# Fax Unit

## MP 501/601
## Machine Code: D255/D256

# Field Service Manual

# Important Safety Notices

## ⚠WARNING

- Never install telephone wiring during a lightning storm.
- Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
- Never connect the telephone line for business phones to the Fax Line jack of the machine. Doing so will damage the fax board.
- Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
- Always use caution when installing or modifying telephone lines.
- Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
- Do not use a telephone or cellular phone to report a gas leak in the vicinity of the leak.

## ⚠CAUTION

- Before installing the fax unit, switch off the main switch, and disconnect the power cord.
- The fax unit contains a lithium battery. The danger of explosion exists if a battery of this type is incorrectly replaced. Replace only with the same or an equivalent type recommended by the manufacturer.
- Discard batteries in accordance with the manufacturer's instructions and local regulations.

**Note**

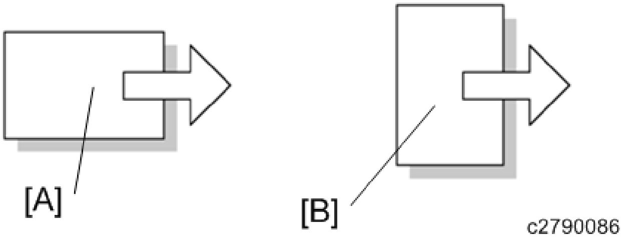
- Note for Australia:
- Unit must be connected to Telecommunication Network through a line cord that meets the requirements of ACA Technical Standard TS008.

# Symbols and Abbreviations

## Conventions Used in this Manual

This manual uses several symbols and abbreviations. The meaning of those symbols and abbreviations are as follows:

| Symbol | What it means |
|---|---|
| | Clip ring |
| | Screw |
| | Connector |
| | Clamp |
| | E-ring |
| | Spring |
| | Flat Flexible Cable |
| | Timing Belt |
| SEF | Short Edge Feed [A] |
| LEF | Long Edge Feed [B] |



## Cautions, Notes, etc.

The following headings provide special information:

## ⚠WARNING

- Failure to obey warning information could result in serious injury or death.

## ⚠CAUTION

- Obey these guidelines to ensure safe operation and prevent minor injuries.

**Important**

- **Obey these guidelines to avoid problems such as misfeeds, damage to originals, loss of valuable data and to prevent damage to the machine.**
- **Always obey these guidelines to avoid serious problems such as misfeeds, damage to originals, loss of valuable data and to prevent damage to the machine. bold is added for emphasis.**

**Note**

- This document provides tips and advice about how to best service the machine.

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## 5. Detailed Section Descriptions

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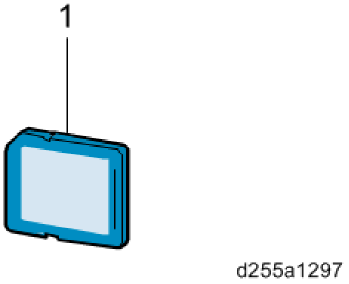
# 1. Installation

## Fax Connection Unit Type M24 (D3CP-05, 06, 07)

### Accessory Check

| No. | Description | Q'ty |
|---|---|---|
| 1 | Fax Connection Unit SD card | 1 |
| - | EMC address decal (EU only) | 1 |
| - | RoHS sheet (AP/CHN only) | 1 |
| - | RoHS decal (AP/CHN only) | 1 |



### Installation Procedure

This unit allows a machine without the fax unit installed (client machine) to send and receive faxes via a machine with the fax unit installed (remote machine).

**Requirements:**

- Up to six machines can be registered as the client machines.
- Machines that have the fax unit installed cannot be used as the client machine.
- Only one machine can be registered as the Remote Machine.
- Firmware for this unit: "aics" (software number: D3CP5759)
- Remote Fax transmissions are possible on a G3 line.

- The remote fax function does not support User Code Authentication. Disable the User Code Authentication on the remote machine.
- Use this function to check the contents of a file that is stored in memory and not yet sent. Also, use this function to cancel a transmission from the client machine.

Order of installation:

1. Install the Fax Connection Unit in the remote machine (fax unit is already installed).
2. Install the Fax Connection Unit in the client machine (fax unit is not installed).
3. Register the client machine in the remote machine.

   **Important**

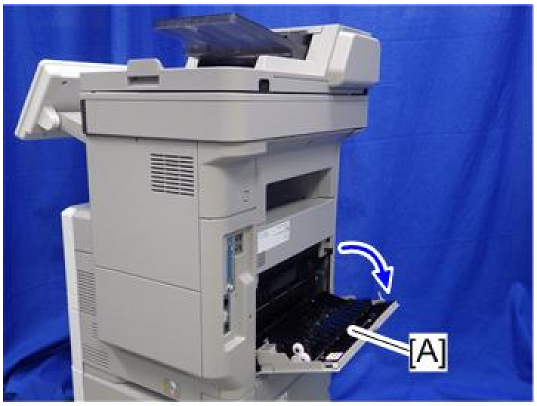
   - **Do not register the remote machine before the client machine is registered on the remote machine. Otherwise, the remote machine can not be registered.**
4. Register the remote machine in the client machine.

## Installing the fax connection unit

**Note**

- Before starting this procedure, connect the network cable to the target machine(s), and then configure the network settings.
- When installing more than one SD card, perform the merge operation. For details about how to merge, refer to "SD Card Appli Move" in "Main Chapters" of the field service manual.

1. **Turn OFF the main power.**
2. **Open the rear upper cover [A].**



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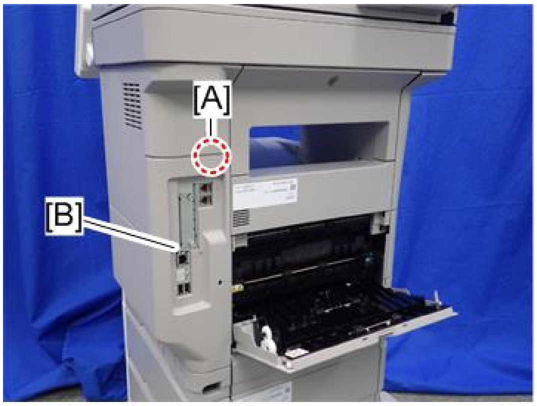
3. **Insert a flathead screwdriver into [A] to release a hook of the controller cover [B].**



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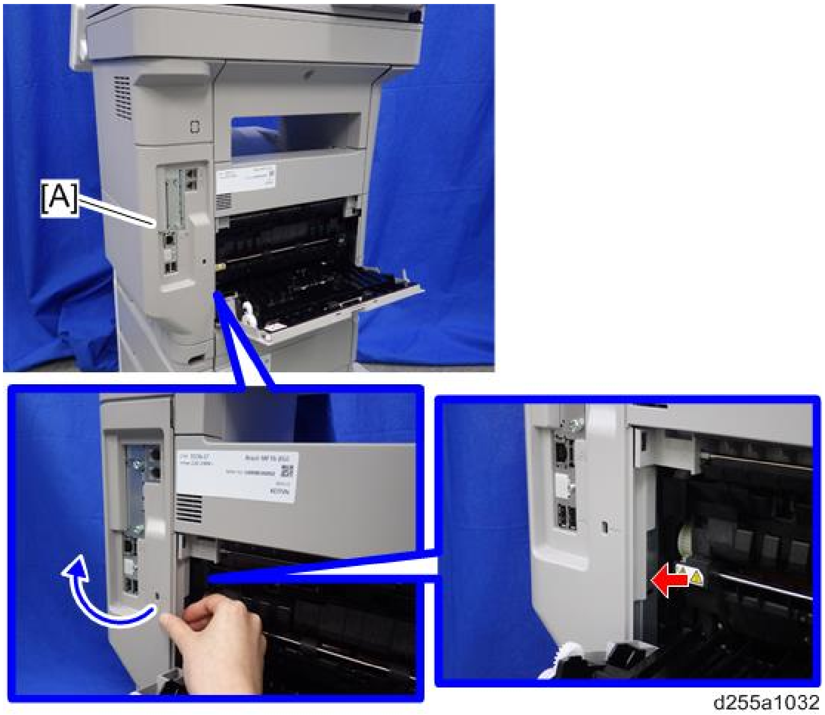
4. **Release the hook by opening the right side of the cover, and then remove the cover [A] by rotating it in the direction of the blue arrow.**



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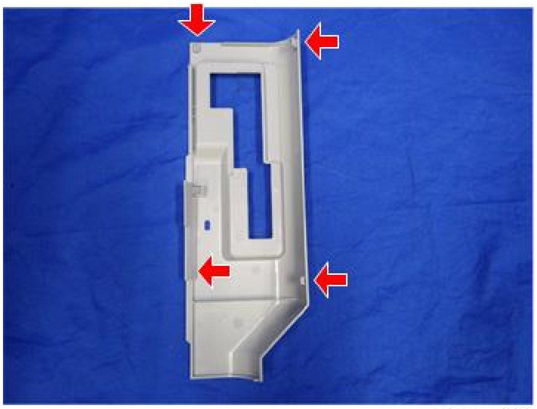
**Note**

- Be careful not to damage the hooks at the rear of the controller cover when you remove or install the controller cover.



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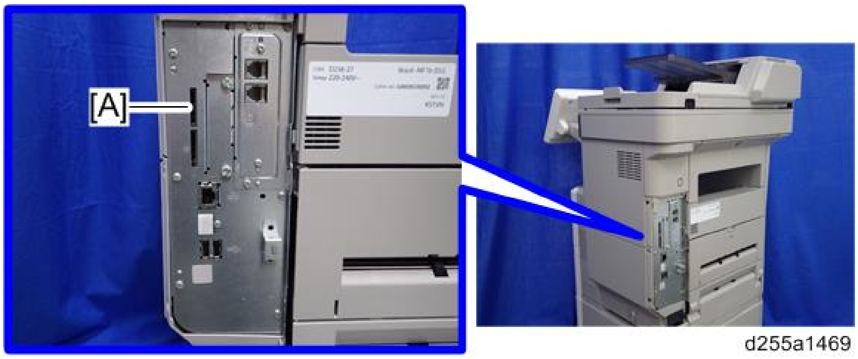
5. **Insert the Fax Connection Unit Type M24 SD card into SD card slot 1 [A] (upper slot).**



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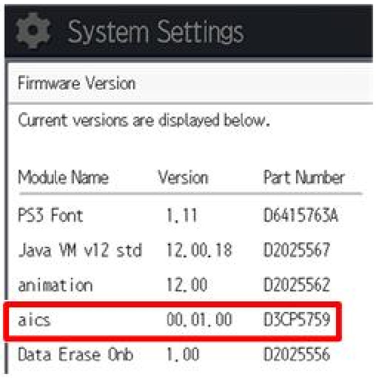
6. **Reassemble the machine.**
7. **Turn ON the main power.**
8. **Press [Firmware Version] in the [Administrator Tools].**
    - [User Tools] > [Machine Features] > [System Settings] > [Administrator Tools]
9. **Check whether the aics version is displayed.**



System Settings

Firmware Version

Current versions are displayed below.

| Module Name | Version | Part Number |
|---|---|---|
| PS3 Font | 1.11 | D6415763A |
| Java VM v12 std | 12.00.18 | D2025567 |
| animation | 12.00 | D2025562 |
| aics | 00.01.00 | D3CP5759 |
| Data Erase Onb | 1.00 | D2025556 |

d255a3029

## Registering the client machine(s)

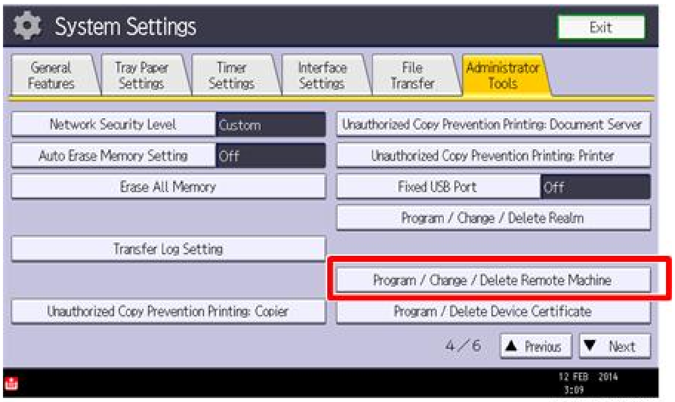
**Important**

- Do not register the remote machine in the client machine before registering the client machine in the remote machine. Otherwise, registering the remote machine fails.

**Note**

- Before starting this procedure, connect the network cable to the target machine(s), and then configure the network settings.

1. **On the remote machine, press the [User Tools] icon on the operation panel.**
2. **Press [Machine Features].**
3. **Press [System Settings].**
4. **Press [Administrator Tools].**
5. **Press [Program/Change/Delete Remote Machine].**


System Settings
Exit
General Features
Tray Paper Settings
Timer Settings
Interface Settings
File Transfer
Administrator Tools
Erase All Memory
Transfer Log Setting
Unauthorized Copy Prevention Printing: Copier
Unauthorized Copy Prevention Printing: Document Server
Unauthorized Copy Prevention Printing: Printer
Program / Change / Delete Realm
Program / Change / Delete Remote Machine
Program / Delete Device Certificate
4/6
Previous
Next
12 FEB 2014
3:09

Network Security Level: Custom
Auto Erase Memory Setting: Off
Fixed USB Port: Off

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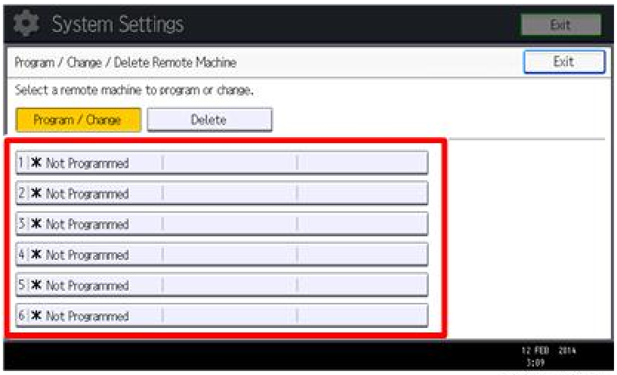
6. **Press [* Not Programmed], and then enter the IP address or host name of one of the client machines.**

   **Note**

   - Up to six machines can be registered as the client machines.

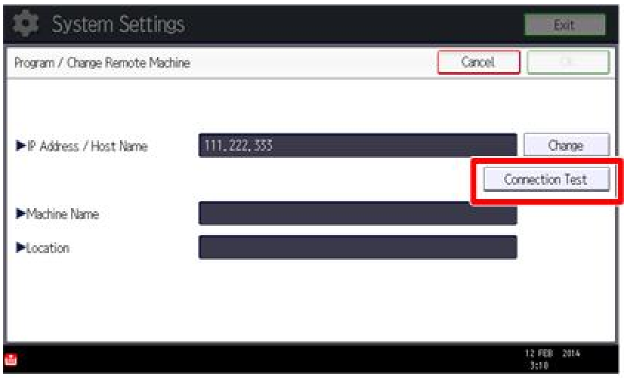


Select a remote machine to program or change.

1 ✱ Not Programmed
2 ✱ Not Programmed
3 ✱ Not Programmed
4 ✱ Not Programmed
5 ✱ Not Programmed
6 ✱ Not Programmed

d197z2103

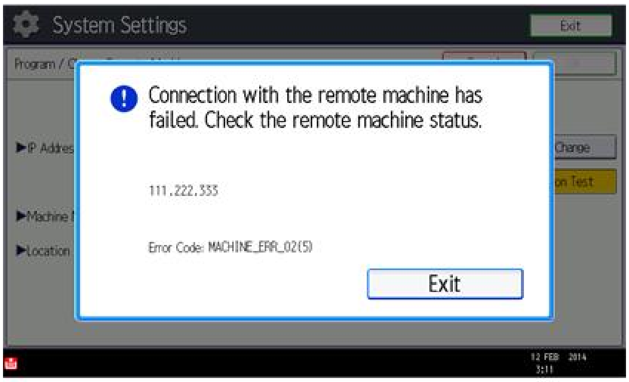
7. **Press [Connection Test] to check the connection with the client machine.**



▶IP Address / Host Name 111.222.333
▶Machine Name
▶Location

d197z2104

- If an error message is displayed, check the network connection with the client- machine and make sure that the IP address of the client machine is correct.



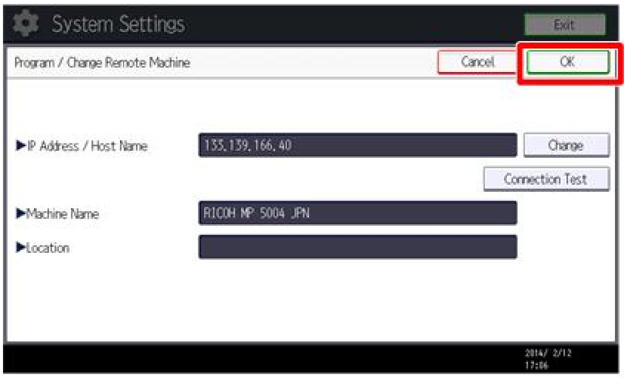
Connection with the remote machine has failed. Check the remote machine status.

111.222.333

Error Code: MACHINE_ERR_02(5)

d197z2105

8. **Press [OK] after "Connection Test" has been successfully done.**



IP Address / Host Name: 133.139.166.40

Machine Name: RICOH MP 5004 JPN

Location:

d197z2106

9. **Press [Exit].**

## Registering the remote machine

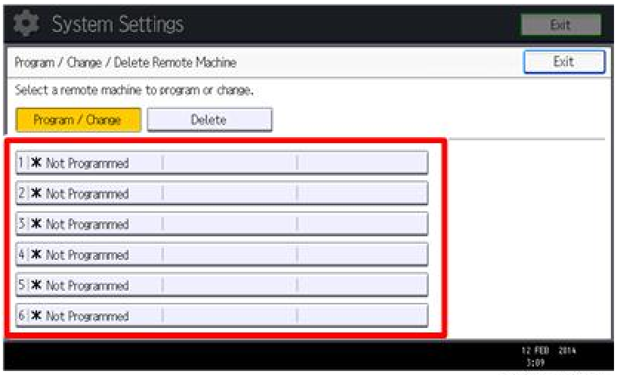
**Note**

- Only one machine can be registered as the remote machine.
- First register the client machine in the remote machine before proceeding this procedure. Otherwise, registering the remote machine fails.

1. **On the client machine, press [User Tools] icon on the operation panel.**
2. **Press [Machine Features].**
3. **Press [System Settings].**
4. **Press [Administrator Tools].**
5. **Press [Program/Change/Delete Remote Machine].**
6. **Press [* Not Programmed], and then enter the IP address or host name of o the remote machine.**

   **Note**

   - Only one machine can be registered as the remote machine.



Select a remote machine to program or change.

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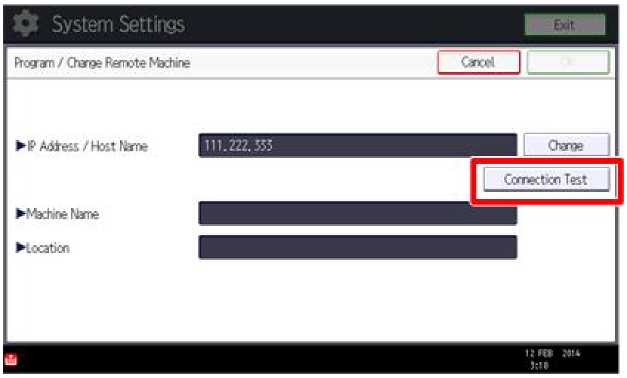
7. **Press [Connection Test] to check the connection with the remote machine.**



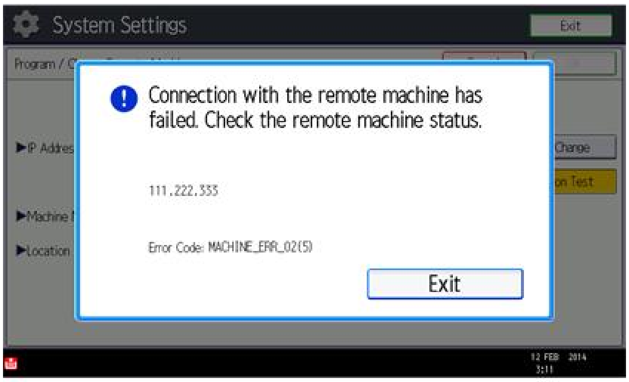
▶IP Address / Host Name: 111.222.333

▶Machine Name

▶Location

d197z2104

- If an error message is displayed, check the network connection with the remote machine and make sure that the IP address of the remote machine is correct.



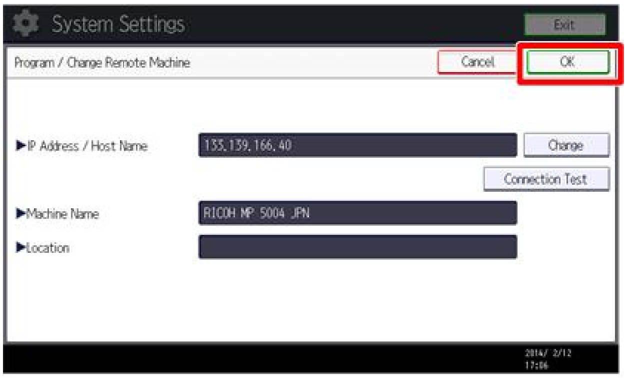
Connection with the remote machine has failed. Check the remote machine status.

111.222.333

Error Code: MACHINE_ERR_02(5)

d197z2105

8. **Press [OK] after "Connection Test" has been successfully done.**



System Settings

Program / Change Remote Machine

IP Address / Host Name: 133.139.166.40

Machine Name: RICOH MP 5004 JPN

Location:

d197z2106

9. **Press [Exit].**

## Configuring the remote reception settings

Perform the following procedure to enable the client machine(s) to receive faxes via the remote machine. You can forward or route received documents per line or special sender.

**Note**

- By performing procedures described above (Installing the fax connection unit, Registering the client machine(s), Registering the remote machine), the client machines can **send** faxes via the remote machine. The procedures shown below are necessary to enable the client machines to **receive** faxes.

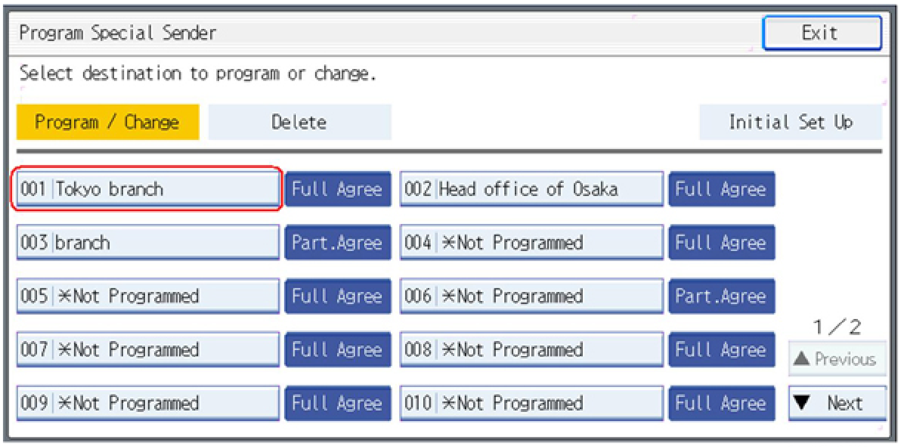
1) If you use "Remote Reception Setting per Line"

1. **On the remote machine, press [User Tools] icon on the operation panel.**
2. **Press [Facsimile Features] in [Machine Features].**
3. **Press [Remote Reception Setting per Line] in [Reception Settings].**
4. **Enter an IP address or a host name of the client machine to connect.**
5. **Press [Set], and [Exit] to exit from the setting.**

2) If you use "Remote Reception per Sender"

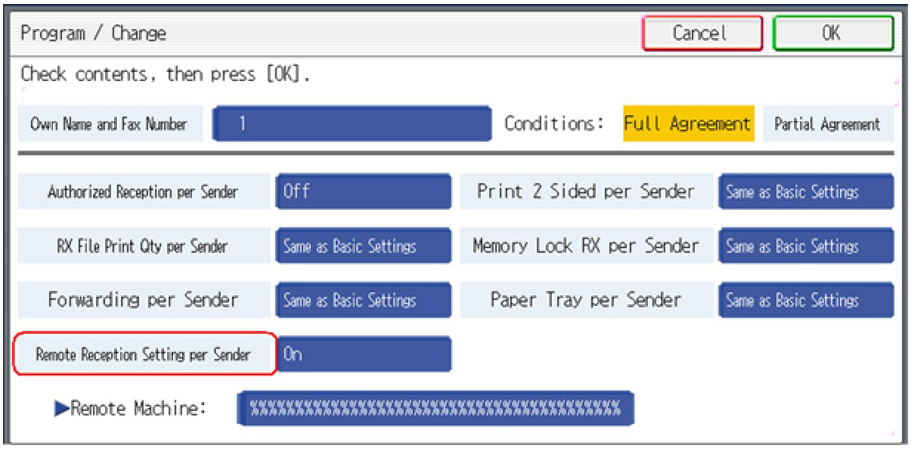
1. **On the remote machine, press [User Tools] icon on the operation panel.**
2. **Press [Facsimile Features] in [Machine Features].**
3. **Press [Program Special Sender] in [Reception Settings].**

4. **Select the Special Sender.**



d1661001

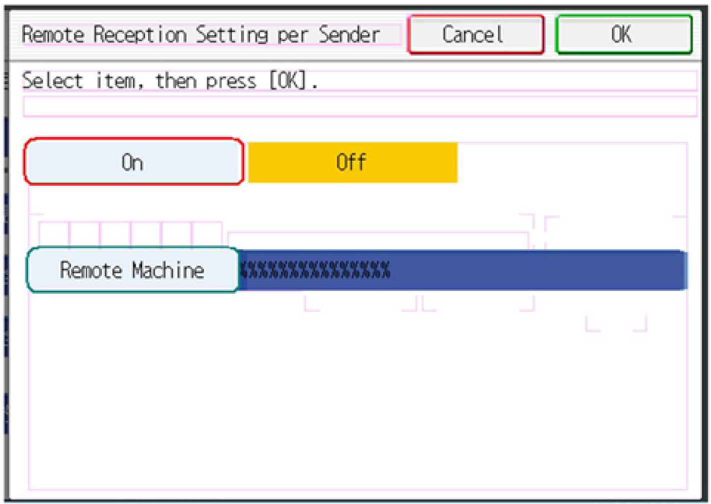
5. **Press [Remote Reception Setting per Sender].**



d1661002

6. **Press [On].**

7. **Press [Remote Machine].**



Remote Reception Setting per Sender

Select item, then press [OK].

d1661003

8. **Enter an IP address or a host name of the client machine to connect.**
9. **Press [OK] to exit from the setting.**

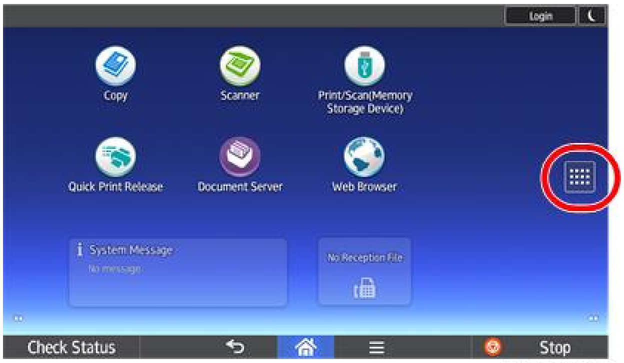
## Remote fax icon addition for remote machine

This procedure allows the [Remote Fax] icon to appear on the home screen of the operation panel.

**Note**

- The [Remote Fax] icon is supposed to appear automatically on the home screen of the client machine(s) after installing the Remote Fax Function. If the icon does not appear, perform the procedure below to add the [Remote Fax] icon manually.

1. **Press the application list icon in the home screen.**



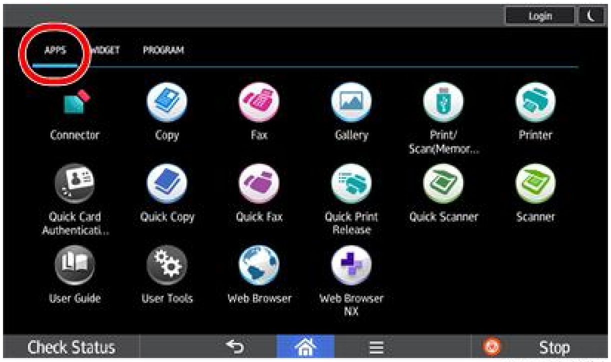
System Message

No message

No Reception File

d255a3007

2. Press [APPS] tab.



d255a3008

3. Press and hold down the [Remote Fax] icon from the list.
4. Drag the icon to where you want to place it on the home screen.

# 2. Replacement and Adjustment

## FCU

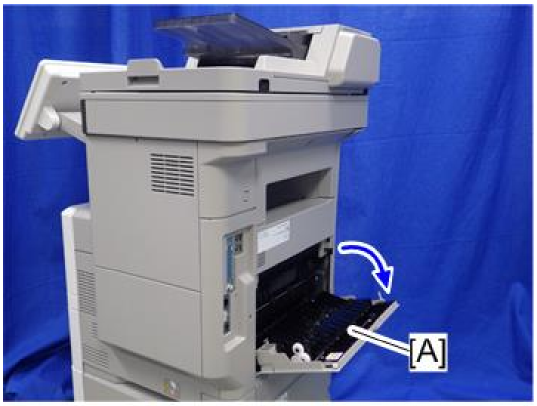
### SRAM Data Transfer Procedure

When you replace the FCU board, transfer the SRAM data from the old FCU board to the new FCU board. Perform the following procedure to back up the SRAM data.

**Note**

- The following data can be transferred: TTI, RTI, CSI, Fax bit switch settings, RAM address settings, NCU parameter settings.

1. **Open the rear upper cover [A].**



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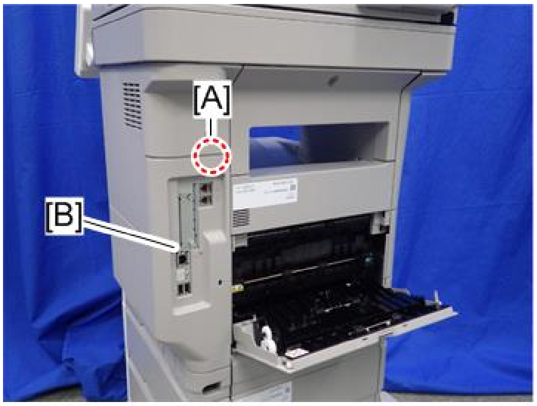
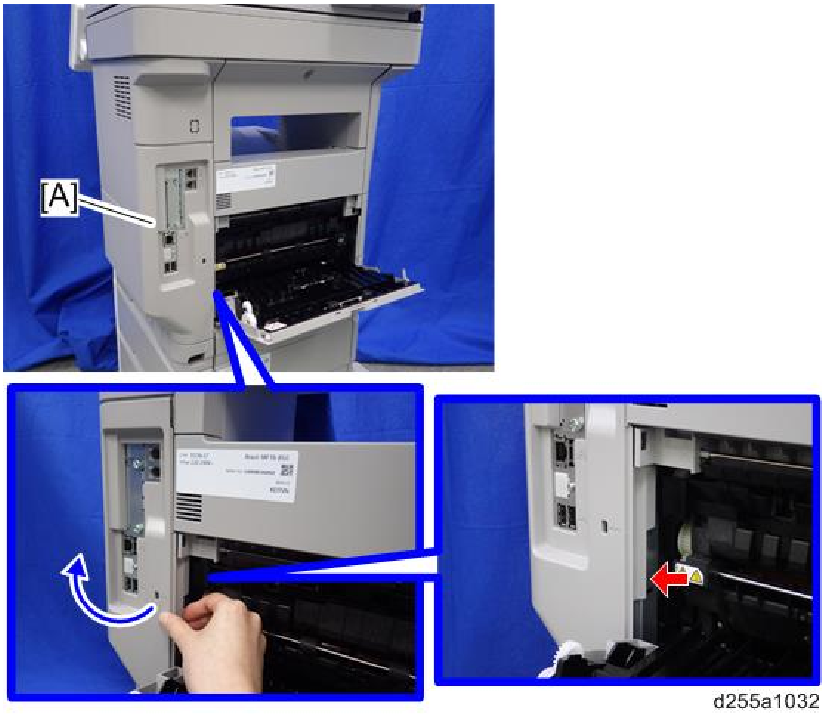
2. **Insert a flathead screwdriver into [A] to release a hook of the controller cover [B].**



d255a1080

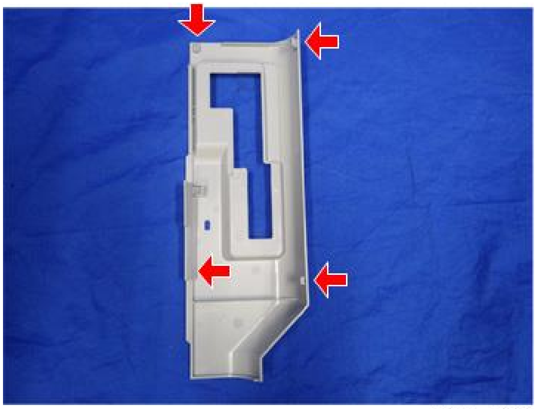
3. **Release the hook by opening the right side of the cover as shown below, and then remove the cover [A] by rotating it in the direction of the blue arrow.**



d255a1032

**Note**

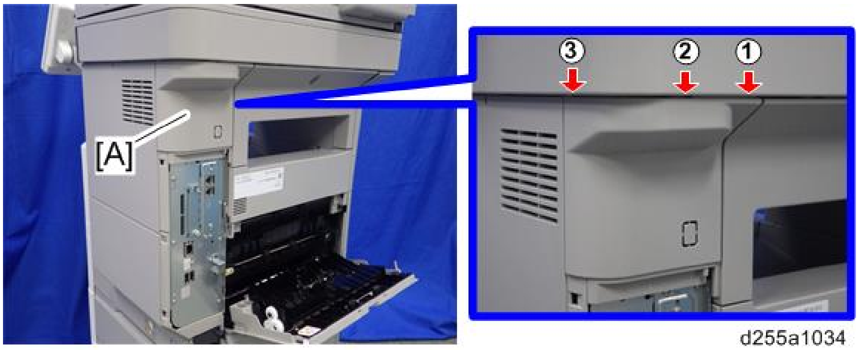
- Be careful not to damage the hooks on the inside of the controller cover when you remove or install the controller cover.



d255a1033

4. **Insert a flathead screwdriver in the order of ①, ②, and ③ to release three hooks.**

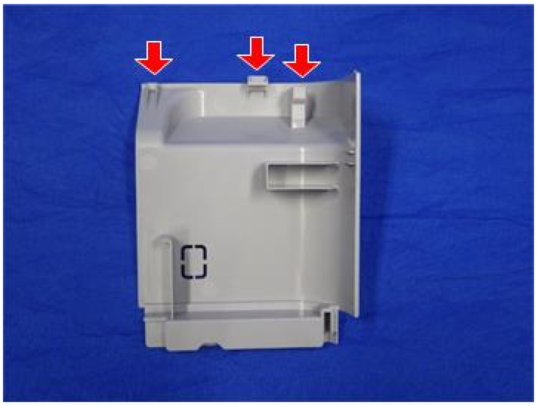
5. **Remove the rear left stay [A].**



d255a1034

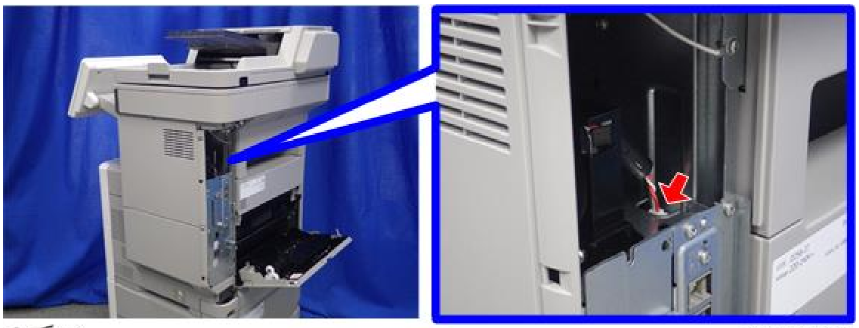
**Note**

- Be careful not to damage the hooks on the inside of the rear left stay when you remove or install the rear left stay.



d255a1036

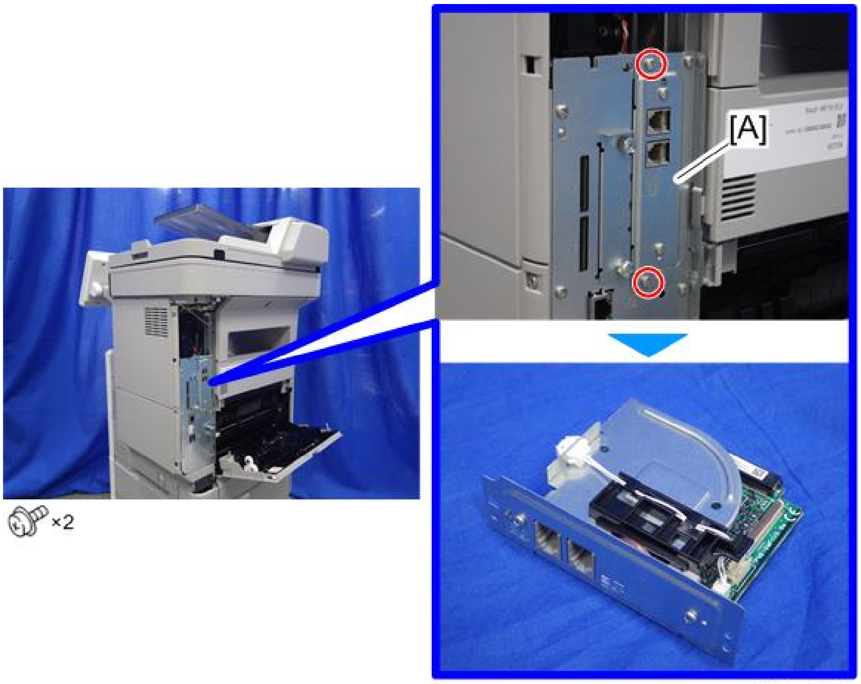
6. **Disconnect the connector of the speaker.**



×1

d255a3000

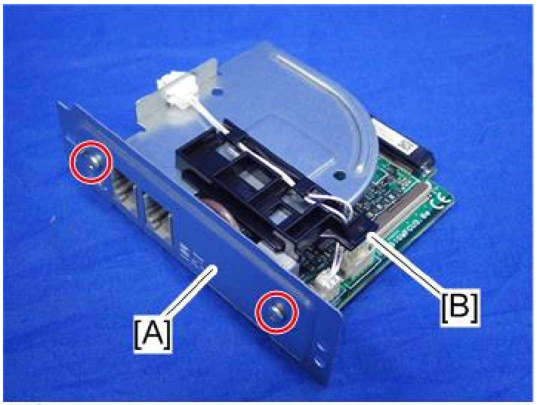
7. **Remove the fax unit [A].**



×2

d255a3001

8. **Remove the bracket [A] from the fax unit [B].**



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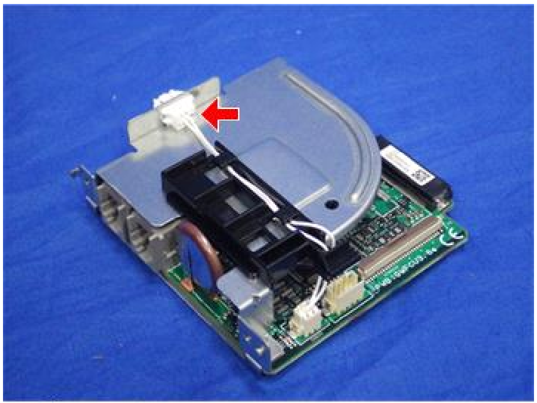
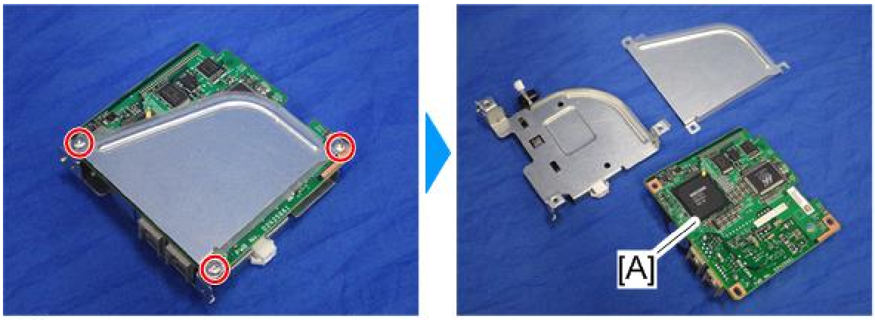
d255a3002

9. **Disconnect the connector.**



×1 d255a3003

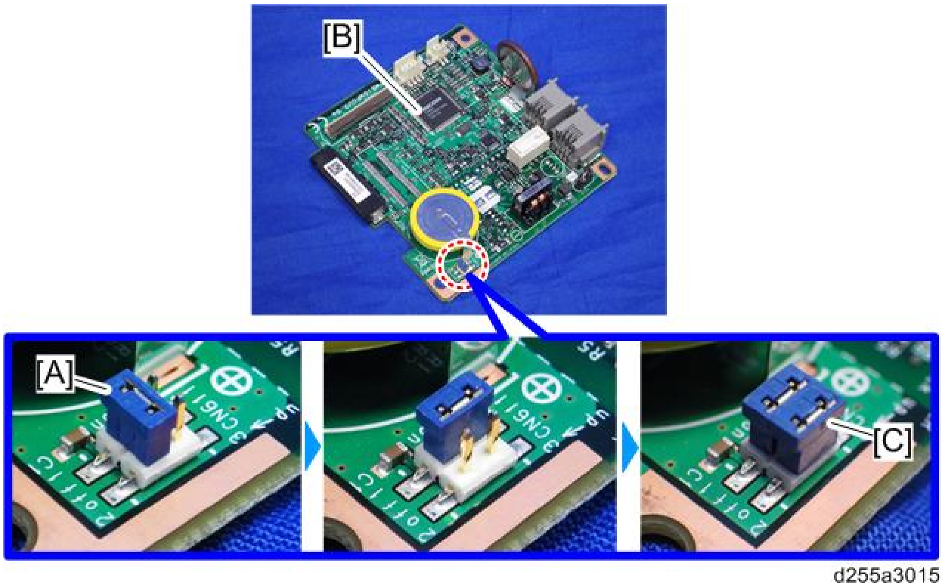
10. **Remove the FCU board [A].**



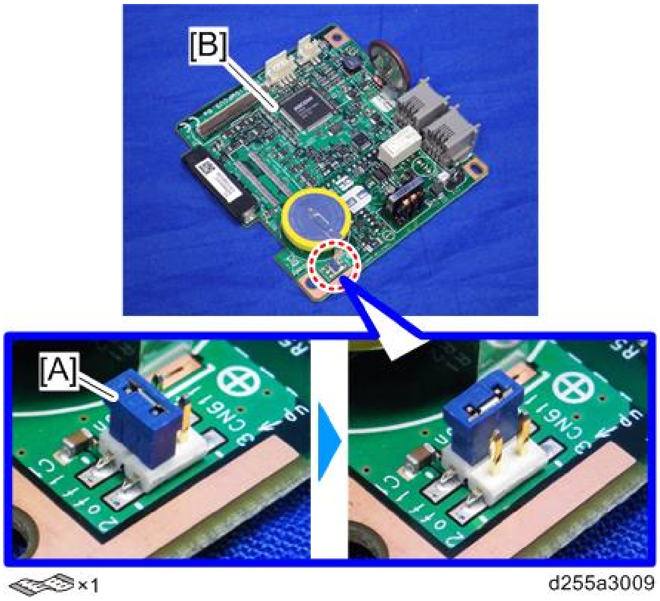
×3 d255a3004

11. **Change the orientation of the battery jumper switch [A] on the removed FCU board [B], and then attach the battery jumper switch [C].**

    The battery jumper switch [C] is provided with the new FCU board.



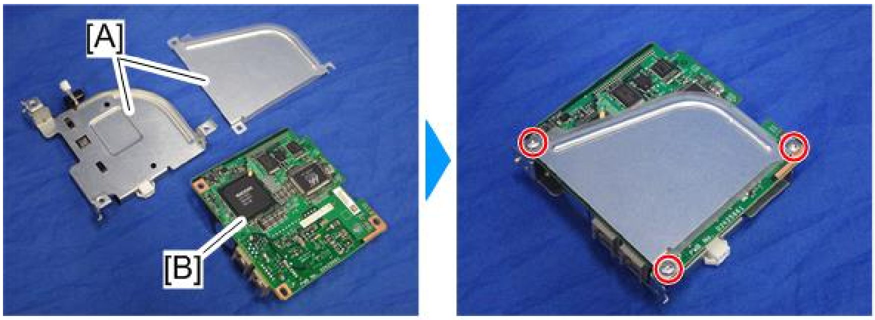
12. **Change the orientation of the battery jumper switch [A] on the new FCU board [B].**



**Note**

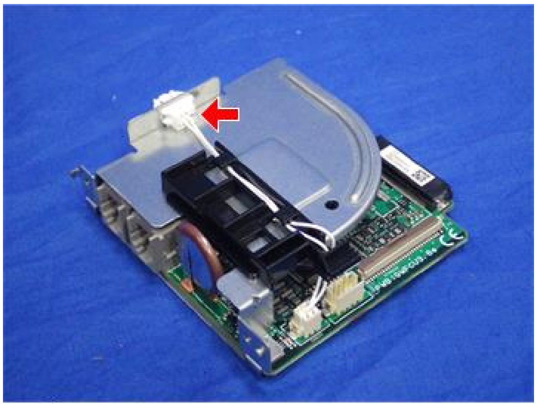
- If the battery jumper switch is not in the correct position, SC820 will occur.

13. **Install the new FCU board to the fax unit.**
    1. Attach the two brackets [A] to the new FCU board [B].



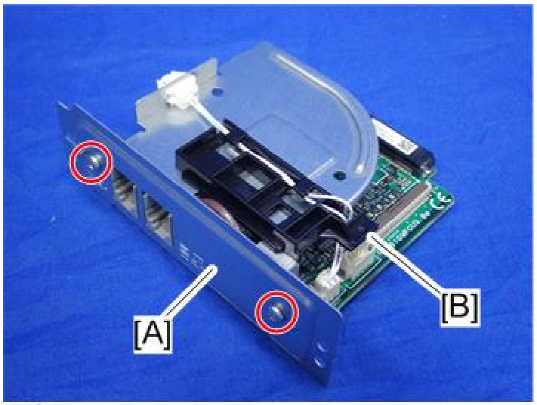
×3 d255a3011

2. Connect the connector.



×1 d255a3003

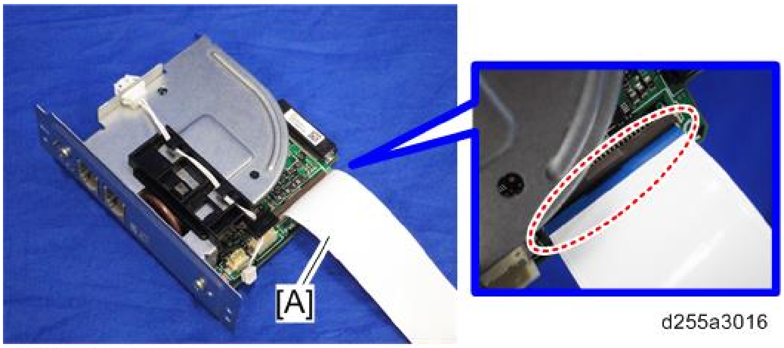
3. Attach the bracket [A].



×2 d255a3002

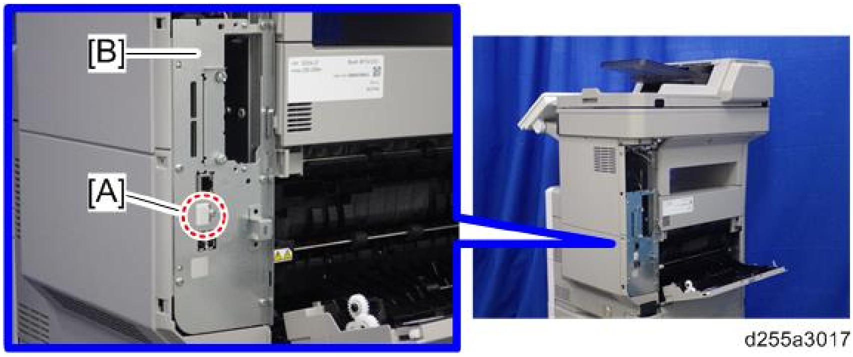
14. **Attach the flat cable [A] to CN603 of the new fax unit.**

    Make sure that the blue tape of the flat cable faces outward.

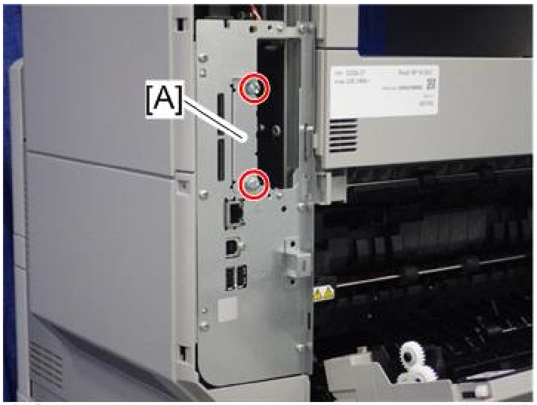


×1

15. Remove the cap [A] from the controller box cover [B].

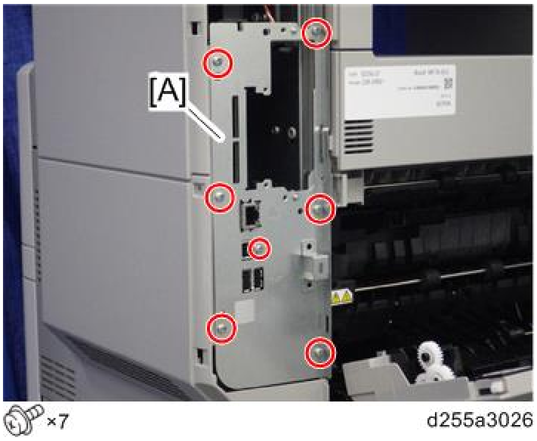


16. Remove the slot cover [A].

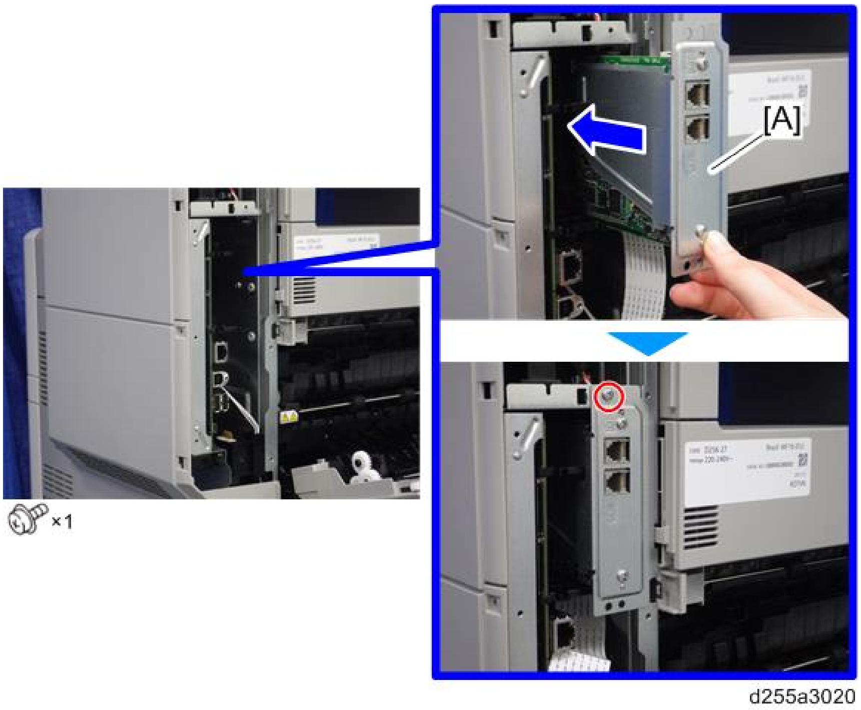


×2

17. Remove the controller box cover [A].

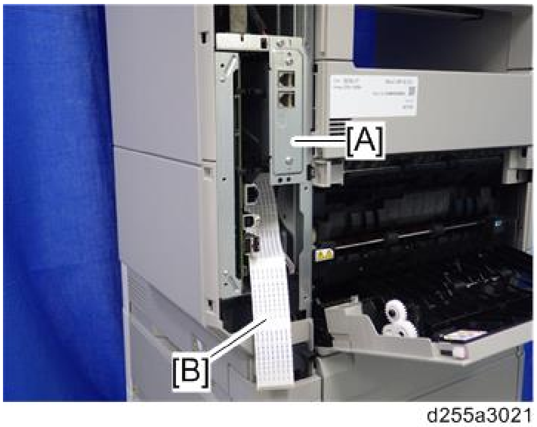


18. Install the new fax unit [A] to the main machine.

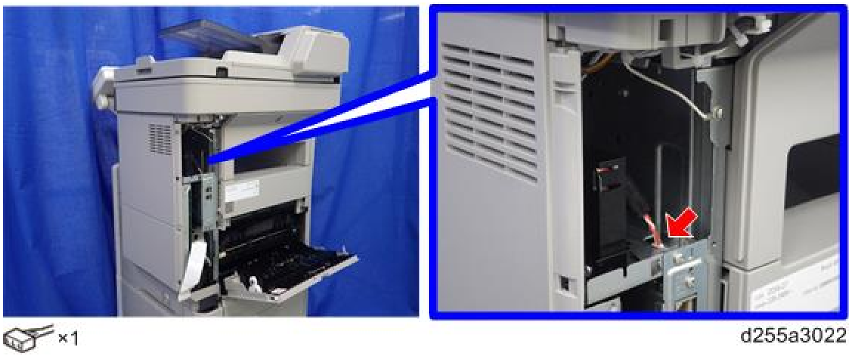


**Note**

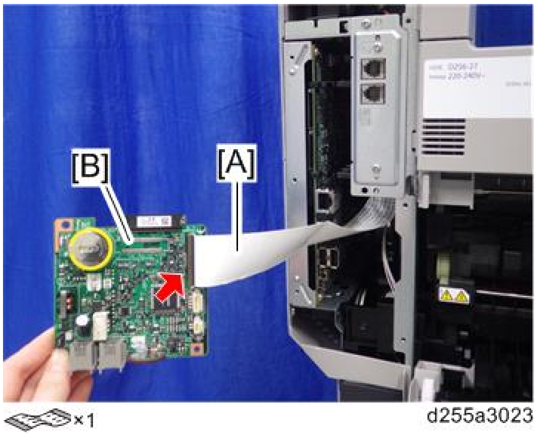
- When installing the new fax unit [A], be careful not to damage the flat cable [B]. After installing the new fax unit [A], pull out the flat cable [B] from the main machine, as shown below.



19. **Connect the connector of the speaker.**



20. **Connect the flat cable [A] to CN603 of the removed FCU board [B].**



21. **Turn ON the main power.**

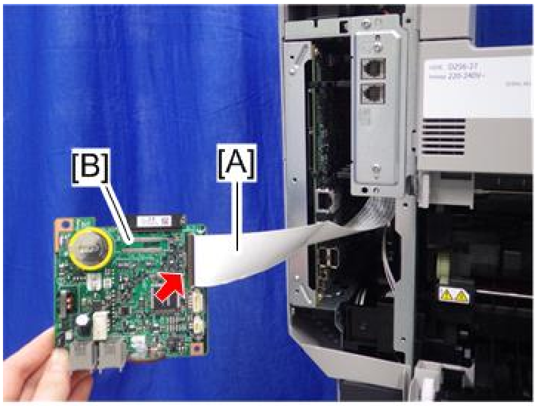
    SRAM data transmission starts. When the transmission is completed, you will hear a beeper sound.

    **Note**

    - The beeper sound is at the same volume as the speaker sound.

- The beeper sounds even if the speaker sound is turned off.
- If the beeper does not sound, repeat the main power OFF/ON until the beeper sounds, and then perform the transmission procedure. If the data cannot be transmitted, repeat transmission 2 or 3 times.
- If the beeper does not sound after turning the main power OFF/ON 3 times, you need to input the settings stored in SRAM memory manually.

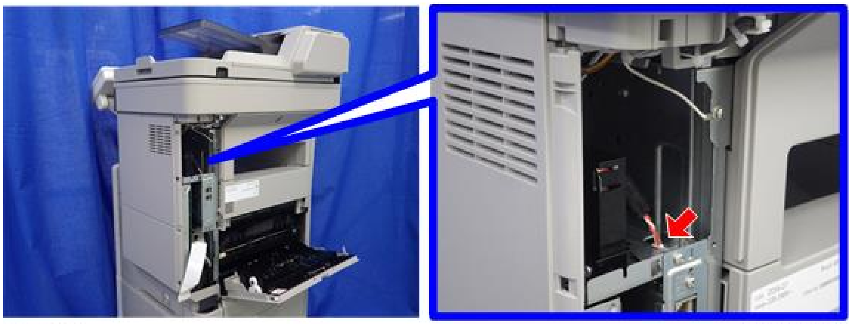
22. **When the message "Ready" is displayed on the operation panel, turn the main power OFF.**
23. **Disconnect the flat cable [A] from the removed FCU board [B].**



×1

d255a3023

24. **Disconnect the connector of the speaker.**



×1

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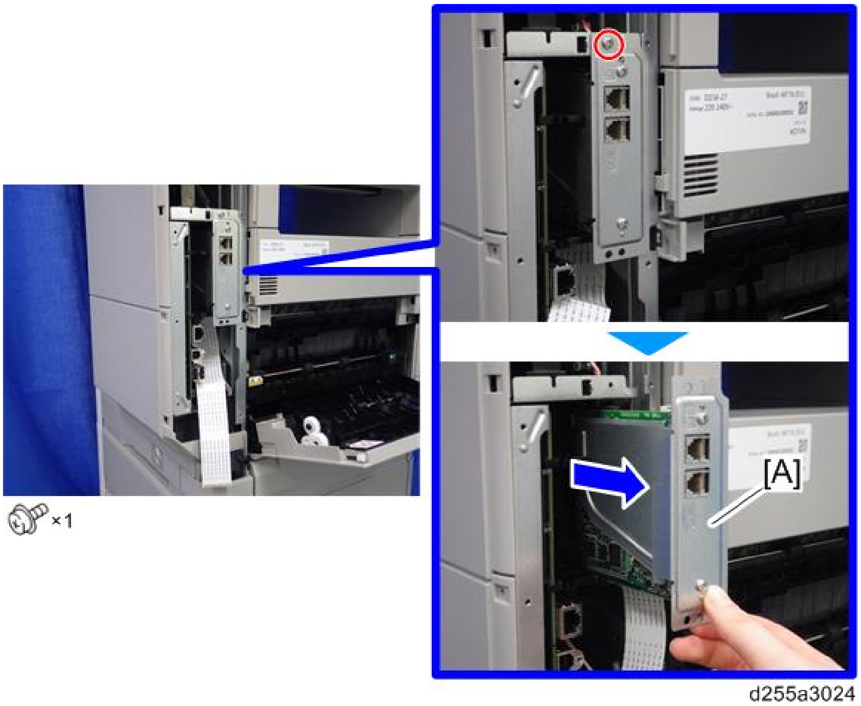
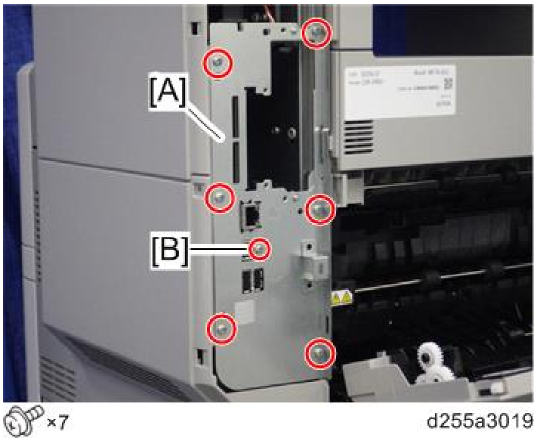
25. **Remove the new FCU board [A] from the main machine.**



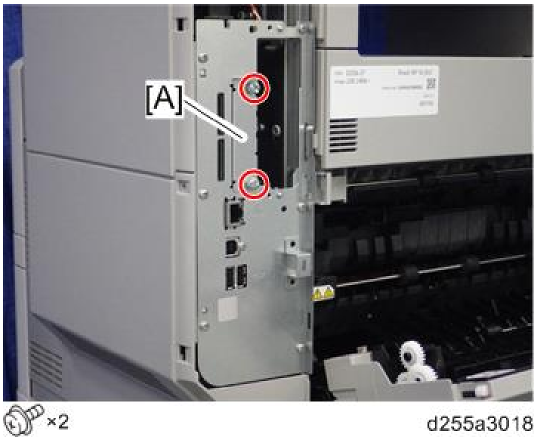
26. **Reattach the controller box cover [A].**



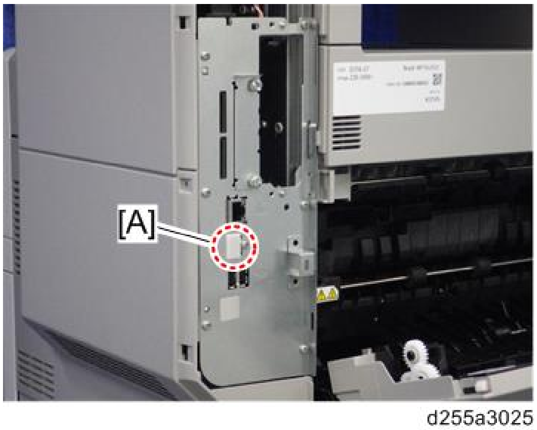
**Note**

- The screw [B] is a small screw. Be careful not to use the wrong screw.

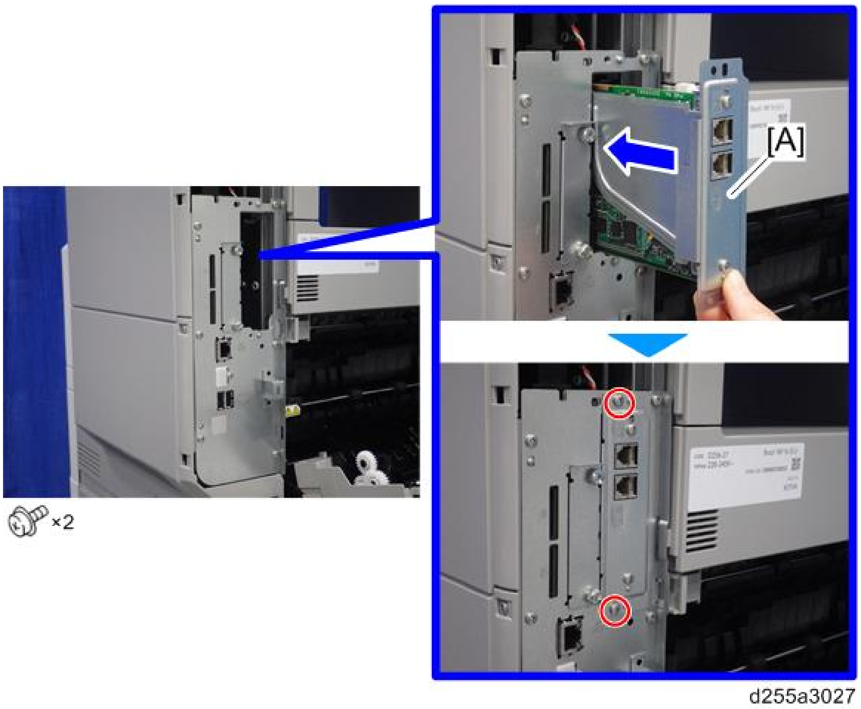
27. Reattach the slot cover [A].



28. Reattach the cap [A].



29. Install the new fax unit [A] to the main machine.



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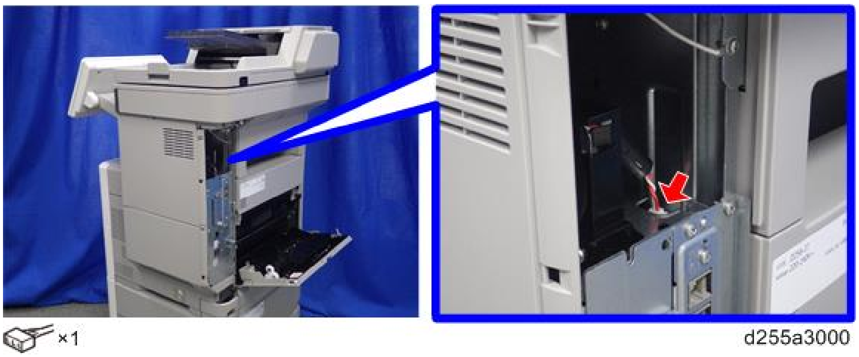
30. Connect the connector of the speaker.



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31. Reassemble the machine.
32. Turn ON the main power. Execute SP6-101 to print the system parameter list.
33. Check the system parameter list to make sure that the data is transferred correctly.
34. Set the correct date and time from the [User Tools].
    - User Tools > Machine Features > System Settings > Timer Setting > Set Date/Time

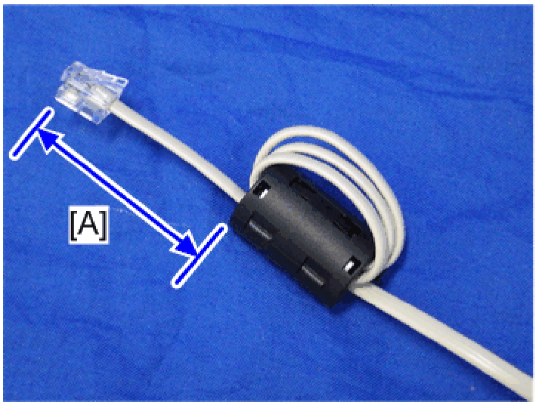
**Note**

- If any of the SRAM data was not transferred, input those settings manually.

## When replacing the Fax modular cable

When you replace the Fax modular cable, attach the ferrite core with the following procedure.

1. **Make three loops 5 cm (2.0 inches) [A] from the end of the modular cable (connection side to the machine) and attach the ferrite core to the loops as shown.**



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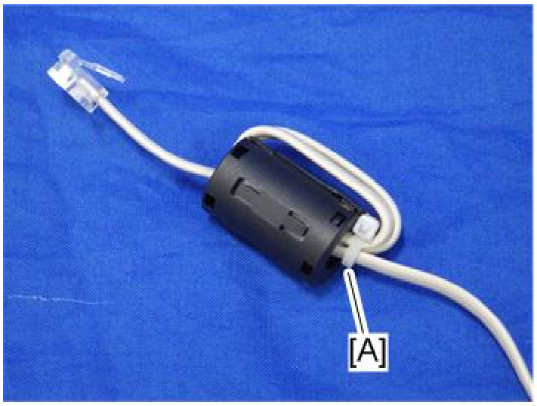
2. **Fix the modular cable with the bind [A] as shown below.**



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# 3. Troubleshooting

## Error Codes

### Error Codes

If an error code is displayed, retry communication. If the same problem occurs, try to fix the problem as suggested below.

**Note**

- Error codes appear in the error code display and on the service report.

| Code | Meaning | Suggested Cause/Action |
|---|---|---|
| 0-00 | DIS/NSF not detected within 40 s of Start being pressed | • Check the connection.<br>• The other party may be incompatible.<br>• Replace the FCU.<br>• Check for DIS/NSF with an oscilloscope.<br>• If the RX signal is weak, there may be a bad connection. |
| 0-01 | DCN received unexpectedly | • The other party is out of paper or has a paper jam.<br>• The other party pressed [Stop] during communication. |
| 0-03 | Incompatible modem at the other party | • The other party is incompatible. |

| Code | Meaning | Suggested Cause/Action |
|---|---|---|
| 0-04 | CFR or FTT not received after modem training | • Check the connection.<br>• Try changing the TX level and/or cable equalizer settings.<br>• Replace the FCU.<br>• The other machine may be defective. Try sending to another machine.<br>• If the RX signal is weak or defective, there may be a bad connection.<br>**Reference:**<br>• TX level: NCU Parameter 01 (PSTN)<br>• Cable equalizer: G3 Switch 07 (PSTN)<br>• Dedicated TX parameters in Service Program Mode |
| 0-05 | Modem training fails even G3 shifts down to 2400 bps. | • Check the connection.<br>• Try adjusting the TX level and/or cable equalizer.<br>• Replace the FCU.<br>• Check for line problems.<br>**Reference:**<br>See error code 0-04. |
| 0-06 | The other terminal did not reply to DCS | • Check the connection.<br>• Try adjusting the TX level and/or cable equalizer settings.<br>• Replace the FCU.<br>• The other party may be defective or incompatible; try sending to another machine.<br>• Check for line problems.<br>**Reference:**<br>See error code 0-04. |

| Code | Meaning | Suggested Cause/Action |
|---|---|---|
| 0-07 | No post-message response from the other party after a page was sent | • Check the connection.<br>• Replace the FCU.<br>• The other party is out of paper or has a paper jam.<br>• The other party may have disconnected the call.<br>• Check for a bad line.<br>• The other machine may be defective. Try sending to another machine. |
| 0-08 | The other party sent RTN or PIN after receiving a page, because there were too many errors | • Check the connection.<br>• Replace the FCU.<br>• The other party may have a paper jam, or run out of paper or memory space.<br>• Try adjusting the TX level and/or cable equalizer settings.<br>• The other party may have a defective modem/ FCU; try sending to another machine.<br>• Check for line problems and noise.<br>**Reference:**<br>• TX level: NCU Parameter 01 (PSTN)<br>• Cable equalizer: G3 Switch 07 (PSTN)<br>• Dedicated TX parameters in Service Program Mode |
| 0-14 | Non-standard post message response code received | • Incompatible or defective remote terminal; try sending to another machine.<br>• Noisy line; resend.<br>• Try adjusting the TX level and/or cable equalizer settings.<br>• Replace the FCU.<br>**Reference:**<br>See error code 0-08. |

| Code | Meaning | Suggested Cause/Action |
|---|---|---|
| 0-15 | The other terminal is not capable of specific functions. | The other party is unable to accepting the following functions, or the other party's memory is full.<br>• Confidential RX<br>• Transfer function<br>• SEP/SUB/PWD/SID |
| 0-16 | CFR or FTT not detected after modem training in confidential or transfer mode | • Check the connection.<br>• Replace the FCU.<br>• Try adjusting the TX level and/or cable equalizer settings.<br>• The other machine may have disconnected, or it may be defective. Try sending to another machine.<br>• If the RX signal level is too low, there may be a line problem.<br>**Reference:**<br>See error code 0-08. |
| 0-17 | Communication was interrupted by pressing [Stop] | • If [Stop] was not pressed and this error keeps occurring, replace the operation panel or the operation panel drive board. |
| 0-20 | Facsimile data not received within 6 s of retraining | • Check the connection.<br>• Replace the FCU.<br>• Check for line problems.<br>• Try calling another fax machine.<br>• Try adjusting the reconstruction time for the first line and/or RX cable equalizer setting.<br>**Reference:**<br>Reconstruction time - G3 Switch 0A, Bit 6<br>RX cable equalizer - G3 Switch 07 (PSTN) |

| Code | Meaning | Suggested Cause/Action |
|---|---|---|
| 0-21 | EOL signal (end-of-line) from the other party not received within 5 s of the previous EOL signal | • Check the connection between the FCU and line.<br>• Check for line noise or other line problems.<br>• Replace the FCU.<br>• The remote machine may be defective or may have been disconnected.<br>**Reference:**<br>Maximum interval between EOLs and between ECM frames - G3 Bit Switch 0A, Bit 4 |
| 0-22 | The signal from the other party was interrupted for more than the acceptable modem carrier drop time (default: 200 ms) | • Check the connection.<br>• Replace the FCU.<br>• The remote machine may be defective.<br>• Check for line noise or other line problems.<br>• Try adjusting the acceptable modem carrier drop time.<br>**Reference:**<br>Acceptable modem carrier drop time: G3 Switch 0A, Bits 0 and 1 |
| 0-23 | Too many errors during reception | • Check the connection.<br>• Replace the FCU.<br>• The remote machine may be defective.<br>• Check for line noise or other line problems.<br>• Try asking the other party to adjust their TX level.<br>• Try adjusting the RX cable equalizer setting and/or RX error criteria.<br>**Reference:**<br>RX cable equalizer: G3 Switch 07 (PSTN)<br>RX error criteria: Communication Switch 02, Bits 0 and 1 |
| 0-29 | Data block format failure in ECM reception | • Check for line noise or other line problems.<br>• Check the FCU - NCU connectors.<br>• Replace the NCU or FCU. |

| Code | Meaning | Suggested Cause/Action |
|---|---|---|
| 0-30 | The other terminal did not reply to NSS(A) in AI short protocol mode | • Check the connection.<br>• Try adjusting the TX level and/or cable equalizer settings.<br>• The other terminal may not be compatible.<br>**Reference:**<br>Dedicated TX parameters - Section 4 |
| 0-32 | The other terminal sent a DCS, which contained functions that the receiving machine cannot handle. | • Check the protocol dump list.<br>• Ask the other party to contact the manufacturer. |
| 0-33 | The data reception (not ECM) is not completed within 10 minutes. | • Check the connection.<br>• The other terminal may have a defective modem/FCU. |
| 0-52 | Polarity changed during communication | • Check the connection.<br>Retry communication. |
| 0-55 | FCU does not detect the SG3. | • FCU firmware or board defective.<br>• SG3 firmware or board defective. |
| 0-56 | The stored message data exceeds the capacity of the mailbox in the SG3. | • SG3 firmware or board defective. |
| 0-70 | The communication mode specified in CM/JM was not available<br>(V.8 calling and called terminal) | • The other terminal did not have a compatible communication mode (e.g., the other terminal was a V.34 data modem and not a fax modem.)<br>• A polling TX file was not ready at the other terminal when polling RX was initiated from the calling terminal. |
| 0-74 | The calling terminal fell back to T. 30 mode, because it could not detect ANSam after sending CI. | • The calling terminal could not detect ANSam due to noise, etc.<br>• ANSam was too short to detect.<br>• Check the connection and condition.<br>• Try making a call to another V.8/V.34 fax. |

| Code | Meaning | Suggested Cause/Action |
|---|---|---|
| 0-75 | The called terminal fell back to T. 30 mode, because it could not detect a CM in response to ANSam (ANSam timeout). | • The terminal could not detect ANSam.<br>• Check the connection and condition.<br>• Try receiving a call from another V.8/V.34 fax. |
| 0-76 | The calling terminal fell back to T. 30 mode, because it could not detect a JM in response to CM (CM timeout). | • The called terminal could not detect a CM due to noise, etc.<br>• Check the connection. and condition.<br>• Try making a call to another V.8/V.34 fax. |
| 0-77 | The called terminal fell back to T. 30 mode, because it could not detect a CJ in response to JM (JM timeout). | • The calling terminal could not detect a JM due to noise, etc.<br>• A network that has narrow bandwidth cannot pass JM to the other party.<br>• Check the connection and condition.<br>• Try receiving a call from another V.8/V.34 fax. |
| 0-79 | The called terminal detected CI while waiting for a V.21 signal. | • Check for line noise or other line problems.<br>• If this error occurs, the called terminal falls back to T.30 mode. |
| 0-80 | The line was disconnected due to a timeout in V.34 phase 2 – line probing. | • The guard timer expired while starting these phases. Serious noise, narrow bandwidth, or low signal level can cause these errors.<br>If these errors happen at the transmitting terminal:<br>• Try making a call later.<br>• Try using V.17 or a slower modem using dedicated TX parameters.<br>• Try increasing the TX level.<br>• Try adjusting the TX cable equalizer setting.<br>If these errors happen at the receiving terminal:<br>• Try adjusting the RX cable equalizer setting.<br>• Try increasing the TX level.<br>• Try using V.17 or a slower modem if the same error is frequent when receiving from multiple senders. |
| 0-81 | The line was disconnected due to a timeout in V.34 phase 3 – equalizer training. | |
| 0-82 | The line was disconnected due to a timeout in the V.34 phase 4 – control channel start-up. | |
| 0-83 | The line was disconnected due to a timeout in the V.34 control channel restart sequence. | |

| Code | Meaning | Suggested Cause/Action |
|---|---|---|
| 0-84 | The line was disconnected due to abnormal signaling in V.34 phase 4 – control channel start-up. | • The signal did not stop within 10 s.<br>• Turn OFF the main power, and then turn it back ON.<br>• If the same error is frequent, replace the FCU. |
| 0-85 | The line was disconnected due to abnormal signaling in V.34 control channel restart. | • The signal did not stop within 10 s.<br>• Turn OFF the main power, and then turn it back ON.<br>• If the same error is frequent, replace the FCU. |
| 0-86 | The line was disconnected because the other terminal requested a data rate using MPh that was not available in the currently selected symbol rate. | • The other terminal was incompatible.<br>• Ask the other party to contact the manufacturer. |
| 0-87 | The control channel started after an unsuccessful primary channel. | • The receiving terminal restarted the control channel because data reception in the primary channel was not successful.<br>• This does not result in an error communication. |
| 0-88 | The line was disconnected because PPR was transmitted/ received 9 (default) times within the same ECM frame. | • Try using a lower data rate at the start.<br>• Try adjusting the cable equalizer setting. |
| 2-11 | Only one V.21 connection flag was received | • Replace the FCU. |
| 2-12 | Modem clock irregularity | • Replace the FCU. |
| 2-13 | Modem initialization error | • Turn OFF the main power, and then turn it back ON.<br>• Update the modem ROM.<br>• Replace the FCU. |
| 2-22 | Counter overflow error of JBIG chip | If error occurs frequently, change the settings for resolution, paper size, and compression type. |
| 2-23 | JBIG compression or reconstruction error | Turn OFF the main power, and then turn it back ON. |

| Code | Meaning | Suggested Cause/Action |
|---|---|---|
| 2-24 | JBIG ASIC error | • Turn OFF the main power, and then turn it back ON. |
| 2-25 | JBIG data reconstruction error (BIH error) | • JBIG data error<br>• Check the sender's JBIG function.<br>• Update the FCU ROM. |
| 2-26 | JBIG data reconstruction error (Float marker error) | |
| 2-27 | JBIG data reconstruction error (End marker error) | |
| 2-28 | JBIG data reconstruction error (Timeout) | |
| 2-29 | JBIG trailing edge maker error | • FCU defective<br>• Check the destination device. |
| 2-50 | The machine resets itself for a fatal FCU system error | • If this is frequent, update the ROM, or replace the FCU. |
| 2-51 | The machine resets itself because of a fatal communication error | • If this is frequent, update the ROM, or replace the FCU. |
| 2-53 | Snd msg() in the manual task is an error because the mailbox for the operation task is full. | • The user did the same operation many times, and this gave too much load to the machine. |
| 4-01 | Line current was cut | • Check the line connector.<br>• Check for line problems.<br>• Replace the FCU. |
| 4-10 | Communication failed because of an ID Code mismatch (Closed Network) or Tel. No./CSI mismatch (Protection against Wrong Connections) | • Get the ID Codes the same and/or the CSIs programmed correctly, and then resend.<br>• The machine at the other party may be defective. |
| 5-00 | Data reconstruction not possible | • Replace the FCU. |
| 5-10 | DCR timer expired | • Replace the FCU. |

| Code | Meaning | Suggested Cause/Action |
|---|---|---|
| 5-20 | Storage impossible because of a lack of memory | • Temporary memory shortage.<br>• Test the SAF memory. |
| 5-21 | Memory overflow | |
| 5-23 | Print data error when printing a substitute RX or confidential RX message | • Test the SAF memory.<br>• Ask the other party to resend the message. |
| 5-25 | SAF file access error | • Replace an SD card or HDD.<br>• Replace the FCU. |
| 6-00 | G3 ECM - T1 time out during reception of facsimile data | • Try adjusting the RX cable equalizer.<br>• Replace the FCU. |
| 6-01 | G3 ECM - no V.21 signal was received | |
| 6-02 | G3 ECM - EOR was received | |
| 6-04 | G3 ECM - RTC not detected | • Check the connection.<br>• Check for a bad line or defective remote terminal.<br>• Replace the FCU. |
| 6-05 | G3 ECM - facsimile data frame not received within 18 s of CFR, but there was no line fail | • Check the connection.<br>• Check for a bad line or defective remote terminal.<br>• Replace the FCU.<br>• Try adjusting the RX cable equalizer<br>**Reference:**<br>• RX cable equalizer - G3 Switch 07 (PSTN) |
| 6-06 | G3 ECM - coding/decoding error | • Defective FCU.<br>• The other terminal may be defective. |
| 6-08 | G3 ECM - PIP/PIN received in reply to PPS.NULL | • The other party pressed [Stop] during communication.<br>• The other terminal may be defective. |

| Code | Meaning | Suggested Cause/Action |
|---|---|---|
| 6-09 | G3 ECM - ERR received | • Check for a noisy line.<br>• Adjust the TX levels of the communicating machines.<br>• See code 6-05. |
| 6-10 | G3 ECM - error frames still received at the other party after all communication attempts at 2400 bps | • Check for line noise.<br>• Adjust the TX level (use NCU parameter 01 or the dedicated TX parameter for that address).<br>• Check the connection.<br>• Defective remote terminal. |
| 6-21 | V.21 flag detected during high speed modem communication | • The other terminal may be defective or incompatible. |
| 6-22 | The machine resets the sequence because of an abnormal handshake in the V.34 control channel | • Check for line noise.<br>• If the same error occurs frequently, replace the FCU.<br>• Defective remote terminal. |
| 6-99 | V.21 signal not stopped within 6 s | • Replace the FCU. |
| 13-17 | SIP user name registration error | • Double registration of the SIP user name.<br>• Capacity for user-name registration in the SIP server is not sufficient. |
| 13-18 | SIP server access error | • Incorrect initial setting for the SIP server.<br>• Defective SIP server. |
| 13-24 | SIP authentication error | • Registered password in the device does not match the password in the SIP server. |
| 13-25 | Network I/F setting error | • IPV4 is not active in the active protocol setting.<br>• IP address of the device is not registered. |
| 13-26 | Network I/F setting error at power on | • Active protocol setting does not match the I/F setting for SIP server.<br>• IP address of the device is not registered. |
| 13-27 | IP address setting error | • IP address of the device is not registered. |

| Code | Meaning | Suggested Cause/Action |
|---|---|---|
| 14-00 | SMTP Send Error | • Error occurred during sending to the SMTP server. Occurs for any error other than 14-01 to 16. For example, the mail address of the system administrator is not registered. |
| 14-01 | SMTP Connection Failed | • Failed to connect to the SMTP server (timeout) because the server could not be found.<br>• The PC is not ready to transfer files.<br>• SMTP server not functioning correctly.<br>• The DNS IP address is not registered.<br>• Network not operating correctly.<br>• Destination folder selection not correct. |
| 14-02 | No Service by SMTP Service (421) | • SMTP server operating incorrectly or the destination for direct SMTP sending is not correct.<br>• Contact the system administrator and check that the SMTP server has the correct settings and operates correctly.<br>• Contact the system administrator for direct SMTP sending and check the sending destination. |
| 14-03 | Access to SMTP Server Denied (450) | • Failed to access the SMTP server because the access is denied.<br>• SMTP server operating incorrectly. Contact the system administrator to determine if there is a problem with the SMTP server and to check that the SMTP server settings are correct.<br>• Folder send destination is incorrect. Contact the system administrator to determine that the SMTP server settings and path to the server are correct.<br>• Device settings incorrect. Confirm that the user name and password settings are correct.<br>• Direct SMTP destination incorrect. Contact the system administrator to determine if there is a problem at the destination and that the settings at the destination are correct. |

| Code | Meaning | Suggested Cause/Action |
|---|---|---|
| 14-04 | Access to SMTP Server Denied (550) | • SMTP server operating incorrectly<br>• Direct SMTP sending not operating correctly |
| 14-05 | SMTP Server HDD Full (452) | • Failed to access the SMTP server because the HDD on the server is full.<br>• Insufficient free space on the HDD of the SMTP server. Contact the system administrator and check the amount of space remaining on the SMTP server HDD.<br>• Insufficient free space on the HDD where the destination folder is located. Contact the system administrator and check the amount of space remaining on the HDD where the target folder is located.<br>• Insufficient free space on the HDD at the target destination for SMTP direct sending. Contact the system administrator. Check the amount of space remaining on the target HDD or check if the mail size setting is the default value (2MB).<br>• Check the size of the original data. For example, if the original has too many pages, the data size can be too big to send. |
| 14-06 | User Not Found on SMTP Server (551) | • The designated user does not exist.<br>• The designated user does not exist on the SMTP server.<br>• The designated address is not for use with direct SMTP sending. |
| 14-07 | Data Send to SMTP Server Failed (4XX) | • Failed to access the SMTP server because the transmission failed.<br>• PC not operating correctly.<br>• SMTP server operating incorrectly.<br>• Network not operating correctly.<br>• Destination folder setting incorrect.<br>• Direct SMTP sending not operating correctly. |

| Code | Meaning | Suggested Cause/Action |
|---|---|---|
| 14-08 | Data Send to SMTP Server Failed (5XX) | • Failed to access the SMTP server because the transmission failed.<br>• SMTP server operating incorrectly.<br>• Destination folder setting incorrect.<br>• Direct SMTP sending not operating correctly.<br>• Software application error. |
| 14-09 | Authorization Failed for Sending to SMTP Server | • POP-Before-SMTP or SMTP authorization failed.<br>• Incorrect setting for file transfer |
| 14-10 | Addresses Exceeded | • Number of broadcast addresses exceeded the limit for the SMTP server. |
| 14-11 | Buffer Full | • The send buffer is full so the transmission could not be completed. Buffer is full due to using Scan-to-Email while the buffer is being used send mail at the same time. |
| 14-12 | Data Size Too Large | • Transmission was cancelled because the detected size of the file was too large. |
| 14-13 | Send Cancelled | • Processing is interrupted because the user pressed [Stop]. |
| 14-14 | Security Locked File Error | • Update the software because of the defective software. |
| 14-15 | Mail Data Error | • The transmitting a mail is interrupted via DCS due to the incorrect data.<br>• Update the software because of the defective software. |
| 14-16 | Maximum Division Number Error | • When a mail is divided for the mail transmission and the division number of a mail are more than the specified number, the mail transmission is interrupted.<br>• Update the software because of the defective software. |
| 14-17 | Incorrect Ticket | • Update the software because of the defective software. |

| Code | Meaning | Suggested Cause/Action |
|---|---|---|
| 14-18 | Access to MCS File Error | • The access to MCS file is denied due to the no permission of access.<br>• Update the software because of the defective software. |
| 14-20 | SMTP Authentication error | • Make sure the administrator's e-mail address is same as the SMTP authentication address or POP before SMTP address. |
| 14-21 | Transmission error of S/MIME | • Register the correct user certificate and device certificate. |
| 14-30 | MCS File Creation Failed | Failed to create the MCS file because:<br>• The number of files created with other applications on the Document Server has exceeded the limit.<br>• HDD is full or not operating correctly.<br>• Software error. |
| 14-31 | UFS File Creation Failed | UFS file could not be created:<br>• Not enough space in UFS area to handle both Scan-to-Email and IFAX transmission.<br>• HDD full or not operating correctly.<br>• Software error. |
| 14-32 | Cancelled the Mail Due to Error Detected by NFAX | • Error detected with NFAX and send was cancelled due to a software error. |
| 14-33 | No Mail Address For the Machine | • Neither the mail address of the machine nor the mail address of the network administrator is registered. |
| 14-34 | Address designated in the domain for SMTP sending does not exist | • Operational error in normal mail sending or direct SMTP sending.<br>• Check the address selected in the address book for SMTP sending.<br>• Check the domain selection. |

| Code | Meaning | Suggested Cause/Action |
|---|---|---|
| 14-50 | Mail Job Task Error | Due to an FCU mail job task error, the send was cancelled:<br>• Address book was being edited during creation of the notification mail.<br>• Software error. |
| 14-51 | UCS Destination Download Error | Not even one return notification can be downloaded:<br>• The address book was being edited.<br>• The number for the specified destination does not exist (it was deleted or edited after the job was created). |
| 14-60 | Send Cancel Failed | • The cancel operation by the user failed. |
| 14-61 | Notification Mail Send Failed for All Destinations | • All addresses for return notification mail failed. |
| 14-62 | Transmission Error due to the existence of zero line page | • When the 0 line page exists in received pages with G3 communication, the transmission is interrupted. |
| 14-63 | Fax Communication Unit: Transmission Error | Check the followings.<br>• Name of SMTP server<br>• Port number of SMTP<br>• DNS setting<br>• Server name (FTP)<br>• Path name (computer name and shared folder name at SMTP/ NCP)<br>• Active protocol setting (Netware/ NCP)<br>• NW flame type (NCP)<br>• Log-on mode (NDS tree/ bindery) |
| - | | Check the SMTP server.<br>• Check if the SMTP server works normally and is connected to the network.<br>• Check if the settings of the SMTP are correct. |

| Code | Meaning | Suggested Cause/Action |
|---|---|---|
| - | | Check the DNS server.<br>• Check if the DNS server works normally and is connected to the network.<br>• Check if the settings of the DNS server are correct. |
| - | | Check the network.<br>• Check if the LAN works normally.<br>• Check if the no firewall exists. |
| - | | Check the destination folder for the data transfer.<br>• Check if the destination folder works normally.<br>• Check if the settings of the destination folder are correct. |
| - | | Ask an administrator of the direct SMTP server in which the data is supposed to be transferred.<br>• Check if the destination SMTP server works normally.<br>• Check if the settings of the destination SMTP server are correct. |
| 15-01 | POP3/IMAP4 Server Not Registered | • At startup, the system detected that the IP address of the POP3/IMAP4 server has not been registered in the machine. |
| 15-02 | POP3/IMAP4 Mail Account Information Not Registered | • The POP3/IMAP4 mail account has not been registered. |
| 15-03 | Mail Address Not Registered | • The mail address has not been registered. |
| 15-10 | DCS Mail Receive Error | • Error other than 15-11 to 15-18. |
| 15-11 | Connection Error | The DNS or POP3/IMAP4 server could not be found:<br>• The IP address for DNS or POP3/IMAP4 server is not stored in the machine.<br>• The DNS IP address is not registered.<br>• Network not operating correctly. |

| Code | Meaning | Suggested Cause/Action |
|---|---|---|
| 15-12 | Authorization Error | POP3/IMAP4 send authorization failed:<br>• Incorrect IFAX user name or password.<br>• Another device, such as the PC, attempted access.<br>• POP3/IMAP4 settings incorrect. |
| 15-13 | Receive Buffer Full | • Occurs only during manual reception. Transmission cannot be received due to insufficient buffer space. The buffer is being used for mail send or Scan-to-Email. |
| 15-14 | Mail Header Format Error | • The mail header is not standard format. For example, the Date line description is incorrect. |
| 15-15 | Mail Divide Error | • The e-mail is not in standard format. There is no boundary between parts of the e-mail, including the header. |
| 15-16 | Mail Size Receive Error | • The mail cannot be received because it is too large. |
| 15-17 | Receive Timeout | • May occur during manual receiving only because the network is not operating correctly. |
| 15-18 | Incomplete Mail Received | • Only one portion of the mail was received. |
| 15-31 | Final Destination for Transfer Request Reception Format Error | • The format of the final destination for the transfer request was incorrect. |
| 15-39 | Send/Delivery Destination Error | The transmission cannot be delivered to the final destination:<br>• Destination file format is incorrect.<br>• Could not create the destination for the file transmission. |
| 15-41 | SMTP Receive Error | • Reception rejected because the transaction exceeded the limit for the "Auth. E-mail RX" setting. |
| 15-42 | Off Ramp Gateway Error | • The delivery destination address was specified with Off Ramp Gateway OFF. |

| Code | Meaning | Suggested Cause/Action |
|---|---|---|
| 15-43 | Address Format Error | • Format error in the address of the Off Ramp Gateway. |
| 15-44 | Addresses Over | • The number of addresses for the Off Ramp Gateway exceeded the limit of 30. |
| 15-61 | Attachment File Format Error | • The attached file is not TIFF format. |
| 15-62 | TIFF File Compatibility Error | Could not receive transmission due to:<br>• Resolution error<br>• Image of resolution greater than 200 dpi without extended memory.<br>• Resolution is not supported.<br>• Page size error<br>• The page size was larger than A3.<br>• Compression error<br>• File was compressed with other than MH, MR, or MMR. |
| 15-63 | TIFF Parameter Error | The TIFF file sent as the attachment could not be received because the TIFF header is incorrect:<br>• The TIFF file attachment is a type not supported.<br>• The TIFF file attachment is corrupted.<br>• Software error. |
| 15-64 | TIFF Decompression Error | The file received as an attachment caused the TIFF decompression error:<br>• The TIFF format of the attachment is corrupted.<br>• Software error. |
| 15-71 | Not Binary Image Data | • The file could not be received because the attachment was not binary image data. |
| 15-73 | MDN Status Error | • The disposition line in the header of the Return Receipt could not be found, or there is a problem with the firmware. |
| 15-74 | MDN Message ID Error | • Could not find the Original Message ID line in the header of the Return Receipt, or there is a problem with the firmware. |

| Code | Meaning | Suggested Cause/Action |
|---|---|---|
| 15-80 | Mail Job Task Read Error | - Could not receive the transmission because the destination buffer is full and the destination could not be created (this error may occur when receiving a transfer request or a request for notification of reception). |
| 15-81 | Repeated Destination Registration Error | - Could not repeat receive the transmission because the destination buffer is full and the destination could not be created (this error may occur when receiving a transfer request or a request for notification of reception). |
| 15-91 | Send Registration Error | Could not receive the file for transfer to the final destination:<br>- The format of the final destination or the transfer destination is incorrect.<br>- Destinations are full so the final and transfer destinations could not be created. |
| 15-92 | Memory Overflow | - Transmission could not be received because memory overflowed during the transaction. |
| 15-93 | Memory Access Error | - Transaction could not complete due to a malfunction of SAF memory. |
| 15-94 | Incorrect ID Code | - The machine rejected an incoming e-mail for transfer request, because the ID code in the incoming e-mail did not match the ID code registered in the machine. |
| 15-95 | Transfer Station Function | - The machine rejected an incoming e-mail for transfer because the transfer function was unavailable. |
| 16-00 | No IP address registered | - The machine does not get an IP address because the DNS server has not been registered for the remote machine or IP address of the remote machine has not been registered.<br>- Register the DNS server for the remote machine or configure an IP address of the remote machine. |

| Code | Meaning | Suggested Cause/Action |
|---|---|---|
| 22-00 | Original length exceeded the maximum scan length | • Divide the original into more than one page.<br>• Check the resolution used for scanning. Lower the scan resolution if possible.<br>• Add optional page memory. |
| 22-01 | Memory overflow while receiving | • Wait for the files in the queue to be sent.<br>• Delete unnecessary files from memory.<br>• Transfer the substitute reception files to another fax machine, if the machine's printer is busy or out of order.<br>• Add an optional SAF memory card or hard disk. |
| 22-02 | TX or RX job stalled due to line disconnection at the other party | • The job started normally but did not finish normally; data may or may not have been received fully.<br>• Restart the machine. |
| 22-04 | The machine cannot store received data in the SAF | • Update the ROM<br>• Replace the FCU. |
| 22-05 | No G3 parameter confirmation answer | • Defective FCU board or firmware. |
| 23-00 | Data read timeout during construction | • Restart the machine.<br>• Replace the FCU. |
| 25-00 | The machine software resets itself after a fatal transmission error occurred | • Update the ROM<br>• Replace the FCU. |
| F0-xx | V.34 modem error | • Replace the FCU. |
| F6-xx | SG3 modem error | • Update the SG3 modem ROM.<br>• Replace the SG3 board.<br>• Check for line noise or other line problems.<br>• Try communicating another V.8/V.34 fax. |

# Fax Connection Unit Error Codes

## Fax Connection Unit Error Code List

### MACHINE_ERR_01

| Error Code | Possible Causes | Troubleshooting Procedures |
|---|---|---|
| 01(1) | IPv4/IPv6 not enabled | Enable IPv4 and IPv6 |
| 01(3) | "Cancel" is pressed by user. | - |
| 01(4) | A false connection ID is being used. | Check that the network is established. |
| 01(5) | Network is disconnected because of no response within a specified time. | |
| 01(14) | • Either this machine or the machine at the other party has entered SP mode or Initial settings.<br>• An established connection exists. | • Exit SP mode or initial settings.<br>• Wait until the connection has finished. |

### MACHINE_ERR_02

| Error Code | Possible Causes | Troubleshooting Procedures |
|---|---|---|
| 02(5) | • Wrong IP address/host name was used.<br>• The main power of the other machine at destination is OFF.<br>• LAN cable is disconnected.<br>• Network is rebooting. | • Enter the correct IP address/host name<br>• Turn ON the main power.<br>• Connect the LAN cable<br>• Wait until rebooting has finished. |

## MACHINE_ERR_03

<table>
<tr><th>Error Code</th><th>Possible Causes</th><th colspan="2">Troubleshooting Procedures</th></tr>
<tr><td rowspan="6">03</td><td rowspan="6"><ul><li>No user authentication (i.e. Basic/Windows/LDAP/Custom Auth.) applies to fax application.</li><li>Settings other than user authentication are applied to the fax application.</li></ul></td><td colspan="2">Configure the user authentication setting for client and remote machines as follows:</td></tr>
<tr><td>Client Machine</td><td>Remote Machine</td></tr>
<tr><td>OFF</td><td>OFF</td></tr>
<tr><td>ON</td><td>OFF</td></tr>
<tr><td>ON</td><td>ON</td></tr>
<tr><td colspan="2"></td></tr>
</table>

## MACHINE_ERR_04

| Error Code | Possible Causes | Troubleshooting Procedures |
|---|---|---|
| 04 | Although the same user is registered on the remote machine and client machine, the user name and login password do not match. | • Register the same user to both the remote machine and client machine.<br>• Make sure to match the username and login password. |

## MACHINE_ERR_05

| Error Code | Possible Causes | Troubleshooting Procedures |
|---|---|---|
| 05 | An unauthorized user tried to connect. | Authorize the user to use fax connection. |

## MACHINE_ERR_06

| Error Code | Possible Causes | Troubleshooting Procedures |
|---|---|---|
| 06 | Timeout error on the node authentication | Adjust the value of SP5-741-001 to prolong the timeout for node authentication. |

## MACHINE_ERR_07

| Error Code | Possible Causes | Troubleshooting Procedures |
|---|---|---|
| 07 | Multiple destinations are set in the client machine. | On the client machine, execute SP5-801-021 to clear AICS memory |

## MACHINE_ERR_08

| Error Code | Possible Causes | Troubleshooting Procedures |
|---|---|---|
| 08(1) | • A client machine connects to another client machine.<br>• The client machine is not registered on the remote machine as destinations. | • Connect to the remote machine.<br>• Register the client machine to the remote machine as a destination. |
| 08(2) | • A remote machine connects to another Remote Machine.<br>• The wrong remote machine is registered on the client machine. | • Connect to the client machine.<br>• Check the remote machine registered on the client machine. |

# IFAX Troubleshooting

## IFAX Troubleshooting

Use the following procedures to determine whether the machine or another part of the network is causing the problem.

| Communication Route | Item | Troubleshooting Procedures |
|---|---|---|
| General LAN | 1. Connection with the LAN | • Check that the LAN cable is connected to the machine.<br>• Check that the LEDs on the hub are lit. |
| | 2. LAN activity | Check that other devices connected to the LAN can communicate through the LAN. |
| Between IFAX and PC | 1. Network settings on the PC | • Check the network settings on the PC.<br>• Check with the network administrator for the IP address. (Is the IP address registered in the TCP/IP properties in the network setup correct?) |
| | 2. Check that PC can connect with the machine | Use the "ping" command on the PC to contact the machine.<br>At the MS-DOS prompt, type ping then the IP address of the machine, then press Enter. |
| | 3. LAN settings in the machine | • Check the LAN parameters<br>• Check if there is an IP address conflict with other PCs.<br>Use the "Network" function in the User Tools.<br>If there is an IP address conflict, inform the administrator. |

| Communication Route | Item | Troubleshooting Procedures |
|---|---|---|
| Between machine and e-mail server | 1. LAN settings in the machine | • Check the LAN parameters<br>• Check if there is an IP address conflict with other PCs.<br>Use the "Network" function in the User Tools.<br>If there is an IP address conflict, inform the administrator. |
| | 2. E-mail account on the server | • Make sure that the machine can log into the e-mail server.<br>• Check that the account and password stored in the server are the same as in the machine.<br>Ask the administrator to check. |
| | 3. E-mail server | Make sure that the client devices which have an account in the server can send/receive e-mail.<br>Ask the administrator to check.<br>Send a test e-mail with the machine's own number as the destination. The machine receives the returned e-mail if the communication is performed successfully. |

| Communication Route | Item | Troubleshooting Procedures |
|---|---|---|
| Between e-mail server and internet | 1. E-mail account on the Server | • Make sure that the PC can log into the e-mail server.<br>• Check that the account and password stored in the server are the same as in the machine.<br>Ask the administrator to check. |
| | 2. E-mail server | Make sure that the client devices which have an account in the server can send/receive e-mail.<br>Ask the administrator to check.<br>Send a test e-mail with the machine's own number as the destination. The machine receives the returned e-mail if the communication is performed successfully. |
| | 3. Destination e-mail address | • Make sure that the e-mail address is actually used.<br>• Check that the e-mail address contains no incorrect characters such as spaces. |
| | 4. Router settings | • Use the "ping" command to contact the router.<br>• Check that other devices connected to the router can sent data over the router.<br>Ask the administrator of the server to check. |
| | 5. Error message by e-mail from the network of the destination. | • Check whether e-mail can be sent to another address on the same network, using the application e-mail software.<br>• Check the error e-mail message.<br>Inform the administrator of the LAN. |

# IP-Fax Troubleshooting

## IP-Fax Transmission

### Cannot send by IP Address/Host Name

| Check Point | | Troubleshooting Procedures |
|---|---|---|
| 1 | LAN cable connected? | Check the LAN cable connection. |
| 2 | Specified IP address/hostname correct? | Check the IP address/host name. |
| 3 | Firewall/NAT installed? | The firewall cannot be breached. Send by another method (Fax, Internet Fax) |
| 4 | Transmission sent manually? | Manual sending not supported. |
| 5 | IP address of local machine registered? | Register the IP address. |
| 6 | Remote terminal port number setting other than 1720 (when using H.323) or 5060 (when using SIP)? | Send by specifying the port number. |
| 7 | Specified port number correct? | Confirm the port number of the remote fax. |
| 8 | DNS server registered when host name specified? | Contact the network administrator. |
| 9 | Remote fax a T.38 terminal? | Check whether the remote fax is a T38 terminal. |
| 10 | Remote fax switched off or busy? | Check that the remote fax is ON. |
| 11 | Network bandwidth too narrow? | Request the network administrator to increase the bandwidth. |
| | | Raise the delay level.<br>(IPFAX SW 01 Bit 0 to 3) |
| | | IP-Fax bandwidth is the same as the DCS speed. Set IP-Fax SW00 Bit 6 to 1. |
| 12 | Remote fax cancelled transmission? | Check whether the remote fax cancelled the transmission. |

## Cannot send via VoIP Gateway

| Check Point | | Troubleshooting Procedures |
|---|---|---|
| 1 | LAN cable connected? | Check the LAN cable connection. |
| 2 | VoIP Gateway T.38 standard? | Contact the network administrator. |
| 3 | VoIP Gateway installed correctly? | Contact the network administrator. |
| 4 | VoIP Gateway power switched on? | Contact the network administrator. |
| 5 | Is the IP address/host name of the specified Gateway correct? | Check the IP address/host name. |
| 6 | Number of the specified fax correct? | Check the remote fax number. |
| 7 | Firewall/NAT installed? | The firewall cannot be breached. Send by another method (Fax, Internet Fax) |
| 8 | Transmission sent manually? | Manual sending not supported. |
| 9 | IP address of local fax registered? | Register the IP address. |
| 10 | DNS registered when host name specified? | Contact the network administrator. |
| 11 | Remote fax a G3 fax? | Check that the remote fax is a G3 fax. |
| 12 | G3 fax connected to VoIP gateway? | Check that G3 fax is connected. |
| 13 | Remote G3 fax turned ON? | Check that G3 fax is ON. |
| 14 | Network bandwidth too narrow? | Request the network administrator to increase the bandwidth. |
| | | Raise the network delay level.<br>(IPFAX SW 01 Bit 0 to 3) |
| | | IP-Fax bandwidth is the same as the DCS speed. Set IP-Fax SW00 Bit 6 to 1. |

## Cannot send by Alias Fax number

| Check Point | | Troubleshooting Procedures |
|---|---|---|
| 1 | LAN cable connected? | Check the LAN cable connection. |

| | | |
|---|---|---|
| 2 | Number of specified Alias fax correct? | Confirm the Alias of the remote fax.<br>Error Code: 13-14 |
| 3 | Firewall/NAT installed? | The firewall cannot be breached. Send by another method (Fax, Internet Fax) |
| 4 | Transmission sent manually? | Manual sending not supported. |
| 5 | Gatekeeper/SIP server installed correctly? | Contact the network administrator. |
| 6 | Gatekeeper/SIP server power turned ON? | Contact the network administrator. |
| 7 | IP address/host name of Gatekeeper/SIP server correct? | Check the IP address/host name. |
| 8 | DNS server registered when Gatekeeper/SIP server host name specified? | Contact the network administrator. |
| 9 | Enable H.323/Enable SIP SW is set to on? | Check the settings.<br>See User Parameter SW 34 Bit 0/SW 34 Bit 1 |
| 10 | IP address of local fax registered? | Register the IP address of the local fax. |
| 11 | Alias number of local fax registered? | Register the Alias number of the local fax. |
| 12 | Remote fax registered in Gatekeeper? | Contact the network administrator. |
| 13 | Remote fax a T.38 terminal? | Check whether the remote fax is a T38 terminal. |
| 14 | Remote fax switched off or busy? | Contact the network administrator. |
| 15 | Network bandwidth too narrow? | Request the system administrator to increase the bandwidth. |
| | | Raise the delay level.<br>(IPFAX SW 01 Bit 0 to 3) |
| | | Lower the modem transmission baud rate.<br>(IPFAX SW 05) |
| 16 | Remote fax cancelled transmission? | Check whether the remote fax cancelled the transmission. |

## IP-Fax Reception

### Cannot receive via IP Address/Host Name

| Check Point | | Troubleshooting Procedures |
|---|---|---|
| 1 | LAN cable connected? | Check the LAN cable connection. |
| 2 | Firewall/NAT installed? | The firewall cannot be breached. Send by another method (Fax, Internet Fax) |
| 3 | IP address of local fax registered? | Register the IP address. |
| 4 | Port number specified at remote sender fax (if required)? | Request the sender to specify the port number. |
| 5 | Specified port number correct (if required)? | Request the sender to check the port number. |
| 6 | DNS server registered when host name specified on sender side? | Contact the network administrator.<br>**Note**<br>• The sender machine displays this error code if the sender fax is a Ricoh model. |
| 7 | Network bandwidth too narrow? | Request the system administrator to increase the bandwidth. |
| | | Lower the start modem reception baud rate on the receiving side.<br>(IPFAX SW06) |
| 8 | Remote fax cancelled transmission? | Check whether the remote fax cancelled the transmission. |

### Cannot receive by VoIP Gateway

| Check Point | | Troubleshooting Procedures |
|---|---|---|
| 1 | LAN cable connected? | Check the LAN cable connection. |
| 2 | Firewall/NAT installed? | The firewall cannot be breached. Send by another method (Fax, Internet Fax) |
| 3 | VoIP Gateway installed correctly? | Contact the network administrator. |

| | | |
|---|---|---|
| 4 | VoIP Gateway power turned ON? | Contact the network administrator. |
| 5 | IP address/host name of specified VoIP Gateway correct on sender's side? | Request the remote fax to check the IP address/host name. |
| 6 | DNS server registered when host name specified on sender side? | Contact the network administrator. |
| 7 | Network bandwidth too narrow? | Request the network administrator to increase the bandwidth. |
| 8 | G3 fax connected? | Check that G3 fax is connected. |
| 9 | G3 fax power turned ON? | Check that G3 fax is ON. |

## Cannot receive by Alias Fax number

| Check Point | | Troubleshooting Procedures |
|---|---|---|
| 1 | LAN cable connected? | Check the LAN cable connection. |
| 2 | Firewall/NAT installed? | The firewall cannot be breached. Send by another method (Fax, Internet Fax) |
| 3 | Gatekeeper/SIP server installed correctly? | Contact the network administrator.<br>**Note**<br>• The sender machine displays this error code when the sender fax is a Ricoh model. |
| 4 | Power to Gatekeeper/SIP server turned ON? | Contact the network administrator.<br>**Note**<br>• The sender machine displays this error code when the sender fax is a Ricoh model. |
| 5 | IP address/host name of Gatekeeper/SIP server correct on the sender's side? | Request the sender to check the IP address/host name.<br>**Note**<br>• The sender machine displays this error code when the sender fax is a Ricoh model. |

| | | |
|---|---|---|
| 6 | DNS server registered when Gatekeeper/SIP server host name specified on sender's side? | Contact the network administrator.<br>**Note**<br>• The sender machine displays this error code when the sender fax is a Ricoh model. |
| 7 | Enable H.323/Enable SIP SW set to on? | Request the sender to check the settings.<br>User Parameter SW 34 Bit 0/SW 34 Bit 1<br>**Note**<br>• Only if the remote sender fax is a Ricoh fax. |
| 8 | Local fax IP address registered? | Register the IP address. |
| 9 | Local fax Alias number registered? | Register the Alias number. |
| 10 | Network bandwidth too narrow? | Request the system administrator to increase the bandwidth. |
| | | Lower the start modem reception baud rate on the receiving side.<br>(IPFAX SW06) |
| 11 | Remote fax cancelled transmission? | Check whether the remote fax cancelled the transmission. |
| 12 | Local fax registered in Gatekeeper/SIP server? | Contact the network administrator.<br>**Note**<br>• The sender machine displays this error code when the sender fax is a Ricoh model. |

# 4. Service Tables

## Service Program Tables

### SP1-XXX (BIT Switches)

| 1 | Mode No. | | Function |
|---|---|---|---|
| 101 | System Switch | | |
| | 001 – 032 | 00 – 1F | Change the bit switches for system settings for the fax option<br>Refer to page 75 "Bit Switches - 1": "System Switches". |
| 102 | Ifax Switch | | |
| | 001 – 016 | 00 – 0F | Change the bit switches for internet fax settings for the fax option<br>Refer to page 89 "Bit Switches - 2": "I-Fax Switches". |
| 103 | Printer Switch | | |
| | 001 – 016 | 00 – 0F | Change the bit switches for printer settings for the fax option<br>Refer to page 89 "Bit Switches - 2": "Printer Switches". |
| 104 | Communication Switch | | |
| | 001 – 032 | 00 – 1F | Change the bit switches for communication settings for the fax option<br>Refer to page 104 "Bit Switches - 3": "Communication Switches". |
| 105 | G3-1 Switch | | |
| | 001 – 016 | 00 – 0F | Change the bit switches for the protocol settings of the standard G3 board<br>Refer to page 114 "Bit Switches - 4": "G3 Switches". |
| 111 | IP fax Switch | | |
| | 001 – 016 | 00 – 0F | Change the bit switches for optional IP fax parameters<br>Refer to page 124 "Bit Switches - 5": "IP Fax Switches". |

## SP2-XXX (RAM)

| 2 | Mode No. | | Function |
|---|---|---|---|
| 101 | RAM Read/Write | | |
| | 001 | | Change RAM data for the fax board directly.<br>Refer to page 146 "Service RAM Addresses". |
| 102 | Memory Dump | | |
| | 001 | G3-1 Memory Dump | Print out RAM data for the fax board.<br>Refer to page 146 "Service RAM Addresses". |
| 103 | G3-1 NCU Parameters | | |
| | 001 – 023 | CC, 01 – 22 | NCU parameter settings for the standard G3 board.<br>Refer to page 133 "NCU Parameters". |

## SP3-XXX (Machine Set)

| 3 | Mode No. | | Function |
|---|---|---|---|
| 101 | Service Station | | |
| | 001 | Fax Number | Enter the fax number of the service station. |
| 102 | Serial Number | | |
| | 000 | | Enter the fax unit's serial number. |
| 103 | PSTN-1 Port Settings | | |
| | 001 | Select Line | Select the line type setting for the G3-1 line. If the machine is installed on a PABX line, select "PABX", "PABX (GND)" or "PABX (FLASH)". |
| | 002 | PSTN Access Number | Enter the PSTN access number for the G3-1 line. |
| | 003 | Memory Lock Disabled | Not used |

| | | | |
|---|---|---|---|
| 107 | IPFAX Port Settings | | |
| | 001 | H323 Port | Sets the H323 port number. |
| | 002 | SIP Port | Sets the SIP port number. |
| | 003 | RAS Port | Sets the RAS port number. |
| | 004 | Gatekeeper port | Sets the Gatekeeper port number. |
| | 005 | T.38 Port | Sets the T.38 port number. |
| | 006 | SIP Server Port | Sets the SIP port number. |
| | 007 | IPFAX Protocol Priority | Select "H323" or "SIP". |
| 201 | FAX SW | | |
| | 001 – 032 | 00 – 1F | |
| 301 | Fax:FlairAPI Setting | | |
| | 101 | - | |

## SP4-XXX (ROM Versions)

| 4 | Mode No. | | Function |
|---|---|---|---|
| 101 | 001 | FCU ROM Version | Displays the FCU ROM version. |
| 102 | 001 | Error Codes | Displays the latest 64 fax error codes. |
| 103 | 001 | G3-1 ROM Version | Displays the G3-1 modem version. |

## SP5-XXX (RAM Clear)

| 5 | Mode No. | Function |
|---|---|---|
| 101 | Initialize SRAM (except Secure) | |
| | 000 | Initializes the bit switches and user parameters, user data in the SRAM, files in the SAF memory, and clock. |

| | | |
|---|---|---|
| 102 | Erase All Files | |
| | 000 | Erases all files stored in the SAF memory. |
| 103 | Reset Bit Switches (except Secure) | |
| | 000 | Resets the bit switches and user parameters. |
| 104 | Factory Setting | |
| | 000 | Resets the bit switches and user parameters, user data in the SRAM and files in the SAF memory. |
| 105 | Reset All Bit Switches | |
| | 000 | Resets all the current bit switch settings. |
| 106 | Reset Security Bit Switches | |
| | 000 | Resets only the security bit switches. If you select automatic output/display for the user parameter switches, the security settings are initialized. |

## SP6-XXX (Reports)

| 6 | Mode No. | | Function |
|---|---|---|---|
| 101 | System Parameter List | | |
| | 000 | - | Touch the "ON" button to print the system parameter list. |
| 102 | Service Monitor Report | | |
| | 000 | - | Touch the "ON" button to print the service monitor report. |
| 103 | G3 Protocol Dump List | | |
| | 002 | G3-1 (All Communications) | Prints the protocol dump list of all communications for the G3-1 line. |
| | 003 | G3-1<br>(1 Communication) | Prints the protocol dump list of the last communication for the G3-1 line. |

| | | | |
|---|---|---|---|
| 105 | All Files print out | | |
| | 000 | - | Prints out all the user files in the SAF memory, including confidential messages.<br>**Note**<br>• Do not use this function, unless the customer is having trouble printing confidential messages or recovering files stored using the memory lock feature. |
| 106 | Journal Print out | | |
| | 001 | All Journals | The machine prints all the communication records on the report. |
| | 002 | Specified Date | The machine prints all communication records after the specified date. |
| 107 | Log List Print out | | |
| | 001 | All log files | These log print out functions are for designer use only. |
| | 002 | Printer | |
| | 003 | SC/TRAP Stored | |
| | 004 | Decompression | |
| | 005 | Scanner | |
| | 006 | JOB/SAF | |
| | 007 | Reconstruction | |
| | 008 | JBIG | |
| | 009 | Fax Driver | |
| | 010 | G3 CCU | |
| | 011 | Fax Job | |
| | 012 | CCU | |
| | 013 | Scanner Condition | |

| 108 | IP Protocol Dump List | | |
|---|---|---|---|
| | 001 | All Communications | Prints the protocol dump list of all communications for the IP fax line. |
| | 002 | 1 Communication | Prints the protocol dump list of the last communication for the IP fax line. |

## SP7-XXX (Tests)

These are the test modes for PTT approval.

| 7 | Function |
|---|---|
| 101 | G3-1 Modem Tests |
| 102 | G3-1 DTMF Tests |
| 103 | Ringer Test |
| 104 | G3-1 V34 (S2400baud) |
| 105 | G3-1 V34 (S2800baud) |
| 106 | G3-1 V34 (S3000baud) |
| 107 | G3-1 V34 (S3200baud) |
| 108 | G3-1 V34 (S3429baud) |
| 109 | Recorded Message Test |

# Bit Switches - 1

**Important**

- Do not adjust a bit switch or use a setting that is described as "Not used", as this may cause the machine to malfunction or to operate in a manner that is not accepted by local regulations. Such bits are for use only in other areas, such as Japan.

Default settings for bit switches are not listed in this manual. Refer to the System Parameter List printed by the machine.

## System Switches

| System Switch 00 (SP No. 1-101-001) | | |
|---|---|---|
| No | Function | Comments |
| 0 | Dedicated transmission parameter programming<br>0: Disabled<br>1: Enabled | Set this bit to 1 before changing any dedicated transmission parameters.<br>This setting is automatically reset to "0" after turning off and on. |
| 1 | Not used | Do not change this setting. |
| 2 | Technical data printout on the journal<br>0: Disabled<br>1: Enabled | 1: Instead of the personal name, the following data are listed in the journal for each G3 communication. |

| | | |
|---|---|---|
| | Example:<br>`0000 32V34 288/264 L0100 03 04`<br>`(1) (2)(3) (4) (5) (6) (7) (8)`<br>(1): EQM value (Line quality data). A larger number means more errors.<br>(2): Symbol rate (V.34 only)<br>(3): Final modem type used<br>(4): Starting data rate (for example, 288 means 28.8 kbps)<br>(5): Final data rate<br>(6): RX level (see below for how to read the RX level)<br>(7): Total number of error lines that occurred during non-ECM reception.<br>(8): Total number of burst error lines that occurred during non-ECM reception.<br>**Note**<br>• EQM and RX level are fixed at "FFFF" in TX mode.<br>• The seventh and eighth numbers are fixed at "00" for transmission records and ECM reception records. | |
| | RX level calculation<br>Example:<br>`0000 32V34 288/264 L0100 03 04`<br>`(1) (2)(3) (4) (5) (6) (7) (8)`<br>The four-digit hexadecimal value (N) after "L" indicates the RX level.<br>The **high** byte is given first, followed by the **low** byte. Divide the decimal value of N by -16 to get the RX level.<br>In the above example, the decimal value of N (= 0100 [H]) is 256.<br>So, the actual RX level is 256/-16 = -16 dB | |
| 3 | Not used | Do not change this setting. |
| 4 | Line error mark print<br>0: OFF, 1: ON (print) | When "1" is selected, a line error mark is printed on the printout if a line error occurs during reception. This shows error locations when ECM is turned off. |
| 5 | G3 communication parameter display<br>0: Disabled<br>1: Enabled | This is a fault-finding aid. The LCD shows the key parameters (see "G3 Communication Parameters" below this table). This is normally disabled because it cancels the CSI display for the user.<br>Be sure to reset this bit to "0" after testing. |

| | | |
|---|---|---|
| 6 | Protocol dump list output after each communication<br>0: Off<br>1: On | This is only used for communication troubleshooting. It shows the content of the transmitted facsimile protocol signals. Always reset this bit to 0 after finishing testing.<br>If system switch 09 bit 6 is at "1", the list is only printed if there was an error during the communication. |
| 7 | Not used | Do not change the setting. |

### G3 Communication Parameters

| | |
|---|---|
| Modem rate | 336: 33600 bps 168: 16800 bps<br>312: 31200 bps 144: 14400 bps<br>288: 28800 bps 120: 12000 bps<br>264: 26400 bps 96: 9600 bps<br>240: 24000 bps 72: 7200 bps<br>216: 21600 bps 48: 4800 bps<br>192: 19200 bps 24: 2400 bps |
| Resolution | S: Standard (8 x 3.85 dots/mm)<br>D: Detail (8 x 7.7 dots/mm)<br>F: Fine (8 x 15.4 dots/mm)<br>SF: Superfine (16 x 15.4 dots/mm)<br>21: Standard (200 x 100 dpi)<br>22: Detail (200 x 200 dpi)<br>~~44: Superfine (400 x 400 dpi)~~ RTB 34 |
| Compression mode | MMR: MMR compression<br>MR: MR compression<br>MH: MH compression<br>JBO: JBIG compression (Optional mode)<br>JBB: JBIG compression (Basic mode) |
| Communication mode | ECM: With ECM<br>NML: With no ECM |

| | |
|---|---|
| Width and reduction | A4: A4 (8.3"), no reduction<br>B4: B4 (10.1"), no reduction<br>A3: A3 (11.7"), no reduction |
| I/O rate | 0: 0 ms/line<br>5: 5 ms/line<br>10: 10 ms/line<br>20: 20 ms/line<br>25: 2.5 ms/line<br>40: 40 ms/line<br>**Note**<br>• "40" is displayed while receiving a fax message using AI short protocol. |

| System Switch 01 - Not used (Do not change the factory settings.) |
|---|

| System Switch 02 (SP No. 1-101-003) | | |
|---|---|---|
| No | Function | Comments |
| 0-1 | Not used | Do not change these settings. |
| 2 | Forced reset after transmission stalls<br>0: Off<br>1: On | With this setting on, the machine resets itself automatically if a transmission stalls and fails to complete the job. |
| 3 | Not used | Do not change these settings. |
| 4 | File retention time<br>0: Depends on User Parameter 24 [18(H)]<br>1: No limit | 1: A file that had a communication error will not be erased unless the communication is successful. |
| 5-7 | - | Do not change this setting |

| System Switch 03 - Not used (Do not change the factory settings.) |
|---|

| System Switch 04 (SP No. 1-101-005) | | |
|---|---|---|
| No | Function | Comments |

| | | |
|---|---|---|
| 0-2 | Not used | Do not change these settings. |
| 3 | Printing dedicated TX parameters on Quick/Speed Dial Lists<br>0: Disabled<br>1: Enabled | 1: Each Quick/Speed dial number on the list is printed with the dedicated TX parameters (10 bytes each).<br>The first 10 bytes of data are the programmed dedicated TX parameters; 34 bytes of data are printed (the other 24 bytes have no use for service technicians). |
| 4-7 | Not used | Do not change these settings. |

| |
|---|
| System Switch 05 - Not used (Do not change the factory settings.) |
| System Switch 06 - Not used (Do not change the factory settings.) |
| System Switch 07 - Not used (Do not change the factory settings.) |
| System Switch 08 - Not used (Do not change the factory settings.) |

| System Switch 09 (SP No. 1-101-010) | | |
|---|---|---|
| No | Function | Comments |
| 0 | Addition of image data from confidential transmissions on the transmission result report<br>0: Disabled 1: Enabled | If this feature is enabled, the top half of the first page of confidential messages will be printed on transmission result reports. |
| 1 | Print timing of communication reports on the Journal when no image data was exchanged.<br>0: After DCS/NSS communication (default),<br>1: After polling | 0: The Journal is printed only when image data is sent.<br>1: The Journal is printed when any data is sent. |
| 2 | Automatic error report printout<br>0: Disabled 1: Enabled | 0: Error reports will not be printed.<br>1: Error reports will be printed automatically after failed communications. |
| 3 | Printing of the error code on the error report<br>0: No 1: Yes | 1: Error codes are printed on the error reports.<br>This can be used for detecting an error which occurs rarely. |

| | | |
|---|---|---|
| 4 | Not used | Do not change this setting. |
| 5 | Power failure report<br>0: Disabled<br>1: Enabled (default) | 1: A power failure report will be automatically printed after the power is turned ON if a fax message disappeared from the memory when the power was turned off last.<br>**NOTE:** If "0" is selected, no reports are printed and no one may recognize that fax data is gone due to a power failure. |
| 6 | Conditions for printing the protocol dump list<br>0: Print for all communications<br>1: Print only when there is a communication error | This switch becomes effective only when system switch 00 bit 6 is set to 1.<br>1: Set this bit to 1 when you wish to print a protocol dump list only for communications with errors.<br>**NOTE:** The memory size is limited. Use this bit switch only when some log reports are necessary. |
| 7 | Not used | Do not change this setting. |

| System Switch 0A (SP No. 1-101-011) | | |
|---|---|---|
| **No** | **Function** | **Comments** |
| 0 | Automatic port selection<br>0: Disabled, 1: Enabled | When "1" is selected, a suitable port is automatically selected if the selected port is not used.<br>**NOTE:** This bit is useful if all communication lines at a customer site are not the same quality |
| 1-3 | Not used | Do not change these settings. |
| 4 | Dialing on the ten-key pad when the external telephone is off-hook<br>0: Disabled 1: Enabled | 0: Prevents dialing from the ten-key pad while the external telephone is off-hook. Use this setting when the external telephone is not by the machine, or if a wireless telephone is connected as an external telephone.<br>1: The user can dial on the machine's ten-key pad when the handset is off-hook. |
| 5 | On hook dial<br>0: Disabled 1: Enabled | 0: On hook dial is disabled. |
| 6-7 | Not used | Do not change these settings |

| |
|---|
| **System Switch 0B** - Not used (Do not change the factory settings.) |
| **System Switch 0C** - Not used (Do not change the factory settings.) |
| **System Switch 0D** - Not used (Do not change the factory settings.) |

| System Switch 0E (SP No. 1-101-015) | | |
|---|---|---|
| No | Function | Comments |
| 0-1 | Not used | Do not change the settings. |
| 2 | Enable/disable for direct sending selection<br>0: Direct sending off<br>1: Direct sending on | Direct sending cannot operate when the capture function is on during sending. Setting this switch to "1" enables direct sending without capture.<br>Setting this switch to "0" masks the direct sending function on the operation panel so direct sending with ScanRouter cannot be selected. |
| 3 | Action when the external handset goes off-hook<br>0: Manual TX and RX operation<br>1: Memory TX and RX operation (the display remains the same) | 0: Manual TX is possible while the external handset is off-hook. However, manual TX during handset off-hook may not be sent to a correct direction. Manual TX is not possible.<br>1: The display stays in standby mode even when the external handset is used, so that other people can use the machine for memory TX operation. Note that manual TX and RX are not possible with this setting. |
| 4-7 | Not used | Do not change these settings. |

| System Switch 0F (SP No. 1-101-016) | | |
|---|---|---|
| No | Function | Comments |

| | | | |
|---|---|---|---|
| 0<br>to<br>7 | Country/area code for functional settings (Hex) | | This country/area code determines the factory settings of bit switches and RAM addresses. However, it has no effect on the NCU parameter settings and communication parameter RAM addresses.<br>Cross reference<br>NCU country code:<br>SP No. 2-103-001 for G3-1<br>SP No. 2-104-001 for G3-2<br>SP No. 2-105-001 for G3-3 |
| | 00: France | 12: Asia | |
| | 01: Germany | 13: Japan | |
| | 02: UK | 14: Hong Kong | |
| | 03: Italy | 15: South Africa | |
| | 04: Austria | 16: Australia | |
| | 05: Belgium | 17: New Zealand | |
| | 06: Denmark | 18: Singapore | |
| | 07: Finland | 19: Malaysia | |
| | 08: Ireland | 1A: China | |
| | 09: Norway | 1B: Taiwan | |
| | 0A: Sweden | 1C: Korea | |
| | 0B: Switz. | 1D: Brazil | |
| | 0C: Portugal | 20: Turkey | |
| | 0D: Holland | 21: Greece | |
| | 0E: Spain | 22: Hungary | |
| | 0F: Israel | 23: Czech | |
| | 10: --- | 24: Poland | |
| | 11: USA | | |

| System Switch 10 (SP No. 1-101-017) | | |
|---|---|---|
| **No** | **Function** | **Comments** |
| 0-7 | Threshold memory level for parallel memory transmission | Threshold = N x 128 KB + 256 KB<br>N can be between 00 - FF(H)<br>Default setting: 02(H) = 512 KB |

| System Switch 11 (SP No. 1-101-018) | | |
|---|---|---|
| No | Function | Comments |
| 0 | TTI printing position<br>0: Superimposed on the page data<br>1: Printed before the data leading edge | Change this bit to 1 if the TTI overprints information that the customer considers to be important (G3 transmissions).<br>**NOTE:** If "1" is selected, it is possible that sent data is printed on two sheets of paper. |
| 1-2 | Not used | Do not change these settings. |
| 3 | TTI used for broadcasting<br>0: The TTIs selected for each Quick/ Speed dial are used<br>1: The same TTI is used for all destinations | 1: The TTI (TTI_1 or TTI_2) which is selected for all destinations during broadcasting. |
| 4-7 | Not used | Do not change these settings. |

| System Switch 12 (SP No. 1-101-019) | | |
|---|---|---|
| No | Function | Comments |
| 0-7 | TTI printing position in the main scan direction | TTI: 08 to 92 (BCD) mm<br>Input even numbers only.<br>This setting determines the print start position for the TTI from the left edge of the paper. If the TTI is moved too far to the right, it may overwrite the file number which is on the top right of the page. On an A4 page, if the TTI is moved over by more than 50 mm, it may overwrite the page number. |

| |
|---|
| **System Switch 13** - Not used (do not change these settings) |
| **System Switch 14** - Not used (do not change these settings) |

| System Switch 15 (SP No. 1-101-022) | | |
|---|---|---|
| No | Function | Comments |
| 0 | Not used | Do not change the settings. |

<table>
<tr><td>1</td><td colspan="3">Going into the Energy Saver mode automatically<br>0: Enabled<br>1: Disabled</td><td>1: The machine will restart from the Energy Saver mode quickly, because the +5V power supply is active even in the Energy Saver mode. The LED of the operation switch is flashing instead of entering Energy Saver mode.<br>Use this setting if an external telephone has to be used when the machine is in the Energy Saver mode.</td></tr>
<tr><td>2-3</td><td colspan="3">Not used</td><td>Do not change these settings.</td></tr>
<tr><td rowspan="6">4-5</td><td colspan="3">Interval for preventing the machine from entering Energy Saver mode if there is a pending transmission file.</td><td rowspan="6">If there is a file waiting for transmission, the machine does not go to Energy Saver mode during the selected period.<br>After transmitting the file, if there is no file waiting for transmission, the machine goes to the Energy Saver mode.</td></tr>
<tr><td>Bit 5</td><td>Bit 4</td><td>Setting</td></tr>
<tr><td>0</td><td>0</td><td>1 min</td></tr>
<tr><td>0</td><td>1</td><td>30 min</td></tr>
<tr><td>1</td><td>0</td><td>1 hour</td></tr>
<tr><td>1</td><td>1</td><td>24 hours</td></tr>
<tr><td>6-7</td><td colspan="3">Not used</td><td>Do not change</td></tr>
</table>

| System Switch 16 (SP No. 1-101-023) | | |
|---|---|---|
| No | Function | Comments |
| 0 | Parallel Broadcasting<br>0: Disabled<br>1: Enabled | 1: The machine sends messages simultaneously using all available ports during broadcasting.<br>**NOTE:** If a customer wants to keep a line available for fax reception or other reasons, select "0" (Disable). |
| 1-7 | Not used | Do not change these settings. |

| |
|---|
| **System Switch 17** - Not used (do not change these settings) |
| **System Switch 18** - Not used (do not change these settings) |

| System Switch 19 (SP No. 1-101-026) |
|---|

| No | Function | Comments |
|---|---|---|
| 0-5 | Not used | Do not change the settings. |
| 6 | Extended scanner page memory after memory option is installed<br>0: Disabled<br>1: Enabled | 0: After installing the memory expansion option, the scanner page memory is extended to 4 MB from 2 MB.<br>1: If this bit is set to 1 after installing the memory expansion option, the scanner page memory is extended to 12 MB. But the SAF memory decreases to 18 MB. |
| 7* | Special Original mode<br>0: Disabled<br>1: Enabled | 1: If the customer frequently wishes to transmit a form or letterhead which has a colored or printed background, change this bit to "1". "Original 1" and "Original 2" can be selected in addition to the "Text", "Text/Photo" and "Photo" modes. |

* This setting can be used for the client machine which has no FCU.

| System Switch 1A (SP No. 1-101-027) | | |
|---|---|---|
| No | Function | Comments |
| 0<br>to<br>7 | LS RX memory capacity threshold setting<br>00-FF (0-1020 Kbyte: Hex) | Sets the value to x4KB. When the amount of available memory drops below this setting, RX documents are printed to conserve memory.<br>Initial setting 0x80 (512 KB)<br>**Note**<br>• If a customer wants available memory size to be larger, decrease this threshold. |

| |
|---|
| **System Switch 1B** - Not used (do not change these settings) |
| **System Switch 1C** - Not used (do not change these settings) |

| System Switch 1D (SP No. 1-101-030) | | |
|---|---|---|
| No | Function | Comments |

| | | |
|---|---|---|
| 0 | RTI/CSI/CPS code display<br>0: Enable<br>1: Disable | 0: RTI, CSI, CPS codes are displayed on the top line of the LCD panel during communication.<br>1: Codes are switched off (no display) |
| 1-7 | Not used | Do not change these settings. |

| System Switch 1E (SP No. 1-101-031) | | |
|---|---|---|
| No | Function | Comments |
| 0 | Communication after the Journal data storage area has become full<br>0: Impossible<br>1: Possible | 0: When this switch is on and the journal history becomes full, the next report prints. If the journal history is not deleted, the next transmission cannot be received. This prevents overwriting communication records before the machine can print them.<br>1: If the buffer memory of the communication records for the Journal is full, fax communications are still possible. But the machine will overwrite the oldest communication records.<br>**Note**<br>• This setting is effective only when Automatic Journal printout is enabled but the machine cannot print the report (e.g., no paper). |
| 1* | Action when the SAF memory has become full during scanning<br>0: The current page is erased.<br>1: The entire file is erased. | 0: If the SAF memory becomes full during scanning for a memory transmission, the successfully scanned pages are transmitted.<br>1: If the SAF memory becomes full during scanning for a memory transmission, the file is erased and no pages are transmitted.<br>**Note**<br>• This setting is effective only when Automatic Journal printout is enabled but the machine cannot print the report (e.g., no paper). |
| 2 | RTI/CSI display priority<br>0: RTI 1: CSI | This bit determines which identifier, RTI or CSI, is displayed on the LCD while the machine is communicating in G3 non-standard mode. |

| | | |
|---|---|---|
| 3 | File No. printing<br>0: Enabled<br>1: Disabled | 1: File numbers are not printed on any reports.<br>**NOTE:** The file numbers may not be printed in the sequential order. If a customer does not like this numbering, select "0". |
| 4 | Action when authorized reception is enabled but authorized RTIs/CSIs are not yet programmed<br>0: All fax reception is disabled<br>1: Faxes can be received if the sender has an RTI or CSI | 0: If the user has stored no acceptable sender RTIs or CSIs, the user can select "ON" in the authorized reception setting but the setting becomes invalid ("OFF"). The machine will not be able to receive any fax messages.<br>If the customer wishes to receive messages from any sender that includes an RTI or CSI, and to block messages from senders that do not include an RTI or CSI, change this bit to "0", then enable Authorized Reception.<br>Otherwise, keep this bit at "1 (default setting)". |
| 5-7 | Not used | Do not change the settings |

* This setting can be used for the client machine which has no FCU.

| System Switch 1F (SP No. 1-101-032) | | |
|---|---|---|
| No | Function | Comments |
| 0 | Not used | Do not change the settings. |
| 1 | Report printout after an original jam during SAF storage or if the SAF memory fills up<br>0: Enabled<br>1: Disabled | 0: When an original jams, or the SAF memory overflows during scanning, a report will be printed.<br>Change this bit to "1" if the customer does not want to have a report in these cases.<br>Memory TX – Memory storage report<br>Parallel memory TX – Transmission result report |
| 2 | Not used | Do not change the settings. |
| 3 | Received fax print start timing<br>(G3 reception)<br>0: After receiving each page<br>1: After receiving all pages | 0: The machine prints each page immediately after the machine receives it.<br>1: The machine prints the complete message after the machine receives all the pages in the memory. |
| 4-6 | Not used | Do not change the factory settings. |

| | | |
|---|---|---|
| 7 | Action when a fax SC has occurred<br>0: Automatic reset<br>1: Fax unit stops | 0: When the fax unit detects a fax SC code other than SC1201 and SC1207, the fax unit automatically resets itself.<br>1: When the fax unit detects any fax SC code, the fax unit stops.<br>**Reference:**<br>For fax SC codes, see "Troubleshooting". |

# Bit Switches - 2

**Important**

- Do not adjust a bit switch or use a setting that is described as "Not used", as this may cause the machine to malfunction or to operate in a manner that is not accepted by local regulations. Such bits are for use only in other areas, such as Japan.

Default settings for bit switches are not listed in this manual. Refer to the System Parameter List printed by the machine.

## I-Fax Switches

| I-fax Switch 00 (SP No. 1-102-001) | | |
|---|---|---|
| No | Function | Comments |
| Original Width of TX Attachment File | | This setting sets the maximum size of the original that the destination can receive. (Bits 3 to 6 are reserved for future use or not used.) |
| 0 | A4 | - |
| 1 | B4 | |
| 2 | A3 | |
| 3-6 | Reserved | |
| 7 | Not used | |
| | 0: Off (not selected), 1: On (selected)<br>If more than one of these three bits is set to "1", the larger size has priority. For example, if both Bit 2 and Bit 1 are set to "1" then the maximum size is "A3" (Bit 2).<br>When mail is sent, there is no negotiation with the receiving machine at the destination, so the sending machine cannot make a selection for the receiving capabilities (original width setting) of the receiving machine. The original width selected with this switch is used as the RX machine's original width setting, and the original is reduced to this size before sending. The default is A4.<br>If the width selected with this switch is higher than the receiving machine can accept, the machine detects this and this causes an error. | |

| I-fax Switch 01 (SP No. 1-102-002) |
|---|

| No | Function | Comments |
|---|---|---|
| Original Line Resolution of TX Attachment File | | These settings set the maximum resolution of the original that the destination can receive. |
| 0 | 200x100 Standard | 0: Not selected<br>1: Selected<br>If more than one of these three bits is set to "1", the higher resolution has priority. For example, if both Bit 0 and Bit 2 are set to "1" Then The Resolution is set for "Bit 2 200 x 400. |
| 1 | 200x200 Detail | |
| 2 | 200x400 Fine | |
| 3 | 300 x 300 Reserve | |
| 4 | 400 x 400 Super Fine | |
| 5 | 600 x 600 Reserve | |
| 6 | Reserve | |
| 7 | mm/inch | |
| | This setting selects mm/inch conversion for mail transmission.<br>0: Off (No conversion), 1: On (Conversion)<br>When on (set to "1"), the machine converts millimeters to inches for sending mail. There is no switch for converting inches to millimeters.<br>Unlike G3 fax transmissions which can negotiate between sender and receiver to determine the setting, mail cannot negotiate between terminals; the mm/inch selection is determined by the sender fax.<br>When this switch is Off (0):<br>• Images scanned in inches are sent in inches.<br>• Images scanned in mm are sent in mm.<br>• Images received in inches are transmitted in inches.<br>• Images received in mm are transmitted in mm.<br>When this switch is On (1):<br>• Images scanned in inches are sent in inches.<br>• Images scanned in mm are converted to inches.<br>• Images received in inches are transmitted in inches.<br>• Images received in mm are converted to inches. | |

| I-fax Switch 02 (SP No. 1-102-003) | | |
|---|---|---|
| No | Function | Comments |

| | |
|---|---|
| 0 | RX Text Mail Header Processing |
| | This setting determines whether the header information is printed with text e-mails when they are received.<br>0: Prints only text mail.<br>1: Prints mail header information attached to text mail.<br>When a text mail is received with this switch On (1), the "From" address and "Subject" address are printed as header information.<br>When a mail with only binary data is received (a TIFF-F file, for example), this setting is ignored and no header is printed. |
| 1 | Output from Attached Document at E-mail TX Error |
| | This setting determines whether only the first page or all pages of an e-mail attachment are printed at the sending station when a transmission error occurs. This allows the customer to see which documents have not reached their intended destinations if sent to the wrong e-mail addresses, for example.<br>0: Prints 1st page only.<br>1: Prints all pages. |
| 2-3 | Text String for Return Receipt |
| | This setting determines the text string output for the Return Receipt that confirms the transmission was received normally at the destination. |

| | |
|---|---|
| | 00: "Dispatched"<br>Sends from PC mail a request for a Return Receipt. Receives the Return Receipt with "dispatched" in the 2nd part:<br>Disposition: Automatic-action/MDN-send automatically; dispatched<br>The "dispatched" string is included in the Subject string.<br>01: "Displayed"<br>Sends from PC mail a request for a Return Receipt. Receives the Return Receipt with "displayed" in the 2nd part:<br>Disposition: Automatic-action/MDN-send automatically; displayed<br>The "displayed" string is included in the Subject string.<br>10: Reserved<br>11: Reserved<br>A mail requesting a Return Receipt sent from an IFAX with this switch set to "00" (for "dispatched") received by Microsoft Outlook 2000 may cause an error. If any setting other than "displayed" (01) causes a problem, change the setting to "01" to enable normal sending of the Return Receipt. |
| 4 | Media accept feature |
| | This setting adds or does not add the media accept feature to the answer mail to confirm a reception.<br>0: Does not add the media accept feature to the answer mail<br>1: Adds the media accept feature to the answer mail.<br>Use this bit switch if a problem occurs when the machine receives an answer mail, which contains the media accept feature field. |
| 5-6 | Not Used |
| 7 | Image Resolution of RX Text Mail |
| | This setting determines the image resolution of the received mail.<br>0: 200 x 200<br>1: 400 x 400<br>The "1" setting requires installation of the Memory Unit in order to have enough SAF (Store and Forward) memory to receive images at 400 x 400 resolution. |

**I-fax Switch 03** - Not used (do not change these settings)

| I-fax Switch 04 (SP No. 1-102-005) | | |
|---|---|---|
| No | Function | Comments |
| 0 | Subject for Delivery TX/Memory Transfer | |
| | This setting determines whether the RTI/CSI registered on this machine or the RTI/CSI of the originator is used in the subject lines of transferred documents.<br>0: Puts the RTI/CSI of the originator in the Subject line. If this is used, either the RTI or CSI is used. Only one of these can be received for use in the subject line.<br>1: Puts the RTI/CSI registered on this machine in the Subject line.<br>When this switch is used to transfer and deliver mail to a PC, the information in the Subject line that indicates where the transmission originated can be used to determine automatically the destination folder for each e-mail. | |
| 1 | Subject corresponding to mail post database<br>0: Standard subject<br>1: Mail post database subject<br>The standard subject is replaced by the mail post database subject in the following three cases:<br>1) When the service technician sets the service (software) switch.<br>2) When memory sending or delivery specified by F code is applied by the SMTP server<br>3) With relay broadcasting (1st stage without the Schmidt 4 function).<br>**Note**<br>• This switch does not apply for condition 3) when the RX system is set up for memory sending, delivery by F-code, sending with SMTP RX and when operators are using FOL (to prevent problems when receiving transmissions). | |
| 2-7 | Not Used | |

| I-fax Switch 05 (SP No. 1-102-006) | | |
|---|---|---|
| No | Function | Comments |

| | |
|---|---|
| 0 | Mail Addresses of SMTP Broadcast Recipients |
| | Determines whether the e-mail addresses of the destinations that receive transmissions broadcasted using SMTP protocol are recorded in the Journal.<br>For example:<br>"1st destination + Total number of destinations: 9" in the Journal indicates a broadcast to 9 destinations.<br>0: Not recorded<br>1: Recorded |
| 1 | IFAXTX Retries |
| | Determines whether the machine retries sending IFAX when connection and transmission fails due to errors.<br>0: Disabled<br>1: Enabled |
| 2 | Size Setting: Tiff: Mail/Folder |
| | Enables or disables a function to adjust the file size in the main scan direction when sending a TIFF file to e-mail destination or folder destination.<br>0: OFF (Disable)<br>1: ON (Enable) |
| 3-7 | Not Used |

| |
|---|
| **I-fax Switch 06** - Not used (do not change the settings) |
| **I-fax Switch 07** - Not used (do not change the settings) |

| I-fax Switch 08 (SP No. 1-102-009) | | |
|---|---|---|
| **No** | **Function** | **Comments** |
| 0-7 | Memory Threshold for POP Mail Reception | |
| | This setting determines the amount of SAF (Store and Forward) memory. (SAF stores fax messages to send later for transmission to more than one location, and also holds incoming messages if they cannot be printed.) When the amount of SAF memory available falls below this setting, mail can no longer be received; received mail is then stored on the mail server.<br>00-FF (0 to 1024 KB: HEX)<br>The hexadecimal number you enter is multiplied by 4 KB to determine the amount of memory. | |

| I-fax Switch 09 (SP No. 1-102-010) | | |
|---|---|---|
| No | Function | Comments |
| 0-3 | Not used | Do not change the settings |
| 4-7 | Restrict TX Retries | This setting determines the number of retries when connection and transmission fails due to errors.<br>01-F (1-15 Hex) |

| | |
|---|---|
| **I-fax Switch 0A** - Not used (do not change the settings) |
| **I-fax Switch 0B** - Not used (do not change the settings) |
| **I-fax Switch 0C** - Not used (do not change the settings) |

<table>
<tr><th colspan="5">I-fax Switch 0D (SP No. 1-102-014)</th></tr>
<tr><th>No</th><th colspan="3">Function</th><th>Comments</th></tr>
<tr><td>0-1</td><td colspan="3">Not used</td><td>Do not change the settings</td></tr>
<tr><td rowspan="6">2-3</td><td colspan="3">Select the signature when sending mail notification of the send results</td><td rowspan="6">In response to IEEE2600.1.</td></tr>
<tr><td>Bit 2</td><td>Bit 3</td><td>Setting</td></tr>
<tr><td>0</td><td>0</td><td>No sign</td></tr>
<tr><td>0</td><td>1</td><td>No setting</td></tr>
<tr><td>1</td><td>0</td><td>Individual setting</td></tr>
<tr><td>1</td><td>1</td><td>Always sign</td></tr>
<tr><td>4-5</td><td colspan="3">Select the signature when sending mail.</td><td rowspan="6">In response to IEEE2600.1.</td></tr>
<tr><td rowspan="5"></td><td>Bit 5</td><td>Bit 4</td><td>Setting</td></tr>
<tr><td>0</td><td>0</td><td>No sign</td></tr>
<tr><td>0</td><td>1</td><td>No setting</td></tr>
<tr><td>1</td><td>0</td><td>Individual setting</td></tr>
<tr><td>1</td><td>1</td><td>Always sign</td></tr>
<tr><td>6-7</td><td colspan="3">Not used</td><td>Do not change the settings.</td></tr>
</table>

| **I-fax Switch 0E** - Not used (do not change the settings) |
|---|

| I-fax Switch 0F (SP No. 1-102-016) | | |
|---|---|---|
| No | Function | Comments |
| 0 | Delivery Method for SMTP RX Files | |
| | This setting determines whether files received with SMTP protocol are delivered or output immediately.<br>0: Off. Files received via SMTP are output immediately without delivery.<br>1: On. Files received via SMTP are delivered immediately to their destinations. | |
| 1 | Set to select the signature when receiving SMTP mail. | |
| | 0: No sign<br>1: Always sign | |
| 2 | Set to encrypt the data when receiving SMTP mail. | |
| | 0: No encryption<br>1: Encryption | |
| 3-7 | Not used | |

## Printer Switches

| Printer Switch 00 (SP No. 1-103-001) | | |
|---|---|---|
| No | Function | Comments |

| | | |
|---|---|---|
| 0 | Select page separation marks<br>0: Off<br>1: On | 0: If a 2 page RX transmission is split, [*] is printed in the bottom right corner of the 1st page and only a [2] is printed in the upper right corner of the 2nd page.<br>1: If a 2 page RX transmission is split into two pages, for example, [*] [2] is printed in the bottom right corner of the 1st page and only a [2] is printed in the upper right corner of the 2nd page.<br>**Note**<br>• This helps the user to identify pages that have been split because the size of the paper is smaller than the size of the document received. (When A5 is used to print an A4 size document, for example.) |
| 1 | Repetition of data when the received page is longer than the printer paper<br>0: Off<br>1: On | 1: Default. 10 mm of the trailing edge of the previous page are repeated at the top of the next page.<br>0: The next page continues from where the previous page stopped without any repeated text. |
| 2 | Prints the date and time on received fax messages<br>0: Disabled<br>1: Enabled | This switch is only effective when user parameter 02 - bit 2 (printing the received date and time on received fax messages) is enabled.<br>1: The machine prints the received and printed date and time at the bottom of each received page. |
| 3-7 | Not used | Do not change the settings. |

| Printer Switch 01 (SP No. 1-103-002) | | |
|---|---|---|
| No | Function | Comments |
| 0-6 | Not used | Do not change the settings. |

| | | |
|---|---|---|
| 7 | Received message width restriction in the protocol signal to the sender<br>0: Disabled<br>1: Enabled | 0: The machine informs the transmitting machine of the print width depending on the paper size available from the paper feed stations.<br>Refer to the table on the next page for how the machine chooses the paper width used in the setup protocol (NSF/DIS).<br>1: The machine informs the transmitting machine of the fixed paper width which is specified by bits 3 and 4 above. |

**Relationship between available paper sizes and printer width used in the setup protocol**

| Available Paper Size | Printer width used in the Protocol (NSF/DIS) |
|---|---|
| A4 or 8.5" x 11" | 297 mm width |
| B5 | 256 mm width |
| A5 or 8.5" x 5.5" | 216 mm width |
| No paper available (Paper end) | 216 mm width |

| Printer Switch 02 (SP No. 1-103-003) | | |
|---|---|---|
| No | Function | Comments |

| | | |
|---|---|---|
| 0* | 1st paper feed station usage for fax printing<br>0: Enabled<br>1: Disabled | 0: The paper feed station can be used to print fax messages and reports.<br>1: The specified paper feed station will not be used for printing fax messages and reports.<br>**Note**<br>• Do not disable usage for a paper feed station which has been specified by User Parameter Switch 0F (15), or which is used for the Specified Cassette Selection feature. |
| 1* | 2nd paper feed station usage for fax printing<br>0: Enabled<br>1: Disabled | |
| 2* | 3rd paper feed station usage for fax printing<br>0: Enabled<br>1: Disabled | |
| 3* | 4th paper feed station usage for fax printing<br>0: Enabled<br>1: Disabled | |
| 4* | LCT usage for fax printing<br>0: Enabled<br>1: Disabled | |
| 5-7 | Not used | Do not change the settings. |

* This setting can be used for the client machine which has no FCU.

| Printer Switch 03 (SP No. 1-103-004) | | |
|---|---|---|
| No | Function | Comments |
| 0* | Length reduction of received data<br>0: Disabled<br>1: Enabled | 0: Incoming pages are printed without length reduction.<br>(Page separation threshold: Printer Switch 03, bits 4 to 7)<br>1: Incoming page length is reduced when printing.<br>(Maximum reducible length: Printer Switches 04, bits 0 to 4) |
| 1-3 | Not used | Do not change the settings |

| | | |
|---|---|---|
| 4<br>to<br>7 | Page separation setting when sub scan compression is forbidden<br>00-0F (0-15 mm: Hex)<br>Default: 6 mm | Page separation threshold (with reduction disabled with switch 03-0 above).<br>For example, if this setting is set to "10", and A4 is the selected paper size:<br>If the received document is 10 mm or less longer than A4, then the 10 mm are cut and only 1 page prints.<br>If the received document is 10 mm longer than A4, then the document is split into 2 pages. |

* This setting can be used for the client machine which has no FCU.

<table>
<tr><th colspan="7">Printer Switch 04 (SP No. 1-103-005)</th></tr>
<tr><th>No</th><th colspan="3">Function</th><th colspan="3">Comments</th></tr>
<tr><td rowspan="7">0<br>to<br>4</td><td colspan="6">Maximum reducible length when length reduction is enabled with switch 03-0 above.<br>[Maximum reducible length] = [Paper length] + (N x 5mm)<br>"N" is the decimal value of the binary setting of bits 0 to 4.</td></tr>
<tr><td>Bit 4</td><td>Bit 3</td><td>Bit 2</td><td>Bit 1</td><td>Bit 0</td><td>Setting</td></tr>
<tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0 mm</td></tr>
<tr><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>5 mm</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>0</td><td>0</td><td>20 mm</td></tr>
<tr><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>155 mm</td></tr>
<tr><td colspan="6">For A5 sideways and B5 sideways paper<br>[Maximum reducible length] = [Paper length] + 0.75 x (N x 5mm)</td></tr>
<tr><td rowspan="6">5<br>6</td><td colspan="6">Length of the duplicated image on the next page, when page separation has taken place.</td></tr>
<tr><td colspan="2">Bit 6</td><td colspan="2">Bit 5</td><td colspan="2">Setting</td></tr>
<tr><td colspan="2">0</td><td colspan="2">0</td><td colspan="2">4 mm</td></tr>
<tr><td colspan="2">0</td><td colspan="2">1</td><td colspan="2">10 mm</td></tr>
<tr><td colspan="2">1</td><td colspan="2">0</td><td colspan="2">15 mm</td></tr>
<tr><td colspan="2">1</td><td colspan="2">1</td><td colspan="2">Not used</td></tr>
<tr><td>7</td><td colspan="3">Not used.</td><td colspan="3">Do not change the setting.</td></tr>
</table>

| |
|---|
| **Printer Switch 05** - Not used (do not change the settings) |

| Printer Switch 06 (SP No. 1-103-007) | | |
|---|---|---|
| **No** | **Function** | **Comments** |
| 0* | Printing while a paper cassette is pulled out, when the Just Size Printing feature is enabled.<br>0: Printing will not start<br>1: Printing will start if another cassette has a suitable size of paper, based on the paper size selection priority tables. | **Reference:**<br>Just size printing on/off – User switch 05, bit 5 |
| 1-7 | Not used. | Do not change the settings. |

* This setting can be used for the client machine which has no FCU.

| Printer Switch 07 (SP No. 1-103-008) | | |
|---|---|---|
| **No** | **Function** | **Comments** |
| 0-3 | Not used. | Do not change the settings. |
| 4 | Receiver name printed on the transmission result report | Selects the printing target on the transmission result report.<br>0: All receivers<br>1: Printing only receivers which have received fax transmission. |
| 5-7 | Not used. | Do not change the settings. |

| |
|---|
| **Printer Switch 08** - Not used (do not change the settings) |
| **Printer Switch 09** - Not used (do not change the settings) |
| **Printer Switch 0A** - Not used (do not change the settings) |
| **Printer Switch 0B** - Not used (do not change the settings) |
| **Printer Switch 0C** - Not used (do not change the settings) |

<table>
<tr><th colspan="5">Printer Switch 0E (SP No. 1-103-015)</th></tr>
<tr><th>No</th><th colspan="3">Function</th><th>Comments</th></tr>
<tr><td>0*</td><td colspan="3">Paper size selection priority<br>0: Width<br>1: Length</td><td>0: A paper size that has the same width as the received data is selected first.<br>1: A paper size which has enough length to print all the received lines without reduction is selected first.</td></tr>
<tr><td>1*</td><td colspan="3">Paper size selected for printing A4 width fax data<br>0: 8.5" x 11" size<br>1: A4 size</td><td>This switch determines which paper size is selected for printing A4 width fax data, when the machine has both A4 and 8.5" x 11" size paper.</td></tr>
<tr><td>2</td><td colspan="3">Page separation<br>0: Enabled<br>1: Disabled</td><td>1: If all paper sizes in the machine require page separation to print a received fax message, the machine does not print the message (Substitute Reception is used).<br>After a larger size of paper is set in a cassette, the machine automatically prints the fax message.</td></tr>
<tr><td rowspan="6">3-4</td><td colspan="3">Printing the sample image on reports</td><td rowspan="6">"Same size" means the sample image is printed at 100%, even if page separation occurs.<br>User Parameter Switch 19 (13H) bit 4 must be set to "0" to enable this switch.</td></tr>
<tr><td>Bit 4</td><td>Bit 3</td><td>Setting</td></tr>
<tr><td>0</td><td>0</td><td>The upper half only</td></tr>
<tr><td>0</td><td>1</td><td>50% reduction (sub-scan only)</td></tr>
<tr><td>1</td><td>0</td><td>Same size</td></tr>
<tr><td>1</td><td>1</td><td>Not used</td></tr>
<tr><td>5-6</td><td colspan="3">Not used</td><td>Do not change the settings.</td></tr>
<tr><td>7</td><td colspan="3">Equalizing the reduction ratio among separated pages<br>(Page Separation)<br>0: Enabled<br>1: Disabled</td><td>0: When page separation has taken place, all the pages are reduced with the same reduction ratio.<br>1: Only the last page is reduced to fit the selected paper size when page separation has taken place. Other pages are printed without reduction.</td></tr>
</table>

* This setting can be used for the client machine which has no FCU.

| Printer Switch 0F (SP No. 1-103-016) | | | | |
|---|---|---|---|---|
| No | Function | | | Comments |
| 0-1* | Smoothing feature | | | (0, 0) (0, 1): Disable smoothing if the machine receives halftone images from other manufacturers fax machines frequently. |
| | Bit 1 | Bit 0 | Setting | |
| | 0 | 0 | Disabled | |
| | 0 | 1 | Disabled | |
| | 1 | 0 | Enabled | |
| | 1 | 1 | Not used | |
| 2* | Duplex printing<br>0: Disabled<br>1: Enabled | | | 1: The machine always prints received fax messages in duplex printing mode: |
| 3 | Binding direction for Duplex printing<br>0: Left binding<br>1: Top binding | | | 0: Sets the binding for the left edge of the stack.<br>1: Sets the binding for the top of the stack. |
| 4-7 | Not used | | | Do not change the settings. |

* This setting can be used for the client machine which has no FCU.

# Bit Switches - 3

**Important**

- Do not adjust a bit switch or use a setting that is described as "Not used", as this may cause the machine to malfunction or to operate in a manner that is not accepted by local regulations. Such bits are for use only in other areas, such as Japan.

Default settings for bit switches are not listed in this manual. Refer to the System Parameter List printed by the machine.

## Communication Switches

| Communication Switch 00 (SP No. 1-104-001) | | | | |
|---|---|---|---|---|
| No | Function | | | Comments |
| 0-1 | Compression modes available in receive mode | | | These bits determine the compression capabilities to be declared in phase B (handshaking) of the T.30 protocol. |
| | Bit 1 | Bit 0 | Modes | |
| | 0 | 0 | MH only | |
| | 0 | 1 | MH/MR | |
| | 1 | 0 | MH/MR/MMR | |
| | 1 | 1 | MH/MR/MMR/JBIG | |
| 2-3 | Compression modes available in transmit mode | | | These bits determine the compression capabilities to be used in the transmission and to be declared in phase B (handshaking) of the T.30 protocol. |
| | Bit 3 | Bit 2 | Modes | |
| | 0 | 0 | MH only | |
| | 0 | 1 | MH/MR | |
| | 1 | 0 | MH/MR/MMR | |
| | 1 | 1 | MH/MR/MMR/JBIG | |
| 4 | Not used | | | Do not change the settings. |
| 5 | JBIG compression method: Reception<br>0: Only basic supported<br>1: Basic and optional both supported | | | Change the setting when communication problems occur using JBIG compression. |

| | | |
|---|---|---|
| 6 | JBIG compression method: Transmission<br>0: Basic mode priority<br>1: Optional mode priority | Change the setting when communication problems occur using JBIG compression. |
| 7 | Closed network (reception)<br>0: Disabled<br>1: Enabled | 1: Reception will not go ahead if the polling ID code of the remote terminal does not match the polling ID code of the local terminal. This function is only available in NSF/NSS mode. |

<table>
<tr><th colspan="5">Communication Switch 01 (SP No. 1-104-002)</th></tr>
<tr><th>No</th><th colspan="3">Function</th><th>Comments</th></tr>
<tr><td>0</td><td colspan="3">ECM<br>0: Off 1: On</td><td>If this bit is set to 0, ECM is switched off for all communications.<br>In addition, V.8 protocol and JBIG compression are switched off automatically.</td></tr>
<tr><td>1</td><td colspan="3">Not used</td><td>Do not change the setting.</td></tr>
<tr><td rowspan="7">2-3</td><td colspan="3">Wrong connection prevention method</td><td rowspan="7">(0,1): The machine will disconnect the line without sending a fax message, if the last 8 digits of the received CSI do not match the last 8 digits of the dialed telephone number. This does not work when manually dialed.<br>(1,0): The same as above, except that only the last 4 digits are compared.<br>(1,1): The machine will disconnect the line without sending a fax message, if the other end does not identify itself with an RTI or CSI.<br>(0,0): Nothing is checked; transmission will always go ahead.<br><b>Note</b><br>• This function does not work when dialing is done from the external telephone.</td></tr>
<tr><td>Bit 3</td><td>Bit 2</td><td>Setting</td></tr>
<tr><td>0</td><td>0</td><td>None</td></tr>
<tr><td>0</td><td>1</td><td>8 digit CSI</td></tr>
<tr><td>1</td><td>0</td><td>4 digit CSI</td></tr>
<tr><td>1</td><td>1</td><td>CSI/RTI</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td>4-5</td><td colspan="3">Not used</td><td>Do not change the setting.</td></tr>
</table>

<table>
<tr><td rowspan="6">6-7</td><td colspan="3">Maximum printable page length available</td><td rowspan="6">The setting determined by these bits is informed to the transmitting terminal in the pre-message protocol exchange (in the DIS/NSF frames).</td></tr>
<tr><td>Bit 7</td><td>Bit 6</td><td>Setting</td></tr>
<tr><td>0</td><td>0</td><td>No limit</td></tr>
<tr><td>0</td><td>1</td><td>B4 (364 mm)</td></tr>
<tr><td>1</td><td>0</td><td>A4 (297 mm)</td></tr>
<tr><td>1</td><td>1</td><td>Not used</td></tr>
</table>

<table>
<tr><th colspan="4">Communication Switch 02 (SP No. 1-104-003)</th></tr>
<tr><th>No</th><th>Function</th><th colspan="2">Comments</th></tr>
<tr><td rowspan="5">0</td><td rowspan="5">G3 Burst error threshold<br>0: Low 1: High</td><td colspan="2">If there are more consecutive error lines in the received page than the threshold, the machine will send a negative response. The Low and High threshold values depend on the sub-scan resolution, and are as follows.</td></tr>
<tr><td>100 dpi</td><td>6(L) →12(H)</td></tr>
<tr><td>200 dpi</td><td>12(L) →24(H)</td></tr>
<tr><td>300 dpi</td><td>18(L) →36(H)</td></tr>
<tr><td>400 dpi</td><td>24(L) →48(H)</td></tr>
<tr><td>1</td><td>Acceptable total error line ratio<br>0: 5% 1: 10%</td><td colspan="2">If the error line ratio for a page exceeds the acceptable ratio, RTN will be sent to the other end.</td></tr>
<tr><td>2</td><td>Treatment of pages received with errors during G3 reception<br>0: Deleted from memory without printing<br>1: Printed</td><td colspan="2">0: Pages received with errors are not printed.</td></tr>
</table>

| | | |
|---|---|---|
| 3 | Hang-up decision when a negative code (RTN or PIN) is received during G3 immediate transmission<br>0: No hang-up, 1: Hang-up | 0: The next page will be sent even if RTN or PIN is received.<br>1: The machine will send DCN and hang up if it receives RTN or PIN.<br>This bit is ignored for memory transmissions or if ECM is being used. |
| 4-7 | Not used | Do not change these settings. |

| Communication Switch 03 (SP No. 1-104-004) | | |
|---|---|---|
| No | Function | Comments |
| 0-7 | Maximum number of page retransmissions in a G3 memory transmission | 00 - FF (Hex) times.<br>This setting is not used if ECM is switched on.<br>Default setting - 03(H) |

| Communication Switch 04 (SP No. 1-104-005) | | |
|---|---|---|
| No | Function | Comments |
| 0 | Remote mode switch (TEL mode)<br>0: Disable<br>1: Enable (Active) | Set this bit to ON when you wish to switch TEL mode to FAX mode remotely. |
| 1 | Remote mode switch (FAX mode)<br>0: Disable<br>1: Enable (Active) | Set this bit to ON when you wish to turn on the remote mode switch after automatic reception with FAX mode. |
| 2 | Remote mode switch (AUTO mode)<br>0: Disable<br>1: Enable (Active) | Set this bit to ON when you wish to turn on the remote mode switch after automatic reception with AUTO mode. |
| 3-7 | Not used | Do not change the settings. |

| Communication Switch 05 (SP No. 1-104-006) | | |
|---|---|---|
| No | Function | Comments |
| 0-3 | Remote mode switch number<br>00-09 (0-9:HEX) | Enter the number to switch between TEL/FAX modes using the external phone. |

| | | |
|---|---|---|
| 4-7 | Not used | Do not change the settings. |

| |
|---|
| **Communication Switch 06** - Not used (do not change the settings) |
| **Communication Switch 07** - Not used (do not change the settings) |
| **Communication Switch 08** - Not used (do not change the settings) |

| Communication Switch 09 (SP No. 1-104-009) | | |
|---|---|---|
| No | Function | Comments |
| 0-7 | Minimum interval between automatic dialing attempts | This value is the minimum time that the machine waits before it dials the next destination. |

| Communication Switch 0A (SP No. 1-104-011) | | |
|---|---|---|
| No | Function | Comments |
| 0 | Point of resumption of memory transmission upon redialing<br>0: From the error page<br>1: From page 1 | 0: The transmission begins from the page where transmission failed the previous time.<br>1: Transmission begins from the first page, using normal memory transmission. |
| 1-7 | Not used | Do not change these settings. |

| Communication Switch 0B (SP No. 1-104-012) | | |
|---|---|---|
| No | Function | Comments |
| 0-3 | Not used | Do not change these settings. |
| 4 | Printout of the message when acting as a Transfer Station<br>0: Disabled, 1: Enabled | When the machine is acting as a Transfer Station, this bit determines whether the machine prints the fax message coming in from the Requesting Terminal. |
| 5-7 | Not used | Do not change the settings. |

| |
|---|
| **Communication Switch 0C** - Not used (do not change the settings) |

| Communication Switch 0D (SP No. 1-104-014) |
|---|

| No | Function | Comments |
|---|---|---|
| 0-7 | The available memory threshold, below which ringing detection (and therefore reception into memory) is disabled | 00 to FF (Hex), unit = 4 Kbytes<br>(e.g., 06(H) = 24 Kbytes)<br>One page is about 24 Kbytes.<br>The machine refers to this setting before each fax reception. If the amount of remaining memory is below this threshold, the machine cannot receive any fax messages.<br>If this setting is kept at 0, the machine will detect ringing signals and go into receive mode even if there is no memory available. This will result in communication failure. |

| Communication Switch 0E (SP No. 1-104-015) | | |
|---|---|---|
| No | Function | Comments |
| 0-7 | Minimum interval between automatic dialing attempts | 06 to FF (Hex), unit = 2 s<br>(e.g., 06(H) = 12 s)<br>This value is the minimum time that the machine waits before it dials the next destination. |

| Communication Switch 0F – Not used (do not change the settings.) |
|---|

| Communication Switch 10 (SP No. 1-104-017) | | |
|---|---|---|
| No | Function | Comments |
| 0-7 | Memory transmission: Maximum number of dialing attempts to the same destination | 01 – FE (Hex) times |

| Communication Switch 11 – Not used (do not change the settings.) |
|---|

| Communication Switch 12 (SP No. 1-104-019) | | |
|---|---|---|
| No | Function | Comments |

| | | |
|---|---|---|
| 0-7 | Memory transmission: Interval between dialing attempts to the same destination | 01 – FF (Hex) minutes |

| **Communication Switch 13** – Not used (do not change the settings.) |
|---|

<table>
<tr><th colspan="5">Communication Switch 14 (SP No. 1-104-021)</th></tr>
<tr><th>No</th><th colspan="3">Function</th><th>Comments</th></tr>
<tr><td>0</td><td colspan="3">Inch-to-mm conversion during transmission<br>0: Disabled, 1: Enabled</td><td>0: In immediate transmission, data scanned in inch format are transmitted without conversion.<br>In memory transmission, data stored in the SAF memory in mm format are transmitted without conversion.<br>Note: When storing the scanned data into SAF memory, the fax unit always converts the data into mm format.<br>1: The machine converts the scanned data or stored data in the SAF memory to the format which was specified in the set-up protocol (DIS/NSF) before transmission.</td></tr>
<tr><td>1-5</td><td colspan="3">Not used</td><td>Do not change the factory settings.</td></tr>
<tr><td rowspan="6">6-7</td><td colspan="3">Available unit of resolution in which fax messages are received</td><td rowspan="6">For the best performance, do not change the factory settings.<br>The setting determined by these bits is informed to the transmitting terminal in the pre-message protocol exchange (in the DIS/NSF frames).</td></tr>
<tr><td>Bit 7</td><td>Bit 6</td><td>Unit</td></tr>
<tr><td>0</td><td>0</td><td>mm</td></tr>
<tr><td>0</td><td>1</td><td>inch</td></tr>
<tr><td>1</td><td>0</td><td>mm and inch</td></tr>
<tr><td>1</td><td>1</td><td>Not used</td></tr>
</table>

| **Communication Switch 15** – Not used (do not change the settings) |
|---|

<table>
<tr><th colspan="3">Communication Switch 16 (SP No. 1-104-023)</th></tr>
<tr><th>No</th><th>Function</th><th>Comments</th></tr>
</table>

| | | |
|---|---|---|
| 0 | Not used | Do not change the settings. |
| 1 | Optional G3 unit (G3-2)<br>0: Not installed<br>1: Installed | Change this bit to 1 when installing the first optional G3 unit. |
| 2 | Not used | |
| 3 | Select PSTN connection<br>0: Off<br>1: On | This switch enables the G3-2.<br>0: Off, no connection<br>1: Recognizes and enables G3-2.<br>This switch can be used only after G3-2 has been installed. |
| 4-7 | Not used | Do not change the settings. |

| Communication Switch 17 (SP No. 1-104-024) | | |
|---|---|---|
| No | Function | Comments |
| 0 | SEP reception<br>0: Disabled<br>1: Enabled | 0: Polling transmission to another maker's machine using the SEP (Selective Polling) signal is disabled. |
| 1 | SUB reception<br>0: Disabled<br>1: Enabled | 0: Confidential reception to another maker's machine using the SUB (Sub-address) signal is disabled. |
| 2 | PWD reception<br>0: Disabled<br>1: Enabled | 0: Disables features that require PWD (Password) signal reception. |
| 3-4 | Not used | Do not change the settings. |
| 5 | PSTN dial-in routing setting<br>0: OFF<br>1: ON | 1: The machine sets multiple PSTN dial-in numbers in the PSTN dial-in line and transfers received data from each PSTN dial-in number to each address. |
| 6 | Not used | Do not change the settings. |

| | | |
|---|---|---|
| 7 | Action when there is no box with an F-code that matches the received SUB code<br>0: Disconnect the line<br>1: Receive the message<br>(using normal reception mode) | Change this setting when the customer requires. |

| Communication Switch 18 (SP No. 1-104-025) | | |
|---|---|---|
| No | Function | Comments |
| 0-4 | Not used | Do not change the settings. |
| 5 | IP-Fax dial-in routing selection<br>0: Off<br>1: On | 1: Transfers received data to each IP-Fax dial-in number.<br>IP-Fax dial-in number is a 4-digit number. |
| 6 | PSTN 2 dial-in routing<br>0: Off<br>1: On | Enables or disables dial-in routing for the PSTN 2 connection. |
| 7 | PSTN 3 dial-in routing<br>0: Off<br>1: On | Enables or disables dial-in routing for the PSTN 3 connection. |

| |
|---|
| **Communication Switch 19** - Not used (do not change the settings) |
| **Communication Switch 1A** - Not used (do not change the settings) |

| Communication Switch 1B (SP No. 1-104-028) | | |
|---|---|---|
| No | Function | Comments |
| 0-7 | Extension access code (0 to 7) to turn V.8 protocol On/Off<br>0: On<br>1: Off | If the PABX does not support V.8/V.34 protocol procedure, set this bit to "1" to disable V.8.<br>Example: If "0" is the PSTN access code, set bit 0 to 1. When the machine detects "0" as the first dialed number, it automatically disables V.8 protocol. (Alternatively, if "3" is the PSTN access code, set bit 3 to 1.) |

| Communication Switch 1C (SP No. 1-104-029) | | |
|---|---|---|
| No | Function | Comments |
| 0-1 | Extension access code (8 and 9) to turn V.8 protocol On/Off<br>0: On<br>1: Off | Refer to communication switch 1B.<br>Example: If "8" is the PSTN access code, set bit 0 to 1. When the machine detects "8" as the first dialed number, it automatically disables V.8 protocol. (If "9" is the PSTN access code, use bit 1.) |
| 2-7 | Not used | Do not change the settings. |

| |
|---|
| **Communication Switch 1D** - Not used (do not change the settings) |
| **Communication Switch 1E** - Not used (do not change the settings) |
| **Communication Switch 1F** - Not used (do not change the settings) |

# Bit Switches - 4

**Important**

- Do not adjust a bit switch or use a setting that is described as "Not used", as this may cause the machine to malfunction or to operate in a manner that is not accepted by local regulations. Such bits are for use only in other areas, such as Japan.

Default settings for bit switches are not listed in this manual. Refer to the System Parameter List printed by the machine.

## G3 Switches

<table>
<tr><th colspan="5">G3 Switch 00 (SP No. 1-105-001)</th></tr>
<tr><th>No</th><th colspan="3">Function</th><th>Comments</th></tr>
<tr><td rowspan="6">0<br>1</td><td colspan="3">Monitor speaker during communication (TX and RX)</td><td rowspan="6">(0, 0): The monitor speaker is disabled all through the communication.<br>(0, 1): The monitor speaker is on up to phase B in the T.30 protocol.<br>(1, 0): Used for testing. The monitor speaker is on all through the communication. Make sure that you reset these bits after testing.</td></tr>
<tr><td>Bit 1</td><td>Bit 0</td><td>Setting</td></tr>
<tr><td>0</td><td>0</td><td>Disabled</td></tr>
<tr><td>0</td><td>1</td><td>Up to Phase B</td></tr>
<tr><td>1</td><td>0</td><td>All the time</td></tr>
<tr><td>1</td><td>1</td><td>Not used</td></tr>
<tr><td>2</td><td colspan="3">Monitor speaker during memory transmission<br>0: Disabled 1: Enabled</td><td>1: The monitor speaker is enabled during memory transmission.</td></tr>
<tr><td>3-5</td><td colspan="3">Not used</td><td>Do not change the settings.</td></tr>
<tr><td>6</td><td colspan="3">Dedicated G3 line mode selection<br>0: Off 1: On (Dedicated)</td><td>Set this bit to 1 when you wish to dedicate a line for G3.</td></tr>
<tr><td>7</td><td colspan="3">Not used</td><td>Do not change this setting.</td></tr>
</table>

<table>
<tr><th colspan="3">G3 Switch 01 (SP No. 1-105-002)</th></tr>
<tr><th>No</th><th>Function</th><th>Comments</th></tr>
</table>

| | | |
|---|---|---|
| 0-3 | Not used | Do not change the settings. |
| 4 | DIS frame length<br>0: 10 bytes 1: 4 bytes | 1: The bytes in the DIS frame after the 4th byte will not be transmitted (set to 1 if there are communication problems with PC-based faxes which cannot receive the extended DIS frames). |
| 5 | Not used | Do not change the setting. |
| 6 | Forbid CED/ANsam output<br>0: Off<br>1: On (Forbid output) | Do not change this setting (Default: 0: Off), unless communication problem is caused by a CED or ANSam transmission. |
| 7 | Not used | Do not change this setting. |

G3 Switch 02 (SP No. 1-105-003)

| No | Function | Comments |
|---|---|---|
| 0 | G3 protocol mode used<br>0: Standard and non-standard<br>1: Standard only | Change this bit to 1 only when the other end can only communicate with machines that send T.30-standard frames only.<br>1: Disables NSF/NSS signals (these are used in non-standard mode communication) |
| 1-6 | Not used | Do not change the settings. |
| 7 | Short preamble<br>0: Disabled 1: Enabled | Refer to Appendix B in the Group 3 Facsimile Manual for details about Short Preamble. |

G3 Switch 03 (SP No. 1-105-004)

| No | Function | Comments |
|---|---|---|
| 0 | DIS detection number<br>(Echo countermeasure)<br>0: 1<br>1: 2 | 0: The machine will hang up if it receives the same DIS frame twice.<br>1: Before sending DCS, the machine will wait for the second DIS which is caused by echo on the line. |
| 1 | Not Used | Do not change the settings. |
| 2 | Not Used | Do not change the settings. |

| | | |
|---|---|---|
| 3 | ECM frame size<br>0: 256 bytes<br>1: 64 bytes | Keep this bit at "0" in most cases. |
| 4 | CTC transmission conditions<br>0: After one PPR signal received<br>1: After four PPR signals received (ITU-T standard) | 0: When using ECM in non-standard (NSF/NSS) mode, the machine sends a CTC to drop back the modem rate after receiving a PPR, if the following condition is met in communications at 14.4, 12.0, 9.6, and 7.2 kbps.<br>$\sqrt{NTransmit} \le NResend$<br>NTransmit- Number of transmitted frames<br>NResend- Number of frames to be retransmitted<br>1: When using ECM, the machine sends a CTC to drop back the modem rate after receiving four PPRs.<br>PPR, CTC: These are ECM protocol signals.<br>This bit is not effective in V.34 communications. |
| 5 | Modem rate used for the next page after receiving a negative code (RTN or PIN)<br>0: No change 1: Fallback | 1: The machine's TX modem rate will fall back before sending the next page if a negative code is received. This bit is ignored if ECM is being used. |
| 6 | Not used | Do not change the settings |
| 7 | Select detection of reverse polarity in ringing<br>0: Off<br>1: On | This switch is used to prevent reverse polarity in ringing on the phone line (applied to PSTN-G3 ringing). Do not change this setting<br>0: No detection<br>1: Detection (Japan and Korea only) |

| G3 Switch 04 (SP No. 1-105-005) | | |
|---|---|---|
| No | Function | Comments |
| 0-3 | Training error detection threshold | 0 - F (Hex); 0 - 15 bits<br>If the number of error bits in the received TCF is below this threshold, the machine informs the sender that training has succeeded. |
| 4-7 | Not used | Do not change the settings. |

<table>
<tr><th colspan="7">G3 Switch 05 (SP No. 1-105-006)</th></tr>
<tr><th>No</th><th colspan="5">Function</th><th>Comments</th></tr>
<tr><td rowspan="17">0-3</td><td colspan="5">Initial Tx modem rate (kbps)</td><td rowspan="17">These bits set the initial starting modem rate for transmission.<br>Use the dedicated transmission parameters if you need to change this for specific receivers.<br>If a modem rate 14.4 kbps or slower is selected, V.8 protocol should be disabled manually.<br>Cross reference<br>V.8 protocol on/off - G3 switch 03, bit 2</td></tr>
<tr><td>Bit 3</td><td>Bit 2</td><td>Bit 1</td><td>Bit 0</td><td>kbps</td></tr>
<tr><td>0</td><td>0</td><td>0</td><td>1</td><td>2.4</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>0</td><td>4.8</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>1</td><td>7.2</td></tr>
<tr><td>0</td><td>1</td><td>0</td><td>0</td><td>9.6</td></tr>
<tr><td>0</td><td>1</td><td>0</td><td>1</td><td>12.0</td></tr>
<tr><td>0</td><td>1</td><td>1</td><td>0</td><td>14.4</td></tr>
<tr><td>0</td><td>1</td><td>1</td><td>1</td><td>16.8</td></tr>
<tr><td>1</td><td>0</td><td>0</td><td>0</td><td>19.2</td></tr>
<tr><td>1</td><td>0</td><td>0</td><td>1</td><td>21.6</td></tr>
<tr><td>1</td><td>0</td><td>1</td><td>0</td><td>24.0</td></tr>
<tr><td>1</td><td>0</td><td>1</td><td>1</td><td>26.4</td></tr>
<tr><td>1</td><td>1</td><td>0</td><td>0</td><td>28.8</td></tr>
<tr><td>1</td><td>1</td><td>0</td><td>1</td><td>31.2</td></tr>
<tr><td>1</td><td>1</td><td>1</td><td>0</td><td>33.6</td></tr>
<tr><td colspan="5">Other settings - Not used</td></tr>
<tr><td rowspan="6">4-5</td><td colspan="5">Initial modem type for 9.6 k or 7.2 kbps.</td><td rowspan="6">These bits set the initial modem type for 9.6 and 7.2 kbps, if the initial modem rate is set at these speeds.</td></tr>
<tr><td>Bit 5</td><td>Bit 4</td><td colspan="3">Setting</td></tr>
<tr><td>0</td><td>0</td><td colspan="3">V.29</td></tr>
<tr><td>0</td><td>1</td><td colspan="3">V.17</td></tr>
<tr><td>1</td><td>0</td><td colspan="3">V.34</td></tr>
<tr><td>1</td><td>1</td><td colspan="3">Not used</td></tr>
<tr><td>6-7</td><td colspan="5">Not used</td><td>Do not change the settings.</td></tr>
</table>

| G3 Switch 06 (SP No. 1-105-007) | | | | | | |
|---|---|---|---|---|---|---|
| No | Function | | | | | Comments |
| 0-3 | Initial RX modem rate(kbps) | | | | | These bits set the initial starting modem rate for reception.<br>Use a lower setting if high speeds pose problems during reception.<br>If a modem rate 14.4 kbps or slower is selected, V.8 protocol should be disabled manually.<br>Cross reference<br>V.8 protocol on/off - G3 switch 03, bit2 |
| | Bit 3 | Bit 2 | Bit 1 | Bit 0 | kbps | |
| | 0 | 0 | 0 | 1 | 2.4 | |
| | 0 | 0 | 1 | 0 | 4.8 | |
| | 0 | 0 | 1 | 1 | 7.2 | |
| | 0 | 1 | 0 | 0 | 9.6 | |
| | 0 | 1 | 0 | 1 | 12.0 | |
| | 0 | 1 | 1 | 0 | 14.4 | |
| | 0 | 1 | 1 | 1 | 16.8 | |
| | 1 | 0 | 0 | 0 | 19.2 | |
| | 1 | 0 | 0 | 1 | 21.6 | |
| | 1 | 0 | 1 | 0 | 24.0 | |
| | 1 | 0 | 1 | 1 | 26.4 | |
| | 1 | 1 | 0 | 0 | 28.8 | |
| | 1 | 1 | 0 | 1 | 31.2 | |
| | 1 | 1 | 1 | 0 | 33.6 | |
| | Other settings - Not used | | | | | |

<table>
<tr><td rowspan="8">4-7</td><td colspan="5">Modem types available for reception<br>The setting of these bits is used to inform the transmitting terminal of the available modem type for the machine in receive mode.<br>If V.34 is not selected, V.8 protocol must be disabled manually.<br>Cross reference<br>V.8 protocol on/off - G3 switch 03, bit 2</td></tr>
<tr><td>Bit 7</td><td>Bit 6</td><td>Bit 5</td><td>Bit 4</td><td>Types</td></tr>
<tr><td>0</td><td>0</td><td>0</td><td>1</td><td>V.27ter</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>0</td><td>V.27ter, V.29</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>1</td><td>V.27ter, V.29, V.33</td></tr>
<tr><td>0</td><td>1</td><td>0</td><td>0</td><td>V.27ter, V.29, V.17</td></tr>
<tr><td>0</td><td>1</td><td>0</td><td>1</td><td>V.27ter, V.29, V.17, V.34</td></tr>
<tr><td colspan="5">Other settings - Not used</td></tr>
</table>

<table>
<tr><th colspan="5">G3 Switch 07 (SP No. 1-105-008)</th></tr>
<tr><th>No</th><th colspan="3">Function</th><th>Comments</th></tr>
<tr><td rowspan="6">0-1</td><td colspan="3">PSTN cable equalizer<br>(TX mode: Internal)</td><td rowspan="6">Use a higher setting if there is signal loss at higher frequencies because of the length of wire between the modem and the telephone exchange.<br>Use the dedicated transmission parameters for specific receivers.<br>Also, try using the cable equalizer if one or more of the following symptoms occurs.<br>Communication error<br>Modem rate fallback occurs frequently.<br>**Note**<br>• This setting is not effective in V.34 communications.</td></tr>
<tr><td>Bit 1</td><td>Bit 0</td><td>Setting</td></tr>
<tr><td>0</td><td>0</td><td>None</td></tr>
<tr><td>0</td><td>1</td><td>Low</td></tr>
<tr><td>1</td><td>0</td><td>Medium</td></tr>
<tr><td>1</td><td>1</td><td>High</td></tr>
</table>

| | | |
|---|---|---|
| 2-3 | PSTN cable equalizer<br>(RX mode: Internal)<br>Bit 3 \| Bit 2 \| Setting<br>0 \| 0 \| None<br>0 \| 1 \| Low<br>1 \| 0 \| Medium<br>1 \| 1 \| High | Use a higher setting if there is signal loss at higher frequencies because of the length of wire between the modem and the telephone exchange.<br>Also, try using the cable equalizer if one or more of the following symptoms occurs.<br>Communication error with error codes such as 0-20, 0-23, etc.<br>Modem rate fallback occurs frequently.<br>**Note**<br>• This setting is not effective in V.34 communications. |
| 4 | PSTN cable equalizer<br>(V.8/V.17 RX mode: External)<br>0: Disabled<br>1: Enabled | Keep this bit at "1". |
| 5 | Not used | Do not change the settings. |
| 6 | Parameter selection for dial tone detection<br>0: Normal parameter<br>1: Specific parameter | 0: This uses the fixed table in the ROM for dial tone detection.<br>1: This uses the specific parameter adjusted with SRAM (69ECBEH - 69ECDEH). Select this if the dial tone cannot be detected when the "Normal parameter: 0" is selected. |
| 7 | Not used | Do not change the settings. |

| |
|---|
| **G3 Switch 08** - Not used (do not change the settings) |
| **G3 Switch 09** - Not used (do not change the settings) |

| G3 Switch 0A (SP No. 1-105-011) | | |
|---|---|---|
| No | Function | Comments |

<table>
<tr><td rowspan="6">0-1</td><td colspan="3">Maximum allowable carrier drop during image data reception</td><td rowspan="6">These bits set the acceptable modem carrier drop time.<br>Try a longer setting if error code 0-22 is frequent.</td></tr>
<tr><td>Bit 1</td><td>Bit 0</td><td>Value (ms)</td></tr>
<tr><td>0</td><td>0</td><td>200</td></tr>
<tr><td>0</td><td>1</td><td>400</td></tr>
<tr><td>1</td><td>0</td><td>800</td></tr>
<tr><td>1</td><td>1</td><td>Not used</td></tr>
<tr><td>2</td><td colspan="3">Select cancellation of high-speed RX if carrier signal lost while receiving<br>0: Off<br>1: On</td><td>This switch setting determines if high-speed receiving ends if the carrier signal is lost when receiving during non-ECM mode</td></tr>
<tr><td>3</td><td colspan="3">Not used</td><td>Do not change the settings</td></tr>
<tr><td>4</td><td colspan="3">Maximum allowable frame interval during image data reception.<br>0: 5 s 1: 13 s</td><td>This bit set the maximum interval between EOL (end-of-line) signals and the maximum interval between ECM frames from the other end.<br>Try using a longer setting if error code 0-21 is frequent.</td></tr>
<tr><td>5</td><td colspan="3">Not used</td><td>Do not change the settings.</td></tr>
<tr><td>6</td><td colspan="3">Reconstruction time for the first line in receive mode<br>0: 6 s 1: 12 s</td><td>When the sending terminal is controlled by a computer, there may be a delay in receiving page data after the local machine accepts set-up data and sends CFR. This is outside the T.30 recommendation. But, if this delay occurs, set this bit to 1 to give the sending machine more time to send data.<br>Refer to error code 0-20.<br>ITU-T T.30 recommendation: The first line should come within 5 s of CFR.</td></tr>
<tr><td>7</td><td colspan="3">Not used</td><td>Do not change the settings.</td></tr>
</table>

**G3 Switch 0B** Not used (do not change the settings).

| G3 Switch 0C (SP No. 1-105-013) | | |
|---|---|---|
| No | Function | Comments |
| 0-3 | Not used | Do not change these settings. |
| 4-5 | Select detection of DTMF/DP detection when using remote switch.<br>00: DTMF+PSTN (Simultaneous detection)<br>01: DTMF<br>10: DP (10 PPPS)<br>11: DP (20 PPS) | This setting determines how to detect the signals from the handset when remote switch is active. |
| 6-7 | Not used | Do not change the settings. |

**G3 Switch 0D** Not used (do not change the settings).

| G3 Switch 0E (SP No. 1-105-015) | | |
|---|---|---|
| No | Function | Comments |
| 0-7 | Set CNG send time interval<br>Some machines on the receiving side may not be able to automatically switch the 3-second CNG interval. | |
| | High order bit | 3000-2250ms: 3000-50xNms<br>3000 – 50 x Nms 0F (3000 ms) <= N <= FF (2250 ms) |
| | Low order bit | 00-0E(3000-3700ms: 3000+50xNms<br>3000 – 50 x Nms 0F (3000 ms) <= N <= 0F (3700 ms) |

| G3 Switch 0F (SP No. 1-105-016) | | |
|---|---|---|
| No | Function | Comments |
| 0 | Alarm when an error occurred in Phase C or later<br>0: Disabled<br>1: Enabled | If the customer wants to hear an alarm after each error communication, change this bit to "1". |

| | | |
|---|---|---|
| 1 | Alarm when the handset is off-hook at the end of communication<br>0: Disabled<br>1: Enabled | If the customer wants to hear an alarm if the handset is off-hook at the end of fax communication, change this bit to "1". |
| 2-3 | Not used | Do not change these settings. |
| 4 | Manual calibration setting<br>0: Off<br>1: On | 1: manually calibrates for communication with a line whose current change occurs such as an optical fiber line. |
| 5-7 | Not used | Do not change the settings. |

# Bit Switches - 5

**Important**

- Do not adjust a bit switch or use a setting that is described as "Not used", as this may cause the machine to malfunction or to operate in a manner that is not accepted by local regulations. Such bits are for use only in other areas, such as Japan.

Default settings for bit switches are not listed in this manual. Refer to the System Parameter List printed by the machine.

## IP Fax Switches

IP Fax Switch 00 (SP No. 1-111-001)

| No. | Function | Comments |
|---|---|---|
| 0 | Not used | Do not change this setting. |
| 1 | IP Fax Transport<br>0: TCP, 1: UDP | Selects TCP or UDP protocol for IP-Fax |
| 2 | IP Fax single port selection<br>0: OFF, 1: ON (enable) | Selects single data port. |
| 3 | IP Fax double ports (single data port) selection<br>0: OFF, 1: ON (enable) | Selects whether IP-Fax uses a double port. |
| 4 | IP Fax Gatekeeper<br>0: OFF, 1: ON (enable) | Enables/disables the gatekeeper for IP-Fax. |
| 5 | IP Fax T30 bit signal reverse<br>0: LSB first, 1: MSB first | Reverses the T30 bit signal. |
| 6 | IP Fax max bit rate setting<br>0: Not affected, 1: Affected | When "0" is selected, the max bit rate does not affect the value of the DIS/DCS.<br>When "1" is selected, the max bit rate affects the value of the DIS/DCS. |

| | | |
|---|---|---|
| 7 | IP Fax received telephone number confirmation<br>0: No confirmation, 1: Confirmation | When "0" is selected, fax data is received without checking the telephone number.<br>When "1" is selected, fax data is received only when confirming that the telephone number from the sender matches the registered telephone number in this machine. If this confirmation fails, the line is disconnected. |

<table>
<tr><th colspan="6">IP Fax Switch 01 (SP No. 1-111-002)</th></tr>
<tr><th>No.</th><th colspan="4">Function</th><th>Comments</th></tr>
<tr><td rowspan="6">0-3</td><td colspan="5">IP Fax delay level setting<br>Selects the acceptable delay level.<br>Level 0 is the highest quality<br>Default is "0000" (level 0).</td></tr>
<tr><td>Bit 3</td><td>Bit 2</td><td>Bit 1</td><td>Bit 0</td><td></td></tr>
<tr><td>0</td><td>0</td><td>0</td><td>0</td><td>Level 0</td></tr>
<tr><td>0</td><td>0</td><td>0</td><td>1</td><td>Level 1</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>0</td><td>Level 2</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>1</td><td>Level 3</td></tr>
<tr><td>4-7</td><td colspan="4">IP Fax preamble wait time setting</td><td>Selects the preamble wait time.<br>[00 to 0f]<br>There are 16 values in this 4-bit binary switch combination.<br>Waiting time: set value level x 100 ms<br>Max: 0f (1500 ms) Min: 00 (No wait time)<br>The default is "0000" (00H).</td></tr>
</table>

<table>
<tr><th colspan="3">IP Fax Switch 02 (SP No. 1-111-003)</th></tr>
<tr><th>No.</th><th>Function</th><th>Comments</th></tr>
</table>

| | | |
|---|---|---|
| 0 | IP Fax bit signal reverse setting<br>0: Maker code setting<br>1: Internal bit switch setting | When "0" is selected, the bit signal reverse method is decided by the maker code.<br>When "1" is selected, the bit signal reverse method is decided by the internal bit switch.<br>When communicating between IP Fax devices, LSB first is selected.) |
| 1 | IP Fax transmission speed setting<br>0: Modem speed<br>1: No limitation | Selects the transmit speed for IP Fax communication. |
| 2 | SIP transport setting<br>0: TCP<br>1: UDP | This bit switch sets the transport that has priority for receiving IP Fax data.<br>This function is activated only when the sender has both TCP and UDP. |
| 3 | CCM connection<br>0: No CCM connection<br>1: CCM connection | When "1" is selected, only the connection call message with H.323 or no tunneled H.245 is transmitted via CCM. |
| 4 | Message reception selection from non-registered SIP server<br>0: Answer<br>1: Not answer | 0: This answers the INVITE message from the SIP server not registered for the machine.<br>1: This does not receive the INVITE message from the SIP server not registered for the machine and send a refusal message. |
| 5 | ECM communication setting<br>0: No limit for image compression<br>1: Limit for image compression | 0: This does not limit the type of the image compression with ECM communication.<br>1: When the other end machine is Ciscco, this permits the image compression other than JBIG or MMR with ECM communication. |
| 6-7 | Not used | Do not change these settings. |

| IP Fax Switch 03 (SP No. 1-111-004) | | |
|---|---|---|
| No. | Function | Comments |
| 0 | Effective field limitation for G3 standard function information<br>0: OFF, 1: 4byte (DIS) | Limits the effective field for standard G3 function information. |

| | | |
|---|---|---|
| 1 | Switching between G3 standard and G3 non standard<br>0: Enable switching<br>1: G3 standard only | Enables/disables switching between G3 standard and G3 non-standard. |
| 2 | Not used | Do not change this setting. |
| 3 | ECM frame size selection at transmitting<br>0: 256byte, 1: 64byte | Selects the ECM frame size for sending. |
| 4 | DIS detection times for echo prevention<br>0: 1 time, 1: 2 times | Sets the number of times for DIS to detect echoes. |
| 5 | CTC transmission selection<br>0: PPRx1<br>1: PPRx4 | When "0" is selected, the transmission condition is decided by error frame numbers.<br>When "1" is selected, the transmission condition is based on the ITU-T method. |
| 6 | Shift down setting at receiving negative code<br>0: OFF, 1: ON | Selects whether to shift down when negative codes are received. |
| 7 | Not used | Do not change this setting. |

| IP Fax Switch 04 (SP No. 1-111-005) | | |
|---|---|---|
| No. | Function | Comments |
| 0-3 | TCF error threshold | Sets the TCF error threshold level. [00 to 0f]<br>The default is "1111" (0fH). |
| 4-7 | Not used | Do not change these settings. |

| IP Fax Switch 05 (SP No. 1-111-006) | | |
|---|---|---|
| No. | Function | Comments |

<table>
<tr>
<td>0-3</td>
<td>Modem bit rate setting for transmission (kbps)
<table>
<tr><td>Bit 3</td><td>Bit 2</td><td>Bit 1</td><td>Bit 0</td><td>kbps</td></tr>
<tr><td>0</td><td>0</td><td>0</td><td>1</td><td>2.4</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>1</td><td>4.8</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>1</td><td>7.2</td></tr>
<tr><td>0</td><td>1</td><td>0</td><td>0</td><td>9.6</td></tr>
<tr><td>0</td><td>1</td><td>0</td><td>1</td><td>12.0</td></tr>
<tr><td>0</td><td>1</td><td>1</td><td>0</td><td>14.4</td></tr>
</table>
</td>
<td>Sets the modem bit rate for transmission.<br>The default is "0110" (14.4K bps).</td>
</tr>
<tr>
<td>4-5</td>
<td>Modem setting for transmission
<table>
<tr><td>Bit 5</td><td>Bit 4</td><td>Types</td></tr>
<tr><td>0</td><td>0</td><td>V29</td></tr>
<tr><td>0</td><td>1</td><td>V17</td></tr>
<tr><td>1</td><td>0</td><td>Not used</td></tr>
<tr><td>1</td><td>1</td><td>Not used</td></tr>
</table>
</td>
<td>Sets the modem type for transmission.<br>The default is "00" (V29).</td>
</tr>
<tr>
<td>6-7</td>
<td>Not used</td>
<td>Do not change these settings.</td>
</tr>
</table>

<table>
<tr><th colspan="3">IP Fax Switch 06 (SP No. 1-111-007)</th></tr>
<tr><th>No.</th><th>Function</th><th>Comments</th></tr>
<tr><td>0-3</td><td colspan="2">Modem bit rate setting for reception<br>Sets the modem bit rate for reception. The default is "0110" (14.4K bps).</td></tr>
</table>

<table>
<tr><td rowspan="7">4-7</td><td colspan="5">Modem setting for reception<br>Sets the modem type for reception. The default is "0100" (V27ter, V29, V17).</td></tr>
<tr><td>Bit 7</td><td>Bit 6</td><td>Bit 5</td><td>Bit 4</td><td>Types</td></tr>
<tr><td>0</td><td>0</td><td>0</td><td>1</td><td>V.27ter</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>0</td><td>V.27ter, V.29</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>1</td><td>V.27ter, V.29, V.33</td></tr>
<tr><td>0</td><td>1</td><td>0</td><td>0</td><td>V.27ter, V.29, V.17/V.33</td></tr>
<tr><td colspan="5">Other settings - Not used</td></tr>
</table>

<table>
<tr><th colspan="3">IP Fax Switch 07 (SP No. 1-111-008)</th></tr>
<tr><th>No.</th><th>Function</th><th>Comments</th></tr>
<tr><td>0</td><td>TSI information<br>0: Not added, 1: Added</td><td>Adds or does not add TSI information to NSS(S).</td></tr>
<tr><td>1</td><td>DCN transmission setting at T1 timeout<br>0: Not transmitted<br>1: Transmitted</td><td>Transmits or does not transmit DCN at T1 timeout.</td></tr>
<tr><td>2</td><td>Not used</td><td>Do not change this setting.</td></tr>
<tr><td>3</td><td>Hang up setting at DIS reception disabled<br>0: No hang up<br>1: Hang up after transmitting DCN</td><td>Sets whether the machine disconnects after DIS reception.</td></tr>
<tr><td>4</td><td>Number of times for training<br>0: 1 time, 1: 2 times</td><td>Selects the number of times training is done at the same bit rate.</td></tr>
<tr><td>5</td><td>Space CSI transmission setting at no CSI registration<br>0: Not transmitted<br>1: Transmitted</td><td>When "0" is selected, frame data is enabled.<br>When "1" is selected, the transmitted data is all spaces.</td></tr>
<tr><td>6-7</td><td>Not used</td><td>Do not change these settings.</td></tr>
</table>

| IP Fax Switch 08 (SP No. 1-111-009) | | | | |
|---|---|---|---|---|
| No. | Function | | | Comments |
| 0-1 | T1 timer adjustment | | | Adjusts the T1 timer.<br>The default is "00" (35 seconds). |
| | Bit 1 | Bit 0 | | |
| | 0 | 0 | 35 s | |
| | 0 | 1 | 40 s | |
| | 1 | 0 | 50 s | |
| | 1 | 1 | 60 s | |
| 2-3 | T4 timer adjustment | | | Adjust the T4 timer.<br>The default is "00" (3 seconds). |
| | Bit 3 | Bit 2 | | |
| | 0 | 0 | 3 s | |
| | 0 | 1 | 3.5 s | |
| | 1 | 0 | 4 s | |
| | 1 | 1 | 5 s | |
| 4-5 | T0 timer adjustment | | | Adjusts the fail safe timer. This timer sets the interval between "setup" data transmission and T. 38 phase decision. If your destination return is late on the network or G3 fax return is late, adjust the longer interval timer.<br>The default is "00" (75 seconds). |
| | Bit 5 | Bit 4 | | |
| | 0 | 0 | 75 s | |
| | 0 | 1 | 120 s | |
| | 1 | 0 | 180 s | |
| | 1 | 1 | 240 s | |
| 6-7 | Not used | | | Do not change these settings. |

| IP Fax Switch 09 (SP No. 1-111-010) | | |
|---|---|---|
| No. | Function | Comments |

<table>
<tr><td>0</td><td colspan="3">Network I/F setting for SIP connection<br>0: IPv4<br>1: IPv6.</td><td>Selects the connection type (IPV4 or IPV6) to connect to the SIP server.</td></tr>
<tr><td>1</td><td colspan="3">Network I/F setting for Fax communication<br>0: Same setting as SIP server connection<br>1: Automatic setting</td><td>0: The I/F setting for fax communication follows the setting for SIP server connection.<br>1: The negotiation between the SIP server and the device decides whether IPv4 or IPv6 is used for the I/F setting for fax communication.</td></tr>
<tr><td>2</td><td colspan="3">Record-route setting<br>0: Disable<br>1: Enable</td><td>0: Disables the record-route function of the SIP server.<br>1: Enables the record-route function of the SIP server.</td></tr>
<tr><td rowspan="6">3-4</td><td colspan="3">re-INVITE transmission delay timer setting</td><td rowspan="6">This changes the interval for transmit re-INVITE after receiving the ACK message transmitted by T. 38 device.</td></tr>
<tr><td>Bit 4</td><td>Bit 3</td><td></td></tr>
<tr><td>0</td><td>0</td><td>No delay</td></tr>
<tr><td>0</td><td>1</td><td>1 sec</td></tr>
<tr><td>1</td><td>0</td><td>2 sec</td></tr>
<tr><td>1</td><td>1</td><td>3 sec</td></tr>
<tr><td>5</td><td colspan="3">SIP-IPFAX: Adding vender information selection<br>0: Declare T38VendorInfo=RICOH<br>1: Not declare T38VendorInfo=RICOH</td><td>0: Use this setting normally.<br>1: This setting is used only when a customer wants to connect the machine with SIP server + VOIP-GW provided by AVAYA Inc.</td></tr>
<tr><td>6-7</td><td colspan="3">Not used.</td><td>Do not change these settings.</td></tr>
</table>

| |
|---|
| **IP Fax Switch 0A** - Not used (do not change the settings) |
| **IP Fax Switch 0B** - Not used (do not change the settings) |
| **IP Fax Switch 0C** - Not used (do not change the settings) |
| **IP Fax Switch 0D** - Not used (do not change the settings) |

| IP Fax Switch 0E (SP No. 1-111-013) |
|---|

| No. | Function | Comments |
|---|---|---|
| 0-1 | SIP: IP-FAX port mode (UDP)<br>00: 3 port mode<br>01: 2 port mode<br>10: 1 port mode | Switch the port mode for IP-FAX (T38 transport: UDP) at SIP call control. |
| 2-3 | SIP: IP-FAX port mode (TCP)<br>00: 3 port mode<br>01: 2 port mode<br>10: 1 port mode | Switch the port mode for IP-FAX (T38 transport: TCP) at SIP call control. |
| 4-7 | Not used. | Do not change these settings. |

# NCU Parameters

The following tables give the RAM addresses and the parameter calculation units that the machine uses for ringing signal detection and automatic dialing. The factory settings for each country are also given. Most of these must be changed by RAM read/write (SP2-102), but some can be changed using NCU Parameter programming (SP2-103); if SP2-103 can be used, this will be indicated in the Remarks column. The RAM is programmed in hex code unless (BCD) is included in the Unit column.

**Note**

- The following addresses describe settings for the standard NCU.

| # | RAM Addr. | Function | Remarks |
|---|---|---|---|
| CC | 680500 | Country/Area code for NCU parameters | Use the Hex value to program the country/area code directly into this address, or use the decimal value to program it using SP2-103-001 |

**Country Code List**

| Country /Area | Decimal | Hex | Country /Area | Decimal | Hex |
|---|---|---|---|---|---|
| France | 00 | 00 | Asia | 18 | 12 |
| Germany | 01 | 01 | Japan | 19 | 13 |
| UK | 02 | 02 | Hong Kong | 20 | 14 |
| Italy | 03 | 03 | South Africa | 21 | 15 |
| Austria | 04 | 04 | Australia | 22 | 16 |
| Belgium | 05 | 05 | New Zealand | 26 | 17 |
| Denmark | 06 | 06 | Singapore | 24 | 18 |
| Finland | 07 | 07 | Malaysia | 25 | 19 |
| Ireland | 08 | 08 | China | 26 | 1A |
| Norway | 09 | 09 | Taiwan | 27 | 1B |
| Sweden | 10 | 0A | Korea | 28 | 1C |
| Switzerland | 11 | 0B | Brazil | 29 | 1D |

| # | RAM Addr. | Function | Unit | Remarks |
|---|---|---|---|---|
| 01 | 6805B4 | PSTN: Tx level from the modem | -N – 3 dBm | SP2-103-002 |
| 02 | 680572 | Acceptable ringing signal frequency: range 1, upper limit | 1000/ N (Hz). | SP2-103-003 |
| 03 | 680573 | Acceptable ringing signal frequency: range 1, lower limit | | SP2-103-004 |
| 04 | 680574 | Acceptable ringing signal frequency: range 2, upper limit | | SP2-103-005 |
| 05 | 680575 | Acceptable ringing signal frequency: range 2, lower limit | | SP2-103-006 |
| 06 | 680576 | Number of rings until a call is detected | 1 | SP2-103-007<br>The setting must not be zero. |
| 07 | 680577 | Minimum required length of the first ring | 20 ms | See Note B.<br>SP2-103-008 |
| 08 | 680578 | Minimum required length of the second and subsequent rings | 20 ms | SP2-103-009 |
| 09 | 680579 | Ringing signal detection reset time (LOW) | 20 ms | SP2-103-010 |
| 10 | 68057A | Ringing signal detection reset time (HIGH) | | SP2-103-011 |
| 11 | 68054A | Time between opening or closing the DO relay and opening the OHDI relay | 1 ms | See Notes A, D and E.<br>SP2-103-012 |
| 12 | 68054B | Break time for pulse dialing | 1 ms | See Note A.<br>SP2-103-013 |
| 13 | 68054C | Make time for pulse dialing | 1 ms | See Note A.<br>SP2-103-014 |
| 14 | 68054D | Time between final OHDI relay closure and DO relay opening or closing | 1 ms | EU only.<br>SP2-103-015<br>See Notes A, D and E. |

| | | | | |
|---|---|---|---|---|
| 15 | 68054E | Minimum pause between dialed digits (pulse dial mode) | 20 ms | See Note A and E.<br>SP2-103-016 |
| 16 | 68054F | Time waited when a pause is entered at the operation panel | | SP2-103-017<br>See Note A. |
| 17 | 680550 | DTMF tone on time | 1 ms | SP2-103-018 |
| 18 | 680551 | DTMF tone off time | | SP2-103-019 |
| 19 | 680552 | Tone attenuation level of DTMF signals while dialing | -N x 0.5 – 3.5 dBm | SP2-103-020<br>See Note C. |
| 20 | 680553 | Tone attenuation value difference between high frequency tone and low frequency tone in DTMF signals | -dBm x 0.5 | SP2-103-021<br>The setting must be less than –5dBm, and should not exceed the setting at 680552h above.<br>See Note C. |
| 21 | 680554 | PSTN: DTMF tone attenuation level after dialling | -N x 0.5 – 3.5 dBm | SP2-103-022<br>See Note C. |
| 22 | 680555 | ISDN: DTMF tone attenuation level after dialling | -dBm x 0.5 | See Note C |

**Note**

- A: Pulse dial parameters (addresses 68054A to 68054F) are the values for 10 pps. If 20 pps is used, the machine automatically compensates.
- B: The first ring may not be detected until 1 to 2.5 wavelengths after the time specified by this parameter.
- C: The calculated level must be between 0 and 10.
  The attenuation levels calculated from RAM data are:
  High frequency tone:
  – 0.5 x N680552/680554–3.5 dBm
  – 0.5 x N680555 dBm
  Low frequency tone:
  – 0.5 x (N680552/680554 + N680553) –3.5 dBm
  – 0.5 x (N680555 + N680553) dBm
  *Note: N680552, for example, means the value stored in address 680552(H)

- D: 68054A: Europe - Between Ds opening and Di opening, France - Between Ds closing and Di opening
  68054D: Europe - Between Ds closing and Di closing, France - Between Ds opening and Di closing
- E: 68054A, 68054D, 68054E: The actual inter-digit pause (pulse dial mode) is the sum of the period specified by the RAM addresses 68054A, 68054D, and 68054E.

# Dedicated Transmission Parameters

There are two sets of transmission parameters: Fax and E-mail

Each Quick Dial Key and Speed Dial Code has eight bytes of programmable parameters allocated to it. If transmissions to a particular machine often experience problems, store that terminal's fax number as a Quick Dial or Speed Dial, and adjust the parameters allocated to that number.

The programming procedure will be explained first. Then, the eight bytes will be described.

## Programming Procedure

1. Set the bit 0 of System Bit Switch 00 to 1.
2. Press the [Address Book Management] icon in the home screen.
3. Select the address book that you want to program.
4. For the fax parameter, select [Fax Dest.], for the E-mail parameter, select [Email], then press [Start].
5. The settings for the switch 00 are now displayed. Press the bit number that you wish to change.

   **Note**

   - To scroll through the parameter switches, press [Next] or [Previous].
6. After the setting is changed, press [OK].
7. After finishing, reset bit 0 of System Bit Switch 00 to 0.

## Parameters

### Fax Parameters

The initial settings of the following fax parameters are all FF (H) - all the parameters are disabled.

| Switch 00 |
|---|
| FUNCTION AND COMMENTS |

ITU-T T1 time (for PSTN G3 mode)

If the connection time to a particular terminal is longer than the NCU parameter setting, adjust this byte. The T1 time is the value stored in this byte (in hex code), multiplied by 1 second.

**Range:**

0 to 120 s (00h to 78h)

FFh - The local NCU parameter factory setting is used.

Do not program a value between 79h and FEh.

<table>
<tr><th colspan="8">Switch 01</th></tr>
<tr><th>No</th><th colspan="6">FUNCTION</th><th>COMMENTS</th></tr>
<tr><td rowspan="10">0-4</td><td colspan="6">TX level</td><td rowspan="10">If communication with a particular remote terminal often contains errors, the signal level may be inappropriate. Adjust the TX level for communications with that terminal until the results are better.<br>If the setting is "Disabled", the NCU parameter 01 setting is used.<br><b>Note</b><br>• Do not use settings other than listed on the left.</td></tr>
<tr><td>Bit4</td><td>Bit3</td><td>Bit2</td><td>Bit1</td><td>Bit0</td><td></td></tr>
<tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>–1</td></tr>
<tr><td>0</td><td>0</td><td>0</td><td>1</td><td>0</td><td>–2</td></tr>
<tr><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>–3</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>0</td><td>0</td><td>–4</td></tr>
<tr><td>↓</td><td>↓</td><td>↓</td><td>↓</td><td>↓</td><td>↓</td></tr>
<tr><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>–15</td></tr>
<tr><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>Disabled</td></tr>
</table>

| | | |
|---|---|---|
| 5-7 | Cable equalizer<br>Bit 7: 0, Bit 6: 0, Bit 5: 0 = None<br>Bit 7: 0, Bit 6: 0, Bit 5: 1 = Low<br>Bit 7: 0, Bit 6: 1, Bit 5: 0 = Medium<br>Bit 7: 0, Bit 6: 1, Bit 5: 1 = High<br>Bit 7: 1, Bit 6: 1, Bit 5: 1 = Disabled | Use a higher setting if there is signal loss at higher frequencies because of the length of wire between the modem and the telephone exchange when calling the number stored in this Quick/Speed Dial.<br>Also, try using the cable equalizer if one or more of the following symptoms occurs.<br>Communication error with error codes such as 0-20, 0-23, etc.<br>Modem rate fallback occurs frequently.<br>**Note**<br>• Do not use settings other than listed on the left.<br>If the setting is "Disabled", the bit switch setting is used. |

| Switch 02 | | |
|---|---|---|
| No | FUNCTION | COMMENTS |

<table>
<tr><td rowspan="19">0-3</td><td colspan="5">Initial TX modem rate</td><td rowspan="19">If training with a particular remote terminal always takes too long, the initial modem rate may be too high. Reduce the initial TX modem rate using these bits.<br>For the settings 14.4 or kbps slower, Switch 04 bit 4 must be changed to 0.<br><b>Note</b><br>• Do not use settings other than listed on the left. If the setting is "Disabled", the bit switch setting is used.</td></tr>
<tr><td>Bit3</td><td>Bit2</td><td>Bit1</td><td>Bit0</td><td>bps</td></tr>
<tr><td>0</td><td>0</td><td>0</td><td>0</td><td>Not used</td></tr>
<tr><td>0</td><td>0</td><td>0</td><td>1</td><td>2400</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>0</td><td>4800</td></tr>
<tr><td>0</td><td>0</td><td>1</td><td>1</td><td>7200</td></tr>
<tr><td>0</td><td>1</td><td>0</td><td>0</td><td>9600</td></tr>
<tr><td>0</td><td>1</td><td>0</td><td>1</td><td>12000</td></tr>
<tr><td>0</td><td>1</td><td>1</td><td>0</td><td>14400</td></tr>
<tr><td>0</td><td>1</td><td>1</td><td>1</td><td>16800</td></tr>
<tr><td>1</td><td>0</td><td>0</td><td>0</td><td>19200</td></tr>
<tr><td>1</td><td>0</td><td>0</td><td>1</td><td>21600</td></tr>
<tr><td>1</td><td>0</td><td>1</td><td>0</td><td>24000</td></tr>
<tr><td>1</td><td>0</td><td>1</td><td>1</td><td>26400</td></tr>
<tr><td>1</td><td>1</td><td>0</td><td>0</td><td>28800</td></tr>
<tr><td>1</td><td>1</td><td>0</td><td>1</td><td>31200</td></tr>
<tr><td>1</td><td>1</td><td>1</td><td>0</td><td>33600</td></tr>
<tr><td>1</td><td>1</td><td>1</td><td>1</td><td>Disabled</td></tr>
<tr><td colspan="5">Other settings: <b>Not used</b></td></tr>
<tr><td>4-7</td><td colspan="5"><b>Not used</b></td><td>Do not change the settings.</td></tr>
</table>

<table>
<tr><td colspan="3">Switch 03</td></tr>
<tr><td>No</td><td>FUNCTION</td><td>COMMENTS</td></tr>
</table>

| | | |
|---|---|---|
| 0-1 | Inch-mm conversion before TX<br>Bit 1: 0, Bit 0: 0<br>= Inch-mm conversion available<br>Bit 1: 0, Bit 0: 1 = Inch only<br>Bit 1: 1, Bit 0: 0 = Not used<br>Bit 1: 1, Bit 0: 1 = Disabled | If "inch only" is selected on the machine uses inch-based resolutions for scanning, the printed copy may be slightly distorted at the other end if that machine uses mm-based resolutions.<br>If the setting is "Inch-mm conversion available ", Inch-mm conversion become effective to the special senders.<br>If the setting is "Disabled", the bit switch setting is used. |
| 2-3 | DIS/NSF detection method<br>Bit 3: 0, Bit 2: 0<br>= First DIS or NSF<br>Bit 3: 0, Bit 2: 1<br>= Second DIS or NSF<br>Bit 3: 1, Bit 2: 0 = Not used<br>Bit 3: 1, Bit 2: 1 = Disabled | (0, 1): Use this setting if echoes on the line are interfering with the set-up protocol at the start of transmission. The machine will then wait for the second DIS or NSF before sending DCS or NSS.<br>If the setting is "Disabled", the bit switch setting is used. |
| 4 | V.8 protocol<br>0: Off<br>1: Disabled | If transmissions to a specific destination always end at a lower modem rate (14,400 bps or lower), disable V.8 protocol so as not to use V.34 protocol.<br>0: V.34 communication will not be possible.<br>If the setting is "Disabled", the bit switch setting is used. |
| 5 | Compression modes available in transmit mode<br>0: MH only<br>1: Disabled | This bit determines the capabilities that are informed to the other terminal during transmission.<br>If the setting is "Disabled", the bit switch setting is used. |
| 6-7 | ECM during transmission<br>Bit 7: 0, Bit 6: 0 = Off<br>Bit 7: 0, Bit 6: 1 = On<br>Bit 7: 1, Bit 6: 0 = Not used<br>Bit 7: 1, Bit 6: 1 = Disabled | For example, if ECM is switched on but is not wanted when sending to a particular terminal, use the (0, 0) setting.<br>**Note**<br>• V.8/V.34 protocol and JBIG compression are automatically disabled if ECM is disabled.<br>• If the setting is "Disabled", the bit switch setting is used. |

| |
|---|
| **Switch 04 - Not used** (do not change the settings) |
| **Switch 05 - Not used** (do not change the settings) |

| |
|---|
| Switch 06 - **Not used** (do not change the settings) |
| Switch 07 - **Not used** (do not change the settings) |
| Switch 08 - **Not used** (do not change the settings) |
| Switch 09 - **Not used** (do not change the settings) |

## E-mail Parameters

The initial settings of the following e-mail parameters are all "0" (all parameters disabled).

| Switch 00 | | |
|---|---|---|
| No | FUNCTION | COMMENTS |
| 0 | MH Compression mode for e-mail attachments<br>0: Off<br>1: On | Switches MH compression on and off for files attached to e-mails for sending. |
| 1 | MR Compression mode for e-mail attachments<br>0: Off<br>1: On | Switches MR compression on and off for files attached to e-mails for sending. |
| 2 | MMR Compression mode for e-mail attachments<br>0: Off<br>1: On | Switches MMR compression on and off for files attached to e-mails for sending. |
| 3-6 | **Not used** | Do not change these settings. |
| 7 | Designates the bits to reference for compression method of e-mail attachments<br>0: Registered (Bit 0 to 6)<br>1: No registration. | The "0" selection (default) references the settings for Bits 00, 01, 02 above. The "1" selection ignores the selections of Bits 00, 01, 02. |

| Switch 01 | |
|---|---|

| No | FUNCTION | COMMENTS |
|---|---|---|
| 0 | Original width of e-mail attachment: A4<br>0: Off<br>1: On | Sets the original width of the e-mail attachment as A4. |
| 1 | Original width of e-mail attachment: B4<br>0: Off<br>1: On | Sets the original width of the e-mail attachment as B4. |
| 2 | Original width of e-mail attachment: A3<br>0: Off<br>1: On | Sets the original width of the e-mail attachment as A3. |
| 3-6 | Not used | Do not change these settings. |
| 7 | Designates the bits to reference for original size of e-mail attachments<br>0: Registered (Bit 0 to 6)<br>1: No registration. | The "0" selection (default) references the settings for Bits 00, 01, 02 above. The "1" selection ignores the selections of Bit 00. |

| Switch 02 | | |
|---|---|---|
| No | FUNCTION | COMMENTS |
| 0 | Line resolution of e-mail attachment: 200 x 100<br>0: Off<br>1: On | Sets the line resolution of the e-mail attachment as 200 x100. |
| 1 | Line resolution of e-mail attachment: 200 x 200<br>0: Off<br>1: On | Sets the line resolution of the e-mail attachment as 200 x 200. |

| | | |
|---|---|---|
| 2 | Line resolution of e-mail attachment: 200 x 400<br>0: Off<br>1: On | Sets the line resolution of the e-mail attachment as 200 x 400. |
| 3 | **Not used** | Do not change these settings. |
| 4 | Line resolution of e-mail attachment: 400 x 400<br>0: Off<br>1: On | Sets the line resolution of the e-mail attachment as 400 x 400. |
| 5-6 | **Not used** | Do not change these settings. |
| 7 | Designates the bits to reference for original size of e-mail attachments<br>0: Registered (Bit 0 to 6)<br>1: No registration. | The "0" selection (default) references the settings for Bits 00, 01, 02, 04 above. The "1" selection ignores the selections of Bits 00, 01, 02, 04. |

| Switch 03 - **Not used** (do not change the settings) |
|---|

| Switch 04 | | |
|---|---|---|
| No | FUNCTION | COMMENTS |
| 0 | Full mode address selection<br>0: Full mode address<br>1: No full mode (simple mode) | If the other ends have the addresses, which have the full mode function flag ("0"), this machine determines them as full mode standard machines.<br>• This machine attaches the "demand of reception confirmation" to a message when transmitting.<br>• This machine updates the reception capability to the address book when receiving. |
| 1-7 | **Not used** | Do not change these settings. |

| Switch 05 | | |
|---|---|---|
| No | FUNCTION | COMMENTS |

| | | |
|---|---|---|
| 0 | Directr transmission selection to SMTP server<br>0: ON<br>1: OFF | Allows or does not allow the direct transmission to SMTP server. |
| 1-7 | Not used | Do not change these settings. |

| |
|---|
| **Switch 06 - Not used** (do not change the settings) |
| **Switch 07 - Not used** (do not change the settings) |
| **Switch 08 - Not used** (do not change the settings) |
| **Switch 09 - Not used** (do not change the settings) |

# Service RAM Addresses

## Service RAM Addresses

**Important**

- Do not change the settings that are marked as "Not used" or "Read only."

680001 to 680004(H) - ROM version (Read only)

680001(H) - Revision number (BCD)

680002(H) - Year (BCD)

680003(H) - Month (BCD)

680004(H) - Day (BCD)

680006 to 680015(H) – Machine's serial number (16 digits - ASCII)

680016(H) - Language code

0: Japanese, 1: UK English, 2: US English, 3: French, 4: German, 5: Spanish, 6: Italian, 7: Dutch, 8: Swedish, 9: Norwegian, 10: Danish, 11: Finnish, 12: Czech, 13: Hungarian, 14: Polish, 15: Portuguese, 16: Russian, 17: Traditional Chinese, 18: Simplified Chinese, 19: Korean

680018(H) - Total program checksum (low)

680019(H) - Total program checksum (high)

680020 to 68003F(H) - System bit switches

680050 to 68005F(H) - Printer bit switches

680060 to 68007F(H) - Communication bit switches

680080 to 68008F(H) - G3 bit switches

680090 to 68009F(H) - G3-2 bit switches: Not used

6800A0 to 6800AF(H) - G3-3 bit switches: Not used

**6800D0(H) - User parameter switch 00 (SWUER_00)**: Not used

**6800D1(H) - User parameter switch 01 (SWUSR_01)**: Not used

**6800D2(H) - User parameter switch 02 (SWUSR_02)**

Bit 0: Forwarding mark printing on forwarded messages 0: Disabled, 1: Enabled

Bit 1: Center mark printing on received copies

(This switch is not printed on the user parameter list.)

0: Disabled, 1: Enabled

Bit 2: Reception time printing

(This switch is not printed on the user parameter list.)

0: Disabled, 1: Enabled

Bit 3: TSI print on received messages 0: Disabled, 1: Enabled

Bit 4: Checkered mark printing

(This switch is not printed on the user parameter list.)

0: Disabled, 1: Enabled

Bit 5: Not used

Bit 6: Not used

Bit 7: Not used

### 6800D3(H) - User parameter switch 03 (SWUSR_03: Automatic report printout)

Bit 0: Transmission result report (memory transmissions) 0: Off, 1: On

Bit 1: Not used

Bit 2: Memory storage report 0: Off, 1: On

Bit 3: Polling reserve report (polling reception) 0: Off, 1: On

Bit 4: Polling result report (polling reception) 0: Off, 1: On

Bit 5: Transmission result report (immediate transmissions) 0: Off, 1: On

Bit 6: Not used

Bit 7: Journal 0: Off, 1: On

### 6800D4(H) - User parameter switch 04 (SWUSR_04: Automatic report printout)

Bit 0: Not used

Bit 1: Automatic communication failure report and transfer result report output 0: Off, 1: On

Bits 2 to 3: Not used

Bit 4: Indicates the parties 0: Not indicated, 1: Indicated

Bit 5: Include sender's name on reports 0: Off, 1: On

Bit 6: Not used

Bit 7: Inclusion of a sample image on reports 0: Off, 1: On

### 6800D5(H) - User parameter switch 05 (SWUSR_05)

Bit 0: Substitute reception when the base copier is in an SC condition

0: Enabled, 1: Disabled

Bits 1 and 2: Condition for substitute RX when the machine cannot print messages (Paper end, toner end, jam, and during night mode)

Bit 2: 0, Bit 1: 0 = The machine receives all the fax messages.

Bit 2: 0, Bit 1: 1 = The machine receives the fax messages with RTI or CSI.

Bit 2: 1, Bit 1: 0 = The machine receives the fax messages with the same ID code.

Bit 2: 1, Bit 1: 1 = The machine does not receive anything.

Bit 3: Not used

Bit 4: Not used

Bit 5: Just size printing 0: Off, 1: On

Bit 6: Not used

Bit 7: Add paper display when a cassette is empty 0: Off, 1: On

**6800D6(H) - User parameter switch 06 (SWUSR_06)**

Bit 0: Specify the order of the information shown under "Destination" in the Journal, the Immediate TX Result Report, and on the [Transmission File Status] screen for fax transmission.

Bit 1: V8 protocol (G3-1: Super G3) 0: Off, 1: On

Bit 2: V8 protocol (G3-2: Super G3) 0: Off, 1: On

Bit 3: V8 protocol (G3-3: Super G3) 0: Off, 1: On

**6800D7(H) - User parameter switch 07 (SWUSR_07)**

Bit 0 Ringing 0: Off, 1: On

Bit1: Automatic answering message 0: Off, 1: On

Bit 2: Parallel memory transmission 0: Off, 1: On

Bits 3 and 4: Not used

Bit 5: Remote control 0: Off, 1: On

Bits 6 and 7: Not used

**6800D8(H) - User parameter switch 08 (SWUSR_08)**

Bits 0 and 1: Not used.

Bit 2: Authorized reception

0: Only faxes from senders whose RTIs/CSIs are specified for this feature are accepted.

1: Only faxes from senders whose RTIs/CSIs are not specified for this feature are accepted.

Bits 3 to 7: Not used.

**6800D9(H) - User parameter switch 09 (SWUSR_09)**: Not used

**6800DA(H) - User parameter switch 10 (SWUSR_0A)**

Bits 0 to 2: Not used

Bit 3: Page reduction 0: Off, 1: On

Bits 4 and 5: Not used

Bit 6: Use both e-mail notification and printed reports to confirm the transmission results 0: Off, 1: On

Bit 7: Not used

**6800DB(H) - User parameter switch 11 (SWUSR_0B)**

Bits 0 and 1: Not used

Bit 2: White original detection 0: Off, 1: On (alarm and alert message on the LCD)

Bit 3: Receive rejection for 1300 Hz transmission 0: Off (receive), 1: On (not receive)

Bit 5: Not used

Bit 6: Printout of messages received while acting as a forwarding station 0: Off, 1: On

Bit 7: Not used

**6800DC(H) - User parameter switch 12 (SWUSR_0C)**: Not used

**6800DD(H) - User parameter switch 13 (SWUSR_0D)**: Not used

**6800DE(H) - User parameter switch 14 (SWUSR_0E)**

Bit 0: Message printout while the machine is in Night Printing mode 0: On, 1: Off

Bit 1: Maximum document length detection 0: Double letter, 1: Longer than double-letter (well log) – up to 1,200 mm

Bit 2: Not used

Bit 3: Fax mode settings, such as resolution, before a mode key (Copy/Fax/Printer/Scanner) is pressed 0: Not cleared, 1: Cleared

Bits 4 to 6: Not used

Bit 7: Not used

**6800DF(H) - User parameter switch 15 (SWUSR_0F)**

(This switch is not printed on the user parameter list.)

Bits 0, 1 and 2: Cassette for fax printout

Bit 2: 0, Bit 1: 0, Bit 0: 1 = 1st paper feed station

Bit 2: 0, Bit 1: 1, Bit 0: 0 = 2nd paper feed station

Bit 2: 0, Bit 1: 1, Bit 0: 1 = 3rd paper feed station

Bit 2: 1, Bit 1: 0, Bit 0: 0 = 4th paper feed station

Bit 2: 1, Bit 1: 0, Bit 0: 1 = LCT

Other settings Not used

Bits 3 and 4: Not used

Bit 5: Using the cassette specified by bits 0, 1 and 2 above only 0: On, 1: Off

Bits 6 and 7: Not used

**6800E0(H) – User parameter switch 16 (SWUSR_10)**

(This switch is not printed on the user parameter list.)

Bits 0 and 1: Not used

Bit 2: Paper size selection priority for an A4 size fax message when A4/LT size paper is not available. 0: A3 has priority, 1: B4 has priority

Bits 3 to 7: Not used

### 6800E1(H) – User parameter switch 17 (SWUSR_11)

Bit 0: Not used

Bit 1: Not used

Bit 2: Inclusion of the "Add" button when a sequence of Quick/Speed dials is selected for broadcasting 0: Not needed, 1: Needed

Bits 3 to 6: Not used

Bit 7: Press "Start" key without an original when using the on hook dial or the external telephone,

0: displays "Cannot detect original size". 1: Receives fax messages.

### 6800E2(H) - User parameter switch 18 (SWUSR_12)

Bit 0: TTI date 0: Off, 1: On

Bit 1: TTI sender 0: Off, 1: On

Bit 2: TTI file number 0: Off, 1: On

Bit 3: TTI page number 0: Off, 1: On

Bits 4 to 6: Not used

Bit 7: Japan only

### 6800E3(H) - User parameter switch 19 (SWUSR_13)

Bit 0: Not used

Bit 1: Journal format

0: The Journal is separated into transmissions and receptions

1: The Journal is separated into G3-1, G3-2, and G3-3 communications

Bit 2: Not used

Bit 3: 90° image rotation during B5 portrait TX (This switch is not printed on the user parameter list.) 0: Off, 1: On

Bit 4: Reduction of sample images on reports to 50% in the main scan and sub-scan directions. (This switch is not printed on the user parameter list.) 0: Technician adjustment (printer switch 0E bits 3 and 4), 1: 50% reduction
Bit 5: Use of A5 size paper for reports (This switch is not printed on the user parameter list.) 0: Off, 1: On

Bits 6 and 7: Not used

### 6800E4(H) - User parameter switch 20 (SWUSR_14)

Bit 0: Automatic printing of the LAN fax result report 0: Off, 1: On
Bit 1: Not used.

Bits 2 to 5: Store documents in memory, which could not be printed from PC fax (LAN fax) driver

| Bit 5 | Bit 4 | Bit 3 | Bit 2 | Setting |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 min. |
| 0 | 0 | 0 | 1 | 1 min. |
| ↓ | ↓ | ↓ | ↓ | ↓ |
| 1 | 1 | 1 | 0 | 14 min. |
| 1 | 1 | 1 | 1 | 15 min. |

Bits 6 and 7: Not used.

**6800E5(H) - User parameter switch 21 (SWUSR_15)**

Bit 0: Print results of sending reception notice request message 0: Disabled (print only when error occurs), 1: Enabled

Bit 1: Respond to e-mail reception acknowledgment request 0: Disabled, 1: Enabled

Bit 2: Not used

Bit 3: File format for forwarded folders 0: TIFF, 1: PDF

Bit 4: Transmit Journal by E-mail 0: Disabled, 1: Enabled

Bit 5: Not used

Bit 6: Network error display 0: Displayed, 1: Not displayed

Bit 7: Transmit error mail notification 0: Enabled, 1: Disabled

**6800E6(H) - User parameter switch 22 (SWUSR_16)**

(This switch is not printed on the user parameter list.)

Bit 0: Dial tone detection (PSTN 1) 0: Disabled, 1: Enabled

Bits 1 to 7: Not used

**6800E7(H) – User parameter switch 23 (SWUSR_17)**: Not used

**6800E8(H) - User parameter switch 24 (SWUSR_18)**: Not used

**6800E9(H) - User parameter switch 25 (SWUSR_19)**

Bit 0: Not used

Bit 1: Reception mode switch timer 0: Off, 1: On (switching Fax or Fax/Tel)

Bit 2: Mode priority switch 0: Fax first, 1: Tel first

Bit 3: Dial in function (Japan Only)

Bit 4: **Do not Change this Bit.**

Bits 5 to 7: Not used

**6800EA(H) and 6800EB(H) - User parameter switches 26 and 27 (SWUSR_1A and 1B)**: Not used

**6800EC(H) - User parameter switch 28(SWUSR_1C)**: Not used

**6800ED(H) - User parameter switch 29(SWUSR_1D)**: Not used

**6800EE(H) and 6800EF(H) - User parameter switches 30 and 31 (SWUSR_1E and 1F)**: Not used

**6800F0(H) - User parameter switch 32 (SWUSR_20)**

Bit 0: Quotation priority for a destination when there is no destination of the specified type

0: Paper output priority = Priority order: 1. IP-fax destination, 2. Fax Number, 3. E-mail address, 4. Folder

1: Electric putout order = Priority order: 1. E-mail address, 2. Folder, 3. IP-fax destination, 4. Fax number

Bits 1 to 7: Not used

**6800F1(H) - User parameter switch 33 (SWUSR_21)**: Not used

**6800F2(H) - User parameter switch 34 (SWUSR_22)**

Bit 0: Gatekeeper server used with IP-Fax 0: Disabled, 1: Enabled

Bit 1: SIP server used with IP-Fax 0: Disabled, 1: Enabled

Bits 2 to 7: Not used

**6800F3(H) - User parameter switch 35 (SWUSR_23)**

Redial interval when sending a backup file

**6800F4(H) - User parameter switch 36 (SWUSR_24)**

Maximum number of redials when sending a backup file

**6800F5(H) - User parameter switch 37 (SWUSR_25)**

Bit 0: Whether to stop sending a backup file if the destination folder becomes full while the machine is sending or waiting to send a fax or the backup file. 0: No, • 1: Yes

Bit 2 and 3: Backup file is printed along with the TX communication failure report when a backup file transmission failure occurs. 00: Do not print, 01: Print first page only, 10: Print whole file

Bit 4: Display the sender's information in the file name of documents that are forwarded to folder destinations. 0: Disabled, 1: Enabled

Bit 5: Limit the file names of documents that are forwarded to folder destinations to plain characters only. 0: Disabled, 1: Enabled

Bit 6: When using the remote fax function, the sub-machine beeps to let you know when it has printed a received document (If you specify "On", the machine will beep according to the setting of [Panel Key Sound] under [System Settings].) 0: On, 1: Off

Bit 7: Not used

**6800F6(H) - User parameter switch 38 (SWUSR_26)**

Maximum number of transmissions the machine attempts before determining that a fax cannot be forwarded from a sender (including special senders) to a folder destination

**6800F7(H) - User parameter switch 39 (SWUSR_27)**

Interval (in minutes) between resend attempts after failing to forward a fax from a sender (including special senders) to a folder destination

**6800F8(H) - User parameter switch 40 (SWUSR_28)**

Bit 0: When memory space is insufficient, the machine prints and then deletes the oldest faxes, creating memory space for storage of new faxes. 0: Disabled, 1: Enabled

Bit 1 to 7: Not used

**6800FD(H) - User parameter switch 45 (SWUSR_2D)**

Bit 0 and 1:

Bit 2: File format for files transmitted to e-mail addresses and folders registered as forwarding, destinations of backup file transmission, receivers for Personal Box, or end receivers for Transfer Box. 0: PDF 1: PDF/A

Bit 3:

Bit 4 to 7: Not used

**680100 to 68010F(H)** - G4 Parameter Switches – Not used

**680110 to 68012F(H)** - G4 Internal Switches – Not used

**680130 to 68016F(H)** - Service Switches

**680170 to 68017F(H)** - IFAX Switches

**680180 to 68018F(H)** - IP-FAX Switches

**680190 to 6801A3(H)** - PSTN-1 RTI (Max. 20 characters - ASCII) - See the following note.

**6801A4 to 6801B7(H)** - PSTN-2 RTI (Max. 20 characters - ASCII)

**6801B8 to 6801CB(H)** - PSTN-3 RTI (Max. 20 characters - ASCII)

**6801CF to 68020E(H)** - TTI 1 (Max. 64 characters - ASCII) - See the following note.

**68020F to 68024E(H)** - TTI 2

**68024F to 68028E(H)** - TTI 3

**68028F to 6802CE(H)** - TTI 4

**6802CF to 68030E(H)** - TTI 5

**68030F to 68034E(H)** - TTI 6

**68034F to 68038E(H)** - TTI 7

**68038F to 6803CE(H)** - TTI 8

**6803CF to 68040E(H)** - TTI 9

**68040F to 68044E(H)** - TTI 10

**Note**

- If the number of characters is less than the maximum (20 for RTI, 32 for TTI), add a stop code (00[H]) after the last character.

**68044F(H)**

Printing format for TTI 1

0: DOM (Japan), 1:EXP (Export)

**680450(H)**

Printing format for TTI 2

0: DOM, 1: EXP

**680451(H)**

Printing format for TTI 3

0: DOM, 1:EXP

**680452(H)**

Printing format for TTI 4

0: DOM, 1:EXP

**680453(H)**

Printing format for TTI 5

0: DOM, 1:EXP

**680454(H)**

Printing format for TTI 6

0: DOM, 1:EXP

**680455(H)**

Printing format for TTI 7

0: DOM, 1:EXP

**680456(H)**

Printing format for TTI 8

0: DOM, 1:EXP

**680457(H)**

Printing format for TTI 9

0: DOM, 1:EXP

**680458(H)**

Printing format for TTI 10

0: DOM, 1: EXP

**680459 to 68046C(H)** - PSTN-1 CSI (Max. 20 characters - ASCII)

**68046D to 680480(H)** - PSTN-2 CSI (Max.20 characters - ASCII)

**680481 to 680494(H)** - PSTN-3 CSI (Max.20 characters - ASCII)

**680495(H)** - Number of PSTN-1 CSI characters (Hex)

**680496(H)** - Number of PSTN-2 CSI characters (Hex)

**680497(H)** - Number of PSTN-3 CSI characters (Hex)

**6804C6(H)** - Memory Lock ID (BCD)

**6804D2 to 6804D9(H)** - Last power off time (Read only)

6804D2(H) - 01(H) - 24-hour clock, 00(H) - 12-hour clock (AM), 02(H) - 12-hour clock (PM)

6804D3(H) - Year (BCD)

6804D4(H) - Month (BCD)

6804D5(H) - Day (BCD)

6804D6 (H) – Hour

6804D7 (H) – Minute

6804D8(H) – Second

6804D8 (H) - 00: Monday, 01: Tuesday, 02: Wednesday, ///, 06: Sunday

**6804E6(H)** - Optional equipment (Read only – Do not change the settings)

Bit 0: Page Memory 0: Not installed, 1: Installed

Bit 1: SAF Memory (4M) 0: Not installed, 1: Installed

Bit 2: SAF Memory 0: Not installed, 1: Installed

Bits 3 to 7; Not used

**6804E7(H)** - Optional equipment (Read only – Do not change the settings)

Bits 0 to 3: Not used

Bit 4: G3-2 0: Not installed, 1: Installed

Bit 5: G3-3 0: Not installed, 1: Installed

Bit 6 and 7: Not used

**6804EE(H)** - Machine code (Check ram 3)

**680500(H)** - Start address of G3 table for G3-1

**680600(H)** - Start address of G3 table for G3-2

**680700(H)** - Start address of G3 table for G3-3

**680800 to 68081F(H)** - Service station's fax number (SP3-101)

**680820 to 680829(H)** - Own fax PABX extension number – Not used

**68082A to 680833(H)** - Own fax number (PSTN) – Not used

**680834 to 680847(H)** - Own fax number (ISDN G4) – Not used

**680848 to 680853(H)** - The first subscriber number (ISDN G3) – Not used

**680854 to 68085F(H)** - The second subscriber number (ISDN G3) – Not used

**680860 to 68086B(H)** - The first subscriber number (ISDN G4) – Not used

**68086C to 680877(H)** - The second subscriber number (ISDN G4) – Not used

**6808A0 to 6808B7(H)** - G4TID registered information (Max.24 characters - ASCII)

**6808B8 to 6808CB(H)** - ISDN CSI (Max.20 characters - ASCII)

**6808CC(H)** - Number of ISDN CSI characters (Hex)

**6808D1 to 6808D4(H)** - ISDN G3 sub address registered information

**6808D5 to 6808D8(H)** - G4 sub address registered information

**6808DE to 6808E2** – Option G3 board (G3-2) ROM information (Read only)

6808DE(H) - Suffix (BCD)

6808DF(H) - Version (BCD)

6808E0(H) - Year (BCD)

6808E1(H) - Month (BCD)

6808E2(H) - Day (BCD)

**6808E3 to 6808E7** – Option G3 board (G3-3) ROM information (Read only)

6808E3(H) - Suffix (BCD)

6808E4(H) - Version (BCD)

6808E5(H) - Year (BCD)

6808E6(H) - Month (BCD)

6808E7(H) - Day (BCD)

**6808E8(H)** - G3-1 Modem ROM version (Read only)

**6808EA(H)** - G3-2 Modem ROM version (Read only)

**6808EC(H)** - G3-3 Modem ROM version (Read only)

**6808F8(H)** - Number of multiple sets print (Read only)

**68094E(H)** - Time for economy transmission (Not used)

**68094F(H)** - Time for economy transmission (Not used)

**68096A(H)** - Transmission monitor volume 00 - 07(H)

**68096B(H)** - Reception monitor volume 00 - 07(H)

**68096C(H)** - On-hook monitor volume 00 - 07(H)

**68096D(H)** - Dialing monitor volume 00 - 07(H)

**68096E(H)** - Buzzer volume 00 - 07(H)

**68096F(H)** - Beeper volume 00 - 07(H)

**680980(H)** - Machine code (Check ram 4)

**680982(H)** - Machine serial number (ASCII)

**687178 to 68717B(H)** - Transmission counter (Max.24 characters - ASCII)

**68717C to 68717F(H)** - Reception counter (Max.24 characters - ASCII)

**6871E8 to 6871EB(H)** - Mail transmission counter (Max.24 characters - ASCII)

**6871EC to 6871EF(H)** - Mai reception counter (Max.24 characters - ASCII)

**6A6DEE(H) to 6A70ED(H)** - SIP server address (Read only)

6A6DEE(H) - Proxy server - Main (Max. 128 characters - ASCII)

6A6E6E(H) - Proxy server - Sub (Max. 128 characters - ASCII)

6A6EEE(H) - Redirect server - Main (Max. 128 characters - ASCII)

6A6F6E(H) - Redirect server - Sub (Max. 128 characters - ASCII)

6A6FEE(H) - Registrar server - Main (Max. 128 characters - ASCII)

6A706E(H) - Registrar server - Sub (Max. 128 characters - ASCII)

**6A70EE(H)** - Gatekeeper server address - Main (Max. 128 characters - ASCII)

**6A716E(H)** - Gatekeeper server address - Sub (Max. 128 characters - ASCII)

**6A71EE(H)** - Alias Number (Max. 128 characters - ASCII)

**6A726E(H)** - SIP user name (Max. 128 characters - ASCII)

**6A72EE(H)** - **SIP digest authentication password** (Max. 128 characters - ASCII)

**6A736E(H)** - Gateway address information (Max. 7100 characters - ASCII)

**6A8F2A(H)** - NGN initial setting method 0: Simple, 1: Manual

**6A8F2B(H)** - SIP digest authentication user name (Max. 128 characters - ASCII)

**6A8FAB(H)** - NGN-SIP domain name (Max. 64 characters - ASCII)

**6A8FEB(H)** - NGN-home gateway address (Max. 128 characters - ASCII)

**6A906C(H)** - Stand-by port number for H.323 connection

**6A906E(H)** - Stand-by port number for SIP connection

**6A9070(H)** - RAS port number

**6A9072(H)** - Gatekeeper port number

**6A9074(H)** - Port number of data waiting for T.38

**6A9076(H)** - Port number of SIP server

**6A9078(H)** - Priority for SIP and H.323 0: H.323, 1: SIP

**6A9079(H)** - SIP function 0: Disabled, 1: Enabled

**6A907A(H)** - H.323 function 0: Disabled, 1: Enabled

**6A907B(H)** - **SIP digest authentication function** 0: Disabled, 1: Enabled

**6B3AE4(H) - 6B3B04 (H) - Dial tone detection parameter** (Max. 11 x 3 lines)

This initializes following order. [0x04, 0x40, 0x03, 0x60, 0x64, 0xf4, 0x01,0x64, 0x04, 0xc8, 0x00]

**6B3AE4(H)** – Dial tone detection frequency – Upper limit (High)

Defaults: NA: 06, EU: 06, ASIA: 06

**6B3AE5(H)** – Dial tone detection frequency – Upper Limit (Low)

Defaults: NA: 50, EU: 50, ASIA: 50

**6B3AE6(H)** – Dial tone detection frequency – Lower Limit (High)

Defaults: NA: 03, EU: 02, ASIA: 02

**6B3AE7(H)** – Dial tone detection frequency – Lower Limit (Low)

Defaults: NA: 60, EU: 90, ASIA: 90

**6B3AE8(H)** –Dial tone detection waiting time (20 ms)

Defaults: NA: 64, EU 64, ASIA: 64

**6B3AE9 to 6B3AEA** – Dial tone detection monitoring time (20 ms)

Defaults

| Area | 6B35A9 | 6B35AA |
|---|---|---|
| NA | F4 | 01 |
| EU | F4 | 01 |
| ASIA | F4 | 01 |

**6B3AEB(H)** – Dial tone detect judge time (20 ms)

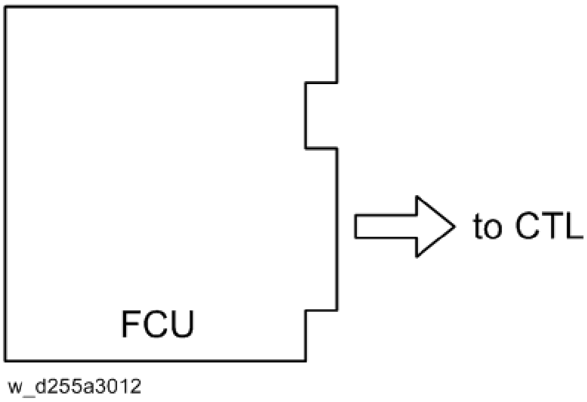
Defaults: NA: 64, EU: 1B, ASIA: 32

**6B3AEC(H)** – Dial tone disconnect permission time (20 ms)

Defaults: NA: 11, EU: 0F, ASIA: 11

# 5. Detailed Section Descriptions

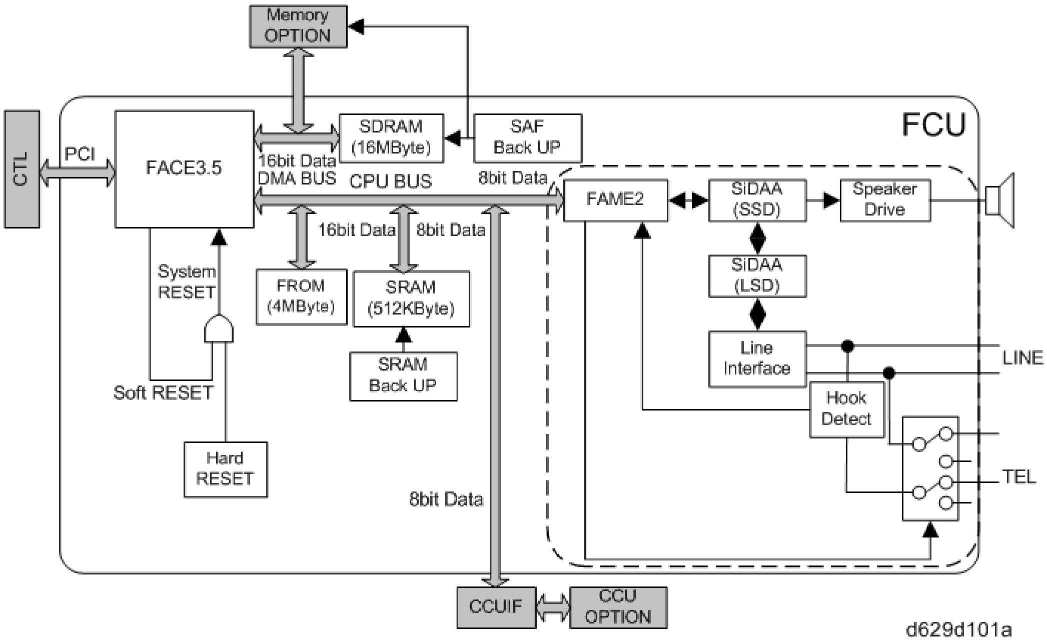
## Overview



The FCU controls all the fax communications and fax features, in cooperation with the controller board. Also, the FCU contains the ROM, SRAM and NCU circuits.

# Boards

## FCU



The FCU (Facsimile Control Unit) controls fax communications, the video interface to the base copier's engine, and all the fax options.

### FACE3.5 (Fax Application Control Engine)

- CPU
- Data compression and reconstruction (DCR)
- DMA control
- Clock generation
- DRAM backup control

### Modem (FAME2)

V.34, V33, V17, V.29, V.27ter, V.21, and V.8

## DRAM

The 16 MB of DRAM is shared as follows.

- SAF memory: 4MB
- Working memory: 4MB
- Page memory: 4MB
- The SAF memory is backed up by a rechargeable battery.

## SAF Memory Back-up

A rechargeable battery backs up the SAF memory (DRAM) for 12 hours.

## ROM

4 MB flash ROMs for system software storage

## SRAM

The 512 KB SRAM for system and user parameter storage is backed up by a lithium battery.

## SRAM Back-up

A lithium battery backs up the system parameters and programmed items in the SRAM, in case the base copier's main power switch is turned off.

## Switches

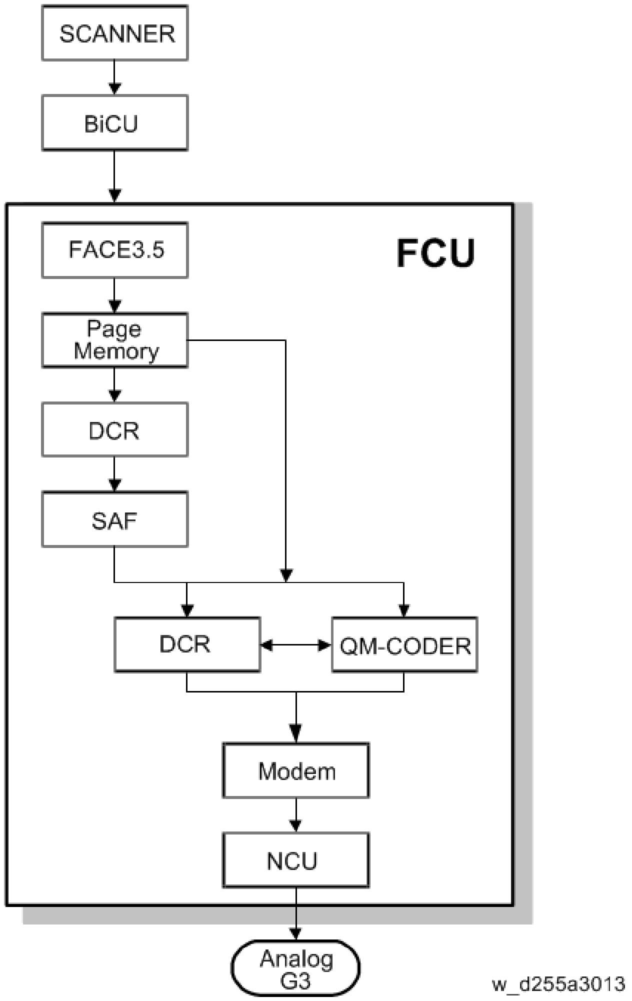
| Item | Description |
|---|---|
| SW1 | Switches the SRAM backup battery on/off. |

## CPU

This controls the energy-efficient operation of the FCU board.

# Video Data Path

## Transmission



### Memory Transmission and Parallel Memory Transmission

The base copier's scanner scans the original at the selected resolution in inch format. The BiCU processes the data and transfers it to the FCU.

**Note**

- When scanning a fax original, the BiCU uses the MTF, independent dot erase and thresholding parameter settings programmed in the fax unit's scanner bit switches, not the copier's SP modes.

Then, the FCU converts the data to mm format, and compresses the data in MMR or raw format to store it in the SAF memory. If image rotation will be done, the image is rotated in page memory before compression.

At the time of transmission, the FCU decompresses the stored data, then re-compresses and/or reduces the data if necessary for transmission. The NCU transmits the data to the line.

## Immediate Transmission

The base copier's scanner scans the original at the resolution agreed with the receiving terminal. The BiCU video processes the data and transfers it to the FCU.

**Note**

- When scanning a fax original, the BiCU uses the MTF, independent dot erase and thresholding parameter settings programmed in the fax unit's scanner bit switches, not the copier's SP modes.

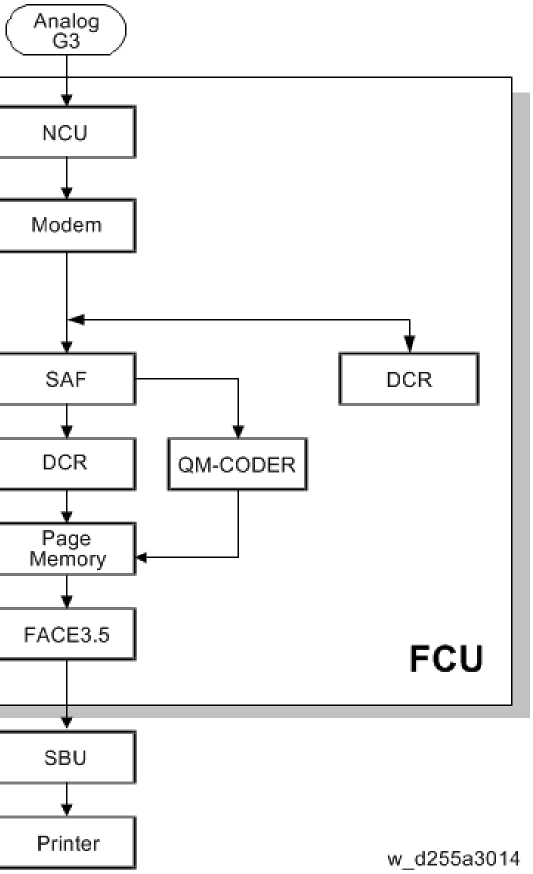
Then the FCU stores the data in page memory, and compresses the data for transmission. The NCU transmits the data to the line.

## JBIG Transmission

**Memory transmission:** If the receiver has JBIG compression, the data goes from the DCR to the QM-Coder. Then the NCU transmits the data to the line.

**Immediate transmission:** If the receiver has JBIG compression, the data goes from the page memory to the QM-Coder. Then the NCU transmits the data to the line.

## Reception



First, the FCU stores the incoming data from either an analog line to the SAF memory. (The data goes to the FACE3 at the same time, and is checked for error lines/frames.)

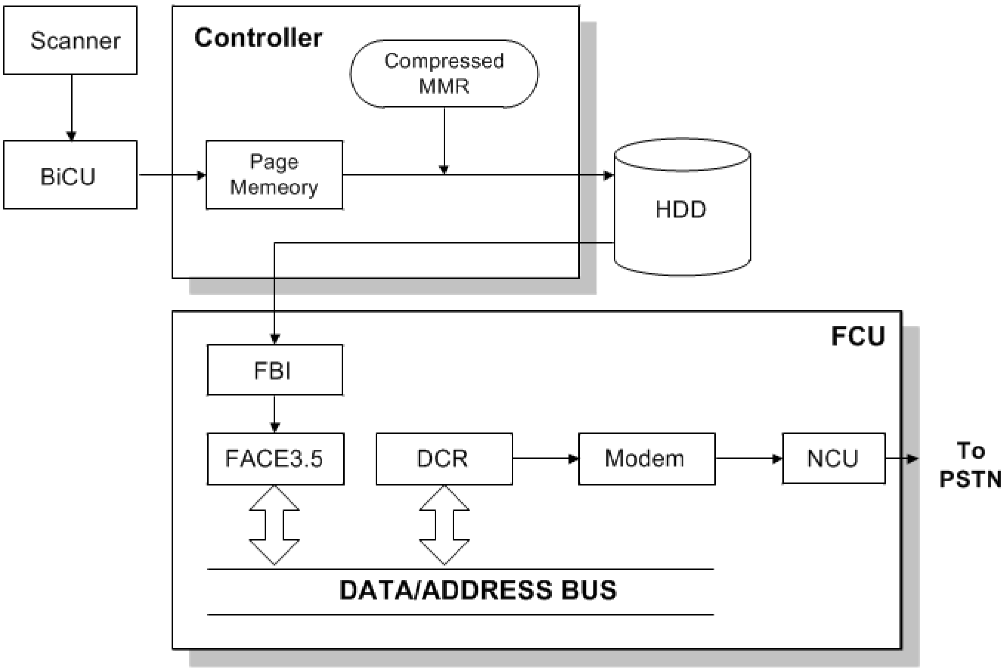
The FCU then decompresses the data and transfers it to page memory. If image rotation will be done, the image is rotated in the page memory. The data is transferred to the BiCU.

### JBIG Reception

When data compressed with JBIG comes in on PSTN-1 (the standard analog line), the data is sent to the QM-CODER for decompression. Then the data is stored in the page memory, and transferred to the BiCU.

# Fax Communication Features

## Document Server



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The base copier's scanner scans the original at the selected resolution. The BiCU video processes the data and transfers it to the controller board.

Then the controller stores the data in the page memory for the copier function, and compresses the data in MMR (by software) to store it in the HDD. If image rotation will be done, the image is rotated in the page memory before compression.

For transmission, the stored image data is transferred to the FCU. The FCU decompresses the image data, then recompresses and/or reduces the data if necessary for transmission. The NCU transmits the data to the line.

The documents can be stored in the HDD (Document Server) from the fax application. The stored documents in the document sever can be used for the fax transmission in many times. More than one document and the scanned document can be combined into one file and then the file can be transmitted.

- When using the document server, the SAF memory is not used.
- The document is compressed with MMR and stored.
- Up to 9,000 pages can be stored (1 file: Up to 1,000 pages) from the fax application.
- Only stored documents from the fax application can be transmitted.

- Scanned documents are given a name automatically, such as "FAX001". But it is possible to change the file name, user name and password.
- Up to 30 files can be selected at once.

**Note**

- The compression method of the fax application is different from the copy application. The storing time is longer than the copier storing.
- When selecting "Print 1st page", the stored document will be reduced to A4 size.

## Internet Mail Communication

### Mail Transmission

This machine supports T.37 full mode. (ITU-T Recommendation, RFC2532). The difference between T.37 simple mode and full mode is as follows.

| Function | T.37 Simple Mode | T.37 Full Mode |
|---|---|---|
| Resolution | 200 x 100<br>200 x 200 | 200 x100<br>200 x 200<br>200 x 400<br>400 x 400 (if available) |
| RX Paper Width | A4, 8.5" x 14" | A4, B4, A3 |
| RX Data Compression Method | MH | MH (default), MR, MMR |
| Signals | Image data transmission only | Image data transmission, exchange of capability information between the two terminals, and acknowledgement of receipt of fax messages |

### Data Formats

The scanned data is converted into a TIFF-F formatted file.

The fields of the e-mail and their contents are as follows:

| Field | Content |
|---|---|
| From | Mail address of the sender |

| Field | Content |
|---|---|
| Reply To | Destination requested for reply |
| To | Mail address of the destination |
| Bcc | Backup mail address |
| Subject | From CSI or RTI (Fax Message No. xxxx) |
| Content Type | Multipart/mixed<br>Attached files: image/tiff |
| Content Transfer Encoding | Base 64, 7-bit, 8-bit, Quoted Printable |
| Message Body | MIME-converted TIFF-F (MIME standards specify how files are attached to e-mail messages) |

## Direct SMTP Transmission

Internet Fax documents can be sent directly to their destinations without going through the SMTP server. (Internet Faxes normally transmit via the SMTP server.)

For example:

| | |
|---|---|
| **e-mail address:** | gts@ricoh.co.jp |
| **SMTP server address:** | gts.abcd.com |

In this case, this feature destination e-mail address (gts@ricoh.co.jp) is read as the SMTP server address "gts.abcd.com", and the transmissions bypass the SMTP server.

## Selectable Options

These options are available for selection:

- With the default settings, the scan resolution can be either standard or detail. Inch-mm conversion before TX depends on IFAX SW01 Bit 7. Detail resolution will be used if Super Fine resolution is selected, unless Fine resolution is enabled with IFAX SW01.
- The requirements for originals (document size, scan width, and memory capacity) are the same as for G3 fax memory TX.
- The default compression is TIFF-F format.
- IFAX SW00: Acceptable paper widths for sending
- IFAX SW09: Maximum number of attempts to the same destination

## Secure Internet Transmission

SMTP Authentication:

- User Tools > Machine Features > System Settings > File Transfer > SMTP Authentication

POP Before SMTP:

- User Tools > Machine Features > System Settings > File Transfer > POP Before SMTP

## Mail Reception

This machine supports three types of e-mail reception:

- POP3 (Post Office Protocol Ver. 3.)
- IMAP4 (Internet Messaging Access Protocol)
- SMTP (Simple Mail Transfer Protocol)

**Note**

- For details: Core Technology Manual – Facsimile Processes – Faxing from a PC – Internet/LAN Fax Boards – Mail Reception

## POP3/IMAP4 Mail Reception Procedure

The machine automatically picks up e-mail from the server at an interval which is adjustable in the range 2 to 1440 min. in 1-minute steps:

- User Tools > Machine Features > System Settings > File Transfer > E-mail Reception Interval

## SMTP Reception

1. The IFAX must be registered as an SMTP server in the MX record of the DNS server, and the address of the received mail must specify the IFAX.
2. To enable SMTP reception: User Tools > Machine Features > System Settings > File Transfer > Reception Protocol
   - Even if the MX record on the DNS server includes the IFAX, mail cannot be received with SMTP until SMTP reception is enabled:
   - However, if SMTP reception is selected and the machine is not registered in the MX record of the DNS server, then either IMAP4 or POP3 is used, depending on the setting: User Tools > Machine Features > System Settings > File Transfer > Reception Protocol

## Mail Delivery Conditions: Transferring Mail Received With SMTP

1. The machine must be set up for SMTP mail delivery:

User Tools > Machine Features > Facsimile Features > Reception Settings > SMTP RX File Delivery Settings

2. If the user wishes to limit this feature so that the machine will only deliver mail from designated senders, the machine's "Auth. E-mail RX" feature must be set (User Tools> Machine Features > Facsimile Features> E-mail Settings > SMTP RX File Delivery Settings).
3. If the "SMTP RX File Delivery Setting" is set to "0" to prohibit SMTP receiving, and if there is mail designated for delivery, then the machine responds with an error. (User Tools > Machine Features > Facsimile Features > E-mail Settings > SMTP RX File Delivery Settings)
4. If the quick dial, speed dial, or group dial entry is incorrect, the mail transmission is lost, and the IFAX issues an error to the SMTP server and outputs an error report.

## Auth. E-mail RX

In order to limit access to mail delivery with IFAX, the addresses of senders must be limited using the Access Limit Entry. Only one entry can be registered.

1. Access Limit Entry

   For example, to limit access to @IFAX.ricoh.co.jp:

| | |
|---|---|
| gts@IFAX.ricoh.co.jp | Matches and is delivered. |
| gts@IFAX.abcde.co.jp | Does not match and is not delivered. |
| IFAX@ricoh.co.jp | Does not match and is not delivered. |

2. Conditions
   - The length of the Access Limit Entry is limited to 127 characters.
   - If the Access Limit Entry address and the mail address of the incoming mail do not match, the incoming mail is discarded and not delivered, and the SMTP server responds with an error. However, in this case an error report is not output.
   - If the Access Limit Entry address is not registered, and if the incoming mail specifies a delivery destination, then the mail is delivered unconditionally.

## Handling Mail Reception Errors

### Abnormal files

When an error of this type occurs, the machine stops receiving and commands the server to erase the message. Then the machine prints an error report and sends information about the error by e-mail to the sender address (specified in the "From" or "Reply-to" field of the message). If there is an incomplete received message in the machine memory, it will be erased.

The machine prints an error message when it fails to send the receive error notification after a certain number of attempts.

The following types of files are judged to be abnormal if one or more of the following are detected:

1. Unsupported MIME headers.

   Supported types of MIME header

| Header | Supported Types |
|---|---|
| Content-Type | Multipart/mixed, text/plain, message/rfc822 Image/tiff |
| Charset | US-ASCII, ISO 8859 X. Other types cannot be handled, and some garbage may appear in the data. |
| Content-Transfer-Encoding | Base 64, 7-bit, 8-bit, Quoted Printable |

2. MIME decoding errors
3. File format not recognized as TIFF-F format
4. Resolution, document size, or compression type cannot be accepted

## Remaining SAF capacity error

The machine calls the server but does not receive e-mail if the remaining SAF capacity is less than a certain value (the value depends on IFAX Switch 08. The e-mail will be received when the SAF capacity increases (for example, after substitute reception files have been printed). The error handling method for this type of error is the same as for "Abnormal files".

If the capacity of the SAF memory drops to zero during reception, the machine operates in the same way as when receiving an abnormal file (refer to "Abnormal files" above).

## Secure Internet Reception

To enable password encryption and higher level security: User Tools> Machine Features > System Settings > File Transfer > POP3/IMAP4 Settings > Encryption (set to "On")

## Transfer Request: Request By Mail

For details: Core Technology Manual – Facsimile Processes – Faxing from a PC – Internet/LAN Fax Boards – Transfer Request

The fields of the e-mail and their contents are as follows:

| Field | Content |
|---|---|
| From | E-mail address of the requesting terminal |

| Field | Content |
|---|---|
| To | Destination address (Transfer Station address) |
| Bcc | Blind carbon copy |
| Subject | From TSI (Fax Message No. xxxx) |
| Content-Type | Multipart/mixed<br>Text/Plain (for a text part), image/tiff (for attached files) |
| Content-Transfer-Encoding | Base 64, 7-Bit, 8-bit, Quoted Printable |
| Mail body (text part) | RELAY-ID-: xxxx (xxxx: 4 digits for an ID code)<br>RELAY: #01#*X#**01.... |
| Message body | MIME-converted TIFF-F. |

## E-Mail Options (Sub TX Mode)

The following features are available as options for mail sending: entering a subject, designating the level of importance, confirming reception of the mail.

### Subject and Level of Importance

You can enter a subject message with: Sub TX Mode > E-mail Options

The Subject entry for the mail being sent is limited to 64 characters. The subject can also be prefixed with an "Urgent" or "High" notation.

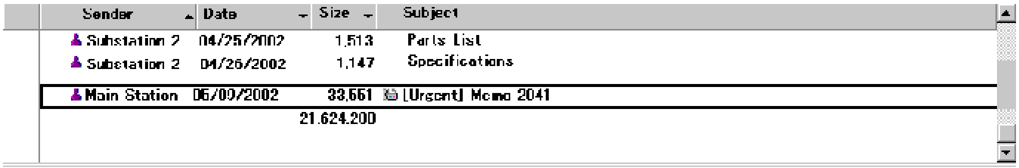
### How the Subject Differs According to Mail Type

| Mail Type | Item 1 | Item 2 | | Item 3 |
|---|---|---|---|---|
| Subject Entry | --- | Entry Condition | | Fax Message No.<br>+<br>File No. |
| No Subject Entry | | 1. "CSI" ("RTI") | | |
| | | 2. "RTI" | CSI not registered | |
| | | 3. "CSI" | RTI not registered | |
| | | 4. None | CSI, RTI not registered | |

| Mail Type | Item 1 | Item 2 | | Item 3 |
|---|---|---|---|---|
| Confirmation of Reception | From | 1. "CSI" ("RTI") | | Normal:<br>Return Receipt (dispatched).<br>You can select "displayed" with IFAX SW02 Bits 2 and 3. |
| | | 2. "RTI" | CSI not registered | |
| | | 3. "CSI" | RTI not registered | Error:<br>Return Receipt (processed/error) |
| | | 4. None | CSI, RTI not registered | |
| Mail delivery, memory transfer, SMTP receiving and delivery | From | RTI or CSI of the station designated for delivery | Mail delivery | Fax Message No. + File Number |
| | | RTI or CSI of sender | Mail sending from G3 memory | |
| | | Mail address of sender | Memory sending | |
| | | Mail address of sender | SMTP receiving and delivery (Off Ramp Gateway) | |
| Mail error notification | --- | Error Message No. xxxx From CSI (RTI) | | |

Items 1, 2, and 3 in the table above are in the Subject.

## Subjects Displayed on the PC



| Sender | Date | Size | Subject |
|---|---|---|---|
| Substation 2 | 04/25/2002 | 1,513 | Parts List |
| Substation 2 | 04/26/2002 | 1,147 | Specifications |
| Main Station | 06/09/2002 | 33,661 | [Urgent] Memo 2041 |
| | | 21,624,200 | |

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## E-mail Messages

After entering the subject, you can enter a message with: Sub TX Mode> E-mail Options

An e-mail message (up to 5 lines) can be pre-registered with: User Tools > Machine Features > System Settings > File Transfer > Program/Change/Delete E-mail Message

Limitations on Entries

| Item | Maximum |
|---|---|
| Number of Lines | 5 lines |
| Line Length | 80 characters |
| Name Length | 20 characters |

## Message Disposition Notification (MDN)

For details: Core Technology Manual – Facsimile Processes – Faxing from a PC – Internet/LAN Fax Boards – E-mail Options

The network system administrator can confirm whether a sent mail has been received correctly or not. This function is enabled only when "I-FAX switch 02 Bit 4" is set to "1". This confirmation is done in four steps.

1. Send request for confirmation of mail reception. To enable or disable this request (known as MDN):
2. Sub TX Mode> E-mail Options
3. Mail reception (receive confirmation request)
4. Send confirmation of mail reception
5. Receive confirmation of mail reception

The other party's machine will not respond to the request unless the two conditions below are met:

- The other party's machine must be set up to respond to the confirmation request.
- The other party's machine must support MDN (Message Disposition Notification).

- Setting up the Receiving Party -

The receiving party will respond to the confirmation request if:

1. The "Disposition Notification To" field is in the received mail header (automatically inserted in the 4th line in the upper table on the previous page, if MDN is enabled), and
2. Sending the disposition notification must be enabled (User Parameter Setting SW21 (15 [H]) Bit 1 for this model). The content of the response is as follows:

| | |
|---|---|
| Normal reception: | "Return Receipt (dispatched)" in the Subject line |

| | |
|---|---|
| IFAX SW02 (Bit 2, 3) | "Return Receipt (displayed)" in the Subject line |
| Error: | "Return Receipt (processed/error)" in the Subject line |

## Handling Reports

1. Sending a Request for a Return Receipt by Mail

   After the mail sender transmits a request for a return receipt, the mail sender's journal is annotated with two hyphens (--) in the Result column and a "Q" in the Mode column.

2. Mail Receipt (Request for Receipt Confirmation) and Sending Mail Receipt Response

   After the mail receiver sends a response to the request for a return receipt, the mail receiver's journal is annotated with two hyphens (--) in the Result column and an "A" in the Mode column.

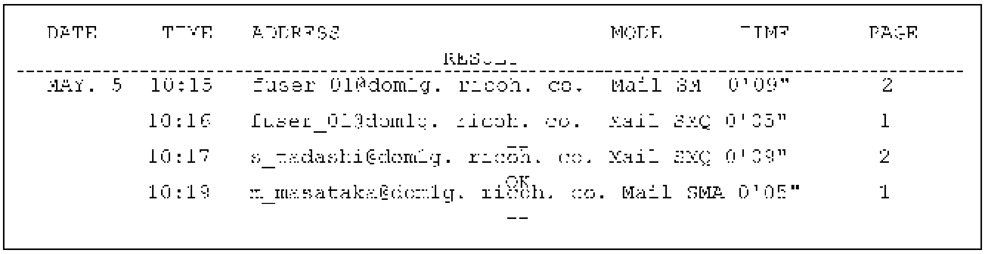
3. Receiving the Return Receipt Mail

   - After the mail sender receives a return receipt, the information in the mail sender's journal about the receipt request is replaced, i.e. the journal is annotated with "OK" in the Result column.
   - When the return receipt reports an error, the journal is annotated with an "E" in the Result column.
   - The arrival of the return receipt is not recorded in the journal as a separate communication. Its arrival is only reported by the presence of "OK" or "E" in the Result column.
   - If the mail address used by the sender specifies a mailing list (i.e., a Group destination; the machine sends the mail to more than one location. See "How to set up Mail Delivery"), the Result column of the Journal is updated every time a return receipt is received. For example, if the mailing list was to 5 destinations, the Result column indicates the result of the communication with the 5th destination only. The results of the communications to the first 4 destinations are not shown.

     Exceptions: If one of the communications had an error, the Result column will indicate E, even if subsequent communications were OK.

     If two of the communications had an error, the Journal will indicate the destination for the first error only.

## Report Sample



```
  DATE      TIME    ADDRESS                            MODE       TIME       PAGE
                                      RESULT
-----------------------------------------------------------------------------------------
  MAY. 5   10:15    fuser 01@domlg. ricoh. co.   Mail SM   0'09"        2
           10:16    fuser_01@domlg. ricoh. co.   Mail SMQ 0'35"         1
                                         --
           10:17    s_tadashi@domlg. ricoh. co. Mail SMQ 0'39"          2
                                         OK
           10:19    m_masataka@domlg. ricoh. co. Mail SMA 0'05"         1
                                         --
```

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# IP-Fax

## What is IP-FAX?

For details: Core Technology Manual – Facsimile Processes – Faxing from a PC – Internet/LAN Fax Boards – IP-FAX

## T.38 Packet Format

TCP is selected by default for this machine, but you can change this to UDP with IPFAX SW 00 Bit 1.

### UDP Related Switches

| IP-Fax Switch 01 | | | | | | |
|---|---|---|---|---|---|---|
| No. | Function | | | | | Comments |
| 0-3 | Select IP FAX Delay Level | | | | | Raise the level by selecting a higher setting if too many transmission errors are occurring on the network.<br>If TCP/UDP is enabled on the network, raise this setting on the T.30 machine. Increasing the delay time allows the recovery of more lost packets.<br>If only UDP is enabled, increase the number of redundant packets.<br>Level 1~2: 3 Redundant packets<br>Level 3: 4 Redundant packets |
| | Bit 3 | Bit 2 | Bit 1 | Bit 0 | Level | |
| | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 1 | 1 | |
| | 0 | 0 | 1 | 0 | 2 | |
| | 0 | 0 | 1 | 1 | 3 | |

## Settings

User parameter switch 34 (22[H]), bit 0

IP-Fax Gate Keeper usage, 0: No, 1: Yes

IP Fax Switches: Various IP-FAX settings (see the bit switch table)

# 6. Specifications

## General Specifications

### FCU

| Item | Spec. |
|---|---|
| Type: | Desktop type transceiver |
| Circuit: | PSTN<br>PABX |
| Connection | Direct couple |
| Original Size: | • Book (Face down)<br>Maximum Length: 356 mm (14.0 inch)<br>Maximum Width: 216 mm (8.5 inch)<br>• ARDF (Face up)<br>Maximum Length: 356 mm (14.0 inch)<br>Maximum Width: 216 mm (8.5 inch) |
| Scanning Method: | Flat bed, with CCD |
| Resolution: | 8 × 3.85 lines/mm, 200 × 100 dpi (Standard character), 8 × 7.7 lines/mm, 200 × 200 dpi (Detail character) |
| Transmission Time: | 3 seconds at 28,800 bps, Standard resolution (JBIG transmission: 2 seconds) |
| Data Compression: | MH, MR, MMR, JBIG |
| Protocol: | Group 3 with ECM |
| Modulation: | TCM: V.34, V.17<br>QAM: V.29, V.17<br>PhM: V27ter<br>FSK: V.8, V21 |

| Item | Spec. |
|---|---|
| Data Rate: | 33,600 / 31,200 / 28,800 / 26,400 / 24,000 / 21,600 / 19,200 / 16,800 / 14,400 / 12,000 / 9,600 / 7,200 / 4,800 / 2,400 bps (auto shift down system) |
| I/O Rate: | With ECM: 0 ms/line<br>Without ECM: 2.5, 5, 10, 20, or 40 ms/line |
| Memory Capacity: | • SAF: 4 MB<br>• Page Memory: 4 MB |

## Capabilities of Programmable Items

The following table shows the capabilities of each programmable items.

| Item | Maximum Value |
|---|---|
| Number of destinations you can register in the address book | 2000 |
| Number of groups you can register | 100 |
| Number of destinations you can register in a group | 500 |
| Number of destinations you can register into a keystroke program | 500 |
| Number of programs you can register in a group | 100 |
| Number of communication results you can check on this machine | 200 |
| Number of special senders you can register | 250 |
| Number of documents you can store in memory for memory transmission | 800 |
| Number of pages you can send for memory transmission | 1000 |
| Number of pages you can store in memory for memory transmission *1 | 320 |

*1: Measured using an ITU-T #1 test document (Slerexe letter) at standard resolution, auto image density mode, and Text mode.

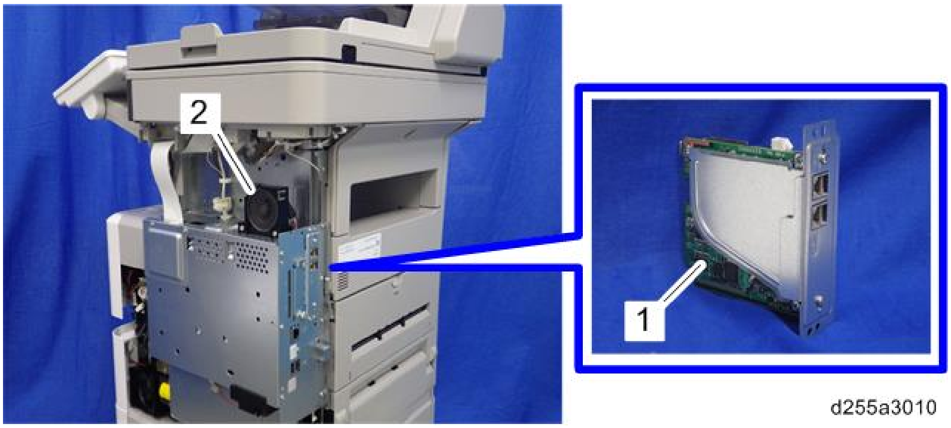
# IFAX Specifications

| Item | Spec. |
|---|---|
| Connectivity: | - Standard: Ethernet interface (1000BASE-T/100 BASE-TX/10 BASE-T)<br>- Optional: IEEE 802.11a/b/g/n wireless LAN interface |
| Resolution: | 200 × 100 dpi (Standard resolution), 200 × 200 dpi (Detail resolution) |
| Transmission Time: | 1 s (through a LAN to the server)<br>Condition: ITU-T #1 test document (Selerexe Letter)<br>MTF correction: OFF<br>TTI: None<br>Resolution: 200 × 100 dpi<br>Communication speed: 10 Mbps<br>Correspondent device: E-mail server<br>Line conditions: No terminal access |
| Document Size: | Maximum Original Size: A4 |
| E-mail File Format: | Single/Multi-part, MIME Conversion<br>Attached file fomrs: TIFF-F (MH, MR*, MMR*)<br>*: Full mode |
| Protocol: | Transmission: SMTP, TCP/IP<br>Reception: POP3, SMTP, IMAP4, TCP/IP |
| Data Rate: | 1000 Mbps (1000 Base-T), 100 Mbps (100 Base-Tx), 10 Mbps (10 Base-T) |
| Authentication Method: | SMTP-AUTH, POP before SMTP, A-POP |
| Remark: | The machine must be set up as an e-mail client before installation. Any client PCs connected to the machine through a LAN must also be e-mail clients, or some features will not work (e.g. Autorouting). |

# IP-FAX Specifications

| Item | Spec. |
|---|---|
| Network: | • Standard: Ethernet interface (1000BASE-T/100 BASE-TX/10 BASE-T)<br>• Optional: IEEE 802.11a/b/g/n wireless LAN interface |
| Scan line density: | 200 × 100dpi (standard character), 200 × 200dpi (detail character) |
| Maximum Original size: | A4 (SEF), 81/2" × 14" (SEF) |
| Maximum scanning size: | 216 mm × 356 mm (8.5" × 14.0") |
| Transmission protocol: | Recommendation: T.38, TCP, UDP/IP communication, SIP (RFC 3261 compliant), H.323 v2 |
| Compatible machines: | IP-Fax compatible machines |
| IP-Fax transmission function: | Specify IP address and send faxes to an IP-Fax compatible fax through a network.<br>Also capable of sending faxes to a G3 fax connected to a telephone line via a VoIP gateway. |
| IP-Fax reception function: | Receive faxes sent from an IP-Fax compatible fax through a network.<br>Also capable of receiving faxes from a G3 fax connected to a telephone line via a VoIP gateway. |

# Fax Unit Configuration



| No. | Component |
|---|---|
| 1 | FCU |
| 2 | Speaker |

MEMO

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