Fax Board
Field Service Manual
Ver 1.0

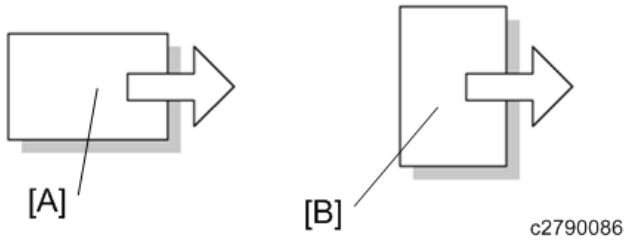
Initial Release: Nov, 2017

Symbols, Abbreviations

Symbols, Abbreviations

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
	Flat Flexible Cable
	Timing Belt
SEF	Short Edge Feed
LEF	Long Edge Feed
K	Black
C	Cyan
M	Magenta
Y	Yellow
B/W, BW	Black and White
FC	Full color



[A] Short Edge Feed (SEF)

[B] Long Edge Feed (LEF)

Table of Contents

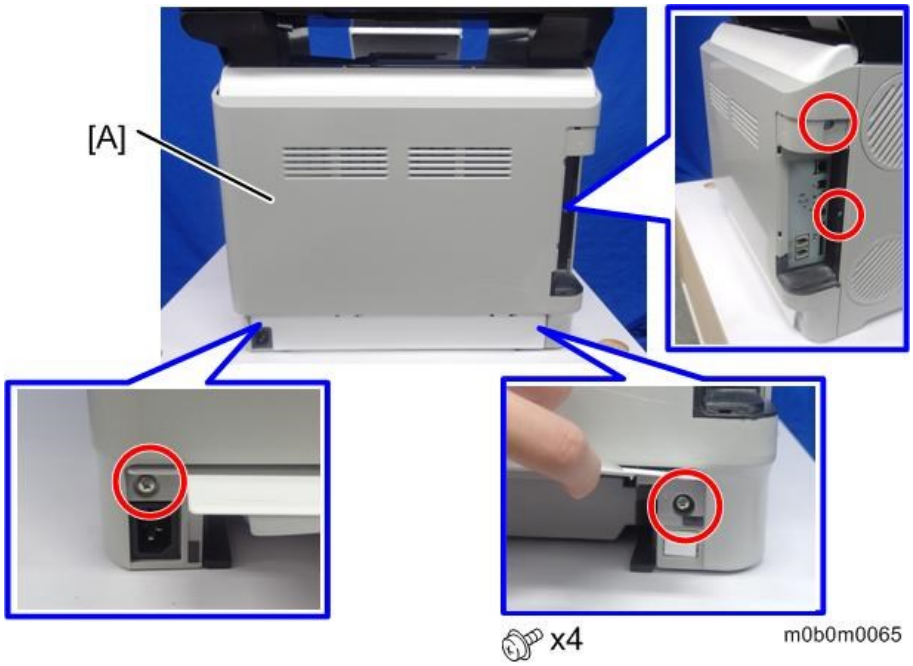
1. Replacement and Adjustment

Fax Board

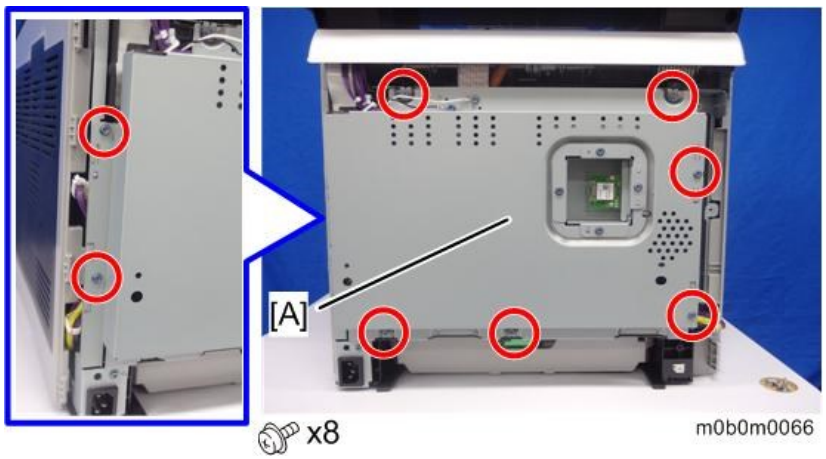
The user information stored in the DRAM is shifted to eMMC on the controller board. There are no additional procedures and special tools after replacing the fax board.

1. Remove the rear cover [A].

The lower screws are round screws.



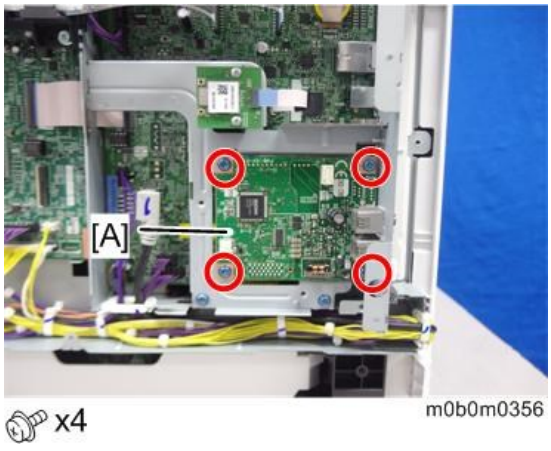
2. Remove the controller box cover [A].



3. Remove the two screws of the speaker bracket.

4. Remove the speaker bracket [A].

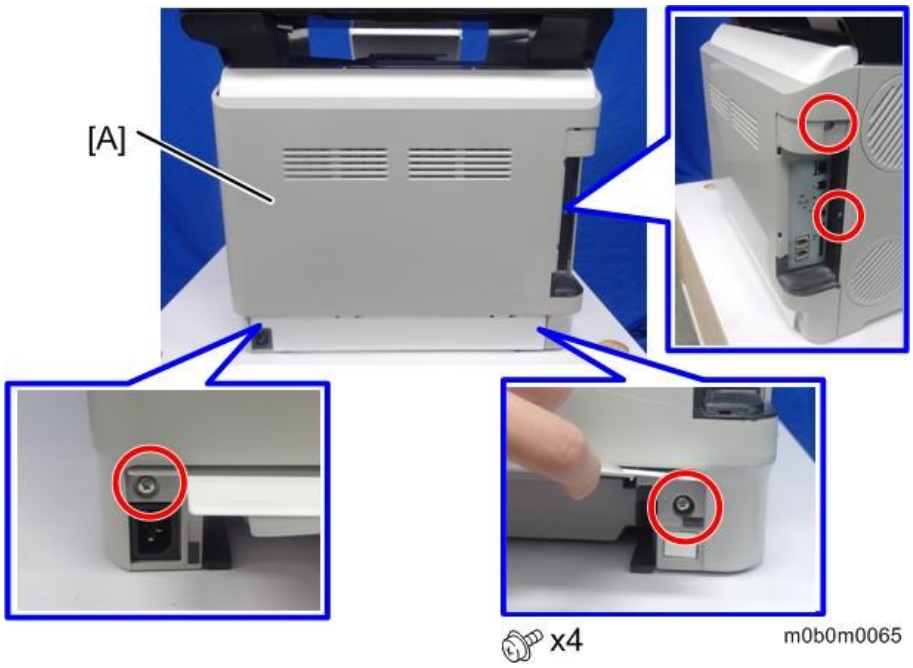
5. Remove the Fax board [A].



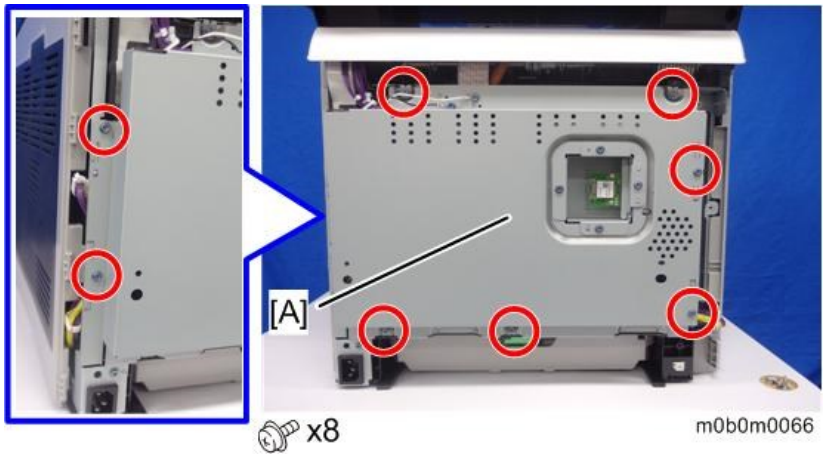
Speaker

1. Remove the rear cover [A].

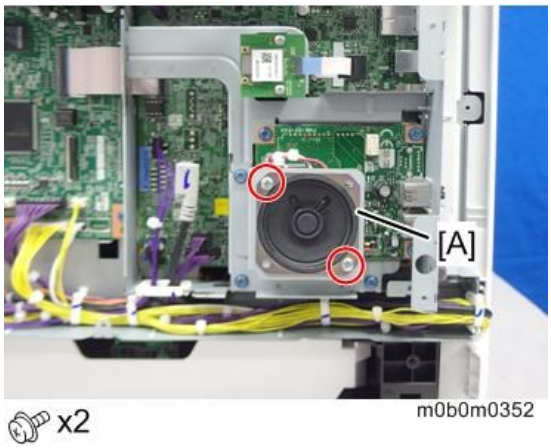
The lower screws are round screws.



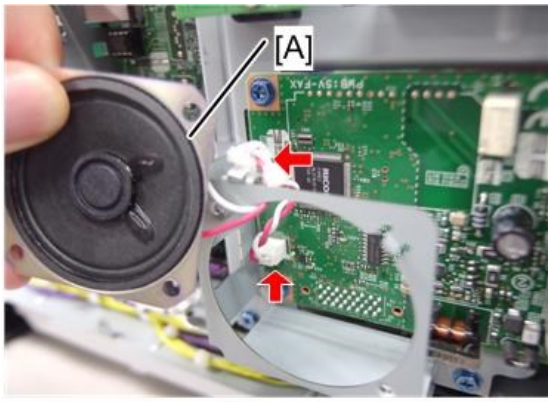
2. Remove the controller box cover [A].



3. Remove the two screws of the speaker [A].



4. Disconnect the connector and remove the speaker [A].

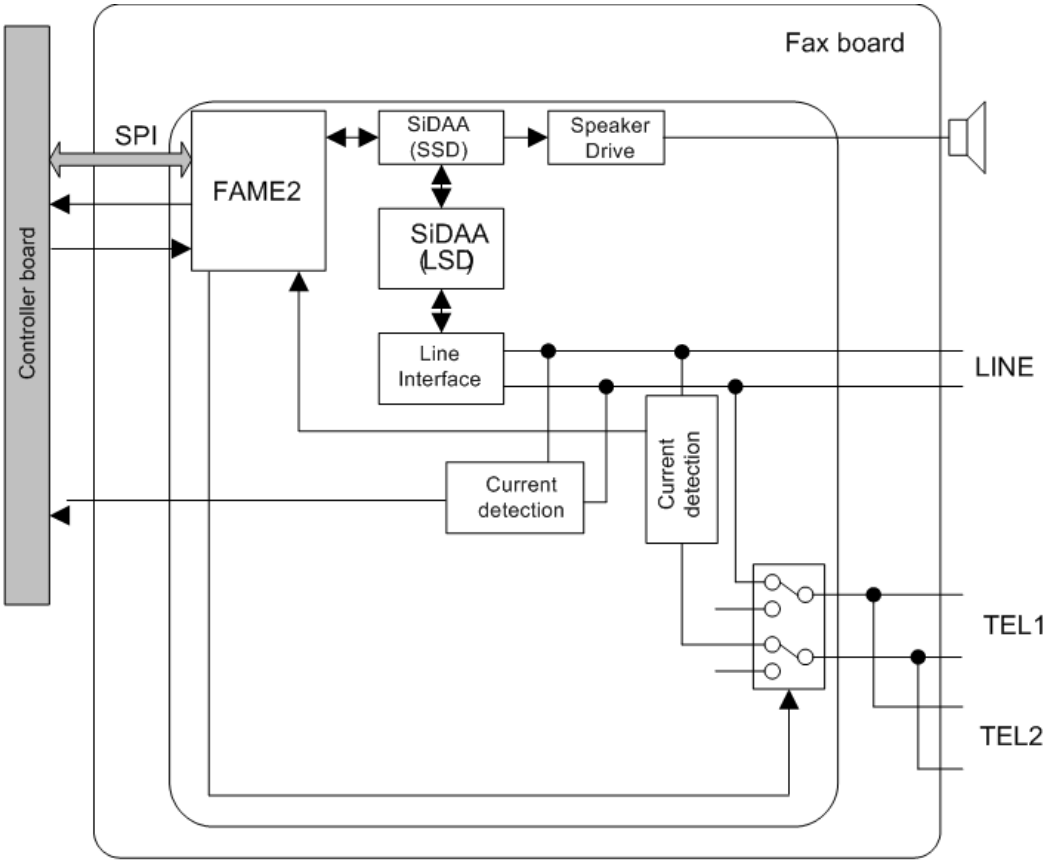


x1, x1 m0b0m0353

2. Detailed Section Descriptions

Overview

Together with the controller board, the fax board controls all the fax communications and fax features. The fax board also contains the NCU circuit.



Compared with conventional machines, FACE (Fax Application Control Engine) and the memory storage (SAF) which had been on the FCU are shifted to the sGW controller board.

Modem (FAME2)

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

3. Service Tables

Cautions

Important

- Never turn off the main power switch when the power LED is lit or flashing. To avoid damaging the hard disk or memory, press the operation power switch to switch the power off, wait for the power LED to go off, and then switch the main power switch off.

Note

- The main power LED lights or flashes while the platen cover or SPDF is open, while the main machine is communicating with a facsimile or the network server, or while the machine is accessing the hard disk or memory for reading or writing data.

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 functions. "Bit Switches - 1" : "System Switches"
102	Ifax Switch		
	001 – 016	00 – 0F	Change the bit switches for internet fax settings for the fax functions. "Bit Switches - 2" : "I-Fax Switches"
103	Printer Switch		
	001 – 016	00 – 0F	Change the bit switches for printer settings for the fax functions. "Bit Switches - 2": "Printer Switches"
104	Communication Switch		
	001 – 032	00 – 1F	Change the bit switches for communication settings for the fax functions. "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. "Bit Switches - 4" : "G3 Switches"

SP2-XXX (RAM)

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

SP3-XXX (Machine Set)

3	Mode No.		Function
102	Serial Number		
	001		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
201	FAX SW		
	001 – 032	00 – 1F	

SP4-XXX (ROM Versions)

4	Mode No.		Function
102	001	Error Codes	Displays the latest 64 fax error codes.

SP5-XXX (RAM Clear)

5	Mode No.	Function
101	Initialize SRAM (except Secure)	
	001	Initializes the bit switches and user parameters, user data in the SRAM, files in the SAF memory, and clock.
102	Erase All Files	
	001	Erases all files stored in the SAF memory.
103	Reset Bit Switches (except Secure)	
	001	Resets the bit switches and user parameters.
104	Factory Setting	
	001	Resets the bit switches and user parameters, user data in the SRAM and files in the SAF memory.
105	Reset All Bit Switches	
	001	Resets all the current bit switch settings.
106	Reset Security Bit Switches	
	001	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	

	001	-	Touch the “ON” button to print the system parameter list.
102	Service Monitor Report		
	001	-	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 (1 Communication)	Prints the protocol dump list of the last communication for the G3-1 line.
105	All Files print out		
	001	-	Prints out all the user files in the SAF memory, including confidential messages. Note • 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	G3CCU	
	011	Fax Job	
	012	CCU	
	013	Scanner Condition	

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**
0-4	Not used	Do not change these settings.
5	G3 communication parameter display 0: Disabled 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. Be sure to reset this bit to "0" after testing.
6	Protocol dump list output after each communication 0: Off 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. 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.

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 0: Off 1: On	With this setting on, the machine resets itself automatically if a transmission stalls and fails to complete the job.
3-7	Not used	Do not change these settings.

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

System Switch 04 - Not used (Do not change the factory 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	Not used	Do not change the setting.
1	Print timing of communication reports on the Journal when no image data was exchanged. 0: After DCS/NSS communication (default), 1: After polling	0: The Journal is printed only when image data is sent. 1: The Journal is printed when any data is sent.
2	Automatic error report printout 0: Disabled 1: Enabled	0: Error reports will not be printed. 1: Error reports will be printed automatically after failed communications.
3	Printing of the error code on the error report 0: No 1: Yes	1: Error codes are printed on the error reports. This can be used for detecting an error which occurs rarely.
4	Not used	Do not change this setting.
5	Power failure report 0: Disabled 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. **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 0: Print for all communications 1: Print only when there is a communication error	This switch becomes effective only when system switch 00 bit 6 is set to 1. 1: Set this bit to 1 when you wish to print a protocol dump list only for communications with errors. **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
0-3	Not used	Do not change these settings.
4	Dialing on the ten-key pad when the external telephone is off-hook 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. 1: The user can dial on the machine's ten-key pad when the handset is off-hook.
5	On hook dial 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**
0-2	Not used	Do not change these settings.
3	Action when the external handset goes off-hook 0: Manual TX and RX operation 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. 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 to 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.
	00: France	12: Asia	
	01:	13: Japan	

	Germany		Cross reference NCU country code: SP No. 2-103-001 for G3-1
	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 N can be between 00 - FF(H) Default setting: 02(H) = 512 KB

System Switch 11 (SP No. 1-101-018)		
No	**Function**	**Comments**
0	TTI printing position 0: Superimposed on the page data 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). **NOTE:** If "1" is selected, it is possible that sent data is printed on two sheets of paper.
1-	Not used	Do not change these settings.

2		
3	TTI used for broadcasting 0: The TTIs selected for each Quick/Speed dial are used 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 Input even numbers only. 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.
1	Going into the Energy Saver mode automatically 0: Enabled 1: Disabled			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. Use this setting if an external telephone has to be used when the machine is in the Energy Saver mode.
2-3	Not used			Do not change these settings.
4-5	Interval for preventing the machine from entering Energy Saver mode if there is a pending transmission file.			If there is a file waiting for transmission, the machine does not go to Energy Saver mode during the selected period. After transmitting the file, if there is no file waiting for transmission, the machine goes to the Energy Saver mode.
	Bit 5	Bit 4	Setting	
	0	0	1 min	
	0	1	30 min	

	1	0	1 hour	
	1	1	24 hours	
6-7	Not used			Do not change

System Switch 16 - 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 - Not used (do not change these settings)
System Switch 1A - Not used (do not change these settings)
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	CSI code display 0: Enable 1: Disable	0: CSI code is displayed on the top line of the LCD panel during communication. 1: Code is 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 0: Impossible 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. 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. Note • This setting is effective only when Automatic Journal printout is enabled but the machine cannot print the report (e.g., no paper).
1-2	Not used	Do not change these settings.
3	File No. printing	1: File numbers are not printed on any reports.

	0: Enabled 1: Disabled	**NOTE:** The file numbers may not be printed in the sequential order. If a customer does not like this numbering, select "0".
4-7	Not used	Do not change these settings.

System Switch 1F (SP No. 1-101-032)		
No	**Function**	**Comments**
0	Trace log function	0: Enable 1: Disable
1-6	Not used	Do not change these settings.
7	Action when a fax SC has occurred 0: Automatic reset 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. 1: When the fax unit detects any fax SC code, the fax unit stops. **Reference:** 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 Not used (do not change the settings)

I-fax Switch 01 (SP No. 1-102-002)		
No	**Function**	**Comments**
0-6	Not used	Do not change these settings.
7	mm/inch	This setting selects mm/inch conversion for mail transmission. 0: Off (No conversion), 1: On (Conversion) When on (set to "1"), the machine converts millimeters to inches for sending mail. There is no switch for converting inches to millimeters. 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. When this switch is Off (0): • Images scanned in inches are sent in inches. • Images scanned in mm are sent in mm. • Images received in inches are transmitted in inches. • Images received in mm are transmitted in mm. When this switch is On (1): • Images scanned in inches are sent in inches. • Images scanned in mm are converted to inches. • Images received in inches are transmitted in inches. • Images received in mm are converted to inches.

I-fax Switch 02 - Not used (do not change these settings)
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 CSI registered on this machine or the CSI of the originator is used in the subject lines of transferred documents. 0: Puts the CSI of the originator in the Subject line. Only CSI can be received for use in the subject line. 1: Puts the CSI registered on this machine in the Subject line. 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.	
1-7	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. For example: "1st destination + Total number of destinations: 9" in the Journal indicates a broadcast to 9 destinations. 0: Not recorded 1: Recorded	
1	IFAXTX Retries	
	Determines whether the machine retries sending IFAX when connection and transmission fails due to errors. 0: Disabled 1: Enabled	
2	Selects whether to enable or disable the size adjustment function in the main scanning direction when sending TIFF files to e-mail or folder destinations.	
	0: OFF (Disabled) Size adjustment is not performed. (Normal operation) 1: ON (Enabled) Size adjustment is performed.	
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 - Not used (do not change the settings)

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. 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)
I-fax Switch 0D - Not used (do not change the settings)
I-fax Switch 0E - Not used (do not change the settings)
I-fax Switch 0F - Not used (do not change the settings)

Printer Switches

Printer Switch 00 (SP No. 1-103-001)		
No	**Function**	**Comments**
0	Select page separation marks 0: Off 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. 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. Note • 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 0: Off 1: On	1: Default. 10 mm of the trailing edge of the previous page are repeated at the top of the next page. 0: The next page continues from where the previous page stopped without any repeated text.
2-7	Not used	Do not change the settings.

Printer Switch 01 - Not used (do not change the settings)

Printer Switch 02 - Not used (do not change the settings)

Printer Switch 03 (SP No. 1-103-004)		
No	**Function**	**Comments**
0*	Length reduction of received data 0: Disabled 1: Enabled	0: Incoming pages are printed without length reduction. (Page separation threshold: Printer Switch 03, bits 4 to 7) 1: Incoming page length is reduced when printing. (Maximum reducible length: Printer Switches 04, bits 0 to 4)
1-3	Not used	Do not change the settings
4 to 7	Page separation setting when sub scan compression is forbidden 00-0F (0-15 mm: Hex) Default: 6 mm	Page separation threshold (with reduction disabled with switch 03-0 above). For example, if this setting is set to "10", and A4 is the selected paper size: If the received document is 10 mm or less longer than A4, then the 10 mm are cut and only 1 page prints. 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 Fax board.

Printer Switch 04 (SP No. 1-103-005)						
No	**Function**			**Comments**		
0 to 4	Maximum reducible length when length reduction is enabled with switch 03-0 above. [Maximum reducible length] = [Paper length] + (N x 5mm) "N" is the decimal value of the binary setting of bits 0 to 4.					
	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0	Setting
	0	0	0	0	0	0 mm
	0	0	0	0	1	5 mm
	0	0	1	0	0	20 mm
	1	1	1	1	1	155 mm
	For A5 sideways and B5 sideways paper [Maximum reducible length] = [Paper length] + 0.75 x (N x 5mm)					
5 6	Length of the duplicated image on the next page, when page separation has taken place.					
	Bit 6		Bit 5		Setting	
	0		0		4 mm	
	0		1		10 mm	
	1		0		15 mm	

	1	1	Not used
7	Not used.	Do not change the setting.	

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. 0: Printing will not start 1: Printing will start if another cassette has a suitable size of paper, based on the paper size selection priority tables.	**Reference:** 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	Not used.	Do not change the settings.
1	Selects whether or not to print at a reduced size (95%) when printing on sheets with the width of letter-size paper.	0:OFF 1:ON
2-3	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. 0: All receivers 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)

Printer Switch 0E (SP No. 1-103-015)

<table>
<tr><th>No</th><th>Function</th><th>Comments</th></tr>
<tr><td>0*</td><td>Paper size selection priority
0: Width
1: Length</td><td>0: A paper size that has the same width as the received data is selected first.
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>Paper size selected for printing A4 width fax data
0: 8.5" x 11" size
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>Page separation
0: Enabled
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).
After a larger size of paper is set in a cassette, the machine automatically prints the fax message.</td></tr>
<tr><td>3-4</td><td>Printing the sample image on reports
<table>
<tr><th>Bit 4</th><th>Bit 3</th><th>Setting</th></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>
</table></td><td>"Same size" means the sample image is printed at 100%, even if page separation occurs.
User Parameter Switch 19 (13H) bit 4 must be set to "0" to enable this switch.
Refer to “Detailed Descriptions” for more details.</td></tr>
<tr><td>5-6</td><td>Not used</td><td>Do not change the settings.</td></tr>
<tr><td>7</td><td>Equalizing the reduction ratio among separated pages (Page Separation)
0: Enabled
1: Disabled</td><td>0: When page separation has taken place, all the pages are reduced with the same reduction ratio.
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 fax board.

Printer Switch 0F - Not used (do not change the settings)

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

<table>
<tr><th colspan="5">Communication Switch 00 (SP No. 1-104-001)</th></tr>
<tr><th>No</th><th colspan="3">Function</th><th>Comments</th></tr>
<tr><td>0-1</td><td colspan="3">Compression modes available in receive mode</td><td rowspan="6">These bits determine the compression capabilities to be declared in phase B (handshaking) of the T.30 protocol.</td></tr>
<tr><td>Bit 1</td><td>Bit 0</td><td>Modes</td></tr>
<tr><td>0</td><td>0</td><td>MH only</td></tr>
<tr><td>0</td><td>1</td><td>MH/MR</td></tr>
<tr><td>1</td><td>0</td><td>MH/MR/MMR</td></tr>
<tr><td>1</td><td>1</td><td>Do not change</td></tr>
<tr><td>2-3</td><td colspan="3">Compression modes available in transmit mode</td><td rowspan="6">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.</td></tr>
<tr><td>Bit 3</td><td>Bit 2</td><td>Modes</td></tr>
<tr><td>0</td><td>0</td><td>MH only</td></tr>
<tr><td>0</td><td>1</td><td>MH/MR</td></tr>
<tr><td>1</td><td>0</td><td>MH/MR/MMR</td></tr>
<tr><td>1</td><td>1</td><td>Do not change</td></tr>
<tr><td>4-7</td><td colspan="3">Not used</td><td>Do not change the settings.</td></tr>
</table>

<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
0: Off 1: On</td><td>If this bit is set to 0, ECM is switched off for all communications. In addition, V.8 protocol is switched off automatically.</td></tr>
<tr><td>1-5</td><td colspan="3">Not used</td><td>Do not change the setting.</td></tr>
<tr><td>6-7</td><td colspan="3">Maximum printable page length available</td><td rowspan="2">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>
</table>

	0	0	No limit	
	0	1	B4 (364 mm)	
	1	0	A4 (297 mm)	
	1	1	Not used	

Communication Switch 02 (SP No. 1-104-003)			
No	**Function**	**Comments**	
0	G3 Burst error threshold 0: Low 1: High	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.	
		100 dpi	6(L) →12(H)
		200 dpi	12(L) →24(H)
		300 dpi	18(L) →36(H)
		400 dpi	24(L) →48(H)
1	Acceptable total error line ratio 0: 5% 1: 10%	If the error line ratio for a page exceeds the acceptable ratio, RTN will be sent to the other end.	
2	Treatment of pages received with errors during G3 reception 0: Deleted from memory without printing 1: Printed	0: Pages received with errors are not printed.	
3-7	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. This setting is not used if ECM is switched on. Default setting - 03(H)

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

Communication Switch 0A (SP No. 1-104-011)		
No	**Function**	**Comments**
0	Point of resumption of memory transmission upon redialing 0: From the error page 1: From page 1	0: The transmission begins from the page where transmission failed the previous time. 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.
4-7	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 (e.g., 06(H) = 24 Kbytes) One page is about 24 Kbytes. 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. 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-	Minimum interval between	06 to FF (Hex), unit = 2 s

7	automatic dialing attempts	(e.g., 06(H) = 12 s) 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
0: Disabled, 1: Enabled</td><td>0: In immediate transmission, data scanned in inch format are transmitted without conversion.
In memory transmission, data stored in the SAF memory in mm format are transmitted without conversion.
Note: When storing the scanned data into SAF memory, the fax unit always converts the data into mm format.
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="3">6-7</td><td colspan="3">Available unit of resolution in which fax messages are received</td><td rowspan="3">For the best performance, do not change the factory settings. 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>
</table>

	0	1	inch	
	1	0	mm and inch	
	1	1	Not used	

Communication Switch 15 – Not used (do not change the settings)
Communication Switch 16 – Not used (do not change the settings)
Communication Switch 17 – Not used (do not change the settings)
Communication Switch 18 – Not used (do not change the settings)
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 0: On 1: Off	If the PABX does not support V.8/V.34 protocol procedure, set this bit to "1" to disable V.8. 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 0: On 1: Off	Refer to communication switch 1B. 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

G3 Switch 00 (SP No. 1-105-001)

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

G3 Switch 01 (SP No. 1-105-002)

No	Function	Comments
0-3	Not used	Do not change the settings.
4	DIS frame length 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 0: Off 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 (Do not change this setting.)

G3 Switch 03 (SP No. 1-105-004)		
No	**Function**	**Comments**
0	DIS detection number (Echo countermeasure) 0: 1 1: 2	0: The machine will hang up if it receives the same DIS frame twice. 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 0: 256 bytes 1: 64 bytes	Keep this bit at "0" in most cases.
4	Not Used	Do not change the settings.
5	Modem rate used for the next page after receiving a negative code (RTN or PIN) 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 0: Off 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 0: No detection 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 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.

G3 Switch 05 (SP No. 1-105-006)

No	Function					Comments
0-3	Initial TX modem rate (kbps)					These bits set the initial starting modem rate for transmission. Use the dedicated transmission parameters if you need to change this for specific receivers. If a modem rate 14.4 kbps or slower is selected, V.8 protocol should be disabled manually. Cross reference V.8 protocol on/off - G3 switch 03, bit 2
	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					
4-5	Initial modem type for 9.6 k or 7.2 kbps.					These bits set the initial modem type for 9.6 and 7.2 kbps, if the initial modem rate is set at these speeds.
	Bit 5	Bit 4	Setting			
	0	0	V.29			
	0	1	V.17			
	1	0	V.34			
	1	1	Not used			
6-7	Not used					Do not change the settings.

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.
	Bit 3	Bit	Bit	Bit	kbps	

		2	1	0		Use a lower setting if high speeds pose problems during reception. If a modem rate 14.4 kbps or slower is selected, V.8 protocol should be disabled manually. Cross reference V.8 protocol on/off - G3 switch 03, bit2
	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					

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

G3 Switch 07 (SP No. 1-105-008)				
No	**Function**			**Comments**
0-1	PSTN cable equalizer (TX mode: Internal)			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. Use the dedicated transmission parameters for specific receivers. Also, try using the cable equalizer if one or more of the following
	Bit 1	Bit 0	Setting	
	0	0	None	

<table>
<tr><td></td><td>0</td><td>1</td><td>Low</td><td rowspan="5">symptoms occurs.
Communication error
Modem rate fallback occurs frequently.
Note
• This setting is not effective in V.34 communications.</td></tr>
<tr><td></td><td>1</td><td>0</td><td>Medium</td></tr>
<tr><td></td><td>1</td><td>1</td><td>High</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td>2-3</td><td colspan="3">PSTN cable equalizer (RX mode: Internal)</td><td rowspan="9">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.
Also, try using the cable equalizer if one or more of the following symptoms occurs.
Communication error with error codes such as 0-20, 0-23, etc.
Modem rate fallback occurs frequently.
Note
• This setting is not effective in V.34 communications.</td></tr>
<tr><td></td><td>Bit 3</td><td>Bit 2</td><td>Setting</td></tr>
<tr><td></td><td>0</td><td>0</td><td>None</td></tr>
<tr><td></td><td>0</td><td>1</td><td>Low</td></tr>
<tr><td></td><td>1</td><td>0</td><td>Medium</td></tr>
<tr><td></td><td>1</td><td>1</td><td>High</td></tr>
<tr><td colspan="4"></td></tr>
<tr><td>4</td><td colspan="3">PSTN cable equalizer (V.8/V.17 RX mode: External)
0: Disabled
1: Enabled</td><td>Keep this bit at "1".</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">Parameter selection for dial tone detection
0: Normal parameter
1: Specific parameter</td><td>0: This uses the fixed table in the ROM for dial tone detection.
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.</td></tr>
<tr><td>7</td><td colspan="3">Not used</td><td>Do not change the settings.</td></tr>
</table>

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

<table>
<tr><th colspan="5">G3 Switch 0A (SP No. 1-105-011)</th></tr>
<tr><th>No</th><th colspan="3">Function</th><th>Comments</th></tr>
<tr><td>0-1</td><td colspan="3">Maximum allowable carrier drop during image data reception</td><td rowspan="3">These bits set the acceptable modem carrier drop time.
Try a longer setting if error code 0-22 is frequent.</td></tr>
<tr><td></td><td>Bit 1</td><td>Bit 0</td><td>Value (ms)</td></tr>
<tr><td></td><td>0</td><td>0</td><td>200</td></tr>
</table>

	0	1	400	
	1	0	800	
	1	1	Not used	
2	Select cancellation of high-speed RX if carrier signal lost while receiving 0: Off 1: On			This switch setting determines if high-speed receiving ends if the carrier signal is lost when receiving during non-ECM mode
3	Not used			Do not change the settings
4	Maximum allowable frame interval during image data reception. 0: 5 s 1: 13 s			This bit set the maximum interval between EOL (end-of-line) signals and the maximum interval between ECM frames from the other end. Try using a longer setting if error code 0-21 is frequent.
5	Not used			Do not change the settings.
6	Reconstruction time for the first line in receive mode 0: 6 s 1: 12 s			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. Refer to error code 0-20. ITU-T T.30 recommendation: The first line should come within 5 s of CFR.
7	Not used			Do not change the settings.

G3 Switch 0B Not used (do not change the settings).
G3 Switch 0C 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 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 3000 – 50 x Nms 0F (3000 ms) <= N <= FF (2250 ms)
	Low order bit	00-0E(3000-3700ms: 3000+50xNms 3000 – 50 x Nms 0F (3000 ms) <= N <= 0F (3700 ms)

G3 Switch 0F (SP No. 1-105-016)		
No	**Function**	**Comments**
0	Not used	Do not change these settings.
1	Alarm when the handset is off-hook at the end of communication 0: Disabled 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 0: Off 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

Not used. Do not change this bit switches.

Bit Switches - 6

Not used. Do not change this bit switches.

NCU Parameters

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.

Address	Function	Unit	Remarks
7EB52000	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
7EB520B4	PSTN: TX level from the modem	-N – 3 dBm	SP2-103-002 (parameter 01).
7EB52072	Acceptable ringing signal frequency: range 1, upper limit	1000/ N (Hz)	SP2-103-003 (parameter 02).
7EB52073	Acceptable ringing signal frequency: range 1, lower limit	1000/ N (Hz)	SP2-103-004 (parameter 03).
7EB52074	Acceptable ringing signal frequency: range 2, upper limit	1000/ N (Hz)	SP2-103-005 (parameter 04).
7EB52075	Acceptable ringing signal frequency: range 2, lower limit	1000/ N (Hz)	SP2-103-006 (parameter 05).
7EB52076	Number of rings until a call is detected	time(s)	SP2-103-007 (parameter 06). The setting must not be zero.
7EB52077	Minimum required length of the first ring	N x 20ms	See Note 2. SP2-103-008 (parameter 07).
7EB52078	Minimum required length of the second and subsequent rings	N x 20ms	SP2-103-009 (parameter 08).
7EB52079	Ringing signal detection reset time (LOW)	N x 20ms	SP2-103-010 (parameter 09).
7EB5207A	Ringing signal detection reset time (HIGH)	N x 20ms	SP2-103-011 (parameter 10).
7EB5204A	Do not change the settings.		
7EB5204B	Break time for pulse dialing	ms	See Note 1. SP2-103-013 (parameter 12).

Address	Function	Unit	Remarks
7EB5204C	Make time for pulse dialing	ms	See Note 1. SP2-103-014 (parameter 13).
7EB5204D	Do not change the settings.		
7EB5204E	Minimum pause between dialed digits (pulse dial mode)	N x 20ms	See Note 1 and 4. SP2-103-016 (parameter 15).
7EB5204F	Time waited when a pause isentered at the operation panel	N x 20ms	SP2-103-017 (parameter 16). See Note 1.
7EB52050	DTMF tone on time	ms	SP2-103-018 (parameter 17).
7EB52051	DTMF tone off time	ms	SP2-103-019 (parameter 18).
7EB52052	Tone attenuation level of DTMF signals while dialing	dBm (See Note 5)	SP2-103-020 (parameter 19). See Note 3.
7EB52053	Tone attenuation value difference between high frequency tone and low frequency tone in DTMF signals	dBm (See Note 5)	SP2-103-021 (parameter 20). The setting must be less than –5dBm, and should not exceed the setting at 7EB52052h above. See Note 3.
7EB52054	Do not change the settings.	-	
7EB52055	Do not change the settings.	-	
7EB971E8 to 7EB973E7	Error code storage	-	
7EB93800 to 7EB96517	Communication history storage	-	
7EB973E8 to 7EB982E7	Communication error storage	-	

NOTES

1. Pulse dial parameters (addresses 7EB5204A to 7EB5204F) are the values for 10 pps. If 20 pps is used, the machine automatically compensates.
2. The first ring may not be detected until 1 to 2.5 wavelengths after the time specified by this parameter.
3. The calculated level must be between 0 and 10.
   The attenuation levels calculated from RAM data are:
   High frequency tone:
   - $-0.5 \times N_{7EB52052}/_{7EB52054} - 3.5$ dBm
   - $-0.5 \times N_{7EB52055}$ dBm

   Low frequency tone:
   - $-0.5 \times (N_{7EB52052}/_{7EB52054} + N_{7EB52053}) - 3.5$ dBm

- $-0.5 \times (N_{7EB52055} + N_{7EB52053})$ dBm

Note

- $N_{7EB52052}$, for example, means the value stored in address 7EB52052(H)

4. 7EB5204A, 7EB5204D, 7EB5204E: The actual inter-digit pause (pulse dial mode) is the sum of the period specified by the RAM addresses 7EB5204A, 7EB5204D, and 7EB5204E.

Default Values

Country Code [HEX]

00 : FRANCE	12 : ASIA
01 : GERMANY	13 : JAPAN
02 : UK	14 : HONGKONG
03 : ITALY	15 : S.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 : FORMOSA
0A : SWEDEN	1C : KOREA
0B : SWITZERLAND	1D : BRAZIL
0C : PORTUGAL	20 : TURKEY
0D : NETHERLAND	21 : GREECE
0E : SPAIN	22 : HUNGARY
0F : ISRAEL	23 : CZECH
11 : USA	24 : POLAND

Address	Country Code [HEX]																
	00	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**0A**	**0B**	**0C**	**0D**	**0E**	**0F**	**11**
	Default [DEC]																
7EB52000	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17
7EB520B4	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	9
7EB52072	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	16	13
7EB52073	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	83
7EB52074	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255
7EB52075	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7EB52076	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1
7EB52077	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
7EB52078	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

Address	Country Code [HEX]																
7EB52079	244	244	244	244	244	244	244	244	244	244	244	244	244	244	244	144	144
7EB5207A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7EB5204A	67	50	252	58	53	61	53	61	255	61	100	60	61	58	75	61	77
7EB5204B	69	62	69	62	62	69	69	62	69	62	62	62	69	62	69	62	62
7EB5204C	31	38	31	38	38	31	31	38	31	38	38	38	31	38	31	38	40
7EB5204D	45	4	4	4	10	10	10	10	10	10	30	20	10	2	35	10	74
7EB5204E	40	46	27	40	44	32	26	40	30	33	18	31	35	33	32	46	46
7EB5204F	33	46	33	150	46	26	26	60	33	33	26	0	33	33	100	101	101
7EB52050	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
7EB52051	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
7EB52052	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	14
7EB52053	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4
7EB52054	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34
7EB52055	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34

Address	Country Code [HEX]																
	12	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**1A**	**1B**	**1C**	**1D**	**20**	**21**	**22**	**23**	**24**
	Default [DEC]																
7EB52000	18	19	20	21	22	23	24	25	26	27	28	29	32	33	34	35	36
7EB520B4	9	8	9	9	11	10	6	8	13	10	9	7	8	8	8	8	6
7EB52072	17	28	17	17	14	17	17	17	17	13	13	13	13	13	13	13	17
7EB52073	80	72	80	80	80	80	80	80	80	80	83	80	80	80	80	80	80
7EB52074	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255
7EB52075	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7EB52076	1	1	1	3	3	4	1	1	1	1	2	2	2	2	2	2	1
7EB52077	10	8	10	10	9	10	10	10	10	10	10	10	10	10	10	10	10
7EB52078	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
7EB52079	144	144	144	144	144	144	144	144	144	144	144	244	244	244	244	244	144
7EB5207A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7EB5204A	61	77	61	61	255	252	61	61	61	77	77	53	252	252	58	252	61
7EB5204B	59	67	66	71	91	65	66	66	62	64	67	64	69	62	69	62	69
7EB5204C	40	33	34	29	13	34	34	34	38	32	33	36	31	38	31	38	31
7EB5204D	10	74	50	50	30	25	50	50	10	74	74	10	4	4	2	4	50
7EB5204E	36	46	36	42	24	25	36	36	36	46	46	44	27	27	33	34	36
7EB5204F	101	101	101	101	101	101	101	101	101	101	101	26	33	33	33	155	101
7EB52050	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
7EB52051	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

3.Service Tables

Address	Country Code [HEX]																
7EB52052	14	20	14	19	16	16	11	14	12	10	14	16	13	13	13	13	11
7EB52053	4	4	4	4	2	2	4	4	4	4	4	4	5	5	5	5	4
7EB52054	34	22	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34
7EB52055	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34

Service RAM Addresses

Service RAM Addresses

Important

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

Address	Descriptions	Byte	Type	Default
7eb50000H	Machine code	1	HEX	01
7eb50001H	ROM version (Read only)	1	BCD	
7eb50002H	Year of the ROM update	1	BCD	
7eb50003H	Month of the ROM update	1	BCD	
7eb50004H	Day of the ROM update	1	BCD	
7eb50005H	Machine code (check ram2)	1	HEX	01
7eb50006H	Machine’s serial number (16 digits - ASCII)	16	ASC	00
7eb50016H	Language code	1	HEX	
	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			
7eb50018H	Total program checksum (low)	2	HEX	
7eb50020H	System bit switch 00	1		
7eb50021H	System bit switch 01	1		
7eb50022H	System bit switch 02	1		
7eb50023H	System bit switch 03	1		
7eb50024H	System bit switch 04	1		
7eb50025H	System bit switch 05	1		
7eb50026H	System bit switch 06	1		
7eb50027H	System bit switch 07	1		
7eb50028H	System bit switch 08	1		
7eb50029H	System bit switch 09	1		
7eb5002aH	System bit switch 0a	1		
7eb5002bH	System bit switch 0b	1		
7eb5002cH	System bit switch 0c	1		
7eb5002dH	System bit switch 0d	1		
7eb5002eH	System bit switch 0e	1		
7eb5002fH	System bit switch 0f	1		
7eb50030H	System bit switch 10	1		

Address	Descriptions	Byte	Type	Default
7eb50031H	System bit switch 11	1		
7eb50032H	System bit switch 12	1		
7eb50033H	System bit switch 13	1		
7eb50034H	System bit switch 14	1		
7eb50035H	System bit switch 15	1		
7eb50036H	System bit switch 16	1		
7eb50037H	System bit switch 17	1		
7eb50038H	System bit switch 18	1		
7eb50039H	System bit switch 19	1		
7eb5003aH	System bit switch 1a	1		
7eb5003bH	System bit switch 1b	1		
7eb5003cH	System bit switch 1c	1		
7eb5003dH	System bit switch 1d	1		
7eb5003eH	System bit switch 1e	1		
7eb5003fH	System bit switch 1f	1		
7eb50050H	Printer bit switch 00	1		
7eb50051H	Printer bit switch 01	1		
7eb50052H	Printer bit switch 02	1		
7eb50053H	Printer bit switch 03	1		
7eb50054H	Printer bit switch 04	1		
7eb50055H	Printer bit switch 05	1		
7eb50056H	Printer bit switch 06	1		
7eb50057H	Printer bit switch 07	1		
7eb50058H	Printer bit switch 08	1		
7eb50059H	Printer bit switch 09	1		
7eb5005aH	Printer bit switch 0a	1		
7eb5005bH	Printer bit switch 0b	1		
7eb5005cH	Printer bit switch 0c	1		
7eb5005dH	Printer bit switch 0d	1		
7eb5005eH	Printer bit switch 0e	1		
7eb5005fH	Printer bit switch 0f	1		
7eb50060H	Communication bit switch 00	1		
7eb50061H	Communication bit switch 01	1		
7eb50062H	Communication bit switch 02	1		
7eb50063H	Communication bit switch 03	1		
7eb50064H	Communication bit switch 04	1		
7eb50065H	Communication bit switch 05	1		

Address	Descriptions	Byte	Type	Default
7eb50066H	Communication bit switch 06	1		
7eb50067H	Communication bit switch 07	1		
7eb50068H	Communication bit switch 08	1		
7eb50069H	Communication bit switch 09	1		
7eb5006aH	Communication bit switch 0a	1		
7eb5006bH	Communication bit switch 0b	1		
7eb5006cH	Communication bit switch 0c	1		
7eb5006dH	Communication bit switch 0d	1		
7eb5006eH	Communication bit switch 0e	1		
7eb5006fH	Communication bit switch 0f	1		
7eb50070H	Communication bit switch 10	1		
7eb50071H	Communication bit switch 11	1		
7eb50072H	Communication bit switch 12	1		
7eb50073H	Communication bit switch 13	1		
7eb50074H	Communication bit switch 14	1		
7eb50075H	Communication bit switch 15	1		
7eb50076H	Communication bit switch 16	1		
7eb50077H	Communication bit switch 17	1		
7eb50078H	Communication bit switch 18	1		
7eb50079H	Communication bit switch 19	1		
7eb5007aH	Communication bit switch 1a	1		
7eb5007bH	Communication bit switch 1b	1		
7eb5007cH	Communication bit switch 1c	1		
7eb5007dH	Communication bit switch 1d	1		
7eb5007eH	Communication bit switch 1e	1		
7eb5007fH	Communication bit switch 1f	1		
7eb50080H	G3 bit switch 00	1		
7eb50081H	G3 bit switch 01	1		
7eb50082H	G3 bit switch 02	1		
7eb50083H	G3 bit switch 03	1		
7eb50084H	G3 bit switch 04	1		
7eb50085H	G3 bit switch 05	1		
7eb50086H	G3 bit switch 06	1		
7eb50087H	G3 bit switch 07	1		
7eb50088H	G3 bit switch 08	1		
7eb50089H	G3 bit switch 09	1		
7eb5008aH	G3 bit switch 0a	1		

Address	Descriptions	Byte	Type	Default
7eb5008bH	G3 bit switch 0b	1		
7eb5008cH	G3 bit switch 0c	1		
7eb5008dH	G3 bit switch 0d	1		
7eb5008eH	G3 bit switch 0e	1		
7eb5008fH	G3 bit switch 0f	1		
7eb500b0H	Design SW 00: Not used	1		
7eb500b1H	Design SW 01: Not used	1		
7eb500b2H	Design SW 02 : Not used	1		
7eb500b3H	Design SW 03: Not used	1		
7eb500b4H	Design SW 04 : Not used	1		
7eb500b5H	Design SW 05 : Not used	1		
7eb500b6H	Design SW 06 : Not used	1		
7eb500b7H	Design SW 07 : Not used	1		
7eb500b8H	Design SW 08: Not used	1		
7eb500b9H	Design SW 09: Not used	1		
7eb500baH	Design SW 0a: Not used	1		
7eb500bbH	Design SW 0b: Not used	1		
7eb500bcH	Design SW 0c: Not used	1		
7eb500bdH	Design SW 0d: Not used	1		
7eb500beH	Design SW 0e: Not used	1		
7eb500bfH	Design SW 0f: Not used	1		
7eb500c0H	Design SW 10: Not used	1		
7eb500c1H	Design SW 11: Not used	1		
7eb500c2H	Design SW 12: Not used	1		
7eb500c3H	Design SW 13: Not used	1		
7eb500c4H	Design SW 14: Not used	1		
7eb500c5H	Design SW 15: Not used	1		
7eb500c5H	Design SW 16: Not used	1		
7eb500c7H	Design SW 17: Not used	1		
7eb500c8H	Design SW 18: Not used	1		
7eb500c9H	Design SW 19: Not used	1		
7eb500caH	Design SW 1a: Not used	1		
7eb500cbH	Design SW 1b: Not used	1		
7eb500ccH	Design SW 1c: Not used	1		
7eb500cdH	Design SW 1d: Not used	1		
7eb500ceH	Design SW 1e: Not used	1		
7eb500cfH	Design SW 1f: Not used	1		

Address	Descriptions	Byte	Type	Default
	For details about user SW, see the User Manual "Parameter Settings" in "Fax".			
7eb500d0H	User Switch 00	1		
7eb500d1H	User Switch 01	1		
7eb500d2H	User Switch 02	1		
7eb500d3H	User Switch 03	1		
7eb500d4H	User Switch 04	1		
7eb500d5H	User Switch 05	1		
7eb500d6H	User Switch 06	1		
7eb500d7H	User Switch 07	1		
7eb500d8H	User Switch 08	1		
7eb500d9H	User Switch 09	1		
7eb500daH	User Switch 0a	1		
7eb500dbH	User Switch 0b	1		
7eb500dcH	User Switch 0c	1		
7eb500ddH	User Switch 0d	1		
7eb500deH	User Switch 0e	1		
7eb500dfH	User Switch 0f	1		
7eb500e0H	User Switch 10	1		
7eb500e1H	User Switch 11	1		
7eb500e2H	User Switch 12	1		
7eb500e3H	User Switch 13	1		
7eb500e4H	User Switch 14	1		
7eb500e5H	User Switch 15	1		
7eb500e6H	User Switch 16	1		
7eb500e7H	User Switch 17	1		
7eb500e8H	User Switch 18	1		
7eb500e9H	User Switch 19	1		
7eb500eaH	User Switch 1a	1		
7eb500ebH	User Switch 1b	1		
7eb500ecH	User Switch 1c	1		
7eb500edH	User Switch 1d	1		
7eb500eeH	User Switch 1e	1		
7eb500efH	User Switch 1f	1		
7eb500f0H	User Switch 20	1		
7eb500f1H	User Switch 21	1		
7eb500f2H	User Switch 22	1		

Address	Descriptions	Byte	Type	Default
7eb500f3H	User Switch 23	1		
7eb500f4H	User Switch 24	1		
7eb500f5H	User Switch 25	1		
7eb500f6H	User Switch 26	1		
7eb500f7H	User Switch 27	1		
7eb500f8H	User Switch 28	1		
7eb500f9H	User Switch 29	1		
7eb500faH	User Switch 2a	1		
7eb500fbH	User Switch 2b	1		
7eb500fcH	User Switch 2c	1		
7eb500fdH	User Switch 2d	1		
7eb500feH	User Switch 2e	1		
7eb500ffH	User Switch 2f	1		
7eb50130H	Service (SCU) Switch 00	1		
7eb50131H	Service (SCU) Switch 01	1		
7eb50132H	Service (SCU) Switch 02	1		
7eb50133H	Service (SCU) Switch 03	1		
7eb50134H	Service (SCU) Switch 04	1		
7eb50135H	Service (SCU) Switch 05	1		
7eb50136H	Service (SCU) Switch 06	1		
7eb50137H	Service (SCU) Switch 07	1		
7eb50138H	Service (SCU) Switch 08	1		
7eb50139H	Service (SCU) Switch 09	1		
7eb5013aH	Service (SCU) Switch 0a	1		
7eb5013bH	Service (SCU) Switch 0b	1		
7eb5013cH	Service (SCU) Switch 0c	1		
7eb5013dH	Service (SCU) Switch 0d	1		
7eb5013eH	Service (SCU) Switch 0e	1		
7eb5013fH	Service (SCU) Switch 0f	1		
7eb50140H	Service (SCU) Switch 10	1		
7eb50141H	Service (SCU) Switch 11	1		
7eb50142H	Service (SCU) Switch 12	1		
7eb50143H	Service (SCU) Switch 13	1		
7eb50144H	Service (SCU) Switch 14	1		
7eb50145H	Service (SCU) Switch 15	1		
7eb50146H	Service (SCU) Switch 16	1		
7eb50147H	Service (SCU) Switch 17	1		

Address	Descriptions	Byte	Type	Default
7eb50148H	Service (SCU) Switch 18	1		
7eb50149H	Service (SCU) Switch 19	1		
7eb5014aH	Service (SCU) Switch 1a	1		
7eb5014bH	Service (SCU) Switch 1b	1		
7eb5014cH	Service (SCU) Switch 1c	1		
7eb5014dH	Service (SCU) Switch 1d	1		
7eb5014eH	Service (SCU) Switch 1e	1		
7eb5014fH	Service (SCU) Switch 1f	1		
7eb50150H	Service (SCU) Switch 20	1		
7eb50151H	Service (SCU) Switch 21	1		
7eb50152H	Service (SCU) Switch 22	1		
7eb50153H	Service (SCU) Switch 23	1		
7eb50154H	Service (SCU) Switch 24	1		
7eb50155H	Service (SCU) Switch 25	1		
7eb50156H	Service (SCU) Switch 26	1		
7eb50157H	Service (SCU) Switch 27	1		
7eb50158H	Service (SCU) Switch 28	1		
7eb50159H	Service (SCU) Switch 29	1		
7eb5015aH	Service (SCU) Switch 2a	1		
7eb5015bH	Service (SCU) Switch 2b	1		
7eb5015cH	Service (SCU) Switch 2c	1		
7eb5015dH	Service (SCU) Switch 2d	1		
7eb5015eH	Service (SCU) Switch 2e	1		
7eb5015fH	Service (SCU) Switch 2f	1		
7eb50160H	Service (SCU) Switch 30	1		
7eb50161H	Service (SCU) Switch 31	1		
7eb50162H	Service (SCU) Switch 32	1		
7eb50163H	Service (SCU) Switch 33	1		
7eb50164H	Service (SCU) Switch 34	1		
7eb50165H	Service (SCU) Switch 35	1		
7eb50166H	Service (SCU) Switch 36	1		
7eb50167H	Service (SCU) Switch 37	1		
7eb50168H	Service (SCU) Switch 38	1		
7eb50169H	Service (SCU) Switch 39	1		
7eb5016aH	Service (SCU) Switch 3a	1		
7eb5016bH	Service (SCU) Switch 3b	1		
7eb5016cH	Service (SCU) Switch 3c	1		

Address	Descriptions	Byte	Type	Default
7eb5016dH	Service (SCU) Switch 3d	1		
7eb5016eH	Service (SCU) Switch 3e	1		
7eb5016fH	Service (SCU) Switch 3f	1		
7eb50170H	IFAX Switch 00	1		
7eb50171H	IFAX Switch 01	1		
7eb50172H	IFAX Switch 02	1		
7eb50173H	IFAX Switch 03	1		
7eb50174H	IFAX Switch 04	1		
7eb50175H	IFAX Switch 05	1		
7eb50176H	IFAX Switch 06	1		
7eb50177H	IFAX Switch 07	1		
7eb50178H	IFAX Switch 08	1		
7eb50179H	IFAX Switch 09	1		
7eb5017aH	IFAX Switch 0a	1		
7eb5017bH	IFAX Switch 0b	1		
7eb5017cH	IFAX Switch 0c	1		
7eb5017dH	IFAX Switch 0d	1		
7eb5017eH	IFAX Switch 0e	1		
7eb5017fH	IFAX Switch 0f	1		
7eb50190H	TTI (Max. 64 characters - ASCII) information	64	ASC	0
7eb501d0H	Printing format for TTI 0: DOM (Japan), 1:EXP (Export)	1	HEX	0
7eb501d2H	CSI code (Max. 20 characters - ASCII)	20	ASC	0
7eb501e6H	CSI characters (Hex)	1	HEX	00
7eb5020cH	Registered service station’s fax number			
7eb5022cH	Registered own fax number for extension			
7eb50236H	Registered own fax number for outside call			
7eb50240H	Transmission monitor volume			
7eb50241H	Reception monitor volume			
7eb50242H	On-hook monitor volume			
7eb50243H	Dialing monitor volume			
7eb50244H	Buzzer volume			
7eb50245H	Beeper volume			
7eb52ba0H	Transmission counter			
7eb52ba4H	Reception counter			
7eb53f68H to	Dial tone detection parameter	11		

Address	Descriptions	Byte	Type	Default
7eb53f72H				
7eb52000H	Start address of G3 table for G3-1			
7eb5216eH	Lateset information of Power Failure Report	8	HEX	00
7eb5218cH	Machine code (check ram3)			
7eb52246H	Modem version (G3-1)	2	HEX	
7eb522daH	Machine code(check ram4)	1	HEX	1
7eb522feH	Machine’s serial number	11	ASC	0

4. Troubleshooting

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. • The other party may be incompatible. • Replace the fax board, or the controller board. • Check for DIS/NSF with an oscilloscope. • 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. • The other party pressed the Stop button during communication.
0-03	Incompatible modem at the other end	The other party is incompatible.
0-04	CFR or FTT not received after modem training	• Check the connection. • Try changing the TX level and/or cable equalizer settings. • Replace the fax board, or the controller board. • The other machine may be defective. Try sending to another machine. • If the RX signal is weak or defective, there may be a bad connection. **Reference:** • TX level: NCU Parameter 01 (PSTN) • Cable equalizer: G3 Switch 07 (PSTN) • Dedicated TX parameters in Service Program Mode
0-05	Modem training fails even G3 shifts down to 2400 bps.	• Check the connection. • Try adjusting the TX level and/or cable equalizer. • Replace the fax board, or the controller board. • Check for line problems. **Reference:**

Code	Meaning	Suggested Cause/Action
		See error code 0-04.
0-06	The other terminal did not reply to DCS	• Check the connection. • Try adjusting the TX level and/or cable equalizer settings. • Replace the fax board, or the controller board. • The other end may be defective or incompatible; try sending to another machine. • Check for line problems. **Reference:** See error code 0-04.
0-07	No post-message response from the other end after a page was sent	• Check the connection. • Replace the fax board, or the controller board. • The other party is out of paper or has a paper jam. • The other party may have disconnected the call. • Check for a bad line. • The other machine may be defective. Try sending to another machine.
0-08	The other end sent RTN or PIN after receiving a page, because there were too many errors	• Check the connection. • Replace the fax board, or the controller board. • The other end may have jammed, or run out of paper or memory space. • Try adjusting the TX level and/or cable equalizer settings. • The other end may have a defective modem/fax board/controller board, try sending to another machine. • Check for line problems and noise. **Reference:** • TX level: NCU Parameter 01 (PSTN) • Cable equalizer: G3 Switch 07 (PSTN) • 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. • Noisy line; resend. • Try adjusting the TX level and/or cable equalizer settings.

Code	Meaning	Suggested Cause/Action
		• Replace the fax board, or the controller board. **Reference:** See error code 0-08.
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. • Confidential RX • Transfer function • SEP/SUB/PWD/SID
0-16	CFR or FTT not detected after modem training in confidential or transfer mode	• Check the connection. • Replace the fax board, or the controller board. • Try adjusting the TX level and/or cable equalizer settings. • The other machine may have disconnected, or it may be defective. Try sending to another machine. • If the ax signal level is too low, there may be a line problem. **Reference:** See error code 0-08.
0-17	Communication was interrupted by pressing the Stop key	If the Stop key 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. • Replace the fax board, or the controller board. • Check for line problems. • Try calling another fax machine. • Try adjusting the reconstruction time for the first line and/or RX cable equalizer setting. **Reference:** Reconstruction time - G3 Switch 0A, Bit 6 Rx cable equalizer - G3 Switch 07 (PSTN)
0-21	EOL signal (end-of-line) from the other end not received within 5 s of the previous EOL signal	• Check the connection between the fax board and line. • Check for line noise or other line problems. • Replace the fax board, or the controller board. • The remote machine may be defective or may have been disconnected. **Reference:**

Code	Meaning	Suggested Cause/Action
		Maximum interval between EOLs and between ECM frames - G3 Bit Switch 0A, Bit 4
0-22	The signal from the other end was interrupted for more than the acceptable modem carrier drop time (default: 200 ms)	• Check the connection. • Replace the fax board, or the controller board. • The remote machine may be defective. • Check for line noise or other line problems. • Try adjusting the acceptable modem carrier drop time. **Reference:** Acceptable modem carrier drop time: G3 Switch 0A, Bits 0 and 1
0-23	Too many errors during reception	• Check the connection. • Replace the fax board, or the controller board. • The remote machine may be defective. • Check for line noise or other line problems. • Try asking the other party to adjust their TX level. • Try adjusting the RX cable equalizer setting and/or RX error criteria. **Reference:** Rx cable equalizer: G3 Switch 07 (PSTN) 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. • Replace the fax board, or the controller board.
0-30	The other terminal did not reply to NSS(A) in AI short protocol mode	• Check the connection. • Try adjusting the TX level and/or cable equalizer settings. • The other terminal may not be compatible. **Reference:** 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. • Ask the other party to contact the manufacturer.
0-33	The data reception (not ECM) is not completed within 10 minutes.	• Check the connection. • The other terminal may have a defective modem.
0-52	Polarity changed during	• Check the connection.

Code	Meaning	Suggested Cause/Action
	communication	Retry communication.
0-55	Fax function does not detect the SG3.	• Fax firmware or board defective. • 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 (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.) • 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. • ANSam was too short to detect. • Check the connection. and condition. • Try making a call to another V.8/V.34 fax.
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. • Check the connection. and condition. • 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. • Check the connection. and condition. • 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. • A network that has narrow bandwidth cannot pass JM to the other end. • Check the connection. and condition. • 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. • 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.
0-81	The line was disconnected due to a	If these errors happen at the transmitting terminal:

Code	Meaning	Suggested Cause/Action
	timeout in V.34 phase 3 – equalizer training.	• Try making a call later. • Try using V.17 or a slower modem using dedicated TX parameters. • Try increasing the TX level. • Try adjusting the TX cable equalizer setting. If these errors happen at the receiving terminal: • Try adjusting the RX cable equalizer setting. • Try increasing the TX level. • Try using V.17 or a slower modem if the same error is frequent when receiving from multiple senders.
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.	
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. • Turn off the main power switch, and then turn it back on. • If the same error is frequent, replace the fax board, or the controller board.
0-85	The line was disconnected due to abnormal signaling in V.34 control channel restart.	• The signal did not stop within 10 s. • Turn off the main power switch, and then turn it back on. • If the same error is frequent, replace the fax board, or the controller board.
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. • 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. • 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. • Try adjusting the cable equalizer setting.
2-11	Only one V.21 connection flag was received	• Replace the fax board, or the controller board.
2-12	Modem clock irregularity	• Replace the fax board, or the controller board.
2-13	Modem initialization error	• Turn off the machine, and then turn it back on.

Code	Meaning	Suggested Cause/Action
		• Update the modem ROM. • Replace the fax board, or the controller board.
2-51	The machine resets itself because of a fatal communication error	• If this is frequent, update the ROM, or replace the fax board, or the controller board.
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. • Check for line problems. • Replace the fax board, or the controller board.
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. • The machine at the other end may be defective.
5-00	Data reconstruction not possible	Replace the fax board, or the controller board.
5-10	DCR timer expired	• Replace the fax board, or the controller board.
5-20	Storage impossible because of a lack of memory	• Temporary memory shortage. • 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. • Ask the other end to resend the message.
5-25	SAF file access error	• Replace the fax board, or the controller board.
6-00	G3 ECM - T1 time out during reception of facsimile data	• Try adjusting the RX cable equalizer. • Replace the fax board, or the controller board.
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. • Check for a bad line or defective remote terminal. • Replace the fax board, or the controller board.
6-05	G3 ECM - facsimile data frame not received within 18 s of CFR, but there was no line fail	• Check the connection. • Check for a bad line or defective remote terminal. • Replace the fax board, or the controller board. • Try adjusting the RX cable equalizer

Code	Meaning	Suggested Cause/Action
		Reference: • RX cable equalizer - G3 Switch 07 (PSTN)
6-06	G3 ECM - coding/decoding error	• Replace the fax board, or the controller board. • The other terminal may be defective.
6-08	G3 ECM - PIP/PIN received in reply to PPS.NULL	• The other end pressed Stop during communication. • The other terminal may be defective.
6-09	G3 ECM - ERR received	• Check for a noisy line. • Adjust the TX levels of the communicating machines. • See code 6-05.
6-10	G3 ECM - error frames still received at the other end after all communication attempts at 2400 bps	• Check for line noise. • Adjust the TX level (use NCU parameter 01 or the dedicated TX parameter for that address). • Check the connection. • 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. • If the same error occurs frequently, replace the fax board, or the controller board. • Defective remote terminal.
6-99	V.21 signal not stopped within 6 s	Replace the fax board, or the controller board.
9-30	HDD write error	• Check the connection of the controller board (eMMC). • If the problem persists, replace the controller board (eMMC).
9-31	HDD control error	
9-32	HDD read error	
9-33	HDD fatal error	
13-17	SIP user name registration error	• Double registration of the SIP user name. • 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. • 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. • IP address of the device is not registered.
13-	Network I/F setting error at power on	• Active protocol setting does not match the I/F

Code	Meaning	Suggested Cause/Action
26		setting for SIP server. • IP address of the device is not registered.
13-27	IP address setting error	• IP address of the device is not registered.
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. • The PC is not ready to transfer files. • SMTP server not functioning correctly. • The DNS IP address is not registered. • Network not operating correctly. • 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. • Contact the system administrator and check that the SMTP server has the correct settings and operates correctly. • 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. • 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. • Folder send destination is incorrect. Contact the system administrator to determine that the SMTP server settings and path to the server are correct. • Device settings incorrect. Confirm that the user name and password settings are correct. • Direct SMTP destination incorrect. Contact the system administrator to determine if there is a

Code	Meaning	Suggested Cause/Action
		problem at the destination and that the settings at the destination are correct.
14-04	Access to SMTP Server Denied (550)	• SMTP server operating incorrectly • 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. • 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. • 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. • 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). • 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. • The designated user does not exist on the SMTP server. • 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. • PC not operating correctly. • SMTP server operating incorrectly • Network not operating correctly. • Destination folder setting incorrect. • Direct SMTP sending not operating correctly.
14-08	Data Send to SMTP Server Failed (5XX)	• Failed to access the SMTP server because the transmission failed. • SMTP server operating incorrectly

Code	Meaning	Suggested Cause/Action
		• Destination folder setting incorrect. • Direct SMTP sending not operating correctly. • Software application error.
14-09	Authorization Failed for Sending to SMTP Server	• POP-Before-SMTP or SMTP authorization failed. • 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. • 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. • Update the software because of the defective software.
14-17	Incorrect Ticket	• Update the software because of the defective software.
14-18	Access to MCS File Error	• The access to MCS file is denied due to the no permission of access. • 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-	Transmission error of S/MIME	Register the correct user certificate and device

Code	Meaning	Suggested Cause/Action
21		certificate.
14-30	MCS File Creation Failed	Failed to create the MCS file because: • The number of files created with other applications on the Document Server has exceeded the limit. • Software error.
14-31	UFS File Creation Failed	UFS file could not be created: • Not enough space in UFS area to handle both Scan-to-Email and IFAX transmission. • 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. • Check the address selected in the address book for SMTP sending. • Check the domain selection.
14-50	Mail Job Task Error	Due to a mail job task error, the send was cancelled: • Address book was being edited during creation of the notification mail. • Software error.
14-51	UCS Destination Download Error	Not even one return notification can be downloaded: • The address book was being edited. • 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 to cancel the send operation.
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 following. • Name of SMTP server

Code	Meaning	Suggested Cause/Action
		• Port number of SMTP • DNS setting • Server name (FTP) • Path name (computer name and shared folder name at SMTP/ NCP) • Active protocol setting (Netware/ NCP) • NW flame type (NCP) • Log-on mode (NDS tree/ bindery)
-		Check the SMTP server. • Check if the SMTP server works normally and is connected to the network. • Check if the settings of the SMTP are correct.
-		Check the DNS server. • Check if the DNS server works normally and is connected to the network. • Check if the settings of the DNS server are correct.
-		Check the network. • Check if the LAN works normally. • Check if the no firewall exists.
-		Check the destination folder for the data transfer. • Check if the destination folder works normally. • 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. • Check if the destination SMTP server works normally. • 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-	DCS Mail Receive Error	• Error other than 15-11 to 15-18.

Code	Meaning	Suggested Cause/Action
10		
15-11	Connection Error	The DNS or POP3/IMAP4 server could not be found: • The IP address for DNS or POP3/IMAP4 server is not stored in the machine. • The DNS IP address is not registered. • Network not operating correctly.
15-12	Authorization Error	POP3/IMAP4 send authorization failed: • Incorrect IFAX user name or password. • Another device, such as the PC, attempted access. • 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: • Destination file format is incorrect. • 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-	Off Ramp Gateway Error	• The delivery destination address was specified

Code	Meaning	Suggested Cause/Action
42		with Off Ramp Gateway OFF.
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: • Resolution error • Image of resolution greater than 200 dpi without extended memory. • Resolution is not supported. • Page size error • The page size was larger than A3. • Compression error • 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: • The TIFF file attachment is a type not supported. • The TIFF file attachment is corrupted. • Software error.
15-64	TIFF Decompression Error	The file received as an attachment caused the TIFF decompression error: • The TIFF format of the attachment is corrupted. • 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.
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

Code	Meaning	Suggested Cause/Action
		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: • The format of the final destination or the transfer destination is incorrect. • 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. • Register the DNS server for the remote machine or configure an IP address of the remote machine.
22-00	Original length exceeded the maximum scan length	• Divide the original into more than one page. • Check the resolution used for scanning. Lower the scan resolution if possible.
22-01	Memory overflow while receiving	• Wait for the files in the queue to be sent. • Delete unnecessary files from memory. • Transfer the substitute reception files to another fax machine, if the machine's printer is busy or out of order.

Code	Meaning	Suggested Cause/Action
22-02	TX or RX job stalled due to line disconnection at the other end	• The job started normally but did not finish normally; data may or may not have been received fully. • Restart the machine.
22-04	The machine cannot store received data in the SAF	• Update the ROM • Replace the fax board, or the controller board.
22-05	No G3 parameter confirmation answer	• Update the ROM • Replace the fax board, or the controller board.
23-00	Data read timeout during construction	• Restart the machine. • Replace the fax board, or the controller board.
25-00	The machine software resets itself after a fatal transmission error occurred	• Update the ROM • Replace the fax board, or the controller board.
F0-xx	V.34 modem error	• Replace the fax board, or the controller board.
F6-xx	SG3 modem error	• Update the SG3 modem ROM. • Replace the fax board, or the controller board. • Check for line noise or other line problems. • Try communicating another V.8/V.34 fax.

Fax Connection Unit Error Codes

Error Code - 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 end has entered SP or Initial settings. • An established connection exists.	• Exit SP or initial settings. • Wait until the connection has finished.

Error Code - 02

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

Error Code - 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">• No user authentication (i.e. Basic/Windows/LDAP/Custom Auth.) applies to fax application.
• Settings other than user authentication are applied to the fax application.</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>

Error Code - 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. • Make sure to match the username and login password.

Error Code - 05

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

Error Code - 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.

Error Code - 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

Error Code - 08

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

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. • 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. • 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. 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 • Check if there is an IP address conflict with other PCs. Use the “Network” function in the User Tools. If there is an IP address conflict, inform the administrator.
Between machine and e-mail server	1. LAN settings in the machine	• Check the LAN parameters • Check if there is an IP address conflict with other PCs. Use the “Network” function in the User Tools. 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. • Check that the account and password stored in the server are the same as in the machine. 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.

Communication Route	Item	Troubleshooting Procedures
		Ask the administrator to check. 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.
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. • Check that the account and password stored in the server are the same as in the machine. 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. Ask the administrator to check. 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. • Check that the e-mail address contains no incorrect characters such as spaces.
	4. Router settings	• Use the "ping" command to contact the router. • Check that other devices connected to the router can sent data over the router. 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. • Check the error e-mail message. Inform the administrator of the LAN.

5. Specifications

General Specifications

Type:	Desktop type transceiver
Circuit:	PSTN (max. 1ch.) PABX
Connection:	Direct couple
Maximum original size:	A4SEF, Letter SEF Custom: 216 × 600 mm (8.5 × 23.6 inches)
Maximum scanning size:	216 × 600 mm (8.5 × 23.6 inches)
Scanning Method:	Flat bed, SPDF
Resolution:	8 × 3.85 lines/mm, 200 × 100 dpi (Standard character) 8 × 7.7 lines/mm, 200 × 200 dpi(Detail character)
Transmission Time:	3 to 4 seconds at 28,800 bps (using ITU-T No.1 Chart, at a resolution of 200 × 100 dpi)
Data Compression:	MH, MR, MMR
Protocol:	Group 3 with ECM
Modulation:	V.34, V.33, V.17 (TCM), V.29 (QAM), V.27ter (PHM), V.8, V.21 (FSK)
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 Without ECM: 2.5, 5, 10, 20, or 40 ms/line
Memory Capacity:	SAF: 2MB Page Memory: 4MB

Capabilities of Programmable Items

The following table shows the capabilities of each programmable items.

Item	Standard
Number of documents you can store in memory for Memory Transmission	100
Number of pages you can store in memory (using A4 Standard <ITU-T 1Chart>)	Approx.160
Number of destinations you can register in the Address Book	400
Number of groups you can register	20
Number of destinations you can register in a group	100
Number of destinations you can specify per file	100
Number of destinations you can specify for all files (including files in memory)	500
Number of destinations you can search at a time using [Search Address Book]	100
Number of recent destinations the machine can store	1