*** Basic Information ***
[Create date] 2017/05/08
[Program Name] browser
[Version] 2.08.0
[PCB No.]
[Interchangeability] X / O
[Other Firmware Requirements] None
[PCB Requirements] None
[Software category] Normal Release
[Release category] Normal Release
[Program category] Firmware
Exported to(language) GEN(ja,en,gb,f,e,d,i,nl,s,n,dk,sf,p,pl,h,cz,ru,sc,tc,br,tr,ca)  [Firmware No.] D1445551K  [File Information]  File Name D1445551K.fwu  File Type Module for Service  Size 14.12 MB ( 14810788 byte )  [File Information]  File Name D1445551K.rfu  File Type Module for Remote Upgrade  Size 14.13 MB ( 14815488 byte )  [Production reflection] 2017/03
*** Note ***
[Note]
*** Important Notes ***
[Important Notes]

\*\*\* Modification History \*\*\* [Modifications made:] Other Changes: - Support for TLS 1.0, TLS 1.1, and TLS 1.2. Symptom corrected: - When a certain page is loaded or printed, an SC899 might occur. [Modification history] -----Version 2.07.0 Symptom corrected: - Keyboard response is slow when using the Web Scanner application. - SC899 may occur when performing Java Script functions. Version 2.06.0 Version number changed for version management purposes (No program changes made). Version 2.05.0

Symptom corrected:

SC899 may occur when performing continuous scanning.

Version 2.04.0

Symptom corrected:

- 1. After trying to view a webpage that is not supported by the browser on the operation panel, it might take approximately one minute before other, supported webpages can be viewed.
- 2. When connecting via HTTPS to the Ricoh Integrated Cloud Environment by using the browser on the operation panel, some of the icons might not be displayed.

Ricoh Integrated Cloud Environment is a local RAC solution.

- 3. When "Extended JavaScript" in "Browser Features" is set to Active and a scan is conducted on a particular webpage, the device might stall.
- 4. When viewing a particular webpage, the following symptoms might occur:
  - When loading a webpage, an SC899 error might occur.
  - If a memory leak occurs when a webpage is loading, a memory error might appear on the operation panel.
  - Text on a webpage might be garbled or might not appear.
  - After a webpage is completely loaded, it might be blank.
  - When viewing the manual from the Ricoh homepage, images appear but text might not be displayed.
  - When the loading of a webpage does not end, the browser icon might continue to flash.
  - If JavaScript is not working properly, then the webpage might not render as expected.

Version 2.03.0 Symptom corrected: - When using specific proxy servers, the error "400 - Bad Request" might occur in the web browser on the operation panel and access to the Internet might be restricted.
Version 2.02.0 Symptom corrected:  1. A security warning dialog is displayed even if an effective server certification is installed.  2. Japanese is displayed on the website which uses Accept-Language of the HTTP protocol.
Version 2.01.0 Symptom corrected: Minor bug correction.
Version 2.00.0 Symptom corrected:  1. A warning dialog is displayed whenever the self-signed certificate page is opened.  2. IC cards needs to be placed on the reader twice.  3. Transmission of an image from an EXJS application to the server fails.  4. The vertical scroll bar is always displayed.
Version 1.06.9 1st Mass production

*** Basic Information ***
[Create date] 2019/12/06
[Program Name] Network Support
[Version] 12.02
[PCB No.]
[Interchangeability] X / O
[Other Firmware Requirements] None
[PCB Requirements] None
[Software category] Normal Release
[Release category] Normal Release
[Program category] Firmware
Exported to(language) GEN(all) [Firmware No.] D1445563V [File Information] File Name D1445563V.fwu File Type Module for Service Size 9.65 MB ( 10116812 byte ) [File Information] File Name D1445563V.rfu File Type Module for Remote Upgrade Size 9.65 MB ( 10121472 byte ) [Availability of RFU] Yes
*** Note *** ==================================
[Note]
*** Important Notes ***
[Important Notes]
*** Modification History ***

Modifications made:] Rank D
Other changes:  Modification was made for the firmware part number management.
Modification history]
Version 12.01 Rank C
Symptom corrected: A vulnerability (CVE-2019-1559) to a Padding Oracle Attack on CBC encryption has been fixed. To activate this fix, CBC mode must be disabled after updating the firmware. msh> set cbc down msh> logout Enter "yes" to save the changes.
Version 11.105.1 Rank C Symptom corrected: SC819 might occur after updating firmware remotely.
Other changes: Newly added SMBv2/v3 support. This firmware is dependent on the following firmware modules. Please be sure to update all of them: System/Copy v2.18 (D1445610B) Network Support v11.105.1 (D1445563S) Web Support v1.18 (D1445565M) Scanner v01.14 (D1445570H) Please refer to the RTB(No.RGene095) for details.
Version 11.104 Symptom Corrected: When the device is set to use "IEEE 802.1X" and "TLS1.2" is set to "active", authentication will fail.
Version 11.103 Other changes: Changed the DH key specification to use 2,048 bits instead of 512 bits to prevent the Logjam vulnerability (CVE-2015-4000). In addition, by modifying this specification, SSL/TLS communication can be established when using Mac OS X 10.10.4 and iOS 8.4.
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Version 11.102

Symptom corrected:
- When the display language of the operation panel is set to

Catalan, Scan to Folder fails.

## Other changes:

- When printing from the Windows operating system, if the RAW protocol is used for the standard TCP/IP port, a significant amount of time might pass until the next job is printed. Because of this, the initial print timeout period is changed to 15 seconds and the shortest timeout period that can be set is changed to 5 seconds.

### Version 11.100

# Symptom corrected:

- When the device repeatedly goes in and out of Energy Saver Mode while the web browser is running on the operation panel, an SC899 error might occur.

### Version 11.99

# Symptom corrected:

- 1. Although the LLMNR of IPv4 and IPv6 are enabled in Web Image Monitor, it might not affect the printed result of the NIB Summary (SP5-990-007) and/or the Print List in Interface Settings of System Settings.
- 2. When DHCP v6 is enabled, turning the power off and then on might cause a memory leak.
- 3. When simultaneously printing from AppleTalk on a Mac and a protocol other than AppleTalk in Windows, an SC899 error might occur.
- 4. When PEAP or TTLS is used as the IEEE 802.1X authentication method and the server certification check is disabled, the IP address might not be obtained after the device is restarted.
- 5. When DHCP is enabled and the network settings are changed, it might take more than two minutes for the settings to finish updating.

# Version 11.98.1

### Symptom corrected:

- 1. SC899 may occur after changing some network setting.
- 2. @Remote communication may fail in a customer network. This firmware is dependent on the following firmware module.

Please be sure to update this:

- System/Copy v2.10 (D1445562T) or later
- 3. Some minor bug corrections for AirPrint were applied.

Version 11.96

- 1. When NBT is "OFF", Browse list is not shown if touch the Browse Network button on destination folder of Scan to folder.
- 2. Cannot scan to shared folders in Windows 8 and Windows Server 2012.
- 3. Cannot scan to shared folders in Mac OS X 10.7 or Mac OS X 10.8. This firmware correction is dependent on the following firmware modules. Please be sure to update it: System/Copy firmware v2.08 (D1445562R) or later
- 4. Unable to set the Mask Length in Configuration > User

Authentication Management when the user sets the IPv6 Access Control Range as Mask in Configuration > Security > Access Control in the Web Image Monitor.

5. When a wireless LAN error occurs, SC899 may occur instead of SC855 which shows the wireless LAN error.

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#### Version 11.93.3

# Symptom corrected:

- 1. SMB timeout increased to 20 seconds (from 10 seconds).
- 2. If the device is unable to login to Active Directory (because of a bad password for example), it will continue to try logging in and the account will eventually be locked. This only occured when Kerberos Authentication was being used.
- 3. Printing the NIB Summary (SP-5-990-007) and/or "System Settings > Interface Settings > Print List" multiple times might result in an SC819.

# Other changes:

Support for AirPrint.

This firmware is dependent on the following firmware modules.

Please be sure to update all of them:

Printer firmware v1.08 (D1445572G) or later

PDF v1.04 (D1445559E) or later

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#### Version 11.92

Symptom corrected:

- 1. The MFP will always authenticate users using the Domain Name of the device (configured via WIM or User Tools) instead of a domain specified when a user enters their username in the format user@domain.
- 2. If the MFP acquires its hostname from DHCP, the NCS daemon's boot process will restart. While NCS is restarting, it is unable to respond to requests from the printing system to start some of the printing-related services (diprint, lpd, usbd, wsprnd...).
- 3. DHCP option 204 has no effect on device settings.

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#### Version 11.88.2

Symptom corrected:

- 1. The device allows users with invalid Windows usernames (containing specific combinations of the '@' and 'backslash' characters) to authenticate, via Windows Authentication as Guests.
- 2. Attempting to establish a WPA connection to an SSID consisting of exactly 32-bytes might result in an SC899.

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#### Version 11.86

- 1. Access violation might not be logged even if the number of access exceeds the threshold.
- 2. Enabling DHCP Option 204 via telnet might result in SC899 and

- the device being inaccessible via network. It affected the device in which DHCPv6 is enabled.
- 3. If the telnet command "ssh genky" does not have the key length option, an 1024 bit SSH public key might be created instead of 2048 bit.
- 4. @Remote cannot log the use of the WSD-Printer protocol.
- 5. LLNMR host name resolution via wireless connection might fail if the default hostname setting is used.
- 6. IPv6 Access Control Range setting might not work if the Mask Length setting is used.
- 7. A user in a different but trusted domain might fail in Windows Authentication.
- 8. 802.1x authentication via wired LAN might fail if LEAP is selected for the EAP Type setting.
- 9. The SSL session might be disconnected by a server which only supports DSA authentication. It affected the device in which only 3DES is selected for Encryption Strength Setting.
- 10. When the device connects to a switch, SC899 might occur and the device might be rebooted. It affected the device that meets all of the following conditions:
  - 802.1x authentication is enabled
  - Any EAP type other than LEAP is selected
  - Site Certificate is enabled

Other	changes:	

Supports the Color Controller E-5300.

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Version 11.77.2

Symptom corrected:

- 1. Making successive configuration changes to the device via a WIM https connection, while the device is in sleep mode, might result in the device hanging up.
- 2. SC899 may occur after network setting is changed.

Other changes:

Supports Fax Connection Unit Type B.

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Version 11.77

1st Mass production



*** Basic Information ***  [Create date] 2017/05/24  [Program Name] Fax  [Version] 11.00.00  [PCB No.]  [Interchangeability] X / O  [Other Firmware Requirements] None  [PCB Requirements] None
[Create date] 2017/05/24  [Program Name] Fax  [Version] 11.00.00  [PCB No.]  [Interchangeability] X / O  [Other Firmware Requirements] None  [PCB Requirements] None  [Software category] Normal Release
[Program Name] Fax  [Version] 11.00.00  [PCB No.]  [Interchangeability] X / O  [Other Firmware Requirements] None  [PCB Requirements] None  [Software category] Normal Release
[PCB No.]  [Interchangeability] X / O  [Other Firmware Requirements] None  [PCB Requirements] None  [Software category] Normal Release
[Interchangeability] X / O  [Other Firmware Requirements] None  [PCB Requirements] None  [Software category] Normal Release
[Other Firmware Requirements] None [PCB Requirements] None [Software category] Normal Release
[Other Firmware Requirements] None [PCB Requirements] None [Software category] Normal Release
[PCB Requirements] None [Software category] Normal Release
[Software category] Normal Release
[Release category] Normal Release
[Program category] Firmware
Exported to(language) GEN(all) [Firmware No.] D1445569N [File Information] File Name D1445569N.fwu File Type Module for Service Size 1.66 MB ( 1743964 byte ) [File Information] File Name D1445569N.rfu File Type Module for Remote Upgrade Size 1.67 MB ( 1749248 byte )  [Production reflection] 2017/06
*** Note ***
[Note]
*** Important Notes ***
[Important Notes]

*** Modification History ***
[Modifications made:] Symptom corrected: - If logged in with user authentication, FAX settings for Auto Print FAX Journal (SWUSR_03, bit7) and setting whether or not to include sender name in reports (SWUSR_04, bit5) may change after logging out SC899 may occur when logging out from a machine with the user authentication enabled Fax application may stall when recovering from energy saving mode.
[Modification history]
Version 10.00.00 Other changes: - In SLNX v2.3.0 or later, the printer accounting method will be changed to match the MFP specifications in SLNX.
Version 09.00.00 Symptom corrected SC899 may occur
Version 08.00.00 Symptom corrected: Received fax files are not monitored by Auto Document Link and/or are not displayed using Desk Top Binder if both the Output Mode Switch Timer setting is enabled and the Reception File Processing "Store" setting is enabled.  This firmware is dependent on the following firmware module. Please be sure to update this: NetworkDocBox v3.03 (D1445567J) or later

Version 07.00.00

- 1. An unlimited number of notification emails for the communication results are sent out under the following conditions:
  - The sending of this notification email to sender has been enabled, and
  - The sender's address or group address to which the sender belongs has been selected as a destination for the notification email
- 2. SC899 occurs when a paper jam is cleared (just after the front door is closed).

- 3. The side of the image recieved may be truncated if the original data was sent under the following conditions (which cause the machine to treat it as a DLT sized original):
  - Length: 420mm or more
  - Width: A3

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Version 06.00.00

Symptom corrected:

The e-mail address entered manually in the [TX Mode] tab is erased if the user programs or changes the Security Settings.

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Version 05.00.00

Other changes:

The wording for some LCD display messages was changed.

IMPORTANT: In order to apply these change(s), you also need to

update to the following OpePanel firmware:

NA: D1441491F, EU: D1441492F, TWN/AA: D1441493F, CHN: D1441494C

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Version 04.00.00

Symptom corrected:

- 1. The machine stalls if a FAX transmission job from a remote machine is cancelled while the remote machine is connecting to the main machine.
- 2. "The Destination List has been updated" is displayed every time the user logs in if Authentication is enabled.
- 3. Changes made to the Remote Reception setting (selecting a remote machine for each telecommunications line) are not applied.
- 4. The FAX function cannot be accessed even when the FAX icon or function key is pressed.
- 5. Other minor bug corrections were applied.

-----

Version 03.03.00

Other changes:

Supports the Fax Connection Unit Type B.

- 1. Some job log data may not be recorded correctly if an original jam occurs.
- 2. SC818 may occur when the machine recovers from Sleep mode.
- 3. Some function keys are not allocated when the Import/Export function is used.
- 4. The actual machine condition may not be correctly shown on the "Check status" screen.
- 5. PDF/A may be set as the file type when using the Import/Export function.

6. Other minor bug corrections were applied.	
Version 02.00.00 1st Mass production	

*** Basic Information ***
[Create date] 2018/04/05
[Program Name] Printer
[Version] 1.14
[PCB No.]
[Interchangeability] X / O
[Other Firmware Requirements] None
[PCB Requirements] None
[Software category] Normal Release
[Release category] Normal Release
[Program category] Firmware
Exported to(language) GEN(all) [Firmware No.] D1445572N [File Information] File Name D1445572N.fwu File Type Module for Service Size 3.73 MB (3915692 byte) [File Information] File Name D1445572N.rfu File Type Module for Remote Upgrade Size 3.74 MB (3920128 byte) [Availability of RFU] No  [Production reflection] 2018/03
======================================
[Note]
[Important Notes]

*** Modification History ***
[Modifications made:] Rank C
Symptom corrected: - When a job is sent to the device while it is in Energy Saver mode, "Auto Continue" function does not work and a paper size error occurs.
[Modification history]
Version 1.13 Symptom corrected: - Poor-quality text is output when printing a job that contains multiple PDL data An SC899 error might occur when the RHPP port (port 59100) receives specific data.
Version 1.12 Symptom corrected:  1. The Compulsory Security Stamp is not printed under the following conditions:  - "Compulsory Security Stamp: Printer" is enabled in the Administrator Tools of System Settings.  - The printer displays one of the following languages: Simplified Chinese, Traditional Chinese, Korean, Thai, Hebrew, Arabic, or Turkish. (GFPR#RA13100005) Other changes:  1. SP5-490-001 (MF Key Card: Job Permit Setting) is now available. Note: Previously, this SP could only be used on machines sold in Japan.
Version 1.11 Symptom Corrected: Saddle stitch staple function is disabled with Booklet Finisher SR3110 when Thick 1 paper is selected as a cover sheet. Note: To apply this change, make sure to update to System/Copy Ver.2.11 ( D1445562V) or later.
Version 1.10 Symptom corrected: When printing a gzip file, print jobs might be reset. If that occurs, the message "Compressed Data Error." will appear on the display.

Version 1.09

Symptom corrected:

The compulsory Security Stamp may not be printed correctly or may be missing from printouts when printing continuously.

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Version 1.08

Other changes:

Support for AirPrint.

This firmware is dependent on the following firmware modules.

Please be sure to update all of them:

Network Support Firmware v11.92.3 (D1445563J) or later

PDF v1.04 (D1445559E) or later

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Version 1.07

Symptom corrected:

The Scheduled Printing function (a Hold Print function) might not work with Basic Authentication.

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Version 1.06

Symptom corrected:

- 1. If Store and Skip Errored Job = ON, then printing 200 (max. # that can be held in the queue) Hold Print jobs might result in the printer stalling or automatically rebooting.
- 2. The 'Store and Skip Errored Job' icon might be shown on the printer's Job List tab, indicating that a job has been stored and skipped, even if a job has not been stored and skipped.
- 3. The label "Host Interface" of the Printer Features > Host Interface tab is too long and extends beyond the edge of the tab.
- 4. If the "Store and Skip Errored Jobs" function is enabled some jobs might take longer than normal to start printing.
- 5. The job attributes (User ID, job name, etc.) shown in the Sample Print and Hold Print dialogues might not be the attributes of the currently selected job. For example, when the Delete button in the Hold Print dialogue is pressed, the confirmation message might ask whether to delete another job.
- 6. The operation panel's "Print from Memory Storage Device" screen is not able to display file paths that contain Chinese (traditional or simplified).

Other changes:

Supports Fax Connection Unit Type B

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Version 1.05.1 1st Mass production



*** Basic Information ***
[Create date] 2020/01/15
[Program Name] System/Copy
[Version] 2.21
[PCB No.]
[Interchangeability] X / O
[Other Firmware Requirements] None
[PCB Requirements] None
[Software category] Normal Release
[Release category] Normal Release
[Program category] Firmware
Exported to(language) GEN(all) [Firmware No.] D1445610E [File Information] File Name D1445610E.fwu File Type Module for Service Size 17.52 MB (18371288 byte) [File Information] File Name D1445610E.rfu File Type Module for Remote Upgrade Size 17.53 MB (18379008 byte) [Availability of RFU] Yes
*** Note ***
[Note]
*** Important Notes ***
[Important Notes]
*** Modification History ***

[Modifications made:] Rank C
Symptom corrected:  - The startup process for JavaVM was adjusted to lower the risk of SC899 occurring when using Streamline NX.
[Modification history]
Version 2.20 Rank C
Other changes:  - When using the Stream Line NX ver3 for a certain amount of time, SC899 or "Functional Error. Please restart device" message might be displayed.
Version 2.19 Rank C
Symptom corrected: - Kerberos authentication might take time because the TCP timestamp starts with a zero.
Version 2.18 Rank C
Symptom corrected:  - An invalid value is returned when obtaining the counter MIB, ricohEngCounterValue, during device shutdown.  - In the case of the following conditions, when attempting to log in

- In the case of the following conditions, when attempting to log in to a device with CAP v2 installed, the attempt may fail with the "Failed to authenticate. Address Book is being updated." error message.
- The FAX function is enabled on the device.
- "Logout Using Card" is set as "On" in the CAP configuration tool.
- When a machine administrator logs in to the device, the "Scanner Features" screen might suffer from low brightness and be unresponsive.
- Paper trays might become unselectable after duplex copying with the single pass ADF model.
- Newly added SMBv2/v3 support.

This firmware is dependent on the following firmware modules.

Please be sure to update all of them:

- System/Copy v2.18 (D1445610B)
- Network Support v11.105.1 (D1445563S)
- Web Support v1.18 (D1445565M)
- Scanner v01.14 (D1445570H)

Please refer to the RTB(No.RGene095) for details.

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Version 2.17

Symptom corrected:

- If an email sent by scan-to-email is opened in Office 365 cloud mail service, contents of the attached file may falsely appear in the body of the message with the characters corrupted.

- The machine may stall, if ACS scanned through the single path DF. Other changes: - Toner near end threshold values in SP3-110-001 ~ 004 can be adjusted via @Remote and added to the device status of the @Remote center server UI. Version 2.16 Specification Change: Minor change in the administrative update process. Version 2.15 Symptom corrected: - The machine may stall without displaying the preview and thumbnail of the scanned data. - When connecting to an LDAP server, such as Oracle LDAP server, by using SSL, the connection might fail. Version 2.14 Symptom corrected: - SC867 may occur if an SDK application is (already) installed on the machine. Version 2.13 Symptom corrected: 1. SC990 may occur when using Scan to SMB. 2. The tracking information for a FAX transmission job is not sent to the tracking app. 3. SC637 may occur. Version 2.12 Spec change (Changes applied for the Japanese domestic model only). Version 2.11 Symptom Corrected: 1. Saddle stitch staple function is disabled with Booklet Finisher SR3110 when Thick 1 paper is selected as a cover sheet. Note: To apply this change, make sure to update to Printer Ver.1.11 (D1445572K) or later.

- 2. The machine does not detect a USB storage device inserted into the SD slot.
- 3. The machine stops detecting USB storage devices that support encryption after a USB device that does not support encryption is connected.
- 4. The time correction for Summer Time (Southern Hemisphere) is not applied after the setting is enabled.
- 5. [Embedded RC Gate]: @Remote auto calls (Ex. service calls, supply

calls, alarm calls) are not sent from the device if enginerelated SC errors occur frequently within a short period of time.

6. SC899 occurs when the machine enters or recovers from Energy Saver mode.

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#### Version 2.10

## Symptom corrected:

- 1. @Remote communication may fail. Important: To apply this change, make sure to update to Network Support v11.98.1 (D1445563L) or later as well.
- 2. Authentication settings for SDK application cannot be changed via the Device Manager NX lite, or settings for SDK/C application 1 may be changed when attempting to change the settings for SDK/C application 2 or 3.
- 3. Settings for SDK/J application cannot be changed via Device Manager NX lite.
- 4. The authentication screen may be displayed again after login.
- 5. The login screen on the LCD touch screen remains displayed (and login is not possible) if the user attempts to log in via the LCD and WIM simultaneously.
- 6. Cannot switch from the Home screen to another screen after switching from an SDK application's screen to the Home screen.

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### Version 2.09

# Symptom corrected:

- 1. SC819 may happen if an SDK/J application is installed via a server.
- 2. Some default SP values were changed.
- 3. Printing with the R55 emulation takes more time than on predecessor models.
- 4. SC637 may occur when the following conditions are met:
  - a. SP5-113-002 is set to "1".
  - b. "Enhanced External Charge Unit Management" is used.
  - c. An SDK application is installed but unavailable.

#### Other changes:

SP5101-004 and SP5101-104 are newly added for the Japan model. Note: These SP settings perform the same function as the "Energy Saver Key to Change Mode" in Administrator Tools, which is not available on the Japan model.

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### Version 2.08

- 1. When recovering from Energy Saver mode, a message appears which stating that the settings for each application's configuration were reset.
- 2. Only the admin is able to add/remove Copier icon from the Home screen using "Program to Home".
- 3. Cannot scan to shared folders in Mac OS X 10.7 or Mac OS X 10.8. This firmware correction is dependent on the following firmware modules. Please be sure to update it:

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Version 2.07

Symptom corrected:

A logged-in user is not logged out when another user touches the card to the reader, on a machine with CAP installed.

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### Version 2.06

#### Symptom corrected:

- 1. The login screen is not displayed after the user logs out of an SDK application using the logout key (however the software keyboard for entering the user name is displayed).
- 2. The user is automatically logged out while using an SDK application installed on the machine.
- 3. The user is able to edit newly added scanner forwarding destinations that are displayed after an LDAP search, even though restrictions on the usage of Destination List entries have been enabled.
- 4. SP5-801 (Memory Clear) may fail.
- 5. Some SP default values were not correct.
- 6. SC285 may occur under low-temperature and low-humidity conditions (the default values for SP2-192 were changed to prevent this).
- 7. Some data on the SMC report appears as "No string" if the SMC is printed out in Text mode.

#### Other changes:

- 1. The timing at which the fan stops after finishing a print job was optimized (the default value for SP1-953-007 was changed from 4.5 to 1.3).
- 2. NA model: SC552-02 or damage to the fusing unit may occur before the unit reaches its target yield, if A4 SEF/A3 sheets are printed out and the machine is used at a volume higher than Max CV.

Note: This is to prevent breakage of the fusing sleeve belt unit. The proper yield of the unit under these conditions will be examined.

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Version 2.05

Other changes:

The machine behaves as follows if the Energy Saver key is pressed while the job-end fusing belt rotation is still being performed (which is done for cooling purposes):

Before modification: Machine refuses request to enter Energy Saver Mode

After modification: LCD is turned off, and machine enters Energy Saver Mode once the rotation has been completed

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Version 2.04

Some buttons displayed inside SP5-749 appear garbled.

# Other changes:

SP5-083-001 was newly added.

- 0: Does not blink (default)
- 1: Blinks

#### Note:

- This SP makes it possible to set whether or not the [Check Status] key blinks when Toner Near End is reached.
- With previous firmware versions, this key always blinked when Toner Near End was reached.

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Version 2.03

Symptom corrected:

The page for Extended Features may not be displayed in WIM if the page is accessed while the machine is switching to Energy Saver mode.

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# Version 2.02

Symptom corrected:

- 1. SC819 may occur when the Inquiry List is printed out if the display language is set to Brazilian Portuguese.
- 2. All icons except the Fiery icon disappear from the Home screen if the machine recovers from Energy Saver mode while the Fiery controller is in the process of rebooting.
- 3. Administrators may be able to log in to the machine even after the account has been locked out.
- 4. The machine may take longer than expected to warm up.
- 5. Other minor bug corrections were applied.

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# Version 2.01

- 1. SC899 may occur if the operator interrupts a Copy job, chages the job settings, and then resumes the job.
- 2. The Check Status screen may not be displayed after the operator wakes the machine from Energy Saver mode by pressing the "Check Status" key.
- 3. The job name may appear as asterisks ("\*\*\*") if the user is logged into the machine via Basic Authentication.
- 4. A job may be displayed in the Job List even after it has been deleted.
- 5. When an authenticated user deletes all of one's own Print jobs, other users' jobs may also be deleted.
- 6. The estimated time until printing may be displayed as "999 minutes".
- 7. The machine may freeze if the Back up/Restore feature (user custom settings) is used shortly after the machine boots up.
- 8. The machine may freeze when a Document Server document is printed out using Combine.
- 9. Other minor bug corrections were applied.

Other changes: Supports the Color Controller E-5300.

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Version 2.00.3

Symptom collected:

- 1. Fiery icon may disappear from Home screen when administrator logs in.
- 2. The buzzer sounds when an unauthorized user or Administrator pushes a button for a restricted function.
- 3. The touch screen may turn white if the user selects "No" when asked if they wish to log out after trying to exit from the Extended Features screen.
- 4. SC899 may occur when the user selects "Startup Settings" inside the Extended Features screen in the WIM interface.
- 5. Movement of EXJS firmware to an SD card may fail.
- 6. Text characters cannot be input correctly using an external keyboard.
- 7. Other minor bug corrections were applied.

Other changes:

Supports Fax Connection Unit Type B

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Version 1.05.7

Others:

"Self checking..." will be displayed while the machine cools down the fusing belt (temperature-triggered idle rotation).

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Version 1.05.6 1st Mass production



*** Basic Information ***
[Create date] 2018/04/05
[Program Name] PCL
[Version] 1.18
[PCB No.]
[Interchangeability] X / O
[Other Firmware Requirements] None
[PCB Requirements] None
[Software category] Normal Release
[Release category] Normal Release
[Program category] Firmware
Exported to(language) GEN(all) [Firmware No.] D1445580Q [File Information] File Name D1445580Q.fwu File Type Module for Service Size 1.15 MB ( 1202180 byte ) [File Information] File Name D1445580Q.rfu File Type Module for Remote Upgrade Size 1.15 MB ( 1208576 byte ) [Availability of RFU] Yes
[Production reflection] 2018/04
*** Note *** ==================================
*** Important Notes ***
[Important Notes]

*** Modification History ***
[Modifications made:] Rank C
Symptom corrected: - The printing results of the second and subsequent pages might not be as expected while PCL5 host printing.
[Modification history]
Symptom corrected:  1. The image quality output from PCL5 data might be poor if the image was created by using certain applications, such as RICOH ProcessDirector. (GFPR#RE15030034)  2. If a PCL5 job is printed under certain conditions related to the font header information when using host printing, PCL default fonts are used. (GFPR#RE14100009)  3. Some lines and/or borders might be missing from PCL jobs. (GFPR#RC16040013)  4. When characters that contain the incorrect TrueType font data are printed, not only are incorrect characters missing but also are correct characters that follow incorrect characters. (GFPR#RE16030046)  5. An SC899 error occurs when using the PCL6 driver to print a PDF from the Reader application in Windows 8.1. (GFPR#RA15050002)
Version 1.16 Symptom corrected: SC899 occurs in some firmware versions when printing certain jobs. (GFPR#RE16020028)
Version 1.15 Symptom corrected:  1. Using a bitmap font might result in jobs being cancelled.  (GFPR#RE13100030)  2. When printing an N-up PCL6 job by using a printer driver that is for Windows 8 or a later Windows operating system,

3. If a raster image is specified in the PCL6 driver to be reduced, be enlarged, or undergo N-up printing, unexpected white lines might appear in the printout. (GFPR#RA14080005, GFPR#RA14110005)

Version 1.14

Symptom corrected:

1. Transparencies might be blacked out of printed pages. (GFPR#RE13040026)

- 2. When printing certain documents in Microsoft Word, an SC899 error might occur.
- 3. If an image size is big and has been enlarged by using the "Reduce/Enlarge" option in the PCL6 driver, unexpected white lines might appear in the printout.
- 4. When printing a PCL5 host-printing job in which 32,000 or more of the fill patterns are specified, the device will stall.

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#### Version 1.13

Symptom corrected:

- 1. Text in duplex PCL jobs are shifted and therefore overlap other text when the data is subjected to both of the following conditions:
  - Specify the frontside of the page by using the < Esc >&a1G command when the current page is the backside.
  - The offset command < ESC >&l#U or < ESC >&l#Z is used after the drawing command is specified.

(GFPR#RC13060012, GFPR#RE14010003)

- 2. When printing PCL5 jobs that include a scalable font, an SC899 error occurs or the device automatically reboots when fonts have exceeded the 256-character limit available for download. (GFPR#RE14020003)
- 3. PCL jobs with a specified clip range might print unnecessary 1-pixel width lines on the printout.
- 4. If a user who has only black-and-white-printing privileges prints the stored color data in monochrome and if the specified paper size is not set in the input tray, the printing will be cancelled.
- 5. If the glyph data of TrueType fonts includes hinting information that is on the edge of the frame, an SC899 error might occur. (GFPR#RC14030010)

-----

#### Version 1.12

Symptom corrected

- 1. When specifying a tray other than the Auto Tray Select as the Input Tray and using Shift Collate or Rotate Collate, the documents are printed without being shifted.(GFPR#RE12110018)
- 2. When a PCL5 job includes a raster image, the text and images might be placed in the wrong position, which would result in an unexpected printout. (GFPR#RE13020014)
- 3. Specific TrueType fonts that include problematic hinting data might cause an SC899 error to occur. (GFPR#RA13030005)

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#### Version 1.11

Symptom corrected:

Error SC899 caused by PCL jobs names (@PJL JOBNAME) that contain any number of "%" characters and a banner page. (GFPR#RE12090010)

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Version 1.10

- 1. PCL5 jobs containing an "ECS&l0C" command result in an SC899.
- 2. Blank Page Print bug resulting in PCL5 overlays stalling (Blank Page Print = Off) or the device continually printing blank pages until the MFP runs out of paper (Blank Page Print = On).

Version 1.09

Symptom corrected:

"Font Number" 0 (operation panels' PCL Menu) is always used as the default font for PCL5 jobs. Selection of another font as the default had no effect.

Version 1.08

Symptom corrected:

- 1. SC899 caused by the printing of specific kinds of scalable TrueType fonts. (GFPR#RE11100007)
- 2. The use of a PCL5 macro results in an extra blank page being added to the job. (GFPR#RE11110012)
- 3. PCL5 tray selection commands might be ignored resulting in the job being printed from tray 1.
  - PCL XL jobs with valid tray selection commands might result in the PCL XL error "Warning IllegalMadiaSource".

Version 1.07

1st Mass production

*** Basic Information ***
[Create date] 2017/07/26
[Program Name] Engine
[Version] 1.11:04
[PCB No.]
[Interchangeability] X / O
[Other Firmware Requirements] None
[PCB Requirements] None
[Software category] Normal Release
[Release category] Normal Release
[Program category] Firmware
Exported to(language) GEN(all) [Firmware No.] D1445114N [File Information] File Name D1445114N.fwu File Type Module for Service Size 7.94 MB (8323572 byte) [File Information] File Name D1445114N.rfu File Type Module for Remote Upgrade Size 7.95 MB (8331520 byte) [Availability of RFU] Yes
======================================
======================================
*** Important Notes *** ==================================
[Important Notes]

\*\*\* Modification History \*\*\*

[Modifications made:]

Symptom corrected:

Printing does not start up again when paper is reloaded following Paper End.

[Modification history]

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Version 1.10:04

Specification Change:

Margin improvement for some sensor detect troubles caused by electrical noise.

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Version 1.09:04

Specification Change:

Minor parameter changed to optimize the countermeasure applied in Engine Version 1.07:04.

-----

Version 1.08:04

Symptom corrected:

- 1. Solid black images (bands or other) along the main-scan direction appear light, and black spots may appear on these images.
- 2. "Toner cartridge has not been loaded" is displayed in the following situations:
  - When the machine is turned ON
  - When the machine recovers from Energy Saver mode
  - When the duplex unit covers are opened/closed

Other changes:

1. Control parameters for the fusing exit motor output check were changed.

-----

Version 1.07:04

Symptom corrected:

SC573 occurs or part of the surface layer of the fusing sleeve belt peels off under the following conditions:

- When printing onto paper with a width of 206mm or less, or
- When the paper size setting is different from the size of the paper loaded in the tray.

Note:

- Due to this change, the timing at which the print speed decreases and the amount of the decrease may change when printing onto paper with a width of 206mm or less.
- Due to this change, the printing speed may be reduced if the paper

size mismatch described above occurs.

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Version 1.06:04

Symptom corrected:

- 1. SC687 may occur or the machine may stall with "Copying..." displayed when a copy job is performed following recovery from Energy Saver mode.
- 2. Background correction does not work correctly for some originals when auto density is used with color copying or color scanning.
- 3. The default settings for process control SPs were adjusted to optimize the image density under low-temperature and low-humidity conditions.

Other changes:

SP1158-001/002 was newly added.

-----

Version 1.05:04

Symptom corrected:

- 1. Noise may occur when the fusing belt is rotated after paper exit (which is done to regulate the temperature of the fusing belt).
- 2. SC230-01 may occur when printing onto LT sized paper on the 45CPM model.

# Other changes:

- 1. The default values for multiple Engine SP modes were changed.
- 2. The control for the function that reduces flickering light was improved.
- 3. The firmware was modified to further ensure the temperature of the fusing unit does not rise too high when a jam, SC error, or other event which stops machine operations occurs.

-----

Version 1.04a:04

Other changes:

Improved the total amount of energy consumed (TEC value) when LT sheets are fed.

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Version 1.03:04

Symptom corrected:

- 1. The image density detected by the DF may vary too much across the original.
- 2. When paper end occurs in the middle of the print, the next job may be printed before prior print completes.

#### Other changes:

1. Improved performance with respect to cold offset on machines that operate with SP2-907-001 changed from default.

2. Firmware was modified to accommodate the fusing lamp modification applied on the Taiwan model.	
Version 1.02:04 1st Mass production	

*** Basic Information ***
[Create date] 2017/07/26
[Program Name] Engine(Single Pass DF)
[Version] 1.11:02
[PCB No.]
[Interchangeability] X / O
[Other Firmware Requirements] None
[PCB Requirements] None
[Software category] Normal Release
[Release category] Normal Release
[Program category] Firmware
Exported to(language) GEN(all)  [Firmware No.] D1445118N  [File Information]  File Name D1445118N.fwu  File Type Module for Service  Size 7.94 MB (8323572 byte)  [File Information]  File Name D1445118N.rfu  File Type Module for Remote Upgrade  Size 7.95 MB (8331520 byte)  [Availability of RFU] Yes  [Production reflection] 2014/12
*** Note ***
======================================
*** Important Notes ***
[Important Notes]

\*\*\* Modification History \*\*\*

[Modifications made:]

Symptom corrected

Printing does not start up again when paper is reloaded following Paper End.

[Modification history]

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Version 1.10:02

Specification Change:

Margin improvement for some sensor detect troubles caused by electrical noise.

-----

Version 1.09:02

Specification Change:

Minor parameter changed to optimize the countermeasure applied in Engine Version 1.07:02.

-----

Version 1.08:02

Symptom corrected:

- 1. Solid black images (bands or other) along the main-scan direction appear light, and black spots may appear on these images.
- 2. "Toner cartridge has not been loaded" is displayed in the following situations:
  - When the machine is turned ON
  - When the machine recovers from Energy Saver mode
  - When the duplex unit covers are opened/closed

Other changes:

1. Control parameters for the fusing exit motor output check were changed.

-----

Version 1.07:02

Symptom corrected:

SC573 occurs or part of the surface layer of the fusing sleeve belt peels off under the following conditions:

- When printing onto paper with a width of 206mm or less, or
- When the paper size setting is different from the size of the paper loaded in the tray.

Note:

- Due to this change, the timing at which the print speed decreases and the amount of the decrease may change when printing onto paper with a width of 206mm or less.
- Due to this change, the printing speed may be reduced if the paper

size mismatch described above occurs.

-----

Version 1.06:02

Symprom corrected:

The default settings for process control SPs were adjusted to optimize the image density under low-temperature and low-humidity conditions.

Other changes:

SP1158-001/002 was newly added.

-----

Version 1.05:02

Symptom corrected:

Noise may occur when the fusing belt is rotated after paper exit (which is done to regulate the temperature of the fusing belt).

## Other changes:

- 1. The default values for multiple Engine SP modes were changed.
- 2. The control for the function that reduces flickering light was improved.
- 3. The firmware was modified to further ensure the temperature of the fusing unit does not rise too high when a jam, SC error, or other event which stops machine operations occurs.

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Version 1.04a:02

Other changes:

Improved the total amount of energy consumed (TEC value) when LT sheets are fed.

-----

Version 1.03:02

Symptom corrected:

- 1. The image density detected by the DF may vary too much across the original.
- 2. Jobs recieved after a certain job may be printed out first if the Paper End condition occurs during continuous printing. Note: This does not occur with Stapled jobs.
- 3. When paper end occurs in the middle of the print, the next job may be printed before prior print completes.

### Other changes:

- 1. Improved performance with respect to cold offset on machines that operate with SP2-907-001 changed from default.
- 2. Firmware was modified to accommodate the fusing lamp modification applied on the Taiwan model.

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Version 1.02:02 1st Mass production

*** Basic Information ***	====
[Create date] 2017/08/31	====
[Program Name] Java VM v10 std for eDC	
[Version] 10.27.04	
[PCB No.]	
[Interchangeability] X / O	
[Other Firmware Requirements] None	
[PCB Requirements] None	
[Software category] Normal Release	
[Release category] Normal Release	
[Program category] Firmware	
Exported to(language) GEN(all) [Firmware No.] D1445600A_edc [File Information] File Name D1445600A_edc.ifu File Type Module for Service Size 53.42 MB ( 56014140 byte ) [Availability of RFU] No	
[Production reflection]	
*** Note ***	====
[Note]	====
*** Important Notes ***	====
[Important Notes]	
*** Modification History ***	

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## [Modifications made:]

Symptom corrected:

- Startup may take a long time and SC998 may occur if Streamline NX and CAP v2 are installed.
- The SDK application icon might not be displayed after recovering from energy saving mode under the following conditions:
  - An SDK application is set as a priority function.
  - An SDK application is set as a function key.
- SC899-00 may occur if logging in from a keyboard.
- The server certificate for DSDK has been changed to RSA2048/SHA256 for security improvement purposes.
- If only IPv6 is enabled on the device, utility tools (e.g. Device Manager NX family or Streamline NX v3) will fail to install applications remotely.
- The following issues occur if any device certificate is imported using the Device Manager NX Enterprise Certificate Management Tool.
  - Device Manager NX Enterprise fails to retrieve the information about the application(s) installed on the device.
  - GlobalScan NX fails to apply profiles or retrieve device information when using the AdminTool.

# [Modification history]

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Version 10.26.01

Symptom Corrected:

- 1. After applying the security update that changes the priority order for cipher suites, SSL communication fails between an application that includes an SSL server function and the Windows operating system.
- 2. SDK application behavior may be incorrect or inconsistent.

(CAP/ELP/SLNX/GSNX/etc.)

Both the Standard (Compatibility mode) application and the SOP Optimized (Hybrid mode) application are affected by these issues.

- Cannot log in.
- Cannot scan.
- Cannot print.
- Error message appears.
- 3. When conducting location-free printing or authentication processing by using a solution product, an SC899 error might occur or Java VM might close unexpectedly and an SC error related to Java VM not responding might occur.
- 4. The DSDK application fails to connect to the LDAP server when using Kerberos authentication.

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Version 10.25.00

Symptom corrected:

- Sending fax from the document server using IPv4-mapped address may result in an error.

#### Version 10.24.01

Symptom corrected:

- Less than 128-bit encryption methods will be prohibited.
- If Kerberos authentication is performed with an ESA application (e.g. CAP v2, Streamline NX), the handling cannot time out even if the specified time expires.
- If an ESA application that uses Administrator Authentication Management, User Authentication Management, or Enhanced External Charge Unit Management (e.g. CAP v2, Streamline NX) stops during logout handling, the logout cannot be completed.
- Machine may stall, if scanned from the contact glass with Size Setting disabled.
- SC637 may occur, if the machine is shut down while printing.
- CAP V2 is disabled if switched to Energy Saver mode while CAP V2 starts up after power ON.
- The machine cannot enter Energy Saver Mode after repeatedly entering and recovering from the mode.
- If a keystroke reader is connected to the device, SC 899 may occur when the device is returned from energy save mode.

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Version 10.20.05

Symptom corrected

- 1. In SLNX v2.3.0 or later, the printer accounting method will be changed to match the MFP specifications in SLNX.
- 2. When an ESA application is installed via Remote Install Manager, the heap size may be reset to the default size from the specified size.
- 3. When Java VM is updated via Remote Install Manager, the stack size may be reset to the default size from the specified size.
- 4. If the following is repeated, devices with CAP v2 installed will stall or behave slowly.
  - Log in to the device --> Switch to energy save mode --> Return from energy save mode
- 5. When an ESA application remains in an offline state such as an ESA application accesses the device HDD or entering SP mode, if the device switches to offline mode (such as when entering UP), the device may stall.

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Version 10.17.00

Error Correction:

- Minor bug correction

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Version 10.15.00

Fixed:

- 1. SC899 may occur when the machine recovered from energy saver mode.
- 2. An unexpected screen may appear when a device with 9 or more ESA applications installed recovers from energy saver mode.

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Version 10.13.06

## Fixed:

- 1. The User Code Authentication screen may not appear properly after a device with the "Administrator Authentication Management" setting enabled recovers from energy saver mode.
- 2. When an ESA application is closed by a user moving to the Home screen, the ESA application continues behaving as if it is displayed on the operation panel. As a result, the user cannot move to other applications because the screen is locked by the ESA application.
- 3. ESA application name is displayed in Japanese if the device language is not supported by the ESA application.
- 4. After performing a Java VM remote update process on the device, installed ESA applications show a "Stopped" status and do not restart automatically.
- 5. When a device failed to reboot after receiving a reboot request from a device management application, installed ESA applications would not restart automatically and remained in "Stopped" status.

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## Version 10.12.02

## Fixed:

- 1. SC997 may occur on a device during repeated entries and recoveries from energy saver mode.
- 2. Unnecessary temporary files remain after the remote installation of ESA applications.
- 3. The device freezes and displays "Please wait..." on the operation panel when the device receives a print job while in energy saver mode.
- 4. An application that doesn't have enhanced encryption may be installed to the device even though "Enhanced Encryption Strength" is turned ON to prohibit it.
- 5. Unable to display the device settings screen or Web Image Monitor because of internal process locks.
- 6. SC990 may occur when a device with a CAPv2 installation recovers from energy saver mode.
- 7. SC672-02 may occur when a device with a GlobalScan NX installation recovers from energy saver mode.
- 8. WVGA LP devices cannot display the Java TM Platform settings screen.
- 9. A Java VM internal processing may result in a failure of the device reboot, SC991 or SDK application stopped.

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## Version 10.11.02

#### Fixed:

- 1. Device reboot takes longer than is standard if the completion message displayed after importing "Device Setting Information" is not closed promptly.
- 2. Pop-up messages are displayed without message text if the message is displayed immediately after changing the device's language setting.
- 3. In rare conditions, SC899 or "Internal Error" might occur because of a Java VM bug.
- 4. The "Please wait..." screen is not closed when attempting to access a SDK application after recovering from energy saver mode.

Version 10.10.01 Fixed:

SC997 may occur when the device recovers from energy saver mode.

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Version 10.09.00

Fixed:

Switching to ELP-NX v2 from another application may cause SC997 if switching is performed while a large number of jobs are being transmitted to the device.

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Version 10.07.02

Fixed:

Kerberos Authentication is performed multiple times, causing a memory leak.

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Version 10.06.02

Symptom corrected:

- 1. More internal resources are consumed than required during internal file open and close operations, such as SDK application installation. This could result in unexpected behavior.
- 2. CAP v1.4.7 or later doesn't start-up due to a bug in an internal process which affects the AL-C2(D129, D130), GR-C1(D117, D118) and S-C5(D127,D128).

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Version 10.05.01

- 1. An error occurs with the Auto Start-up feature of SDK/J applications.
- 2. The last page is not printed when attempting to print out certain PS data.
- 3. The user cannot obtain a login password.
- 4. The software keyboard used with an Xlet application does not close (cannot be cleared) when User Authentication is enabled.
- 5. The application's main screen cannot be displayed after the software keyboard is closed.
- 6. The Card Authentication Package (SDK/J application) does not recover following a failed machine reboot.
- 7. Cannot reboot/stop an Xlet application when the installation of the application is cancelled.
- 8. The SDK/J application cannot be activated after switching from off-line to on-line.
- 9. A log-out error occurs with certain SDK applications.
- 10. The FAX sender's name appears garbled if composed of multi-byte characters.
- 11. The platform does not reboot when the SDK heap is set to its maximum value.
- 12. Other minor corrections were applied.

## Version 10.04.02

## Symptom corrected:

- 1. SC899 occurs when a user swipes a card on the card reader while the device is in 'sleep' mode.
- 2. An "OutOfMemory" error occurs due to lack of device memory when some programs are running.
- 3. SDK application installation infrequently results in the disappearance of a previously installed SDK application if multiple embedded programs are installed.
- 4. Garbled characters can be included in the FAX "TSI" attribute if the fax is handled by the Java VM. This can cause unexpected results for SDK applications, such as file naming errors if using the "TSI" attribute for naming metadata.

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### Version 10.03.01

Symptom corrected:

- 1. Even when the file type has been fixed at "PDF/A", other types of PDF files can be created.
- 2. User codes and names are not displayed in the Job Log for jobs that involve scanning or plotting using an SDJ/J application.
- 3. The area of the screen displayed behind a modal dialog responds to touch operations under the following conditions: Modal dialog is displayed -> User changes the screen (e.g. Copier to Home screen) -> User returns to original screen with dialog
- 4. Cannot login following a series of repeated logins and logouts.
- 5. The stack size cannot be changed.
- 6. "OutOfMemoryException" occurs.
- 7. "StateMachine" cannot be stopped or canceled correctly.
- 8. A time-out occurs in Muffling mode.
- 9. Some of the login User IDs acquired by the application appear blank.
- 10. SC899 sometimes occurs at the conclusion of an SSL session.

## Other changes:

- 1. Revised the wording of the error message displayed when the screen is unable to switch to another application using a requestVisibleXlet.
- 2. The threshold for triggering "Memory full" was changed.
- 3. Supports VM Card eDC-i1.2.

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Version 10.01.06 Initial release

*** Basic Information ***	
[Create date] 2017/08/31	=======================================
[Program Name] Java VM v10 std UpdateTool	
[Version] 10.27.04	•
[PCB No.]	
[Interchangeability] X / O	•
[Other Firmware Requirements] None	
[PCB Requirements] None	
[Software category] Normal Release	
[Release category] Normal Release	
[Program category] Firmware	
Exported to(language) GEN(all) [Firmware No.] D1445600A_upd [File Information] File Name D1445600A_upd.exe File Type Module for Service Size 52.65 MB ( 55203590 byte ) Check Sum -8Bit Sum: A698 -16Bit Sum(Little Endian): A4E2 -16Bit Sum(Big Endian): 99B6 [Availability of RFU] No	
[Production reflection]	
*** Note ***	
[Note]	
*** Important Notes ***	
[Important Notes]	

\*\*\* Modification History \*\*\*

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# [Modifications made:]

Symptom corrected:

- Startup may take a long time and SC998 may occur if Streamline NX and CAP v2 are installed.
- The SDK application icon might not be displayed after recovering from energy saving mode under the following conditions:
  - An SDK application is set as a priority function.
  - An SDK application is set as a function key.
- SC899-00 may occur if logging in from a keyboard.
- The server certificate for DSDK has been changed to RSA2048/SHA256 for security improvement purposes.
- If only IPv6 is enabled on the device, utility tools (e.g. Device Manager NX family or Streamline NX v3) will fail to install applications remotely.
- The following issues occur if any device certificate is imported using the Device Manager NX Enterprise Certificate Management Tool.
  - Device Manager NX Enterprise fails to retrieve the information about the application(s) installed on the device.
  - GlobalScan NX fails to apply profiles or retrieve device information when using the AdminTool.


# [Modification history]

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Version 10.26.01

Symptom Corrected:

- 1. After applying the security update that changes the priority order for cipher suites, SSL communication fails between an application that includes an SSL server function and the Windows operating system.
- 2. SDK application behavior may be incorrect or inconsistent. (CAP/ELP/SLNX/GSNX/etc.)

Both the Standard (Compatibility mode) application and the SOP Optimized (Hybrid mode) application are affected by these issues.

- Cannot log in.
- Cannot scan.
- Cannot print.
- Error message appears.
- 3. When conducting location-free printing or authentication processing by using a solution product, an SC899 error might occur or Java VM might close unexpectedly and an SC error related to Java VM not responding might occur.
- 4. The DSDK application fails to connect to the LDAP server when using Kerberos authentication.

-----

Version 10.25.00

Symptom corrected:

- Sending fax from the document server using IPv4-mapped address may

### Version 10.24.01

Symptom corrected:

- Less than 128-bit encryption methods will be prohibited.
- If Kerberos authentication is performed with an ESA application (e.g. CAP v2, Streamline NX), the handling cannot time out even if the specified time expires.
- If an ESA application that uses Administrator Authentication Management, User Authentication Management, or Enhanced External Charge Unit Management (e.g. CAP v2, Streamline NX) stops during logout handling, the logout cannot be completed.
- Machine may stall, if scanned from the contact glass with Size Setting disabled.
- SC637 may occur, if the machine is shut down while printing.
- CAP V2 is disabled if switched to Energy Saver mode while CAP V2 starts up after power ON.
- The machine cannot enter Energy Saver Mode after repeatedly entering and recovering from the mode.
- If a keystroke reader is connected to the device, SC 899 may occur when the device is returned from energy save mode.

-----

Version 10.20.05

Symptom corrected:

- In SLNX v2.3.0 or later, the printer accounting method will be changed to match the MFP specifications in SLNX.
- When an ESA application is installed via Remote Install Manager, the heap size may be reset to the default size from the specified size.
- When Java VM is updated via Remote Install Manager, the stack size may be reset to the default size from the specified size.
- If the following is repeated, devices with CAP v2 installed will stall or behave slowly.
- Log in to the device --> Switch to energy save mode --> Return from energy save mode
- When an ESA application remains in an offline state such as an ESA application accesses the device HDD or entering SP mode, if the device switches to offline mode (such as when entering UP), the device may stall.

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Version 10.17.00

Error Correction:
- Minor bug correction

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Version 10.15.00

Fixed:

- 1. SC899 may occur when the machine recovered from energy saver mode.
- 2. An unexpected screen may appear when a device with 9 or more ESA applications installed recovers from energy saver mode.

#### Version 10.13.06

#### Fixed:

- 1. The User Code Authentication screen may not appear properly after a device with the "Administrator Authentication Management" setting enabled recovers from energy saver mode.
- 2. When an ESA application is closed by a user moving to the Home screen, the ESA application continues behaving as if it is displayed on the operation panel. As a result, the user cannot move to other applications because the screen is locked by the ESA application.
- 3. ESA application name is displayed in Japanese if the device language is not supported by the ESA application.
- 4. After performing a Java VM remote update process on the device, installed ESA applications show a "Stopped" status and do not restart automatically.
- 5. When a device failed to reboot after receiving a reboot request from a device management application, installed ESA applications would not restart automatically and remained in "Stopped" status.
- 6. SC997 may occur on a device during repeated entries and recoveries from energy saver mode.
- 7. Unnecessary temporary files remain after the remote installation of ESA applications.
- 8. The device freezes and displays "Please wait..." on the operation panel when the device receives a print job while in energy saver mode.
- 9. An application that doesn't have enhanced encryption may be installed to the device even though "Enhanced Encryption Strength" is turned ON to prohibit it.
- 10. Unable to display the device settings screen or Web Image Monitor because of internal process locks.
- 11. SC990 may occur when a device with a CAPv2 installation recovers from energy saver mode.
- 12. SC672-02 may occur when a device with a GlobalScan NX installation recovers from energy saver mode.
- 13. A Java VM internal processing may result in a failure of the device reboot, SC991 or SDK application stopped.

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## Version 10.12.02

#### Fixed:

- 1. SC997 may occur on a device during repeated entries and recoveries from energy saver mode.
- Unnecessary temporary files remain after the remote installation of ESA applications.
- 3. The device freezes and displays "Please wait..." on the operation panel when the device receives a print job while in energy saver mode.
- 4. An application that doesn't have enhanced encryption may be installed to the device even though "Enhanced Encryption Strength" is turned ON to prohibit it.

- 5. Unable to display the device settings screen or Web Image Monitor because of internal process locks.
- 6. SC990 may occur when a device with a CAPv2 installation recovers from energy saver mode.
- 7. SC672-02 may occur when a device with a GlobalScan NX installation recovers from energy saver mode.
- 8. WVGA LP devices cannot display the Java TM Platform settings screen.
- 9. A Java VM internal processing may result in a failure of the device reboot, SC991 or SDK application stopped.


## Version 10.11.02

Fixed:

- 1. Device reboot takes longer than is standard if the completion message displayed after importing "Device Setting Information" is not closed promptly.
- 2. Pop-up messages are displayed without message text if the message is displayed immediately after changing the device's language setting.
- 3. In rare conditions, SC899 or "Internal Error" might occur because of a Java VM bug.
- 4. The "Please wait..." screen is not closed when attempting to access a SDK application after recovering from energy saver mode.


Version 10.10.01

Fixed:

SC997 may occur when the device recovers from energy saver mode.

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Version 10.09.00

Fixed:

Switching to ELP-NX v2 from another application may cause SC997 if switching is performed while a large number of jobs are being transmitted to the device.

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Version 10.07.02

Fixed:

Kerberos Authentication is performed multiple times, causing a memory leak.

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Version 10.06.02

- 1. More internal resources are consumed than required during internal file open and close operations, such as SDK application installation. This could result in unexpected behavior.
- 2. CAP v1.4.7 or later doesn't start-up due to a bug in an internal process which affects the AL-C2(D129, D130), GR-C1(D117, D118) and

#### Version 10.05.01

Symptom corrected:

- 1. An error occurs with the Auto Start-up feature of SDK/J applications.
- 2. The last page is not printed when attempting to print out certain PS data.
- 3. The user cannot obtain a login password.
- 4. The software keyboard used with an Xlet application does not close (cannot be cleared) when User Authentication is enabled.
- 5. The application's main screen cannot be displayed after the software keyboard is closed.
- 6. The Card Authentication Package (SDK/J application) does not recover following a failed machine reboot.
- 7. Cannot reboot/stop an Xlet application when the installation of the application is cancelled.
- 8. The SDK/J application cannot be activated after switching from off-line to on-line.
- 9. A log-out error occurs with certain SDK applications.
- 10. The FAX sender's name appears garbled if composed of multi-byte characters.
- 11. The platform does not reboot when the SDK heap is set to its maximum value.
- 12. Other minor corrections were applied.

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## Version 10.04.02

Symptom corrected:

- 1. SC899 occurs when a user swipes a card on the card reader while the device is in 'sleep' mode.
- 2. An "OutOfMemory" error occurs due to lack of device memory when some programs are running.
- 3. SDK application installation infrequently results in the disappearance of a previously installed SDK application if multiple embedded programs are installed.
- 4. Garbled characters can be included in the FAX "TSI" attribute if the fax is handled by the Java VM. This can cause unexpected results for SDK applications, such as file naming errors if using the "TSI" attribute for naming metadata.

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### Version 10.03.01

- 1. Even when the file type has been fixed at "PDF/A", other types of PDF files can be created.
- 2. User codes and names are not displayed in the Job Log for jobs that involve scanning or plotting using an SDJ/J application.
- 3. The area of the screen displayed behind a modal dialog responds to touch operations under the following conditions:

  Modal dialog is displayed -> User changes the screen (e.g. Copier to Home screen) -> User returns to original screen with dialog

- 4. Cannot login following a series of repeated logins and logouts.
- 5. The stack size cannot be changed.
- 6. "OutOfMemoryException" occurs.
- 7. "StateMachine" cannot be stopped or canceled correctly.
- 8. A time-out occurs in Muffling mode.
- 9. Some of the login User IDs acquired by the application appear blank.
- 10. SC899 sometimes occurs at the conclusion of an SSL session.

# Other changes:

- 1. Revised the wording of the error message displayed when the screen is unable to switch to another application using a requestVisibleXlet.
- 2. The threshold for triggering "Memory full" was changed.
- 3. Supports VM Card eDC-i1.2.

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Version 10.01.06 Initial release

*** Basic Information ***
[Create date] 2018/04/04
[Program Name] Web Support
[Version] 1.18
[PCB No.]
[Interchangeability] X / O
[Other Firmware Requirements] None
[PCB Requirements] None
[Software category] Normal Release
[Release category] Normal Release
[Program category] Firmware
Exported to(language) GEN(all) [Firmware No.] D1445565M [File Information] File Name D1445565M.fwu File Type Module for Service Size 5.32 MB ( 5573744 byte ) [File Information] File Name D1445565M.rfu File Type Module for Remote Upgrade Size 5.32 MB ( 5579008 byte ) [Availability of RFU] Yes  [Production reflection] 2018/03
*** Note ***
[Note]
*** Important Notes ***
[Important Notes]

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\*\*\* Modification History \*\*\*

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[Modifications made:]

Rank C

Other changes:

- Newly added SMBv2/v3 support.

This firmware is dependent on the following firmware modules.

Please be sure to update all of them:

Network Support v11.105.1 (D1445563S)

Web Support v1.18 (D1445565M)

Scanner v01.14 (D1445570H)

Please refer to the RTB(No.RGene095) for details.

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## [Modification history]

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Version 1.17

Other changes:

- In SLNX v2.3.0 or later, the printer accounting method will be changed to match the MFP specifications in SLNX.

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Version 1.16

Symptom corrected:

The following problems occur in Web Image Monitor when using Windows Internet Explorer 10:

- Cannot select, drag, delete, or move icons in Device Management > Device Home Management > Edit Icons.
- Cannot drag selected items or display or hide items in Device Management > Address Book > Maintenance > Items Displayed in Address List.
- When adding icons in Device Management > Device Home Management > Edit Icons, the column headings of the table are out of alignment.
- When adding a user in Device Management > Address Book > Address List (Display All Items), the column headings of the table are out of alignment.

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Version 1.15

- 1. If a SDK application is selected as the operation panel's priority function (WIM > Configuration > Function Key Allocation/Function Priority > Function Priority), the Copier screen will be the operation panel's priority function instead of the selected SDK application.
- 2. Administrators cannot edit a user's Fax Destination by using the Wizard Method in the Web Image Monitor.

Version 1.14 Symptom corrected: 1. Even using a valid image file, errors occur when an image is added to the Home Screen (Device Management > Device Home Management > Home Screen Settings > Insert Image). 2. If the device encounters an unrecoverable error, the unrecoverable error will not be displayed in WIM. WIM will show the device status as "OK". Version 1.13 Symptom corrected: The LDAP fields "Login Name Attribute" and "Unique Attribute" only allow alpha-numeric characters, not symbols. Version 1.12 Symptom corrected: Users that were added to the addressbook by logging in to a device using Card Authentication Package v2 will not be able to edit their Home Screen icons. Version 1.11 Symptom corrected: 1. The error message "The backup file or the encryption key is invalid. Unable to restore." is displayed after a successful restoration of the Address Book using a backup created from a device with different Accessories. 2. Fixed: Problems affecting the error messages displayed by Web Image Monitor. Some of the pages on which the problems occurred include "Device Setting Information: Import Setting (Server)" and "Import Test" page. 3. Fixed: The value of the Adjust Stamp Position setting's X coordinate shown in Web Image Monitor might not match the one

configured in the operation panel.

Other changes:	
Supports Fax Con	nection Unit Type B

Version 1.07 1st Mass production

*** Basic Information ***
[Create date] 2018/04/04
[Program Name] Scanner
[Version] 01.14
[PCB No.]
[Interchangeability] X / O
[Other Firmware Requirements] None
[PCB Requirements] None
[Software category] Normal Release
[Release category] Normal Release
[Program category] Firmware
Exported to(language) GEN(all) [Firmware No.] D1445570H [File Information] File Name D1445570H.fwu File Type Module for Service Size 1.28 MB ( 1343108 byte ) [File Information] File Name D1445570H.rfu File Type Module for Remote Upgrade Size 1.29 MB ( 1347840 byte ) [Availability of RFU] Yes  [Production reflection] 2018/03
*** Note ***
[Note]
*** Important Notes *** ==================================
[Important Notes]

*** Modification History ***
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Symptom corrected:  - When a machine administrator logs in to the device, the "Scanner Features" screen might suffer from low brightness and be unresponsive.
[Modification history]
Version 01.13 Symptom corrected:  1. When changing the configuration in the Initial Settings screen or Web Image Monitor, a message appears, stating that the settings for each application's configuration were reset even though the appropriate settings were applied.  2. Only the admin is able to add/remove Copier or Scanner icons from the Home screen using "Program to Home".  3. The machine stalls if the user clicks Run Export in the Device Setting Information: Export (Memory Storage Device) option of Administrator Tools in System Settings in a language environment that is not in English or Japanese.
Version 01.12 Symptom corrected: The machine may fail to display an error message when the operator tries to scan the original using unsupported settings/conditions.
Version 01.11 Symptom corrected:  1. TWAIN jobs that are recovered after an error ("Scanning has been aborted.", "Scanner is not available. Check the scanner connection status.") are not recorded in the MFP's Job Log.  Note: Please remember that Web Smart Device Monitors logs are derived partly from the Job Log. Therefore these recovered jobs will also be missing from there.  2. SC899 may occur when scanning to a External Memory Device through the Media Slot.
Other changes: Supports Fax Connection Unit Type B.
 Version 01.09

1st Mass production

*** Basic Information ***
Create date] 2019/10/15
Program Name] Web Support
Version] 1.19
PCB No.]
Interchangeability] X / O
Other Firmware Requirements] None
PCB Requirements] None
Software category] Normal Release
Release category] Normal Release
Program category] Firmware
Exported to(language) GEN(all)  Firmware No.] D1445565N  File Information]  File Name D1445565N.fwu  File Type Module for Service  Size 5.32 MB (5574200 byte)  File Information]  File Name D1445565N.rfu  File Type Module for Remote Upgrade  Size 5.32 MB (5579008 byte)  [Availability of RFU] Yes  Production reflection] 2019/09
======================================
 [Note]
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Important Notes]
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[Modifications made:] Rank C
<ul> <li>Symptom corrected:</li> <li>The XSS vulnerability of screens in the Address Book that was pointed out in CVE-2018-15884 has been fixed.</li> <li>Ricoh devices already had a countermeasure to protect against the CSRF vulnerability pointed out in CVE-2018-15884.</li> </ul>
[Modification history]
Version 1.18 Rank C
Other changes: - Newly added SMBv2/v3 support.
This firmware is dependent on the following firmware modules.
Please be sure to update all of them: System/Copy v2.18 (D1445610B)
Network Support v11.105.1 (D1445563S) Web Support v1.18 (D1445565M)
Scanner v01.14 (D1445570H)
Please refer to the RTB(No.RGene095) for details.
Version 1.17
Other changes: - In SLNX v2.3.0 or later, the printer accounting method will be changed to match the MFP specifications in SLNX.

Symptom corrected:

The following problems occur in Web Image Monitor when using Windows Internet Explorer 10:

- Cannot select, drag, delete, or move icons in Device Management > Device Home Management > Edit Icons.
- Cannot drag selected items or display or hide items in Device Management > Address Book > Maintenance > Items Displayed in Address List.
- When adding icons in Device Management > Device Home Management > Edit Icons, the column headings of the table are out of alignment.
- When adding a user in Device Management > Address Book > Address List (Display All Items), the column headings of the table are out of alignment.

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Version 1.15

Symptom corrected:

1. If a SDK application is selected as the operation panel's priority function (WIM > Configuration > Function Key Allocation/Function Priority > Function Priority), the Copier screen will be the operation panel's priority function instead of

the selected SDK application.

2. Administrators cannot edit a user's Fax Destination by using the Wizard Method in the Web Image Monitor.

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## Version 1.14

Symptom corrected:

- 1. Even using a valid image file, errors occur when an image is added to the Home Screen (Device Management > Device Home Management > Home Screen Settings > Insert Image).
- 2. If the device encounters an unrecoverable error, the unrecoverable error will not be displayed in WIM. WIM will show the device status as "OK".

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## Version 1.13

Symptom corrected:

The LDAP fields "Login Name Attribute" and "Unique Attribute" only allow alpha-numeric characters, not symbols.

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## Version 1.12

Symptom corrected:

Users that were added to the addressbook by logging in to a device using Card Authentication Package v2 will not be able to edit their Home Screen icons.

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## Version 1.11

Symptom corrected:

- 1. The error message "The backup file or the encryption key is invalid. Unable to restore." is displayed after a successful restoration of the Address Book using a backup created from a device with different Accessories.
- 2. Fixed: Problems affecting the error messages displayed by Web Image Monitor. Some of the pages on which the problems occurred include "Device Setting Information: Import Setting (Server)" and "Import Test" page.
- 3. Fixed: The value of the Adjust Stamp Position setting's X coordinate shown in Web Image Monitor might not match the one configured in the operation panel.

Other changes:

Supports Fax Connection Unit Type B.

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Version 1.07

1st Mass production

