>VERSION		
Lv.1	Details	To display the firmware version of option Cassette 3.
	Use case	When upgrading the firmware
	Display/adj/set range	00.01 to 99.99

■ USER

COPIER>DISPLAY>USER		
SPDTYPE		Dspl of Ctrollr Board engine speed type
Lv.1	Details	To display the engine speed type (ppm) of Controller Board.
	Use case	When checking the engine speed type of Controller Board
BRWS-STTS		Dspl of service browser ON/OFF
Lv.1	Details	To display whether the service browser can be used. If the value is 1, [Service Browser] button is displayed on the service mode initial screen. The value of BRWS-STTS switches whenever COPIER> FUNCTION> INSTALL> BRWS-ACT is executed, but ON/OFF of service browser is enabled after reboot. If the service browser does not start even though the value of BRWS-STTS is 1, turn OFF/ON the main power switch.
	Use case	When checking the operation mode of the service browser
	Caution	The value of BRWS-STTS is linked with COPIER> FUNCTION> INSTALL> BRWS-ACT, but the service browser cannot start even though 1 is displayed unless the main power switch is turned OFF/ON.
	Display/adj/set range	1 to 2 1: ON (Available), 2: OFF (Not available)
	Related service mode	COPIER> FUNCTION> INSTALL> BRWS-ACT

■ ACC-STTS

COPIER>DISPLAY>ACC-STTS		
FEEDER		Display of DADF connection state
Lv.1	Details	To display the connecting state of DADF.

COPIER>DISPLAY>ACC-STS		
	Use case	When checking the connection between the machine and DADF
	Display/adj/set range	0 to 1 0: Not connected, 1: Connected
SORTER		Connect state of Finisher-related option
Lv.1	Details	To display the connecting state of Finisher-related options.
	Use case	When checking the connection of Finisher-related options
	Display/adj/set range	Left column (connecting state of Finisher-related options): 1 to 5 1: Inner Finisher 2 to 5: Not use Right column (connecting state of Finisher-belonged Inserter): 0 to 4 0: no hole, 1 to 4: Not use
CARD		Dspl of connection state of Card Reader
Lv.1	Details	To display the connecting state of Card Reader.
	Use case	When checking the connection between the machine and the Card Reader
	Display/adj/set range	0 to 1 0: No card is inserted while the Card Reader is connected. (Copy is not available.) 1: Card Reader is not connected, or card is inserted while the Card Reader is connected. (Copy is available.)
RAM		Dspl of MNCON PCB memory capacity
Lv.1	Details	To display the memory capacity of the Main Controller PCB.
	Use case	When checking the memory capacity of the machine
COINROBO		Dspl of Coin Manager connection state
Lv.1	Details	To display the connecting state of the Coin Manager.
	Use case	When checking the connection between the machine and the Coin Manager
	Display/adj/set range	0 to 1 0: Not connected, 1: Connected
NIB		Dspl of Network PCB connection state

COPIER>DISPLAY>ACC-STS		
Lv.1	Details	To display the connecting state of the Network PCB.
	Use case	When checking the connection between the machine and the Network PCB
	Display/adj/set range	0 to 3 0: Not connected, 1: Ethernet PCB connected, 2: Token Ring PCB connected, 3: Ethernet PCB + Token Ring PCB connected
NETWARE		Dspl of NetWare firmware install state
Lv.1	Details	To display the installation state of the NetWare firmware.
	Use case	When checking whether NetWare firmware is installed to the machine
	Display/adj/set range	0 to 1 0: Not installed, 1: Installed
HDD		Dspl of HDD model name
Lv.1	Details	To display the model name of HDD.
	Use case	When checking the model name of HDD used on the machine
IA-RAM		Dspl of MNCON PCB memory(IA) capacity
Lv.1	Details	To display the memory (IA) capacity of the Main Controller PCB.
	Use case	When checking the memory capacity of the Main Controller PCB

■ ANALOG

COPIER>DISPLAY>ANALOG		
TEMP		Dspl of outside temperature
Lv.1	Details	To display the temperature outside the machine. This is measured by the Environment Sensor that detects the outside air.
	Use case	When checking the temperature outside the machine
	Display/adj/set range	0 to 60
	Appropriate target value	20 to 27
HUM		Dspl of outside humidity

COPIER>DISPLAY>ANALOG		
Lv.1	Details	To display the humidity outside the machine. This is measured by the Environment Sensor that detects the outside air.
	Use case	When checking the humidity outside the machine
	Display/adj/set range	5 to 90
	Appropriate target value	30 to 70
ABS-HUM		Dspl of outside moisture amount
Lv.1	Details	To display the absolute moisture amount outside the machine. This is measured by the Environment Sensor that detects the outside air.
	Use case	When checking the moisture amount outside the machine
	Display/adj/set range	0 to 100
	Appropriate target value	0 to 22
FIX-C		Dspl of Main Thrmstr dtctn temperature
Lv.1	Details	To display the temperature of the fixing heater detected by the Main Thermistor.
	Use case	When checking the center temperature of the Fixing Heater.
	Display/adj/set range	0 to 300
	Appropriate target value	180 to 230 (Among prints)
FIX-E		Dspl of Sub Thrmstr detection temperature
Lv.1	Details	To display the temperature of the fixing heater detected by the Sub Thermistor.
	Use case	When checking the edge temperature of the Fixing Heater.
	Display/adj/set range	0 to 300
	Appropriate target value	180 to 230 (Among prints)

■ HV-STTS

COPIER>DISPLAY>HV-STTS	
PRIMARY	Display of primary charging current

COPIER>DISPLAY>HV-STS		
Lv.1	Details	To display the current that is applied to the Primacy Charging Assembly at the latest.
	Use case	When checking the primary charging current
	Display/adj/set range	0 to 1600
TR		Dspl of transfer current: Plain, 1st side
Lv.1	Details	To display the current that is applied to plain paper (1st side) in the Pre-transfer Charging Assembly at the latest.
	Use case	When checking the transfer charging current
	Display/adj/set range	0 to 50
	Appropriate target value	5 to 50
BIAS		Dspl of developing DC bias setting value
Lv.1	Details	To display the setting value of developing DC bias.
	Use case	When checking the developing DC bias
	Display/adj/set range	0 to 700
	Appropriate target value	300 to 700

■ CCD

COPIER>DISPLAY>CCD		
TARGET-B		Shading target value (B)
Lv.2	Details	To display the shading target value of Blue. Continuous display of 0 (minimum) or FFFF (maximum) is considered a failure of the CCD Unit.
	Use case	- When replacing the Reader Controller PCB - At scanned image failure
	Display/adj/set range	0 to FFFF
		512 to 2047

COPIER>DISPLAY>CCD		
	Appropriate target value	
TARGET-G		Shading target value (G)
Lv.2	Details	To display the shading target value of Green. Continuous display of 0 (minimum) or FFFF (maximum) is considered a failure of the CCD Unit.
	Use case	- When replacing the Reader Controller PCB - At scanned image failure
	Display/adj/set range	0 to FFFF
	Appropriate target value	512 to 2047
TARGET-R		Shading target value (R)
Lv.2	Details	To display the shading target value of Red. Continuous display of 0 (minimum) or FFFF (maximum) is considered a failure of the CCD Unit.
	Use case	- When replacing the Reader Controller PCB - At scanned image failure
	Display/adj/set range	0 to FFFF
	Appropriate target value	512 to 2047
OFST-BW1		CIS offset level adjustment value: BW 1
Lv.1	Details	To display the offset level adjustment value (BW 1) of CIS.
	Use case	When judging whether this adjustment value is appropriate in the case that an image failure due to CIS occurs
	Display/adj/set range	1 to 255
	Appropriate target value	1 to 255
OFST-BW2		CIS offset level adjustment value: BW 2
Lv.1	Details	To display the offset level adjustment value (BW 2) of CIS.

COPIER>DISPLAY>CCD		
	Use case	When judging whether this adjustment value is appropriate in the case that an image failure due to CIS occurs
	Display/adj/set range	1 to 255
	Appropriate target value	1 to 255
OFST-BW3		CIS offset level adjustment value: BW 3
Lv.1	Details	To display the offset level adjustment value (BW 3) of CIS.
	Use case	When judging whether this adjustment value is appropriate in the case that an image failure due to CIS occurs
	Display/adj/set range	1 to 255
	Appropriate target value	1 to 255
OFST-BW4		CIS offset level adjustment value: BW 4
Lv.1	Details	To display the offset level adjustment value (BW 4) of CIS.
	Use case	When judging whether this adjustment value is appropriate in the case that an image failure due to CIS occurs
	Display/adj/set range	1 to 255
	Appropriate target value	1 to 255
OFST-BW5		CIS offset level adjustment value: BW 5
Lv.1	Details	To display the offset level adjustment value (BW 5) of CIS.
	Use case	When judging whether this adjustment value is appropriate in the case that an image failure due to CIS occurs
	Display/adj/set range	1 to 255
	Appropriate target value	1 to 255
OFST-BW6		CIS offset level adjustment value: BW 6
Lv.1	Details	To display the offset level adjustment value (BW 6) of CIS.

COPIER>DISPLAY>CCD		
	Use case	When judging whether this adjustment value is appropriate in the case that an image failure due to CIS occurs
	Display/adj/set range	1 to 255
	Appropriate target value	1 to 255
OFST-BW7		CIS offset level adjustment value: BW 7
Lv.1	Details	To display the offset level adjustment value (BW 7) of CIS.
	Use case	When judging whether this adjustment value is appropriate in the case that an image failure due to CIS occurs
	Display/adj/set range	1 to 255
	Appropriate target value	1 to 255
OFST-BW8		CIS offset level adjustment value: BW 8
Lv.1	Details	To display the offset level adjustment value (BW 8) of CIS.
	Use case	When judging whether this adjustment value is appropriate in the case that an image failure due to CIS occurs
	Display/adj/set range	1 to 255
	Appropriate target value	1 to 255
OFST-BW9		CIS offset level adjustment value: BW 9
Lv.1	Details	To display the offset level adjustment value (BW 9) of CIS.
	Use case	When judging whether this adjustment value is appropriate in the case that an image failure due to CIS occurs
	Display/adj/set range	1 to 255
	Appropriate target value	1 to 255
OFSTBW10		CIS offset level adjustment value: BW 10
Lv.1	Details	To display the offset level adjustment value (BW 10) of CIS.

COPIER>DISPLAY>CCD		
	Use case	When judging whether this adjustment value is appropriate in the case that an image failure due to CIS occurs
	Display/adj/set range	1 to 255
	Appropriate target value	1 to 255
OFSTBW11		CIS offset level adjustment value: BW 11
Lv.1	Details	To display the offset level adjustment value (BW 11) of CIS.
	Use case	When judging whether this adjustment value is appropriate in the case that an image failure due to CIS occurs
	Display/adj/set range	1 to 255
	Appropriate target value	1 to 255
OFST-CL1		CIS offset level adjustment value: CL 1
Lv.1	Details	To display the offset level adjustment value (CL 1) of CIS.
	Use case	When judging whether this adjustment value is appropriate in the case that an image failure due to CIS occurs
	Display/adj/set range	1 to 255
	Appropriate target value	1 to 255
OFST-CL2		CIS offset level adjustment value: CL 2
Lv.1	Details	To display the offset level adjustment value (CL 2) of CIS.
	Use case	When judging whether this adjustment value is appropriate in the case that an image failure due to CIS occurs
	Display/adj/set range	1 to 255
	Appropriate target value	1 to 255
OFST-CL3		CIS offset level adjustment value: CL 3

COPIER>DISPLAY>CCD		
Lv.1	Details	To display the offset level adjustment value (CL 3) of CIS.
	Use case	When judging whether this adjustment value is appropriate in the case that an image failure due to CIS occurs
	Display/adj/set range	1 to 255
	Appropriate target value	1 to 255
OFST-CL4		CIS offset level adjustment value: CL 4
Lv.1	Details	To display the offset level adjustment value (CL 4) of CIS.
	Use case	When judging whether this adjustment value is appropriate in the case that an image failure due to CIS occurs
	Display/adj/set range	1 to 255
	Appropriate target value	1 to 255
OFST-CL5		CIS offset level adjustment value: CL 5
Lv.1	Details	To display the offset level adjustment value (CL 5) of CIS.
	Use case	When judging whether this adjustment value is appropriate in the case that an image failure due to CIS occurs
	Display/adj/set range	1 to 255
	Appropriate target value	1 to 255
OFST-CL6		CIS offset level adjustment value: CL 6
Lv.1	Details	To display the offset level adjustment value (CL 6) of CIS.
	Use case	When judging whether this adjustment value is appropriate in the case that an image failure due to CIS occurs
	Display/adj/set range	1 to 255
	Appropriate target value	1 to 255
OFST-CL7		CIS offset level adjustment value: CL 7

COPIER>DISPLAY>CCD

Lv.1 Details	To display the offset level adjustment value (CL 7) of CIS.
Use case	When judging whether this adjustment value is appropriate in the case that an image failure due to CIS occurs
Display/adj/set range	1 to 255
Appropriate target value	1 to 255
OFST-CL8	CIS offset level adjustment value: CL 8
Lv.1 Details	To display the offset level adjustment value (CL 8) of CIS.
Use case	When judging whether this adjustment value is appropriate in the case that an image failure due to CIS occurs
Display/adj/set range	1 to 255
Appropriate target value	1 to 255
OFST-CL9	CIS offset level adjustment value: CL 9
Lv.1 Details	To display the offset level adjustment value (CL 9) of CIS.
Use case	When judging whether this adjustment value is appropriate in the case that an image failure due to CIS occurs
Display/adj/set range	1 to 255
Appropriate target value	1 to 255
OFSTCL10	CIS offset level adjustment value: CL 10
Lv.1 Details	To display the offset level adjustment value (CL 10) of CIS.
Use case	When judging whether this adjustment value is appropriate in the case that an image failure due to CIS occurs
Display/adj/set range	1 to 255
Appropriate target value	1 to 255
OFSTCL11	CIS offset level adjustment value: CL 11

COPIER>DISPLAY>CCD		
Lv.1	Details	To display the offset level adjustment value (CL 11) of CIS.
	Use case	When judging whether this adjustment value is appropriate in the case that an image failure due to CIS occurs
	Display/adj/set range	1 to 255
	Appropriate target value	1 to 255
GAIN-BW		CIS gain level adjustment value: BW
Lv.1	Details	To display the B&W gain level adjustment value of the CIS.
	Use case	When image failure occurs at reading in black mode
	Display/adj/set range	1 to 255
	Appropriate target value	1 to 255
GAIN-CL		CIS gain level adjustment value: CL
Lv.1	Details	To display the color gain level adjustment value of the CIS.
	Use case	When image failure occurs at reading in color mode
	Display/adj/set range	1 to 255
	Appropriate target value	1 to 255

I/O

■ Main Body_DC Controller (DC-CON> P001 to P016)

Main Body

CASSETTE UNIT-AA1

Address	bit	Name	Symbol	Remarks

Address	bit	Name	Symbol	Remarks
P001	15	Transparency Sensor	PS20	1: Paper presence
	14	Cassette Pickup Sensor	PS13	1: Paper absence
	13	Cassette Lifting Plate Sensor	PS14	0: Paper absence
	12	Cassette Paper Sensor	PS15	Detect paper level by combination of 3 sensors. 0: OFF 1: ON As for the combination, refer to the Pickup/Feed System in Service Manual.
	11	Cassette Paper Level Sensor A	PS16	
	10	Cassette Paper Level Sensor B	PS17	
	9	Registration Sensor	PS11	0: Paper presence
	8	Pre-Registration Sensor	PS12	0: Paper presence
	7	Arch Sensor	PS9	1: Paper presence
	6	Not used	-	
	5	Duplex Feed Sensor	PS8	1: Paper presence
	4	Multi-purpose Tray Paper Sensor	PS7	0: Paper presence
	3	Delivery Sensor	PS5	1: Paper presence
	2	Reverse Sensor	PS6	1: Paper presence
	1	Fixing Pressure Release Sensor	PS18	0: Pressure release
0	Fixing Paper Sensor	PS19	0: Paper absence	
P002	15	Not used	-	
	14	Option Cassette Connection Check	-	0: Connect
	13	Not used	-	
	12	Not used	-	
	11	Cassette Size Detection Switch-1	SW2	Detect paper size by combination of 4 switches. 0: ON (Condition that the switch is pressed) 1: OFF As for the combination, refer to the Pickup/Feed System in Service Manual.
	10	Cassette Size Detection Switch-2	SW2	
	9	Cassette Size Detection Switch-3	SW2	
	8	Cassette Size Detection Switch-4	SW2	

Address	bit	Name	Symbol	Remarks
	7	Not used	-	
	6	Not used	-	
	5	Not used	-	
	4	Not used	-	
	3	Not used	-	
	2	Not used	-	
	1	Not used	-	
	0	Not used	-	
P003	15-0	Not used	-	
P004	15	Hopper Motor	M6	1: Drive
	14	Bottle Motor	M5	1: Drive
	13	For R&D use	-	
	12	For R&D use	-	
	11	For R&D use	-	
	10	For R&D use	-	
	9	For R&D use	-	
	8	For R&D use	-	
	7	For R&D use	-	
	6	For R&D use	-	
	5	For R&D use	-	
	4	For R&D use	-	
	3	For R&D use	-	
	2	Cassette Pickup Solenoid	SL3	1: Drive
	1	Lifter Motor	M9	1: ON

Address	bit	Name	Symbol	Remarks
	0	For R&D use	-	
P005	15-0	Not used	-	
P006	15-0	Not used	-	
P007	15-0	Not used	-	
P008	15-0	Not used	-	
P009	15-0	Not used	-	
P010	7	Not used	-	
	6	For R&D use	-	
	5	For R&D use	-	
	4	Not used	-	
	3	Not used	-	
	2	For R&D use	-	
	1	For R&D use	-	
	0	For R&D use	-	
P011	7	For R&D use	-	
	6	Delivery Cooling Fan (Rear)	FM1	1: Full Speed
	5	Delivery Cooling Fan (Front)/(Center)	FM2/FM3	1: Half Speed
	4	Delivery Cooling Fan (Front)/(Center)	FM2/FM3	1: Full Speed
	3	Waste Toner Motor Drive Signal	M3	1: Drive
	2	Not used	-	
	1	Not used	-	
	0	Not used	-	
P012	7	Not used	-	
	6	Not used	-	

Address	bit	Name	Symbol	Remarks
	5	Not used	-	
	4	Not used	-	
	3	Not used	-	
	2	Not used	-	
	1	Finisher Connection Check	-	0: Connect
	0	For R&D use	-	
P013	7	Main Thermistor	THM1	0: Connect
	6	Not used	-	
	5	Sub Thermistor	THM2	0: Abnormal
	4	Not used	-	
	3	Cover Switch	SW1	0: CLOSE
	2	Not used	-	
	1	Front Cover Sensor	PS1	0: OPEN
	0	Not used	-	
P014	7-0	Not used	-	
P015	7	For R&D use	-	
	6	For R&D use	-	
	5	For R&D use	-	
	4	For R&D use	-	
	3	Not used	-	
	2	Not used	-	
	1	Not used	-	
	0	Not used	-	
P016	7-0	Not used	-	

■ ADF (FEEDER> P001)

Address	bit	Name	Symbol	Remarks
P001	15	Not used	-	
	14	ADF Connection Check	-	0: Connect
	13	Original Set Sensor	PS27	1: Paper presence
	12	Not used	-	
	11	Not used	-	
	10	Not used	-	
	9	Stay Sensor	PS24	1: Paper presence
	8	Reversal Sensor	PS25	1: Paper presence
	7	Registration Sensor	PS23	1: Paper presence
	6	Timing Sensor	PS26	1: Paper presence
	5	Lead Sensor	PS22	1: Paper presence
	4	Not used	-	
	3	Not used	-	
	2	Not used	-	
	1	Not used	-	
	0	Not used	-	

■ Reader (R-CON> P001)

Address	bit	Name	Symbol	Remarks
P001	15	Not used	-	
	14	Not used	-	
	13	Not used	-	
	12	Not used	-	

Address	bit	Name	Symbol	Remarks
	11	Not used	-	
	10	Not used	-	
	9	Not used	-	
	8	Not used	-	
	7	Not used	-	
	6	Not used	-	
	5	Not used	-	
	4	Not used	-	
	3	Not used	-	
	2	Not used	-	
	1	CIS HP Sensor	PS21	1: Open
	0	Not used	-	

ADJUST

■ AE

COPIER>ADJUST>AE	
AE-TBL	Adj of text density at image density adj
Lv.1 Details	To increase/decrease the overall density with a focus on the highlighted area according to the adjustment value. As the value is larger, overall density is increased.
Use case	When clearing the RAM data of the Reader Controller PCB
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	1 to 9

COPIER>ADJUST>AE	
Default value	5

■ **ADJ-XY**

COPIER>ADJUST>ADJ-XY	
ADJ-X	Adj of img pstn in book mode: vert scan
Lv.1 Details	To adjust the image reading start position (image lead edge position) in vertical scanning direction. When the non-image width is larger than the standard value, set the smaller value. When out of original area is copied, set the larger value. As the value is incremented by 1, the image position moves to the leading edge side by 0.1mm.
Use case	- When replacing the CIS Unit - When replacing the Reader Controller PCB/clearing RAM data
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Caution	Output the service mode setting values by P-PRINT beforehand.
Display/adj/set range	1 to 211
Unit	0.1mm
Default value	20
Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
ADJ-Y	Adj of img pstn in book mode: horz scan
Lv.1 Details	To adjust the image reading start position in horizontal scanning direction. When the non-image width is larger than the standard value, set the smaller value. When out of original area is copied, set the larger value. As the value is incremented by 1, the image position moves to the rear side by 0.1mm.
Use case	- When replacing the CIS Unit - When replacing the Reader Controller PCB/clearing RAM data

COPIER>ADJUST>ADJ-XY		
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Output the service mode setting values by P-PRINT beforehand. After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-25 to 25
	Unit	0.1mm
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
ADJ-S		Adj the home position of the CIS unit
Lv.1	Details	To change the position to measure data for shading correction with standard white plate (horizontal scanning direction) by adjusting the home position of the CIS unit. As the value is incremented by 1, CIS unit moves to the horizontal scanning direction by 0.1mm.
	Use case	- When replacing the CIS Unit - When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Output the service mode setting values by P-PRINT beforehand. After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	20 to 500
	Unit	0.1mm
	Default value	73
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
ADJ-Y-DF		Adj img pstn in DADF mode:horz scan
Lv.1	Details	To adjust the image reading start position in horizontal scanning direction at DADF reading.

COPIER>ADJUST>ADJ-XY

As the value is incremented by 1, the image position moves to the front side by 0.1mm.

Use case

- When replacing the CIS Unit
- When replacing the Reader Controller PCB/clearing RAM data

Adj/set/operate method

- 1) Enter the setting value, and then press OK key.
- 2) Turn OFF/ON the main power switch.

Caution

Output the service mode setting values by P-PRINT beforehand.
After the setting value is changed, write the changed value in the service label.

Display/adj/set range

-25 to 25

Unit

0.1mm

Default value

0

Related service mode

COPIER> FUNCTION> MISC-P> P-PRINT

STRD-POS

Adj read position in DADF mode

Lv.1 Details

To adjust the reading position at DADF reading.

Use case

- When replacing the CIS Unit
- When replacing the Reader Controller PCB/clearing RAM data

Adj/set/operate method

- 1) Enter the setting value, and then press OK key.
- 2) Turn OFF/ON the main power switch.

Caution

Output the service mode setting values by P-PRINT beforehand.
After the setting value is changed, write the changed value in the service label.

Display/adj/set range

1 to 200

Unit

0.1mm

Default value

100

Related service mode

COPIER> FUNCTION> MISC-P> P-PRINT

COPIER>ADJUST>ADJ-XY		
ADJ-X-MG	Adj image ratio in book mod:vert scan	
Lv.1	Details	To make a fine adjustment of image magnification in vertical scanning direction at copyboard reading. As the value is incremented by 1, the image magnification changes by 0.1%. +: Enlarge -: Reduce
	Use case	- When replacing the CIS Unit - When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Output the service mode setting values by P-PRINT beforehand. After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-10 to 10
	Unit	0.1%
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT

■ CCD

COPIER>ADJUST>CCD		
W-PLT-X	White level data(X) entry of white plate	
Lv.1	Details	When replacing the Copyboard Glass, enter the value of barcode label which is affixed on the glass.
	Use case	- When replacing the CIS Unit - When replacing the Reader Controller PCB/clearing RAM data - When replacing the Copyboard Glass
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.

COPIER>ADJUST>CCD	
Caution	Output the service mode setting values by P-PRINT beforehand. After the setting value is changed, write the changed value in the service label.
Display/adj/set range	1 to 9999
Default value	8273
Related service mode	COPIER> ADJUST> CCD> W-PLT-Y, W-PLT-Z COPIER> FUNCTION> MISC-P> P-PRINT
W-PLT-Y	White level data(Y) entry of white plate
Lv.1 Details	When replacing the Copyboard Glass, enter the value of barcode label which is affixed on the glass.
Use case	- When replacing the CIS Unit - When replacing the Reader Controller PCB/clearing RAM data - When replacing the Copyboard Glass
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Caution	Output the service mode setting values by P-PRINT beforehand. After the setting value is changed, write the changed value in the service label.
Display/adj/set range	1 to 9999
Default value	8737
Related service mode	COPIER> ADJUST> CCD> W-PLT-X, W-PLT-Z COPIER> FUNCTION> MISC-P> P-PRINT
W-PLT-Z	White level data(Z) entry of white plate
Lv.1 Details	When replacing the Copyboard Glass, enter the value of barcode label which is affixed on the glass.
Use case	- When replacing the CIS Unit - When replacing the Reader Controller PCB/clearing RAM data - When replacing the Copyboard Glass
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Caution	Output the service mode setting values by P-PRINT beforehand.

COPIER>ADJUST>CCD		
		After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	1 to 9999
	Default value	9427
	Related service mode	COPIER> ADJUST> CCD> W-PLT-X, W-PLT-Y COPIER> FUNCTION> MISC-P> P-PRINT
SH-TRGT		Shading target value (B&W) [Copyboard]
Lv.1	Details	To set the B&W shading target value in copyboard reading mode.
	Use case	- When replacing the CIS Unit - When replacing the Reader Controller PCB/clearing RAM data - When replacing the Copyboard Glass
	Adj/set/operate method	Enter the setting value and press OK key.
	Caution	Output the service mode setting values by P-PRINT beforehand.
	Display/adj/set range	1 to 2047
	Default value	278
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
DFTAR-R		Shading target value (R) at ADF mode.
Lv.1	Details	To adjust the shading target value (R) at DADF reading. When replacing the Copyboard Glass/Scanner Unit , execute COPIER> FUNCTION> CCD> DF-WLVL3, DF-WLVL4.
	Use case	- When replacing the CIS Unit - When replacing the Reader Controller PCB/clearing RAM data - When replacing the Copyboard Glass
	Adj/set/operate method	Enter the setting value and press OK key.
	Caution	Output the service mode setting values by P-PRINT beforehand.
	Display/adj/set range	1 to 2047

COPIER>ADJUST>CCD		
	Default value	267
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL3, DF-WLVL4 COPIER> FUNCTION> MISC-P> P-PRINT
DFTAR-G		Shading target value (G) at ADF mode.
Lv.1	Details	To adjust the shading target value (G) at DADF reading. When replacing the Copyboard Glass/Scanner Unit , execute COPIER> FUNCTION> CCD> DF-WLVL3, DF-WLVL4.
	Use case	- When replacing the CIS Unit - When replacing the Reader Controller PCB/clearing RAM data - When replacing the Copyboard Glass
	Adj/set/operate method	Enter the setting value and press OK key.
	Caution	Output the service mode setting values by P-PRINT beforehand.
	Display/adj/set range	1 to 2047
	Default value	269
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL3, DF-WLVL4 COPIER> FUNCTION> MISC-P> P-PRINT
DFTAR-B		Shading target value (B) at ADF mode.
Lv.1	Details	To adjust the shading target value (B) at DADF reading. When replacing the Copyboard Glass/Scanner Unit, execute COPIER> FUNCTION> CCD> DF-WLVL3, DF-WLVL4.
	Use case	- When replacing the CIS Unit - When replacing the Reader Controller PCB/clearing RAM data - When replacing the Copyboard Glass
	Adj/set/operate method	Enter the setting value and press OK key.
	Caution	Output the service mode setting values by P-PRINT beforehand.
	Display/adj/set range	1 to 2047

COPIER>ADJUST>CCD		
	Default value	266
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL3, DF-WLVL4 COPIER> FUNCTION> MISC-P> P-PRINT
DFTAR-K		Shading target value (Black) at ADF mode
Lv.1	Details	To adjust the shading target value (Bk) at DADF reading. When replacing the Copyboard Glass/Scanner Unit (paper front), execute COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2.
	Use case	- When replacing the CIS Unit - When replacing the Reader Controller PCB/clearing RAM data - When replacing the Copyboard Glass
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Output the service mode setting values by P-PRINT beforehand.
	Display/adj/set range	1 to 2047
	Default value	278
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1, DF-WLVL2 COPIER> FUNCTION> MISC-P> P-PRINT

■ LASER

COPIER>ADJUST>LASER		
PVE-OFST		Trailing edge OFF adjstmnt for the laser
Lv.1	Details	To adjust the image position by changing the laser emitting position. As the value is incremented by 1, the image moves by 0.1mm. +: Toward rear -: Toward front
	Use case	When adjusting image position
	Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.

COPIER>ADJUST>LASER		
Caution	Do not use except for replacing the DC controller PCB or laser scanner unit. When adjusting the image position, use "COPIER> MISC> C1-ADJ-Y to MF-ADJ-Y". After the setting value is changed, write the changed value in the service label.	
Display/adj/set range	-300 to 300	
Unit	0.1mm	
Default value	0	
Related service mode	COPIER> ADJUST> MISC> C1-ADJ-Y, C2-ADJ-Y, C3-ADJ-Y, C4-ADJ-Y, MF-ADJ-Y	
POWER	Adj laser power at no potential control	
Lv.1	Details	To adjust the laser power when the potential control is not performed. When the setting value is incremented, the thin line becomes thick.
	Use case	When thin lines reproducibility is not good or when some kind of problems of the laser power (light quantity) occurred .
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Do not use this at the normal service.
	Display/adj/set range	0 to 255
	Default value	0
LOW-PWR	Adj laser power at no potntl ctrl, L-SPD	
Lv.1	Details	To adjust the laser power at low speed while the potential control is not performed. When the setting value is incremented, the thin line becomes thick.
	Use case	When thin lines reproducibility is not good or when some kind of problems of the laser power (light quantity) occurred .
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Do not use this at the normal service.

COPIER>ADJUST>LASER		
	Display/adj/set range	0 to 255
	Default value	0
LDADJ1-K		Magnification between A-B laser
Lv.1	Details	Magnification adjustment amount of the B laser of the Laser Scanner Unit. To adjust the magnification of the laser based on the magnification of A laser. If the input value is not appropriate, image quality decreases.
	Use case	When replacing the Laser Scanner Unit
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-512 to 511
	Default value	0
	Related service mode	COPIER> ADJUST> LASER> LDADJ2-K, LDADJ3-K, LDADJ4-K, LDADJ5-K, LDADJ6-K
LDADJ2-K		Magnification between A-C laser
Lv.1	Details	Magnification adjustment amount of the C laser of the Laser Scanner Unit. To adjust the magnification of the laser based on the magnification of A laser. If the input value is not appropriate, image quality decreases.
	Use case	When replacing the Laser Scanner Unit
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-512 to 511
	Default value	0

COPIER>ADJUST>LASER

Related service mode

LDADJ3-K

Magnification between A-D laser

Lv.1 Details

Magnification adjustment amount of the D laser of the Laser Scanner Unit.
To adjust the magnification of the laser based on the magnification of A laser.
If the input value is not appropriate, image quality decreases.

Use case

When replacing the Laser Scanner Unit

Adj/set/operate method

Enter the setting value, and then press OK key.

Caution

After the setting value is changed, write the changed value in the service label.

Display/adj/set range

-512 to 511

Default value

0

Related service mode

COPIER> ADJUST> LASER> LDADJ1-K, LDADJ2-K, LDADJ4-K, LDADJ5-K, LDADJ6-K

LDADJ4-K

Phase difference between A-B laser

Lv.1 Details

Adjustment amount of phase difference (write start position) between A and B lasers of the Laser Scanner Unit.
If the input value is not appropriate, phase difference between A and B lasers (misalignment of write start position) occurs.

Use case

When replacing the Laser Scanner Unit

Adj/set/operate method

Enter the setting value, and then press OK key.

Caution

After the setting value is changed, write the changed value in the service label.

Display/adj/set range

-512 to 511

Default value

0

Related service mode

COPIER> ADJUST> LASER> LDADJ1-K, LDADJ2-K, LDADJ3-K, LDADJ5-K, LDADJ6-K

COPIER>ADJUST>LASER		
LDADJ5-K		Phase difference between A-C laser
Lv.1	Details	Adjustment amount of phase difference (write start position) between A and C lasers of the Laser Scanner Unit. If the input value is not appropriate, image quality decreases.
	Use case	When replacing the Laser Scanner Unit
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-512 to 511
	Default value	0
	Related service mode	COPIER> ADJUST> LASER> LDADJ1-K, LDADJ2-K, LDADJ3-K, LDADJ4-K, LDADJ6-K
LDADJ6-K		Phase difference between A-D laser
Lv.1	Details	Adjustment amount of phase difference (write start position) between A and D lasers of the Laser Scanner Unit. If the input value is not appropriate, image quality decreases.
	Use case	When replacing the Laser Scanner Unit
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-512 to 511
	Default value	0
	Related service mode	COPIER> ADJUST> LASER> LDADJ1-K, LDADJ2-K, LDADJ3-K, LDADJ4-K, LDADJ5-K

■ DEVELOP

COPIER>ADJUST>DEVELOP	
DE-OFST	Set of developing bias offset value

COPIER>ADJUST>DEVELOP		
Lv.1	Details	To set the Vdc offset auto adjustment value for potential control of copy image manually. As the value is increased, copy image gets darker.
	Use case	At the occurrence of an image failure (fogging, low density)
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by +/- key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-128 to 127
	Unit	0.3% (duty)
	Default value	0

■ DENS

COPIER>ADJUST>DENS		
DENS-ADJ		Density correction of copy image
Lv.1	Details	To correct the density of copy image by changing the F-value table. Blurring is alleviated when the value is increased, and fogging is alleviated when the value is decreased.
	Use case	When fogging or blurring at high density area occurs with a copy image
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Density of printer output image cannot be corrected. Output the service mode setting values by P-PRINT beforehand.
	Display/adj/set range	1 to 9
	Default value	5
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
DENS-PRT		Density correction of printer image
Lv.1	Details	To correct the density of printer image by changing the F-value table. Blurring is alleviated when the value is increased, and fogging is alleviated when the value is decreased.

COPIER>ADJUST>DENS	
Use case	When fogging or blurring at high density area occurs with a copy image
Adj/set/operate method	Enter the setting value, and then press OK key.
Caution	Density of copy output image cannot be corrected.
Display/adj/set range	1 to 9
Default value	5
Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT

■ BLANK

COPIER>ADJUST>BLANK	
BLANK-T	Adjustment of leading edge margin
Lv.1 Details	To adjust the margin on the leading edge of paper. As the value is incremented by 1, the margin is increased toward the center of the paper by 1 pixel (0.0423mm).
Use case	- When reducing the margin upon user's request - When enlarging the margin for transfer separation/fixing separation
Adj/set/operate method	Enter the setting value, and then press OK key.
Caution	Do not use this at the normal service. Output the service mode setting values by P-PRINT beforehand. After the setting value is changed, write the changed value in the service label.
Display/adj/set range	0 to 1000
Unit	1pixel
Default value	118
Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
BLANK-B	Adjustment of trailing edge margin
Lv.1 Details	To adjust the margin on the trailing edge of paper.

COPIER>ADJUST>BLANK	
	As the value is incremented by 1, the margin is increased toward the center of the paper by 1 pixel (0.0423mm).
Use case	- When reducing the margin upon user's request - When enlarging the margin for transfer separation/fixing separation
Adj/set/operate method	Enter the setting value, and then press OK key.
Caution	Do not use this at the normal service. Output the service mode setting values by P-PRINT beforehand. After the setting value is changed, write the changed value in the service label.
Display/adj/set range	0 to 1000
Unit	1pixel
Default value	118
Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT

■ PASCAL

COPIER>ADJUST>PASCAL	
OFST-P-K	Bk density adj at test print reading
Lv.1 Details	To adjust the offset of Bk-color test print reading signal at auto gradation adjustment (full adjustment). As the value is larger, the image after adjustment gets darker.
Use case	When replacing the CIS Unit
Adj/set/operate method	Enter the setting value and press OK key.
Caution	After the setting value is changed, write the changed value in the service label.
Display/adj/set range	-128 to 128
Default value	According to the setting at shipment

■ HV-PRI

COPIER>ADJUST>HV-PRI		
OFST1-DC		Adj pry chg DC bias offset 1 value
Lv.1	Details	To adjust the offset value of the primary charging DC bias. As the value is increased, copy image gets darker.
	Use case	When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-128 to 127
	Unit	0.3% (duty)
	Default value	0
OFST1-AC		Adj pry chg AC bias offset 1 value
Lv.1	Details	To adjust the offset value of the primary charging AC bias.
	Use case	When replacing the DC Controller PCB/clearing RAM data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-128 to 127
	Unit	0.5% (duty)
	Default value	0

■ HV-TR

COPIER>ADJUST>HV-TR		
TR-OFST		Adj trn charge crnt ofst outpt value
Lv.1	Details	To adjust the offset output value of the transfer charging current.
	Use case	When replacing the DC Controller PCB/clearing RAM data

Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Caution	Output the service mode setting values by P-PRINT beforehand. After the setting value is changed, write the changed value in the service label.
Display/adj/set range	-128 to 127
Unit	0.3% (duty)
Default value	0
Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT

■ FEED-ADJ

COPIER>ADJUST>FEED-ADJ	
REGIST	Adj of rgst start timing: 1/1 speed
Lv.1 Details	To adjust the timing to turn ON the Registration roller at 1/1 speed. As the value is incremented by 1, the margin on the leading edge of paper is increased by 0.1 mm. +: Top margin becomes larger. (An image moves downward.) -: Top margin becomes smaller. (An image moves upward.) When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.
Use case	When replacing the DC Controller PCB/clearing RAM data
Adj/set/operate method	Enter the setting value (switch negative/positive by +/- key) and press OK key.
Caution	Output the service mode setting values by P-PRINT beforehand. After the setting value is changed, write the changed value in the service label.
Display/adj/set range	-50 to 50
Unit	0.1mm
Default value	0
Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
LOOP-CST	Registration loop amnt adj: cst feeding
Lv.1 Details	The paper feeding distance is increased/decreased by changing the value.

COPIER>ADJUST>FEED-ADJ		
		+ : The loop amount increases. - : The loop amount decreases.
	Use case	When replacing the DC Controller PCB/clearing RAM data When the cassette feeding paper is skewed
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Output the service mode setting values by P-PRINT beforehand.
	Display/adj/set range	-128 to 127
	Unit	0.1mm
	Default value	63
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
LOOP-MF		Rgst loop amnt adj: MP-feeding
Lv.1	Details	The paper feeding distance is increased/decreased by changing the value. + : The loop amount increases. - : The loop amount decreases.
	Use case	When replacing the DC Controller PCB/clearing RAM data When the manual feeding paper is skewed
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Output the service mode setting values by P-PRINT beforehand.
	Display/adj/set range	-128 to 127
	Unit	0.1mm
	Default value	45
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
ADJ-REFE		Write start pstn in horz scan: 2nd side
Lv.1	Details	To adjust the image write start position on the second side in the horizontal scanning direction.

COPIER>ADJUST>FEED-ADJ

The image write start position is set in the relative amount against the first side regardless of the paper pickup cassette/tray/deck.

As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm.

+: Left margin becomes larger. (An image moves to the right.)

-: Left margin becomes smaller. (An image moves to the left.)

Use case

When replacing the DC Controller PCB/clearing RAM data

Adj/set/operate method

- 1) Enter the setting value (switch negative/positive by +/- key) and press OK key.
- 2) Turn OFF/ON the main power switch.

Caution

Output the service mode setting values by P-PRINT beforehand.

After the setting value is changed, write the changed value in the service label.

Display/adj/set range

-50 to 50

Unit

0.1mm

Default value

0

Related service mode

COPIER> FUNCTION> MISC-P> P-PRINT

LOOPREFE

Rgst loop amnt adj: 2-sided feeding

Lv.1 Details

The paper feeding distance is increased/decreased by changing the value.

+: The loop amount increases.

-: The loop amount decreases.

Use case

When the skew occurs on the image of the 2nd side (of the paper)

Adj/set/operate method

- 1) Enter the setting value (switch negative/positive by +/- key) and press OK key.
- 2) Turn OFF/ON the main power switch.

Caution

Output the service mode setting values by P-PRINT beforehand.

Display/adj/set range

-128 to 127

Unit

0.1mm

Default value

45

Related service mode

COPIER> FUNCTION> MISC-P> P-PRINT

RG-HF-SP

Rgst cltch on timing adj: half spd fdng

COPIER>ADJUST>FEED-ADJ

Lv.1 Details	The on timing of the registration clutch becomes fast/slow by changing the value. +: The on timing becomes fast. -: The on timing becomes slow.
Use case	When replacing the DC Controller PCB/clearing RAM data
Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
Caution	Output the service mode setting values by P-PRINT beforehand. After the setting value is changed, write the changed value in the service label.
Display/adj/set range	-128 to 127
Unit	0.1mm
Default value	0
Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT

ADJ-RE-L Side rgst adj: 2-sided with large ppr

Lv.1 Details	To adjust the image reading start position in horizontal scanning direction for 2-sided print. As the value is incremented by 0.1, the left blank area changes by 0.1mm. +: The left blank area becomes narrow. (The image shifts to left) -: The left blank area becomes wide. (The image shifts to right).
Use case	When replacing the DC Controller PCB/clearing RAM data
Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
Caution	Output the service mode setting values by P-PRINT beforehand.
Display/adj/set range	-128 to 127
Unit	0.1mm
Default value	0
Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
Supplement/memo	Large paper: more than LTR paper

COPIER>ADJUST>FEED-ADJ		
LOOP-THK	Rgst lp amnt adj: hv ppr fdng frm MP Try	
Lv.1	Details	The paper feeding distance is increased/decreased by changing the value. +: The loop amount increases. -: The loop amount decreases.
	Use case	When the skew occurs with heavy paper 1 or heavy paper 2 for the manual feeding.
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Output the service mode setting values by P-PRINT beforehand.
	Display/adj/set range	-128 to 127
	Unit	0.1mm
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
LOOP-SP	Rgst loop amnt adj: special paper feeding	
Lv.2	Details	The paper feeding distance is increased/decreased by changing the value. +: The loop amount increases. -: The loop amount decreases.
	Use case	When the skew occurs with special paper
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Output the service mode setting values by P-PRINT beforehand.
	Display/adj/set range	-128 to 127
	Unit	0.1mm
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
Supplement/memo	Special paper is OHP and Bond paper.	
LOOP-ENV	Rgst loop amnt adj: envelope feeding	

COPIER>ADJUST>FEED-ADJ		
Lv.2	Details	The paper feeding distance is increased/decreased by changing the value. +: The loop amount increases. -: The loop amount decreases.
	Use case	When the skew occurs with envelope
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Output the service mode setting values by P-PRINT beforehand.
	Display/adj/set range	-128 to 127
	Unit	0.1mm
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
ADJ-PTMG		Adj fix temperature at start of pickup
Lv.2	Details	To adjust the paper feeding timing according to the feed allowance temperature. (regardless of the fixing mode)
	Use case	Use to shorten the first copy time or the warm up time.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Output the service mode setting values by P-PRINT beforehand.
	Display/adj/set range	0 to 14 0 to 2: +15 degree 3 to 11: each 3 degree 12 to 14: -15degree
	Unit	-deg C
	Default value	7
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT

■ MISC

COPIER>ADJUST>MISC

SEG-ADJ		Set criteria for text/photo
Lv.1	Details	To set the judgment level of text/photo original in Text/Photo. As the value is increased, the original tends to be detected as a photo document, and as the value is decreased, the original tends to be detected as a text document.
	Use case	When adjusting the classification level of text and photo in Text/Photo mode
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not use this at the normal service.
	Display/adj/set range	-4 to 4
	Default value	0
K-ADJ		Set criteria for black text
Lv.1	Details	To set the judgment level of black characters at text processing. As the value is increased, the text tends to be detected as black.
	Use case	When preferring the text to be judged as black
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-3 to 3
	Default value	0
ACS-ADJ		Set criteria for B&W/color in ACS
Lv.1	Details	To set the judgment level of B&W/color original in ACS mode. As the value is increased, the original tends to be detected as a B&W document, and as the value is decreased, the original tends to be detected as a color document.
	Use case	When adjusting the color detection level in ACS mode
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.

COPIER>ADJUST>MISC		
	Display/adj/set range	-3 to 3
	Default value	0
ACS-EN		Set judgment area in ACS mode
Lv.2	Details	To set the judgment area in ACS mode. As the greater value is set, the judgment area is widened.
	Use case	When adjusting the judgment area in ACS mode
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-2 to 2
	Default value	1
ACS-CNT		Set jdgmt pixel count area in ACS:front
Lv.2	Details	To set the area where the pixel is counted to judge the color presence in ACS mode. As the value is larger, the judgment area is widened.
	Use case	When adjusting the area where the pixel is counted to judge the color presence in ACS mode
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-2 to 2
	Default value	0
C1-ADJ-Y		Enter Cassette1 side register adj value
Lv.2	Details	As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes smaller. (An image moves to the left.) -: Left margin becomes larger. (An image moves to the right.)
	Use case	When adjusting side registration of paper picked up from Cassette 1, when executing RAM clear of the DC Controller PCB, or when replacing the PCB

COPIER>ADJUST>MISC		
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Output the service mode setting values by P-PRINT beforehand. After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-128 to 127
	Unit	0.1mm
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
C2-ADJ-Y		Enter Cassette2 side register adj value
Lv.2	Details	As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes smaller. (An image moves to the left.) -: Left margin becomes larger. (An image moves to the right.)
	Use case	When adjusting side registration of paper picked up from Cassette 2, when executing RAM clear of the DC Controller PCB, or when replacing the PCB
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Output the service mode setting values by P-PRINT beforehand. After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-128 to 127
	Unit	0.1mm
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
C3-ADJ-Y		Enter Cassette3 side register adj value
Lv.2	Details	As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm.

COPIER>ADJUST>MISC		
		+: Left margin becomes smaller. (An image moves to the left.) -: Left margin becomes larger. (An image moves to the right.)
	Use case	When adjusting side registration of paper picked up from Cassette 3, when executing RAM clear of the DC Controller PCB, or when replacing the PCB
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Output the service mode setting values by P-PRINT beforehand. After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-128 to 127
	Unit	0.1mm
	Default value	0
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
	C4-ADJ-Y	Enter Cassette4 side register adj value
Lv.2	Details	As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes smaller. (An image moves to the left.) -: Left margin becomes larger. (An image moves to the right.)
	Use case	When adjusting side registration of paper picked up from Cassette 4, when executing RAM clear of the DC Controller PCB, or when replacing the PCB
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Output the service mode setting values by P-PRINT beforehand. After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-128 to 127
	Unit	0.1mm
	Default value	0

COPIER>ADJUST>MISC

Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
MF-ADJ-Y	Enter MP Tray side register adj value
Lv.2 Details	As the value is incremented by 1, the margin on the left edge of paper is increased by 0.1 mm. +: Left margin becomes smaller. (An image moves to the left.) -: Left margin becomes larger. (An image moves to the right.)
Use case	When adjusting side registration of paper picked up from Multi-purpose Tray, when executing RAM clear of the DC Controller PCB, or when replacing the PCB
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Caution	Output the service mode setting values by P-PRINT beforehand. After the setting value is changed, write the changed value in the service label.
Display/adj/set range	-128 to 127
Unit	0.1mm
Default value	0
Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
ACS-EN2	Set ACS mode jdgmt area in DADF mode
Lv.2 Details	To set the judgment area in ACS mode at DADF reading. As the greater value is set, the judgment area is widened.
Use case	When adjusting the judgment area in ACS mode at DADF reading
Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
Caution	Output the service mode setting values by P-PRINT beforehand.
Display/adj/set range	-2 to 2
Default value	1

COPIER>ADJUST>MISC		
ACS-CNT2		Set ACS jdgmt pixel count area in DADF
Lv.2	Details	To set the area which counts the pixel to judge the color presence in ACS mode at DADF reading. As the greater value is set, the judgment area is widen.
	Use case	When adjusting the area which counts the pixel to judge the color presence in ACS mode at DADF reading
	Adj/set/operate method	1) Enter the setting value (switch negative/positive by -/+ key) and press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Output the service mode setting values by P-PRINT beforehand.
	Display/adj/set range	-2 to 2
	Default value	0

FUNCTION

■ INSTALL

COPIER>FUNCTION>INSTALL		
TONER-S		Toner supply to Developing Assembly
Lv.1	Details	To execute a series of operation necessary for supplying toner to the Developing Assembly/Toner Supply area (drive the Developing Cylinder, Toner Stirring/Feed Member, Photosensitive Drum, and output developing bias) as a whole. After finishing the operation, it is stopped automatically.
	Use case	- At installation - When replacing the Developing Assembly - When replacing toner in the Developing Assembly
	Adj/set/operate method	1) Select the items. “Check the Developer” is displayed. 2) Check connection, and then press OK key. It automatically stops after 10 minutes.
	Caution	

COPIER>FUNCTION>INSTALL		
		<ul style="list-style-type: none"> - Although "Check the Developer" is displayed when selecting the item, be sure to check the connection between the Developing Assembly and connector. - The operation can stop manually with OK key when a failure occurs.
	Display/adj/set range	During operation: xxx second (remaining time), When operation finished normally: END
CARD		Card number setting
Lv.1	Details	To set the card number to be used for Card Reader. A series of numbers from the entered number to the number of cards specified by CARD-RNG can be used.
	Use case	<ul style="list-style-type: none"> - At installation of the Card Reader - After replacement of the HDD
	Adj/set/operate method	<ol style="list-style-type: none"> 1) Enter the number, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The card management information (department ID and password) is initialized.
	Display/adj/set range	0 to 2001
	Default value	0
	Related service mode	COPIER> OPTION> FNC-SW> CARD-RNG
E-RDS		Set use/no use of Embedded-RDS function
Lv.1	Details	To set whether to use the Embedded-RDS function.
	Use case	When using Embedded-RDS
	Adj/set/operate method	<ol style="list-style-type: none"> 1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to use E-RDS, RGW-PORT, COM-TEST, COM-LOG and RGW-ADR as a set.
	Display/adj/set range	0 to 1 0: Function not used, 1: Function used (All the counter information is sent.)
	Default value	0

COPIER>FUNCTION>INSTALL		
	Related service mode	COPIER> FUNCTION> INSTALL> RGW-PORT, COM-TEST, COM-LOG, RGW-ADR COPIER> FUNCTION> CLEAR> ERDS-DAT
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol
RGW-PORT		Set port number of Sales Co's server
Lv.1	Details	To set the port number of the sales company's server to be used for Embedded-RDS.
	Use case	When using Embedded-RDS
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to use E-RDS, RGW-PORT, COM-TEST, COM-LOG and RGW-ADR as a set.
	Display/adj/set range	1 to 65535
	Default value	443
	Related service mode	COPIER> FUNCTION> INSTALL> E-RDS, COM-TEST, COM-LOG, RGW-ADR COPIER>FUNCTION>CLEAR>ERDS-DAT
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol
COM-TEST		Dspl connect result w/ Sales Co's server
Lv.1	Details	To display the result of the connection test with the sales company's server.
	Use case	When using Embedded-RDS
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to use E-RDS, RGW-PORT, COM-TEST, COM-LOG and RGW-ADR as a set.
	Display/adj/set range	During operation: ACTIVE, When connection is completed: OK, When connection is failed: NG
	Related service mode	COPIER> FUNCTION> INSTALL> E-RDS, RGW-PORT, COM-LOG, RGW-ADR COPIER>FUNCTION>CLEAR>ERDS-DAT

COPIER>FUNCTION>INSTALL		
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables etc. to the sales company's server via SOAP protocol
COM-LOG		Dspl connect error w/ Sales Co's server
Lv.1	Details	To display error information when the connection with the sales company's server failed.
	Use case	When using Embedded-RDS
	Adj/set/operate method	Display only
	Caution	Be sure to use E-RDS, RGW-PORT, COM-TEST, COM-LOG and RGW-ADR as a set.
	Display/adj/set range	Year, date, time, error code, error detail information (maximum 128 characters)
	Related service mode	COPIER> FUNCTION> INSTALL> E-RDS, RGW-PORT, COM-TEST, RGW-ADR COPIER>FUNCTION>CLEAR>ERDS-DAT
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol
RGW-ADR		URL setting of Sales Company's server
Lv.1	Details	To set the URL of the sales company's server to be used for Embedded-RDS.
	Use case	When using Embedded-RDS
	Adj/set/operate method	1) Select the URL. 2) Enter the URL, and then press OK key. 3) Turn OFF/ON the main power switch.
	Caution	- Do not use Shift-JIS character strings. - Be sure to use E-RDS, RGW-PORT, COM-TEST, COM-LOG and RGW-ADR as a set.
	Display/adj/set range	URL
	Default value	https://a01.ugwdevice.net/ugw/agentif010
	Related service mode	COPIER> FUNCTION> INSTALL> E-RDS, RGW-PORT, COM-TEST, COM-LOG COPIER>FUNCTION>CLEAR>ERDS-DAT
	Supplement/memo	

COPIER>FUNCTION>INSTALL		
		Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol
CNT-DATE		Set counter send start date to SC server
Lv.1	Details	To set the year, month, date, hour and minute to send counter information to the sales company's server. This is displayed only when the Embedded-RDS third-party extended function is available.
	Use case	When the Embedded-RDS third-party expanded function is available
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	YYYYMMDDHHMM (12 digits) YYYY: Year, MM: Month, DD: Date, HH: Hour, MM: Minute
	Default value	000000000000
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol
CNT-INTV		Set counter send interval to SC server
Lv.1	Details	To set the interval of sending counter information to the sales company's server in a unit of one hour. This is displayed only when the Embedded-RDS third-party extended function is available.
	Use case	- When restarting the potential control after executing COPIER> OPTION> IMG-FIX> PO-CNT. - When D-max control conditions are changed
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 168 (= 1 week)
	Default value	24
	Supplement/memo	Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol
BRWS-ACT		ON/OFF of service browser
Lv.1	Details	To set ON/OFF of service browser. ON/OFF of service browser switches whenever the main power switch is turned OFF/ON after execution.

COPIER>FUNCTION>INSTALL		
		<p>If connection with the UGW server is successful, "OK!" is displayed. If "NG!" is displayed, execute a communication test using COM-TEST.</p> <p>The setting is enabled after reboot. Whether the service browser is ON or OFF can be checked in COPIER> DISPLAY> USER> BRWS-STX (1: ON, 2: OFF).</p>
	Use case	<ul style="list-style-type: none"> - When using the service browser - At operation check
	Adj/set/operate method	<ol style="list-style-type: none"> 1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	After execution, turn OFF/ON the main power switch. After reboot, be sure to check the usage status in COPIER> DISPLAY> USER> BRWS-STX.
	Display/adj/set range	At normal termination: OK!, At abnormal termination: NG!
	Related service mode	COPIER> FUNCTION> INSTALL> COM-TEST COPIER> DISPLAY> USER> BRWS-STX
CDS-CTL		Set country/area when using CDS
Lv.1	Details	To set the country/area to enable the CDS.
	Use case	When enabling CDS
	Display/adj/set range	CA (Canada), LA (Latin America), HK (Hong Kong) and the country/area specified in COPIER> OPTION> FNC-SW> CONFIG.
	Default value	The default differs according to the location.
	Related service mode	COPIER> OPTION> FNC-SW> CONFIG
	Supplement/memo	CDS: Contents Delivery System
DRM-INIT		Initialization of Photosensitive Drum
Lv.1	Details	<p>To initialize Photosensitive Drum.</p> <p>Clear drum counter (PT-DRM, K-DRM-LF) stored in the DC Controller.</p>
	Use case	After replacement of the Drum unit.
		Select the item, and then press OK key.

COPIER>FUNCTION>INSTALL		
	Adj/set/operate method	
	Display/adj/set range	During operation: ACTIVE, At normal termination: OK!, At abnormal termination: NG
	Related service mode	COPIER> COUNTER> DRBL-1> PT-DRM COPIER> COUNTER> LF> K-DRM-LF
HD-CRYP		Exe HDD Encrypt Board ini install mod
Lv.1	Details	To automatically execute operation necessary for initial installation of the HDD Encryption Board. By turning OFF the main power switch after execution, the HDD Encryption Board can be installed.
	Use case	At installation of the HDD Encryption Board
	Adj/set/operate method	During operation: ACTIVE, When operation finished normally: OK!
BIT-SVC		OFF/ON of Web Service of eRDS
Lv.1	Details	To switch ON/OFF of the Web Service function of eRDS. When OFF is selected, authentication information cannot be obtained from eRDS.
	Use case	Upon user's request
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0:OFF 1:ON
	Default value	1

■ CCD

COPIER>FUNCTION>CCD		
CCD-ADJ		Adjustment of CIS gain/offset of CIS
Lv.1	Details	To adjust the gain/offset of the CIS automatically.
	Use case	- When replacing the Copyboard Glass

COPIER>FUNCTION>CCD

- replacing the CIS Unit
- When clearing the RAM data of the Reader Unit

Adj/set/operate method

- 1) Place 10 or more sheets of paper on the platen glass.
- 2) Select this item and press OK key.
- 3) The auto-adj is performed for about 30 sec. <ACTIVE> is displayed on the LCD.
- 4) <OK!> is displayed and the auto-adj is completed.
- 5) The adjusted value reflect COPIER >DISPLAY >CCD >OFST(BW1 to BW11 and CL1 to CL11) and COPIER >DISPLAY >CCD >GAIN-BW, GAIN-CL.
- 6) Turn OFF/ON the main power switch.

Caution

When ten pieces of paper to put on the copyboard glass is less than it, there is a possibility that it is not adjusted rightly.

Display/adj/set range

During operation: ACTIVE, When operation finished normally: OK!, At abnormal termination: NG!

Related service mode

COPIER >DISPLAY >CCD >OFST (BW1 to BW11, CL1 to CL11)
COPIER >DISPLAY >CCD >GAIN-BW, GAIN-CL

Supplement/memo

The NG is indicated after about 70 sec.

DF-WLVL1

White level adj in book mode: B&W

Lv.1 Details

To adjust the white level for copyboard scanning automatically by setting the paper which is usually used by the user on the Copyboard Glass.

The result is reflected for COPIER>ADJUST>CCD>DFTAR-K.

Use case

- When replacing the Copyboard Glass
- replacing the CIS Unit
- When clearing the RAM data of the Reader Unit

Adj/set/operate method

- 1) Set paper on the Copyboard Glass.
- 2) Select the item, and then press OK key.

Caution

Be sure to execute DF-WLVL2 in a row.

Display/adj/set range

During operation: ACTIVE, When the operation finished normally: OK!

Related service mode

COPIER > FUNCTION > CCD > DF-WLVL2
COPIER > ADJUST > CCD > DFTAR-K

COPIER>FUNCTION>CCD		
DF-WLVL2		White level adj in DADF mode: B&W
Lv.1	Details	To adjust the white level for DADF scanning automatically by setting the paper which is usually used by the user on the DADF. The result is reflected for COPIER>ADJUST>CCD>DFTAR-K.
	Use case	- When replacing the Copyboard Glass - replacing the CIS Unit - When clearing the RAM data of the Reader Unit
	Adj/set/operate method	1) Set paper on the DADF. 2) Select the item, and then press OK key.
	Caution	Be sure to execute this item after DF-WLVL1.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!, At abnormal termination: NG!
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL1 COPIER> ADJUST> CCD> DFTAR-K
DF-WLVL3		White level adj in book mode (Color)
Lv.1	Details	To adjust the white level for copyboard scanning automatically by setting the paper which is usually used by the user on the Copyboard Glass. The result is reflected for COPIER>ADJUST>CCD>DFTAR-R/DFTAR-G/DFTAR-B.
	Use case	- When replacing the Copyboard Glass - replacing the CIS Unit - When clearing the RAM data of the Reader Unit
	Adj/set/operate method	1) Set paper on the Copyboard Glass. 2) Select the item, and then press OK key.
	Caution	Be sure to execute DF-WLVL4 in a row.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL4 COPIER>ADJUST>CCD>DFTAR-R/DFTAR-G/DFTAR-B.
DF-WLVL4		White level adj in DADF mode: Color
Lv.1	Details	

COPIER>FUNCTION>CCD		
		To adjust the white level for DADF scanning automatically by setting the paper which is usually used by the user on the DADF. The result is reflected for COPIER>ADJUST>CCD>DFTAR-R/DFTAR-G/DFTAR-B.
	Use case	- When replacing the Copyboard Glass - replacing the CIS Unit - When clearing the RAM data of the Reader Unit
	Adj/set/operate method	1) Set paper on the DADF. 2) Select the item, and then press OK key.
	Caution	Be sure to execute this item after DF-WLVL3.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!, At abnormal termination: NG!
	Related service mode	COPIER> FUNCTION> CCD> DF-WLVL3 COPIER>ADJUST>CCD>DFTAR-R/DFTAR-G/DFTAR-B.

■ CLEANING

COPIER>FUNCTION>CLEANING		
DRM-IDL		Drum cleaning
Lv.2	Details	To perform the drum cleaning
	Use case	When the black spots appear on the copy image in the drum circumference cycle. (Toner adheres on the drum surface.)
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Copy a blank paper, and check that black dots are alleviated.
	Required time	4min
TR-CLN		Transfer roller cleaning
Lv.2	Details	To clean the transfer roller
	Use case	When the back side of paper is soiled with toner (the transfer roller is soiled with toner).
	Adj/set/operate method	Select the item, and then press OK key.

COPIER>FUNCTION>CLEANING		
	Required time	40sec
FIX-CLN		Fixing film cleaning
Lv.2	Details	To clean the fixing film
	Use case	When the fixing pressure roller is soiled with tonner.
	Adj/set/operate method	1) Print cleaning pattern in COPIER > TEST> PG> TYPE > 44. 2) Set printing side on the Multi-purpose Tray in an upturn , and press OK key to execute operation.
	Required time	70 sec

■ FIXING

COPIER>FUNCTION>FIXING		
NIP-CHK		Check of fixing nip width
Lv.1	Details	To check whether the fixing nip width is appropriate by printing. If it is not appropriate, a fixing failure may occur.
	Use case	- When replacing the fixing Assembly - When a fixing failure occurs
	Adj/set/operate method	1) Print approx. 20 sheets of A4 size paper. 2) Make a solid black print (setting value: 7) with COPIER> TEST> PG> TYPE. 3) Set the output of step 2 on the Multi-purpose Tray while placing the printed side down. 4) Perform the size setting of the Multi-purpose Tray. 5) Select the item, and then press OK key. A sheet is stopped once in a state held by the Fixing Nip area, and is delivered approx. 20 seconds later. 6) Measure the nip width of delivered sheet. It is judged as normal: 6.5 to 8.0 mm at the center, and difference between front and rear is within 1.0mm. If there is an error, execute step 6. 7) Check the Fixing Roller, Pressure Roller, and Fixing Lower Unit, and replace damaged part.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!, At abnormal termination: NG
	Related service mode	COPIER> TEST> PG> TYPE

■ PANEL

COPIER>FUNCTION>PANEL		
LCD-CHK		Check of LCD Panel dot missing
Lv.1	Details	To check whether there is a missing dot on the LCD Panel of the Control Panel.
	Use case	When replacing the LCD Panel
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Check that the LCD Panel lights up in the order of white, black, red, green and blue. 3) Press STOP key to terminate checking.
LED-CHK		Check of Control Panel LED
Lv.1	Details	To check whether the LED on the Control Panel lights up.
	Use case	When replacing the LCD Panel
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Check that the LED lights up in the order. 3) Terminate checking with LED-OFF.
	Related service mode	COPIER> FUNCTION> PANEL> LED-OFF
LED-OFF		End check of Control Panel LED
Lv.1	Details	To terminate checking of the LED on the Control Panel.
	Use case	During execution of LED-CHK
	Related service mode	COPIER> FUNCTION> PANEL> LED-CHK
KEY-CHK		Check of key entry
Lv.1	Details	To check the key input on the Control Panel.
	Use case	When replacing the LCD Panel
	Adj/set/operate method	1) Select the item and press the key on the Control Panel. 2) Check that the input value is displayed. 3) Release the selection to terminate checking.
TOUCHCHK		Adj of coordinate pstn of Touch Panel

COPIER>FUNCTION>PANEL		
Lv.1	Details	To adjust the coordinate position on the Touch Panel of the Control Panel.
	Use case	When replacing the LCD Panel
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Press the 9 "+" in sequence.

■ PART-CHK

COPIER>FUNCTION>PART-CHK		
CL		Specification of operation Clutch
Lv.1	Details	To specify the Clutch to operate.
	Use case	When replacing the Clutch/checking the operation
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 2 1: Registration Clutch (CL1) 2: Developing Cylinder Clutch (CL2)
	Default value	1
	Related service mode	COPIER> FUNCTION> PART-CHK> CL-ON
CL-ON		Operation check of Clutch
Lv.1	Details	To start operation check of the Clutch specified by Clutch The operation automatically stops about 20 seconds later.
	Use case	When replacing the Clutch/checking the operation
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Default value	1
	Required time	20sec

COPIER>FUNCTION>PART-CHK		
	Related service mode	COPIER> FUNCTION> PART-CHK> CL
MTR		Specification of operation Motor
Lv.1	Details	To specify the Motor to operate.
	Use case	When replacing the Motor/checking the operation
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 16 1:Laser Scanner Motor 2: Fixing Motor (M1) 3: Main Motor (M2) 4: Waste Toner Motor (M3) 5: Reverse Feed Motor (M4) 6: Bottle Motor (M5) 7: Hopper Motor (M6) 8: Duplex Feed Motor (M7) 9: Cassette 1 Pickup Motor (M8) 10: Cassette 1 Lifter Motor (M9) 11: Cassette 2 Pickup Motor (M101) 12: Cassette 2 Lifter Motor (M102) 13: Cassette 3 Pickup Motor (M101) 14: Cassette 3 Lifter Motor (M102) 15: Cassette 4 Pickup Motor (M101) 16: Cassette 4 Lifter Motor (M102)
	Default value	1
	Related service mode	COPIER> FUNCTION> PART-CHK> MTR-ON
MTR-ON		Operation check of Motor
Lv.1	Details	To start operation check of the Motor specified by MTR. The operation automatically stops after operation of 20 seconds.
	Use case	When replacing the Motor/checking the operation

COPIER>FUNCTION>PART-CHK		
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Required time	20 sec
	Related service mode	COPIER> FUNCTION> PART-CHK> MTR
SL		Specification of operation Solenoid
Lv.1	Details	To specify the Solenoid to operate.
	Use case	When replacing the Solenoid/checking the operation
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 6 1: Multi-purpose Tray Pickup Solenoid (SL1) 2: Reverse Feed Solenoid (SL2) 3: Cassette 1 Pickup Solenoid (SL3) 4: Cassette 2 Pickup Solenoid (SL101) 5: Cassette 3 Pickup Solenoid (SL101) 6: Cassette 4 Pickup Solenoid (SL101)
	Default value	1
	Related service mode	COPIER> FUNCTION> PART-CHK> SL-ON
SL-ON		Operation check of Solenoid
Lv.1	Details	To start operation check for the Solenoid specified by SL. The operation stops after "ON for 0.5 sec" => "OFF for 5 sec" => "ON for 0.5 sec" => "OFF for 5 sec" => "ON for 0.5 sec".
	Use case	When replacing the Solenoid/checking the operation
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Required time	12 sec

COPIER>FUNCTION>PART-CHK	
Related service mode	COPIER> FUNCTION> PART-CHK> SL

■ CLEAR

COPIER>FUNCTION>CLEAR		
ERR	Clear of error code	
Lv.1	Details	To clear error codes (E000, E001, E002, E003, E719).
	Use case	At error occurrence
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
DC-CON	RAM clear of DC Controller PCB	
Lv.1	Details	To clear the RAM data of the DC Controller PCB.
	Use case	When clearing the RAM data of the DC Controller PCB
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	- Output the service mode setting values by P-PRINT before execution. After execution, enter necessary setting value. - The RAM data is cleared after the main power switch is turned OFF/ON.
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
R-CON	RAM clear of Reader Unit	
Lv.1	Details	To clear the RAM data of the Reader Unit.
	Use case	When clearing the RAM data of the Reader Unit
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	- Output the service mode setting values by P-PRINT before execution. After execution, enter necessary setting value. - The RAM data is cleared after the main power switch is turned OFF/ON.

COPIER>FUNCTION>CLEAR		
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
JAM-HIST		Clear of jam history
Lv.1	Details	To clear the jam history.
	Use case	When clearing the jam history
	Adj/set/operate method	Select the item, and then press OK key.
ERR-HIST		Clear of error code history
Lv.1	Details	To clear the error code history.
	Use case	When clearing the error code history
	Adj/set/operate method	Select the item, and then press OK key.
PWD-CLR		Clear of system administrator password
Lv.1	Details	To clear the password of the system administrator set in the user mode.
	Use case	When clearing the password of the system administrator
	Adj/set/operate method	Select the item, and then press OK key.
ADRS-BK		Clear of address book
Lv.1	Details	To clear the address book data.
	Use case	When clearing the address book data
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The address book data is cleared after the main power switch is turned OFF/ON.
CNT-MCON		Clear of Main Controller service counter
Lv.1	Details	To clear the service counter counted by the Main Controller PCB.
	Use case	When clearing the service counter counted by the Main Controller PCB

COPIER>FUNCTION>CLEAR		
	Adj/set/operate method	Select the item, and then press OK key.
CNT-DCON		Clear of DC Controller service counter
Lv.1	Details	To clear the service counter counted by the DC Controller PCB.
	Use case	When clearing the service counter counted by the DC Controller PCB
	Adj/set/operate method	Select the item, and then press OK key.
OPTION		Clear of service mode setting VL(OPTION)
Lv.1	Details	To return the value specified in service mode (OPTION) to the default value (value at the time of RAM clear).
	Use case	When clearing setting value of OPTION
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	<ul style="list-style-type: none"> - Output the service mode setting values by P-PRINT before execution. After execution, enter necessary setting value. - This item is executed for the data on the Main Controller PCB, DC Controller PCB and Reader Controller PCB.
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
MMI		Clear of user mode setting value
Lv.1	Details	<p>To clear the user mode setting values (excluding values for Control Panel, common settings, and FAX).</p> <ul style="list-style-type: none"> - Common Settings - Timer Settings - Adjustment/Cleaning - Report Settings - System Settings - Copy Settings - Communications Settings - Printer Settings
	Use case	When clearing various setting values of user mode
		1) Enter the setting value, and then press OK key.

COPIER>FUNCTION>CLEAR		
	Adj/set/operate method	2) Turn OFF/ON the main power switch.
	Caution	The setting value is cleared after the main power switch is turned OFF/ON.
MN-CON		RAM clear of MNCON PCB SRAM Board
Lv.1	Details	To clear the RAM data of the Main Controller PCB SRAM Board. All data on the SRAM Board is initialized.
	Use case	When clearing the RAM data of the Main Controller PCB SRAM Board
	Adj/set/operate method	1) Select the item, and then press OK key. The machine is automatically rebooted. 2) Turn OFF/ON the main power switch.
	Caution	<ul style="list-style-type: none"> - Address Book, Forwarding Settings, Settings/Registration (Preferences), Adjustment/Maintenance, Function Settings, Set Destination, Management Settings, TPM Settings, etc. are deleted. - Inform the customer that all images in Inbox will be deleted and get approval for it. - Since the file management information is initialized, images on the HDD cannot be read. - Output the service mode setting values by P-PRINT before execution. After execution, enter necessary setting value. - The RAM data is cleared after the main power switch is turned OFF/ON. - If this item is executed while a login application other than Default Authentication is activated, any symptom occurs. (e.g. The login screen is not displayed.) In this case, switch the login application to Default Authentication once.
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
CARD		Clear of card ID-related data
Lv.1	Details	To clear the data related to the card ID (department).
	Use case	When clearing the data related to the card ID
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The data is cleared after the main power switch is turned OFF/ON.
ALARM		Clear of alarm code history

COPIER>FUNCTION>CLEAR		
Lv.1	Details	Clear of alarm code history COPIER > DISPLAY > ALARM-2, ALARM-3 is cleared.
	Use case	When clearing the alarm code history
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The alarm log is cleared after the main power switch is turned OFF/ON.
	Related service mode	COPIER> DISPLAY> ALARM-2, ALARM-3
CA-KEY		Deletion of CA certificate and key pair
Lv.2	Details	To simultaneously delete the CA certificate and key pair which are additionally registered by the user.
	Use case	When a service person replaces/discards the device
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Check that OK is displayed. 3) Turn OFF/ON the main power switch.
	Caution	- Unless this item is executed at the time of replacement/discard of the device, the CA certificate and key pair which are additionally registered by the customer remain in the HDD, which is a problem in terms of security. - Do not execute this item carelessly because the CA certificate and key pair which are additionally registered are deleted when it is executed. If they are deleted mistakenly, they need to be again registered by the customer. If no CA certificate and key pair are additionally registered, the machine condition becomes the same as the one at the time of factory shipment. - When NG is displayed in 2), there is a possibility that deletion was not executed. In this case, surely execute the deletion by initializing the HDD, etc.
	Display/adj/set range	At normal termination: OK, At abnormal termination: NG
	Supplement/memo	- The CA certificate is used in the MEAP application with E-RDS and SSL client connection, and the key pair is used in the SSL function of IPP, RUI and MEAP. - When the main power switch is turned OFF/ON, the CA certificate and key pair which were registered at the time of factory shipment are decompressed from the archive (/BOOTDEV/KCMNG), and become available in the E-RDS/SSL function.
ERDS-DAT		Initialization of E-RDS SRAM data

COPIER>FUNCTION>CLEAR

Lv.1 Details	<p>To initialize the SCM value of the Embedded-RDS stored in the SRAM.</p> <p>SCM values are ON/OFF of E-RDS, server's port number, server's SOAP URL, and communication schedule with the server (how often the data is acquired), etc.</p> <p>The value set by COPIER> FUNCTION> INSTALL> E-RDS, RGW-PORT, RGW-ADR, COM-LOG is cleared.</p>
Use case	When upgrading the Bootable in the E-RDS environment
Adj/set/operate method	Select the item, and then press OK key.
Caution	The method of using the SRAM in E-RDS differs depending on the Bootable version. Therefore, unless the SRAM data is cleared at the time of version upgrade, data inconsistency occurs.
Display/adj/set range	At normal termination: OK, At abnormal termination: NG
Related service mode	COPIER> FUNCTION> INSTALL> E-RDS, RGW-PORT, RGW-ADR, COM-LOG
KEY-CLR	Encrypt key clear of HDD Encrypt Board
Lv.2 Details	<p>To clear the encryption key of the HDD Encryption Board (Security Kit) for replacement.</p> <p>Processing is executed at the time of replacement of the encryption board, and a new encryption key is generated.</p>
Use case	When replacing the encryption key for the HDD Encryption Board
Adj/set/operate method	<ol style="list-style-type: none">1) Select the item, and then press OK key.2) Check that OK is displayed.3) Turn OFF/ON the main power switch.
Caution	Since all data in the HDD becomes unavailable when executing this item, be sure to initialize the HDD after turning OFF/ON the main power switch.
Display/adj/set range	At normal termination: OK, At abnormal termination: NG
USBM-CLR	Initialize USB MEAP priority rgst info
Lv.1 Details	To initialize the registered ID data retained in the OS field by calling the API provided by the OS.
Use case	When a failure occurs in USB MEAP priority registration
Adj/set/operate method	Select the item, and then press OK key.

COPIER>FUNCTION>CLEAR		
JV-CACHE		Cache clear of JAVA application
Lv.1	Details	To clear the cache information used by JAVA application.
	Use case	When initializing the JAVA application
	Adj/set/operate method	Select the item, and then press OK key.
FXTX-CLR		Clearing fax job information
Lv.1	Details	To clear fax job information stored on SRAM. Use this mode to restore from E611-0001.
	Use case	When E611-0001 occurs
	Adj/set/operate method	Select the item, and then press OK key.
LANG-CLR		Uninstallation of language files
Lv.2	Details	To uninstall the language files other than Japanese and English files. After execution, the machine automatically enters the download mode.
	Use case	When installing a new language file while there are 7 installed language files
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Select the firmware in which the necessary language is included by SST, and perform downloading.
	Caution	The language files are not uninstalled if a language file is not installed by SST after the execution of this service mode. When installing the language file to the host machine, the language files other than the file selected by SST are deleted. (Japanese and English files will be kept.)
	Supplement/memo	Screen is displayed in English after the execution, so switch the language.

■ MISC-R

COPIER>FUNCTION>MISC-R		
SCANLAMP		Light-up check of LED
Lv.1	Details	To light up the LED for 3 seconds.

COPIER>FUNCTION>MISC-R	
Use case	When replacing the LED
Adj/set/operate method	Select the item, and then press OK key.
Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
Required time	3 sec

■ MISC-P

COPIER>FUNCTION>MISC-P		
P-PRINT	Output of service mode setting value	
Lv.1	Details	To print the service mode setting value.
	Use case	Before executing the CLEAR service mode, etc.
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to use A4/LTR size plain paper/recycled paper.
HIST-PRT	Output of jam and error history	
Lv.1	Details	To print the jam history and error history.
	Use case	When printing the jam/error history
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to use A4/LTR size plain paper/recycled paper.
TRS-DATA	Moving memory reception data to Inbox	
Lv.2	Details	To move the data received in memory to Inbox.
	Use case	When moving the data received in memory to Inbox
	Adj/set/operate method	Select the item, and then press OK key.
USER-PRT	Output of Settings/Registration list	
Lv.1	Details	To print the Settings/Registration list.

COPIER>FUNCTION>MISC-P		
	Use case	When printing the Settings/Registration list
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to use A4/LTR size plain paper/recycled paper.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Supplement/memo	It takes approximately 3 seconds before printing starts.
LBL-PRNT		Output of service label
Lv.1	Details	To print the service label.
	Use case	When printing the service label
	Adj/set/operate method	1) Place A4/LTR paper in Cassette 1. 2) Select the item, and then press OK key.
	Caution	Be sure to use A4/LTR size plain paper/recycled paper.
D-PRINT		Output of service mode (DISPLAY)
Lv.1	Details	To output items displayed by DISPLAY in the service mode . Items output by P-PRINT, LBL-PRNT and HIST-PRT and ALARM are excluded.
	Use case	When checking items in DISPLAY
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to use A4/LTR size plain paper/recycled paper.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
ENV-PRT		Inside temp/hmdy & fix roller temp log
Lv.1	Details	To print the data of temperature and humidity in the machine/temperature of the surface of the Fixing Roller as logs.
	Use case	When grasping information of temperature in the machine/fixing temperature for trouble analysis
	Adj/set/operate method	Select the item, and then press OK key.

COPIER>FUNCTION>MISC-P		
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
PJH-P-1		Detail info of print job history:100 job
Lv.1	Details	To print the print job history for the latest 100 jobs with detailed information. In the case of less than 100 jobs, the history of all print jobs is printed.
	Use case	When printing the print job history with detailed information
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to use A4/LTR size plain paper/recycled paper.
PJH-P-2		Detail info of print job history:all job
Lv.1	Details	To print the history of all print jobs stored in the machine with detailed information (for maximum 5000 jobs). The difference between PJH-P-1 and this item is only the number of jobs printed.
	Use case	When printing the print job history with detailed information
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to use A4/LTR size plain paper/recycled paper.
USBH-PRT		Output of USB device information report
Lv.1	Details	To output information of the connected USB device in the form of a report.
	Use case	When outputting USB device information in the form of a report
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	Be sure to use A4/LTR size plain paper/recycled paper.
RPT-FILE		Saving of service report as a file
Lv.1	Details	To save various service reports in HDD as a file. The saved files can be obtained using PC to which SST has been installed or USB memory after starting the machine in download mode.
	Use case	When obtaining the service report as a file instead of printout
		Select the item, and then press OK key.

COPIER>FUNCTION>MISC-P	
Adj/set/operate method	
Supplement/memo	File size: Approx. 1 MB at a maximum

■ SYSTEM

COPIER>FUNCTION>SYSTEM		
DOWNLOAD	Shift to download mode	
Lv.1	Details	To make the machine enter the download mode and wait for a command. Perform downloading by SST.
	Use case	At upgrade
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Perform downloading by SST.
	Caution	Do not turn OFF the power before HOLD is displayed.
	Display/adj/set range	When waiting for a command: STAND-BY/STNDBY, In communication: CONNECTED, Communication terminated: HOLD
	Supplement/memo	SST: Service Support Tool
CHK-TYPE	Specify HD-CLEAR/HD-CHECK partition No.	
Lv.1	Details	To specify the partition number of the HDD to execute HD-CLEAR/HD-CHECK.
	Use case	When executing HD-CLEAR/HD-CHECK
	Adj/set/operate method	Enter the value, and then press OK key.
	Display/adj/set range	0 to 65535 0: All partitions (Only as for the executable field) 1: The system-related area 2: SWAP (temporary file / memory alternative area) 3: MEAP-related area 4: Disabled 5: Image and document-related area

COPIER>FUNCTION>SYSTEM		
		6: PDL-related area 7: Image log-related area 8: PDL spool-related area 9: General application temporary area 10: SEND-related area 11: General application-related area 12: Update-related area 13: License-related area 14: Debug-related area 15 to 65535: Not used * If 1, 2, 4, or 13 is selected, nothing is cleared by executing HD-CLEAR. * If 5 or 7 is selected, HD-CLEAR and HD-CHECK are executed simultaneously. * If 8, 9, 11, 12, or 14 is selected, HD-CLEAR and HD-CHECK are executed simultaneously.
	Default value	0
	Related service mode	COPIER> FUNCTION> SYSTEM> HD-CLEAR, HD-CHECK
	HD-CHECK	File system check of specified partition
Lv.1	Details	To execute file system check specified by CHK-TYPE at the next startup.
	Use case	When trying to recover the HDD when ECODE (E602/E614) such as file corruption occurs
	Adj/set/operate method	1) Enter 1, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to execute this item after CHK-TYPE.
	Display/adj/set range	0 to 1 0: Not executed, 1: The partition specified by CHK-TYPE is checked at the next startup.
	Default value	0
	Related service mode	COPIER> FUNCTION> SYSTEM> CHK-TYPE
	HD-CLEAR	Initialization of specified partition

COPIER>FUNCTION>SYSTEM		
Lv.1	Details	To initialize the partition specified by CHK-TYPE at next startup.
	Use case	When trying to recover the HDD when ECODE (E602/E614) such as file corruption occurs
	Adj/set/operate method	1) Enter 1, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to execute this item after CHK-TYPE.
	Display/adj/set range	0 to 1 0: Not executed, 1: Initialized at next startup
	Default value	0
	Related service mode	COPIER> FUNCTION> SYSTEM> CHK-TYPE
DSRAMBUP		Backup of DC Controller PCB SRAM
Lv.2	Details	To back up the setting data in SRAM of the DC Controller PCB.
	Use case	When replacing the DC Controller PCB for troubleshooting at the time of trouble occurrence
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	During operation, the setting data changes by manual or automatic adjustment. When backup data which has been left for a long period of time is restored, it is overwritten by the old setting data and the new data is deleted.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> FUNCTION> SYSTEM> DSRAMRES
DSRAMRES		Restore of DC Controller PCB SRAM
Lv.2	Details	To restore the setting data which has been backed up in SRAM of the DC Controller PCB.
	Use case	When replacing the DC Controller PCB for troubleshooting at the time of trouble occurrence
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	During operation, the setting data changes by manual or automatic adjustment. When backup data which has been left for a long period of time is restored, it is overwritten by the old setting data and the new data is deleted.

COPIER>FUNCTION>SYSTEM		
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> FUNCTION> SYSTEM> DSRAMBUP
RSRAMBUP		Backup of Reader Controller PCB SRAM
Lv.2	Details	To back up the setting data in SRAM of the Reader Controller PCB.
	Use case	When replacing the Reader Controller PCB for troubleshooting at the time of trouble occurrence
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	During operation, the setting data changes by manual or automatic adjustment. When backup data which has been left for a long period of time is restored, it is overwritten by the old setting data and the new data is deleted.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> FUNCTION> SYSTEM> RSRAMRES
RSRAMRES		Restore of Reader Controller PCB SRAM
Lv.2	Details	To restore the setting data which has been backed up in SRAM of the Reader Controller PCB.
	Use case	When replacing the Reader Controller PCB for troubleshooting at the time of trouble occurrence
	Adj/set/operate method	Select the item, and then press OK key.
	Caution	During operation, the setting data changes by manual or automatic adjustment. When backup data which has been left for a long period of time is restored, it is overwritten with new setting data and the old data is deleted.
	Display/adj/set range	During operation: ACTIVE, When operation finished normally: OK!
	Related service mode	COPIER> FUNCTION> SYSTEM> RSRAMBUP
R-REBOOT		Reboot of host machine: VNC
Lv.1	Details	To reboot the host machine.

COPIER>FUNCTION>SYSTEM	
Use case	When the reboot is carried out with the remote control by VNC
Adj/set/operate method	Select the item, and then press OK key.

■ DBG-LOG

COPIER>FUNCTION>DBG-LOG	
LOG2USB	Storage of debug log to USB memory
Lv.2 Details	To store a set of debug logs to USB memory at the error occurrence. A type of log to be collected is set in LOG-TRIG. If there is a debug log which is automatically stored, it is archived at this time. Required time differs according to the device conditions and volume of log data.
Use case	When analyzing the cause of a problem
Adj/set/operate method	1) Install the USB memory. 2) Select the item, and then press OK key.
Caution	- Wait until the machine recognizes the USB memory (approx. 10 sec.). - During the data transfer ("ACTIVE" display), do not turn OFF the power/remove the USB memory/use the screen for operations.
Display/adj/set range	During operation: ACTIVE, At normal termination: OK!, At abnormal termination: NG
Related service mode	COPIER> FUNCTION> DBG-LOG> LOG-TRIG, SYSLOG
LOG2SRVR	Transfer of debug log to server
Lv.2 Details	To transfer a set of debug logs to FTP server using network at the error occurrence. A type of log to be collected is set in LOG-TRIG. If there is a debug log which is automatically stored, it is archived at this time. Address and account of the FTP server can be set by reading the operation setting file from the USB memory in LOG-TRIG.
Use case	When analyzing the cause of a problem
Adj/set/operate method	Select the item, and then press OK key.

COPIER>FUNCTION>DBG-LOG		
	Caution	- Be sure to set the account of the machine to the FTP server beforehand. - During the data transfer ("ACTIVE" display), do not turn OFF the power/use the screen for operations.
	Display/adj/set range	During operation: ACTIVE, At normal termination: OK!, At abnormal termination: NG
	Related service mode	COPIER> FUNCTION> DBG-LOG> LOG-TRIG, SYSLOG
LOG-TRIG		Set of debug log storage condition
Lv.2	Details	To set the conditions (timing, types, etc.) to automatically store the debug logs (stored as an archive file). By reading the operation setting file of the setting value from the Main Controller, the conditions written in the file are set. When setting a new condition is necessary, read the operation setting file provided by R&D from the USB memory.
	Use case	- When changing the conditions of debug log to automatically store - When setting a new condition
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 99999
	Related service mode	COPIER> FUNCTION> DBG-LOG> LOG2USB, LOG2SRVR, HIT-STS, HIT-STS2
HIT-STS		Display of debug log state
Lv.2	Details	To display whether archive file of the debug log which was matched with the conditions set in LOG-TRIG exists or not.
	Use case	When checking the debug log automatically stored
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	At normal termination: OK, At abnormal termination: --
	Related service mode	COPIER> FUNCTION> DBG-LOG> LOG-TRIG
SYSLOG		Setting of syslog function
Lv.2	Details	To set the syslog function. When ON is set, sublog on the main CPU side of the Main Controller is output to the HDD/syslog server. "sublog" can be collected by LOG2USB or LOG2SRVR.

COPIER>FUNCTION>DBG-LOG		
	Use case	When R&D considers that setting the syslog function is necessary at problem analysis
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 99999 0: OFF
	Default value	0
	Related service mode	COPIER> FUNCTION> DBG-LOG> LOG2USB, LOG2SRVR
DEFAULT		Reset of debug log setting
Lv.2	Details	To clear all debug log settings, log files, etc. and return to the state before debug log collection operation.
	Use case	- When returning the device in which analyzing the cause of a problem was completed - When resetting the debug log settings
	Adj/set/operate method	Select the item, and then press OK key.
LOG-DEL		Clear of debug log
Lv.2	Details	To delete the debug log file. The debug log setting is not reset.
	Use case	When clearing the debug log
	Adj/set/operate method	Select the item, and then press OK key.
HIT-STS2		Display of debug log state w/ string
Lv.2	Details	To display whether archive file of the debug log including character strings specified in LOG-TRIG exists or not.
	Use case	When checking the debug log automatically stored
	Adj/set/operate method	Select the item, and then press OK key.
	Display/adj/set range	At normal termination: OK, At abnormal termination: --
	Related service mode	COPIER> FUNCTION> DBG-LOG> LOG-TRIG

OPTION

■ FNC-SW

COPIER>OPTION>FNC-SW		
MODEL-SZ		Fixed magnifictn & DADF orgnl dtct size
Lv.1	Details	To set the fixed magnification ratio display and the original detection size with DADF. It is set automatically at the time of installation of the Reader according to the location.
	Use case	Upon user's request When Chinese paper (16K paper) is used
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3 0: AB configuration (5R5E) for Japan, 1: Inch configuration (4R3E) for North/Middle/South America, 2: A configuration (3R3E) for Europe, 3: AB/Inch configuration (5R5E) for Asia, Oceania, South America
	Default value	The default differs according to the location.
	Related service mode	COPIER> OPTION> FNC-SW > KSIZE-SW, CONFIG
SENS-CNF		Setting of original detection size
Lv.2	Details	To set original detection size according to AB configuration/Inch configuration/A configuration. Select 1 (Inch configuration) for Inch configuration/A configuration machine.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When the original size sensor is not equipped, this service mode is not used.
	Display/adj/set range	0 to 1 0: AB configuration, 1: Inch configuration
	Default value	0
CONFIG		Set country/area/lang/location/ppr size

COPIER>OPTION>FNC-SW		
Lv.1	Details	To set the country/region, language, location, paper size configuration for multiple system software in HDD.
	Use case	Upon user's request
	Adj/set/operate method	1) Select the setting item. 2) Switch with +/- key, and then press OK key. 3) Turn OFF/ON the main power switch.
	Display/adj/set range	XX YY.ZZ.AA XX: Country/region JP: Japan, US: USA, GB: Great Britain, FR: France, DE: Germany, IT: Italy, AU: Australia, SG: Singapore, NL: Netherlands, KR: Korea, CN: China, TW: Taiwan, ES: Spain, SE: Sweden, PT: Portugal, NO: Norway, DK: Denmark, FI: Finland, PL: Poland, HU: Hungary, CZ: Czech Republic, SI: Slovenia, GR: Greece, EE: Estonia, RU: Russia, SK: Slovakia, RO: Romania, HR: Croatia, BG: Bulgaria, TR: Turkey, TH: Thailand, VN: Vietnam YY: Language (Fixed; e.g. ja: Japanese) ZZ: Location (Fixed; e.g. 00: CANON) AA: Paper size configuration (00: AB configuration, 01: Inch configuration, 02: A configuration, 03: Inch/AB configuration)
	Default value	The value differs according to the location.
	Related service mode	COPIER> OPTION> FNC-SW> MODEL-SZ
FAN-EXTN		Fan drive extension mode after job
Lv.2	Details	To set whether to extend the driving time of the fan after completion of a job.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
SZDT-SW		Switch copyboard original size detection
Lv.2	Details	To change the copyboard original size detection to photo size detection.

COPIER>OPTION>FNC-SW		
	Use case	When changing the copyboard original size detection to photo size detection
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When the original size sensor is not equipped, this service mode is not used.
	Display/adj/set range	0: Photo size detection disabled 1: Photo size detection enabled
	Default value	0
SVMD-ENT		Setting of entry method to service mode
Lv.2	Details	To set the way to get in service mode to prevent information leak.
	Use case	As needed
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: [Settings/Registration] - Pressing [2] and [8] at the same time - [Settings/Registration] 1: [Settings/Registration] - Pressing [4] and [9] at the same time - [Settings/Registration]
	Default value	0
KSIZE-SW		Set of Chinese ppr(K-size) spprt: Reader
Lv.2	Details	To set to detect/display the Chinese paper (K size paper: 16K).
	Use case	When using K size paper
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Go through the following: COPIER > OPTION > FNC-SW > MODEL-SZ; and if MODEL-SZ is "0: AB configuration", this mode is enabled.
	Display/adj/set range	0 to 1 0: Not supported, 1: Supported
	Default value	0

COPIER>OPTION>FNC-SW		
	Related service mode	COPIER> OPTION> FNC-SW> MODEL-SZ
	Supplement/memo	8K paper: 270 x 390 mm, 16K paper: 270 x 195 mm
PDF-RDCT		PDF reduction set at forwarding
Lv.2	Details	To set whether to reduce the image for transmission when converting the image received by IFAX into PDF for e-mail/file transmission.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Following the current setting, 1: Image reduction
	Default value	0
SJB-UNW		Reserve upper limit of secure print job
Lv.2	Details	To set the upper limit for the number of reserved jobs in secure print job.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: 50 jobs, 1: 90 jobs, 2: No limit
	Default value	1
CARD-RNG		Card number setting (department number)
Lv.2	Details	To set the number of cards (departments) that can be used with the Card Reader.
	Use case	When setting the number of cards (departments)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 1000

COPIER>OPTION>FNC-SW		
	Default value	1000
SJOB-CL		Set of scan job canceling by logout
Lv.1	Details	To set whether to cancel the scan job in operation by logout of the user.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The job with scanning completed cannot be canceled.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
	Supplement/memo	Scan job: A job after the scanning operation is completed.
USB-RCNT		Auto connect set at USB device disconnect
Lv.2	Details	To set to enable/disable automatic connection when the USB device is disconnected. With the setting to disable automatic connection, USB device cannot be used if disconnecting and then connecting the USB device. To enable connection again, the power needs to be turned OFF/ON. With the setting to enable automatic connection, connect again after disconnecting, and then connecting the USB device again.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	With the setting to enable automatic connection, disconnecting of 1 area makes automatic connection of all USB devices if there is USB hub.
	Display/adj/set range	0 to 1 0: No automatic connection, 1: Automatic connection
	Default value	0
UNLMTBND		Over 400 binders print job support set
Lv.1	Details	To set whether to support print job that exceeds 400 binders.

COPIER>OPTION>FNC-SW		
		With the setting to support, the machine makes print by sharing binders according to job attribution. Select "1: Not supported" if the user does not print job* with large quantity of binders.
	Use case	When supporting print job that exceeds 400 binders
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Automatic setting (when the print server is not connected: no support; When the print server is connected: supported) 1: Not supported
	Default value	0
	Supplement/memo	* : A job that requires finishing (such as stapling) in one job. Does not apply in the case of executing finishing with multiple sets of output.
MIBCOUNT		Scope range set of Charge Counter MIB
Lv.2	Details	To set the range of counter information that can be obtained as MIB (Management Information Base).
	Use case	For customization
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: All charge counters are obtained, 1: Only displayed counter* is obtained, 2: All charge counters are not obtained * : Counter specified by the following: COPIER > OPTION > USER > COUNTER 1 to 6
	Default value	0
	Related service mode	COPIER> OPTION> USER> COUNTER1 to 6
CNTR-SW		Init of parts counter replacement timing
Lv.1	Details	To return the estimated life of parts counter to the initial value.
	Use case	Upon user's request
	Adj/set/operate method	Select the item, and then press OK key.

COPIER>OPTION>FNC-SW

Display/adj/set range 0: Returned to the initial value

Default value 0

PSWD-SW Password type set to enter service mode

Lv.1 Details To set the type of password that is required to enter when getting into service mode.
2 types are available: one for “service technician” and the other for “system administrator + service technician”.
When selecting the type for “system administrator + service technician”, enter the password for service technician after the password entry by the user’s system administrator.

Use case Upon request from the user who concerns security

Adj/set/operate method 1) Enter the setting value, and then press OK key.
2) Turn OFF/ON the main power switch.

Display/adj/set range 0 to 2
0: No password, 1: Service technician, 2: System administrator + service technician

Default value 0

Related service mode COPIER> OPTION> FNC-SW> SM-PSWD

SM-PSWD Password setting for service technician

Lv.2 Details To set password for service technician that is used when getting into service mode.

Use case When password is required to get into service mode

Adj/set/operate method 1) Enter the setting value, and then press OK key.
2) Turn OFF/ON the main power switch.

Caution Be sure to select 1 or 2 with PSWD-SW in advance.

Display/adj/set range 1 to 99999999

Default value 11111111

Related service mode COPIER> OPTION> FNC-SW> PSWD-SW

COPIER>OPTION>FNC-SW		
RPT2SIDE		Set of report 1sided/2-sided output
Lv.1	Details	To set whether to use 1-sided or 2-sided for report output of service mode.
	Use case	When making 2-sided report output to reduce the number of output pages
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: 1-sided, 1: 2-sided
	Default value	1
	Related service mode	COPIER> FUNCTION> MISC-P> P-PRINT
BRWS-FAV		Set of service browser favorite register
Lv.2	Details	To set whether to allow registration of favorites in the browser for service. When 1 is set, favorites in the browser for service can be edited, and any URLs can be accessed.
	Use case	When service engineers edit favorites in the browser for service
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
INVALPDL		Disable of PDL license
Lv.1	Details	To disable the registered PDL license. When "1: Disabled" is set, PDL is disabled even if a PDL license is registered. This is set to the machines installed at convenience stores, which do not allow PDL to be used.
	Use case	When prohibiting the use of PDL
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
		0 to 1

COPIER>OPTION>FNC-SW		
	Display/adj/set range	0: Registered PDL license is enabled, 1: Disabled
	Default value	0
CDS-FIRM		Set to allow firmware update by admin
Lv.1	Details	To set whether to permit update of the firmware by user (administrator). When "1: Enabled" is set, Updater can be activated from the user mode.
	Use case	When allowing the administrator to update the firmware
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	EUR:1 ,Others:0
	Related service mode	COPIER > OPTION > FNC-SW > LCDSFLG
	Supplement/memo	CDS: Contents Delivery System
CDS-MEAP		Set to allow MEAP install by admin
Lv.1	Details	To set whether to permit the user (administrator) to install MEAP applications and enable iR options from CDS. When "1: Enabled" is set, Updater can be activated from the user mode.
	Use case	When allowing the administrator to install MEAP applications and enable iR options from CDS
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	1
	Supplement/memo	CDS: Contents Delivery System
CDS-UGW		Set to allow firmware update from UGW
Lv.1	Details	To set whether to permit update of the firmware from the UGW server.

COPIER>OPTION>FNC-SW		
		When "1: Enabled" is set, Updater accepts the operation from the UGW server in cooperation with CDS.
	Use case	When allowing update of the firmware from the UGW server
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
	Supplement/memo	CDS: Contents Delivery System
LOCLFIRM		Set to allow firmware update by file
Lv.1	Details	To set whether to permit the user (administrator) to update the firmware from the remote UI using a local file. This update is executed as a measure for vulnerability in emergency situations.
	Use case	When allowing the administrator to update the firmware using a file
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	1
SDLMTWRN		ON/OFF cpcty warn dis at E-mail/I-Fax TX
Lv.2	Details	To set whether to display the warning message when sending data that exceeds the upper limit value for the transmission data size via E-mail/I-Fax.
	Use case	For customization
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
FAX-INT		Set FAX RX print interruption oprtn mode
Lv.2	Details	To set the mode performing interruption operation of FAX reception print automatically.

COPIER>OPTION>FNC-SW		
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Normal, 1: Interruption operation mode
	Default value	0
CDS-LVUP		Set to allow CDS periodical update
Lv.1	Details	To set whether to allow the user (administrator) to use the periodical update function linked with CDS. When 1 is set, the periodical update function can be used from user mode.
	Use case	When allowing the user to use the periodical update function
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to1 0: Disabled, 1: Enabled
	Default value	EUR:1 ,Others:0
	Supplement/memo	CDS: Contents Delivery System
WTM-DENS		Set density at watermark setting
Lv.2	Details	When the watermark is set, the density becomes high by changing the developing /primary charge DC voltage so that the watermark is reappeared.
	Use case	When increasing the density in the case that watermark is selected for secured print
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
AMSOFFSW		Disabling AMS mode

COPIER>OPTION>FNC-SW		
Lv.1	Details	(1) AMS license which is an iR option is installed. (2) AMS-supported Login application is activated.. Normally, when the conditions (1) and (2) are satisfied, it enters AMS mode automatically. Use this mode when preferring to disable AMS mode.
	Use case	When preferring to disable AMS mode
	Adj/set/operate method	1) Press Counter button, and check that "ACCESS MANAGEMENT SYSTEM" is displayed on the Device Configuration screen. 2) Set the service mode to 1. 3) Turn OFF/ON the main power switch. 4) Check that AMS is disabled. Press Counter button, and check that "ACCESS MANAGEMENT SYSTEM" is not displayed on the Device Configuration screen.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	JP:0, USA:1, EUR:1, AU:0, CN:0, KR:0, TW:0, ASIA:0
	Supplement/memo	AMS: ACCESS MANAGEMENT SYSTEM
UA-OFFSW		ON/OFF of unified auth function
Lv.1	Details	To set ON/OFF of the Unified Authentication function. Set the value to 0 when not preferring to use the Unified Authentication function because of security concern.
	Use case	Upon user's request (not to use the Unified Authentication function)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: ON, 1: OFF
	Default value	0
MIB-NVTA		RFC-compatible character stringMIB write
Lv.1	Details	As default, MIB object which NVT-ASCII can be written exists in order to link with LUI entry value. This violates RFC order, so a problem like garbled 2-byte characters may occur in the SNMP monitoring system, such as the 3rd vendor's MPS.

COPIER>OPTION>FNC-SW		
		Whether non-RFC-compatible character strings are written in MIB can be set using this mode. When 1 is set, only the character strings which are strictly compatible with RFC are written. (Writing operation is executed from the SNMP manager.) LUI is not linked.
	Use case	Upon user's request (operation with RFC-compatible system)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3 0: Compatible in a conventional manner, 1: RFC-compatible, 2 to 3: Not used
	Default value	0
	Supplement/memo	RFC: Document of Internet-related technical standards NVT-ASCII: Network Virtual Terminal-ASCII
SVC-RUI		Enabling of RUI function for servicing
Lv.1	Details	To set whether to enable the RUI function for servicing (not provided to end users). When 0 is set, the RUI function is disabled. When setting the value other than 0, RUI function is enabled. The value entered becomes password to use the RUI function. The data is cleared after the main power switch is turned OFF/ON.
	Use case	When preferring to use the import function of background image file of main menu
	Adj/set/operate method	Enter the setting value, and then press OK key. The data is cleared after the main power switch is turned OFF/ON.
	Display/adj/set range	0 to 65535
	Default value	0
LCDSFLG		Enabling of local CDS server
Lv.1	Details	To set whether to use the local CDS server. When CDSFIRM is 1, this setting is enabled.
	Use case	When using the local CDS server
		1) Enter the setting value, and then press OK key.

COPIER>OPTION>FNC-SW		
	Adj/set/operate method	2) Turn OFF/ON the main power switch.
	Caution	This mode is enabled only when 1 is selected in COPIER > OPTION > FNC-SW > CDS-FIRM.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
	Related service mode	COPIER > OPTION > FNC-SW > CDS-FIRM
	Related UI menu	[Management Settings] > [License/Other] > [Register/Update Software] > [Software Management Setting] > [Setting]
	Supplement/memo	When local CDS is used, iW EMC/MC device firmware update plug-in is required.
NO-LGOUT		Display/hide of logout button
Lv.1	Details	To set whether to display or hide [Logout] button. When 0 is set, [Logout] button is displayed on the screen, and logout with the ID key is enabled. (Normal) When 1 is set, [Logout] button is not displayed, and logout with the ID key is disabled.
	Use case	Upon user's request (for customization, etc.)
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Display, 1: Hide
	Default value	0
T-DLV-BK		Set of Bk-toner level displaying alarm
Lv.1	Details	To set the Bk-toner level to display "absence of toner" message.
	Use case	When changing the timing to notify the end of life according to the usage status
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Since toner level is calculated based on the developing supply count, some errors may occur.

COPIER>OPTION>FNC-SW		
	Display/adj/set range	0 to 40
	Unit	%
	Default value	USA:29, EUR:0, AU:29, CN:29, KR:29, TW:29, ASIA:29
D-DLV-BK		Set Bk Drum auto delivery alarm timing
Lv.1	Details	To set the timing to notify the auto delivery alarm of the Bk Drum.
	Use case	When changing the timing to notify the end of life according to the usage status
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	50 to 200
	Unit	%
	Default value	100
JM-ERR-D		Handling 0CAx jam as an error: DCON
Lv.2	Details	To display 0CAx jam as the error E996-0CAx. By handling the jam as an error, the machine stops, so that loss of the log can be prevented. Be sure to enable the service mode at the user's site where 0CAx jam occurs. After that, if the error E996-0CAx occurs, the log which has been backed up can be obtained.
	Use case	When obtaining a log at the occurrence of 0CAx jam
	Adj/set/operate method	1) Enter the setting value, and then press OK key.
	Display/adj/set range	0: Display as a jam, 1: Display as an error
	Default value	0
	Related service mode	COPIER > OPTION > FNC-SW > JM-ERR-R
JM-ERR-R		Handling 0071 jam as an error: RCON
Lv.2	Details	To display 0071 jam as the error E996-0071.

COPIER>OPTION>FNC-SW

By handling the jam as an error, the machine stops, so that loss of the log can be prevented.
Be sure to enable the service mode at the user's site where 0071 jam occurs.
After that, if the error E996-0071 occurs, the log which has been backed up can be obtained.

Use case When obtaining a log at the occurrence of 0071 jam

Adj/set/operate method 1) Enter the setting value, and then press OK key.

Display/adj/set range 0: Display as a jam, 1: Display as an error

Default value 0

Related service mode COPIER > OPTION > FNC-SW > JM-ERR-D

DFTSCNSZ Setting of default scan size

Lv.1 Details To set the default scan size when scan size is not specified.

Use case Upon user's request

Display/adj/set range 0:LTR
1:LGL

Default value 0

DLVFN-SW ON/OFF of delivery cooling fan drive

Lv.1 Details Set OFF the drive of fan to prevent the smell of the delivery unit vicinity from diffusing.

Use case When preventing the odor from the Delivery Assembly or its vicinity from being diffused

Adj/set/operate method 1) Enter the setting value, and then press OK key.
2) Turn OFF/ON the main power switch.

Caution When setting the "1", the paper stacking on the delivery tray may deteriorate. (i.e.; each paper adheres by its heat lightly.)

Display/adj/set range 0 to 1
0: OFF (fan drives), 1: ON (fan stops)

Default value 0

COPIER>OPTION>FNC-SW		
ASLPMAX		Set auto sleep shift time maximum value
Lv.1	Details	Set auto sleep shift time maximum value
	Use case	Upon user's request
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: 4 hours 1: 60 minutes
	Default value	JP:0 USA:0 EUR:1 AU:0 CN:0 KR:0 TW:0 ASIA:0

■ DSPLY-SW

COPIER>OPTION>DSPLY-SW		
UI-COPY		Display/hide of copy screen
Lv.2	Details	To set whether to display or hide the copy function.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
UI-BOX		Display/hide of Inbox screen
Lv.2	Details	To set whether to display or hide the Inbox function.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2

COPIER>OPTION>DSPLY-SW		
		0: No Inbox function (Storing is not available even with PDL to Inbox.) 1: Inbox function is active 2: Inbox function is active (with limitation; Storing is available with PDL to Inbox despite no display on the Control Panel/remote UI)
	Default value	1
UI-SEND		Display/hide of send screen
Lv.2	Details	To set whether to display or hide the SEND function.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
UI-FAX		Display/hide of FAX screen
Lv.2	Details	To set whether to display or hide the FAX function.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
NWERR-SW		OFF/ON of network-related error display
Lv.2	Details	To set OFF/ON of network-related error message display. When setting "0: OFF" while the machine is not connected to network, the error message "Check the network connection." is not displayed.
	Use case	When using the machine as a copy machine
		1) Enter the setting value, and then press OK key.

COPIER>OPTION>DSPLY-SW		
	Adj/set/operate method	2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	Normal Model:1 , Self Copy Model:0
ANIM-SW		Screen switch set from MEAP to warning
Lv.2	Details	To set to enable/disable switching from MEAP screen to the error/jam screen.
	Use case	When not preferring to display the warning screen in the case of an error/jam/alarm
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Enabled, 1: Disabled (No display of warning screen)
	Default value	0
	Supplement/memo	If just disabling the switch with MEAP-DSP, the screen is switched to the standard screen in the case of an error/jam/alarm.
UI-PRINT		Display/hide of print job screen
Lv.2	Details	To set whether to display or hide the print job screen.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
UI-RSCAN		Display/hide of remote scan screen
Lv.2	Details	To set whether to display or hide the remote scan screen on the Control Panel.
	Use case	Upon user's request

COPIER>OPTION>DSPLY-SW		
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
UI-WEB		Display/hide of Web browser screen
Lv.2	Details	To set whether to display or hide the Web browser screen.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
TNR-WARN		ON/OFF of toner alarm display
Lv.1	Details	To set whether to display the toner alarm screen.
	Use case	When preferring to hide the alarm until the toner runs out
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: ON, 1: OFF
	Default value	USA:1 EUR:0 AU:0 CN:0 KR:0 TW:0 ASIA:0
RMT-CNSL		ON/OFF of MEAP console screen
Lv.1	Details	Selecting "1: ON" enables to obtain log for Function Composer on console screen.
	Use case	When obtaining log for Function Composer
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.

COPIER>OPTION>DSPLY-SW		
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
UI-SBOX		ON/OFF of Advanced Box screen display
Lv.2	Details	To set ON/OFF of the Advanced Box screen on the Control Panel.
	Use case	When not displaying the Advanced Box screen on the Control Panel
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	EUR:0 ,Others:1
UI-MEM		ON/OFF of memory media screen display
Lv.2	Details	To set ON/OFF of the memory media screen display on the Control Panel.
	Use case	When not displaying the memory media screen on the Control Panel
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
UI-NAVI		Dspl/hide of intrduce to useful features
Lv.2	Details	To set whether to display or hide "Introduction to Useful Features" in the main menu.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display

COPIER>OPTION>DSPLY-SW		
	Default value	1
FXU-DSP		ON/OFF init after Fixing Ass'y replace
Lv.1	Details	To set whether to display "Fixing Assembly" on Initialization screen after replacing parts in Settings/Registration. When allowing the user to replace the Fixing Assembly, set 1.
	Use case	When allowing the user to replace the Fixing Assembly
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related UI menu	Settings/Registration> Adjustment/Maintenance> Maintenance> Initialize After Replacing Parts> Fixing Assembly
PUMF-DSP		Init after MP Tray Pickup Roller replace
Lv.1	Details	To set whether to display "Ppr. Feed Roller & Separation Pad of MP Tray" on Initialization screen after replacing parts in Settings/registration. When allowing the customer to replace the Pickup Roller/Separation Pad of Multi-purpose Tray, set 1.
	Use case	When allowing the user to replace the Pickup Roller/Separation Pad of Multi-purpose Tray
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related UI menu	Settings/Registration> Adjustment/Maintenance> Maintenance > Initialize After Replacing Parts> MP Tray Pickup Roller / Separation Pad
PUC1-DSP		Init after Casstt1 Pickup Roller repalce
Lv.1	Details	To set whether to display "Cassette 1 Feed Roller (x 2)" on Initialization screen after replacing parts in Settings/Registration. When allowing the customer to replace the Pickup Roller of Cassette 1, set 1.

COPIER>OPTION>DSPLY-SW		
	Use case	When allowing the user to replace the Pickup Roller of Cassette 1
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related UI menu	Settings/Registration> Adjustment/Maintenance> Maintenance > Initialize After Replacing Parts> Cassette 1 Feed Roller (x 2)
PUC2-DSP		Init after Casstt2 Pickup Roller replace
Lv.1	Details	To set whether to display “Cassette 2 Feed Roller (x 2)” on Initialization screen after replacing parts in Settings/Registration. When allowing the customer to replace the Pickup Rollers of Cassette 2, set 1.
	Use case	When allowing the customer to replace the Pickup Rollers of Cassette 2
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related UI menu	Settings/Registration> Adjustment/Maintenance> Maintenance > Initialize After Replacing Parts> Cassette 2 Feed Roller (x 2)
PUC3-DSP		Init afr Casstt3 Pickup Roller replace
Lv.1	Details	To set whether to display “Cassette 3 Feed Roller (x 2)” on Initialization screen after replacing parts in Settings/Registration. When allowing the customer to replace the Pickup Rollers of Cassette 3, set 1.
	Use case	When allowing the customer to replace the Pickup Rollers of Cassette 3
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1

COPIER>OPTION>DSPLY-SW		
		0: Hide, 1: Display
	Default value	0
	Related UI menu	Settings/Registration> Adjustment/Maintenance> Maintenance > Initialize After Replacing Parts> Cassette 3 Feed Roller (x 2)
PUC4-DSP		Init aftr Casstt4 Pckup Rol rplce
Lv.1	Details	To set whether to display “Cassette 4 Feed Roller (x 2)” on Initialization screen after replacing parts in Settings/Registration. When allowing the customer to replace the Pickup Rollers of Cassette 4, set 1.
	Use case	When allowing the customer to replace the Pickup Rollers of Cassette 4
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related UI menu	Settings/Registration> Adjustment/Maintenance> Maintenance > Initialize After Replacing Parts> Cassette 4 Feed Roller (x 2)
UI-CUSTM		ON/OFF of Quick Menu screen display
Lv.2	Details	To set ON/OFF of the Quick Menu screen on the Control Panel.
	Use case	When not displaying the Quick Menu screen on the Control Panel
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
USER-DSP		Display/hide of SSO-H login user name
Lv.1	Details	To set whether to display the name of the user who logs in using MEAP authentication (SSO-H) on the screen of the Control Panel (upper left area).

COPIER>OPTION>DSPLY-SW		
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: Hide 1: Display "display name" 2: Display "user name"
	Default value	0
SDTM-DSP		Display/hide of auto shutdown time
Lv.1	Details	To set whether to display or hide "Auto Shutdown Time" in Settings/Registration.
	Use case	When switching to display or hide auto shutdown time
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	When "Hide" is set, auto shutdown time is reset. (Auto shutdown is not performed.)
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	USA:0, EUR:1, AU:0, CN:0, KR:0, TW:0, ASIA:0
	Related UI menu	Settings/Registration > Preferences > Timer/Energy Settings > Auto Shutdown Time, Auto Shutdown Weekly Timer
WT-WARN		Dspl/hide of Wst Tonr Cntner prep mssg
Lv.1	Details	To set whether to display the preparation warning message of the Waste Toner Container on the status area of LUI.
	Use case	When there is no need to notify the preparation timing of the Waste Toner Container to the user
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display

COPIER>OPTION>DSPLY-SW		
	Default value	1
TR-DSP		Cntr initial screen dspl sw: Trns Roller
Lv.1	Details	To set whether to display/hide the Transfer Roller in the counter initial screen in Settings/Registration.
	Use case	When the customer replaces the parts
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related UI menu	Settings/Registration> Adjustment/Maintenance> Maintenance > Initialize After Replacing Parts> Transfer Roller
SPEL-DSP		Cntr initial screen dspl sw: Sttc Elim
Lv.1	Details	To set whether to display/hide the Static Eliminator in the counter initial screen in Settings/Registration.
	Use case	When the customer replaces the parts
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related UI menu	Settings/Registration> Adjustment/Maintenance> Maintenance > Initialize After Replacing Parts> Static Eliminator
DRM-DSP		Cntr initial screen dspl sw: Drum Unit
Lv.1	Details	To set whether to display/hide the Drum Unit in the counter initial screen in Settings/Registration.
	Use case	When the customer replaces the parts
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: Hide, 1: Display

COPIER>OPTION>DSPLY-SW		
	Default value	0
	Related UI menu	Settings/Registration> Adjustment/Maintenance> Maintenance > Initialize After Replacing Parts> Drum Unit

■ IMG-FIX

COPIER>OPTION>IMG-FIX		
FIX-CLN		Set fixing cln sequence execution temp
Lv.2	Details	To set the execution temperature for the fixing pressure roller cleaning sequence. Change the condition (temperature of the sub thermistor) to execute the fixing pressure roller cleaning sequence.
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 3 0: 245 degree, 1: 250 degree, 2: 255 degree, 3: 240 degree
	Default value	0
	Related service mode	COPIER >OPTION >CLEANING >FX-CN-SW
FIX-TEMP		Setting of down sequence mode
Lv.1	Details	To set the temperature of the Fixing Assembly to shift to down sequence mode.
	Use case	When prioritizing productivity
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 4 0: +20 deg C, 1: +10 deg C, 2: Normal, 3: -10 deg C, 4: -20 deg C
	Default value	2
TEMPCON2		Set fixing cntrl tmp tbl: Pln 1, 1/2 SPD
Lv.1	Details	To change the fixing control temperature in the plain paper 1 of 1/2 SPD.
	Use case	When a fixing failure occurs at the time of picking up paper from the plain paper 1, 1/2 SPD.

COPIER>OPTION>IMG-FIX		
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2: +15 degC 3 to 11: +12 to -12 degC (3 degC unit) 12 to 14: -15 degC
	Default value	7
FIX-LOW		Fixing performance improvement in lw-tmp
Lv.1	Details	Fixing performance improvement in low-temp
	Use case	This item is used when a fixing failure has occurred in a low-temperature environment.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Use it after having told that productivity declines to a visitor.
	Display/adj/set range	0 to 1 0: OFF, 1: Low temperature fixing performance improvement mode is set to ON.
	Default value	0
FX-S-TMP		Set fixing temperature: Curl correction
Lv.1	Details	To change the fixing temperature to correct the curl, the fixing failure and the paper slip for the fixing target temperature at the N1 mode and N3 mode.
	Use case	When changing the fixing temperature to correct the paper curl and fixing failure and paper slip.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2: +15 degC 3 to 11: +12 to -12 degC (3 degC unit) 12 to 14: -15 degC
	Default value	7
TMP-TBL2		Set fixing ctrl tmp: heavy ppr 1
Lv.1	Details	To set the offset of fixing control temperature for heavy paper 1 at 1/1 speed and 1/2 speed.

COPIER>OPTION>IMG-FIX		
		As the value is incremented by 1, the control temperature is increased by 3 deg C. Increase the value when a fixing failure occurs. Decrease the value when hot offset occurs.
	Use case	When the poor fixing, paper slip or paper curl occurs in the heavy paper 1 at the 1/1 SPD and 1/2 SPD.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2: +15 degC 3 to 11: +12 to -12 degC (3 degC unit) 12 to 14: -15 degC
	Default value	7
TMP-TBL4		Set fixing control temp: Heavy paper 2
Lv.1	Details	To change the fixing temperature to correct the curl, the fixing failure and the paper slip for the fixing target temperature at the Heavy paper 2 mode.
	Use case	When changing the fixing temperature to correct the paper curl and fixing failure and paper slip.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2: +15 degC 3 to 11: +12 to -15 degC (3 degC unit) 12 to 14: -15 degC
	Default value	7
TMP-TBL5		Set fixing cntrl tmp table:Thin ppr mode
Lv.1	Details	To set the control temperature table for the plain paper 1 and plain paper 2 to the thin paper mode or the S-thin paper mode.
	Use case	When using plain paper 1 and plain paper 2 , set this mode to OFF. Go through the following: COPIER > OPTION > IMG-FIX > TMP-TBLC; and if TMP-TBLC is "0: Auto" or "1: OFF", this mode is enabled.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.

COPIER>OPTION>IMG-FIX		
	Caution	When using plain paper, set this mode to OFF.
	Display/adj/set range	0 to 2 0: OFF 1: thin paper mode 2: S-thin paper mode
	Default value	0
TMP-TBL6		Fixing control temp: envelope
Lv.1	Details	To set the offset of fixing control temperature for envelope at 1/2 speed. As the value is incremented by 1, the control temperature is increased by 3 deg C. Increase the value when a fixing failure occurs. Decrease the value when hot offset occurs.
	Use case	When hot offset/fixing failure occurs on envelope
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2: +15 degC 3 to 11: +12 to -12 degC (3 degC unit) 12 to 14: -15 degC
	Default value	7
TMP-TBL7		Set fixing cntrl tmp tbl: Pln 2, 1/1 SPD
Lv.1	Details	To change the fixing control temperature in the plain paper 2 mode at 1/1 SPD. Increase the value when a fixing failure occurs. Decrease the value when hot offset occurs.
	Use case	When the poor fixing, paper slip or paper curl occurs in the plain paper 2 mode at 1/1 SPD.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2: +15 degC 3 to 11: +12 to -12 degC (3 degC unit)

COPIER>OPTION>IMG-FIX		
		12 to 14: -15 degC
	Default value	7
RAG-CONT		Set fix smeared image ctrl mode level
Lv.1	Details	To set level of the mode (skipping) to control smeared image caused by fixing area.
	Use case	When a smeared image occurs
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3 0: No skipping, 1: Small skipping, 2: Medium skipping, 3: Large skipping
	Default value	2
TMP-TBLC		Set fixing control tmp table: curled ppr
Lv.2	Details	To set the control temperature table to the N1 mode or the N3 mode so that the paper curl is reduced when select the: plain paper 1, plain paper 2, recycled paper, color paper, prepunched paper.
	Use case	When the paper is moist so that the paper curl occurs
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3 0: Auto 1: OFF 2: N1 mode with plain paper 1/2 (Target temperature becomes low.) 3: N3 mode with plain paper 1/2 (Target temperature becomes moreover low.)
	Default value	0
FIX-PR		Set fixing paper special processing mode
Lv.2	Details	The electrostatic offset is improved, and electrical effect of the inside between the paper become small. To prevent of discharge between the fixing film unit and pressure roller, and the static charge of the pressure roller.
	Use case	When electrostatic offset is improved.
		1) Enter the setting value, and then press OK key.

COPIER>OPTION>IMG-FIX

Adj/set/operate method 2) Turn OFF/ON the main power switch.

Display/adj/set range 0: OFF, 1: ON

Default value 0

TMP-TB12 Set fixing cntrl tmp tbl: pln2, 1/2 SPD

Lv.2 Details To change the fixing control temperature in the plain paper 2 at 1/2 SPD.

Use case When the poor fixing, paper slip or paper curl occurs in the plain paper 2 at the 1/2 SPD.

Adj/set/operate method 1) Enter the setting value, and then press OK key.
2) Turn OFF/ON the main power switch.

Display/adj/set range 0 to 2: +15 degC
3 to 11: +12 to -12 degC (3 degC unit)
12 to 14: -15 degC

Default value 7

TMP-TB13 St fix ctrl tmp tbl: Thin ppr, 1/1 SP

Lv.2 Details To change the fixing control temperature in the thin paper mode and S-thin paper mode at the 1/1 SPD.

Use case When the poor fixing, paper slip or paper curl occurs in the thin paper mode and S-thin paper mode at the 1/1 SPD.

Adj/set/operate method 1) Enter the setting value, and then press OK key.
2) Turn OFF/ON the main power switch.

Caution Go through the following: COPIER >OPTION >IMG-FIX >TMP-TBL5; and if TMP-TBL5 is "1: thin paper mode" or "2: S-thin paper mode", this mode is enabled.

Display/adj/set range 0 to 2: +15 degC
3 to 11: +12 to -12 degC (3 degC unit)
12 to 14: -15 degC

Default value 7

Related service mode COPIER >OPTION >IMG-FIX >TMP-TBL5

COPIER>OPTION>IMG-FIX		
TMP-TB14	St fix ctrl tmp tbl: Thin ppr, 1/2 SP	
Lv.2	Details	To change the fixing control temperature in the thin paper mode and S-thin paper mode at the 1/2 SPD.
	Use case	When the poor fixing, paper slip or paper curl occurs in the thin paper mode and S-thin paper mode at the 1/2 SPD.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Go through the following: COPIER >OPTION >IMG-FIX >TMP-TBL5; and if TMP-TBL5 is "1: thin paper mode" or "2: S-thin paper mode", this mode is enabled.
	Display/adj/set range	0 to 2: +15 degC 3 to 11: +12 to -12 degC (3 degC unit) 12 to 14: -15 degC
	Default value	7
	Related service mode	COPIER >OPTION >IMG-FIX >TMP-TBL5
TMP-TB15	Set fixing cntrl tmp tbl: Pln/2-sided	
Lv.2	Details	To change the fixing control temperature in the plain paper mode 1 during the second printing of 2-sided at 1/1 SPD and 1/2 SPD.
	Use case	When the poor fixing, paper slip or paper curl occurs in the plain paper mode 1 during the second printing of 2-sided at 1/1 SPD and 1/2 SPD.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2: +15 degC 3 to 11: +12 to -12 degC (3 degC unit) 12 to 14: -15 degC
	Default value	7
TMP-TB16	Set fixing cntrl tmp tbl: Pln 2/2-sided	
Lv.2	Details	To change the fixing control temperature in the plain paper mode 2 during the second printing of 2-sided at 1/1 SPD and 1/2 SPD.

COPIER>OPTION>IMG-FIX	
Use case	When the poor fixing, paper slip or paper curl occurs in the plain paper mode 2 during the second printing of 2-sided at 1/1 SPD and 1/2 SPD.
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 2: +15 degC 3 to 11: +12 to -12 degC (3 degC unit) 12 to 14: -15 degC
Default value	7

■ IMG-TR

COPIER>OPTION>IMG-TR	
HUM-SW	Selection of transfer current output
Lv.2 Details	Use this item when a failure occurs to the environment sensor. The output level of transfer current is controlled in accordance with the specified environment.
Use case	Use this item when a failure occurs to the environment sensor.
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 5 0: Automatic control by the environment sensor 1: Low humidity 2: Rather low humidity 3: Normal humidity 4: Rather high humidity 5: High humidity Make the setting in accordance with the installation environment. The transfer current output level is controlled in accordance with the specified environment. Low-humidity environment: The transfer current output level increases. High-humidity environment: The transfer current output level decreases.
Default value	0

COPIER>OPTION>IMG-TR		
TROPT-SW		Adj of transfer output
Lv.2	Details	To adjust the transfer roller voltage
	Use case	- When the print is executed with the heavy paper, index paper or thin paper or of the out-of-specification - When the second page is printed in 2-sided mode with the manual feed table
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	-2: Transfer output voltage moreover decreases. -1: Transfer output voltage decreases. 0: OFF 1: Transfer output voltage increases.
	Default value	0
TR-BS-SW		Set transfer bias highland ev mode
Lv.2	Details	To control the transfer bias in printing so that it does not exceed a specified level
	Use case	When the black spots appear on the image (caused by leak occurs at high latitude)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When the installation site is changed from a highland to a lowland, set this mode OFF.
	Display/adj/set range	0 to 1 0: Normal, 1: Voltage reduction mode
	Default value	0

■ IMG-LSR

COPIER>OPTION>IMG-LSR		
SC-PR-SW		Set scanner last rotation time
Lv.2	Details	To stop the polygon motor immediately after the last rotation so that a noise of the polygon motor is reduced
	Use case	When receiving a complaint about the Scanner Motor drive noise after completion of a job

COPIER>OPTION>IMG-LSR	
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 1 0: OFF, 1: ON
Default value	0

■ IMG-RDR

COPIER>OPTION>IMG-RDR	
DFDST-L1	DADF mode dust crct lv adj: ppr intvl
Lv.1 Details	To adjust black line correction level with very small dust detection correction control that is executed at paper interval in DADF mode. Increase the value in the case of black lines. As the value is larger, the black line gets thin more.
Use case	- When black line occurs due to dust - Upon user's request
Adj/set/operate method	Enter the setting value, and then press OK key.
Caution	When increasing the value too much, the cleaning instruction screen may appear too often since even small dust that will not be appeared on the image can be detected. When reducing the value too much, black lines may appear on the image.
Display/adj/set range	0 to 255
Default value	215
Supplement/memo	Black lines can appear on the image if there is dust. With dust detection correction control, the image is corrected to prevent black lines once dust is detected.
DFDST-L2	DADF mode dust dtct level adj: after job
Lv.1 Details	To adjust dust detection level with dust detection correction control that is executed after the job is completed in DADF mode. Reduce the value in the case of frequent display of cleaning instruction at the time of dust detection. As the value is smaller, the dust is less detected.

COPIER>OPTION>IMG-RDR		
		Increase the value in the case of black lines. As the value is larger, the small dust is more likely detected.
	Use case	- When black line occurs due to dust - Upon user's request
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	When increasing the value too much, the cleaning instruction screen may appear too often since even small dust that will not be appeared on the image can be detected. When reducing the value too much, black lines may appear on the image.
	Display/adj/set range	0 to 255
	Default value	215
	Supplement/memo	Black lines can appear on the image if there is dust. With dust detection correction control, the image is corrected to prevent black lines once dust is detected.
UNK-A5R		P-size set:cpybrd orgnl size dtct,small
Lv.1	Details	To detect custom size paper smaller than A4R (LTRR) as A5R (STMTR) at copyboard original size detection.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When the original size sensor is not equipped, this service mode is not used.
	Display/adj/set range	0 to 1 0: Detect as custom size 1: Detect as A5R (STMTR)
	Default value	0

■ IMG-MCON

COPIER>OPTION>IMG-MCON		
PASCAL		Use/no use of auto gradation adj data
Lv.1	Details	

COPIER>OPTION>IMG-MCON		
		To set to use/not to use the gradation adjustment data gamma LUT that is generated by auto gradation adjustment (Full/Quick Adjust) control. Selection is available as to whether to use gamma LUT at the time of image formation.
	Use case	When PASCAL-related failure occurs/when identifying the cause of PASCAL-related failure
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3 0: Initial LUT is used. (Automatic gradation adjustment is not used.) 1: Auto gradation adjustment is used. 2 to 3: Not used
	Default value	1
SHARP		Setting of sharpness level of image
Lv.2	Details	To set the setting level (center value) of sharpness of image. As the value is increased, the image tends to be sharp, and as the value is decreased, image tends to be soft.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 5
	Default value	3
TMC-SLCT		Setting of error diffusion coefficient
Lv.2	Details	To set coefficient to be used for error diffusion process. Specify according to the level of granularity and dot stability.
	Use case	At error diffusion processing
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: Small granularity/low dot stability 1: Small granularity/low dot stability (color mode), Large granularity/high dot stability (B&W mode)

COPIER>OPTION>IMG-MCON		
		2: Large granularity/high dot stability
	Default value	2
VP-ART		Setting of line art processing
Lv.2	Details	<p>To set outline processing for line art on scalable PDF.</p> <p>In the outline processing, a binary image outline is extracted in the field which is recognized as line art, and is converted into vector data.</p> <p>Specify whether to convert the binary image outline into vector data or to recognize it as one line (as a thin line). For the thin line, the line width can be specified.</p> <p>Change this value when you want to obtain an output of a wide-width line as one line rather than as an outline (when you want to prioritize edit operation as a line rather than image quality).</p>
	Use case	Upon user's request
	Adj/set/operate method	<p>1) Enter the setting value, and then press OK key.</p> <p>2) Turn OFF/ON the main power switch.</p>
	Display/adj/set range	0 to 99
	Default value	1
VP-TXT		Setting of character vectorization
Lv.2	Details	<p>To set vector conversion processing for text on scalable PDF.</p> <p>In the vector conversion processing, a binary image outline is extracted in the field which is recognized as text, and is converted into vector data.</p> <p>In regular vector conversion, function approximation is not used for small text because the image quality is not changed.</p> <p>When the value is changed, function approximation processing is executed for small text, which realizes smooth text although the image quality is changed.</p> <p>Change this value when you want to prioritize smoothness in small text.</p>
	Use case	Upon user's request
	Adj/set/operate method	<p>1) Enter the setting value, and then press OK key.</p> <p>2) Turn OFF/ON the main power switch.</p>
	Display/adj/set range	0 to 99

COPIER>OPTION>IMG-MCON		
	Default value	1
PASCL-TY		Paper setting for auto gradation adj
Lv.2	Details	Auto gradation adjustment is normally executed with the recommended paper specified for each location. However, if you want to change the paper type, use this setting to change the paper type.
	Use case	When executing the auto gradation adjustment using a paper other than the recommended paper type
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not change the setting in the normal operation.
	Display/adj/set range	1 to 3 1: CS-814 (Except for USA and EU. Mainly for Japan) 2: Hammermill (For USA) 3: Mondi (For EU)
	Default value	The default differs according to the location.
REGM-SEL		Not use
Lv.2	Details	Not use
	Default value	2
C-S-P-D		High dens end edge crct: PDL dens prrty
Lv.2	Details	To set ON/OFF of high density trailing edge correction function at PDL.
	Use case	ON: When reducing jagged line and jagged outline of text OFF: When matching density with original on high density area, or when prioritizing density and gradation
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
	Supplement/memo	CAL: Abbreviation of CAL_Shadow_PDL_Density Jaggy: Stair-like lines which commonly appears along the outline of image or font.

COPIER>OPTION>IMG-MCON		
C-S-C-D	High density end edge crct ON/OFF: copy	
Lv.2	Details	To set ON/OFF of high density trailing edge correction function at copy. With CAL of COPY, high density trailing edge correction function is ON in normal operation; however, set OFF as needed.
	Use case	ON: When reducing jagged line and jagged outline of text OFF: When matching density with original on high density area, or when prioritizing density and gradation
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
	Supplement/memo	Abbreviation of CAL_Shadow_COPY_Density. When adjusting the input signal 255 to low in the case that the density of solid area is too high, jaggy (jagged effect of halftone) may occur to text, etc. By entering the input signal 255 as solid, occurrence of jaggy can be prevented. Jaggy: Stair-like lines which commonly appears along the outline of image or font.
LIN-OFST	Set special paper added dot amnt offset	
Lv.1	Details	To set the offset amount of dots added to vertical/horizontal direction when lines on special paper are thinner than those on plain paper. When printing special paper, compared to plain paper, the amount of dots specified with this item is added. As the value is larger, lines become thicker.
	Use case	When the line width of special paper is thinner than the one of plain paper
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 4
	Default value	0
BGE-OFS	Fine adj of background adjustment level	
Lv.2	Details	To make a fine adjustment of the background adjustment (background removal) level which can be set manually. Break up the adjustment values into smaller ones when user does not satisfy with the default adjustment values.

COPIER>OPTION>IMG-MCON		
	Use case	When color fogging occurs on the output image when copying yellowed blank paper as an original
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Since the background color is set to be washed out with this mode, not only the background of yellowed blank paper, but also other light colors (light blue, etc.) are washed out.
	Display/adj/set range	-15 to 15
	Default value	0

■ IMG-SPD

COPIER>OPTION>IMG-SPD		
	PSP-PR1	Set productivity priority mode
Lv.2	Details	To lower the fixing temperature for the paper feed start at the paper size change. The priority is given to the productivity so that the fixing offset may occur.
	Use case	When prioritizing productivity
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: OFF 1: ON (Productivity priority mode)
	Default value	0

■ CLEANING

COPIER>OPTION>CLEANING		
	FX-CN-SW	Set fix pressure roller cln sequence
Lv.2	Details	To set the fixing pressure roller cleaning sequence
	Use case	Upon user's request (When the fixing motor sound which is generated in the fixing pressure roller cleaning sequence is claimed from user)

COPIER>OPTION>CLEANING	
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0: OFF, 1: ON
Default value	1

■ ENV-SET

COPIER>OPTION>ENV-SET	
ENVP-INT	Temp, humid &Fix Film temp log get cycle
Lv.1 Details	To set the cycle to obtain log of the temperature and humidity inside the machine and the surface temperature of the Fixing Film. As the value is incremented by 1, the cycle is increased by 1 minute. Obtained log can be displayed by selecting the following: COPIER > DISPLAY > ENVRNT
Use case	At trouble analysis
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 480
Default value	60
IMG-BLD1	Set image smear prevention mode
Lv.2 Details	To warm around the Developing Assembly and the Photosensitive Drum with the following operation to prevent image smear. - To decrease the discharge current value of the charging AC discharge current control according to the environment. - To extend the warm-up rotation time. As the value is larger, the time becomes longer. - To set the fixing control temperature at warm-up rotation to 108 deg C. When either 1, 2 or 3 is set, "Clean Drum" is displayed in user mode, and user can execute only setting 2. When the value is increased, the effect becomes big.
Use case	When image smear occurs
	1) Enter the setting value, and then press OK key.

COPIER>OPTION>ENV-SET		
	Adj/set/operate method	2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3 0: OFF, 1: Extend warm-up rotation for 60 seconds, 2: Extend for 120 seconds, 3: Extend for 240 seconds
	Default value	0
	Related service mode	COPIER > OPTION > ENV-SET > IMG-BLD2 COPIER > OPTION > ENV-SET > IMG-BLD3
	Related UI menu	[Settings/Registration]> [Adjustment/Maintenance]> [Clean Drum]> [Start]
IMG-BLD2		Change of the charge frequency
Lv.2	Details	Change charged frequency to 2535Hz or 1300Hz from 1838Hz.
	Use case	- When the drum that an image smear occurred is replaced by a new drum - When the image flow is improved
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: 1838Hz, 1: 2535Hz, 2: 1300Hz
	Default value	0
	Related service mode	COPIER > OPTION > ENV-SET > IMG-BLD1 COPIER > OPTION > ENV-SET > IMG-BLD3
IMG-BLD3		Black band mode
Lv.2	Details	To further increase the cleaning level of the drum and remove deteriorated toner to prevent image smear in a high humidity environment. As the value is increased, the effect is increased.
	Use case	When image smear occurs
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Toner consumption is increased, and the Transfer Roller is likely to be soiled.

COPIER>OPTION>ENV-SET	
Display/adj/set range	0 to 1 0: default (no black band) 1: The making of the black band at the last rotation for 50 jobs once
Default value	0
Related service mode	COPIER > OPTION > ENV-SET > IMG-BLD1 COPIER > OPTION > ENV-SET > IMG-BLD2

■ FEED-SW

COPIER>OPTION>FEED-SW	
SP-SW	Set separation priority mode
Lv.2	Details
	To set the separation priority mode for using the thin paper of the out-of specification
	Use case
	When the moist, soft and thin paper is used
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	When using plain paper, set this mode to OFF.
	Display/adj/set range
	0 to 2 0: OFF, 1 to 2: Separation priority mode (Separation effect improves.)
	Default value
	0

■ NETWORK

COPIER>OPTION>NETWORK	
IFAX-LIM	No. of max print lines at IFAX reception
Lv.2	Details
	To set the maximum number of lines for e-mail text to be printed when receiving IFAX. Setting of this item can prevent endless printing of the attached file data in the case of receiving an error e-mail or failure in interpretation of the context. Selecting 0 prints the header/footer in 1 sheet when receiving e-mail text without attached file.
	Use case
	When preventing endless print in the case of failure in reception

COPIER>OPTION>NETWORK		
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 999 0: E-mail text not printed, 999: Unlimited
	Default value	500
SMTPTXPN		Setting of SMTP TX port number
Lv.2	Details	To set SMTP transmission port number.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 65535
	Default value	25
SMPTRXPN		Setting of SMTP reception port number
Lv.2	Details	To set SMTP reception port number.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 65535
	Default value	25
POP3PN		Setting of POP3 reception port number
Lv.2	Details	To set POP3 reception port number.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.

COPIER>OPTION>NETWORK		
	Display/adj/set range	0 to 65535
	Default value	110
FTPTXPN		Specification of SEND port (FTP) number
Lv.2	Details	To specify address port (FTP) number for SEND.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 65535
	Default value	21
STS-PORT		Not use
Lv.2	Details	Not use
	Default value	0
CMD-PORT		Not use
Lv.2	Details	Not use
	Default value	0
NS-CMD5		Limit CRAM-MD5 auth method at SMTP auth
Lv.2	Details	To restrict use of CRAM-MD5 authentication method at the time of SMTP authentication.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	

COPIER>OPTION>NETWORK		
		SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.
NS-GSAPI		Limit GSSAPI auth method at SMTP auth
Lv.2	Details	To restrict use of GSSAPI authentication method at the time of SMTP authentication.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.
NS-NTLM		Limit NTLM auth method at SMTP auth
Lv.2	Details	To restrict use of NTLM authentication method at the time of SMTP authentication.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.
NS-PLNWS		Limit plaintext auth at SMTP auth encry

COPIER>OPTION>NETWORK		
Lv.2	Details	To restrict use of PLAIN/LOGIN authentication, which is plaintext, at the time of SMTP authentication under the environment where the communication packet is encrypted.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.
NS-PLN		Limit plaintext auth at SMTPauth noencyr
Lv.2	Details	To restrict use of PLAIN/LOGIN authentication, which is plaintext, at the time of SMTP authentication under the environment where the communication packet is not encrypted.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.
NS-LGN		Lmt LOGIN authntctn at SMTP authntctn
Lv.2	Details	To restrict use of LOGIN authentication at the time of SMTP authentication.
	Use case	Upon user's request
		1) Enter the setting value, and then press OK key.

COPIER>OPTION>NETWORK		
	Adj/set/operate method	2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: SMTP server-dependent, 1: Not used
	Default value	0
	Supplement/memo	SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated.
MEAP-PN		HTTP port No.setting of MEAP application
Lv.2	Details	To set HTTP port number of MEAP application.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Do not specify port 8080 when the Print Server is connected. Otherwise, you cannot browse the device RUI in which MEAP authentication application is running (Port 8080 is reserved for redirection of EFI controller to the iR side.)
	Display/adj/set range	0 to 65535
	Default value	8000
CHNG-STTS		Not use
Lv.2	Details	Not use
	Default value	20010
CHNG-CMD		Not use
Lv.2	Details	Not use
	Default value	20000
MEAP-SSL		HTTPS port setting of MEAP
Lv.2	Details	To set the port of HTTPS server in the case of using SSL with HTTP of MEAP.

COPIER>OPTION>NETWORK		
	Use case	When specifying the setting of HTTPS port for MEAP
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 65535
	Default value	8443
LPD-PORT		Setting of LPD port number
Lv.2	Details	To set the LPD port number.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 65535
	Default value	515
	Supplement/memo	LPD port: Network port for TCP/IP communication when making prints through network.
WUEV-SW		Setting of sleep notification execution
Lv.2	Details	To set whether to notify the sleep mode to the application (imageWARE, etc) on the network when shifting to/recovering from the sleep mode.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Notified, 1: Not notified
	Default value	0
	Related service mode	COPIER> OPTION> NETWORK> WUEV-INT, WUEV-POT, WUEV-RTR
WUEV-INT		Setting of sleep notification interval

COPIER>OPTION>NETWORK		
Lv.2	Details	To set the interval of sleep notification.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	This is active when COPIER> OPTION> NETWORK> WUEV-SW is set to 0: Notified.
	Display/adj/set range	60 to 65535
	Default value	600
	Related service mode	COPIER> OPTION> NETWORK> WUEV-SW
WUEV-POT		Port number setting for sleep notice
Lv.2	Details	To set port number of the PC to notify the sleep mode.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	This is active when COPIER> OPTION> NETWORK> WUEV-SW is set to 0: Notified.
	Display/adj/set range	1 to 65535
	Default value	11427
	Related service mode	COPIER> OPTION> NETWORK> WUEV-SW
WUEV-RTR		Setting of sleep notification range
Lv.2	Details	To set the number of available routers to the target for sleep notification.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	This is active when COPIER> OPTION> NETWORK> WUEV-SW is set to 0: Notified.

COPIER>OPTION>NETWORK		
	Display/adj/set range	0 to 254
	Default value	3
	Related service mode	COPIER> OPTION> NETWORK> WUEV-SW
WUEN-LIV		Recovery time setting after sleep notice
Lv.2	Details	To set the time from the sleep start from network without job assignment until the mode is shifted to the sleep mode.
	Use case	When setting the startup time after sleep notification
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 600
	Default value	15
IFX-CHIG		Set operation by IFAX recv mail content
Lv.1	Details	To set the number of characters for the IFAX received mail content, so that the mail is not printed/forwarded when the characters in the text is less than the number of specified characters. This machine can output blank paper because some senders send e-mail text consists of linefeed codes only. In such case, specify 2 (number of characters) so that there will be no output of blank paper. In the case of specifying any number other than 0, header/footer is printed/forwarded in 1 sheet only if the e-mail (body) text is less than the specified value while no TIFF file is attached. As the value is incremented by 1, the number of target characters in e-mail body text is increased by 1 character.
	Use case	When reducing print of blank paper due to e-mail received by IFAX.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to get approval from the user by telling that there will be no print of e-mail (body) text if the number of characters is less than the specified value.
	Display/adj/set range	0 to 999 0: E-mail (body) text is not ignored.

COPIER>OPTION>NETWORK		
	Default value	0
	Supplement/memo	1 Japanese Kanji character is calculated as 2 bytes, and the control codes (such as linefeed code, etc) are included in the number of characters.
DNSTRANS		Setting of DNS transfer priority
Lv.1	Details	To set priority order of the protocol (IPv4/IPv6) to be used for DNS query. In the case of using both IPv6 and IPv4 while the DNS server supports IPv4, it takes time because of timeout when executing DNS query with priority on IPv6. Giving priority on query by IPv4 can shorten the time.
	Use case	When it takes time to execute DNS query with priority on IPv6 because the DNS server supports IPv4
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: IPv4, 1: IPv6
	Default value	1
PROXYRES		Setting of proxy response to Windows
Lv.2	Details	To set whether to provide proxy response or return the device status when an inquiry is received via Windows while the device is in sleep mode.
	Use case	When executing status response for query from Windows correctly
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: No proxy response, 1: Proxy response
	Default value	1
WOLTRANS		Setting of sleep recovery protocol
Lv.1	Details	To set the protocol for recovery from sleep mode according to the value of WOL (Wake On LAN) trans. Reception of a specific network packet is one of the requirements for the device to recover from sleep mode.

COPIER>OPTION>NETWORK		
		<p>When the number of network protocols supported by the device increases, the types of network packets which activate recovery from sleep mode vary. However, there is a possibility that the existing network protocol is actually used.</p> <p>Select the type of network packet which activates recovery from sleep mode according to the environment where the device is used.</p>
	Use case	When selecting protocol for sleep recovery
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 3 1: WSD and SNMP, 2: WSD and CPCA, 3: CPCA and SNMP
	Default value	1
802XTOUT		Set of IEEE802.1X authentication timeout
Lv.1	Details	<p>To set timeout value for IEEE802.1X authentication.</p> <p>If the device executes 802.1X authentication, change the wait time for response from the authentication server.</p>
	Use case	When response from the authentication server is slow/fast
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	10 to 120
	Default value	30
IKERETRY		Setting of IKE retry times
Lv.1	Details	To set the number of retries in the case of no response from the communication target at the time of IKE packet transmission.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3

COPIER>OPTION>NETWORK		
	Default value	1
SPDALDEL		Initialization of SPD value
Lv.2	Details	To initialize all the SPD values that are under management. SPD values can be initialized without clearing SRAM.
	Use case	At the time of SPD value mismatch when IPSec Board is added
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
NCONF-SW		ON/OFF of Network Configurator function
Lv.1	Details	To set ON/OFF of Network Configurator function. If the user does not use the function, select OFF to prevent remote attack through network.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
IKEINTVL		Setting of IKE retry interval
Lv.1	Details	To set retry interval in the case of no response from the communication target at the time of IKE packet transmission.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 10

COPIER>OPTION>NETWORK		
	Default value	5
IPSDEBLV		Setting of IPsec debug level
Lv.2	Details	For R&D use
	Use case	For R&D use
SP-LINK		Mode setting at 1W sleep
Lv.1	Details	Switch to execute 10base-T standby as default to realize the standby power 1W in sleep mode.
	Use case	When shifting to sleep mode after negotiation (same as conventional machines)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Shift to sleep mode with 10base-T 1: Shift to sleep mode after negotiation
	Default value	0
AFS-JOB		Set of FAX server job reception port
Lv.1	Details	To set the reception port of the fax server to which a fax client sends jobs.
	Use case	When changing the job reception port of the fax server
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 65535
	Default value	20317
	Related service mode	COPIER> OPTION> NETWORK> AFC-EVNT
AFC-EVNT		Set of FAX client event reception port
Lv.1	Details	To set the event notification reception port of a fax client.
	Use case	When changing the event notification reception port of a fax client

COPIER>OPTION>NETWORK		
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 65535
	Default value	29400
	Related service mode	COPIER> OPTION> NETWORK> AFS-JOB
ILOGMODE		Setting of IP address block mode
Lv.1	Details	To set all protocols or TCP/UDP/ICMP unicast as the target of IP block. When 0 is set, the machine responds to ARP, ICMP multicast and broadcast which have no direct relation, and consequently the number of logs is increased. When 1 is set, the machine filters TCP, UDP and ICMP unicast only.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3 0: All protocols support mode 1: TCP/UDP/ICMP unicast support mode 2, 3: Not used
	Default value	0
ILOGKEEP		Set of IP address block log hold time
Lv.1	Details	To set the retention time from the log time of IP block. When access is made again from a same IP address which was blocked before, if it is within the retention time of the previous log, its log is not recorded. If access is frequently made from a same IP address, the log record of the UI might be filled with its logs. If the user considers that a single log for a same IP address is enough, set the longer retention time.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.

COPIER>OPTION>NETWORK		
	Display/adj/set range	0 to 48 0: 1 minute (special mode) 1 to 48: 1 hour to 48 hours
	Default value	1
IPTBROAD		Set to allow broad/multi cast TX
Lv.1	Details	To set whether to permit transmission of broadcast packets and multicast packets. Transmission of broadcast packets and multicast packets is permitted without specifying an exception address. It is permitted within the device even if it is rejected in the default setting of the IPv4/v6 transmission filter. Set "1: Disabled" when the user does not want to send them.
	Use case	Upon user's request
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 5 0: Enabled, 1: Disabled, 2 to 5: Not used
	Default value	0
PFWFTPRT		Set of RST reply at IP filter FTP SEND
Lv.1	Details	When FTP SEND is executed using an IP filter by which packets from a specific remote PC are rejected, SYN is returned to the port 113 if the PC supports authentication of the FTP port 113. However, since the IP filter blocks the packets, the block logs are increased and the performance is lowered. When 1 is set, RST is returned to the port 113 without blocking packets.
	Use case	When executing FTP SEND against the OS which supports authentication of the FTP port 113 while the IP filter is enabled
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
IPMTU		Setting of MTU size of network packet

COPIER>OPTION>NETWORK		
Lv.1	Details	To change MTU size of network packet. Use this item when performing communications between locations (such as SEND) connected with Ethernet in a field environment where MTU black hole problem occurs.
	Use case	When MTU black hole problem occur
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	With IPv6, use of MTU which size is less than 1280 bytes is not recommended by RFC. Therefore, when setting IPv6 to ON and MTU to 7 or smaller, communication using IPv6 may not be available.
	Display/adj/set range	1 to 10 1: 600 bytes, 2: 700 bytes, ..., 9: 1400 bytes, 10: 1500 bytes
	Unit	100byte
	Default value	10
	Supplement/memo	MTU: A unit of transmission showing the maximum value of data which can be sent per 1 transfer (1 frame) in a network MTU black hole: A problem which occurs when ICMP packet is being filtered by firewall, etc. (Since the message does not reach the sender, the sender is not aware of the packet being lost, which then results in time-out.)
DDNSINTV		Set of DDNS periodical update interval
Lv.1	Details	The registered contents are deleted in an environment where the DNS server settings are deleted at intervals. To set the interval of DDNS periodical update for not deleting the registered contents.
	Use case	When the DNS server settings are deleted at intervals
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 48 0: No periodical update, 1: 1-hour interval, 2: 2-hour interval, ..., 47: 47-hour interval, 48: 48-hour interval
	Default value	24
	Supplement/memo	DDNS (Dynamic Domain Name System): A system to dynamically register and manage the IP addresses which are dynamically allocated and their host names
VLAN-SW		Switch for VLAN participation packets

COPIER>OPTION>NETWORK		
Lv.2	Details	Switch for sending packets for participating dynamic VLAN at startup. For the packets to be sent, a static IP address is set as the sender.
	Use case	When allowing a device whose IP address has not been decided yet to participate in VLAN by sending packets for participating dynamic VLAN at startup
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: Packets for participating in dynamic VLAN are not sent. 1: Packets for participating in dynamic VLAN are sent.
	Default value	0
	Related service mode	COPIER > OPTION > NETWORK > VLAN-PKT
	Supplement/memo	VLAN: Virtual LAN A method for realizing grouping of terminals depending on the HUB, switch connection port, MAC address, protocol, etc.
VLAN-PKT		Set of number of VLAN packets to send
Lv.2	Details	To set the number of packets for participating in VLAN to be sent from the Main Controller when the LAN cable is connected or when the device recovers from deep sleep.
	Use case	When setting the number of packets to be sent with the setting made to send packets for participating in VLAN
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	This setting is ignored when the setting is made not to send packets for participating in VLAN (VLAN-SW=0).
	Display/adj/set range	0 to 10 VLAN participation packets of three times as much as the setting value are sent. Example) Setting value 1 3 (=1*3) sets of VLAN participation packet are sent.
	Default value	1
	Related service mode	COPIER > OPTION > NETWORK > VLAN-SW

COPIER>OPTION>NETWORK	
Supplement/memo	VLAN: Virtual LAN A method for realizing grouping of terminals depending on the HUB, switch connection port, MAC address, protocol, etc.

■ CUSTOM

COPIER>OPTION>CUSTOM	
TEMP-TBL	Set fixing ctrl tmp:plain ppr 1, 1/1 SPD
Lv.1 Details	To set the offset of fixing control temperature for plain paper 1 at 1/1 speed. As the value is incremented by 1, the control temperature is increased by 3 deg C. Increase the value when a fixing failure occurs. Decrease the value when hot offset occurs.
Use case	When the poor fixing, paper slip or paper curl occurs in the plain paper 1 at the 1/1 SPD.
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 2: +15 degC 3 to 11: +12 to -12 degC (3 degC unit) 12 to 14: -15 degC
Default value	7
ABK-TOOL	Allow access from address book mntc tool
Lv.1 Details	To set whether to accept import from the address book maintenance tool.
Use case	When executing import from the address book maintenance tool
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
Default value	0
FLK-RD	Flicker reduction mode

COPIER>OPTION>CUSTOM		
Lv.2	Details	To change the fixing temperature control to cancel fluorescent flicking during printing
	Use case	When the fluorescent flicking occurs during printing
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0: OFF 1: ON
	Default value	0
TMP-TBL		Shortening First Copy Output Time
Lv.1	Details	To lower the fixing temperature for the paper feed start during the first copying (-40degC)
	Use case	To shorten the first copy output time, the fixing temperature for the paper feed start is lowered (-40degC).
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF 1: ON
	Default value	0
	Supplement/memo	FCOT: First Copy Output Time

■ USER

COPIER>OPTION>USER		
COPY-LIM		Setting of upper limit for copy
Lv.1	Details	To set the upper limit value for copy.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	1 to 9999

COPIER>OPTION>USER		
	Default value	999
SLEEP		Setting of auto sleep function
Lv.1	Details	To set ON/OFF of auto sleep function.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
	Related UI menu	Setting/Registration> Preferences> Timer/Energy Settings> Auto Sleep Time
	Supplement/memo	The time to shift to the sleep mode can be set in the Setting/Registration (Preferences> Timer/Energy Settings> Auto Sleep Time).
SIZE-DET		ON/OFF of original size detect function
Lv.2	Details	To set ON/OFF of original size detection function.
	Use case	Upon user's request (glare of the scan lamp, etc)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When the original size sensor is not equipped, this service mode is not used.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
COUNTER1		Display of software counter 1
Lv.1	Details	To display counter type for software counter 1 on the Counter Check screen.
	Use case	Upon user/dealer's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.

COPIER>OPTION>USER		
	Caution	Display only. No change is available.
	Display/adj/set range	0 to 999 0: Not registered
	Default value	The default differs according to the location.
COUNTER2		Setting of software counter 2
Lv.1	Details	To set counter type for software counter 2 on the Counter Check screen.
	Use case	Upon user/dealer's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 999 0: Not registered
	Default value	The default differs according to the location.
COUNTER3		Setting of software counter 3
Lv.1	Details	To set counter type for software counter 3 on the Counter Check screen.
	Use case	Upon user/dealer's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 999 0: Not registered
	Default value	The default differs according to the location.
COUNTER4		Setting of software counter 4
Lv.1	Details	To set counter type for software counter 4 on the Counter Check screen.
	Use case	Upon user/dealer's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
		0 to 999

COPIER>OPTION>USER		
	Display/adj/set range	0: Not registered
	Default value	The default differs according to the location.
COUNTER5		Setting of software counter 5
Lv.1	Details	To set counter type for software counter 5 on the Counter Check screen.
	Use case	Upon user/dealer's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 999 0: Not registered
	Default value	The default differs according to the location.
COUNTER6		Setting of software counter 6
Lv.1	Details	To set counter type for software counter 6 on the Counter Check screen.
	Use case	Upon user/dealer's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 999 0: Not registered
	Default value	The default differs according to the location.
DATE-DSP		Setting of data/time display format
Lv.2	Details	To set date/time display format according to the country or region. After the display format is set with this mode, the order of date is reflected to the followings: Preferences > Timer/Energy Settings > Date/Time Settings, and report output.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
		0 to 2

COPIER>OPTION>USER		
	Display/adj/set range	0: YYYY/DD, 1: DD/MYY, 2: MM/DD/YY
	Default value	The default differs according to the location.
CONTROL		Charge setting of PDL job
Lv.1	Details	To set charge count transmission of PDL job to the connecting charging management device (coin manager or non-Canon-made control card).
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: No charge, 1: Charge
	Default value	0
	Related service mode	COPIER > OPTION > ACC > COIN
MF-LG-ST		Long original switch
Lv.2	Details	When 1 is set, setting of long length paper is enabled at PDL printing.
	Use case	Upon user's request. (use of long strip original or long strip paper)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Copying using long length paper is not available with this machine.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
CNT-DISP		Display/hide of serial No.
Lv.2	Details	To set whether to display or hide the serial No. on the Counter Check screen.
	Use case	When setting to display/hide serial No. on the Counter Check screen
		1) Enter the setting value, and then press OK key.

COPIER>OPTION>USER		
	Adj/set/operate method	2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Display, 1: Hide
	Default value	0
PH-D-SEL		Set dither matrix at screen processing
Lv.2	Details	To set the screen dither matrix to be used for halftoning processing at the time of copy output, B&W Inbox scan output and B&W SEND output. When moire occurs frequently, set to "0: 134 lines". When the setting is changed, the number of PG lines to be output at PASCAL control is also changed.
	Use case	When moire frequently occurs at the time of copy output, B&W Inbox scan output and B&W SEND output. Especially when moire frequently occurs in the halftone density area of photo and image gradation areas
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: 134 lines, 1: 141 lines
	Default value	1
COPY-JOB		Setting of copy job reservation
Lv.1	Details	To set to enable/disable copy job reservation when the Card Reader/Coin Manager is used.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Enabled, 1: Disabled
	Default value	0
P-CRG-LF		ON/OFF of Drum Unit life warning
Lv.2	Details	To set whether to display the preparation warning message on the status line of LUI seven days from the indication of alarm code [40-0073].

COPIER>OPTION>USER													
	<table border="1"> <tr> <td>Use case</td> <td>When requesting customer to replace the Drum Unit</td> </tr> <tr> <td>Adj/set/operate method</td> <td>Enter the setting value, and then press OK key.</td> </tr> <tr> <td>Display/adj/set range</td> <td>0 to 1 0: OFF, 1: ON</td> </tr> <tr> <td>Default value</td> <td>0</td> </tr> <tr> <td>Related service mode</td> <td>COPIER > COUNTER > LF > K-DRM-LF COPIER > OPTION > FNC-SW > D-DLV-BK</td> </tr> <tr> <td>Supplement/memo</td> <td>COPIER > OPTION > FNC-SW > D-DLV-BK adjust the alarm output timing.</td> </tr> </table>	Use case	When requesting customer to replace the Drum Unit	Adj/set/operate method	Enter the setting value, and then press OK key.	Display/adj/set range	0 to 1 0: OFF, 1: ON	Default value	0	Related service mode	COPIER > COUNTER > LF > K-DRM-LF COPIER > OPTION > FNC-SW > D-DLV-BK	Supplement/memo	COPIER > OPTION > FNC-SW > D-DLV-BK adjust the alarm output timing.
Use case	When requesting customer to replace the Drum Unit												
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CPRT-DSP													
	ON/OFF of [Print Charge Log] button												
Lv.1	<table border="1"> <tr> <td>Details</td> <td>To set whether to display the [Print Charge Log] button to print the charge logs on the charge log screen in user mode. When "1: ON" is set, the button is displayed in Management Settings> Charge Management> Charge Log Screen.</td> </tr> <tr> <td>Use case</td> <td>Upon user's request</td> </tr> <tr> <td>Adj/set/operate method</td> <td>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</td> </tr> <tr> <td>Display/adj/set range</td> <td>0 to 1 0: OFF, 1: ON</td> </tr> <tr> <td>Default value</td> <td>0</td> </tr> </table>	Details	To set whether to display the [Print Charge Log] button to print the charge logs on the charge log screen in user mode. When "1: ON" is set, the button is displayed in Management Settings> Charge Management> Charge Log Screen.	Use case	Upon user's request	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.	Display/adj/set range	0 to 1 0: OFF, 1: ON	Default value	0		
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Display/adj/set range	0 to 1 0: OFF, 1: ON												
Default value	0												
PCL-COPY													
	Set of PCL COPIES command control method												
Lv.2	<table border="1"> <tr> <td>Details</td> <td>To set the binder control method of COPIES command with PCL. Select whether to use the control method of Canon-made PCL or use the same control method of non-Canon-made PCL.</td> </tr> <tr> <td>Use case</td> <td>Upon user's request</td> </tr> <tr> <td>Adj/set/operate method</td> <td>1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</td> </tr> <tr> <td></td> <td>0 to 65535</td> </tr> </table>	Details	To set the binder control method of COPIES command with PCL. Select whether to use the control method of Canon-made PCL or use the same control method of non-Canon-made PCL.	Use case	Upon user's request	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.		0 to 65535				
Details	To set the binder control method of COPIES command with PCL. Select whether to use the control method of Canon-made PCL or use the same control method of non-Canon-made PCL.												
Use case	Upon user's request												
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.												
	0 to 65535												

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	Display/adj/set range	0: Control method of Canon-made PCL (following the value of COPIES command that is specified for each page to control on a page basis) 1: Control method of non-Canon-made PCL (handling the value of COPIES command, which is specified for page 1 at the time of Collate mode, as bind figure while the value of COPIES command for the next page or later is invalid. Same control applies as Canon-made PCL at the time of Non Sorted mode) 2 to 65535: For future use
	Default value	0
CNT-SW		Set default dspl items on charge counter
Lv.1	Details	To set default display items of the charge counter on the Counter Check screen. For details of each type, refer to the Service Manual.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0:Type1 , 1:Type2
	Default value	0
PRJOB-CP		Set count TX at RX/report print
Lv.2	Details	To set to enable/disable a page-basis count pulse transmission to the charging management device at the time of reception print or report print.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: No transmission, 1: Transmission
	Default value	0
DPT-ID-7		Password entry set at dept ID reg/auth
Lv.2	Details	To set whether to require a password entry at the time of registration/authentication of department ID. With the setting to require entry, entry of 7-digit password is required as well as entry of department ID.

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	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Department ID only, 1: 7-digit (password) entry
	Default value	0
RUI-RJT		Connct set at invalid auth from remoteUI
Lv.2	Details	To set to disconnect HTTP port when the machine receives invalid authentication from remote UI 3 times.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Continued connection, 1: Disconnected
	Default value	0
FREG-SW		Dspl/hide of MEAP counter free rgst area
Lv.2	Details	To set whether to display or hide the free register area of MEAP counter for SEND
	Use case	At trouble analysis
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	- Do not use this at the normal service. - Take necessary action in accordance with the instructions from the Quality Support Division.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Supplement/memo	Individual count-up (counter advance) of MEAP application is available in the free register area of MEAP counter.
IFAX-SZL		Setting of IFAX send size limit

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Lv.2	Details	To set for restricting data size at the time of IFAX transmission that does not go through the server. With the setting to restrict the data size, there will be #830 error in the case of sending data that exceeds the upper limit value. In the case that the data goes through the server, the size of transmission data is always restricted.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Limited, 1: Not limited (Restriction applies when data goes through the server.)
	Default value	1
IFAX-PGD		Set page split TX at IFAX Simple mode TX
Lv.2	Details	To set to enable/disable split-data transmission on a page basis in the case that the transmission size in IFAX Simple mode exceeds the upper limit value.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	In the case to enable split-data transmission, be sure to get approval from the user by explaining the following: - No guarantee for page order on the reception side - There is a possibility of interruption of other received jobs between pages
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
MEAPSAFE		Setting of MEAP safe mode
Lv.2	Details	To set safe mode for MEAP platform. MPSF is displayed on the Control Panel in safe mode. In safe mode, MEAP application is stopped while just the system application, which starts with initial state, is activated. This mode enables obtaining log for cause analysis of MEAP failure.
	Use case	

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		Perform system recovery processing when MEAP platform fails to be activated due to resource confliction between MEAP applications, service registration or use order
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Normal mode, 1: Safe mode
	Default value	0
PRNT-POS		ON/OFF of all pauses at error job cancel
Lv.2	Details	To set whether to pause the print operation of following jobs when a job is cancelled due to an error inside the machine (#037, etc.) except service calls during PDL print.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
AFN-PSWD		Access limit setting to user mode
Lv.2	Details	To set to restrict password entry when accessing to the user mode. With this setting is enabled, password entry of system administrator is required after pressing Settings/Registration key.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Password is not required, 1: Password is required
	Default value	0
PTJAM-RC		Auto reprint setting at PDL print jam

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Lv.2	Details	To set to automatically restart printing after jam recovery that occurs with PDL print.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Not automatically reprinted, 1: Automatically reprinted
	Default value	1
PDL-NCSW		Card mngm setting for PDL print job
Lv.2	Details	To set to make PDL print job to be subject to card management by the Card Reader. With the setting to enable this mode, PDL print is available only when the card ID of the card inserted to the Card Reader matches the department ID.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: PDL print is available with no card inserted. 1: PDL print is available only when the card ID matches the department ID when the card is inserted.
	Default value	0
PS-MODE		Compatible mode setting at PS usage
Lv.2	Details	To set the image processing at PS print. Although the same line width is set, it may differ depending on the drawing position. By selecting 8, line widths which vary depending on the drawing position can be uniformed.
	Use case	At replacement
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 65535 0 to 7: Spare

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		8: Strokeadjustment is enabled. 9 to 65535: Spare
	Default value	0
CNCT-RLZ		Setting of connection serialize function
Lv.2	Details	Connection serialize is a function to assure job grouping function of imageWARE Output Manager Select Edition V1.0. The setting to enable this mode can avoid job rearrangement because the machine does not receive job data from other connection until it completes job data reception from the current connection.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
	Supplement/memo	Connection: Connection to be established through network between multiple hosts (PC, etc). Job grouping function: A function of imageWARE Output Manager Select Edition V1.0. This is to prevent job interruption from other PC by group job (sending multiple jobs in 1 session at job transmission).
COUNTER7		Setting of software counter 7
Lv.1	Details	To set counter type for software counter 7 on the Counter Check screen.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 999 0: Not registered
	Default value	0
COUNTER8		Setting of software counter 8
Lv.1	Details	To set counter type for software counter 8 on the Counter Check screen.

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	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 999 0: Not registered
	Default value	0
JA-FUNC		ON/OFF of job archive function
Lv.2	Details	To set ON/OFF of job archive function.
	Use case	When using the job archive function
	Adj/set/operate method	Changing this mode is not available in service mode, but only reference is available. This mode can be set only with the MEAP program that supports job archive.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
JA-JOB		Setting of job archive target job
Lv.2	Details	To set the job type subject to job archive. With the job archive function enabled, archive operation is executed when executing the target job.
	Use case	When using the job archive function
	Adj/set/operate method	Changing this mode is not available in service mode, but only reference is available. This mode can be set only with the MEAP program that supports job archive.
	Display/adj/set range	0: N/A, 3: Limited to FAX/IFAX, 0xFFFFFFFF: All jobs
	Default value	0
	Related service mode	COPIER > OPTION > USER > JA-FUNC
JA-RESTR		Setting of job archive limit items
Lv.2	Details	To set restriction items for job archive specification.

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		With job archive function enabled, follow the setting to execute operation to restrict specification.
	Use case	When using the job archive function
	Adj/set/operate method	Changing this mode is not available in Service Mode, but reference is available (in Service mode). This mode is available only with the MEAP program that supports job archive.
	Display/adj/set range	0 to 1 0: OFF, 1: ON 32 specification restrictions with Bit definition Bit0: Function to obtain image file (0: OFF, 1:ON) Bit1: Function to compose form registration (0: OFF, 1: ON) Bit2: Function to edit document (0:OFF, 1: ON)
	Default value	0
	Related service mode	COPIER > OPTION > USER > JA-FUNC
LDAP-SW		Retrieval condition set for LDAP server
Lv.1	Details	To set the condition to search e-mail address, etc. from LDAP server.
	Use case	When specifying condition to search e-mail address, etc. from LDAP server
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 5 0: Includes the next, 1: Not include the next, 2: Equivalent to the next, 3: Not equivalent to the next, 4: Starts with the next, 5: Finishes with the next
	Default value	4
	Related service mode	COPIER > OPTION > USER > LDAP-DEF
	Supplement/memo	LDAP (Lightweight Directory Access Protocol): Registering LDAP server enables to search e-mail address, etc. from LDAP server and the result can be registered in the Address Book, etc. Registration is available by the following: Set Destination > Register LDAP Server
FROM-OF		Deletion of mail sender's address

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Lv.1	Details	To set whether to delete the sender's address (From) at the time of e-mail transmission.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Retained, 1: Deleted
	Default value	0
DOM-ADD		Additional entry of mail destn domain
Lv.2	Details	To set to automatically add the domain specified in user mode to the sending address (To) entered at the time of e-mail transmission. If specifying "xxx.com" as a domain in user mode in advance, just entering "aaa" enables to display "aaa@xxx.com" when sending e-mail.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Not added, 1: Added
	Default value	0
FILE-OF		File send prohibition to entered address
Lv.1	Details	To set to prohibit address entry at the time of file transmission. File transmission is not available by entering the address because of no display of "File" on the transmission screen. The addresses already registered in the Address Book can be used.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	To restrict addresses for transmission, be sure to manually delete them because the addresses registered in the Address Book can be used.

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	Display/adj/set range	0 to 1 0: Enabled, 1: Disabled
	Default value	0
MAIL-OF		Mail send prohibition to entered address
Lv.1	Details	To set to prohibit address entry at the time of e-mail transmission. E-mail transmission is not available by entering the address because of no display of "E-Mail" on the transmission screen. The addresses already registered in the Address Book can be used.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	To restrict addresses for transmission, be sure to manually delete them because the addresses registered in the Address Book can be used.
	Display/adj/set range	0 to 1 0: Enabled, 1: Disabled
	Default value	0
IFAX-OF		IFAX send prohibition to entered address
Lv.1	Details	To set to prohibit address entry at the time of I-Fax transmission. IFAX transmission is not available by entering the address because of no display of "I-Fax" on the transmission screen. The addresses already registered in the Address Book can be used.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	To restrict addresses for transmission, be sure to manually delete them because the addresses registered in the Address Book can be used.
	Display/adj/set range	0 to 1 0: Enabled, 1: Disabled

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	Default value	0
LDAP-DEF		Initial condtn set of LDAP server search
Lv.1	Details	To set initial condition for search target attribute that is specified at the time of LDAP server Details search.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 6 0: Name, 1: E-mail, 2: FAX, 3: Organization, 4: Organization unit, 5: No registration 1 (any setting), 6: No registration 2 (any setting)
	Default value	0
	Related service mode	COPIER > OPTION > USER > LDAP-SW
FREE-DSP		Display/hide of charge disable screen
Lv.2	Details	To set whether to display or hide the Use Charge Management screen for switching between charge and no charge. The hardware switch for switching charge/no charge in the Coin Manager enables the mode in which all the services are available for free (store manager mode) by temporarily releasing the charging system. Even without the hardware switch, the mode can be switched with the software switch when it is set to display the Use Charge Management screen in Settings/Registration.
	Use case	When enabling all the services to be provided for free by temporarily releasing the charging system
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
TNRB-SW		Setting of Toner Cntner counter display
Lv.2	Details	To set whether to display or hide the Toner Container counter on the Counter Check screen.
	Use case	When not showing the screen to users

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	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 2 0: Hide, 1: Display (Toner Container counter only), 2: Not use
	Default value	0
CLR-TIM		Set of HDD Encry Kit data delete timing
Lv.2	Details	To set the timing to completely delete the data when HDD Encryption Kit is used. Selecting 0 may reduce the job processing speed because page data that has been already processed is deleted while the other job is in process, causing overload to CPU and HDD access. Selecting 1 improves the job processing speed because the process is executed after a job is completed.
	Use case	Upon request to improve the job processing speed
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: During job process, 1: After the job is completed
	Default value	0
JA-FORMT		Display of job archive record format
Lv.2	Details	To display the format of images for job archives recorded in jobs other than FAX reception and IFAX reception, etc. Whether the images processed by Packet JPEG are recorded in Packet JPEG, or converted into Raster JPEG and then recorded is displayed. Only display is available in service mode. The setting is available only in the MEAP applications which support job archiving.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Packet JPEG, 1: Raster JPEG

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Default value	0
HDCR-DSW	Dspl/hide of HDD complete delete ON/OFF
Lv.1 Details	To set whether to display or hide “Hard Disk Data Complete Deletion” in user mode. With this setting, HDD data complete deletion function is available with ON/OFF button on the screen.
Use case	Upon user’s request
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 1 0: Hide, 1: Display
Default value	1
SCALL-SW	Display/hide of repair request button
Lv.1 Details	To set whether to display or hide the repair-request button on the Control Panel.
Use case	When the sales company supports service by the repair-request button
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 1 0: Hide, 1: Display
Default value	0
SCALLCMP	Set of repair request complete notice
Lv.1 Details	With this setting enabled, a notification of repair completion is sent to UGW server to clear the repair-request status that is retained internally.
Use case	Service technician uses this mode after completing repair
Adj/set/operate method	Enter the setting value, and then press OK key.
Display/adj/set range	0 to 1
Default value	0

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USBH-DSP		Display/hide of USB host usage
Lv.2	Details	To set whether to display “Preferences > External Interface > USB Settings > Use USB Host”. By selecting “1: Display”, whether to use USB host on USB setting screen can be selected.
	Use case	When switching to display or hide “Use USB Host” on USB setting screen
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related UI menu	Setting/Registration > Preferences > EXternal Interface > USB Settings > Use USB Host
USBM-DSP		Dspl/hide of USB ex-memory device driver
Lv.2	Details	To set whether to display “Preferences > External Interface > USB Settings > Use MEAP Driver for USB External Device”. By selecting “0: Hide”, the item is not displayed, and the user administrator cannot change the setting of the MEAP driver for the USB external memory device.
	Use case	When prohibiting the user administrator to change the setting of “Use MEAP driver for USB external device”, set 0 after the specified setting is completed.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
	Related UI menu	Settings/Registration > Preferences > External Interface > USB Settings > Use MEAP Driver for USB External Device
USBI-DSP		Dspl/hide of USB input device driver set
Lv.2	Details	To set whether to display “Preferences > External Interface > USB Settings > Use MEAP Driver for USB Input Device”.

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		By selecting "0: Hide", the item is not displayed, and the user administrator cannot change the setting of the MEAP driver for the USB input device.
	Use case	When prohibiting the user administrator to change the setting of "Use MEAP Driver for USB Input Device", set 0 after the specified setting is completed.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
	Related UI menu	Setting/Registration > Preferences > External Interface > USB Settings > Use MEAP Driver for USB Input Device
CTCHKDSP		Display/hide of counter print
Lv.1	Details	To set whether to display or hide "Print List" on the Counter Check screen. Model name, model number information, counter check date and counter information can be output as a total count management report.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
DFLT-ADJ		Tgt Auto Adj Gradation initial dspl set
Lv.1	Details	To set the initial display of the target full adjustment items on the Auto Adjust Gradation screen in Settings/Registration. When 0 is set, the adjustment item is not displayed. When 1 to 3 is set, the target adjustment item (Copy/Printer/Both) is displayed to select.
	Use case	When switching the initial display at the time of Auto Adjust Gradation
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.

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	Display/adj/set range	0 to 3 0: Adjustment item is not displayed. 1 to 3: Adjustment item (Copy/Printer/Both) is displayed.
	Default value	0
	Related UI menu	Settings/Registration> Adjustment/Maintenance> Adjust Image Quality> Adjust Gradation
USBR-DSP		Dspl/hide of USB infrared device driver
Lv.2	Details	To set whether to display “Preferences > External Interface > USB Settings > Use MEAP Driver for USB Infrared Device.”
	Use case	When prohibiting the user administrator to change the setting of “Use MEAP Driver for USB Infrared Device,” set 0 after the specified setting is completed.
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Related UI menu	Setting/Registration > Preferences > External Interface > USB Settings > Use MEAP Driver for USB Infrared Device
POL-SCAN		Dspl/hide of RightsManagementServer set
Lv.1	Details	When “1: Display” is set, the Rights Management Server function screen is displayed. While the Rights Management Server function is a standard feature, it is possible to hide if not necessary.
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
JA-SBOX		Setting of linking with Advanced Box: SAM

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Lv.2 Details	To set the link with Advanced Box when iW SAM is enabled. When 1 is set, linking with Advanced Box is enabled.
Use case	When the operation restriction is cleared at the time of iW SAM
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
Default value	0
JA-DFAX	Setting of direct fax transmission: SAM
Lv.2 Details	To set the direct fax transmission when iW SAM is enabled. When 1 is set, the direct fax transmission is enabled.
Use case	When the operation restriction is cleared at the time of iW SAM
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
Default value	0
JA-REP	Setting of TX Report with image: SAM
Lv.2 Details	To set the TX Report with image when iW SAM is enabled. When 1 is set, the TX Report with image is enabled.
Use case	When the operation restriction is cleared at the time of iW SAM
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
Default value	0

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JA-FREP		
Setting of Fax TX Report with image: SAM		
Lv.2	Details	To set the Fax TX Report with image when iW SAM is enabled. When 1 is set, the Fax TX Report with image is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-BOX		
Setting of Inbox document operation: SAM		
Lv.2	Details	To set the operation for Inbox document at the time of iW SAM When 1 is set, the Inbox document can be operated.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-FORM		
Setting of image composition: SAM		
Lv.2	Details	To set the image composition when iW SAM is enabled. When 1 is set, the image composition is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled

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	Default value	0
JA-PREV		Setting of preview page deletion: SAM
Lv.2	Details	To set whether a page is deleted from the scan preview screen at the time of iW SAM When 1 is set, a page is deleted from the scan preview screen.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-PULL		Setting of network scan: SAM
Lv.2	Details	To set the network scan when iW SAM is enabled. When 1 is set, the network scan is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-PDLB		Set of printer driver multi box save: SAM
Lv.2	Details	To set whether a document can be simultaneously saved to multiple Inboxes from the printer driver at the time of iW SAM. When 1 is set, a document can be saved to multiple Inboxes from the printer driver.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
		0 to 1

COPIER>OPTION>USER		
	Display/adj/set range	0: Disabled, 1: Enabled
	Default value	0
JA-JOBK		Setting of job merge allowance: SAM
Lv.2	Details	To set whether merging jobs is allowed when iW SAM is enabled. When 1 is set, jobs can be merged.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-JDF		Setting of JDF: SAM
Lv.2	Details	To set the use of JDF when iW SAM is enabled. When 1 is set, JDF can be used.
	Use case	When the operation restriction is cleared at the time of iW SA
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-RUI		Setting of Inbox document access: SAM
Lv.2	Details	To set the Inbox document access from remote UI at the time of iW SAM When 1 is set, accessing to the Inbox document from remote UI is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.

COPIER>OPTION>USER		
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
JA-WEB		Setting of Inbox document upload: SAM
Lv.2	Details	To set the Inbox document upload with the Web browser at the time of iW SAM. When 1 is set uploading to the Inbox document with the Web Browser is enabled.
	Use case	When the operation restriction is cleared at the time of iW SAM
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Disabled, 1: Enabled
	Default value	0
EXP-CRYP		Confidential encrypt ON/OFF:add book exprt
Lv.1	Details	To set whether to encrypt the confidential part (password part) in the Address Book when exporting the address book and device settings via RUI. When 0 is set, the confidential part in the address book is exported without encryption.
	Use case	When there is a need to export password without encryption because of operation and tool
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure not to allow the user to execute export without encryption because of security concern. Be sure to get approval from the user in advance by telling that the security decreases without encryption.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
EZY-SCRIP		ON/OFF of secure print simple auth
Lv.1	Details	To set whether to conduct secure print by simple authentication.

COPIER>OPTION>USER		
		<p>When 1 is set, secured print, encryption secured print and inbox print are received, but the normal print jobs are cancelled.</p> <p>If the password “3758211” is entered at job sending, authentication by entering the password on the Control Panel is not required. If the password is not entered at job sending, authentication by entering the password on the Control Panel is necessary at job output.</p> <p>In addition, the following selection is added as auto deletion time of secure job: 10 minutes, 20 minutes, 30 minutes</p>
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	0
DMN-MTCH		ON/OFF of secure print domain judgment
Lv.1	Details	<p>To set whether to display only the job which matches the domain in the “My Job Status” screen of the secure print.</p> <p>When 1 is set, only the job which matches the user name and domain name is displayed in the “My Job Status” screen, so the job which does not match the domain is not displayed.</p>
	Use case	Upon user’s request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: OFF, 1: ON
	Default value	1
	Supplement/memo	The “My Job Status” screen is displayed when login service is used. Only the job of user who logs in is displayed.
SMD-EXPT		Setting of export target data: remote UI
Lv.1	Details	<p>To set whether to export “service mode data” from remote UI.</p> <p>When 1 is set, “service mode data” is displayed as the target data of export on remote UI. When installing more than 1 machine at the same time, the same service mode data can be registered.</p>
	Use case	When installing more than 1 machine at the same time

COPIER>OPTION>USER		
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0
	Supplement/memo	If selecting "service mode data" as the target data of export on remote UI after setting SMD-EXPT to 1, service mode data can be exported.
SNDSTREN		Set of setting delete aftr scan and send
Lv.1	Details	To set whether to delete the transmission settings except for the address after transmission from the "Scan and Send" screen.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Delete, 1: Retain
	Default value	0
FAXSTREN		Set of setting delete aftr fax transmit
Lv.1	Details	To set whether to delete the transmission settings except for the address after transmission from the "Fax" screen.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Delete, 1: Retain
	Default value	0

COPIER>OPTION>CST

U1-NAME		Dspl/hide of ppr name in ppr size groupU1
Lv.2	Details	To set whether to display or hide paper name at paper size group U1 detection.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
	Related service mode	COPIER> OPTION> CST> CST1-U1, CST2-U1, CST3-U1, CST4-U1
U2-NAME		Dspl/hide of ppr name in ppr size groupU2
Lv.2	Details	To set whether to display or hide paper name at paper size group U2 detection.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1
	Related service mode	COPIER> OPTION> CST> CST1-U2, CST2-U2, CST3-U2, CST4-U2
U4-NAME		Dspl/hide of ppr name in ppr size groupU4
Lv.2	Details	To set whether to display or hide paper name at paper size group U4 detection.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	1

COPIER>OPTION>CST		
	Related service mode	COPIER> OPTION> CST> CST1-U4, CST2-U4, CST3-U4, CST4-U4
ENV1		To display the envelope cst size: ENV1
Lv.2	Details	To display the paper size for the envelope cassette.
	Use case	When using the Envelope Cassette
	Adj/set/operate method	Display only
	Display/adj/set range	21: ISO-C5, 22: COM10, 23: MONARCH, 24: DL, 25 to 26:Not used
	Default value	21
CST1-P1		Setting of Cst1 paper size(A5R/STMTR)
Lv.1	Details	To set the paper size used in Cassette 1.
	Use case	When setting the paper size for the Cassette 1
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to match with the hardware setting size.
	Display/adj/set range	0 to 1 0: A5R, 1: STMTR
	Default value	JP:0, USA:1, EUR:0, AU:0, CN:0, KR:0, TW:0, ASIA:0
	Related UI menu	Preferences> Paper Settings> A5R/STMTR Paper Selection
CST2-P1		Setting of Cst2 paper size(A5R/STMTR)
Lv.1	Details	To set the paper size used in Cassette 2.
	Use case	When setting the paper size for the Cassette 2
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to match with the hardware setting size.
	Display/adj/set range	0 to 1

COPIER>OPTION>CST		
		0: A5R, 1: STMTR
	Default value	JP:0, USA:1, EUR:0, AU:0, CN:0, KR:0, TW:0, ASIA:0
	Related UI menu	Preferences> Paper Settings> A5R/STMTR Paper Selection
CST3-P1		Setting of Cst3 paper size (A5R/STMTR)
Lv.1	Details	To set the paper size used in Cassette 3.
	Use case	When setting the paper size for the Cassette 3
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to match with the hardware setting size.
	Display/adj/set range	0 to 1 0: A5R, 1: STMTR
	Default value	JP:0, USA:1, EUR:0, AU:0, CN:0, KR:0, TW:0, ASIA:0
	Related UI menu	Preferences> Paper Settings> A5R/STMTR Paper Selection
CST4-P1		Setting of Cst4 paper size (A5R/STMTR)
Lv.1	Details	To set the paper size used in Cassette 4.
	Use case	When setting the paper size for the Cassette 4
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	Be sure to match with the hardware setting size.
	Display/adj/set range	0 to 1 0: A5R, 1: STMTR
	Default value	JP:0, USA:1, EUR:0, AU:0, CN:0, KR:0, TW:0, ASIA:0
	Related UI menu	Preferences> Paper Settings> A5R/STMTR Paper Selection
CST1-U1		Set Cst1 area-spec stdrd size ppr ctgry1
Lv.1	Details	To set the area-specific standard size paper category 1 used in Cassette 1.

COPIER>OPTION>CST		
	Use case	When setting area-specific standard size paper for the Cassette 1
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The kind of the paper is not displayed unless set COPIER >OPTION >CST >U1-NAME to "1".
	Display/adj/set range	0 to 42 0: Special paper is not used, 1 to 23: Not used, 24: FLSC, 25: A-FLS, 26: OFI, 27 to 33: Not use, 34: G-LGL, 35 to 36: Not use, 37: M-OFI, 42: FA4
	Default value	0
	Related service mode	COPIER >OPTION >CST >U1-NAME
CST1-U2		Set Cst1 area-spec stdrd size ppr ctgry2
Lv.1	Details	To set the area-specific standard size paper category 2 used in Cassette 1.
	Use case	When setting area-specific standard size paper for the Cassette 1
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The kind of the paper is not displayed unless set COPIER >OPTION >CST >U2-NAME to "1".
	Display/adj/set range	0 to 44 0: Special paper is not used, 1 to 22: Not used, 23: K-LGLR, 24 to 31: Not used, 32: G-LTRR, 33 to 40: Not used, 41: 16K-R, 42 to 43: Not use, 44: EXEC-R
	Default value	0
	Related service mode	COPIER >OPTION >CST >U2-NAME
	Supplement/memo	When the setting value is 0, the setting value is automatically changed according to the location. CN: 41, other than CN: 44
CST1-U4		Set Cst1 area-spec stdrd size ppr ctgry4
Lv.1	Details	To set the area-specific standard size paper category 4 used in Cassette 1.
	Use case	When setting area-specific standard size paper for the Cassette 1
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.

COPIER>OPTION>CST		
	Caution	The kind of the paper is not displayed unless set COPIER >OPTION >CST >U4-NAME to "1".
	Display/adj/set range	0 to 28 0: Special paper is not used, 1 to 27: Not used, 28: B-OFI
	Default value	0
	Related service mode	COPIER >OPTION >CST >U4-NAME
CST2-U1		Set Cst2 area-spec stdrd size ppr ctgry1
Lv.1	Details	To set the area-specific standard size paper category 1 used in Cassette 2.
	Use case	When setting area-specific standard size paper for the Cassette 2
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The kind of the paper is not displayed unless set COPIER >OPTION >CST >U1-NAME to "1".
	Display/adj/set range	0 to 42 0: Special paper is not used, 1 to 23: Not used, 24: FLSC, 25: A-FLS, 26: OFI, 27 to 33: Not use, 34: G-LGL, 35 to 36: Not use, 37: M-OFI, 42: FA4
	Default value	0
	Related service mode	COPIER >OPTION >CST >U1-NAME
CST2-U2		Set Cst2 area-spec stdrd size ppr ctgry2
Lv.1	Details	To set the area-specific standard size paper category 2 used in Cassette 2.
	Use case	When setting area-specific standard size paper for the Cassette 2
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The kind of the paper is not displayed unless set COPIER >OPTION >CST >U2-NAME to "1".
	Display/adj/set range	0 to 44 0: Special paper is not used, 1 to 22: Not used, 23: K-LGLR, 24 to 31: Not used, 32: G-LTRR, 33 to 40: Not used, 41: 16K-R, 42 to 43: Not use, 44: EXEC-R
	Default value	0

COPIER>OPTION>CST		
	Related service mode	COPIER >OPTION >CST >U2-NAME
	Supplement/memo	When the setting value is 0, the setting value is automatically changed according to the location. CN: 41, other than CN: 44
CST2-U4		Set Cst2 area-spec stdrd size ppr ctgry4
Lv.1	Details	To set the area-specific standard size paper category 4 used in Cassette 2.
	Use case	When setting area-specific standard size paper for the Cassette 2
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The kind of the paper is not displayed unless set COPIER >OPTION >CST >U4-NAME to "1".
	Display/adj/set range	0 to 28 0: Special paper is not used, 1 to 27: Not used, 28: B-OFI
	Default value	0
	Related service mode	COPIER >OPTION >CST >U4-NAME
CST3-U1		Set Cst3 area-spec stdrd size ppr ctgry1
Lv.1	Details	To set the area-specific standard size paper category 1 used in Cassette 3.
	Use case	When setting area-specific standard size paper for the Cassette 3
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The kind of the paper is not displayed unless set COPIER >OPTION >CST >U1-NAME to "1".
	Display/adj/set range	0 to 42 0: Special paper is not used, 1 to 23: Not used, 24: FLSC, 25: A-FLS, 26: OFI, 27 to 33: Not use, 34: G-LGL, 35 to 36: Not use, 37: M-OFI, 42: FA4
	Default value	0
	Related service mode	COPIER >OPTION >CST >U1-NAME
CST3-U2		Set Cst3 area-spec stdrd size ppr ctgry2
Lv.1	Details	To set the area-specific standard size paper category 2 used in Cassette 3.

COPIER>OPTION>CST	
	<p>Use case When setting area-specific standard size paper for the Cassette 3</p> <p>Adj/set/operate method 1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p>Caution The kind of the paper is not displayed unless set COPIER >OPTION >CST >U2-NAME to "1".</p> <p>Display/adj/set range 0 to 44 0: Special paper is not used, 1 to 22: Not used, 23: K-LGLR, 24 to 31: Not used, 32: G-LTRR, 33 to 40: Not used, 41: 16K-R, 42 to 43: Not use, 44: EXEC-R</p> <p>Default value 0</p> <p>Related service mode COPIER >OPTION >CST >U2-NAME</p> <p>Supplement/memo When the setting value is 0, the setting value is automatically changed according to the location. CN: 41, other than CN: 44</p>
CST3-U4	
	Set Cst3 area-spec stdrd size ppr ctgry4
Lv.1	Details To set the area-specific standard size paper category 4 used in Cassette 3.
	<p>Use case When setting area-specific standard size paper for the Cassette 3</p> <p>Adj/set/operate method 1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p> <p>Caution The kind of the paper is not displayed unless set COPIER >OPTION >CST >U4-NAME to "1".</p> <p>Display/adj/set range 0 to 28 0: Special paper is not used, 1 to 27: Not used, 28: B-OFI</p> <p>Default value 0</p> <p>Related service mode COPIER >OPTION >CST >U4-NAME</p>
CST4-U1	
	Set Cst4 area-spec stdrd size ppr ctgry1
Lv.1	Details To set the area-specific standard size paper category 1 used in Cassette 4.
	<p>Use case When setting area-specific standard size paper for the Cassette 4</p> <p>Adj/set/operate method 1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.</p>

COPIER>OPTION>CST		
	Caution	The kind of the paper is not displayed unless set COPIER >OPTION >CST >U1-NAME to "1".
	Display/adj/set range	0 to 42 0: Special paper is not used, 1 to 23: Not used, 24: FLSC, 25: A-FLS, 26: OFI, 27 to 33: Not use, 34: G-LGL, 35 to 36: Not use, 37: M-OFI, 42: FA4
	Default value	0
	Related service mode	COPIER >OPTION >CST >U1-NAME
CST4-U2		Set Cst4 area-spec stdrd size ppr ctgry2
Lv.1	Details	To set the area-specific standard size paper category 2 used in Cassette 4.
	Use case	When setting area-specific standard size paper for the Cassette 4
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The kind of the paper is not displayed unless set COPIER >OPTION >CST >U2-NAME to "1".
	Display/adj/set range	0 to 44 0: Special paper is not used, 1 to 22: Not used, 23: K-LGLR, 24 to 31: Not used, 32: G-LTRR, 33 to 40: Not used, 41: 16K-R, 42 to 43: Not use, 44: EXEC-R
	Default value	0
	Related service mode	COPIER >OPTION >CST >U2-NAME
	Supplement/memo	When the setting value is 0, the setting value is automatically changed according to the location. CN: 41, other than CN: 44
CST4-U4		Set Cst4 area-spec stdrd size ppr ctgry4
Lv.1	Details	To set the area-specific standard size paper category 4 used in Cassette 4.
	Use case	When setting area-specific standard size paper for the Cassette 4
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	The kind of the paper is not displayed unless set COPIER >OPTION >CST >U4-NAME to "1".
	Display/adj/set range	0 to 28 0: Special paper is not used, 1 to 27: Not used, 28: B-OFI

COPIER>OPTION>CST	
Default value	0
Related service mode	COPIER >OPTION >CST >U4-NAME

■ ACC

COPIER>OPTION>ACC	
COIN	Setting of charge management
Lv.1	Details
	To set charging management method.
	Use case
	At installation of Coin Manager
	Adj/set/operate method
	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution
	In case of setting “3”, if “0 to 2” is changed to “3”, the following items are automatically set. After making a change, even though “3” is set to “0 to 2” again, they will not be restored. <ul style="list-style-type: none"> - COPIER> OPTION> USER> CONTROL, AFN-PSWD = 1 - COPIER> OPTION> NETWORK> DA-CNCT = 1 - COPIER> OPTION> DSPLY-SW> UI-BOX, UI-SEND, UI-FAX = 0 - IE Settings> IE Function Priority = ON - Preferences> Network> TCP/IP Settings> IPv4 Settings> IP Address Range Settings> RX/Print Range: Permit IPv4 Address = ON - Preferences> Network> TCP/IP Settings> IPv6 Settings> IP Address Range Settings> RX/Print Range: Permit IPv6 Address = ON - Preferences> Network> TCP/IP Settings> FTP Print Settings> Use FTP Printing = OFF - Preferences> Network> TCP/IP Settings> IPP Print Settings = ON - Preferences> Network> SMB Server Settings> SMB Printer Settings> Use SMB =ON - Function Settings> Send> E-Mail/I-Fax Settings> Communication Settings> SMTP RX, POP = OFF In case of setting “4”, if “0 to 2” is changed to “4”, the following items are automatically set. After making a change, even though “4” is set to “0 to 2” again, they will not be restored. <ul style="list-style-type: none"> - COPIER> OPTION> USER> AFN-PSWD = 1 - COPIER> OPTION> DSPLY-SW> UI-BOX, UI-SEND, UI-FAX, UI-RSCAN, UI-EPRNT, UI-HOLD = 0 - Management Settings>Device Management> Display Log=OFF

COPIER>OPTION>ACC		
	Display/adj/set range	0 to 7 0: No charge 1: Charge with Coin Manager 2 Charge with remote counter 3: Charge with DA (only in Japan) 4: Charge with this machine itself 5: New SC mode 6: External charge mode 6 7: External charge mode 7
	Default value	0
	Related service mode	COPIER> OPTION> USER> CONTROL COPIER> OPTION> DSPLY-SW> UI-BOX, UI-SEND, UI-FAX COPIER> OPTION> ACC> PDL-THR
	Related UI menu	Function Settings > Send > E-Mail/I-Fax Settings > Communication Settings Preferences> Network > TCP/IP Settings > DNS Settings > FTP Print Settings Preferences> Network > TCP/IP Settings > DNS Settings > IPP Print Settings
	Supplement/memo	Control card can be used with "0: No charge". DA: Digital Accessory
CARD-SW		Screen set when Coin Manager connected
Lv.1	Details	To set coin or card that the user is urged to insert on the Control Panel when the Coin Manager is connected.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 3 0: Coin, 1: Card, 2: Coin and card, 3: Card (for customization)
	Default value	0
CC-SPSW		Support setting of control card I/F
Lv.2	Details	To set support level for control card (CCIV/CCV) interface.

COPIER>OPTION>ACC		
		To keep processing performance of printer engine, select "1: Priority on speed". To correctly stop the output by the upper limit number of sheets, select "2: Priority on upper limit number of sheets".
	Use case	Upon user's request (when connecting to the external counter management system using the control card interface)
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	With priority on speed, output cannot be correctly stopped by the upper limit number of sheets. With priority on the upper limit number of sheets, processing performance of the printer engine is decreased depending on pickup location.
	Display/adj/set range	0 to 2 0: No support, 1: Priority on speed, 2: Priority on upper limit number of sheets
	Default value	0
UNIT-PRC		Setting of Coin Manager currency unit
Lv.2	Details	To set currency unit to be handled with Coin Manager
	Use case	At installation of Coin Manager
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 6 0: Japanese yen, 1: Euro, 2: Pound, 3: Swiss Franc. 4: Dollar, 5: No currency unit (no fractional unit), 6: No currency unit (with fractional unit)
	Default value	0
MIN-PRC		Set of Coin Manager minimum price
Lv.1	Details	To set the minimum amount to be handled with Coin Manager. Enter 10 when specifying 10 Japanese yen as the minimum amount to be handled with the Coin Manager that supports Japanese yen. In the case to specify 1 to 4 (Euro/Pound/Swiss Franc/Dollar) by going through the following: COPIER>OPTION> ACC > UNIT-PRC, entry is in fractional unit. Entry of 50 indicates 50 cents (\$ 0.50).
	Use case	At installation of Coin Manager

COPIER>OPTION>ACC		
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	This mode is enabled when selecting 4 for the following: COPIER > OPTION > ACC > COIN.
	Display/adj/set range	0 to 9999
	Default value	10
	Related service mode	COPIER> OPTION> ACC> COIN, UNIT-PRC
	Supplement/memo	As for the charging amount, it causes an error if specifying the value that is smaller than the minimum currency unit with Settings/Registration mode.
	MAX-PRC	Set of Coin Manager maximum price
Lv.1	Details	To set the maximum amount to be handled with Coin Manager. Enter 8800 when specifying 8800 Japanese yen as the maximum amount to be handled with the Coin Manager that supports Japanese yen. In the case to specify 1 to 4 (Euro/Pound/Swiss Franc/Dollar) by going through the following: COPIER> OPTION> ACC> UNIT-PRC, entry is in fractional unit. Entry of 50 indicates 50 cents (\$ 0.50).
	Use case	At installation of Coin Manager
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	This mode is enabled when selecting 4 for the following: COPIER> OPTION> ACC> COIN.
	Display/adj/set range	0 to 9999
	Default value	8800
	Related service mode	COPIER> OPTION> ACC> COIN, UNIT-PRC
	Supplement/memo	As for charging amount, it causes an error if specifying the value that is larger than the maximum currency unit with Settings/Registration mode.
	SRL-SPSW	Not use
Lv.1	Details	Not use
	Default value	0

COPIER>OPTION>ACC		
PDL-THR		Normal PDL print set in ex-charge mode
Lv.2	Details	To set the normal PDL print process when the external charge mode 6/7 is set in COIN. When "0" is set, a job is canceled. When "1" is set, a job is executed.
	Use case	When executing normal PDL print in external charge mode
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Cancel, 1: Execute
	Default value	0
	Related service mode	COPIER> OPTION> ACC> COIN
CR-TYPE		Setting of Card Reader
Lv.1	Details	To set the model of the Card Reader. Set 1 in the case of connecting the Card Reader-C1. It operates even 0 is set, but recognition rate decreases.
	Use case	When connecting the Card Reader-C1
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Card Reader-F1, 1: Card Reader-C1
	Default value	0

■ INT-FACE

COPIE>OPTION>INT-FACE		
NWCT-TM		Timeout setting of network connection
Lv.2	Details	To set the time to keep network connection between this machine and the PC application (keep-alive setting). As the value is incremented by 1, the time is increased by 1 minute.

COPIE>OPTION>INT-FACE	
Use case	When using PC application
Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
Display/adj/set range	1 to 5
Default value	5
Supplement/memo	Expected PC application: Network print application, E-mail function, cascade copy, MEAP network application, etc.

■ LCNS-TR

COPIER>OPTION>LCNS-TR	
ST-SEND	Installation state dspl of SEND function
Lv.2 Details	To display installation state of SEND function when transfer is disabled.
Use case	When checking whether SEND function is installed
Adj/set/operate method	1) Select ST-SEND. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-SEND.
Display/adj/set range	When operation finished normally: OK!
Default value	1
TR-SEND	Trns license key dspl of SEND function
Lv.2 Details	To display transfer license key to use SEND function when transfer is disabled.
Use case	- When replacing HDD - When replacing the device
Adj/set/operate method	1) Select ST-SEND. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-SEND.
Display/adj/set range	Licens key (24 character)

COPIER>OPTION>LCNS-TR		
ST-ENPDF		Instllation state dspl of Encryption PDF
Lv.2	Details	To display installation state of Encryption PDF when transfer is disabled.
	Use case	When checking whether Encryption PDF is installed
	Adj/set/operate method	1) Select ST-ENPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-ENPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-ENPDF		Trns license key dspl of Encryption PDF
Lv.2	Details	To display transfer license key to use Encryption PDF when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-ENPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-ENPDF.
	Caution	This mode is enabled when SEND function is installed.
	Display/adj/set range	Licens key (24 character)
ST-SPDF		Instllation state dspl of Searchable PDF
Lv.2	Details	To display installation state of Searchable PDF when transfer is disabled.
	Use case	When checking whether Searchable PDF is installed
	Adj/set/operate method	1) Select ST-SPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-SPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	USA:1 EUR:1 AU:0 CN:0 KR:0 TW:0 ASIA:0
TR-SPDF		Trns license key dspl of Searchable PDF

COPIER>OPTION>LCNS-TR		
Lv.2	Details	To display transfer license key to use Searchable PDF when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-SPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-SPDF.
	Caution	This mode is enabled when SEND function is installed.
	Display/adj/set range	Licens key (24 character)
ST-EXPPDF		Instal state of Encry PDF + Searchbl PDF
Lv.2	Details	To display installation state of Encryption PDF + Searchable PDF when transfer is disabled.
	Use case	When checking whether Encryption PDF + Searchable PDF is installed
	Adj/set/operate method	1) Select ST-EXPPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-EXPPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-EXPPDF		Trns lcns key of Encry PDF+Searchbl PDF
Lv.2	Details	To display transfer license key to use Encryption PDF + Searchable PDF when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-EXPPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-EXPPDF.
	Caution	This mode is enabled when SEND function is installed for Japan.
	Display/adj/set range	Licens key (24 character)
ST-PDFDR		Install state dspl of Direct Print PDF

COPIER>OPTION>LCNS-TR		
Lv.2	Details	To display installation state of Direct Print PDF when transfer is disabled.
	Use case	When checking whether Direct Print PDF is installed
	Adj/set/operate method	1) Select ST-PDFDR. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PDFDR.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PDFDR		Trns lcns key dspl of Direct Print PDF
Lv.2	Details	To display transfer license key to use Direct Print PDF when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-PDFDR. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PDFDR.
	Display/adj/set range	Licens key (24 character)
ST-SCR		Install state dspl of Encry Secure Print
Lv.2	Details	To display installation state of Encrypted Secure Print when transfer is disabled.
	Use case	When checking whether Encrypted Secure Print is installed
	Adj/set/operate method	1) Select ST-SCR. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-SCR.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-SCR		Trns lcns key dspl of Encry Secure Pnt
Lv.2	Details	To display transfer license key to use Encrypted Secure Print when transfer is disabled.
	Use case	- When replacing HDD

COPIER>OPTION>LCNS-TR		
		- When replacing the device
	Adj/set/operate method	1) Select ST-SCR. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-SCR.
	Caution	This mode is enabled when there is "3DES+USH-H" Board.
	Display/adj/set range	Licens key (24 character)
ST-BRDIM		Install state dspl: PCL Barcode Printing
Lv.2	Details	To display installation state of Barcode Printing for PCL when transfer is disabled.
	Use case	When checking whether Barcode Printing for PCL is installed
	Adj/set/operate method	1) Select ST-BRDIM. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-BRDIM.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-BRDIM		Trns lcns key dis: PCL Barcode Printing
Lv.2	Details	To display transfer license key to use Barcode Printing for PCL when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-BRDIM. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-BRDIM.
	Display/adj/set range	Licens key (24 character)
ST-VNC		Install state dspl of Remote Oprtr Soft
Lv.2	Details	To display installation state of Remote Operators Software when transfer is disabled.
	Use case	When checking whether Remote Operators Software is installed
	Adj/set/operate method	1) Select ST-VNC.

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		2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-VNC.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-VNC		Trns lcns dis of Remote Operators Soft
Lv.2	Details	To display transfer license key to use Remote Operators Software when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-VNC. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-VNC.
	Display/adj/set range	Licens key (24 character)
ST-WEB		Instll state dspl of Web Access Software
Lv.2	Details	To display installation state of Web Access Software when transfer is disabled.
	Use case	When checking whether Web Access Software is installed
	Adj/set/operate method	1) Select ST-WEB. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-WEB.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-WEB		Trns license key dspl of Web Access Soft
Lv.2	Details	To display transfer license key to use Web Access Software when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-WEB. 2) Enter 0, and then press OK key.

COPIER>OPTION>LCNS-TR

The transfer license key is displayed under TR-WEB.

Display/adj/set range Licens key (24 character)

ST-HRPDF Install state dspl of High Compress PDF

Lv.2 Details To display installation state of High Compression PDF when transfer is disabled.

Use case When checking whether High Compression PDF is installed

Adj/set/operate method 1) Select ST-HRPDF.
2) Enter 0, and then press OK key.
When installation has been completed, the transfer license key is displayed under TR-HRPDF.

Display/adj/set range When operation finished normally: OK!

Default value 1

TR-HRPDF Trns lcns key dspl of High Compress PDF

Lv.2 Details To display transfer license key to use High Compression PDF when transfer is disabled.

Use case - When replacing HDD
- When replacing the device

Adj/set/operate method 1) Select ST-HRPDF.
2) Enter 0, and then press OK key.
The transfer license key is displayed under TR-HRPDF.

Display/adj/set range Licens key (24 character)

ST-TRSND Instll state dspl of Trial SEND function

Lv.2 Details To display installation state of Trial SEND function when transfer is disabled.

Use case When checking whether Trial SEND function is installed

Adj/set/operate method 1) Select ST-TRSND.
2) Enter 0, and then press OK key.
When installation has been completed, the transfer license key is displayed under TR-TRSND.

Display/adj/set range When operation finished normally: OK!

Default value 0

COPIER>OPTION>LCNS-TR	
TR-TRSND	
Trns lcns key dspl of Trial SEND function	
Lv.2	Details
	To display transfer license key to use Trial SEND function when transfer is disabled.
	Use case
	- When replacing HDD - When replacing the device
	Adj/set/operate method
	1) Select ST-TRSND. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-TRSND.
	Display/adj/set range
	Licens key (24 character)
ST-WTMRK	
Install state dspl of Secure Watermark	
Lv.2	Details
	To display installation state of Secure Watermark when transfer is disabled.
	Use case
	When checking whether Secure Watermark is installed
	Adj/set/operate method
	1) Select ST-WTMRK. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-WTMRK.
	Display/adj/set range
	When operation finished normally: OK!
	Default value
	0
TR-WTMRK	
Trns license key dspl of Secure Watermark	
Lv.2	Details
	To display transfer license key to use Secure Watermark when transfer is disabled.
	Use case
	- When replacing HDD - When replacing the device
	Adj/set/operate method
	1) Select ST-WTMRK. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-WTMRK.
	Display/adj/set range
	Licens key (24 character)
ST-TSPDF	
Install state dspl of Time Stamp PDF: JP	
Lv.2	Details
	To display installation state of Time Stamp PDF (JP only) when transfer is disabled.

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	Use case	When checking whether Time Stamp PDF (JP only) is installed
	Adj/set/operate method	1) Select ST-TSPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-TSPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-TSPDF		Trns lcns key dspl of Time Stamp PDF: JP
Lv.2	Details	To display transfer license key to use Time Stamp PDF (JP only) when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-TSPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-TSPDF.
	Caution	This mode is enabled when SEND function is installed.
	Display/adj/set range	Licens key (24 character)
ST-USPDF		Install state dspl of Dgtl User Sign PDF
Lv.2	Details	To display installation state of Digital User Signature PDF when transfer is disabled.
	Use case	When checking whether Digital User Signature PDF is installed
	Adj/set/operate method	1) Select ST-USPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-USPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-USPDF		Trns lcns key dspl of Dgtl User Sign PDF
Lv.2	Details	To display transfer license key to use Digital User Signature PDF when transfer is disabled.
	Use case	- When replacing HDD

COPIER>OPTION>LCNS-TR		
		- When replacing the device
	Adj/set/operate method	1) Select ST-USPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-USPDF.
	Caution	This mode is enabled when SEND function is installed.
	Display/adj/set range	Licens key (24 character)
ST-DVPDF		Install state dspl of Device Sign PDF
Lv.2	Details	To display installation state of Device Signature PDF when transfer is disabled.
	Use case	When checking whether Device Signature PDF is installed
	Adj/set/operate method	1) Select ST-DVPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-DVPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-DVPDF		Trns lcns key dspl of Device Sign PDF
Lv.2	Details	To display transfer license key to use Device Signature PDF when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-DVPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-DVPDF.
	Caution	This mode is enabled when SEND function is installed.
	Display/adj/set range	Licens key (24 character)
ST-SCPFD		Install state dspl of Trace & Smooth PDF
Lv.2	Details	To display installation state of Trace & Smooth PDF when transfer is disabled.
	Use case	When checking whether Trace & Smooth PDF is installed

COPIER>OPTION>LCNS-TR		
	Adj/set/operate method	1) Select ST-SCPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-SCPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-SCPDF		Trns lcns key dspl of Trace & Smooth PDF
Lv.2	Details	To display transfer license key to use Trace & Smooth PDF when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-SCPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-SCPDF.
	Caution	This mode is enabled when SEND function is installed.
	Display/adj/set range	Licens key (24 character)
ST-AMS		Install state dspl of AMS
Lv.2	Details	To display installation state of Access Management System when transfer is disabled.
	Use case	When checking whether Access Management System is installed
	Adj/set/operate method	1) Select ST-AMS. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-AMS.
	Display/adj/set range	When operation finished normally: OK!
	Default value	USA:1 EUR:1 AU:0 CN:0 KR:0 TW:0 ASIA:0
TR-AMS		Transfer license key dspl of AMS
Lv.2	Details	To display transfer license key to use Access Management System when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device

COPIER>OPTION>LCNS-TR		
	Adj/set/operate method	1) Select ST-AMS. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-AMS.
	Display/adj/set range	Licens key (24 character)
ST-ERDS		Install state dspl: E-RDS 3rd Pty Expnsn
Lv.2	Details	To display installation state of E-RDS 3rd Party Expansion when transfer is disabled.
	Use case	When checking whether E-RDS 3rd Party Expansion is installed
	Adj/set/operate method	1) Select ST-ERDS. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-ERDS.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
	Supplement/memo	E-RDS 3rd Party Expansion: A function to send charge counter to the third party's charge server.
TR-ERDS		Trns lcns key dis: E-RDS 3rd Pty Expnsn
Lv.2	Details	To display transfer license key to use E-RDS 3rd Party Expansion when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-ERDS. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-ERDS.
	Display/adj/set range	Licens key (24 character)
	Supplement/memo	E-RDS 3rd Party Expansion: A function to send charge counter to the third party's charge server.
ST-PS		Install state display of PS function
Lv.2	Details	To display installation state of PS function when transfer is disabled.
	Use case	When checking whether PS function is installed
	Adj/set/operate method	1) Select ST-PS.

COPIER>OPTION>LCNS-TR		
		2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PS.
	Display/adj/set range	When operation finished normally: OK!
	Default value	USA:1 EUR:1 AU:1 CN:0 KR:0 TW:1 ASIA:1
TR-PS		Transfer license key dspl of PS function
Lv.2	Details	To display transfer license key to use PS function when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-PS. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PS.
	Display/adj/set range	Licens key (24 character)
ST-PCL		Install state display of PCL function
Lv.2	Details	To display installation state of PCL function when transfer is disabled.
	Use case	When checking whether PCL function is installed
	Adj/set/operate method	1) Select ST-PCL. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PCL.
	Display/adj/set range	When operation finished normally: OK!
	Default value	USA:1 EUR:1 AU:1 CN:0 KR:0 TW:1 ASIA:1
TR-PCL		Transfer license key dspl of PCL function
Lv.2	Details	To display transfer license key to use PCL function when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-PCL. 2) Enter 0, and then press OK key.

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The transfer license key is displayed under TR-PCL.

Display/adj/set range Licens key (24 character)

ST-PSLI5 Install state dspl:PS/LIPS4/LIPS LX: JP

Lv.2 Details To display installation state of PS/LIPS4/LIPS LX function (JP only) when transfer is disabled.

Use case When checking whether PS/LIPS4/LIPS LX function (JP only) is installed

Adj/set/operate method 1) Select ST-PSLI5.
2) Enter 0, and then press OK key.
When installation has been completed, the transfer license key is displayed under TR-PSLI5.

Display/adj/set range When operation finished normally: OK!

Default value 0

TR-PSLI5 Trns lcns key dspl:PS/LIPS4/LIPS LX: JP

Lv.2 Details To display transfer license key to use PS/LIPS4/LIPS LX function (JP only) when transfer is disabled.

Use case - When replacing HDD
- When replacing the device

Adj/set/operate method 1) Select ST-PSLI5.
2) Enter 0, and then press OK key.
The transfer license key is displayed under TR-PSLI5.

Display/adj/set range Licens key (24 character)

ST-LIPS5 Install state dis:LIPS LX/LIPS4 func: JP

Lv.2 Details To display installation state of LIPS LX/LIPS4 function (JP only) when transfer is disabled.

Use case When checking whether LIPS LX/LIPS4 function (JP only) is installed

Adj/set/operate method 1) Select ST-LIPS5.
2) Enter 0, and then press OK key.
When installation has been completed, the transfer license key is displayed under TR-LIPS5.

Display/adj/set range When operation finished normally: OK!

Default value 0

COPIER>OPTION>LCNS-TR		
TR-LIPS5		Trns lcns key dis:LIPS LX/LIPS4 func: JP
Lv.2	Details	To display transfer license key to use LIPS LX/LIPS4 function (JP only) when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-LIPS5. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-LIPS5.
	Display/adj/set range	Licens key (24 character)
ST-LIPS4		Install state display of LIPS4 func: JP
Lv.2	Details	To display installation state of LIPS4 function (JP only) when transfer is disabled.
	Use case	When checking whether LIPS4 function (JP only) is installed
	Adj/set/operate method	1) Select ST-LIPS4. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-LIPS4.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-LIPS4		Trns license key dspl of LIPS4 func: JP
Lv.2	Details	To display transfer license key to use LIPS4 function (JP only) when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-LIPS4. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-LIPS4.
	Display/adj/set range	Licens key (24 character)
ST-PSPCL		Install state dspl of PS/PCL function
Lv.2	Details	To display installation state of PS/PCL function when transfer is disabled.

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	Use case	When checking whether PS/PCL function is installed
	Adj/set/operate method	1) Select ST-PSPCL. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PSPCL.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PSPCL		Transfer license key dspl of PS/PCL func
Lv.2	Details	To display transfer license key to use PS/PCL function when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-PSPCL. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PSPCL.
	Display/adj/set range	Licens key (24 character)
ST-PCLUF		Install state dspl of PCL/UFR II function
Lv.2	Details	To display installation state of PCL/UFR II function when transfer is disabled.
	Use case	When checking whether PCL/UFR II function is installed
	Adj/set/operate method	1) Select ST-PCLUF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PCLUF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PCLUF		Trns license key dspl of PCL/UFR II func
Lv.2	Details	To display transfer license key to use PCL/UFR II function when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device

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	Adj/set/operate method	1) Select ST-PCLUF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PCLUF.
	Display/adj/set range	Licens key (24 character)
ST-PSLIP		Install state dspl of PS/LIPS4 func: JP
Lv.2	Details	To display installation state of PS/LIPS4 function (JP only) when transfer is disabled.
	Use case	When checking whether PS/LIPS4 function (JP only) is installed
	Adj/set/operate method	1) Select ST-PSLIP. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PSLIP.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-PSLIP		Trns license key dspl of PS/LIPS4 func
Lv.2	Details	To display transfer license key to use PS/LIPS4 function (JP only) when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-PSLIP. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-PSLIP.
	Display/adj/set range	Licens key (24 character)
ST-PSPCU		Install state dspl of PS/PCL/UFR II func
Lv.2	Details	To display installation state of PS/PCL/UFR II function when transfer is disabled.
	Use case	When checking whether PS/PCL/UFR II function is installed
	Adj/set/operate method	1) Select ST-PSPCU. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-PSPCU.

COPIER>OPTION>LCNS-TR

Display/adj/set range When operation finished normally: OK!

Default value 0

TR-PSPCU Trns lcns key dspl of PS/PCL/UFR II func

Lv.2 Details To display transfer license key to use PS/PCL/UFR II function when transfer is disabled.

Use case
- When replacing HDD
- When replacing the device

Adj/set/operate method 1) Select ST-PSPCU.
2) Enter 0, and then press OK key.
The transfer license key is displayed under TR-PSPCU.

Display/adj/set range Licens key (24 character)

ST-LXUFR Install state dspl of UFR II function

Lv.2 Details To display installation state of UFR II function when transfer is disabled.

Use case When checking whether UFR II function is installed

Adj/set/operate method 1) Select ST-LXUFR.
2) Enter 0, and then press OK key.
When installation has been completed, the transfer license key is displayed under TR-LXUFR.

Display/adj/set range When operation finished normally: OK!

Default value 1

TR-LXUFR Trns lcns key dspl of UFR II function

Lv.2 Details To display transfer license key to use UFR II function when transfer is disabled.

Use case
- When replacing HDD
- When replacing the device

Adj/set/operate method 1) Select ST-LXUFR.
2) Enter 0, and then press OK key.
The transfer license key is displayed under TR-LXUFR.

Display/adj/set range Licens key (24 character)

COPIER>OPTION>LCNS-TR		
ST-HDCR2		Install state dsp:l:HDD Init All Data/Set
Lv.2	Details	To display installation state of HDD Initialize All Data/Settings when transfer is disabled.
	Use case	When checking whether HDD Initialize All Data/Settings is installed
	Adj/set/operate method	1) Select ST-HDCR2. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-HDCR2.
	Display/adj/set range	When operation finished normally: OK!
	Default value	1
TR-HDCR2		Trns lcns key dsp:l:HDD Init All Data/Set
Lv.2	Details	To display transfer license key to use HDD Initialize All Data/Settings when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-HDCR2. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-HDCR2.
	Display/adj/set range	Licens key (24 character)
ST-AFAX		Installation state dsp:l of Remote Fax
Lv.2	Details	To display installation state of Remote Fax when transfer is disabled.
	Use case	When checking whether Remote Fax is installed
	Adj/set/operate method	1) Select ST-AFAX. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-AFAX.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-AFAX		Transfer license key dsp:l of Remote Fax
Lv.2	Details	To display transfer license key to use Remote Fax when transfer is disabled.

COPIER>OPTION>LCNS-TR		
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-AFAX. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-AFAX.
	Display/adj/set range	Licens key (24 character)
ST-REPDF		Install state dspl:Reader Extensions PDF
Lv.2	Details	To display installation state of Reader Extensions PDF when transfer is disabled.
	Use case	When checking whether Reader Extensions PDF is installed
	Adj/set/operate method	1) Select ST-REPDF. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-REPDF.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-REPDF		Trns lcns key dspl:Reader Extensions PDF
Lv.2	Details	To display transfer license key to use Reader Extensions PDF when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-REPDF. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-REPDF.
	Display/adj/set range	Licens key (24 character)
ST-OOXML		Install state dspl of Office Open XML
Lv.2	Details	To display installation state of Office Open XML when transfer is disabled.
	Use case	When checking whether Office Open XML is installed
	Adj/set/operate method	1) Select ST-OOXML.

COPIER>OPTION>LCNS-TR		
		2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-OOXML.
	Display/adj/set range	When operation finished normally: OK!
	Default value	USA:1 EUR:1 AU:0 CN:0 KR:0 TW:0 ASIA:0
TR-OOXML		Trns lcns key dspl of Office Open XML
Lv.2	Details	To display transfer license key to use Office Open XML when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-OOXML. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-OOXML.
	Display/adj/set range	Licens key (24 character)
ST-XPS		Install state dspl of Direct Print XPS
Lv.2	Details	To display installation state of Direct Print XPS when transfer is disabled.
	Use case	When checking whether Direct Print XPS is installed
	Adj/set/operate method	1) Select ST-XPS. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-XPS.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-XPS		Trns lcns key dspl of Direct Print XPS
Lv.2	Details	To display transfer license key to use Direct Print XPS when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-XPS. 2) Enter 0, and then press OK key.

COPIER>OPTION>LCNS-TR		
		The transfer license key is displayed under TR-XPS.
	Display/adj/set range	Licens key (24 character)
	Use case	?
ST-2600		Instal state dsp: IEEE2600.1 scrty func
Lv.2	Details	To display installation state of the IEEE2600.1 security function when transfer is disabled.
	Use case	When checking whether the IEEE2600.1 security function is installed
	Adj/set/operate method	1) Select ST-2600. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-2600.
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
TR-2600		Trn lcns key dsp: IEEE2600.1 scrty func
Lv.2	Details	To display transfer license key of the IEEE2600.1 security function when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-2600. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-2600.
	Display/adj/set range	Licens key (24 character)
	Use case	?
ST-OPFNT		Install state display of PCL Font Set
Lv.2	Details	To display installation state of PCL Font Set when disabling the function with license transfer.
	Use case	When checking whether PCL Font Set is installed
	Adj/set/operate method	1) Select ST-OPFNT. 2) Enter 0, and then press OK key. When installation has been completed, the transfer license key is displayed under TR-OPFNT.

COPIER>OPTION>LCNS-TR		
	Display/adj/set range	When operation finished normally: OK!
	Default value	0
	TR-OPFNT	Trns lcns key dspl of PCL option Font
Lv.2	Details	To display transfer license key of the PCL Font Set security function when transfer is disabled.
	Use case	- When replacing HDD - When replacing the device
	Adj/set/operate method	1) Select ST-OPFNT. 2) Enter 0, and then press OK key. The transfer license key is displayed under TR-OPFNT.
	Display/adj/set range	Licens key (24 character)

TEST

■ PG

COPIER>TEST>PG		
	TYPE	Test print
Lv.1	Details	To execute the test print.
	Use case	At trouble analysis
	Adj/set/operate method	Enter the setting value, and then press OK key. Test print is executed.
	Caution	Be sure to return the value to 0 after the test print output.
	Display/adj/set range	0 to 50 0: Normal print 1: Grid 2: 17 gradations Tbic rank 2 3: 17 gradations 600dpi (134-line screen or 141-line screen) 4: Solid white

COPIER>TEST>PG

- 5: Halftone (density: 80H, Tbic rank 2, without image correction)
- 6: Halftone (density: 80H, 134-line screen or 141-line screen, without image correction)
- 7: Solid black
- 8: Horizontal line (4 dots, 27 spaces)
- 9: Horizontal line (6 dots, 50 spaces)
- 10: Horizontal line (2 dots, 3 spaces)
- 11: Halftone (density: 60H, Tbic rank 2, without image correction)
- 12: Halftone (density: 80H, 134-line screen or 141-line screen, without image correction)
- 13: Halftone (density: 30H, Tbic rank 2, without image correction)
- 14: Halftone (density: 30H, 134-line screen or 141-line screen, without image correction)
- 15-50: For development

Default value 0

PG-PICK

Setting of test print pickup cassette

Lv.1 Details

To set the pickup cassette for test print output.

Use case At trouble analysis
At test print output

Adj/set/operate method Enter the setting value, and then press OK key.

Display/adj/set range 1 to 8
1: Cassette1, 2: Cassette2, 3: Cassette3, 4: Cassette4, 5: Multi-purpose Tray, 6 to 8: Not used

Default value 1

2-SIDE

Setting of PG 2-sided mode

Lv.1 Details

To set 1-sided/2-sided print for PG output.

Use case At trouble analysis

Adj/set/operate method Enter the setting value, and then press OK key.

Display/adj/set range 0 to 1
0: 1-sided, 1: 2-sided

Default value 0

COPIER>TEST>PG		
PG-QTY		Setting of PG output quantity
Lv.1	Details	To set the number of sheets for PG output.
	Use case	At trouble analysis
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	1 to 999
	Default value	1

■ NETWORK

COPIER>TEST>NETWORK		
PING		Network connection check
Lv.1	Details	To check connection between this machine and TCP/IP network.
	Use case	- When checking network connection at the time of installation - At network connection failure
	Adj/set/operate method	<p>1) Turn OFF the main power switch.</p> <p>2) Connect the network cable to this machine, and then turn ON the main power switch.</p> <p>3) Inform the system administrator at user's site that installation of this machine is complete, and ask for network setting.</p> <p>4) Ask the system administrator to check the network connection, and check the remote host address of PING transmission target.</p> <p>5) Select the item and enter the remote host address, and then press OK key and Start key. OK: Connection is normal. Checking procedure is complete. NG: Connection failed. Go to step 6) if the cable connection is OK. In case of cable connection failure, connect again and then go to step 5).</p> <p>6) Select the item and enter loopback address, and then press OK key and Start key. OK: TCP/IP setting of this machine is normal. Go to step 7) to check NIC. NG: TCP/IP setting of this machine has failure. Go to step 3) to check the setting again.</p> <p>7) Select the item and enter the local host address, and then press OK key. OK: Network setting of this machine and NIC are normal. Inform the system administrator that the trouble is due to network environment and ask for countermeasure.</p>

COPIER>TEST>NETWORK	
	NG: Connection failure/fault with NIC. Check connection of NIC/ replace NIC.
Display/adj/set range	0.0.0.0 to 255.255.255.255 At normal state: OK At failure occurrence: NG
Supplement/memo	- Remote host address: IP address of PC terminal in network. - Loopback address: 127.0.0.1. Checking TCP/IP of this machine is available because the signal is returned before NIC. - NIC: Network interface board - Local host address: IP address of this machine
BML-DISP	
Set System Monitor scrn: BMLinks support	
Lv.2	Details
	To set whether to only display the device configuration in the System Monitor screen when supporting BMLinks. When the setting is switched, the Status and Log are not displayed.
	Use case
	When supporting BMLinks
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Display/adj/set range
	0 to 1 0: Ordinary System Monitor screen 1: Screen in which only the device configuration is displayed
	Default value
	0
IPV6-ADR	
Setting of PING send address (IPv6)	
Lv.1	Details
	To set the IPv6 address to send PING. When PING is sent to this address by COPIER> TEST> NETWORK> PING-IP6, the network connection condition in the IPv6 environment can be checked.
	Use case
	When IPv6 network is connected
	Adj/set/operate method
	Enter the setting value, and then press OK key.
	Caution
	- Enter a consistent character string as an address of IPv6. - Enter an address within 39 characters including hexadecimal numbers (0 to 9, a to f) and a separator (:).

COPIER>TEST>NETWORK		
	Related service mode	COPIER> TEST> NETWORK> PING-IP6
PING-IP6		PING transmission to IPv6 address
Lv.1	Details	To send PING to the address specified by IPV6-ADR. The network connection condition in the IPv6 environment can be checked.
	Use case	When IPv6 network is connected
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	COPIER> TEST> NETWORK> IPV6-ADR

COUNTER

■ TOTAL

COPIER>COUNTER>TOTAL		
SERVICE1		Service-purposed total counter 1
Lv.1	Details	To count up when the paper is delivered outside the machine.
	Use case	When checking the counter
	Display/adj/set range	0 to 99999999
SERVICE2		Service-purposed total counter 2
Lv.1	Details	To count up when the paper is delivered outside the machine.
	Use case	When checking the counter
	Display/adj/set range	0 to 99999999
COPY		Total copy counter
Lv.1	Details	To count up when the paper is delivered outside the machine.
	Use case	When checking the counter

COPIER>COUNTER>TOTAL		
	Display/adj/set range	0 to 99999999
PDL-PRT		PDL print counter
Lv.1	Details	To count up when the paper is delivered outside the machine according to the charge counter at PDL print.
	Use case	When checking the counter
	Display/adj/set range	0 to 99999999
FAX-PRT		FAX reception print counter
Lv.1	Details	To count up when the paper is delivered outside the machine according to the charge counter at FAX reception.
	Use case	When checking the counter
	Display/adj/set range	0 to 99999999
BOX-PRT		Inbox print counter
Lv.1	Details	To count up when the paper is delivered outside the machine according to the charge counter at Inbox print.
	Use case	When checking the counter
	Display/adj/set range	0 to 99999999
RPT-PRT		Report print counter
Lv.1	Details	To count up when the paper is delivered outside the machine according to the charge counter at report print.
	Use case	When checking the counter
	Display/adj/set range	0 to 99999999
2-SIDE		2-sided copy/print counter
Lv.1	Details	To count up when the paper is delivered outside the machine according to the charge counter at 2-sided copy/print.
	Use case	When checking the counter

COPIER>COUNTER>TOTAL		
	Display/adj/set range	0 to 99999999
SCAN		Scan counter
Lv.1	Details	To count the number of scan operations according to the charge counter when the scanning operation is complete.
	Use case	When checking the counter
	Display/adj/set range	0 to 99999999

■ PICK-UP

COPIER>COUNTER>PICKUP		
C1		Cassette 1 pickup total counter
Lv.1	Details	Cassette 1 pickup total counter
	Use case	When checking the Pickup counter
	Display/adj/set range	0 to 99999999
C2		Cassette 2 pickup total counter
Lv.1	Details	Cassette 2 pickup total counter
	Use case	When checking the Pickup counter
	Display/adj/set range	0 to 99999999
C3		Cassette 3 pickup total counter
Lv.1	Details	Cassette 3 pickup total counter
	Use case	When checking the Pickup counter
	Display/adj/set range	0 to 99999999
C4		Cassette 4 pickup total counter
Lv.1	Details	Cassette 4 pickup total counter
	Use case	When checking the Pickup counter

COPIER>COUNTER>PICKUP		
	Display/adj/set range	0 to 99999999
MF		Multi-purpose Tray pickup total counter
Lv.1	Details	Multi-purpose Tray pickup total counter
	Use case	When checking the Pcikup counter of Multi-purpose Tray
	Display/adj/set range	0 to 99999999
2-SIDE		Duplex Unit pickup total counter
Lv.1	Details	Duplex Unit pickup total counter
	Use case	When checking the Pickup counter of Duplex Unit
	Display/adj/set range	0 to 99999999

■ FEEDER

COPIER>COUNTER>FEEDER		
FEED		DADF original pickup total counter
Lv.1	Details	DADF original pickup total counter
	Use case	When checking the counter
	Display/adj/set range	0 to 99999999
	Default value	0

■ JAM

COPIER>COUNTER>JAM		
TOTAL		Printer total jam counter
Lv.1	Details	Printer total jam counter
	Use case	When checking the total jam counter of printer
	Display/adj/set range	0 to 99999999

COPIER>COUNTER>JAM		
Default value		0
FEEDER		Feeder total jam counter
Lv.1	Details	Feeder total jam counter
	Use case	When checking the total jam counter of feeder
	Display/adj/set range	0 to 99999999
	Default value	0
SORTER		Finisher total jam counter
Lv.1	Details	Finisher total jam counter
	Use case	When checking the total jam counter of finisher
	Display/adj/set range	0 to 99999999
	Default value	0
2-SIDE		Duplex Unit jam counter
Lv.1	Details	Duplex Unit jam counter
	Use case	When checking the jam counter of Duplex Unit
	Display/adj/set range	0 to 99999999
	Default value	0
MF		Multi-purpose Tray jam counter
Lv.1	Details	Multi-purpose Tray jam counter
	Use case	When checking the jam counter of Multi-purpose Tray
	Display/adj/set range	0 to 99999999
	Default value	0
C1		Cassette 1 pickup jam counter
Lv.1	Details	Cassette 1 pickup jam counter
	Use case	When checking the jam counter of machine's Cassette 1

COPIER>COUNTER>JAM		
	Display/adj/set range	0 to 99999999
	Default value	0
C2		Cassette 2 pickup jam counter
Lv.1	Details	Cassette 2 pickup jam counter
	Use case	When checking the jam counter of machine's Cassette 2
	Display/adj/set range	0 to 99999999
	Default value	0
C3		Cassette 3 pickup jam counter
Lv.1	Details	Cassette 3 pickup jam counter
	Use case	When checking the jam counter of machine's Cassette 3
	Display/adj/set range	0 to 99999999
	Default value	0
C4		Cassette 4 pickup jam counter
Lv.1	Details	Cassette 4 pickup jam counter
	Use case	When checking the jam counter of machine's Cassette 4
	Display/adj/set range	0 to 99999999
	Default value	0

■ MISC

COPIER>COUNTER>MISC		
T-SPLY-K		Bk toner supply counter
Lv.1	Details	Number of Bk color toner supply blocks. Count up by every one piece of printing.
	Use case	When checking the usage condition of toner.
	Display/adj/set range	0 to 99999999

COPIER>COUNTER>MISC		
	Default value	0
	LSR-MTR	Laser Scanner Motor counter
Lv.1	Details	To use as the reference for judging whether replacement of the Laser Scanner Unit is needed.
	Use case	When using as the reference for judging whether replacement of the Laser Scanner Unit is needed
	Display/adj/set range	0 to 99999999
	ALLPW-ON	Number of DCON PCB power-on times
Lv.1	Details	Number of power-on times (Non-all-night Power Unit). To count up when power is turned ON (Non-all-night Power Unit).
	Use case	When checking the usage status of the product
	Display/adj/set range	0 to 99999999

■ JOB

COPIER>COUNTER>JOB		
	DVPAPLEN	Average paper length of job
Lv.1	Details	Average paper length in the period from when the printer engine starts printing operation to when it stops the operation. Since the printer engine considers small jobs that are executed continuously as a large job, the average paper length affects calculation of the life.
	Use case	When checking the average paper length of job.
	Display/adj/set range	0 to 99999999
	DVRUNLEN	Average distance of job
Lv.1	Details	Average running distance in the period from when the printer engine starts printing operation to when it stops the operation. Since the printer engine considers small jobs that are executed continuously as a large job, the average running distance affects calculation of the life.
	Use case	When checking the average distance of job.

COPIER>COUNTER>JOB		
	Display/adj/set range	0 to 99999999

■ **DRBL-1**

COPIER>COUNTER>DRBL-1		
TR-ROLL		Transfer Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
SP-SC-EL		Separation Static Eliminator prts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
PT-DRM		Drum Unit parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life

COPIER>COUNTER>DRBL-1		
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C1-SP-RL		Cassette1 Separation Roller prts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C1-FD-RL		Cassette1 Feeding Roller prts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
M-FD-RL		MP Tray Pickup Roll parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement

COPIER>COUNTER>DRBL-1

2nd line: Estimated life

Use case When checking the consumption level of parts/replacing the parts

Adj/set/operate method To clear the counter value: Select the item, and then press Clear key.
To change the estimated life: Select the item, enter the value, and then press OK key.

Caution Clear the counter value after replacement.

Display/adj/set range 0 to 99999999

Default value 0

M-SP-PD MP Tray Separation Pad prts cntr

Lv.1 Details 1st line: Total counter value from the previous replacement
2nd line: Estimated life

Use case When checking the consumption level of parts/replacing the parts

Adj/set/operate method To clear the counter value: Select the item, and then press Clear key.
To change the estimated life: Select the item, enter the value, and then press OK key.

Caution Clear the counter value after replacement.

Display/adj/set range 0 to 99999999

Default value 0

FX-UNIT Fixing Assembly parts counter

Lv.1 Details 1st line: Total counter value from the previous replacement
2nd line: Estimated life

Use case When checking the consumption level of parts/replacing the parts

Adj/set/operate method To clear the counter value: Select the item, and then press Clear key.
To change the estimated life: Select the item, enter the value, and then press OK key.

Caution Clear the counter value after replacement.

Display/adj/set range 0 to 99999999

Default value 0

COPIER>COUNTER>DRBL-1		
WST-TNR		Waste Toner Container parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

■ DRBL-2

COPIER>COUNTER>DRBL-2		
DF-SP-PD		Separation Pad parts counter: DADF
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
	Supplement/memo	Regardless of the read mode (1-sided/2-sided), the counter is advanced every time a sheet is fed.
DF-FD-RL		Pickup Roller1 Unit prts cntr: DADF
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts

COPIER>COUNTER>DRBL-2		
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
	Supplement/memo	Regardless of the read mode (1-sided/2-sided), the counter is advanced every time a sheet is fed.
C3-SP-RL		Cassette3 Separation Roller prts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C3-FD-RL		Cassette3 Feed Roller parts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0
C4-SP-RL		Cassette4 Separation Roller prts counter

COPIER>COUNTER>DRBL-2

Lv.1 Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
Use case	When checking the consumption level of parts/replacing the parts
Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
Caution	Clear the counter value after replacement.
Display/adj/set range	0 to 99999999
Default value	0
C4-FD-RL	Cassette4 Feed Roller parts counter
Lv.1 Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
Use case	When checking the consumption level of parts/replacing the parts
Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
Caution	Clear the counter value after replacement.
Display/adj/set range	0 to 99999999
Default value	0
C2-SP-RL	Cassette2 Separation Roller prts counter
Lv.1 Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
Use case	When checking the consumption level of parts/replacing the parts
Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
Caution	Clear the counter value after replacement.
Display/adj/set range	0 to 99999999
Default value	0

COPIER>COUNTER>DRBL-2		
C2-FD-RL		Cassette2 Feeding Roller prts counter
Lv.1	Details	1st line: Total counter value from the previous replacement 2nd line: Estimated life
	Use case	When checking the consumption level of parts/replacing the parts
	Adj/set/operate method	To clear the counter value: Select the item, and then press Clear key. To change the estimated life: Select the item, enter the value, and then press OK key.
	Caution	Clear the counter value after replacement.
	Display/adj/set range	0 to 99999999
	Default value	0

■ LF

COPIER>COUNTER>LF		
K-DRM-LF		Display of Drum Unit (Bk) life
Lv.1	Details	To display how much the Drum Unit (Bk) is close to the end of life in % (percentage).
	Use case	When checking the drum unit life.
	Display/adj/set range	0 to 999

FEEDER

ADJUST

FEEDER>ADJUST		
DOCST		Adj of DADF img lead edge margin: front
Lv.1	Details	To adjust the margin at the leading edge of the image at the time of DADF scanning. Execute when the output image is displaced.

FEEDER>ADJUST

As the value is incremented by 1, the margin at the leading edge of the image is decreased by 0.1mm. (The image moves in the direction of the leading edge of the sheet.)

- Use case**
- When replacing the CIS Unit
 - When replacing the Reader Controller PCB/clearing RAM data

Adj/set/operate method Enter the setting value, and then press OK key.

Caution When setting an extreme value, the error E302 (shading error) may occur.
After the setting value is changed, write the changed value in the service label.

Display/adj/set range -50 to 50

Unit 0.1mm

Default value 0

LA-SPEED Fine adj of DADF image magnifictn: front

Lv.1 Details To make a fine adjustment of the image magnification ratio in vertical scanning direction at the time of DADF scanning.
As the value is incremented by 1, the image is expanded by 0.1% in vertical scanning direction.
(The feeding speed decreases, and the image is spread.)

- Use case**
- When replacing the CIS Unit
 - When replacing the Reader Controller PCB/clearing RAM data

Adj/set/operate method Enter the setting value, and then press OK key.

Caution Output the service mode setting values by P-PRINT beforehand.
After the setting value is changed, write the changed value in the service label.

Display/adj/set range -30 to 30

Unit 0.1%

Default value 0

Related service mode COPIER > FUNCTION > MISC-P > P-PRINT

FEEDER>ADJUST		
LA-SPD2		Fine adj of DADF image magnifictn: rear
Lv.1	Details	To make a fine adjustment of the image magnification ratio in vertical scanning direction at the time of DADF scanning. As the value is incremented by 1, the image is expanded by 0.1% in vertical scanning direction. (The feeding speed decreases, and the image is spread.)
	Use case	- When replacing the CIS Unit - When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Caution	Output the service mode setting values by P-PRINT beforehand. After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-30 to 30
	Unit	0.1%
	Default value	0
	Related service mode	COPIER > FUNCTION > MISC-P > P-PRINT
DOC-LNGH		DADF paper detection adjust
Lv.1	Details	When DADF is installed (to adjust the detection margin of error)
	Use case	- When replacing the Reader Controller PCB/clearing RAM data
	Adj/set/operate method	Enter the setting value (switch negative/positive by -/+ key) and press OK key.
	Caution	After the setting value is changed, write the changed value in the service label.
	Display/adj/set range	-100 to 100
	Unit	0.1mm
	Default value	0

FUNCTION

FEEDER>FUNCTION		
MTR-CHK		Specifying DADF Operation Motor
Lv.1	Details	To specify the DADF Motor to operate. The motor is activated by MTR-ON.
	Use case	At operation check
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 9 0: ADF Motor (M1), 1: Delivery Motor (M2), 2 to 9: Not used
	Related service mode	FEEDER> FUNCTION> MTR-ON
FEED-CHK		Specifying DADF individual feed mode
Lv.1	Details	To specify the feed mode for DADF. Feed operation is activated by FEED-ON.
	Use case	At operation check
	Adj/set/operate method	Enter the setting value, and then press OK key.
	Display/adj/set range	0 to 1 0: 1-sided pickup/delivery operation 1: 2-sided pickup/delivery operation
	Related service mode	FEEDER> FUNCTION> FEED-ON
SL-CHK		Specifying DADF Operation Solenoid
Lv.1	Details	To specify the DADF solenoid to be operate. The solenoid is activated by SL-ON.
	Use case	At operation check
		Enter the setting value, and then press OK key.

FEEDER>FUNCTION		
	Adj/set/operate method	
	Display/adj/set range	0 to 4 0: Pickup SL (SL1) 1: Registration SL (SL2) 2: Flapper 1 SL (SL3) 3: Flapper 2 SL (SL4) 4: Disengagement SL (SL5)
	Related service mode	FEEDER> FUNCTION> SL-ON
SL-ON		Operation check of DADF Solenoid
Lv.1	Details	To start operation check for the solenoid specified by SL-CHK.
	Use case	At operation check
	Adj/set/operate method	1) Select the item, and then press OK key. The unit operates for 1 time and automatically stops. 2) Press OK key. The operation check is completed.
	Caution	Be sure to press the OK key again after execution. The operation automatically stops after approximately 1time, but is not completed unless the OK key is pressed (STOP is not displayed).
	Related service mode	FEEDER> FUNCTION> SL-CHK
MTR-ON		Operation check of motor
Lv.1	Details	To start operation check for the motor specified by MTR-CHK.
	Use case	At operation check
	Adj/set/operate method	1) Select the item, and then press OK key. The unit operates for approximately 5 seconds and automatically stops. 2) Press OK key. The operation check is completed.
	Caution	

FEEDER>FUNCTION		
		Be sure to press the OK key again after execution. The operation automatically stops after approximately 5 seconds, but is not completed unless the OK key is pressed (STOP is not displayed).
	Related service mode	FEEDER> FUNCTION> MTR-CHK
FEED-ON		Operation check of DADF individual feed
Lv.1	Details	To start operation check for the feed mode specified by FEED-CHK.
	Use case	At operation check
	Adj/set/operate method	Select the item, and then press OK key.
	Related service mode	FEEDER> FUNCTION> FEED-CHK

OPTION

FEEDER>OPTION		
UNK-A5R		P-size set:ADF orgnl size dtct,small
Lv.1	Details	To detect custom size paper smaller than A4R (LTRR) as A5R (STMTR) at DF original size detection.
	Use case	Upon user's request
	Adj/set/operate method	1) Select the item, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When the original size sensor is not equipped, this service mode is not used.
	Display/adj/set range	0 to 1 0: Detect as custom size 1: Detect as A5R
	Default value	1

SORTER

OPTION

SORTER>OPTION		
MD-SPRTN		Set restriction at Finisher error:Staple
Lv.1	Details	To set whether to stop the machine when a staple motor error occurs at Finisher. Function restriction is not executed when error is not the staple motor error.
	Use case	When preferring to run the machine at staple motor error of the Finisher
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Caution	When "1" is set, staple operation or alignment operation is not executed. Set "0" normally.
	Display/adj/set range	0 to 1 0: Normal, 1: Function restriction
	Default value	0

BOARD

OPTION

BOARD>OPTION		
MENU-1		Hide/dspl of printer setting menu level 1
Lv.2	Details	To set whether to display or hide the level 1 of printer setting menu.
	Use case	Upon user's request
	Adj/set/operate method	1) Enter the setting value, and then press OK key. 2) Turn OFF/ON the main power switch.
	Display/adj/set range	0 to 1 0: Hide, 1: Display
	Default value	0

BOARD>OPTION**MENU-2** Not use

Lv.2 Details Not use

Default value 0

MENU-3 Not use

Lv.2 Details Not use

Default value 0

MENU-4 Not use

Lv.2 Details Not use

Default value 0

SURF-OFF Not use

Lv.1 Details Not use

TR-DSP Not use

Lv.2 Details Not use

How to check this Installation Procedure

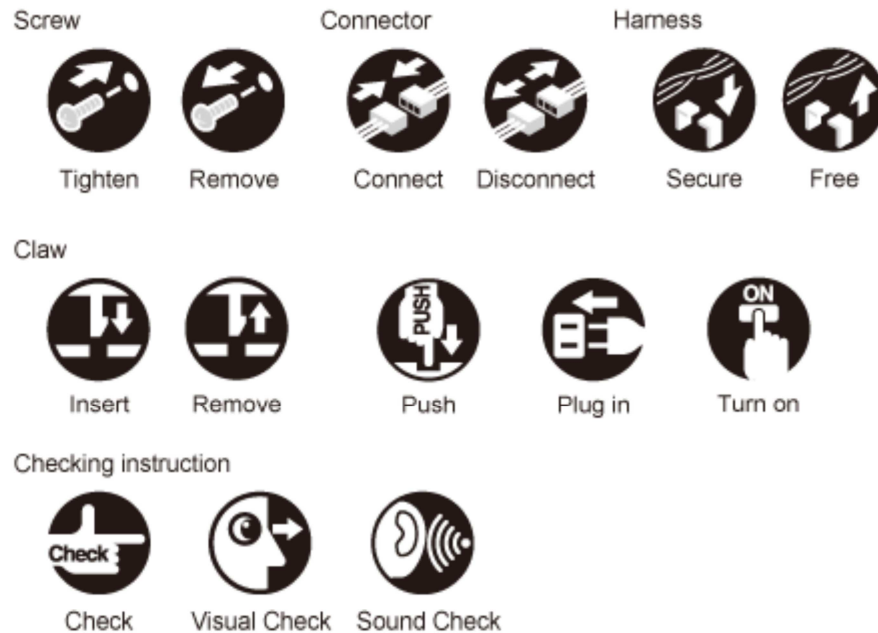
When Using the parts included in the package

A symbol is described on the illustration in the case of using the parts included in the package of this product.



Symbols in the Illustration

The frequently-performed operations are described with symbols in this procedure.



Installation

This machine is able to be installed by the user.

For details of installation procedure, refer to the User's Manual.

Option Installation Sequence

When installing options of this machine, be sure to note the following points.

- 1) When installing the Drum Heater-F1, be sure to install it first.
- 2) When installing the Super G3 2nd Line Fax Board-AM1, be sure to install the Super G3 Fax Board-AM1 already.
- 3) Be sure to install the Staple Finisher-R1 last.

Copy Card Reader-F1

Check Item of the Contents

The parts with a diagonal line in the contents list will not be used during installation.

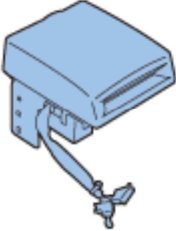


Points to Note at Installation

CAUTION:

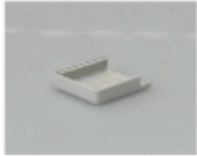

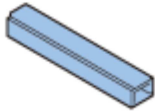









- When working for a long time with the Right Door open, be sure to block light to the Photosensitive Drum.
- To install this equipment, the Copy Card Reader Attachment-C2 is required.
- This equipment and the IC Card Reader Box-A1 cannot be used at the same time.


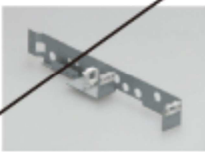


Checking the Contents

■ Copy Card Reader-F1

<input type="checkbox"/> [1] Card Reader Unit X 1 	<input type="checkbox"/> [2] Screw (RS tight; M4x10) X 1 	<input type="checkbox"/> [3] Toothed washer X 1 
--	--	--

■ Copy Card Reader Attachment-C2

<input type="checkbox"/> [1] Card Reader Lower Cover X 1 	<input type="checkbox"/> [2] Card Reader Lower Mounting Plate X 1 	<input type="checkbox"/> [3] Cord Guide X 1 
<input type="checkbox"/> [4] Connector Cover X 1 	<input type="checkbox"/> [5] Card Reader Harness [A] X 1 	<input type="checkbox"/> [6] Wire Saddle X 2 
<input type="checkbox"/> [7] Edge Saddle X 1 	<input type="checkbox"/> [8] Screw (Binding; M4x6) X 1 	<input type="checkbox"/> [9] Screw (TP; M3x6) X 3 
<input type="checkbox"/> [10] Connector Relay Unit X 1 	<input type="checkbox"/> [11] Card Reader Harness [B] X 1 	<input type="checkbox"/> [12] Reader Right Front Cover X 1 

<input type="checkbox"/> [13] Card Reader Fixation Plate X 1	<input type="checkbox"/> [14] Option Mounting Plate X 1	<input type="checkbox"/> [15] Screw (TP; M4x8) X 2
		
<input type="checkbox"/> [16] Screw (TP; M3x4) X 4		
		

Check Items when Turning OFF the Power

Check that the power of the host machine is OFF.

- 1) Turn OFF the Power Switch of the host machine.
- 2) Be sure that display in the Control Panel and the Power Supply Lamp are turned off, then disconnect the power plug.

Installation Outline Drawing



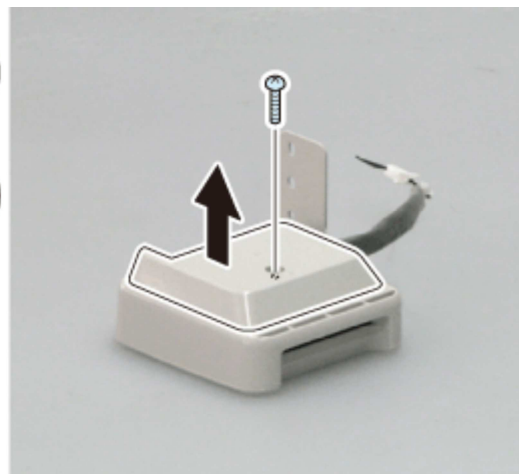
Installation Procedure

■ Assembling the Card Reader



- 1) Remove the Card Reader Lower Cover from the Card Reader Unit.
(The removed Card Reader Lower Cover and screw are not be used.)

- 1 Screw





2) Remove the Card Reader Fixation Plate from the Card Reader Unit.

(The removed Card Reader Fixation Plate are not be used.)

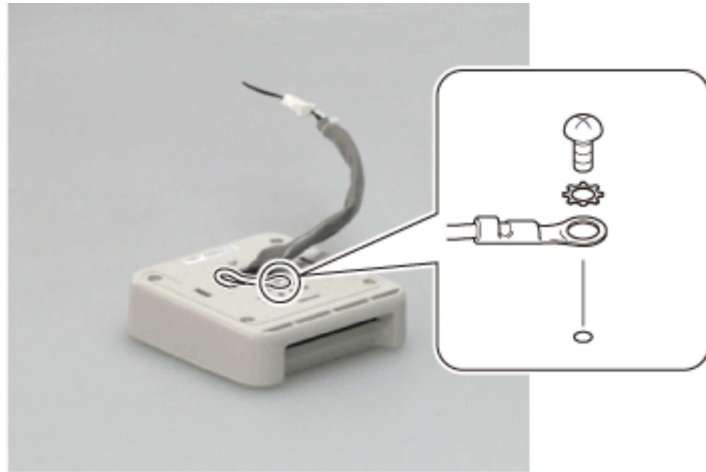
- 1 Screw (The removed screw is used in step 4.)



3) Free the Grounding Wire from the Card Reader Unit.

(The removed screw and toothed washer is used in step 5.)

- 1 Screw
- 1 Toothed Washer



4) Install the Card Reader Lower Mounting Plate on the Card Reader Unit.

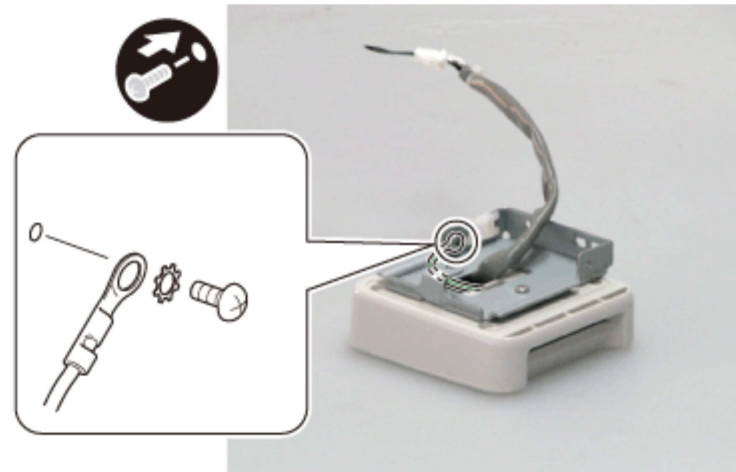
- 1 Screw (Use the screw removed in step 2.)
- 1 Edge Saddle



5) Install the Grounding Wire on the Card Reader Unit.

- 1 Screw (Use the screw removed in step 3.)

- 1 Toothed Washer (Use the toothed washer removed in step 3.)



6) Pass the Card Reader Harness through the Edge Saddle.

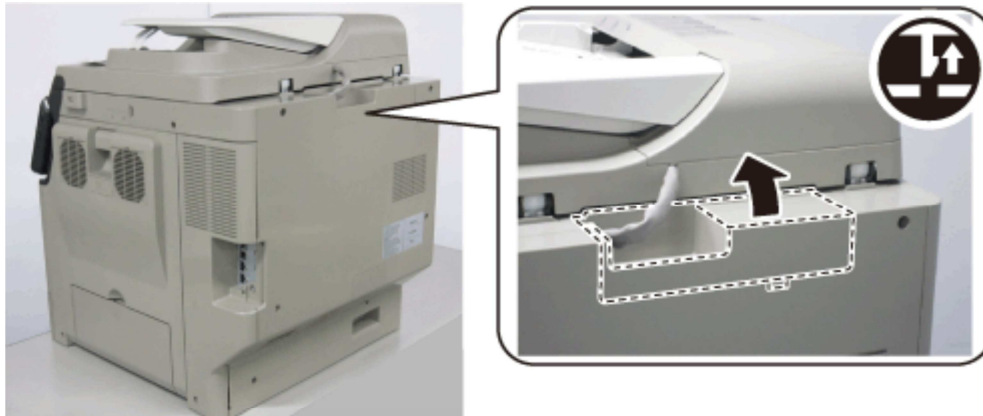


■ Removing the Covers



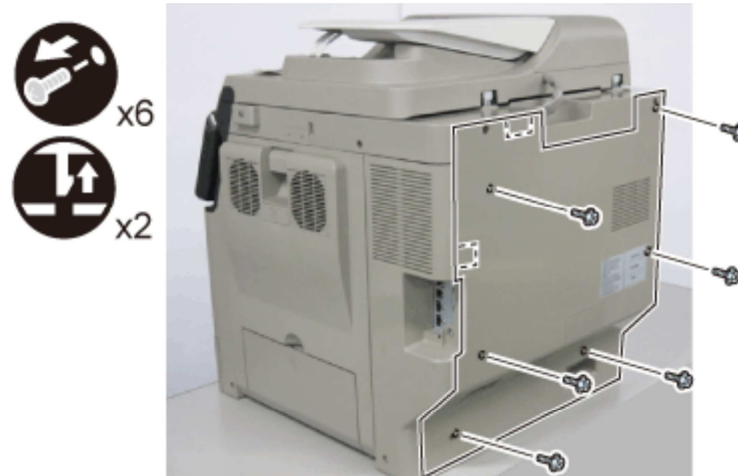
1) Remove the Reader Controller Cover.

- 1 Claw



2) Remove the Rear Cover.

- 6 Screws
- 2 Claws

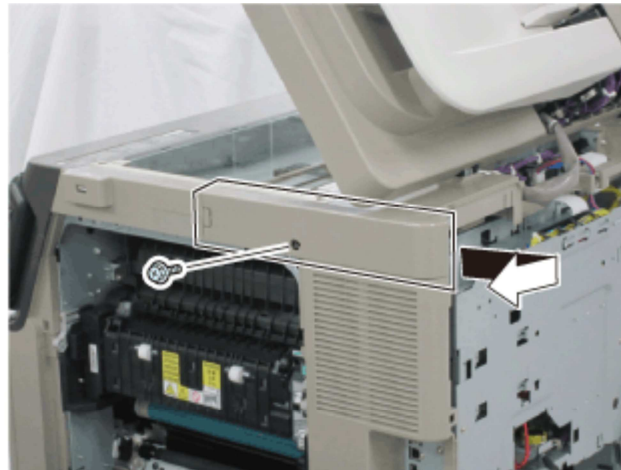


3) Open the Right Door Unit, and open the ADF Unit.



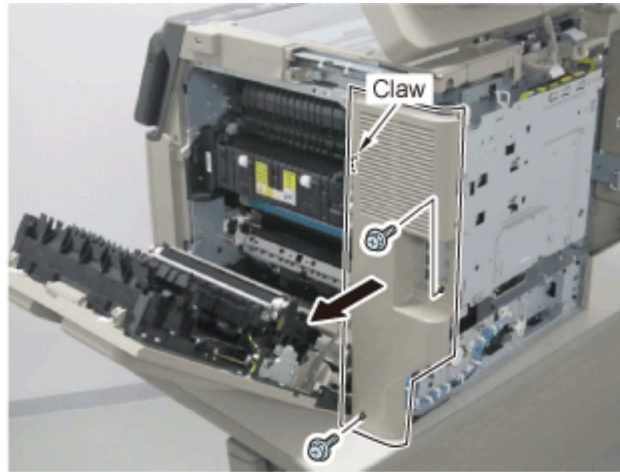
4) Remove the Reader Right Rear Cover.

- 1 Screw

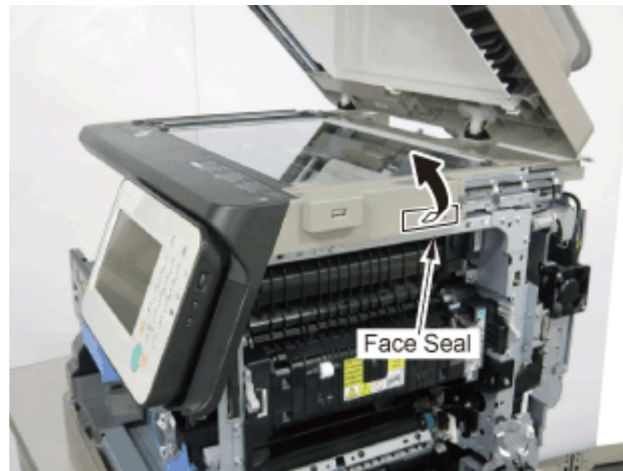


5) Remove the Right Rear Cover.

- 2 Screws
- 1 Claw



6) Peel off the Face Seal.



■ Installing the Card Reader Unit

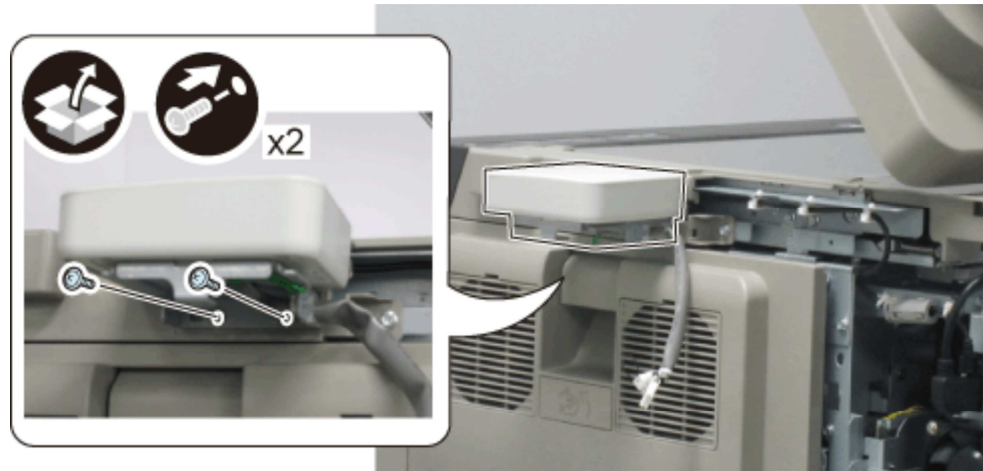


1) Close the Right Door Unit.



2) Install the Card Reader Unit.

- 2 Screws (TP; M3x6)



3) Slide and install the Card Reader Lower Cover, and then fix it.

- 1 Screw (Binding; M4x6)



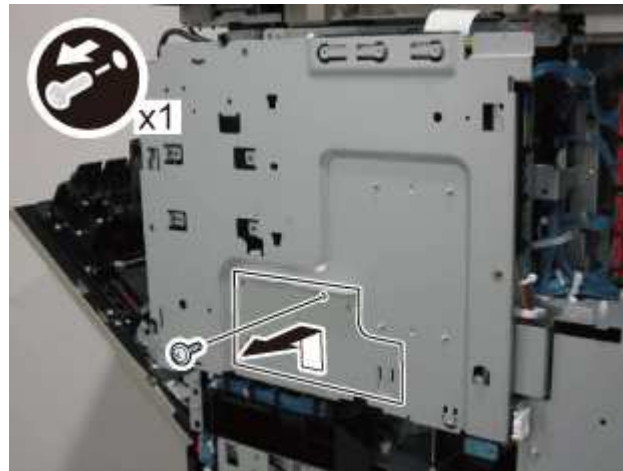


4) Open the Right Door Unit.



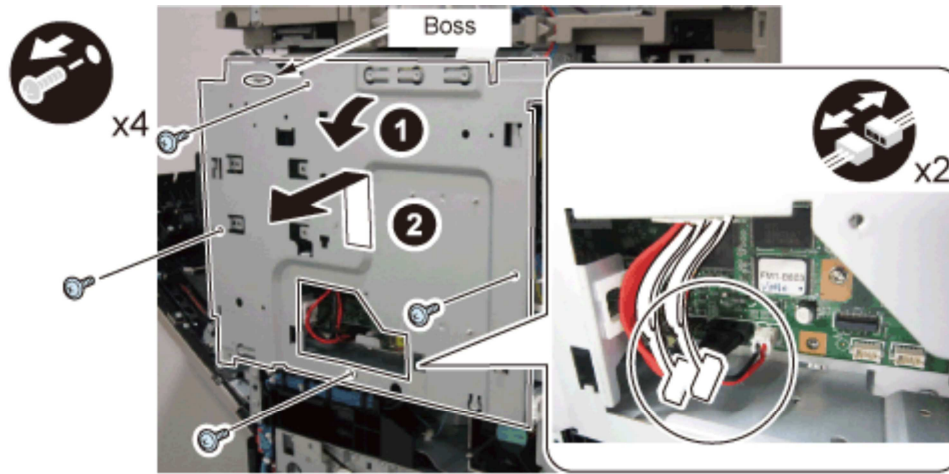
5) Remove the Main Controller Sub Cover.

- 1 Screw



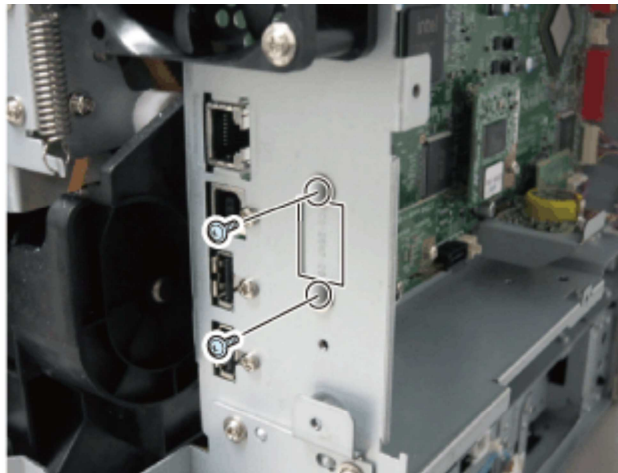
6) Remove the Main Controller Cover.

- 2 Connectors
- 4 Screws
- 1 Boss



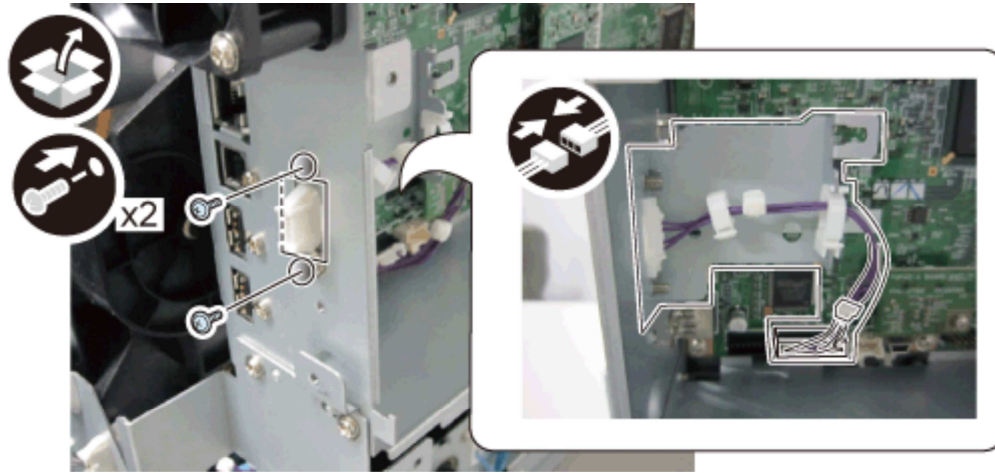
7) Remove the Face Plate. (The removed Face Plate is not be used.)

- 2 Screws

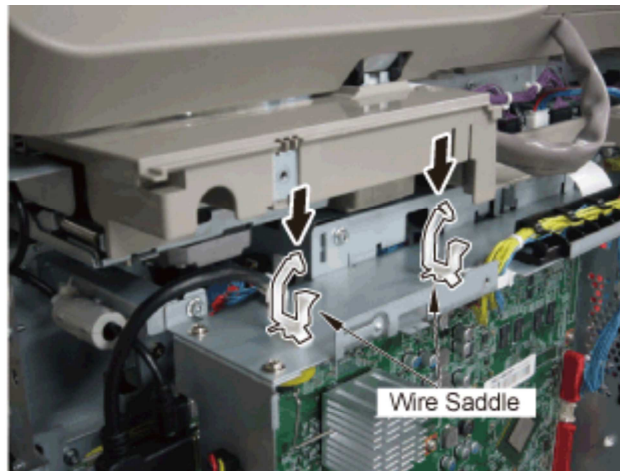


8) Using two screws removed in the step 7), install the Connector Relay Unit. Then connect the connector to the main controller PCB.

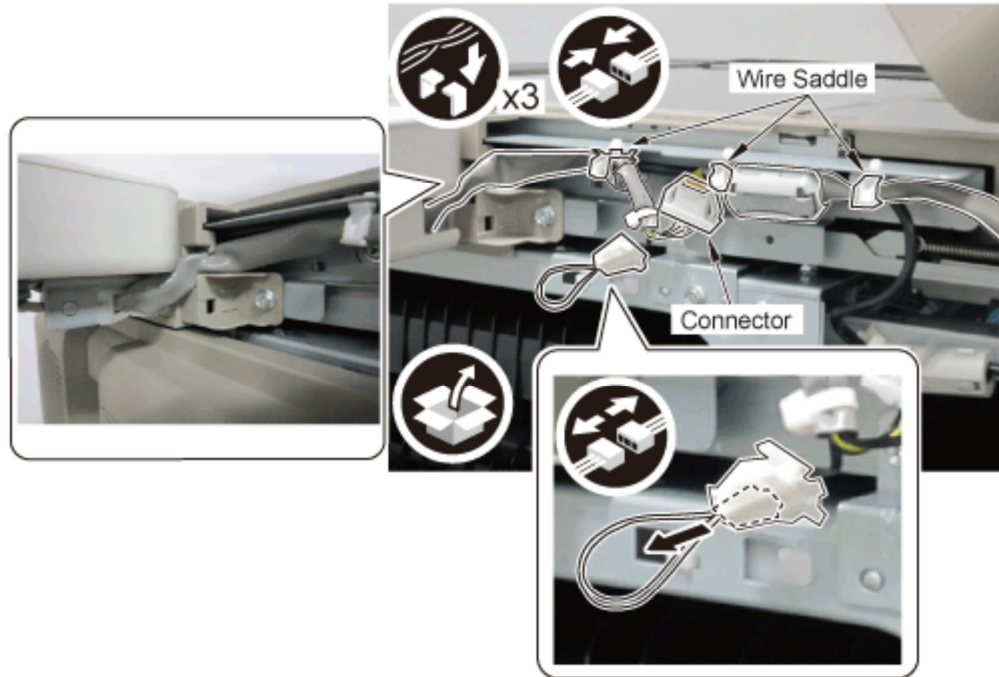
- 2 Screws
- 1 Connector



9) Fix the Wire Saddles to the main controller mount plate.



10) Connect the Card Reader Harness [A], and then pass the harness through the Wire Saddles and harness guide as shown in the figure. Remove the Short Connector from the Card Reader Harness [A]. (The removed Short Connector is not be used.)

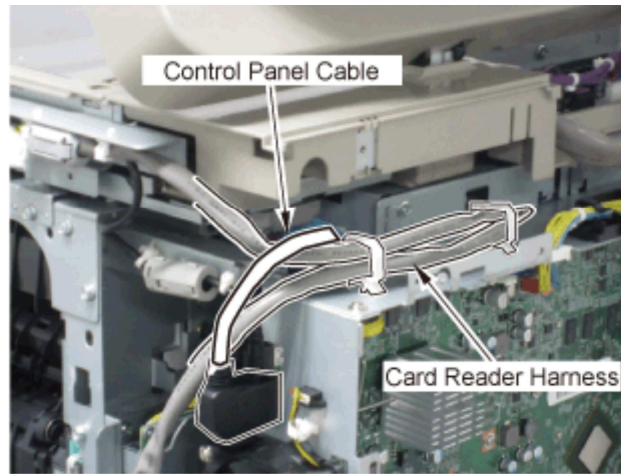


11) Fix the Card Reader Harness [A] as shown in the figure.

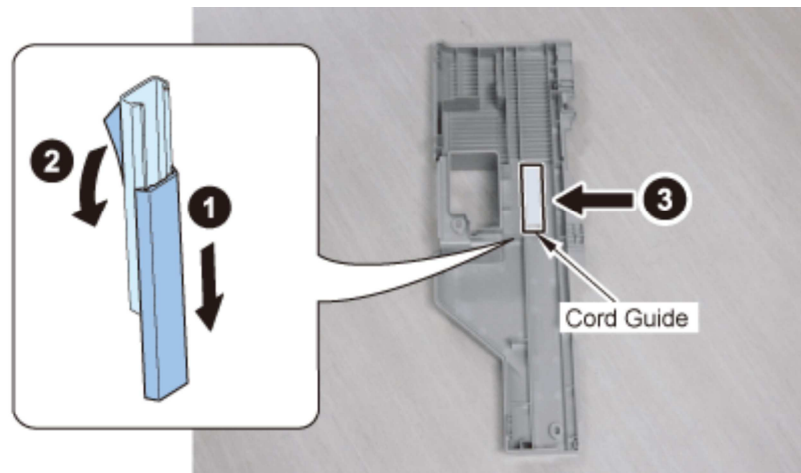
- 2 Wire Saddles

CAUTION:

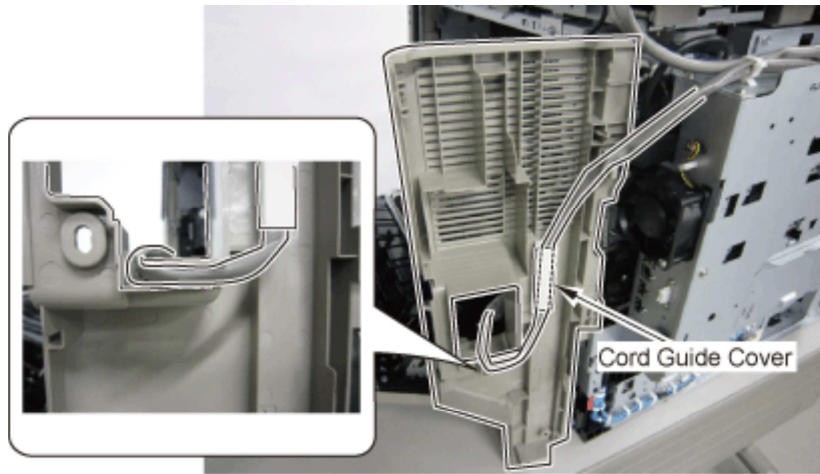
- Put the Control Panel Cable above the Card Reader Harness [A], because the Reader Right Rear Cover may damage to the Card Reader Harness [A] when installing it.



12) Remove the cover from the Cord Guide and peel off the release paper, and then attach Cord Guide to the area shown in the figure.

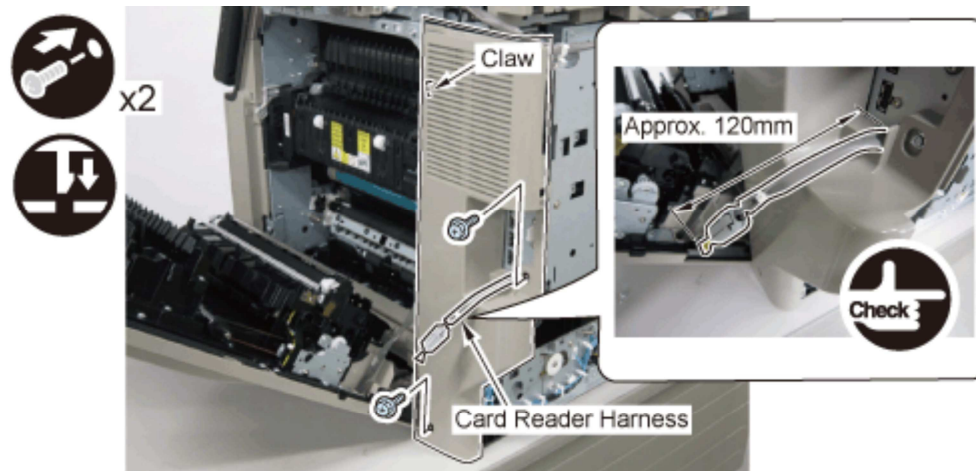


13) Put the Card Reader Harness [A] on the Cord Guide as shown in the figure, and install the Cord Guide Cover.



14) Draw out the Card Reader Harness [A] from the cover by approximate 120mm, and install the Right Rear Cover.

- 2 Screws
- 1 Claw



15) Connect the connector of the Card Reader Harness [A].

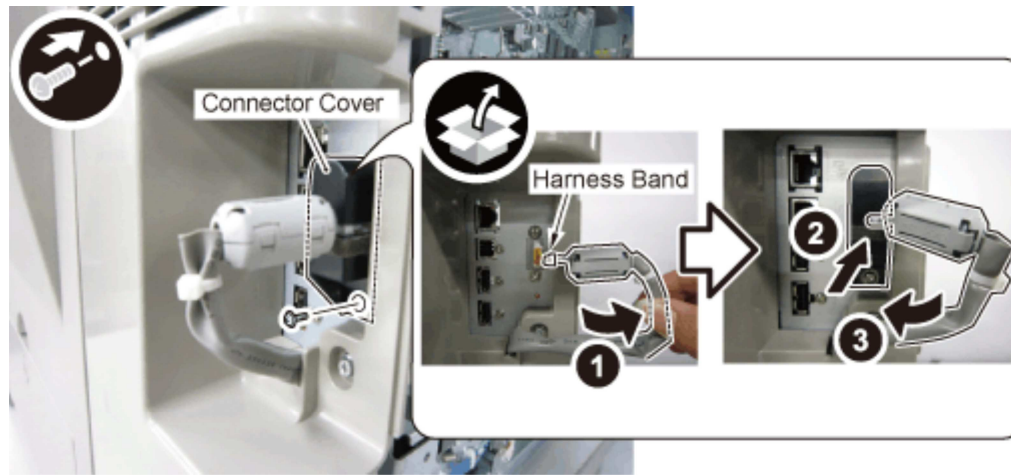


16) Install the Connector Cover.

- 1 Screw (TP; M3x6)

CAUTION:

When installing the Connector Cover, be sure to place the Harness Band on the Card Reader Harness [A] inside of the Connector Cover.

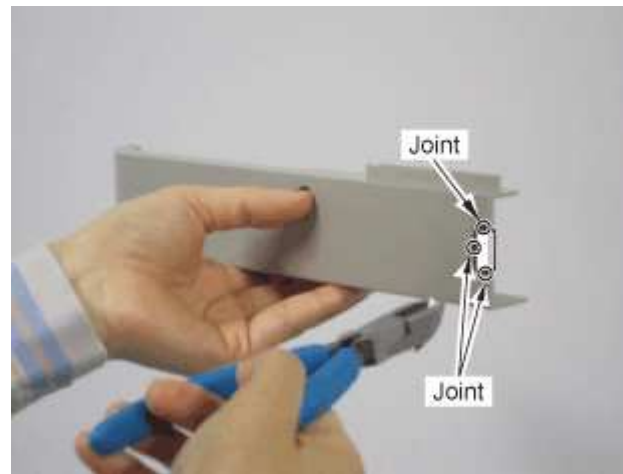


17) Cut off the Face Cover of the Reader Right Rear Cover with nippers.

- 3 Joints

CAUTION:

Be sure to check that there is no burr.



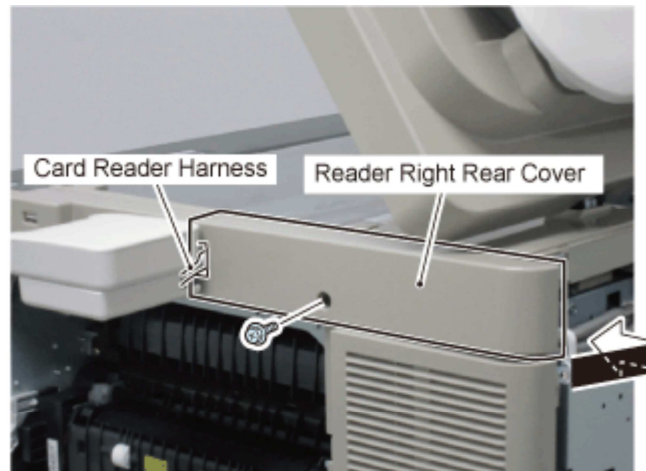


18) Install the Reader Right Rear Cover. The Card Reader Harness [A] must be passed through the hole where the Face Cover is cut off in the step 17).

- 1 Screw

CAUTION:

When installing the Reader Right Rear Cover, take care that it don't pinch or damage to the Card Reader Harness [A].














19) Return the removed covers to their original positions.

- Close the Right Door Unit.
- Close the ADF Unit.
- Main Controller Cover (2 Connectors, 4 Screws; TP)
- Main Controller Sub Cover (1 Screw; TP)
- Rear Cover (2 Claw, 6 Screws; RS tight)
- Reader Controller Cover (1 Claw)



20) The following parts remain after installing the Copy Card Reader. Make sure not to leave the remained parts at the site.

<input type="checkbox"/> [1] Card Reader Harness [B] X 1 	<input type="checkbox"/> [2] Reader Right Front Cover X 1 	<input type="checkbox"/> [3] Card Reader Fixation Plate X 1 
<input type="checkbox"/> [4] Option Mounting Plate X 1 	<input type="checkbox"/> [5] Screw (TP; M4x8) X 2 	<input type="checkbox"/> [6] Screw (TP; M3x4) X 4 
<input type="checkbox"/> [7] Screw (Binding; M3x13) X 1 	<input type="checkbox"/> [8] Card Reader Lower Cover X 1 	<input type="checkbox"/> [9] Card Reader Fixation Plate X 1 
<input type="checkbox"/> [10] Face Plate X 1 	<input type="checkbox"/> [11] Short Connector X 1 	

Registering the Card IDs

After installing the Card Reader, register the card numbers to be used in the service mode of the host machine.
If they are not registered, cards will not be recognized when inserted.



- 1) Enter the service mode, and set the model of the Card Reader.
 - Check the service mode (COPIER> OPTION> ACC> CR-TYPE) to see that the setting value is "0".
- 2) Enter the service mode: COPIER> FUNCTION> INSTALL> CARD, and enter the card number to be used (1 to 2001).
 - Enter the smallest card number to be used by a user.
 - From the entered card number, 1000 cards can be used.
- 3) Turn OFF and ON the main power switch to enable the setting value.

NOTE:

If needing to log in as an administrator, the default ID and Password are the as follows.

- System Manager ID: 7654321
- System PIN: 7654321

- 4) Insert a card which card number has been registered, and check that the machine operates normally.

NOTE:

When changing the number of cards (departments) after specifying the setting, specify the following settings, In such a case, the department ID counter information is reset.

- Select the service mode (Level 1): COPIER> FUNCTION> CLEAR> CARD.
- Select the service mode (Level 2): COPIER> OPTION> FUN-SW> CARD-RNG, and set any value.
- Select the service mode (Level 1): COPIER> FUNCTION> INSTALL> CARD, and enter the card number to be used (1 to 2001).
- Turn OFF and ON the main power switch to enable the setting value.
- After that, perform from step 1).

IC Card Reader BOX-A1

Check Item of the Contents


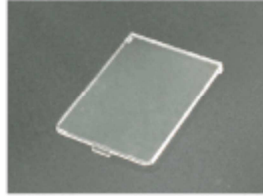



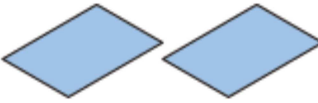
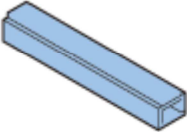




The parts with a diagonal line in the contents list will not be used during installation.

Points to Note at Installation

CAUTION:

- When working for a long time with the Right Door open, be sure to block light to the Photosensitive Drum.
- This equipment and the Copy Card Reader -F1 cannot be used at the same time.
- When installing the equipment, the IC Card Reader (sales company's option) is required.

Checking the Contents

<input type="checkbox"/> [1] IC Card Reader Box Unit X 1 	<input type="checkbox"/> [2] IC Card Reader Box Upper Cover X 1 	<input type="checkbox"/> [3] IC Card Reader Mount Plate X 1 
<input type="checkbox"/> [4] Card Reader Sheet (A) X 1 	<input type="checkbox"/> [5] Card Reader Sheet (B) X 1 	<input type="checkbox"/> [6] Sponge Sheet X 2 
<input type="checkbox"/> [7] Cord Guide X 1 	<input type="checkbox"/> [8] Large Wire Saddle X 2 	<input type="checkbox"/> [9] Small Wire Saddle X 3 One Use 
<input type="checkbox"/> [10] Screw (TP; M3x6) X 6 	<input type="checkbox"/> [11] Screw (Tapping; M3x8) X 2 	

Check Items when Turning OFF the Power

Check that the power of the host machine is OFF.

- 1) Turn OFF the Power Switch of the host machine.
- 2) Be sure that display in the Control Panel and the Power Supply Lamp are turned off, then disconnect the power plug.

Installation Outline Drawing



Installation Procedure

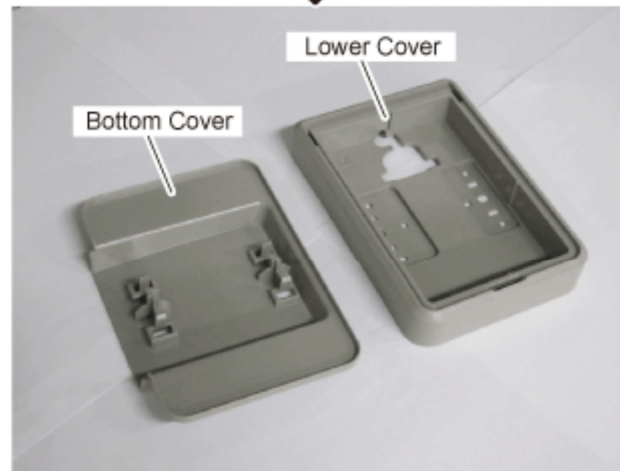
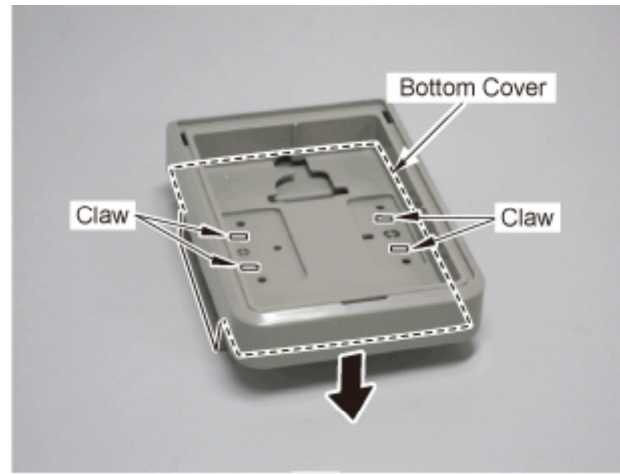
■ Assembling the IC Card Reader Box



- 1) Remove the bottom cover of the IC Card Reader Box Unit.
 - 4 Claws



x4

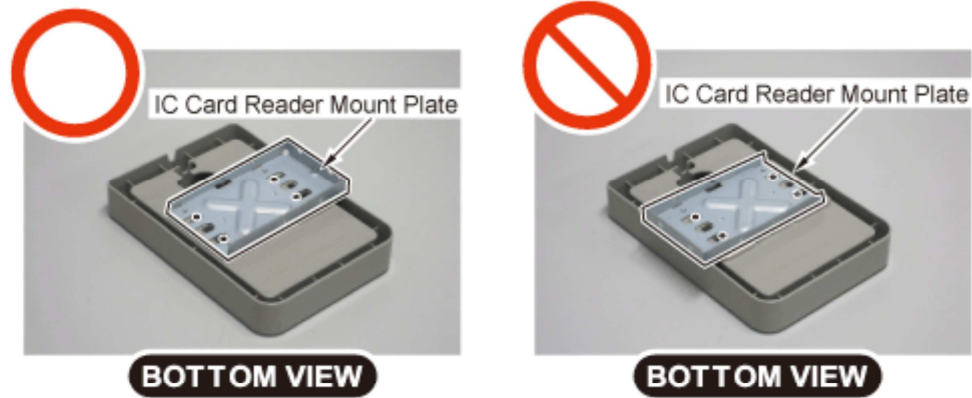


2) Install the IC Card Reader Mount Plate to the IC Card Reader Lower Cover.

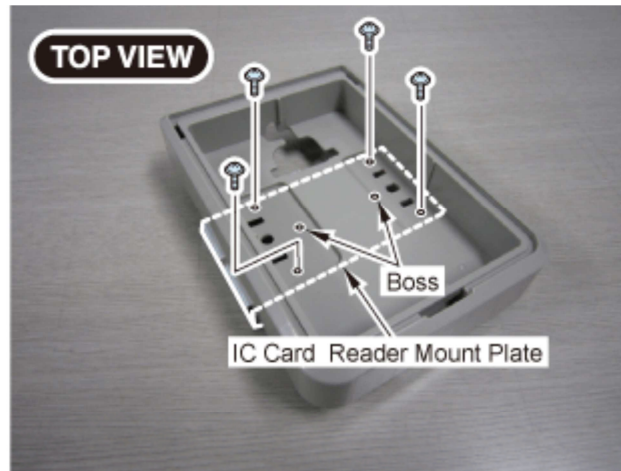
- 4 Screws (TP; M3x6)
- 2 Bosses

NOTE:

When installing the IC Card Reader Mount Plate, be sure to install as shown in the figure.



x4



3) Install the Small Wire Saddle to the IC Card Reader Mount Plate.

- 1 Small Wire Saddle

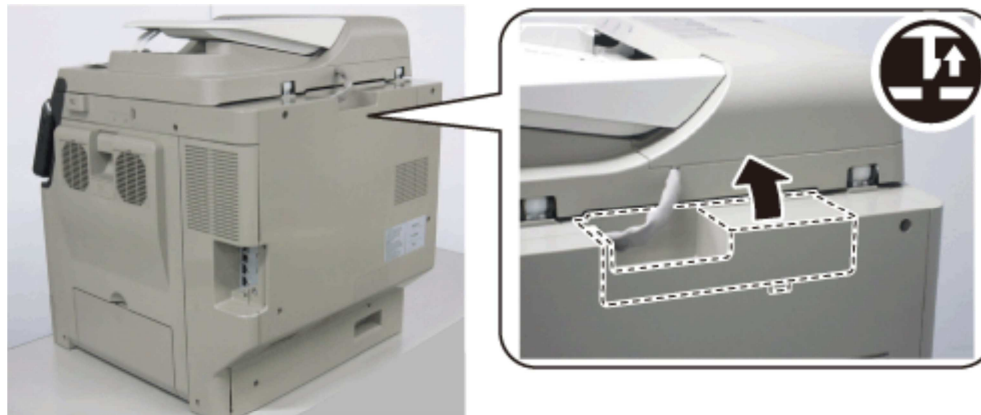


■ Removing the Covers



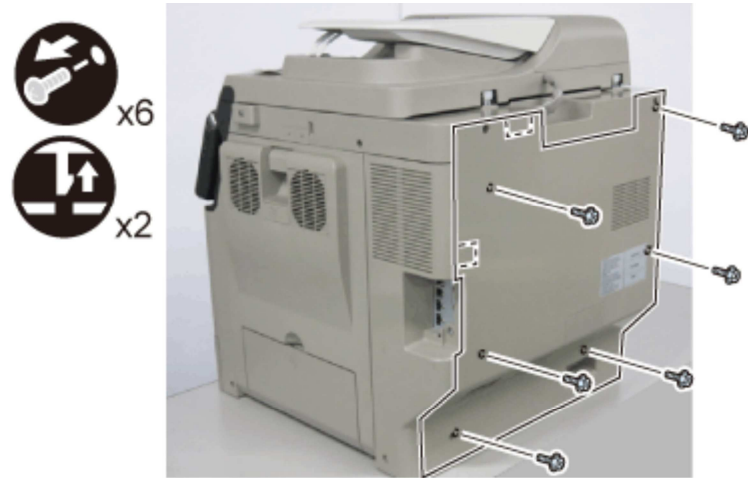
1) Remove the Reader Controller Cover.

- 1 Claw



2) Remove the Rear Cover.

- 6 Screws
- 2 Claws

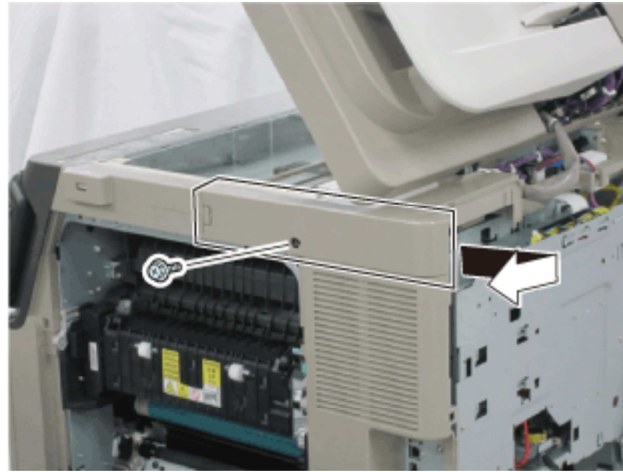


3) Open the Right Door Unit, and open the ADF Unit.



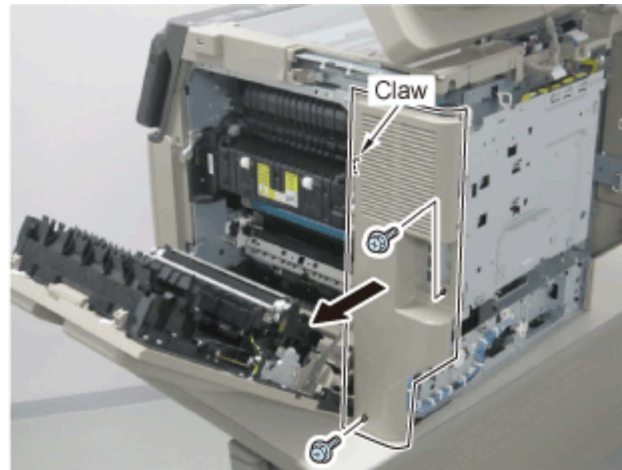
4) Remove the Reader Right Rear Cover.

- 1 Screw



5) Remove the Right Rear Cover.

- 2 Screws
- 1 Claw



6) Peel off the Face Seal.



■ Installing the Card Reader Unit

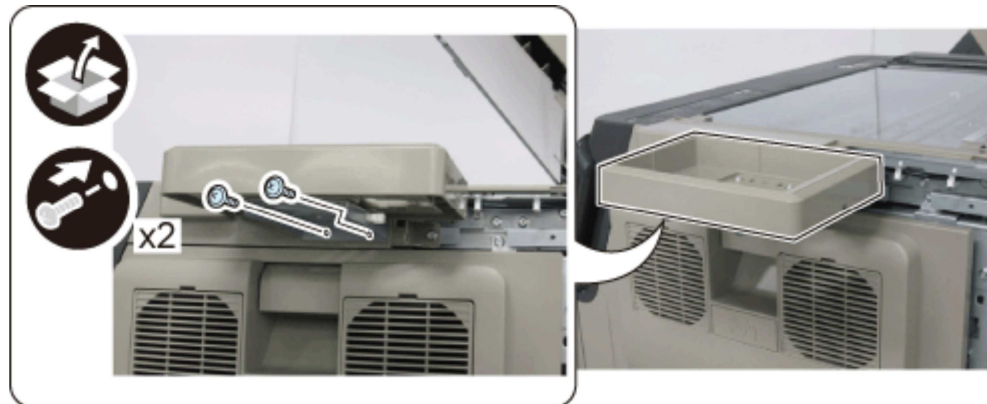


1) Close the Right Door Unit.



2) Install the Card Reader Unit.

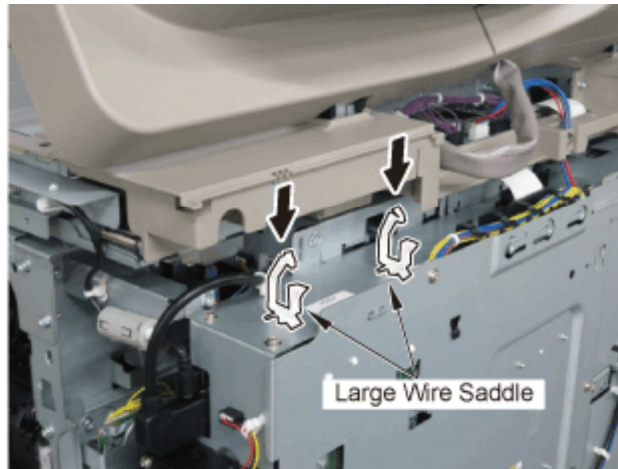
- 2 Screws (TP; M3x6)



3) Open the Right Door Unit.



4) Fix the Large Wire Saddles to the main controller mount plate.

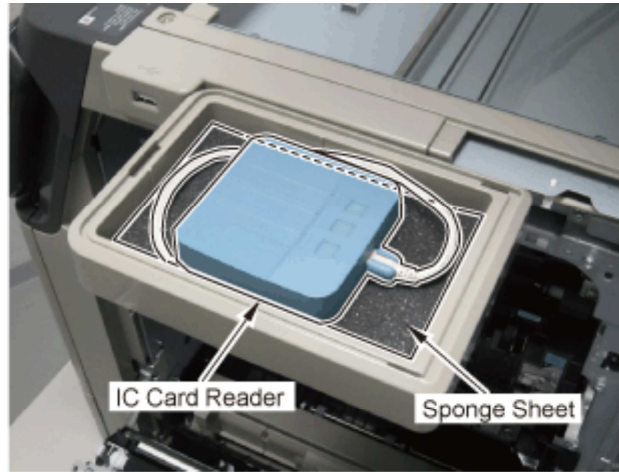


5) Put the IC Card Reader (sales company's option) on the Card Reader Unit and set the USB Cable as shown in the figure, and then place the sponge sheet between the IC Card Reader and the Card Reader Unit.

- 4 Wire Saddles

NOTE:

- Use the sponge sheet of one piece or two pieces depending on the size of the IC Card Reader.
- Loop the USB Cable around the IC Card Reader so that it does not move.

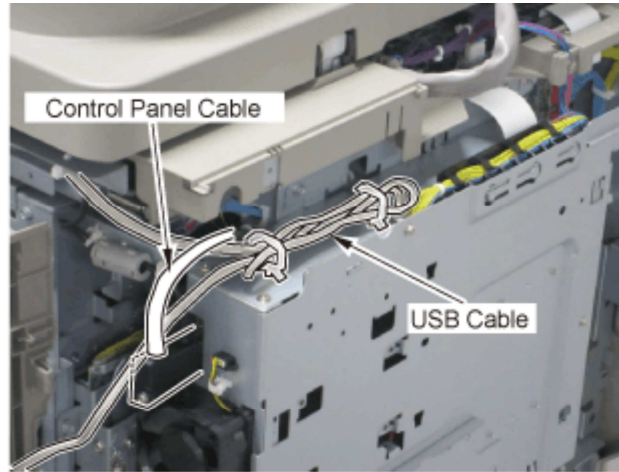


6) Fix the USB Cable of the IC Card Reader as shown in the figure.

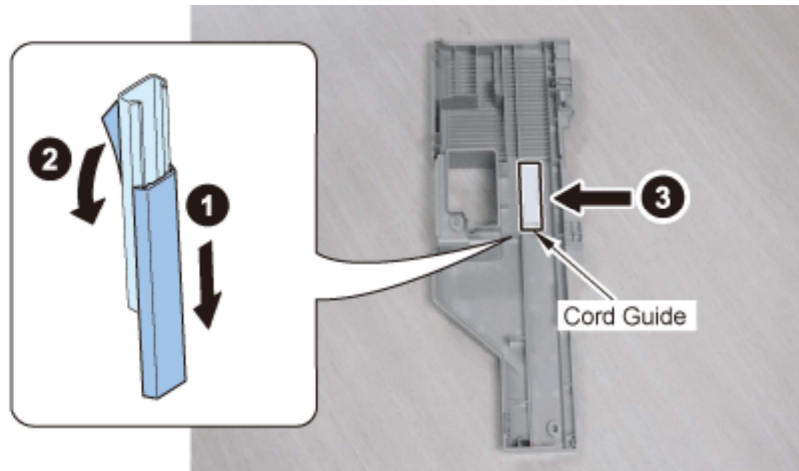
- 2 Large Wire Saddles

CAUTION:

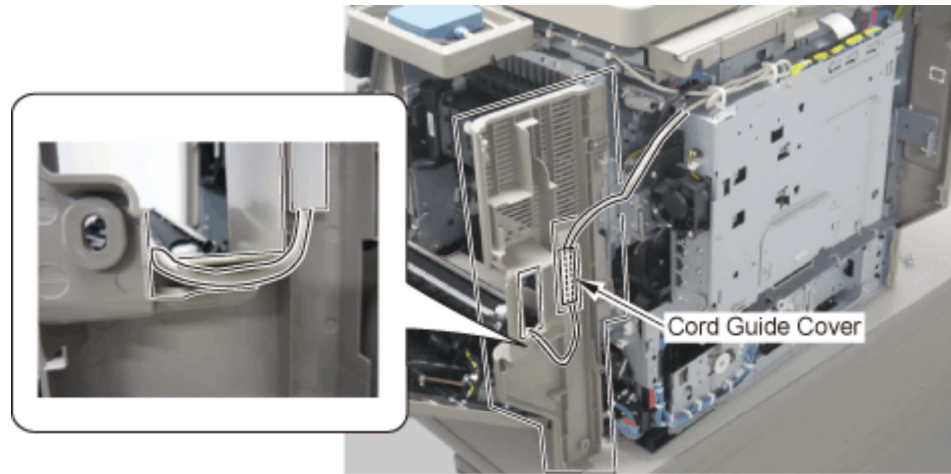
- Put the Control Panel Cable above the USB Cable, because the Reader Right Rear Cover may damage to the USB Cable when installing it.



7) Remove the cover from the Cord Guide and peel off the release paper, and then attach the Cord Guide to the area shown in the figure.

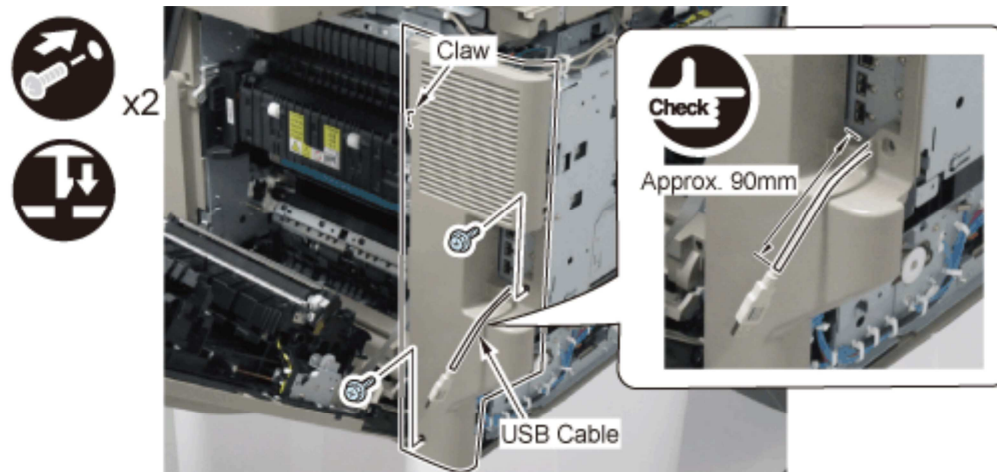


8) Put the USB Cable of the IC Card Reader on the Cord Guide as shown in the figure, and install the Cord Guide Cover.



9) Draw out the USB Cable of the IC Card Reader from the cover by approximate 90mm, and install the Right Rear Cover.

- 2 Screws
- 1 Claw



10) Connect the USB Connector.

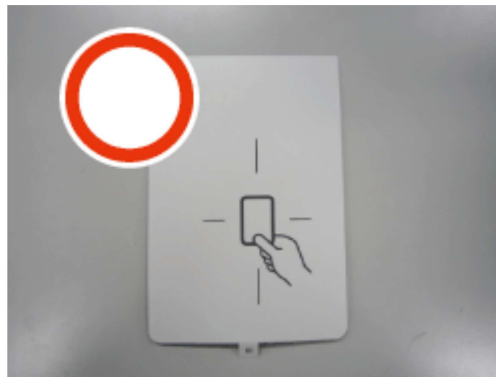


11) Set the Card Reader Sheet (A) on the Card Reader Unit, and install the IC Card Reader Box Upper Cover.

- 3 Claws

NOTE:

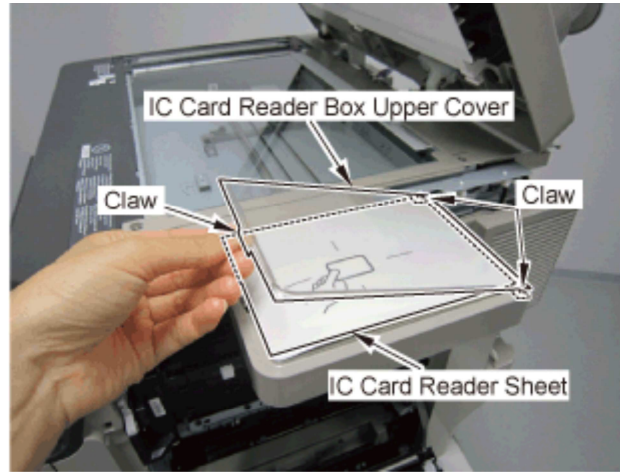
Use the Card Reader Sheet (A). The Card Reader Sheet (B) is not used.



Card Reader Sheet (A)

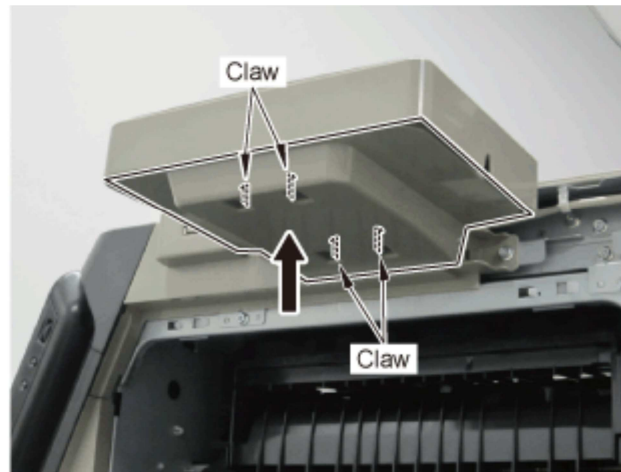


Card Reader Sheet (B)



12) Install the Bottom Cover of the IC Card Reader Box Unit.

- 4 Claws



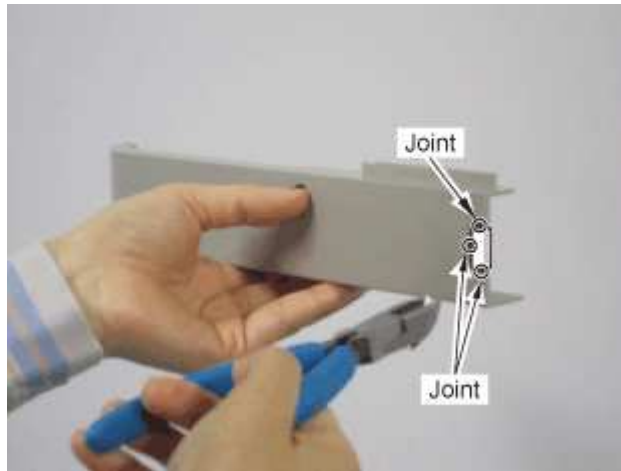
13) Cut off the Face Cover of the Reader Right Rear Cover with nippers.

- 3 Joints



CAUTION:

Be sure to check that there is no burr.

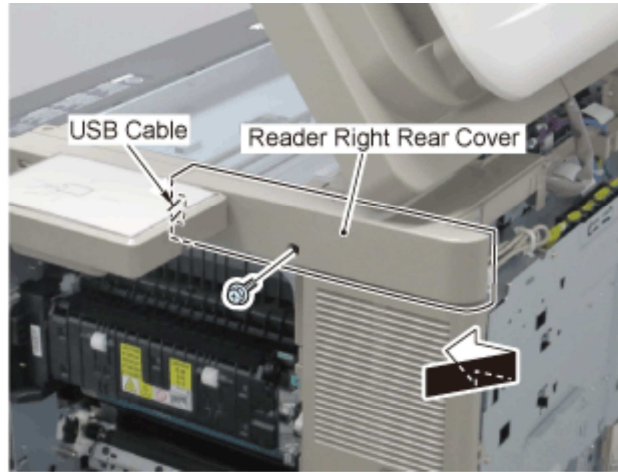


14) Install the Reader Right Rear Cover. The USB Cable must be passed through the hole where the Face Cover is cut off in the step 13).

- 1 Screw

CAUTION:

When installing the Reader Right Rear Cover, take care that it don't pinch or damage to the USB Cable.



15) Return the removed covers to their original positions.

- Close the Right Door Unit.
- Close the ADF Unit.
- Rear Cover (2 Claw, 6 Screws; RS tight)
- Reader Controller Cover (1 Claw)

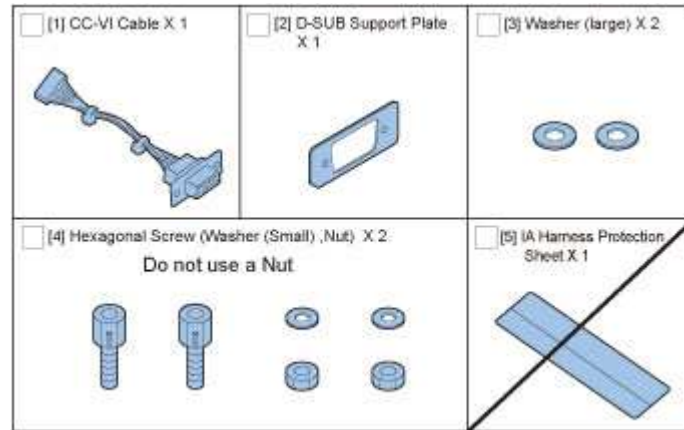


16) The following parts remain after installing the Card Reader Unit. Make sure not to leave the remained parts at the site.



Copy Control Interface Kit-A1

Checking the Contents

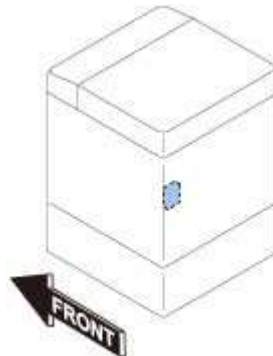


Check Items when Turning OFF the Main Power

Check that the main power switch is OFF

- 1) Turn OFF the main power switch of the host machine.
- 2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



Installation Procedure



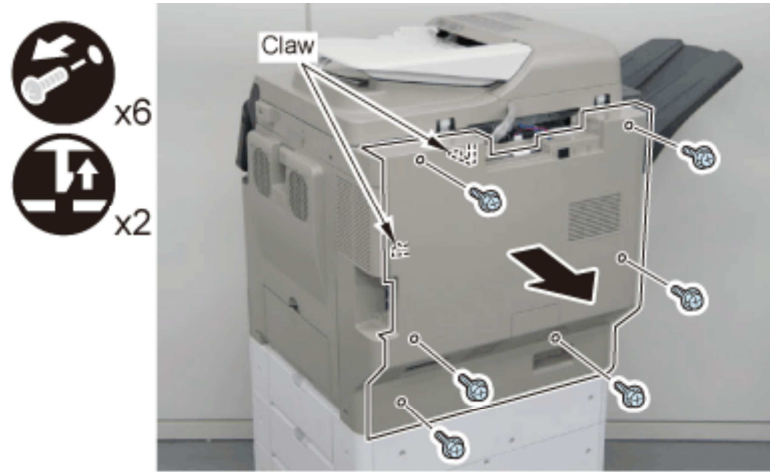
1) Remove the Reader PCB Cover.

- 1 Claw



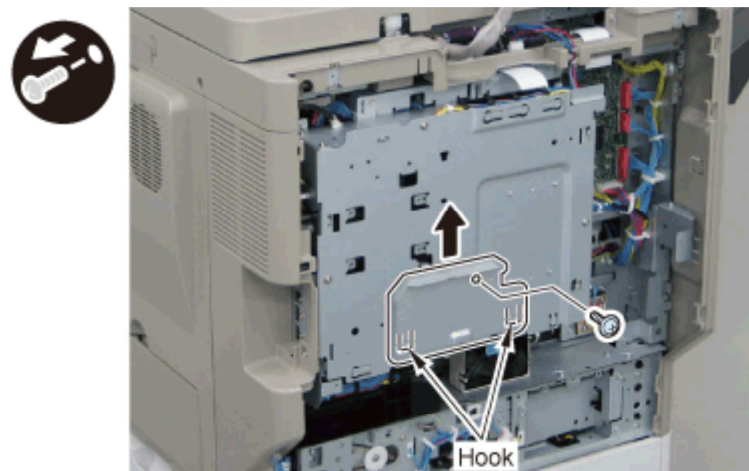
2) Remove the Rear Cover.

- 6 Screws
- 2 Claws



3) Remove the Controller Sub Cover.

- 1 Screw
- 2 Hooks

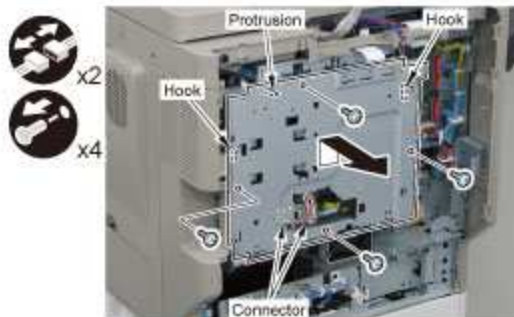


4) Remove the Controller Cover.

CAUTION:

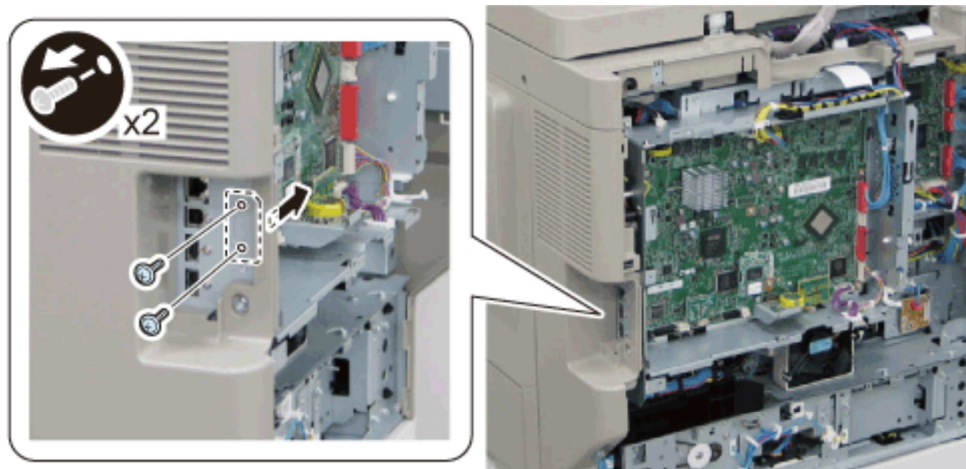
When removing the Controller Cover, be careful to not give a shock to the HDD attached inside it.

- 4 Screws (TP; M3X6)
- 2 Connectors
- 2 Hooks
- 1 Protrusion



5) Remove the Face Cover .(Removed Face Cover and screws is not used.)

- 2 Screws

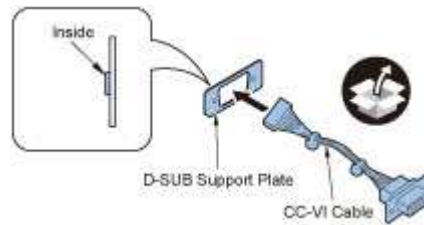




6) Put the CC-VI cable through the D-SUB Support Plate.

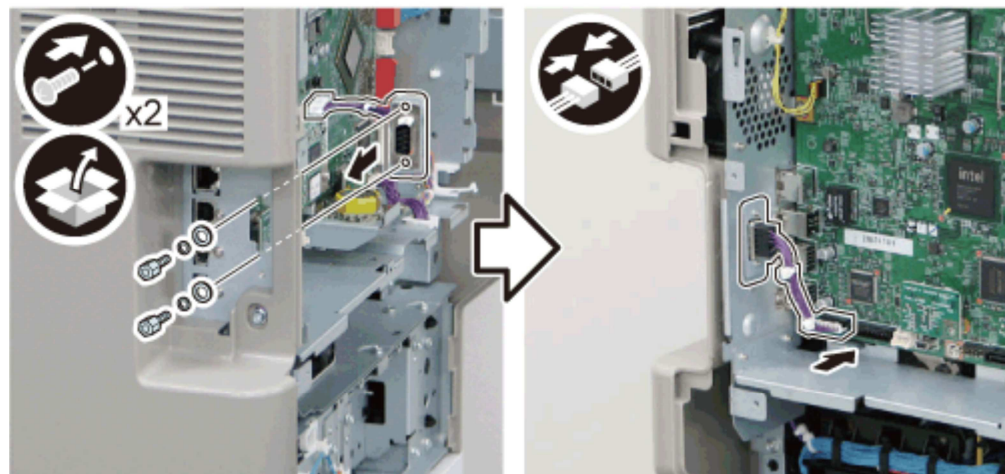
CAUTION:

Be sure to install the extruded side of the D-SUB Support Plate to be inside.



7) Install the CC-VI cable.

- 2 Hexagonal Screws
- 2 Washers (small)
- 2 Washers (large)
- 1 Connector





8) Install the removed cover.

- Controller Cover(4 Screws/2 Connector)
- Controller Sub Cover (1 Screw)
- Rear Cover (6 Screws)
- Reader PCB Cover.



9) Connect the power plug of the host machine to the power outlet.

10) Turn the main power switch ON.









HDD Data Encryption Kit-C6

Points to Note when Unpacking HDD Data Encryption Kit

A security sticker is attached to the kit package to indicate that the package has not been opened. Check to see that the package has not been opened in any way and the sticker is not torn.

If the package appears to have been opened or the sticker is torn, check to make sure that the user has done so intentionally.

Checking the Contents

<input type="checkbox"/> [1] Encryption Board X 1 	<input type="checkbox"/> [2] Signal Cable (250mm; A:HDD-Sig) X 1 	<input type="checkbox"/> [3] Power Cable (270mm; A:HDD-Pow1) X 1 
<input type="checkbox"/> [4] Signal Cable (135mm; A:Cont-Sig) X 1 	<input type="checkbox"/> [5] Power Cable (135mm; A:Cont-Pow) X 1 	<input type="checkbox"/> [6] Harness Guide X 1 
<input type="checkbox"/> [7] Wire Saddle X 3 		<input type="checkbox"/> [8] Screw (TP; M3x6) X 4 

< CD/Guides >

- HDD Data Encryption Kit-C Series User Documentation
- HDD Data Encryption Kit Notice
- Installation Procedure
- FCC/IC Sheet

Points to Note Regarding Data Backup/Export

Before performing work that will result in the loss of data, inform the system administrator of the inevitable loss, asking him to make a backup or export of important data items.

Backup or export work must not be performed by the service person because of security considerations.

In this Installation Procedure, a series of backup or export procedures are described for reference.

[List of Data to be Deleted]

Data to be Deleted	Availability of Backup
Information registered in the Address Book	Yes
Settings made from the Settings/Registration screen	Yes *1
Forwarding Settings	Yes
License files for MEAP applications	Yes
MEAP applications	No
Data saved using MEAP applications	Yes *2
Favorite Settings registered in the Copy and Mail Box functions	No
Scan modes registered in the Send Function	No
Unsent documents (documents waiting to be sent with the Delayed Send mode)	No
MEAP SMS (Service Management Service) password (the password will return to its default password if it was changed)	No
Job logs	No
User authentication information registered in the Local Device Authentication user authentication system of SSO-H (Single Sign-On H)	Yes
Registration information for the Network Place	Yes
Key Pair and Server Certificate	No
Audit Log	Yes
Password that is protected by TPM	Yes *3
Encryption key that is protected by TPM	No
Information for Web browser settings	Yes *4

Data to be Deleted	Availability of Backup
Quick Menu Information	Yes

*1 Can only be backed up using the Remote UI.

*2 Depending on the MEAP application.

*3 You may not be able to back up, depending on the type of the password.

*4 Only the stored Favorite Settings can be backed up.

[\[List of Data that can be backed up\]](#)

Data that can be backed up	Reference
Settings/Registration Basic Information	See the "e-Manual > Remote UI".
Paper Type Management Settings	
Printer Settings	
Forwarding Settings	
Box Settings	
Department ID Management Settings	
Main Menu Settings	
Favorite Settings	
Address Book	
Quick Menu Settings	
MEAP Application Setting Information	
User Setting Information	
Favorite Settings for Web browser	See the e-Manual > Web Access. (You can select this if web browser (Option) is installed.)
License files for MEAP applications	For information on downloading license files, see the "e-Manual > MEAP".
Data saved by MEAP applications	Data saved by MEAP applications may be able to be backed up, depending on the MEAP application. See the documentation included with the MEAP application.

Data that can be backed up	Reference
SSO-H (Single Sign-On H) user authentication information	see the "e-Manual > MEAPI".

CAUTION: Work to Perform After Installing the Kit

If you have logged on to the machine using a login service, such as SSO-H (Single Sign-On H) before using this product, you must select the login service again using SMS (Service Management Service) after restarting the machine.
For more information on using SMS, see the e-Manual > MEAP.

Making a Backup of the Data (reference only)

The data items that have been backed up may be restored when the this product has been installed. These data items are property of the user, and the restoration work must be performed by the system administrator.

The method of restoration is described in the Users Guide. See Table (Data to be backed up) in Points to Note About Installation of the Installation Procedure.

■ Procedure for Import/Export ALL of User Settings

Following data can be batch exported.

- Settings/Registration Basic Information
- Paper Type Management Settings
- Printer Settings
- Forwarding Settings
- Box Settings
- Department ID Management Settings
- Main Menu Settings
- Favorite Settings
- Address Book
- Quick Menu Settings
- MEAP Application Setting Information
- User Setting Information

1) Access the URL given below, and then access Remote UI.

[http://\[IP address of the device\]/](http://[IP address of the device]/)

If the system administrator ID and password are set, a dialog box to enter the user name and password appears. Enter the system administrator ID in User Name and the password in Password, and then click [Administrator Login].

2) Select [Settings/Registration] > [Management Settings] > [Data Management] > [Import/Export ALL] > [Export].

3) Select items to export.

CAUTION:

When exporting only specific items, this may cause setting information relating to multiple items to lose its relations and cause setting details to be switched.

In this case, export all related items simultaneously.

4) Enter the password into [Encryption Password] and click on [Start Exporting].

5) Click [Check Status].

6) Check the batch export result.

■ Backup of MEAP Application

When a MEAP application has been installed, the data and license that the MEAP application retains will be deleted. If no MEAP application is installed, there is no need to make a backup. If a MEAP application has a backup function, make a backup of the data peculiar to the MEAP application using this function. With regard to the license, there is a need to stop all applications from SMS (Service Management Service), invalidate the license, and download the invalid license file.

The overview of procedures for stop of MEAP applications, Disabling of the license, and download of an Disabled license file is described below. For more information, see the MEAPSMS Administrator Guide.

■ Stop of MEAP Applications, Disabling, Download of Disabled License Files and Uninstallation

1) Select the URL given below and access SMS.

http://[IP address of the device]:8000/sms/

The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

CAUTION:

The default password is MeapSmsLogin. If a user has changed the password, ask the user to change the password again after the use of this product is started.

2) Click [MEAP Application Management].

- 3) Click [Stop] button of the application you want to stop on the MEAP Application Management page.
- 4) Check the status of MEAP Application is [Stop],
- 5) Click on the name of applications to disable.
- 6) Click [License Control], and then click [Disable].
- 7) Click [Yes] in a confirmation window for disabling the license.
- 8) Return to the MEAP Application Management page and click on the appropriate application names.
- 9) Click [License Management] on the Application/License Information page.
- 10) Click [Download].
- 11) Following the instructions on the window, specify the location to save the file.
Set a distinctive name for the disabled license file so that you can recognize it for which application. After you download the disabled license file to your PC, click [Delete].
Click [Yes] in a confirmation window for license deletion.
- 12) Return to the MEAP Application Management page, click [Uninstall] button of the application you want to uninstall. Click [Yes] in a confirmation window for uninstallation.
If there are several applications, repeat the procedures 1) to 7).
- 13) After the use of this product is started, re-install the application using an application file (jar file) of each application from SMS and the disabled license file (lic file).

■ User Authentication Information Registered by SSO-H (Single Sign-ON H)

In the case that the MEAP login application has been changed to SSO-H, there is a need to make a backup of the user authentication information.

- 1) Access the URL given below.
`http://[IP address of the device]:8000/sso/`
- 2) Login with the user name and password registered as an administrator in SSO-H.
The default administrator user name and password are as follows:
User Name: Administrator
Password: password
- 3) Click [User Control].
- 4) Put a checkmark to Select All, and then click [Export].
- 5) Leave the file format and character code as defaults and click [Start Export].
- 6) Following the instructions on the window, specify the location to save the file and click [Save].

Setting Before Turning OFF the Power

CAUTION:

Be sure to turn OFF the main power after executing this service mode setting.

Turning OFF the main power without executing service mode causes "E602-5001 (procedure error before installing the HDD Encryption Board)" to occur when turning ON the main power after installing the Encryption Board.

When this error occurs, the machine needs to be returned again to the initial state in which no Encryption Board is installed.



1) Execute the following service mode (level 1).

COPIER > FUNCTION > INSTALL > HD-CRYP

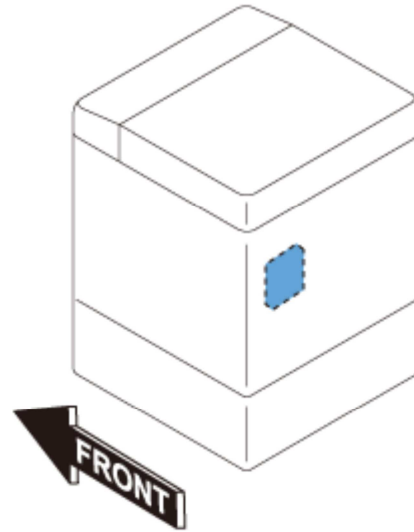
Check Items when Turning OFF the Main Power

Check that the main power switch is OFF.

1) Turn OFF the main power switch of the host machine.

2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing



Installation Procedure



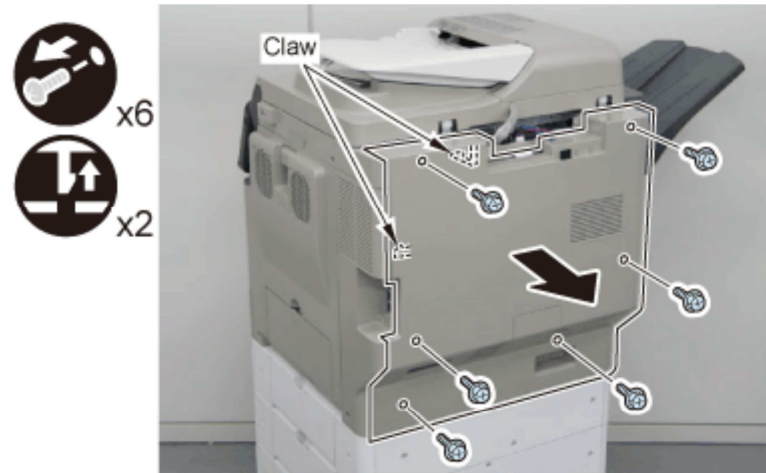
1) Remove the Reader PCB Cover.

- 1 Claw



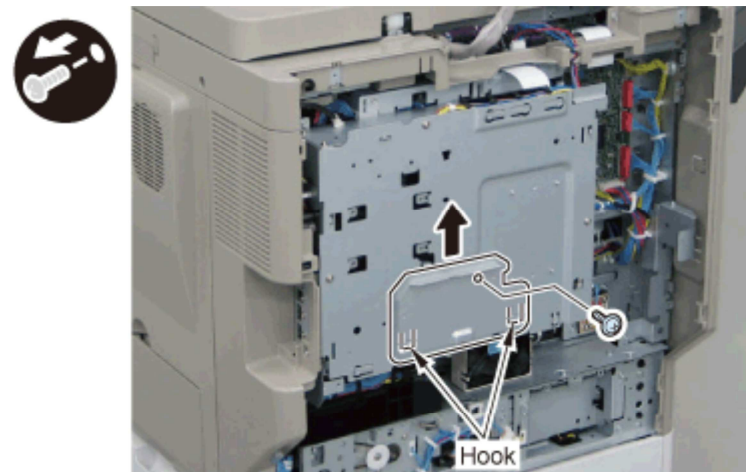
2) Remove the Rear Cover.

- 6 Screws
- 2 Claws



3) Remove the Controller Sub Cover.

- 1 Screw
- 2 Hooks



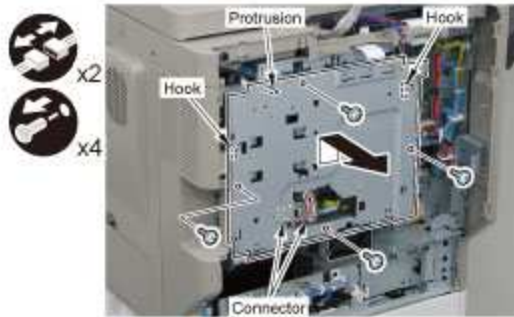


4) Remove the Controller Cover.

CAUTION:

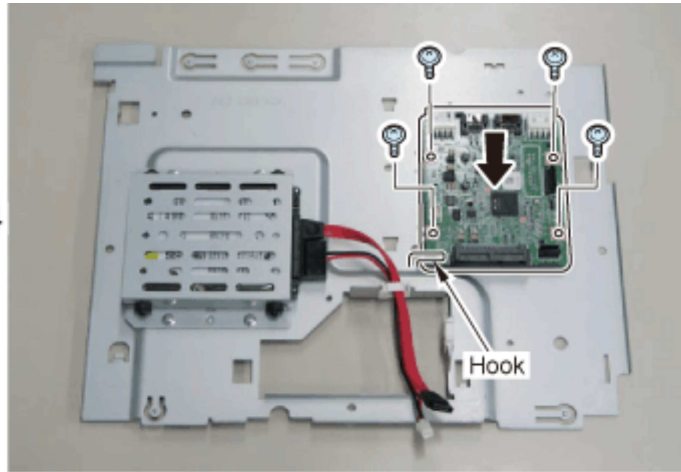
When removing the Controller Cover, be careful to not give a shock to the HDD attached inside it.

- 4 Screws
- 2 Connectors
- 2 Hooks
- 1 Protrusion



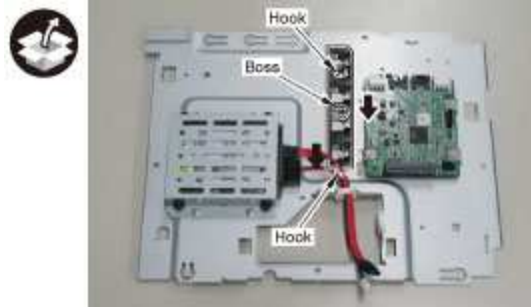
5) Install the Encryption Board to the Controller Cover.

- 1 Hook
- 4 Screws (TP; M3x6)



6) Install the Harness Guide.

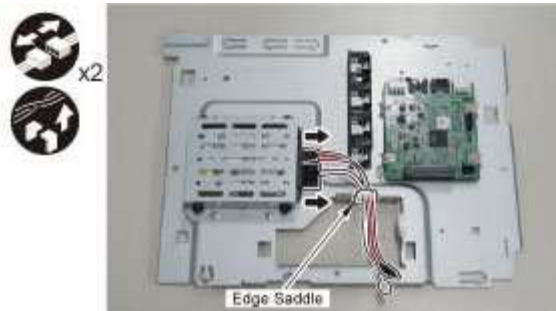
- 2 Hooks
- 1 Boss



7) Remove the Signal Cable and the Power Cable of the host machine from the HDD.

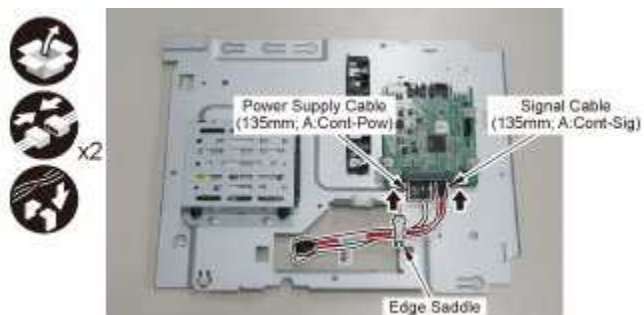
(The removed cables will not be used.)

- 2 Connectors
- 1 Edge Saddle

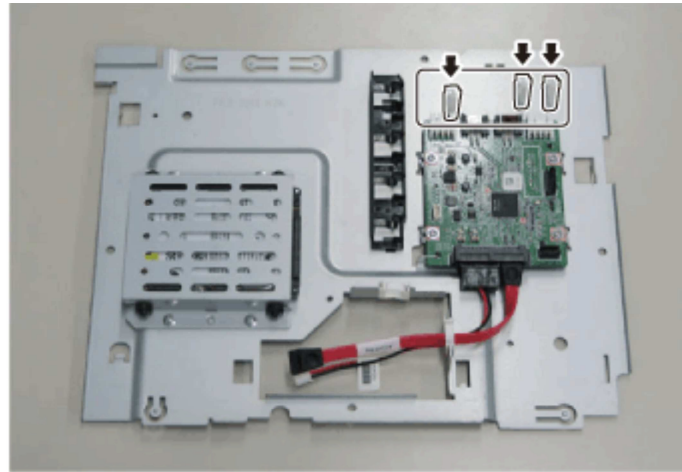


8) Connect the Signal Cable (135mm; A:Cont-Sig) and the Power Cable (135mm; A:Cont-Pow) to the Encryption Board.

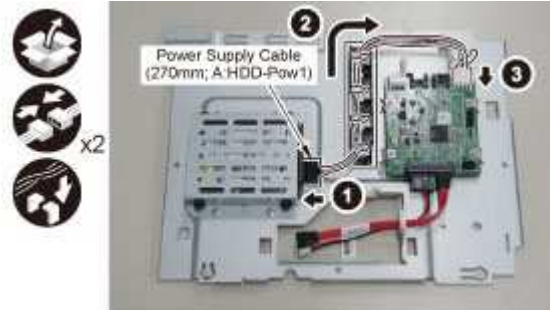
- 2 Connectors
- 1 Edge Saddle



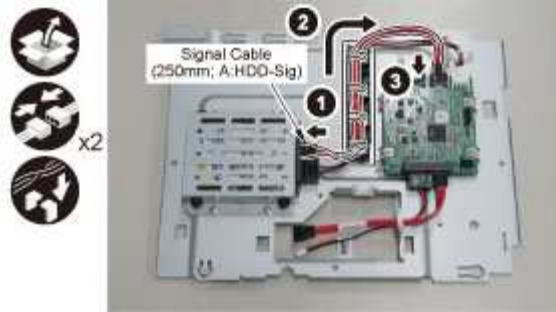
9) Install the 3 Wire Saddles.



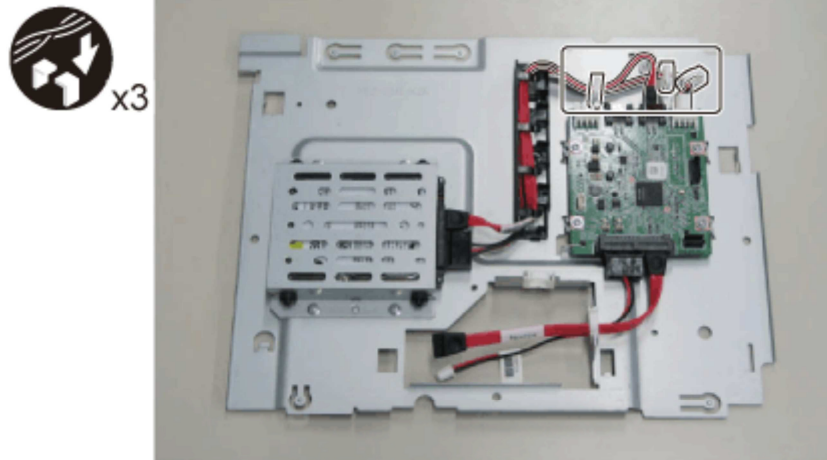
10) Connect the connector of the Power Cable (270mm; A:HDD-Pow1) to the HDD, fix the cable to the Harness Guide, and then connect it to the connector of the Encryption Board.



11) Connect the connector of the Signal Cable (250mm; A:HDD-Sig) to the HDD, fix the cable to the Harness Guide, and then connect it to the connector of the Encryption Board.



12) Secure the Power Cable (270mm; A:HDD-Pow1) and the Signal Cable (250mm; A:HDD-Sig) with the 3 Wire Saddles as shown in the figure.



13) Install the removed covers to their original positions.

- Controller Cover (4 screws, 2 connectors)
- Controller Sub Cover (1 screw)
- Rear Cover (6 screws)
- Reader PCB Cover



14) Connect the power plug of the host machine to the power outlet.

HDD Initialization Procedure

1. Requirements

1) PC

Service support tool in the version that supports this host machine must be installed.

2) Cross Ethernet Cable

2. Preparing for the Installation of the System Software of Host machine

1) If both PC and the machine are on, turn them off.

2) Connect the PC and the machine using an Cross Ethernet cable.

3) Turn on the PC.

3. Selecting the System Software

1) Set the CD containing the latest system software in the PC on which the SST is used.

2) Start up the SST.

3) Click 'Register Firmware'.

4) Select the drive in which the System Software CD has been set, and click 'SEARCH'.

5) Click 'REGISTER'.

6) Click OK.

4. Initializing HDD

< In case of SST >

1) Start up the machine in download mode (safe mode).

2) Start up the SST.

3) Select the model. Then, select "Single" and click "Start".

4) Execute the "Format HDD".

5) After formatting is completed, shut down and restart the host machine.


6) Terminate the SST.

< In case of USB memory >

1) Connect the USB memory to the PC.

2) Start up SST, and click the USB icon displayed in the target selection screen.

3) Select Drive > Model Series > Version to be written in USB memory, and then click "Confirm"

- 4) Click "Start". After writing in USB memory is completed, remove the USB memory.
- 5) Terminate the SST.
- 6) Connect the USB memory to the host machine, and start the machine with download mode (safe mode).
- 7) Press the key on the Control Panel in the following order.
 - Press any key.
 - [1] : Format HDD (ALL)
 - [0] : OK
 - [Reset] : Start shutdown sequence
 - [0] : OK (The power of the host machine is turned OFF automatically.)
- 8) Turn ON the power of the host machine.
- 9) After the host machine has been restarted, remove the USB memory from the mount mark () on the lower side of the screen.

Checking the Security Version

- 1) Press the Counter Check key on the control panel.
- 2) Press the [Check Device Configuration] key appearing on the control panel.
- 3) Make sure that '2.00' or '2.01' is displayed in 'Canon MFP Security Chip' as version information of the security chip.
When several Encryption Boards are installed, multiple version information is displayed.

CAUTION:

The user will be able to make sure that the encryption board fitted with a security chip of the correct version with CC Certification is functioning normally by referring to the version information indicated for 'Canon MFP Security Chip'.

Checking the Security Mark

The user may check the security mark, appearing on the control panel when using the host machine to make sure that an appropriate level of security is being maintained. The mark appears when the machine is equipped with an Encryption Board and the board is operating correctly. The Users Guide provides the following description in connection with the security mark:

< Confirming the Security Mark >

When the HDD Data Encryption Kit is operating normally, a security mark () is displayed on the lower left corner of a panel screen.

Reporting to the System Administrator at the End of the Work

When you have completed all installation work, report to the system administrator for the following:

At the point when installation is completed, make explanations about how to check that the appropriate security function has been added and enabled so that, when the function becomes uncontrolled, the system administrator can immediately detect the problem and request <Servicing work when a failure occurs>.

Completion of the Installation Work:

Ask the system administrator to make sure that '2.00' or '2.01' is indicated for 'Canon MFP Security Chip' as the version information of the security chip by referring to the description of Checking the Security Version.

Maintenance of the Security Functions:

Ask the system administrator to check the security mark to make sure that the security functions are maintained each time the machine is started up by referring to the description of Checking the Security Mark.

Execution of Auto Gradation Adjustment

When this product is installed, the machine initializes its HDD, resetting the data used for auto gradation adjustment.

Therefore be sure to execute auto gradation adjustment (full adjust) after installing this kit.

PCL International Font Set-B1

Preparation

- **Andale Font Data file**

It is contained in a file in the Font Set Software CD.

- **PC that supports SST**

Transfer the Andale Font Data to a USB memory device using SST Ver.4.72 or later.

- **USB memory device**

Connect it to the host machine, and register Andale Font in Download Mode.

NOTE:

- In this procedure, use a USB memory device where the system software for the host machine has been registered using the SST.
- Unless the LMS of Andale Font included in the kit is enabled, the installed font cannot be used.



Checking the Contents

License Access Number Certificate

- Font set software CD

Installation Procedure

■ Register Andale Font using the SST.

● System CD => SST

Register the system software, which is included in the system CD, in the SST.

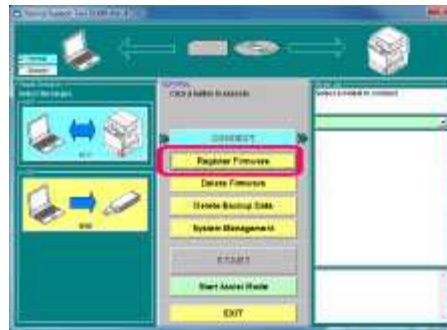
Preparation

Requirements:

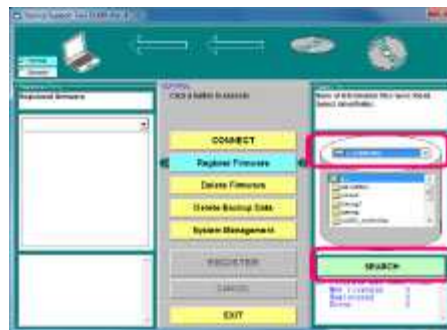
- PC with SST Ver. 4.72 or later installed
- Font set software CD containing Andale Font

System software registration procedure

- 1) Start the PC.
- 2) Load the Font Set Software CD into the PC.
- 3) Start SST.
- 4) Click the "Register Firmware" button.



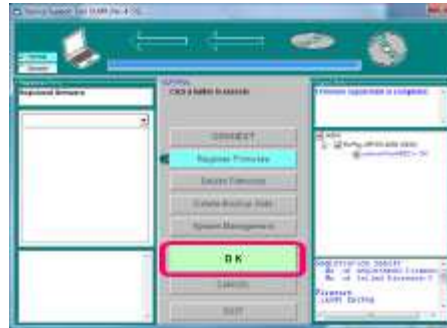
5) Select the drive where the Font Set Software CD has been loaded, then click the "SEARCH" button.



6) The font list in the Font Set Software CD will appear.
Click the "REGISTER" button.



7) "Registered firmware" will appear. Click the "OK" button.



■ Register Andale Font in the USB memory device.

● SST > USB memory device

Register the system software, which has been registered in the SST, in the USB memory device.

Preparation

Requirements:

- PC with SST Ver. 4.72 or later installed
- USB memory storage device (*)

Requirements for USB memory storage device:

Interface: USB 1.1 or later (USB 2.0 is recommended)

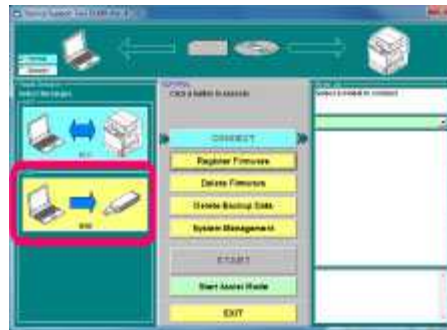
Memory capacity: 1GB or more is recommended (the total file size of the system software is approx. 500MB).

Format: FAT (FAT 16), FAT32 (NTFS and HFS are not supported). The memory is formatted in a partition (multiple partitions are not supported)

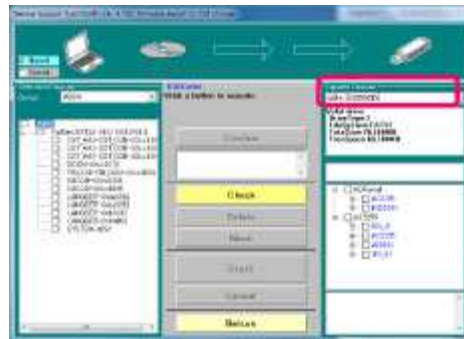
Unavailable USB memory: memory that is protected by a password or the encryption technology.

System software registration procedure

- 1) Start the PC.
- 2) Insert the USB memory storage device storage device to the slot of the PC.
- 3) Start SST.
- 4) Click the USB icon shown in "Select the target" Screen.



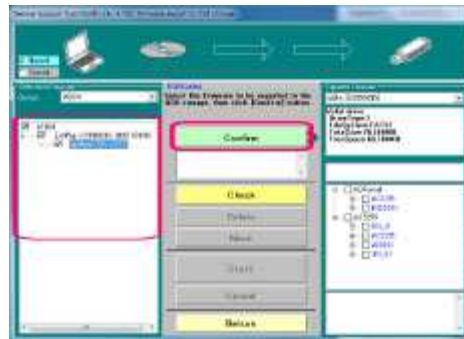
5) Select the drive (removable disk) where the USB memory storage device storage device is inserted.



6) Select "Series" and "Version" (the System Version).



7) Select the file you want to register in the USB memory device, and select "Confirm".



8) Select "Start".



9) A message "Firmware export to the USB storage is completed." will appear. Select "OK".



NOTE:

The folder name "iA500" needs to be changed if the model name differs.
Press the Counter Check button to refer to the displayed model names.

Example: iR-ADV 500(iA500) -> iA500

Andale Font can be registered by a means other than the above. It can be registered by using SST Ver.4.72 or later.

■ Register Andale Font in the host machine

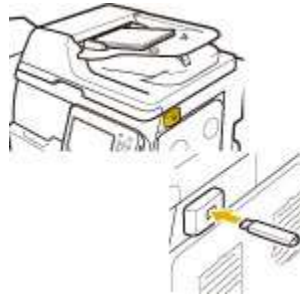
● Connection

Preparation

Item to prepare: A USB memory device where the system software for this machine has been registered

Procedure

- 1) If the host machine is connected with a network cable, disconnect it.
- 2) Connect the USB memory device to the USB port.



- 3) Switch to the download mode to use.

In the case of normal mode (Recommended)

Select the following in Service Mode: COPIER > FUNCTION > SYSTEM > DOWNLOAD; and then press [OK].

- In the case of safe mode (This mode should not be used as general rule. To be used only when normal startup fails, such as a system error, etc.)
- While pressing 2 + 8 keys at the same time, turn ON the Main Power Switch.
- Once this machine recognizes the USB memory storage device, the following menu is displayed on the Control Panel.

CAUTION:

Depending on the manufacturer or the model, this machine may not recognize the USB memory storage device.

This machine retries the detection of a USB memory storage device for up to 60 seconds after power-ON. The above menu is not displayed if the recognition of a USB memory storage device is failed within the time period.

In such a case, use another USB memory storage device.

● Downloading Andale Font

1) Select "[1]: Select Version".

```
[[[[[[[[[[ Root Menu (USB) ]]]]]]]]]
-----
[1] : Select Version

[4] : Clear/Format
[5] : Backup/Restore
[8] : Download File

[Reset]: start shutdown sequence
```

2) Select "[1]: PCL_Option_Font_andele_01".

```
[[[[[[[[[[ Select Version (USB) ]]]]]]]]]
-----
[1] : PCL_Option_Font_andele_01
[C] : Return to Root Menu
```

3) Select "[1]: Update".

```
[[[[[[[[[[ AddCL Update Main Menu (USB) ]]]]]]]]]
-----
[1] : Update
[4] : Clear/Format
[5] : Backup/Restore
[8] : Download File
[C] : Return to Select Version
[Reset]: Start shutdown sequence
```

4) Select "0".

```
/[1] Update selected. Execute?/
- (OK) : 0 / (CANCEL) : Any other keys -
```

5) Completion of the update automatically restarts the device.

■ Operation check after making the settings

Output the font list, and check that the font has been added.

PCL Internal Fonts						
Font Name	Format	Typeface	Style	Stroke#	Font/Point	Sample
1101 Line Screen	10	0	0	0	29-0078/11	
1101 Line Screen	10	0	0	0	30-0079/11	AAAAAAAA
1101 Line Screen	10	0	0	0	31-007A/11	AAAAAAAAAAAAA
1101 Line Screen	10	0	0	0	32-007B/11	AAAAAAAAAAAAA
1101 Line Screen	10	0	0	0	33-007C/11	AAAAAAAAAAAAA
1101 Line Screen	10	0	0	0	34-007D/11	AAAAAAAAAAAAA
Andale®	10	0	0	0	35-007E/11	
Andale®	10	0	0	0	36-007F/11	
Andale®	10	0	0	0	37-0080/11	
Andale®	10	0	0	0	38-0081/11	
Andale®	10	0	0	0	39-0082/11	
Andale®	10	0	0	0	40-0083/11	
Andale®	10	0	0	0	41-0084/11	
Andale®	10	0	0	0	42-0085/11	
Andale®	10	0	0	0	43-0086/11	
Andale®	10	0	0	0	44-0087/11	
Andale®	10	0	0	0	45-0088/11	
Andale®	10	0	0	0	46-0089/11	
Andale®	10	0	0	0	47-008A/11	
Andale®	10	0	0	0	48-008B/11	
Andale®	10	0	0	0	49-008C/11	
Andale®	10	0	0	0	50-008D/11	
Andale®	10	0	0	0	51-008E/11	
Andale®	10	0	0	0	52-008F/11	
Andale®	10	0	0	0	53-0090/11	
Andale®	10	0	0	0	54-0091/11	
Andale®	10	0	0	0	55-0092/11	
Andale®	10	0	0	0	56-0093/11	
Andale®	10	0	0	0	57-0094/11	
Andale®	10	0	0	0	58-0095/11	
Andale®	10	0	0	0	59-0096/11	
Andale®	10	0	0	0	60-0097/11	
Andale®	10	0	0	0	61-0098/11	
Andale®	10	0	0	0	62-0099/11	
Andale®	10	0	0	0	63-009A/11	
Andale®	10	0	0	0	64-009B/11	
Andale®	10	0	0	0	65-009C/11	
Andale®	10	0	0	0	66-009D/11	
Andale®	10	0	0	0	67-009E/11	
Andale®	10	0	0	0	68-009F/11	
Andale®	10	0	0	0	69-00A0/11	
Andale®	10	0	0	0	70-00A1/11	
Andale®	10	0	0	0	71-00A2/11	
Andale®	10	0	0	0	72-00A3/11	
Andale®	10	0	0	0	73-00A4/11	
Andale®	10	0	0	0	74-00A5/11	
Andale®	10	0	0	0	75-00A6/11	
Andale®	10	0	0	0	76-00A7/11	
Andale®	10	0	0	0	77-00A8/11	
Andale®	10	0	0	0	78-00A9/11	
Andale®	10	0	0	0	79-00AA/11	
Andale®	10	0	0	0	80-00AB/11	
Andale®	10	0	0	0	81-00AC/11	
Andale®	10	0	0	0	82-00AD/11	
Andale®	10	0	0	0	83-00AE/11	
Andale®	10	0	0	0	84-00AF/11	
Andale®	10	0	0	0	85-00B0/11	
Andale®	10	0	0	0	86-00B1/11	
Andale®	10	0	0	0	87-00B2/11	
Andale®	10	0	0	0	88-00B3/11	
Andale®	10	0	0	0	89-00B4/11	
Andale®	10	0	0	0	90-00B5/11	
Andale®	10	0	0	0	91-00B6/11	
Andale®	10	0	0	0	92-00B7/11	
Andale®	10	0	0	0	93-00B8/11	
Andale®	10	0	0	0	94-00B9/11	
Andale®	10	0	0	0	95-00BA/11	
Andale®	10	0	0	0	96-00BB/11	
Andale®	10	0	0	0	97-00BC/11	
Andale®	10	0	0	0	98-00BD/11	
Andale®	10	0	0	0	99-00BE/11	
Andale®	10	0	0	0	100-00BF/11	

NOTE:

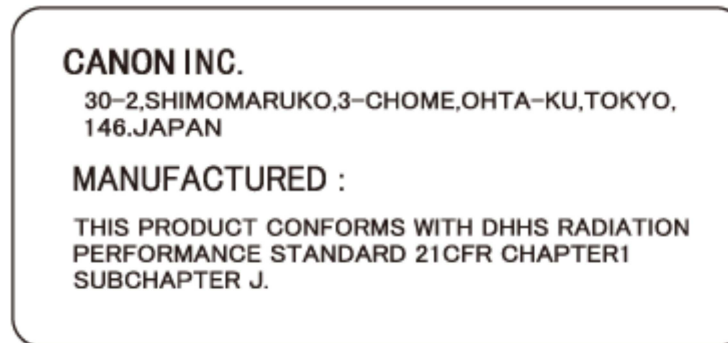
- Unless the LMS of Andale Font included in the kit is enabled, the installed font cannot be used.

Confirmation of the application condition

Please ask End User to confirm Readme.txt specifying terms and condition of using this software, which is included in Font Set Software CD

CDRH Act

The Center for Devices and Radiological Health of the US Food and Drug Administration put into force regulations concerning laser products on August 2, 1976. These regulations apply to laser products manufactured on and after August 1, 1976, and the sale of laser products not certified under the regulations is banned within the United States. The label shown here indicates compliance with the CDRH regulations, and its attachment is required on all laser products that are sold in the United States.



A different description may be used for a different product.

Laser Safety

Laser beam radiation may pose a danger to the human body. A laser scanner mounted on the machine is sealed with the protection housing and external cover to prevent the laser beam from leaking to the outside. The laser beam never leaks out of the scanner as far as users operate the machine normally.

The following warnings are given to comply with Safety Principles (EN60950).

Sicherheit des Lasers

Laserstrahlen können für den menschlichen Körper gefährlich sein. Aus diesem Grund ist das optische Lasersystem mit einem Schutzgehäuse und einer Außenabdeckung dicht verschlossen und hat eine Struktur, die keine Laserstrahlen nach außen dringen lässt. Unter der Voraussetzung, dass der Benutzer dieses Gerät normal bedient, ist ein Austritt von Laserstrahlen daher ausgeschlossen.

Handling of Laser System

When servicing the area around the laser assembly, be sure to turn off the main power.

If you must service while the power is turned on, be sure to keep the followings:

- Do not use a screwdriver or tools that have a high level of reflectance in the laser path.
- Remove watches and rings before starting the work. (They can reflect the laser beam, possibly hitting the eye.)

The machine's covers that can reflect laser light are identified by means of a warning label (Figure). If you must detach a cover showing the label, be sure to take extra caution during the work.

The following warnings are given to comply with Safety Principles (EN60950).

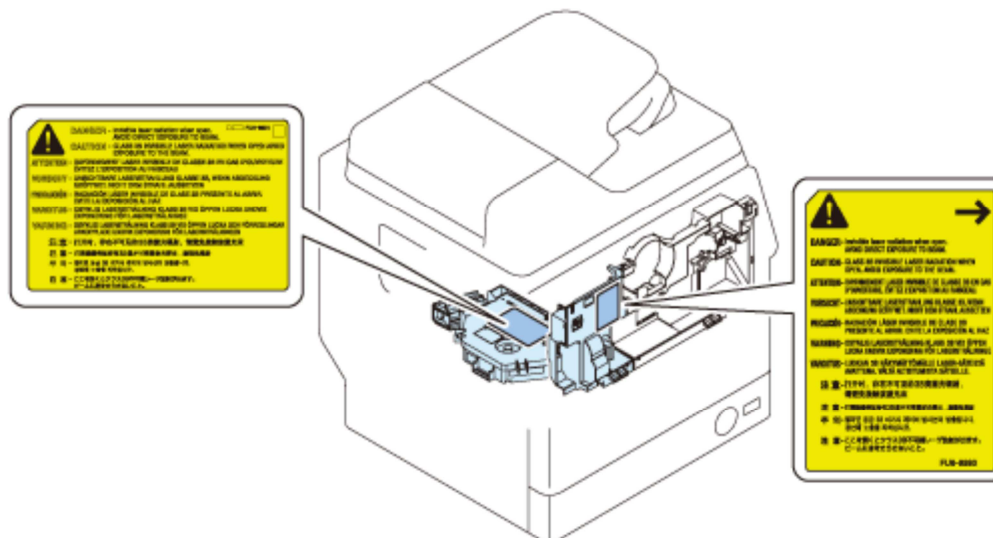
Handhabung des Laserteils

Bei Servicearbeiten am oder in der Nähe des Laserteils zuerst das Hauptgerät abschalten.

Bei Servicearbeiten, die unbedingt bei eingeschaltetem Gerät durchgeführt werden müssen, auf jeden Fall die folgenden Vorsichtsmaßnahmen beachten.

- Keine stark reflektierenden Schraubenzieher oder ähnliche Werkzeuge direkt in den Lichtpfad des Laserstrahls bringen.
- Vor Beginn der Arbeit Uhren, Ringe und ähnliche Gegenstände abnehmen. (Reflektierte Laserstrahlen könnten sonst in die Augen geraten.)

Abdeckungen, die möglicherweise Laserstrahlen reflektieren, haben in der auf dem Bild gezeigten Position einen Aufkleber. Bei Servicearbeiten auf der Innenseite von Abdeckungen mit Aufkleber ist besondere Vorsicht erforderlich.

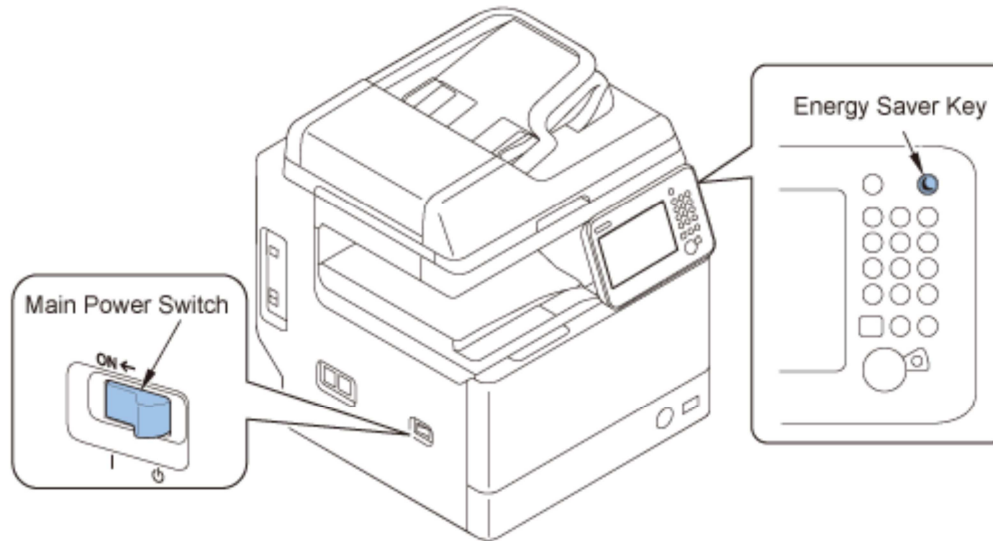


This product is certificated as a Class 1 laser product under IEC60825-1:2007.

Turn Power Switch ON

The machine is equipped with 2 power switches: main power switch and control energy saver key.

The machine goes on when the main power switch is turned on (i.e., other than in low power mode, sleep mode).



CAUTION:

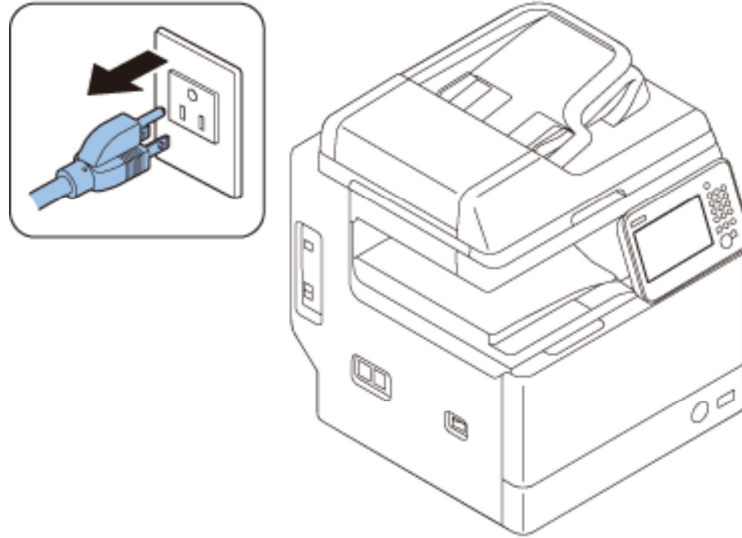
Do not turn off the main power switch while the progress bar is indicated, during which access is made to the HDD. If deprived of power, the HDD can suffer a fault (E602).



Power Supply



1. As a general rule, do not use extension cords. Using an extension cord may result in a fire or electrical shock. If an extension cord must be used, however, use one for local rated voltage and over, untie the cord binding, and insert the power plug completely into the extension cord outlet to ensure a firm connection between the power cord and the extension cord.
2. The socket-outlet shall be installed near the equipment and shall be easily accessible.



Safety of Toner

About Toner

The machine's toner is a non-toxic material made of plastic, iron, and small amounts of dye.



Do not throw toner into fire. It may cause explosion.

Toner on Clothing or Skin

- If your clothing or skin has come into contact with toner, wipe it off with tissue; then, wash it off with water.
- Do not use warm water, which will cause the toner to jell and fuse permanently with the fibers of the cloth.
- Toner is easy to react with plastic material, avoid contact with plastic.

Notes When Handling a Lithium Battery

 CAUTION:

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

The following warnings are given to comply with Safety Principles (EN60950).

 Achtung:

Wenn mit dem falschen Typ ausgewechselt, besteht Explosionsgefahr.
Gebrauchte Batterien gemäß der Anleitung beseitigen.

 警告

如果更換不正確之電池型式會有爆炸的風險
請依製造商說明書處理用過之電池

Notes Before Servicing



At servicing, be sure to turn OFF the power source according to the specified steps and disconnect the power plug.

Points to Note at Cleaning

CAUTION:

When performing cleaning using organic solvent such as alcohol, be sure to check that the component of solvent is vaporized completely before assembling.

Notes On Assembly/Disassembly

Follow the items below to assemble/disassemble the device.

1. Disconnect the power plug to avoid any potential dangers during assembling/disassembling works.
2. If not specially instructed, reverse the order of disassembly to reinstall.
3. Ensure to use the right screw type (length, diameter, etc.) at the right position when assembling.
4. To keep electric conduction, binding screws with washers are used to attach the grounding wire and the varistor. Ensure to use the right screw type when assembling.
5. Unless it is specially needed, do not operate the device with some parts removed.
6. Never remove the paint-locked screws when disassembling.

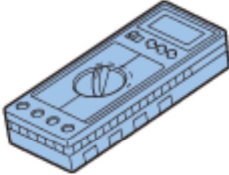
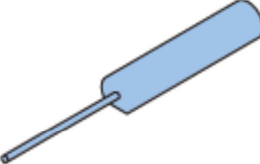
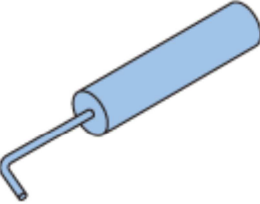
CAUTION
DOUBLE POLE/NEUTRAL FUSING

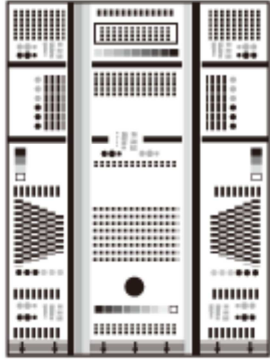
ACHTUNG
Zweipolige bzw. Neutraleiter-Sicherung

Service Tools

Special Tools

In addition to the standard tools set, the following special tools are required when servicing the machine:

Tool name	Tool No.	Rank (*)	Shape	Uses
Digital multimeter	FY9-2002	A		For making electrical checks.
Tester extension pin	FY9-3038	A		As an addition when making an electrical check.
Tester extension pin (L-shipped)	FY9-3039	A		As an addition when making an electrical check.
NA-3 Test Chart	FY9-9196	A		For checking and adjusting images.

Tool name	Tool No.	Rank (*)	Shape	Uses
				

*

A: each service engineer is expected to carry one.

B: each group of 5 service engineers is expected to carry one.

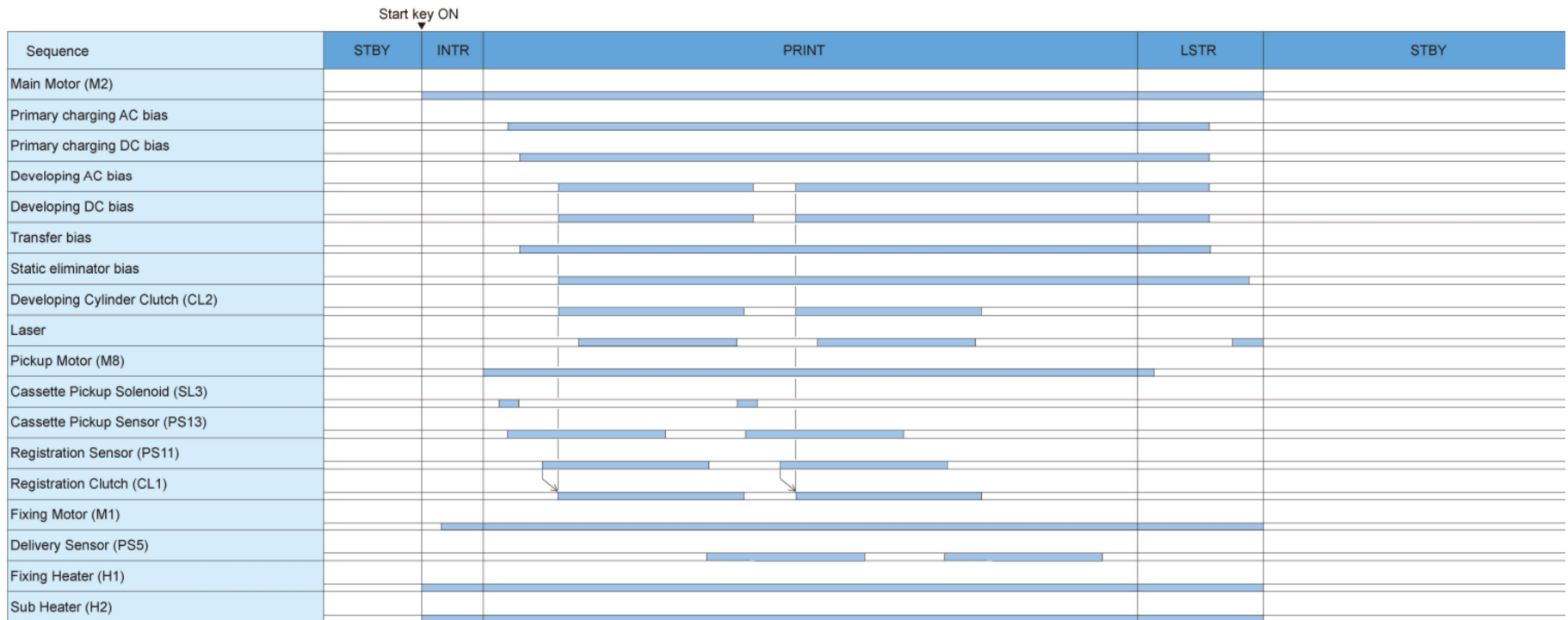
C: each workshop is expected to carry one.

Oils and Solvents

Name	Uses	Composition	Remarks
Alcohol	Cleaning; e.g., glass, plastic, rubber; external covers.	Fluoride-family hydrocarbon Alcohol Surface activating agent Water	<ul style="list-style-type: none"> Do not bring near fire. Procure locally. Substitute: IPA (isopropyl alcohol)
Solvent	Cleaning; e.g., metal; oil or toner stain.	Fluoride-family hydrocarbon Chlorine-family hydrocarbon Alcohol	<ul style="list-style-type: none"> Do not bring near fire. Procure locally Substitute: MEK
Lubricating oil (EM-50L)	Lubrication; e.g., gears.	Special oil Special solid lubricating agent Lithium soap	<ul style="list-style-type: none"> Tool No.: HY9-0007
Lubricating oil	Lubrication; e.g., drive areas, friction areas, scanner rail.	Silicone oil	<ul style="list-style-type: none"> Tool No.: FY9-6022

General Timing Chart

Basic sequence at printing (A4 single-sided print (2 sheets), cassette)



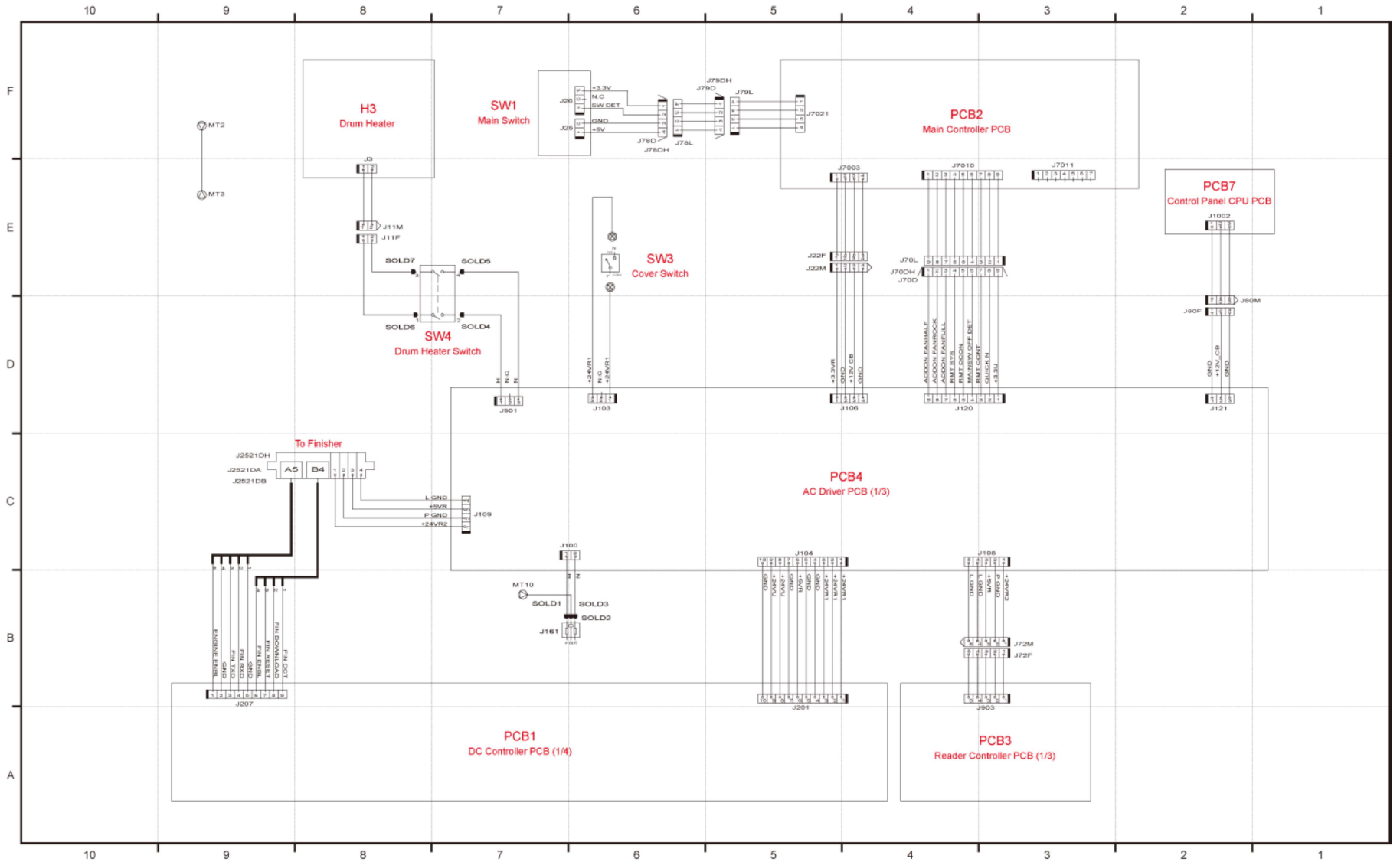
Basic sequence at printing (A4 double-sided print (1 sheet), cassette)

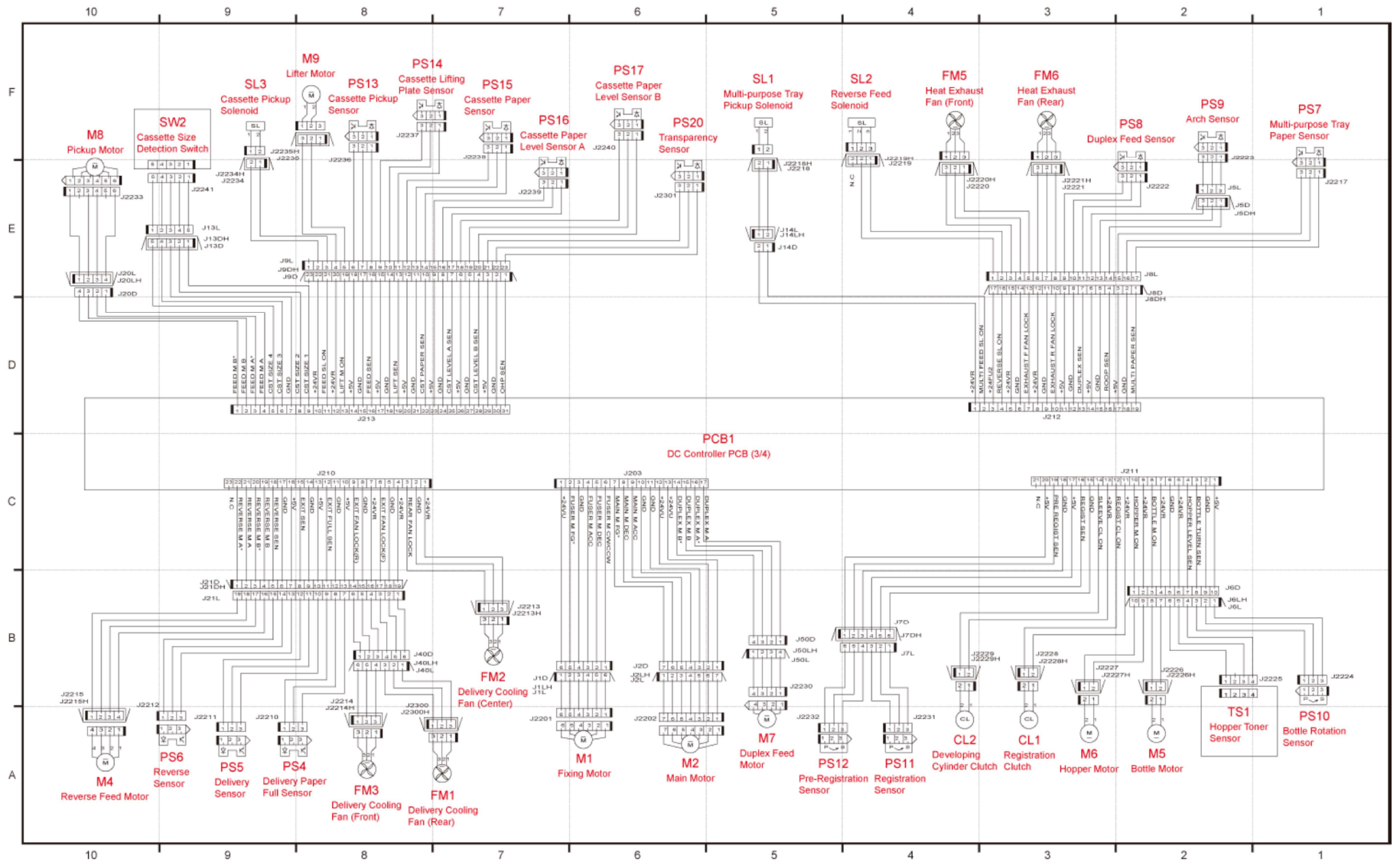
Start key ON

Sequence	STBY	INTR	PRINT	LSTR	STBY
Main Motor (M2)					
Primary charging AC bias					
Primary charging DC bias					
Developing AC bias					
Developing DC bias					
Transfer bias					
Static eliminator bias					
Developing Cylinder Clutch (CL2)					
Laser					
Pickup Motor (M8)					
Cassette Pickup Solenoid (SL3)					
Cassette Pickup Sensor (PS13)					
Registration Sensor (PS11)					
Registration Clutch (CL1)					
Reverse Feed Motor (M4)					
Reverse Feed Solenoid (SL2)					
Reverse Sensor (PS6)					
Duplex Feed Motor (M7)					
Duplex Feed Sensor (PS8)					
Fixing Motor (M1)					
Delivery Sensor (PS5)					
Fixing Heater (H1)					
Sub Heater (H2)					

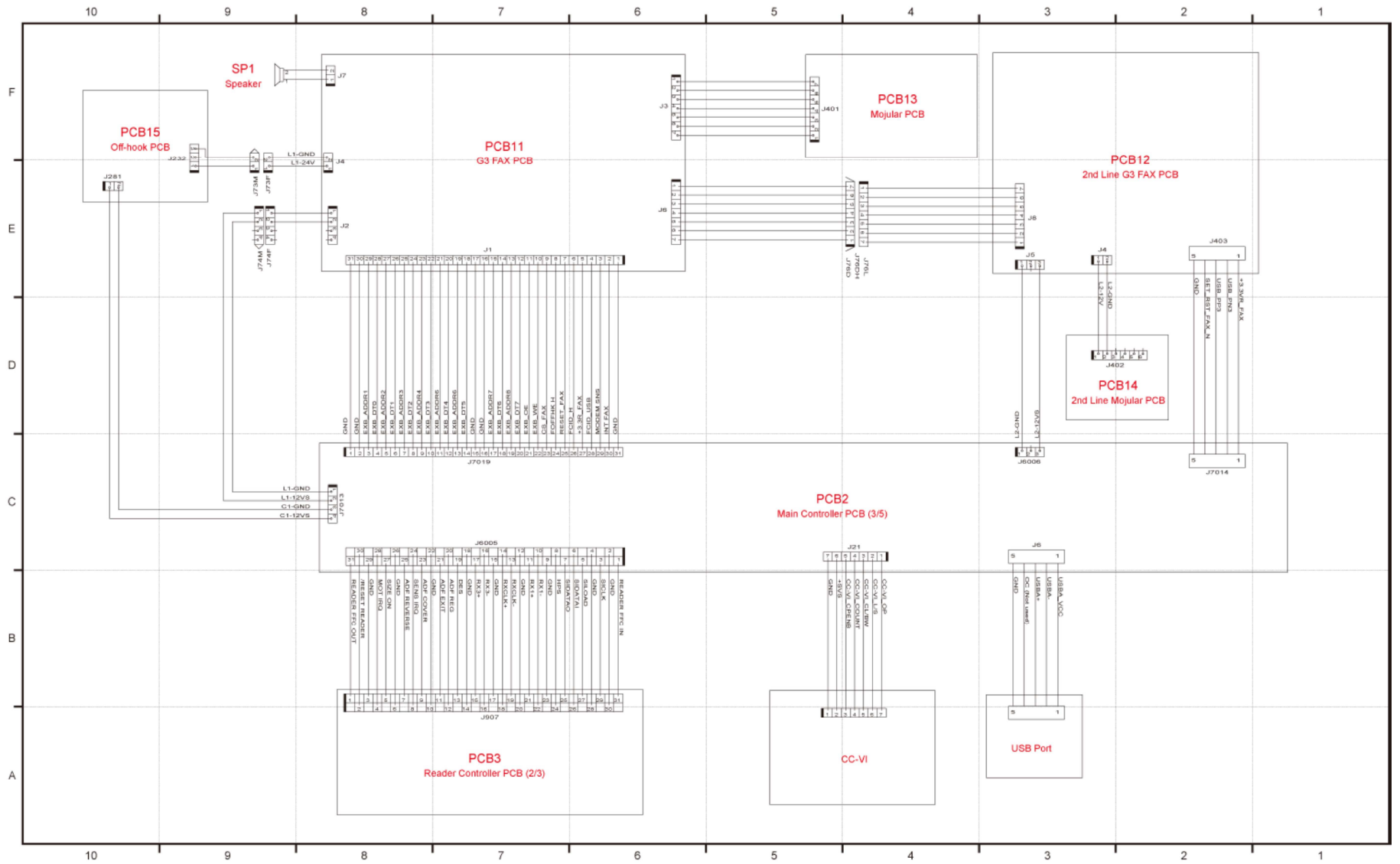
General Circuit Diagram

■ General Circuit Diagram (1/10)

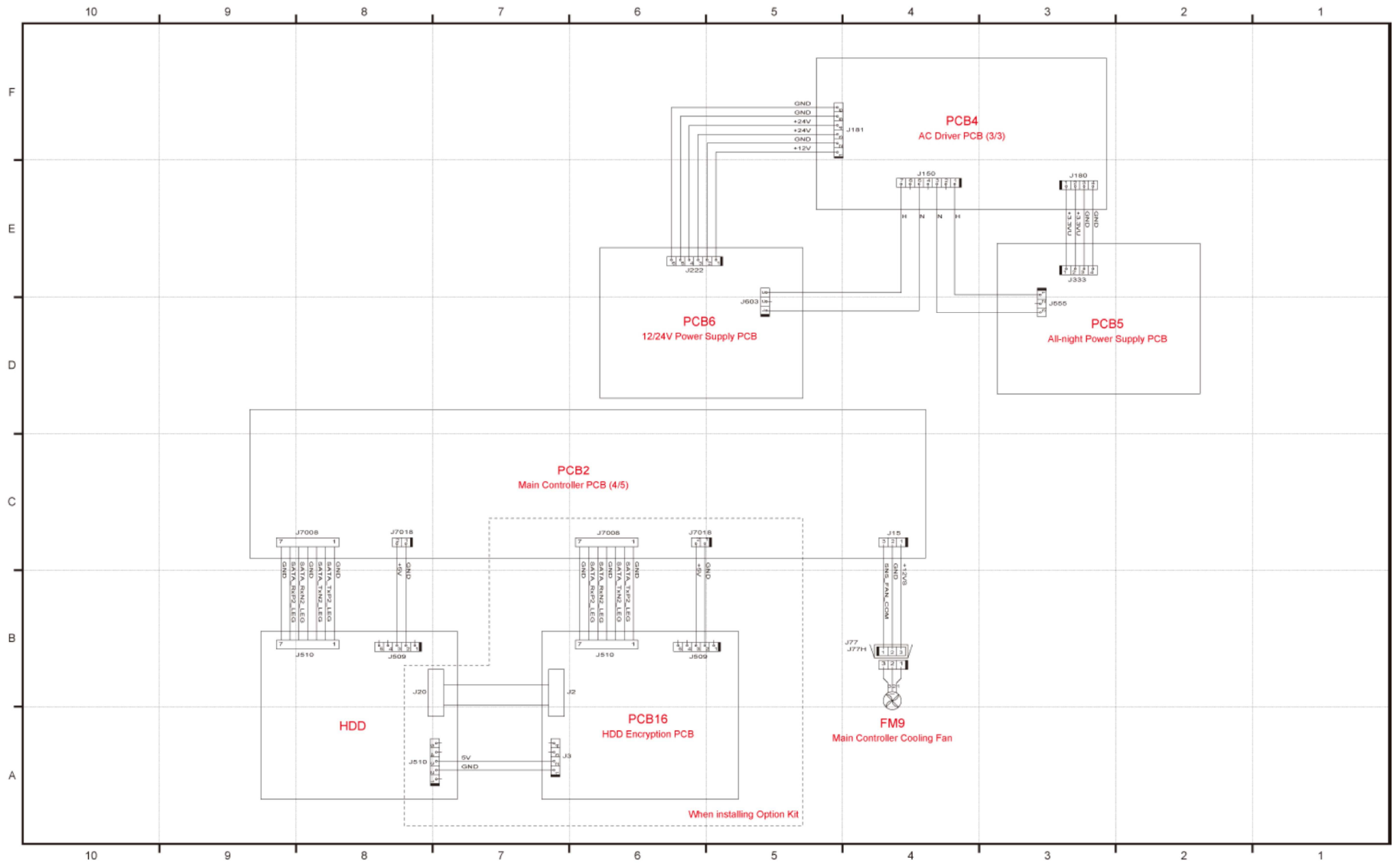




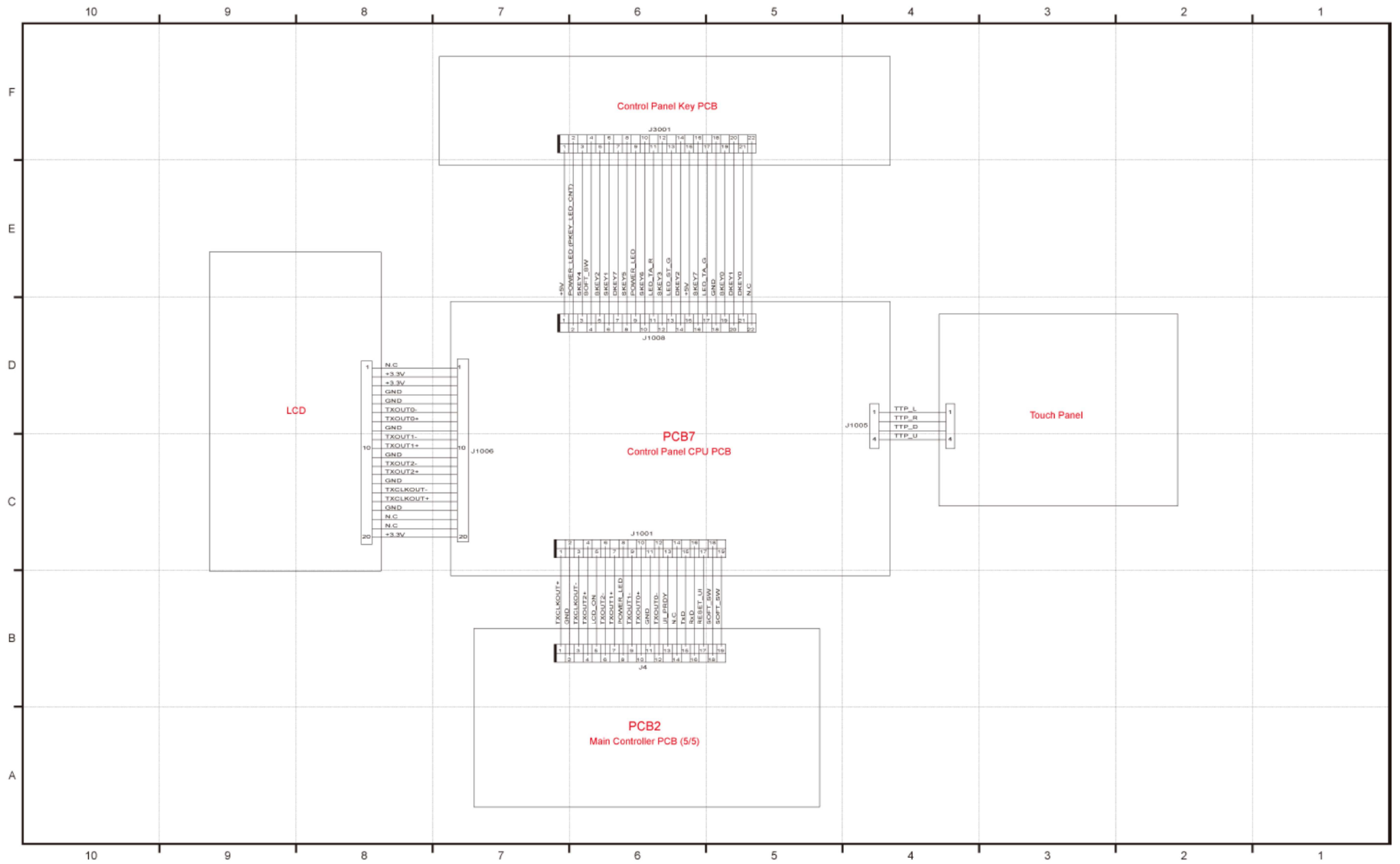
■ General Circuit Diagram (4/10)



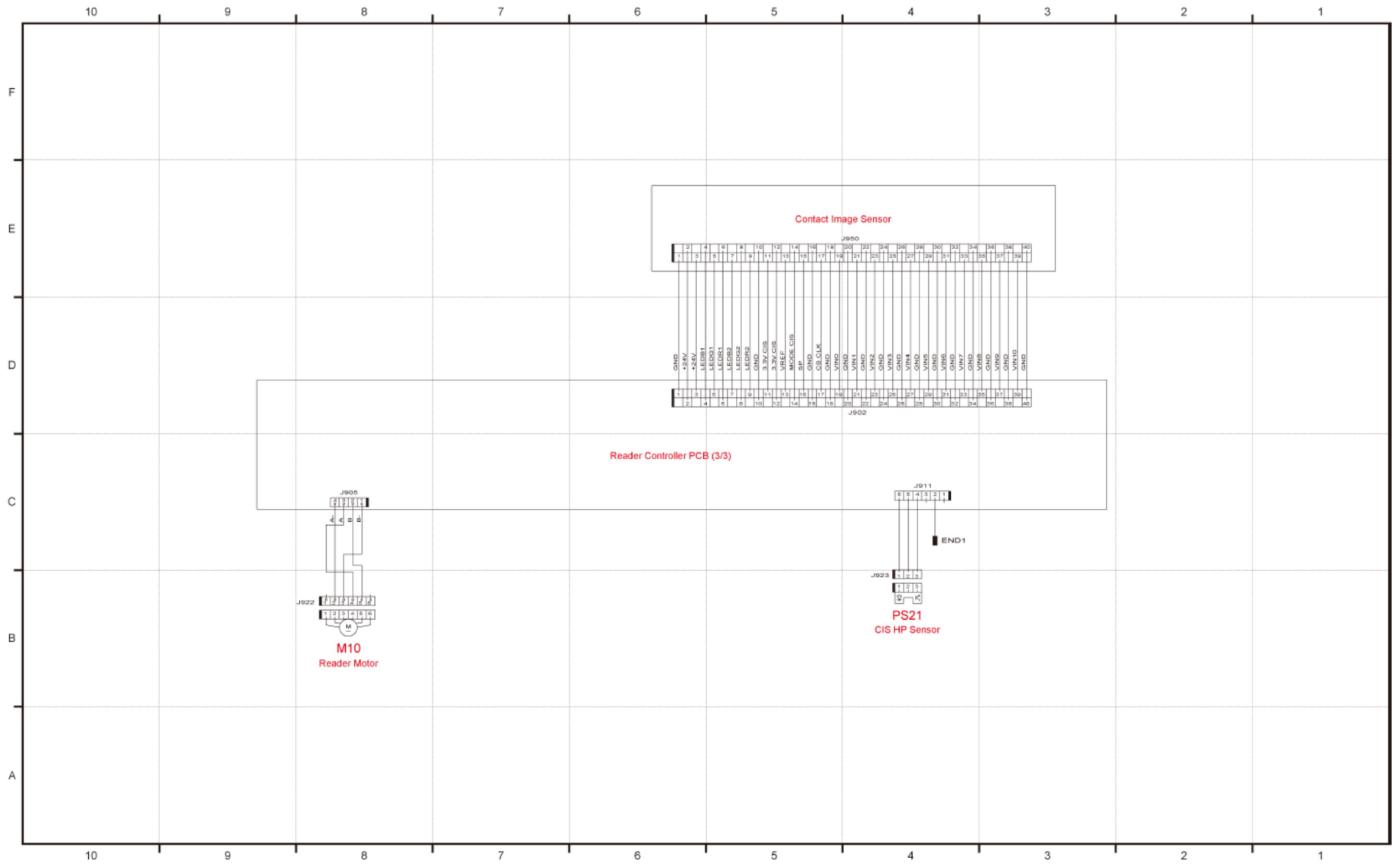
■ General Circuit Diagram (6/10)



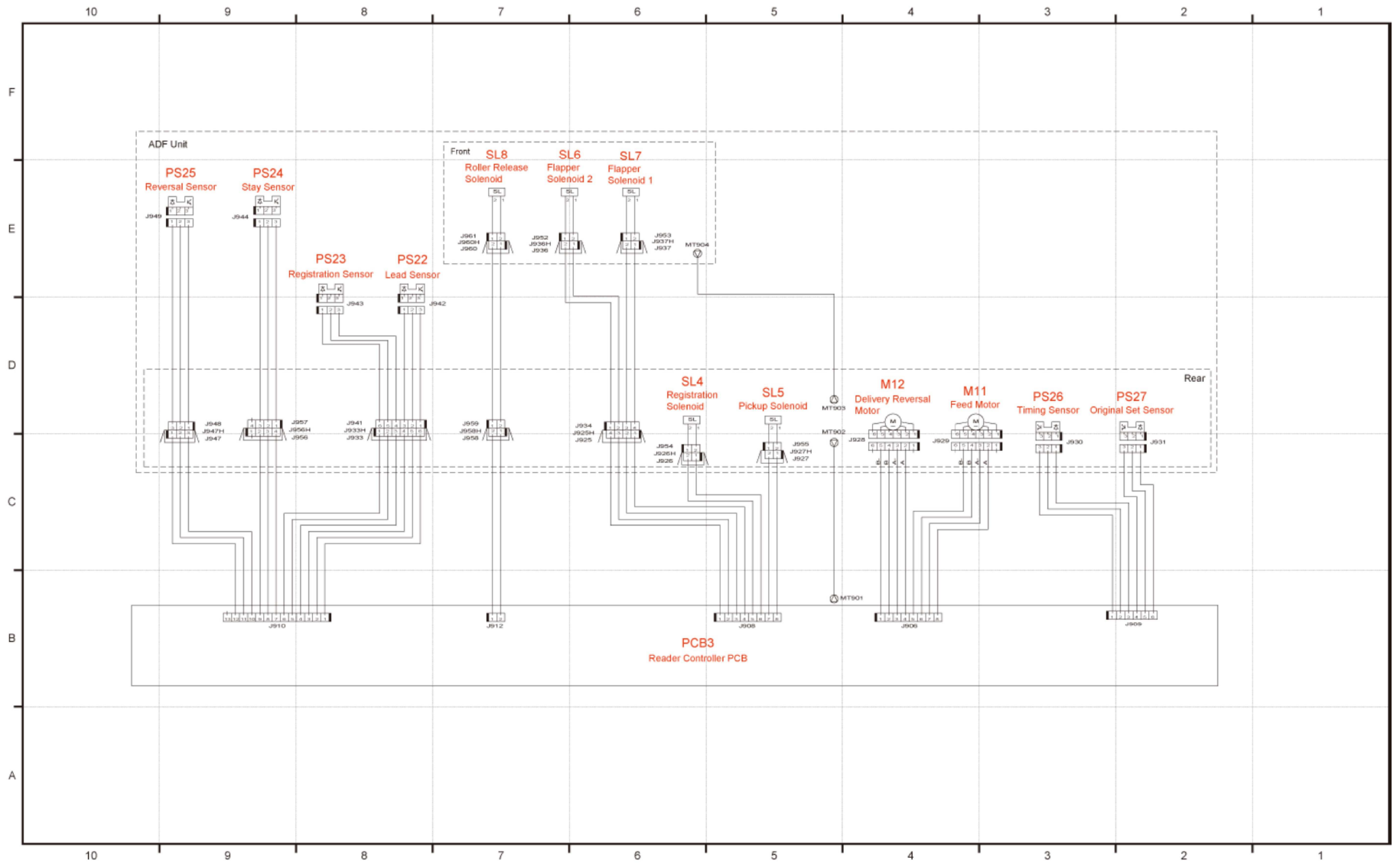
■ General Circuit Diagram (7/10)



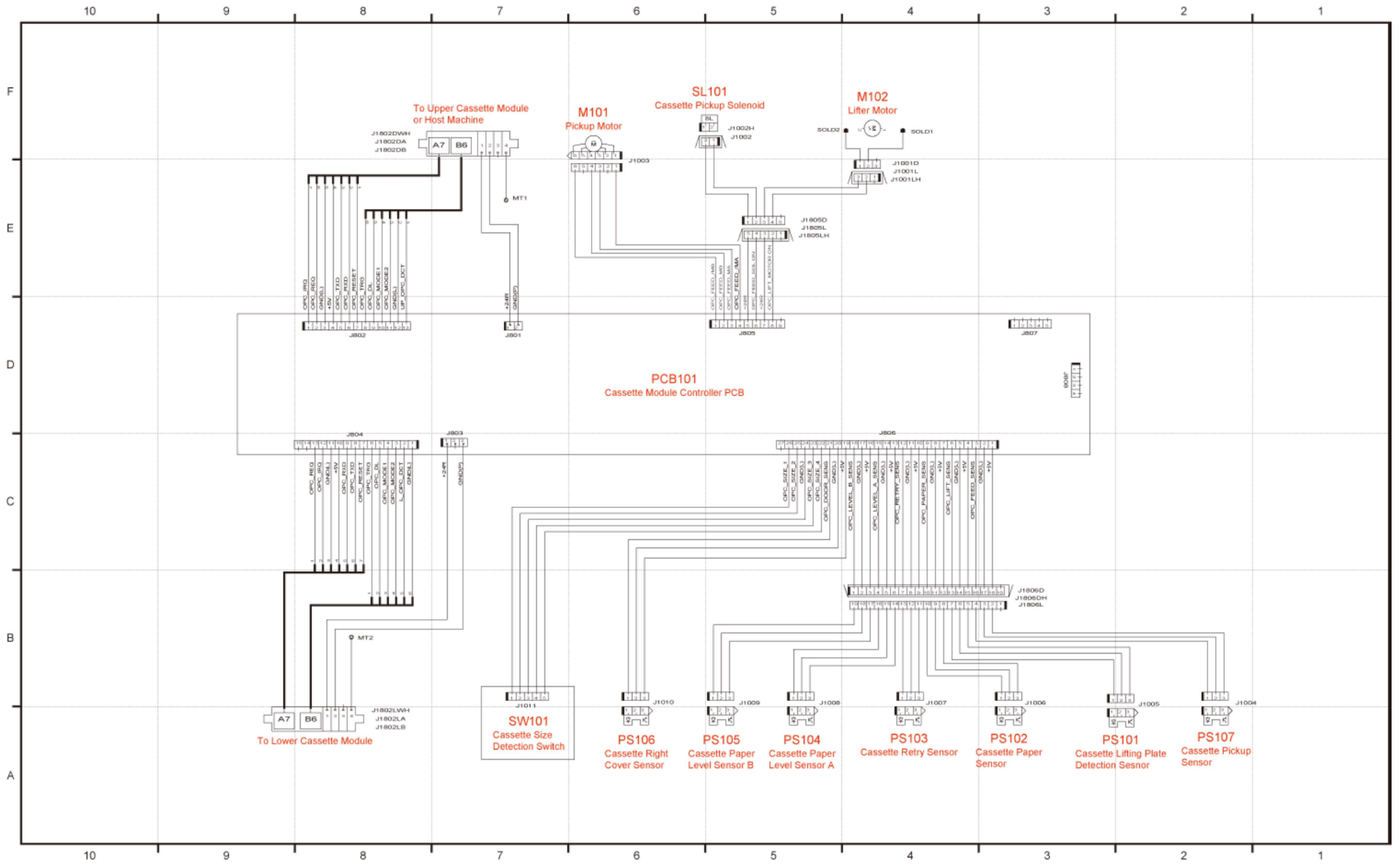
■ General Circuit Diagram (8/10)



■ General Circuit Diagram (9/10)



■ General Circuit Diagram (10/10)



List of User Mode

Environment Settings

■ Paper Settings

* Default Settings

Item	Setting Description	Device Information DeliveryAvailable
Paper Settings	Plain*, Heavy 1 (25 bond-28 bond), Color (17 bond-24 bond), Recycled, Pre-Punched, Envelope	No
A5R/STMTR Original Selection	A5R, STMT*	No
Paper Type Management Settings	Details/Edit <ul style="list-style-type: none"> • Name, Category, Basis Weight, Type, Finish, Color 	Yes
	Duplicate, Delete	No
Register Multi-Purpose Tray Defaults	On, Off*	No
Register Custom Size	S1 to S4: Register/Edit, Delete, Rename	Yes

■ Display Settings

* Default Settings

*1 Indicates items that appear only when the appropriate optional product is available for use.

Item	Setting Description	Device Information DeliveryAvailable
Default Screen at Startup	Main Menu*, Quick Menu, Copy, Fax, Scan and Send, Scan and Store, Access Stored Files, Fax/I-Fax Inbox, Secure Print, Scanner, Web Access*1, Tutorial, Workflow Composer*1	No
	Open Status Monitor/Cancel: On, Off*	No

Item	Setting Description	Device Information Delivery Available
Default Screen (Status Monitor/Cancel)	Default Status Type: Copy/Print*, Send, Receive, Store, Consumables	No
	Status/Log: Job Status*, Log	No
	Details: Print Jobs, Send Jobs, Receive Jobs, Copy, Fax, Forward, Local Print, Printer, RX Print, Print Report	No
Display Fax Function	On*, Off	No
	Enable Fax in Scan and Send Function: On*, Off	No
Store Location Display Settings	Network: On*, Off	No
	Memory Media: On, Off*	No
Language/Keyboard Switch On/Off	On, Off*	No
Language/Keyboard Switch	Language, Keyboard Layout	No
Use Keyboard Shift Lock Feature	On, Off*	No
Display Remaining Paper Message	On*, Off	No
No. of Copies/Job Duration Status	On*, Off	No
Display Original Scanning Cleaning Area	On*, Off	No
Paper Type Selection Screen Priority	Simple*, Detailed	No
mm/Inch Entry Switch	mm, inch*	Yes
ID/User Name Display On/Off	On*, Off	No

■ Timer/Energy Settings

* Default Settings

Item	Setting Description	Device Information Delivery Available
Adjust Time	00: 00 to 23: 59, in one minute increments	No
Date/Time Settings	Date and Time Setting (12 digit number)	No
	Time Zone: GMT -12: 00 to GMT +12: 00 (GMT -05:00*)	No
	Daylight Saving Time: On, Off*	No
	Start Date (Month/Day/Time (0 to 23)) (March, 2nd, Sunday, 2:00)*	No
	End Date (Month/Day/Time (0 to 23)) (November, 1st, Sunday, 2:00)*	No
Time Format	24 Hour, 12 Hour*	No
Quick Startup Settings for Main Power	On*, Off	Yes
Auto Reset Time	0 (Off), 10 to 50 seconds in 10 seconds increments, 1 to 9 minutes in one minute increments (2minutes*)	Yes
Restrict Auto Reset Time	On, Off*	Yes
Function After Auto Reset	Initial Function*, Selected Function	Yes
Auto Sleep Time	10 secs, 1, 2, 10, 15, 20, 30, 40, 50 mins., 1 hour, 90 mins., 2, 3, 4 hours (1 mins*)*1	Yes
Sleep Mode Energy Use	Low*, High	Yes
Auto Sleep Weekly Timer	Sunday to Saturday, 00: 00 to 23: 59, in one minute increments	Yes
Sleep Mode Exit Time Settings	00: 00 to 23: 59, in one minute increments	Yes

*1 It is recommended that you use the default setting for this item.

■ Network

If you are configuring the settings for the first time in "Interface Settings," "TCP/IPv4 Settings," "TCP/IPv6 Settings," or "Settings Common to TCP/IPv4 and TCP/IPv6," use the control panel of the machine. After configuring the TCP/IP settings, you can change them using the Remote UI.

If you are using a NetWare network, you must use the TCP/IP protocol if you want to specify settings using software other than the control panel of the machine.

* Default Settings

*1 Indicates items that appear only when the appropriate optional product is available for use.

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Output Report	Yes, No	Yes	No
Confirm Network Connection Set. Changes	On, Off*	No	Yes
TCP/IP Settings			
IPv4 Settings			
Use IPv4	On*, Off	Yes	No
IPv4 Address Settings	IP Address: 0.0.0.0*	Yes	No
	Subnet Mask: 0.0.0.0*	Yes	No
	Gateway Address: 0.0.0.0*	Yes	No
	Auto IP: On, Off*	Yes	No
	DHCP: On, Off*	Yes	Yes
DHCP Option Settings	Acquire Host Name: On*, Off	Yes	No
	DNS Dynamic Update: On, Off*	Yes	No
PING Command	IP Address: 0.0.0.0*	No	No
IPv6 Settings			
Use IPv6	On, Off*	Yes	No
Stateless Address Settings	Use Stateless Address: On*, Off	Yes	No
Manual Address Settings	Use Manual Address: On, Off*	Yes	No
	Manual Address: IPv6 Address (39characters maximum)	Yes	No
	Prefix Length: 0 to 128 (64*)	Yes	No
	Default Router Address (39 characters maximum)	Yes	No
Use DHCPv6	On, Off*	Yes	Yes

Item		Setting Description	Can be set in Remote UI	Device Information Delivery Available
	PING Command	IPv6 Address: (39characters maximum)	Yes	No
	Host Name	-	Yes	No
DNS Settings				
DNS Server Address Settings				
	IPv4	Primary DNS Server: IP Address:0.0.0.0*	Yes	No
		Secondary DNS Server: IP Address:0.0.0.0*	Yes	No
	IPv6	Primary DNS Server: IPv6 Address	Yes	No
		Secondary DNS Server: IPv6 Address	Yes	No
DNS Host/Domain Name Settings			Yes	No
	IPv4	Host Name: (Canon + represents the last six digits of a MAC address)	Yes	No
		Domain Name:	Yes	No
	IPv6	Use Same Host Name/Domain Name as IPv4:On, Off*	Yes	No
		Host Name: (Canon + represents the last six digits of a MAC address)	Yes	No
		Domain Name:	Yes	No
DNS Dynamic Update Settings				
	IPv4	DNS Dynamic Update: On, Off*	Yes	No
	IPv6	DNS Dynamic Update: On, Off*	Yes	No
		Register Stateless Address: On, Off*	Yes	No
		Register Manual Address: On, Off*	Yes	No
		Register Stateless Address: On, Off*	Yes	No
mDNS Settings				
	IPv4	Use IPv4 mDNS: On, Off*	Yes	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
IPv6	mDNS Name (63 characters maximum) (NULL*)	Yes	No
	Use IPv6 mDNS: On, Off*	Yes	No
	Use Same mDNS Name as IPv4 mDNS: On, Off*	Yes	No
	mDNS Name (63 characters maximum) (NULL*)	Yes	No
WINS Settings			
	WINS Resolution	On, Off*	Yes No
	WINS Server Address	IP Address: 0.0.0.0*	Yes No
	Node Type	Auto Set (display only)	No No
	Scope ID	(NULL*)	Yes No
LPD Print Settings			
	LPD Print Settings	On*, Off	Yes Yes
	LPD Banner Page ^{*1}	On, Off*	Yes Yes
RAW Print Settings			
	RAW Print Settings	On*, Off	Yes Yes
	Bidirectional Communication	On, Off*	Yes Yes
SNTP Settings			
	Use SNTP	On, Off*	Yes No
	Polling Interval	1 to 48 hours in one hour increments (24hours*)	Yes No
	NTP Server Address	IP address or host name	Yes No
	Check NTP Server	-	Yes No
FTP Print Settings			
	Use FTP printing	On, Off*	Yes Yes

Item		Setting Description	Can be set in Remote UI	Device Information Delivery Available
	User name	User name for FTP server login (guest*)	Yes	No
	Password	Password for FTP server login (7654321*)	Yes	No
WSD Print Settings				
	Use WSD	On, Off*	Yes	Yes
	Use WSD Browsing	On, Off*	Yes	Yes
	Use Multicast Discovery	On, Off*	Yes	Yes
Use FTP PASV Mode				
	Use FTP PASV Mode	On, Off*	Yes	Yes
IPP Print Settings				
	IPP Print Settings	On, Off*	Yes	Yes
	Use SSL	On, Off*	Yes	No
	Use Authentication	On*, Off	Yes	No
	User name	User name for IPP authentication (guest*)	Yes	No
	Password	Password for IPP authentication (7654321*)	Yes	No
Multicast Discovery Settings				
	Response	On* Off	Yes	Yes
	Scope name	Scope name to be used for a multicast discovery (default*)	Yes	No
	Use HTTP	On* Off	Yes	Yes
	Use Web DAV Server	On, Off*	Yes	Yes
	SSL Settings	Settings that use SSL	Yes	No
Key and Certificate				
	Set as the Default Key	(NULL)	Yes	No
	Certificate Details		Yes	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
	Version, Serial Number, Signature Algorithm, Issue Destination, Validity Start Date, Validity End Date, Issuer, Public Key, Certificate Thumbprint, Verify Cert.		
	Display Use Location (Key and Certificate)	Yes	No
Proxy Settings			
	Use proxy	On, Off*	Yes No
	Server Address	IP address or FQDN	Yes No
	Port Number	1 to 65535 (80*)	Yes No
	Use Proxy within the Same Domain	On, Off*	Yes No
Set Authentication			
	Use Proxy Auth.	On, Off*	Yes No
	User	(NULL)	Yes No
	Password	(NULL)	Yes No
	Confirm Dept. ID PIN	On, Off*	Yes No
IPSec Settings			
	Use IPSec	On, Off*	Yes No
	Receive Non-policy Packets	Allow*, Reject	Yes No
	Policy On, Off	On*, Off	Yes No
	Register	Policy Name (24 characters maximum) (NULL*)	Yes No
Selector Settings			
	Local Address	All IP Addresses*, IPv4 Address, IPv6 Address, IPv4 Manual Settings, IPv6 Manual Settings	Yes No
	<ul style="list-style-type: none"> • IPv4 Manual Settings 	Single Address*, Address Range(First Address, Last Address), Subnet Settings(Address, Subnet Mask)	Yes No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available	
	<ul style="list-style-type: none"> IPv6 Manual Settings 	Single Address*, Address Range (First Address, Last Address), Specify Prefix (Address, Prefix Length)	Yes	No
	Prefix Length (0 to 128)	64*	Yes	No
	Remort Address	All IP Addresses*, All IPv4Address, All IPv6Address, IPv4Manual Settings, IPv6 Manual Settings	Yes	No
	<ul style="list-style-type: none"> IPv4 Manual Settings 	Single Address*, Address Range(First Address, Last Address), Subnet Settings(Address, Subnet Mask)	Yes	No
	<ul style="list-style-type: none"> IPv6 Manual Settings 	Single Address*, Address Range (First Address, Last Address), Specify Prefix (Address, Prefix Length)	Yes	No
	Prefix Length (0 to 128)	64*	Yes	No
	Port	Specify by Port Number*, Specify by Service Name	Yes	No
	<ul style="list-style-type: none"> Specify by Port Number 	Local Port(All Ports*, Single Port), Remote Port(All Ports*, Single Port)	Yes	No
	Single Port (1 to 65535)	0*	Yes	No
	<ul style="list-style-type: none"> Specify by Service Name Service On/Off 	On, Off	Yes	No
IKE Settings				
	IKE mode	Main*, Aggressive	Yes	No
	Authentication Method	Pre-Shared Key Method*, Digital sig. Method	Yes	No
	<ul style="list-style-type: none"> Key and Certificate 	Set as the Default Key	Yes	No
	Certificate Details	Version, Serial Number, Signature Algorithm, Issue Destination, Validity Start Date, Validity End Date, Issuer, Public Key, Certificate Thumbprint, Verify Cert	Yes	No
	Display Use Location	(Key and Certificate)	Yes	No
	Auth./Encryption Algorithm	Auto*, Manual Settings	Yes	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Manual Settings	<ul style="list-style-type: none"> • Authentication SHA1: On*, Off • Authentication SHA2: On*, Off • Encryption 3DES-CBC: On*, Off • Encryption AES-CBC: On, Off* • Encryption DH Group:Group1 (768), Group2 (1024)*, Group14 (2048), ECDH-P256, ECDH-P384 	Yes	No
IPSec Network Settings			
Validity Time	1 to 65535minuites (480minuites*)	Yes	No
Validity Size	On, Off*	Yes	No
	On:1 to 65535 MB (0 MB)*	Yes	No
PFS	On, Off*	Yes	No
Auth./Encryption Algorithm	Auto*, Manual Settings	Yes	No
Auth./Encryption Algorithm	Manual Settings(ESP*, ESP (AES-GCM), AH (SHA1))	Yes	No
ESP Settings	<ul style="list-style-type: none"> • ESP Auth. SHA1: On*, Off 	Yes	No
	NULL: On, Off*	Yes	No
	<ul style="list-style-type: none"> • ESP Encryption 3DES-CBC: On*, Off 	Yes	No
	AES-CBC: On, Off*	Yes	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
	NULL: On, Off*	Yes	No
ESP (AES-GCM) Settings	None	Yes	No
AH (SHA1) Settings	None	Yes	No
Connect. Mode	Transport (display only)	No	No
Edit	-	Yes	No
Delete	-	Yes	No
Print List	Yes, No	No	No
Netware Settings			
Use NetWare	On, Off*	Yes	Yes
Frame Type	Auto Detect*, Ethernet II, Ethernet 802.2, Ethernet 802.3, Ethernet SNAP	Yes	No
IPX External Network Number	Auto Set (display only)	-	No
Node Number	Auto Set, (display only)	-	No
Print Service	Bindery PServer, RPrinter, NDS PServer*, NPrinter	Yes	No
Packet Signature	Auto Set (display only)	-	No
Bindery Pserver Settings			
Print Server Name	(NULL)	Yes	No
File Server Name	(NULL)	Yes	No
Print Server Password	(NULL)	Yes	No
Printer Number	0 to 15 (0*)	Yes	No
Polling Interval	1 to 15seconds (5sedonds*)	Yes	No
Printer Form	0 to 255 (0*)	Yes	No
Buffer Size	1 to 20 KB (20KB*)	Yes	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
	Service Mode	Yes	No
RPrinter Settings			
	Print ServerName	Yes	No
	File ServerName	Yes	No
	Printer Number	Yes	No
NDS PServer Settings			
	Printer Number	Yes	No
	Tree Name	Yes	No
	Context	Yes	No
	Print Server Password	Yes	No
	Printer Number	Yes	No
	Polling Interval	Yes	No
	Printer Form	Yes	No
	Buffer Size	Yes	No
	Service Mode	Yes	No
NPrinter Settings			
	Print ServerName	Yes	No
	Tree Name	Yes	No
	Context	Yes	No
	Printer Number	Yes	No
SNMP Settings		Yes	No
	Use SNMPv1	Yes	Yes

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
Dedicated Comm. Settings			
	Dedicated Community On*, Off	Yes	No
	MIB Access Permission Read/Write, Read Only*	Yes	No
Community Name1Settings			
	Community Name1 On*, Off	Yes	No
	MIB Access Permission Read/Write, Read Only*	Yes	No
	Community Name (public*)	Yes	No
Community Name2 Settings			
	Community Name2 On, Off*	Yes	No
	MIB Access Permission Read/Write, Read Only*	Yes	No
	Community Name (public2*)	Yes	No
	Use SNMPv3 On, Off	Yes	No
User Settings			
	User On/Off On*, Off	Yes	No
	Register User Name, MIB Access Permis. (Read/Write, Read Only), Security Settings (Auth. Yes/Encry. Yes, Auth. Yes/Encry. No, Auth. No/Encrypt. No), Authent. Algorithm (MD5, SHA1), Authent. Password, Encryption Algorithm (DES, AES), Encryption Password	Yes	No
	Details/Edit User Name, MIB Access Permis. (Read/Write, Read Only), Security Settings (Auth. Yes/Encry. Yes, Auth. Yes/Encry. No, Auth. No/Encrypt. No), Authent. Algorithm (MD5, SHA1), Authent. Password, Encryption Algorithm (DES, AES), Encryption Password	Yes	No
	Delete -	Yes	No
Context Settings			
	Register Context Name	Yes	No
	Edit Context Name	Yes	No

Item		Setting Description	Can be set in Remote UI	Device Information Delivery Available
	Delete	-	Yes	No
	Get Printer Mgmt Info from Host	On, Off*	Yes	Yes
	Reject SNMP Packets While in Sleep Mode	On, Off*	Yes	No
Dedicated Port Settings				
	Dedicated Port Settings	On*, Off	Yes	Yes
Use Spool Function				
	Use Spool Function	On, Off*	Yes	Yes
Startup Settings				
	Startup Settings	30 to 300 seconds (30 seconds*)	Yes	No
Ethernet Driver Settings				
	Auto Detect	On*, Off	Yes	No
	Communication Mode	Half Duplex*, Full Duplex	Yes	No
	Ethernet Type	10 Base-T*, 100 Base-TX, 1000 Base-T	Yes	No
	MAC Address	Display only	-	No
IEEE802.1X Settings				
	Use IEEE802.1X	On, Off*	Yes	No
	Login Name	(NULL*)	Yes	No
	Use TLS	On, Off*	Yes	No
Key and Certificate				
	Set as the Default Key	-	Yes	No
	Certificate Details	Version, Serial Number, Signature Algorithm, Issue Destination, Validity Start Date, Validity End Date, Issuer, Public Key, Certificate Thumbprint, Verify Cert.	Yes	No

Item		Setting Description	Can be set in Remote UI	Device Information Delivery Available
	Display Use Location	(Key and Certificate)	Yes	No
	Use TTL	On, Off*	Yes	No
	TTLS Settings (TTLS Protocol)	MSCHAPv2*, PAP	Yes	No
	Use PEAP	On, Off*	Yes	No
	User Name	Name of the user to be authenticated with IEEE802.1X authentication (NULL*)	Yes	No
	Password	Password of the user to be authenticated with IEEE802.1X authentication (NULL*)	Yes	No
PEAP Settings				
	Same User Name as Login Name	On*, Off	Yes	No
Firewall Settings				
IPv4 Address Filter				
TX Filter				
	Use Filter	On, Off*	Yes	No
	Default Policy	Allow*, Reject	Yes	No
	IPv4 Address	Edit, Delete	Yes	No
	Register	Single Address*, Address Range (First Address, Last Address), Specify Prefix (Address, Prefix Length)	Yes	No
	Edit	Single Address*, Address Range (First Address, Last Address), Specify Prefix (Address, Prefix Length)	Yes	No
		Prefix Length (0 to 32)	Yes	No
RX Filter				
	Use Filter	On, Off*	Yes	No
	Default Policy	Allow*, Reject	Yes	No

Item		Setting Description	Can be set in Remote UI	Device Information Delivery Available
	IPv4 Address	Edit, Delete	Yes	No
	Register	Single Address*, Address Range (First Address, Last Address), Specify Prefix (Address, Prefix Length), Port Number (Do Not Specify, Specify)	Yes	No
	Specify (Port Number)	dd, Delete	Yes	No
	Details/Edit	Single Address*, Address Range (First Address, Last Address), Specify Prefix (Address, Prefix Length), Port Number (Do Not Specify, Specify)	Yes	No
	Specify (Port Number)	Add, Delete	Yes	No
		Prefix Length (0 to 32)	Yes	No
IPv6 Address Filter				
TX Filter				
	Use Filter	On, Off*	Yes	No
	Default Policy	Allow*, Reject	Yes	No
	IPv6 Address	Edit, Delete	Yes	No
	Register	Single Address* (Address), Specify Prefix (IPv6 Prefix, Prefix Length)	Yes	No
	Edit	Single Address* (Address), Specify Prefix (IPv6 Prefix, Prefix Length)	Yes	No
	Prefix Length	0 to 128	Yes	No
RX Filter				
	Use Filter	On, Off*	Yes	No
	Default Policy	Allow*, Reject	Yes	No
	IPv6 Address	Edit, Delete	Yes	No
	Register	Single Address* (Address), Specify Prefix (IPv6 Prefix, Prefix Length), Port Number (Do Not Specify, Specify)	Yes	No
	Specify (Port Number)	Add, Delete	Yes	No

Item	Setting Description	Can be set in Remote UI	Device Information Delivery Available
	Details/Edit	Single Address (Address), Specify Prefix (IPv6 Prefix, Prefix Length), Port Number (Do Not Specify, Specify)	Yes No
	Specify (Port Number)	Add, Delete	Yes No
	Prefix Length	0 to 128	Yes No
MAC Address Filter			
TX Filter			
	Use Filter	On, Off*	Yes No
	Default Policy	Allow*, Reject	Yes No
	MAC Address	Edit, Delete	Yes No
RX Filter			
	Use Filter	On, Off*	Yes No
	Default Policy	Allow*, Reject	Yes No
	MAC Address	Edit, Delete.	Yes No
	IP Address Block Log	Date, Type, IP Address, Port Number, Result, Details(Date, Type, IP Address, Port Number, Result)	Yes No

■ External Interface

* Default Settings

Item	Setting Description	Device Information Delivery Available
USB Settings		
Use USB Device	On*, Off	Yes
Use MEAP Driver for USB Device	On, Off*	Yes
Use MEAP Driver for USB External Drive	On, Off*	Yes

■ Accessibility

* Default Settings

Item	Setting Description	Device Information Delivery Available
Key Repetition Settings	Standard*, Slightly Slow, Slow	No
Reversed Display (Color)	On, Off*	No

Adjustment/Maintenance

■ Adjust Image Quality

* Default Settings

Item	Setting Description	Device Information Delivery Available
Auto Adjust Gradation	Press [Start Printing]	No
Correct Density	Copy, Black Scan for Send/Scan and Store, Color Scan for Send/Scan and Store: 9 levels each (5 levels*)	No
Fine Adjust Zoom	X, Y: -1.0% to +1.0%, in 0.1% increments (X: 0.0%* Y: 0.0%*)	No

■ Adjust Action

* Default Settings

Item	Setting Description	Device Information Delivery Available
Toner Saving Settings	On, Off*	No
Saving Level	Level 1*, Level 2	No

■ Maintenance

Item	Setting Description	Device Information Delivery Available
Clean Feeder	Start key	No

Item	Setting Description	Device Information Delivery Available
Clean Transfer Roller	Start key	No
Clean Pressure Roller for Fixing	Start Printing, Start Cleaning key	No
Initialize After Replacing Parts		
Drum Unit	Yes, No	No

Function Settings

■ Common

* Default Settings

*1 Indicates items that appear only when the appropriate optional product is available for use.

*2 Indicates items with no serial number or ID/user name.

Item	Setting Description	Device information Delivery Available
Paper Feed Settings		
Paper Drawer Auto Selection On/Off	Copy, Printer, Access Stored Files, Receive/Fax, Other	No
Multi-Purpose Tray	On, Off*	No
Other	On*, Off	No
Copy	Consider Paper Type : On*, Off	No
Feed Method Switch	MP Tray and Other: Speed Priority*, Print Side Priority	No
Suspended Job Timeout On	On, Off*	Yes
	0 to 999 min. (5min*)	Yes
Paper Output Settings		
Offset Jobs ^{*1}	On*, Off	Yes
Job Separator Between Jobs	On, Off*	Yes
	Change (Select Paper Source)	Yes

Item	Setting Description	Device information Delivery Available
Job Separator Between Copies	On, Off*	No
	Copies (1 to 9999) (10*)	No
	Change (Select Paper Source)	No
Print Settings		
Print Priority		
	Copy	1*,2,3
	Printer	1,2*,3
	Access Stored File, Receive/Fax, Other	1,2,3*
Output Report Default Settings		
	2-Sided Printing	On, Off*
	Register Characters for Page No./Watermark	Register, Edit, Delete
	Copy Set Numbering Option Settings	On, Off*
Number Option ON		
	ID/User Name	On, Off*
	Date	On, Off*
	Text	On, Off*
	Date Settings	dd/mm/yyyy*, yyyy/mm/dd, mm/dd/yyyy, yyyy.mm.dd, mm.dd.yyyy, dd.mm.yyyy
	Set Characters	-
	Alignment Settings	Align Left*, Align Center, Align Right
Secure Watermark Settings^{*1}		
Forced Secure Watermark		
	Copy	Set, Do Not Set*
		Yes*2

Item		Setting Description	Device information DeliveryAvailable
	Access Stored	Set, Do Not Set*	Yes*2
	Printer	Set, Do Not Set*	Yes*2
	Printer Driver Watermark	Set, Do Not Set*	Yes*2
Adjust Background/Character Contrast			
	Sample Print	-	No
	Relative Contrast	-7 to +7 (-1*)	No
	Pattern	, Arabesque, Fans*, Polka Dots, Stars, Mesh, Clouds, Cherry Blossoms, Leaves	No
	Size	36.0 pt, 54.0 pt*, 72.0 pt	No
	White Letters on Colored Background	On*, Off	No
	Standard Value Set	1 to 64 (20*)	No
	Latent Area Density	1 to 36 (7*)	No
	Initialize	-	No
Scan Settings ¹			
	Streak Prevention	On*, Off	Yes
	Color Scan Speed/Image Quality Priority	Speed Priority*, Quality Priority	Yes
	Remote Scan Gamma Value	Gamma 1.0, Gamma 1.4, Gamma 1.8*, Gamma 2.2	Yes
	Auto Online	On, Off*	Yes
	Auto Offline	On, Off*	Yes
Generate File			
High Compression Image Quality Level			
	Image Level in Text/Photo Mode or Photo Mode	Data Size Priority, Normal*, Image Quality Priority	Yes
	Image Level in Text Mode	Data Size Priority, Normal*, Image Quality Priority	Yes

Item	Setting Description	Device information Delivery Available
OCR (Text Searchable) Settings		
	Smart Scan	On*, Off
	No. of OCR File Name Characters	1 to 24 (24Chae*)
Trace & Smooth Settings*1		
	Outline Graphics	On*, Off
	Graphics Recognition Level	Normal*, Moderate, High
	Background Image Level	Data Size Priority, Normal*, Image Quality Priority
OOXML Settings		
	Background Image Level	Quality Priority, Standard*, Data Size Priority
	Color Image Recognition Level	High, Standard*, Do Not Recognize
	Color Image Line Width Recognition	On*, Off
	Specify Minimum PDF Version	Do Not Specify*, 1.5, 1.6, 1.7
	Format PDF to PDF/A	On, Off*
	Optimize PDF for Web	On, Off*
	256-bit AES Settings for Encrypted PDF	Acrobat 9.0 or Equivalent, Acrobat 10.0 or Equivalent*
Rights Management Server Settings		
	Server URL	(NULL*)
	User Name	(NULL*)
	Password	(NULL*)
	Always Show Auth. Scrn	On, Off*
Set Authentication Method		
	Info. Used for LDAP Server Authentication	Device Settings*, Device Login Auth. Info., Regist. Info. for Each User
	Info. Used for Rights Mgmt. Server Auth	Device Settings*, Regist. Info. for Each User

Item	Setting Description	Device information Delivery Available
Info. Used for SMTP Server Authentication	Device Settings, Regist. Info. for Each User*	No
Info. Used for File TX/Browsing Auth	Standard*, Device Login Auth. Info., Regist. Info. for Each User	No

■ Copy

* Default Settings

Item	Setting Description	Device Information Delivery Available
Register/Edit Favorite Settings	M1 to M9: Register, Rename, Delete, Check Content	No
Change Default Settings	Register, Initialize	No
Register Options Shortcuts		
Shortcut 1	Each mode, Unassigned (Orig. Content Orientation*)	No
Shortcut 2	Each mode, Unassigned (2-Sided*)	No
Shortcut 3	Each mode, Unassigned (Density*)	No
Shortcut 4	Each mode, Unassigned (Original Type*)	No
Auto Collate	On*, Off	Yes
Photo Printout Mode	On, Off*	Yes

■ Printer

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is attached.

*2 Indicates items that appear only when using a Direct Print Printer.

Item	Setting Description	Device Information Delivery Available
Output Report		

Item	Setting Description	Device Information Delivery Available
PCL		
Configuration Page	Yes*, No	No
Font List	Yes*, No	No
PS		
Configuration Page	Yes*, No	No
Font List	Yes*, No	No
Common Settings		
Copies	1 to 9999 (1*)	Yes
2-Sided Printing	On, Off*	Yes
Paper Feed		
Default Paper Size	Letter, Legal, A4, B5, A5, Executive, Statement, Env. NAGAGATA 3, Env. YOGATANAGA3, Envelope Monarch, Env. No. 10, Envelope ISO-C5, Envelope DL	No
Default Paper Type	Plain 1, Plain 2, Recycled, Color, Pre-Punched, Bond, Heavy 1, Heavy 2, Transparency, Labels, Envelope	No
Paper Size Override	On, Off*	Yes
Print Quality		
Image Refinement	On*, Off	Yes
Density*1	-8 to +8 (0*)	Yes
Density (Fine Adjust)*1	High: -8 to +8 (0*)	Yes
	Medium: -8 to +8 (0*)	Yes
	Low: -8 to +8 (0*)	Yes



Item	Setting Description	Device Information Delivery Available	
	Toner Save	On, Off*	Yes
	Line Refinement	On, Off*	Yes
	Horizontal Line Refinement	Off*, Level 1, Level 2,Level 3, Level 4	Yes
	Vertical Line Refinement	Off, Level 1*, Level 2,Level 3, Level 4	Yes
	Resolution	1200 dpi, 600 dpi*	Yes
Layout			
	Binding Location	Long Edge*, Short Edge	Yes
	Gutter	-50.0 mm to +50.0 mm (0.0*)	Yes
	Offset Short Edge (Front)	-50.0 mm to +50.0 mm (0.0*)	Yes
	Offset Long Edge (Front)	-50.0 mm to +50.0 mm (0.0*)	Yes
	Offset Short Edge (Back)	-50.0 mm to +50.0 mm (0.0*)	Yes
	Offset Long Edge (Back)	-50.0 mm to +50.0 mm (0.0*)	Yes
	Auto Error Skip	On, Off*	Yes
	Secure Print Delete Time	10 minutes, 20 minutes, 30 minutes, 1 hour*, 2 hours, 3 hours, 6 hours, 12 hours, 24 hours	Yes
	Timeout	Timeout (5 to 300 seconds), Off (15 seconds*)	Yes
	Finishing	Off*, Collate, Offset+Collate*1,Offset+Group*1, Staple+Collate*1, Staple+Group*1 Staple Position (Staple+Collate): Corner (Upper-L),Corner (Upper-R),Corner (Lower-R),Corner (Lower-L) Staple Position (Staple+Group):	Yes

Item	Setting Description	Device Information Delivery Available
	Grp Upp L-Corner,Grp Upp R-Corner,Grp Lwr R-Corner,Grp Lwr L-Corner	
Copy Set Numbering		
	Copy Set Numbering On, Off*	Yes
	Print Position*1 5 Locations*, Top Left, Bottom Left, Top Right, Bottom Right, Full Surface	Yes
	Starting Number*1 1 to 9999 (1*)	Yes
	Number Size*1 Small(12 point), Medium(24 point), Large(36 point)*	Yes
	Density*1 1 to 5 (3*)	Yes
	Personality*1 Auto*, PS, PCL, Imaging, PDF, XPS	No
	Mode Priority*1 None*, PS, PCL, PDF, XPS	No
	Initialize Yes, No	Yes
UFR II Settings		
Halftones		
	Text Color Tone, Gradation, Resolution*, High Resolution	Yes
	Graphics Color Tone*, Gradation, Resolution, High Resolution	Yes
	Image Color Tone*, Gradation, Resolution, High Resolution	Yes
	Paper Save On*, Off	Yes
PCL Settings		
	Paper Save On, Off*	Yes
	Orientation Portrait*, Landscape	Yes
	Font Number 0 to 104 (0*)	No
	Point Size*1 4.00 to 999.75 point (12.00 point)	No
	Pitch*1 0.44 to 99.99 cpi (10.00cpi*)	No

Item	Setting Description	Device Information Delivery Available
Form Lines	5 to 128 lines (60 lines*)	No
Character Code	ARABIC8, DESKTOP, GREEK8, HEBREW7, HEBREW8, ISO4, ISO6, ISO11, ISO15, ISO17, ISO21, ISO60, ISO69, ISOCYR, ISOGRK, ISOHEB, ISOL1, ISOL2, ISOL5, ISOL6, LEGAL, MATH8, MCTEXT, MSPUBL, PC775, PC8*, PC850, PC851, PC852, PC862, PC864, PC866, PC8DN, PC8GRK, PC8TK, PC1004, PIFONT, PSMATH, PSTEXT, ROMAN8, VNINTL, VNMATH, VNUS, WIN30, WINARB, WINBALT, WINCYR, WINGRK, WINL1, WINL2, WINL5	Yes
Custom Paper	On, Off*	No
Unit of Measure*1	Millimeters, Inches*	No
X dimension*1	5.50 to 24.80 inches (14.00 inches*)	No
Y dimension*1	3.89 to 8.50 inches (8.50 inches*)	No
Append CR to LF	Yes, No*	Yes
Enlarge A4 Print Width	On, Off*	Yes
Halftones		
	Text Color Tone, Gradation, Resolution*, High Resolution	Yes
	Graphics Color Tone*, Gradation, Resolution, High Resolution	Yes
	Image Color Tone*, Gradation, Resolution, High Resolution	Yes
BarDIMM	Enable, Disable*	Yes
FreeScope*1	Off, ~, ", #, \$, /, \, ?, {, }, (~*)	Yes
PS Settings		
Job Timeout	0 to 3600 seconds (0*)	Yes
Print PS Errors	On, Off*	Yes
Halftones		
	Text Gradation, Resolution*, High Resolution	Yes
	Graphics Gradation, Resolution*, High Resolution	Yes

Item	Setting Description	Device Information Delivery Available
	Image	Yes
	Grayscale Conversion*1	Yes
	Dot Gain Adjustment	Yes
Imaging Settings *2		
	Image Orientation	Yes
	Zoom Mode	Yes
	Print Position	Yes
	Show Warnings	Yes
	Enlarge Print Area	Yes
	Halftones	Yes
	Grayscale Conversion*1	Yes
PDF Settings *2		
	Enlarge/Reduce to Fit Size	Yes
	Enlarge Print Area	Yes
	N on 1	Yes
	Comment Print	Yes
Halftones		
	Text	Yes
	Graphics	Yes

Item	Setting Description	Device Information Delivery Available
	Image Gradation, Resolution, High Resolution*	Yes
	Grayscale Conversion*1 sRGB, NTSC*, Uniform RGB	Yes
	Dot Gain Adjustment -10%, -5%, Standard*, +5%, +10%	Yes
XPS Settings *2		
Halftones		
	Text Gradation, Resolution, High Resolution*	Yes
	Graphics Gradation, Resolution, High Resolution*	Yes
	Image Gradation, Resolution, High Resolution*	Yes
Grayscale Conversion*1		
	Text sRGB*, NTSC, Uniform RGB	Yes
	Graphics sRGB*, NTSC, Uniform RGB	Yes
	Image sRGB*, NTSC, Uniform RGB	Yes
Utility Settings		
	Initialize PCL Hard Disk Yes, No	No
	Initialize PS Hard Disk Yes, No	No
	Reset Printer Yes, No	No
Printer Menu		
	Restrict Printer Jobs On, Off*	Yes
	PDL Selection (Plug-n-Play) UFR II*, PS3, UFR II (XPS), Fax, PCL5e, PCL6	No

■ Send

* Default Setting

*1 Indicates items that appear only when the appropriate optional products are available for use.

*2 Indicates item that is not delivered as device information.

Details/Edit, Delete

Item	Setting Description	Device Information Delivery Available
Output Report		
TX/RX User Data List	Yes, No	No
Fax User Data List	Yes, No	No
Common Settings		
Register Favorite Settings	Confirm Settings, Select Location: M1 to M18	Yes
Show Comment	On, Off*	Yes
Edit Favorite Settings	Delete, Check Content, Rename (Name, Comment): M1 to M18	Yes
Show Comment	On, Off*	Yes
Display Confirmation for Favorite Settings	On*, Off	No
Default Screen	Standard*, One-Touch, Favorite Settings, Address Book	No
Change Default Settings	Register, Initialize	No
Register Options Shortcuts		
Shortcut 1	2-Sided Original*, Unassigned	No
Shortcut 2	Different Size Originals*, Unassigned	No
TX Report	For Error Only*, On, Off	Yes
Report with TX Image	On*, Off	Yes
Communication Management Report		
Auto Print (100 Transmissions)	On*, Off	Yes

Item	Setting Description	Device Information Delivery Available			
	Specify Print Time	On, Off*			Yes
	Timer Setting	00 : 00 to 23 : 59 (00 : 00*)			Yes
	Send/Receive Separate	On, Off*			Yes
TX Terminal ID					
	TX Terminal ID	Print*, Do Not Print			Yes
	Print Position	Inside, Outside*			Yes
	Display Destination Unit Name	On*, Off			Yes
	Telephone # Mark	Fax*, TEL			Yes
	Delete Failed TX Jobs	On*, Off			Yes
	Retry Times	0 to 5 times (3 times*)			Yes
	Data Compression Ratio	High Ratio, Normal*, Low Ratio			Yes
	YCbCr TX Gamma Value	Gamma 1.0, Gamma 1.4, Gamma 1.8*, Gamma 2.2			Yes
	Use Divided Chunk Send for WebDAV TX	On*, Off			Yes
	Confirm SSL Certificate for WebDAV TX	On, Off*			Yes
	Add Items to Verify CN	On, Off*			Yes
Limit New Destinations					
	Fax	On, Off*			Yes
	E-mail	On, Off*			Yes
	I-Fax	On, Off*			Yes
	File	On, Off*			Yes
	Always Add Device Signature to Send ^{*1}	On, Off*			Yes
	Restrict File Formats	On, Off*			Yes

Item	Setting Description	Device Information Delivery Available
Limit E-Mail to Send to Myself	On, Off*	Yes
Restrict File TX to Personal Folder	On, Off*	Yes
Personal Folder Specification Method	Home Folder, Register for Each User*, Use Login Server	Yes
Home Folder Settings	Host Name, Folder Path	Yes
Use Auth. Info. of Each User	On, Off*	Yes
Restrict Resending from Log	On, Off*	No
E-mail/Ifax Settings		
Register Unit Name	(NULL*)	No
Communication Settings		
SMTP Server	(NULL*)	Yes
Use POP RX	On*, Off	Yes
Use SMTP RX	On, Off*	No
E-mail Address	(NULL*)	No
POP Server	(NULL*)	No
POP Login Name	(NULL*)	No
POP Password	(NULL*)	No
POP Interval	0* to 99 (If the interval is set to '0', the incoming e-mail is not checked automatically.) (0 mins*)	No
Communication Settings: Allow SSL	SMTP TX: On, Off*	No
	SMTP RX: Always SSL, On, Off*	No
	POP: On, Off*	No
POP AUTH Method	Standard*, APOP, POP AUTH	Yes
POP Authentication before Sending	On, Off*	No
SMTP Authentication (SMTP AUTH)	On, Off*	No

Item	Setting Description	Device Information Delivery Available
	User Name	(NULL*) No
	Password	(NULL*) No
	Display Auth. Screen When Send	On, Off* No
	Confirm SSL Certificate for SMTP TX	On, Off* No
	Add Items to Verify CN	On, Off* No
	Confirm SSL Certificate for POP RX	On, Off* No
	Add Items to Verify CN	On, Off* No
	Maximum Data Size for Sending	0=(Off)/1 to 99 MB (3MB*) Yes
	Default Subject	(Attached Image*) Yes
	Specify Authentication User Dest. to Reply	On, Off* No
	Set Authorized User Destination to Sender	On*, Off No
	Allow Sending to Unregistered Destinations	On, Off* Yes
	Full Mode TX Timeout	1 to 99 hours (24hours*) Yes
	Print MDN/DSN upon Receipt	On, Off* Yes
	Use Send via Server	On, Off* Yes
	Allow MDN Not via Server	On*, Off Yes
	Restrict TX Destination Domain	
	Restrict Sending to Domains	On, Off* Yes
	Permitted Domains	Register, Details/Edit, Delete Yes*2
	Domain Name, Send to Subdomain	Allow, Reject
	Autocomplete for Entering E-Mail Addresses	On*, Off
Fax Settings		

Item	Setting Description	Device Information Delivery Available
Default Screen	Standard*, One-Touch, Address Book	No
Change Default Settings	Register, Initialize	No
Register Options Shortcuts		
Shortcut 1	Density*, Unassigned	No
Shortcut 2	Original Type*, Unassigned	No
Shortcut 3	2-Sided Original*, Unassigned	No
Shortcut 4	Preview*, Unassigned	No
Register Sender Name (TTI)	01 to 99: Register/Edit, Delete	No
Use Auth. User Name as Sender Name	On, Off*	
ECM TX	On*, Off	Yes
Set Pause Time	1 to 15 seconds (2 seconds*)	Yes
Auto Redial	On*, Off	Yes
Redial Times	1 to 10 times (2 times*)	Yes
Redial Interval	2 to 99 minutes (2 minutes*)	Yes
Redial When TX Error	Error and 1st page*, All pages, Off	Yes
Check Dial Tone Before Sending	On*, Off	Yes
Fax TX Report	For Error Only, On, Off*	Yes
Report with TX Image	On*, Off	Yes
Fax Activity Report		
Auto Print (40 Transmissions)	On, Off*	Yes
Specify Print Time	On, Off*	Yes
Timer Setting	00: 00 to 23: 59 (00: 00*)	Yes
Send/Receive Separate	On, Off*	Yes
Set Line		

Item	Setting Description	Device Information Delivery Available
Line 1 to Line 2		
When no option is attached	Line 1	No
If the Super G3 2nd Line Fax Board is installed	Line 1, Line 2	No
Register Unit Telephone Number	(NULL*)	No
Register Unit Name	(NULL*)	No
Select Line Type	Pulse, Tone*	No
Select TX Line	If the Super G3 2nd Line Fax Board is installed: <ul style="list-style-type: none"> • Line 1: Priority TX*, Prohibit TX • Line 2: Priority TX, Prohibit TX 	No
TX Start Speed	33600 bps*, 14400 bps, 9600 bps, 7200 bps, 4800 bps, 2400 bps	Yes
Confirm Entered Fax Number	On, Off*	Yes
Allow Fax Driver TX	On*, Off	Yes
Confirm Before Sending When Fax Dest. Incl	On, Off*	No
	Only for Seq. Broadcast*, Always	No
Restrict Seq. Broadcast When Fax Dest. Incl	On, Off*	No

■ Receive/Forward

* Default Setting

*1 Indicates items that are not delivered as device information.

Receive Method:, E-Mail Priority, Details/Edit, Delete, Print List

Item	Setting Description	Device Information Delivery Available
Output Report		
TX/RX User Data List	Yes, No	No

Item	Setting Description	Device Information Delivery Available
Fax User Data List	Yes, No	No
Common Settings		
Print on Both Side	On, Off*	Yes
Reduce Fax RX Size	On*, Off	Yes
Reduction Mode	Auto*, Fixed	Yes
Reduction %	75% to 97% (90%*)	
Reduction Direction	Vertical & Horizontal, Vertical Only*	
2 On 1 Log	On, Off*	Yes
Received Page Footer	Print, Do Not Print*	Yes
Interrupt and Print RX Jobs	On, Off*	
Handle Files with Forwarding Errors	Always Print*, Store/Print, Off	Yes
Forwarding Settings	Receive Method:, Validate/Invalidate, Delete, Register, Other Operations, (Forward w/o Conditions, Details/Edit, E-Mail Priority, Print List), Search	Yes*7
Set Fax/I-Fax Inbox		
Memory RX Inbox PIN	Set:PIN, Confirm (NULL*)	
Use Fax Memory Lock	On, Off*	Yes
Use I-Fax Memory Lock	On, Off*	Yes
Memory Lock Start Time	Everyday, Select Days, Off*	Yes
Memory Lock End Time	Everyday, Select Days, Off*	Yes
Divided Data RX Timeout	0 to 99 hours (24hours*)	Yes
	*On, Off	Yes

Item	Setting Description	Device Information Delivery Available
Always Send Notice for RX Errors		
Fax Settings		
ECM RX	On*, Off	Yes
Fax RX Report	For Error Only, On, Off*	Yes
RX Start Speed	33600 bps*, 14400 bps, 9600 bps, 7200 bps, 4800 bps, 2400 bps	Yes
RX Password	(NULL*)	No

■ Store/Access Files

* Default Setting

Item	Setting Description	Device Information Delivery Available
Common Settings		
Scan and Store Settings		
Register/Edit Favorite Settings	Register, Rename, Delete, Check Content (M1 to M9)	No
Change Default Settings	Register, Initialize	No
Access Stored Files Settings		
Register/Edit Favorite Settings	Register, Rename, Delete, Check Content (M1 to M9)	No
Change Default Settings	Register, Initialize	No
Network Settings		
Network Place Settings	Register (Name, Protocol, Location), Details, Delete	No
Protocol for External Reference		
SMB	On*, Off	No
WebDAV	On*, Off	No
Confirm SSL Certificate for Network Access	On, Off*	No
Add Items to Verify CN	On, Off*	No

	Use JP Hyphenation	On, Off*	No
	Format	Std CSS only, Std CSS + Style Attribute, Std CSS + Style Attribute + External Imported CSS*	No
	Standard CSS	CSS1*, CSS2, CSS3	No
Home Page Settings			
	URL	Use Current Page as Home (NULL*)	No
	Home Page during Startup	On*, Off	No
Auto Clear Settings			
	Display during Auto Clear	Show Home Page*, Show Blank Page, Keep Last Page	No
Security			
	Use SSL 2.0	On*, Off	No
	Use SSL 3.0	On*, Off	No
	Use TLS 1.0	On*, Off	No
	Certificates	Enable/Disable Details	No
	Dsply Mixed HTTPS/HTTP	On*, Off	No
	Trusted Server Address	-	No
	Restrict Share Device Information	On*, Off	No
	Display Server Cert. Authentication Warning	On, Off*	No
	Display Warning when Entering Secured Page	On, Off*	No
	Display Warning when Leaving Secured Page	On, Off*	No
Cookie			
	Cookie Handling	Accept*, Block, Prompt	No
	Delete Cookies	Yes, No	No

Privacy Policy and Regulations		
Restrict URL Entry	On, Off*	No
Restrict Fav	On, Off*	No
Restrict Home Page Edit	On, Off*	No
Rstrct History Display	On, Off*	No
ID/User with History	On, Off*	No
Full Screen	On, Off*	No
Hide Buttons in Toolbar	On, Off*	No
Hide Address in Toolbar	On, Off*	No
Hide Web Access Button	On, Off*	No
Proxy Settings		No
Use a proxy server	(Display Only)	No
Proxy Server Address	(Display Only)	No
Port Number	(Display Only)	No
Use proxy auth	(Display Only)	No
Address Without Using Proxy	(NULL*)	No
Use HTTP1.1 for proxy connection	On, Off*	No
Version		
Version	(Display Only)	No

Set Destination

■ Set Destination

* Default Setting

*1 Indicates items that are not delivered as device information: Details/Edit, Delete, Search by Name

*2 Indicates items that are not delivered as device information: Edit, Delete

Item	Setting Description	Device Information Delivery Available
Address List	Address List 1 to 10, One-touch	No
Register Destinations	Register New Dest., Details/Edit, Delete, Search by Name	Yes*1
Rename Address List	Rename	Yes
Register One-Touch	Register/Edit, Delete	Yes*2
Change Default Display of Address Book	Local*, LDAP Server, Remote	No
Address Book PIN	Seven digit number (NULL*)	Yes
Manage Address Book Access Numbers	On, Off*	Yes
Include Pswd. When Exporting Address Book	On, Off*	
Register LDAP Server	Register, Details/Edit, Delete, Print List	No
Auto Search When Using LDAP Server	On* Off	Yes
Register/Edit LDAP Search Conditions		
Not Reg'd 1, Not Reg'd 2	Register/Edit, Delete	
Change Default LDAP Search Conditions	Register, Initialize	
Acquire Remote Address Book		
Acquire Address Book	On, Off*	Yes
Remote Address Book Server Address	IP Address or Host Name	No
Communication Timeout	15 to 120 seconds (30 seconds*)	Yes
Fax TX Line Auto Select Adjustment	On*, Off	Yes

Management Settings

■ User Management

* Default Settings

Item	Setting Description	Device Information Delivery Available
System Manager Information Settings		
System Manager ID	Seven digit number maximum (7654321*)	Yes
System PIN	Seven digit number maximum (7654321*)	Yes
System Manager	(NULL*)	Yes
E-Mail Address	(NULL*)	Yes
Contact Information	(NULL*)	Yes
Comment	(NULL*)	Yes
Department ID Management		
Department ID Management	On, Off*	Yes
Register PIN	Register, Edit, Delete, Limit Functions	Yes
Page Totals	Clear, Print List, Clear All Totals	No
Allow Printer Jobs with Unknown IDs	On*, Off	Yes
Allow Remote Scan Jobs With Unknown IDs	On*, Off	Yes

■ Device Management

* Default Settings

*1 Indicates items that appear only when the appropriate optional equipment is available for use.

Item	Setting Description	Device Information Delivery Available
Device Information Settings		
Device Name	Model Name	No
Location	(NULL*)	No
Device Information Delivery Settings		
Register Destinations	Auto Search/Register, Register, Details, Delete, Print List	No
Auto Search/Register		

Item		Setting Description	Device Information Delivery Available
	Search Depth (Router)	1 to 8 (1*)	No
	Display Host Name	On, Off*	No
	Start Auto Search	-	No
	Set Auto Delivery	Everyday (1 to 5), Specify Days (Sun to Sat, 1 to 5), Off*	No
	Settings/Registration Value	On, Off* Network Settings: Include, Exclude*	No
	Dept. ID	On, Off*	No
	Address Book	On, Off*	No
	Web Access Favorites*1	On, Off*	No
	Printer Settings	On, Off*	No
	Paper Information	On, Off*	No
	Workflow Composer*1	On, Off*	No
Manual Delivery			
	Settings/Registration Value	On, Off* Network Settings: Include, Exclude*	No
	Dept. ID	On, Off*	No
	Address Book	On, Off*	No
	Web Access Favorites*1	On, Off*	No
	Printer Settings	On, Off*	No
	Paper Information	On, Off*	No
	Workflow Composer*1	On, Off*	No
	Set MEAP Authentication	User Name, Password, Login Destination	No
	Restrictions Receiving Device Information	On*, Off	No
	Restore Data		No

Item	Setting Description	Device Information Delivery Available
	Settings/Registration Value, Dept. ID, Address Book, Web Access Favorites*1, Printer Settings, Paper Information, Start	
Restrict Restriction for Each Function		
Settings/Registration Value	On*, Off	No
Dept. ID	On*, Off	No
Address Book	On*, Off	No
Web Access Favorites*1	On*, Off	No
Printer Settings	On*, Off	No
Paper Information	On*, Off	No
Workflow Composer*1	On*, Off	No
Use MEAP Auth. When Receive	On*, Off	No
Communication Log	Details, Print List, Report Settings	No
	Report Settings	No
	<ul style="list-style-type: none"> • Auto Print (100 transmissions): On*, Off 	
	<ul style="list-style-type: none"> • Specify Print Time: On, Off* 	No
	00: 00* to 23:59	No
	<ul style="list-style-type: none"> • Separate Report Type: On, Off* 	No
Limited Functions Mode*1	On, Off*	No
Confirm Device Signature Certificate*1	Version, Serial Number, Signature Algorithm, Issue Destination, Validity Start Date, Validity End Date, Issuer, Public Key, Certificate Thumbprint, Verify Cert.	No
Confirm User Signature Certificate*1	Version, Serial Number, Signature Algorithm, Issue Destination, Validity Start Date, Validity End Date, Issuer, Public Key, Certificate Thumbprint, Verify Cert.	No
Certificate Settings		
Generate Network Communication Key		
Key Name	(NULL*)	No

Item		Setting Description	Device Information Delivery Available
	Signature Algorithm	SHA1*, SHA256, SHA384, SHA512	No
	Key Algorithm	RSA*, ECDSA	No
	Key Length (bit)	512*, 1024, 2048, 4096	No
	Key Type	P256*, P384, P521	No
	Validity Start Date	Month, Date, Year (01/01/2000 - 12/31/2037) (NULL*)	No
	Validity Endt Date	Month, Date, Year (01/01/2000 - 12/31/2037) (NULL*)	No
	Country/Region	Country/Region name and code (US*)	No
	State	(NULL*)	No
	City	(NULL*)	No
	Organization	(NULL*)	No
	Organization Unit	(NULL*)	No
	Common Name	IP address of the machine or FQDN (41 characters maximum) (NULL*)	No
	Generate/Update Device Signature Key	Yes, No	No
Key and Certificate List for This Device*1			
	Certificate Details	Version, Serial Number, Signature Algorithm, Issue Destination, Validity Start Date, Validity End Date, Issuer, Public Key, Certificate Thumbprint, Verify Cert	No
	Delete	-	No
	Display Use Location	-	No
Key and Certificate List for Users*1			
	Certificate Details	Version, Serial Number, Signature Algorithm, Issue Destination, Validity Start Date, Validity End Date, Issuer, Public Key, Certificate Thumbprint, Verify Cert	No
	Delete	-	No
CA Certificate List			
	Certificate Details		No

Item	Setting Description	Device Information Delivery Available
	Version, Serial Number, Signature Algorithm, Issue Destination, Validity Start Date, Validity End Date, Issuer, Public Key, Certificate Thumbprint, Verify Cert	
Delete	-	No
Certificate Revocation List (CRL)		
CRL Details	(Version, Serial Number, Signature Algorithm, Issue Destination, Validity Start Date, Validity End Date, Issuer, Public Key, Certificate Thumbprint, Verify Cert.)	No
Delete	-	No
Register Key and Certificate		
Register	-	No
Delete	-	No
Register CA Certificate		
Register	-	No
Delete	-	No
Display Job Status Before Authentication	On*, Off	No
Display Log	On*, Off	No
	Off • Obtain Job Log with Management Software: Allow, Do Not Allow*	No
Save Audit Log	On, Off*	No
Store Key Operation Log	On, Off*	No
Format Encryption Method to FIPS 140-2	On, Off*	No

■ License/Other

* Default Settings

Item	Setting Description	Device Information Delivery Available
Register License	24 characters maximum, Start (NULL*)	No
MEAP Settings		
Print System Information	Yes, No	No
Use SSL	On, Off*	No
Remote UI	On*, Off	Yes
	On <ul style="list-style-type: none"> • Use SSL:On, Off* 	No
Delete Message Board Contents	Yes, No	No
Use ACCESS MANAGEMENT SYSTEM	On, Off*	No
Register/Update Software	Install Applications/Options, Software Management Settings	No
Start Setup Guide	Start	No

■ Data Management

* Default Settings

Item	Setting Description	Device Information Delivery Available
Delete Existing Data Settings		
Delete Existing Data	On, Off*	No
Timing of Deletion	During Job*, After Job	No
Overwrite Method to Delete HDD Data	Once with 0 (Null) Data*, Once with Random Data, 3 Times with Random Data, DoD Standard	No
Initialize All Data/Settings	Once with 0 (Null) Data*, Once with Random Data, 3 Times with Random Data, 9 Times with Random Data, DoD Standard	No
TPM Settings	Use TPM: On, Off*	No

Item	Setting Description	Device Information Delivery Available
	Back Up TPM Key(12 characters maximum for password), Restore TPM Key	No

Backup Data

Data	Location	Replacement						CLEAR										Backup by User				
		When Replacing HDD / Executing AllFormat	When Replacing Flash / Executing AllFormat	Main PCB When Replacing Main PCB	DC Cont - roller PCB	Reader Controller PCB	Replace the TPM PCB	Initialize All Data / Settings	User function				Service function						Yes / No	Method	Location to be stored	Y/N
									Settings/Registration > Function Settings				COPIER > Function > CLEAR									
								Copy > Change Default Settings > Initialize	Send > Common Settings > Change Default Settings > Initialize	Send > Fax Settings > Change Default Settings > Initialize	Printer Settings > Custom Settings > Initialize	MN-CONT	MMI	DC-CON	R-CON	ADRS -BK	JV-CASHE					
Address List	HDD FLASH	Clear	Clear	Clear	-	-	-	Clear	-	-	-	-	Clear	-	-	-	Clear	-	Yes	Remote UI (block of Export / Import)	PC	N
Forwarding Settings	HDD FLASH	Clear	Clear	Clear	-	-	-	Clear	-	-	-	-	Clear	Clear	-	-	-	-	Yes	Remote UI (block of Export / Import)	PC	N
Settings / Registration																						
Preferences	FLASH	-	Clear	Clear	-	-	-	Clear	-	-	-	-	Clear	Clear	Clear (*1)	-	-	-	Yes (*2)	Remote UI (block of Export / Import)	PC	N
Adjustment/Maintenance	FLASH	-	Clear	Clear	-	-	-	Clear	-	-	-	-	Clear	Clear	-	-	-	-	Yes	-	PC	N
Function Settings	FLASH	-	Clear	Clear	Clear	-	-	Clear	Clear	Clear	Clear	-	Clear	Clear	Clear (*3)	Clear (*4)	-	-	No	-	-	N
Set Destination	HDD FLASH	-	Clear	Clear	-	-	-	Clear	-	-	-	-	Clear	Clear	-	-	-	-	No	-	-	N
Management Settings	FLASH	-	Clear	Clear	-	-	-	Clear	-	-	-	-	Clear	Clear	-	-	-	-	No	-	-	N
Printer Settings	FLASH	-	Clear	Clear	-	-	-	Clear	-	-	-	Clear	Clear	Clear	-	-	-	-	Yes	Remote UI (block of Export / Import)	PC	N
Set Paper Information	FLASH	-	Clear	Clear	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Yes	-	PC	N
Setting items for each menu in Main Menu (Copy, Scan and Send, Fax, Scan and Store, Access Stored Files, Fax/I-Fax Inbox)																						
Favorite Settings	HDD	Clear	Clear	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear	Yes (*5)	Remote UI (block of Export / Import)	PC	Y (*
Default Settings	HDD	Clear	Clear	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear	No	-	-	N
Shortcut settings for "Options"	HDD	Clear	Clear	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear	No	-	-	N
Previous Settings	HDD	Clear	Clear	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear	No	-	-	N
Setting items for Quick Menu																						
Button Size information	HDD	Clear	Clear	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear	Yes	Remote UI (block of Export / Import) , DCM	PC	Y (*
Wallpaper Setting	HDD	Clear	Clear	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear	Yes	-	PC	N
Button information in Quick Menu	HDD	Clear	Clear	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear	Yes	-	PC	N
Restrict Quick Menu	HDD	Clear	Clear	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear	Yes	-	PC	N
Setting items for Main Menu																						
Button settings in Main Menu	HDD	Clear	Clear	-	-	-	-	Clear	-	-	-	-	-	Clear	-	-	-	-	No	-	-	N
Button settings on the top of the screen	HDD	Clear	Clear	-	-	-	-	Clear	-	-	-	-	-	Clear	-	-	-	-	No	-	-	N
Wallpaper Setting for Main Menu	HDD	Clear	Clear	-	-	-	-	Clear	-	-	-	-	-	Clear	-	-	-	-	No	-	-	N

Data	Location	Replacement						CLEAR										Backup by User			Y/ N	
		When Replacing HDD / Executing AllFormat	When Replacing Flash / Executing AllFormat	Main PCB When Replacing Main PCB	DC Cont - roller PCB	Reader Controller PCB	Replace the TPM PCB	Initialize All Data / Settings	User function				Service function						Yes / No	Method		Location to be stored
									Settings/Registration > Function Settings				COPIER > Function > CLEAR									
								Copy> Change Default Settings > Initialize	Send > Common Settings > Change Default Settings > Initialize	Send > Fax Settings > Change Default Settings > Initialize	Printer Settings > Custom Settings > Initialize	MN-CONT	MMI	DC-CON	R-CON	ADRS -BK	JV- CASHE					
Other settings for Main Menu	HDD	Clear	Clear	-	-	-	-	Clear	-	-	-	-	-	Clear	-	-	-	-	No	-	-	N
Access Stored Files																						
The image data of a fax box and the system box	HDD	Clear	Clear	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	No	-	-	N
Network Place Settings	HDD	Clear	Clear	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	No	-	-	N
Web browser settings																						
Web Access setting information	HDD	Clear	Clear	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Yes (*7)	RUI (Import/Export)	PC	N
MEAP settings																						
MEAP application	HDD	Clear	Clear	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear	No	-	-	Y
License files for MEAP applications	HDD	Clear	Clear	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Yes	SMS	PC	Y
User authentication information registered in the Local Device Authentication user authentication system of SSO-H (Single Sign-On H)	HDD	Clear	Clear	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Yes	SSO-H	PC	Y
Data saved using MEAP applications	HDD	Clear	Clear	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	Yes (*8)	iWEMC DAM plug-in	PC	Y
SMS (Service Management Service) password of MEAP	HDD	Clear	Clear	-	-	-	-	Clear (*9)	-	-	-	-	-	-	-	-	-	-	No	-	-	Y
Universal data settings																						
Unsent documents (documents waiting to be sent with the Delayed Send mode)	HDD	Clear	Clear	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	No	-	-	N
Job logs	HDD	Clear	Clear	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	No	-	-	N
Audit Log	HDD	Clear	Clear	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear	Yes	RUI (Export only) *10	PC	N
Key Pair and Server Certificate in Certificate Settings in TCP/IP Settings in Network Settings in System Settings (from the Additional Functions screen)	HDD	-	-	Clear	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	No	-	-	N
Auto Adjust Gradation setting values	FLASH	-	Clear	Clear	-	-	-	Clear	-	-	-	-	Clear	-	-	-	-	-	No	-	-	N
PS font	HDD	Clear	-	-	-	-	-	Clear	-	-	-	-	-	-	-	-	-	-	No	-	-	N

Data	Location	Replacement						CLEAR										Backup by User				
		When Replacing HDD / Executing AllFormat	When Replacing Flash / Executing AllFormat	Main PCB When Replacing Main PCB	DC Cont roller PCB	Reader Controller PCB	Replace the TPM PCB	Initialize All Data / Settings	User function				Service function						Yes / No	Method	Location to be stored	
									Settings/Registration > Function Settings				COPIER > Function > CLEAR									
								Copy> Change Default Settings > Initialize	Send > Common Settings > Change Default Settings > Initialize	Send > Fax Settings > Change Default Settings > Initialize	Printer Settings > Custom Settings > Initialize	MN-CONT	MMI	DC-CON	R-CON	ADRS -BK	JV-CASHE					
Key information to be used for encryption when TPM is OFF	FLASH	Clear (*11)	Clear (*11)	-	-	-	-	Clear	-	-	-	-	Clear (*11)	-	-	-	-	-	No	-	-	N
Key and settings information to be used for encryption when TPM is ON	FLASH HDD TPM	Clear (*12)	Clear (*12)	-	-	-	Clear	Clear (*14)	-	-	-	-	Clear (*13)	-	-	-	-	-	Yes (*15)	Settings / Registration (Management Settings >Data Management > TPM Settings)	USB	N
Service Mode																						
Service Mode setting values (MN-CON)	FLASH	-	Clear	Clear	-	-	-	-	-	-	-	-	Clear	Clear	-	-	-	-	Yes	RUI (Import/Export) block of Export/Import)	PC	N
Service Mode setting values (DC-CON)	SRAM (DC-CON)	-	-	-	Clear	-	-	-	-	-	-	-	-	-	Clear	-	-	-	Yes	COPIER>OPTION> USER>SMD-EXPT> ON Only (*16)	PC	Y
Service Mode setting values (R-CON)	FLASH	-	Clear	-	-	-	-	-	-	-	-	-	-	-	-	Clear	-	-	Yes		PC	Y

- *1 The following settings are deleted.
 Preferences > Paper Settings > Register Envelope Drawer
 Preferences > Paper Settings > B5/EXEC Paper Selection
 Preferences > Paper Settings > A5R/STMTR Paper Selection
- *2 Preferences > Timer/Energy Settings > [Adjust Time]/[Date/Time Settings] is excluded
 Data can be backed up and restored from the RESTORE menu in service mode.
 If backup data has been exported to the USB memory device, only restoration can be performed from Download Menu (USB).
- *3 The following settings are deleted.
 Function Settings > Common > Paper Feed Settings > Paper Drawer Auto Selection On/Off
 Function Settings > Common > Paper Feed Settings > Feed Method Switch
- *4 The following settings are deleted.
 Function Settings > Common > Scan Settings > Scanner Noise Settings
 Function Settings > Common > Scan Settings > Timing to Raise Feeder Tray
 Function Settings > Common > Scan Settings > Streak Prevention
- *5 Backup is available only "Favorite Settings" in "Scan to Send"
- *6 If the machine can be activated with download mode in safe mode at the time of HDD failure, backup of Meapback may be possible by SST. In this case, start the machine with download mode in safe mode and restore the backup data after replacing the HDD and checking that the machine starts normally. By performing the above, data can be restored while retaining Meapback information.
- *7 "Web Access Favorites" is the only data which can be backed up by a method other than collective export in DCM.
- *8 Only when MEAP application has a backup function, or when data is saved in Preference / Configuration of EAGLE
- *9 Since the password is TPM-encrypted and saved, password backed up after all data/settings have been initialized cannot be restored. When all data/settings have been initialized, initialize the password using a switch license for password initialization.
 [Reference] Since TPM encryption key is updated when all data/settings are initialized, the password which was backed up cannot be read.
- *10 The audit log which was backed up cannot be restored to the device.

*11	When replacing the HDD and FLASH PCB simultaneously, the key information is not restored automatically.
*12	An error code is displayed when "ON" is displayed for the TPM setting. After all data/settings are initialized after restart, select "ON" for the TPM setting to enable the TPM setting.
*13	If the TPM key information in the FLASH is lost, the key information in the FLASH is automatically recovered from the backup of the common key in the HDD. Then the internal state of TPM setting changes to "ON". However, the display on the UI remains "OFF", therefore the TPM setting needs to be manually changed to "ON".
*14	The TPM setting changes to "OFF" when all the data/settings have been initialized.
*15	Only backup in preparation for a TPM PCB failure is possible. Moreover, data cannot be restored to other machines where the TPM setting is set to "ON".
*16	DSRAMBUP, and RSRAMBUP can be backed up collectively. Only when ON is selected in COPIER > OPTION > USER > SMD-EXPT, the service mode setting values can be backed up and restored from the RUI. As for the service mode setting values, they can also be backed up to the HDD of the machine or a connected USB memory device by making the setting on the service mode top screen. The settings made in Settings/Registration are included in the target of collective backup, but there are some exceptions. For details, refer to the list of items excluded from DCM backup in the next sheet.

DCM backup exclusion items			
Preferences	Paper Settings	Paper Type Management Settings	Custom Type > Details/Edit > Change
		Register Multi-Purpose Tray Defaults	
	Network	Output Report	
		TCP/IP Settings	IP Address Settings (IPv4)
			IP Address Settings (IPv6)
			IPP Print Settings
			SSL Settings
			Confirm Dept. ID PIN
		IPSec settings	
		IEEE802.1X Settings	
		Firewall Settings	IP Address Block Log
Adjustment/Maintenance	Adjust Image Quality	Auto Adjust Gradation	
		Conect Shading	
		Auto Correct Color Mismatch	
	Maintenance		
Function Settings	Common	Paper Feed Settings	Paper Drawer Auto Selection On/Off
		Print Settings	Local Print Default Settings
			Form for Superimpose Image
			Secure Watermark Settings > Adjust Background/Character Contrast
	Printer		
	Send	Output Report	TX/RX User Data List
			Fax User Data List
		E-Mail/Fax Settings	Communication Settings
	Receive/Forward	Output Report	
		Common Settings	Forwarding Settings
	Store/Access Files	Mail Box Settings	Settings for All Mail Boxes
		Network Settings	
Set Destination	Address Lists		
	Register Destinations		
	Register LDAP Server		
	Auto Serarch when using LDAP Server		

DCM backup exclusion items			
Management Settings	User Management	Department ID Management	Page Totals
			Print List
	Device Management	Device Information Delivery Settings	Manual Delivery
			Resor Data
			Communication Log
			Register Destination > Auto Serch/Registor
			Restrict Receiving Device Information
			Limit Function when Security key is off
	License/Other	Register License	
		MEAP Settings	Print System Information
			Remote UI On/Off
	Delete Massage Board Contents		
	Data Management		Back Up
			Restore
			Back Up/Restore Log
			Initialize All Data/Settings
			TPM Settings