Super G3 FAX Board-AP1

Service Manual

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Application

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

Explanation of Symbols

The following symbols are used throughout this Service Manual.

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

The following rules apply throughout this Service Manual:

1. Each chapter contains sections explaining the purpose of specific functions and the relationship between electrical and mechanical systems with reference to the timing of operation.

    In the diagrams, ▬▬▬▬ represents the path of mechanical drive; where a signal name accompanies the symbol, the arrow ⟶ indicates the direction of the electric signal.

    The expression "turn on the power" means flipping on the power switch, closing the front door, and closing the delivery unit door, which results in supplying the machine with power.

2. In the digital circuits, '1' is used to indicate that the voltage level of a given signal is "High", while '0' is used to indicate "Low". (The voltage value, however, differs from circuit to circuit.) In addition, the asterisk (*) as in "DRMD*" indicates that the DRMD signal goes on when '0'.

    In practically all cases, the internal mechanisms of a microprocessor cannot be checked in the field. Therefore, the operations of the microprocessors used in the machines are not discussed: they are explained in terms of from sensors to the input of the DC controller PCB and from the output of the DC controller PCB to the loads.

The descriptions in this Service Manual are subject to change without notice for product improvement or other purposes, and major changes will be communicated in the form of Service Information bulletins.
All service persons are expected to have a good understanding of the contents of this Service Manual and all relevant Service Information bulletins and be able to identify and isolate faults in the machine.

Contents

6   Installation

1 Product Outline

■Specifications

Specifications

Following is a specification list.

Item	Description
Communication	G3
Line type	Subscriber line (PSTN)
Modulation	\<G3 image signal\> ITU-T V.27ter (2.4 Kbps, 4.8 Kbps) ITU-T V.29 (7.2 Kbps, 9.6 Kbps) ITU-T V.17 (TC 7.2 Kbps, TC 9.6 Kbps, 12 Kbps, 14.4 Kbps) ITU-T V.34 (2.4 Kbps, 4.8 Kbps, 7.2 Kbps, 9.6 Kbps, 12 Kbps, 14.4 Kbps, 16.8 Kbps, 19.2 Kbps, 21.6 Kbps, 24 Kbps, 26.4 Kbps, 28.8 Kbps, 31.2 Kbps, 33.6 Kbps) \<G3 procedure signal\> ITU-T V.21 No.2 (300 bps) ITU-T V.8, V.34 (300 bps)
Transmission speed	33.6 Kbps, 31.2 Kbps, 28.8 Kbps, 23.4 Kbps, 24 Kbps, 21.6 Kbps, 19.2 Kbps, 16.8 Kbps, 14.4 Kbps, 12 Kbps, TC 9.6 Kbps, TC 7.2 Kbps, 9.6 Kbps, 7.2 Kbps, 4.8 Kbps, 2.4 Kbps auto fallback function
Coding method	JBIG, MMR, MR, MH
G3-specific abridged procedure	no
Modem IC	conexant SFX336
Error correction	ITU-T ECM
Transmission original size	A3, A4, A4R, A5, A5R, B4, B5, B5R, LTR, LTRR, LGL, 11x17, STMT, STMTR ADF: double-sided originals accepted
Scanning line density	Standard (200 x 100 dpi): 8 dots/mm x 3.85 lines/mm Fine (200 x 200 dpi):8 dots/mm x 7.7 lines/mm Super Fine (200 x 400 dpi): 8 dots/mm x 15.4 lines/mm Ultra Fine (400 x 400 dpi): 16 dots/mm x 15.4 lines/mm
Halftone	256 gradations
Recording unit	maximum reception size: A3 (297 mm x 420 mm) scanning line density: 600 dpi x 600 dpi

Memory	image memory (Canon Fax Standard Chart No.1):
	   HDD Model: 20000 prints
	
	memory type:
	   Hard disk
	storage: JBIG

Extension telephone connection	no
Answering machine connection	no
Fax/Tel switch-over	no
Quick Direct Transmission	yes
Transmission Header (Add Remote Name on Header SW)	yes

Item	Description
Remote reception	no
Polling (F code)	no
Memory box	yes
Password reception	yes
Machine telephone No. transmission	yes
User abbreviation transmission	yes
Dual access	64 (maximum number of reservations)
Broadcasting	256 targets (maximum number of targets) maximum number of targets by 10 key dialing: 64 target

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Technology

- ■ Basic Construction
- ■ Controls

Basic Construction

Overview

This product is a FAX unit for adding FAX lines to the machine.

This machine is equipped with a telephone-based communication function and an image processing function to enable a digital copier to serve as a highly functional multi-function fax machine.

As for image transmission speed, it is capable of communicating at 33.6 kbps (max.) thanks to a modem for V.34, which comply with ITU-T standard.

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[1] Super G3 FAX Board-AP1
[2] G3 FAX PCB

Controls

FAX communication control

The main controller in the machine executes FAX communication control.

The FAX control program is loaded on the main controller and controls the G3 FAX PCB in the FAX unit.

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3 Parts Replacing and Cleaning

■Parts List

■Parts Replacing and Cleaning

Parts List

PCBs

No.	Part name	Reference
[1]	G3 FAX PCB	-
[2]	Modular PCB	-

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Parts Replacing and Cleaning

● PCBs

■ G3 Fax Unit

1) Remove the Rear Cover.
- 4 Screws
- 4 Claws

x4

x4

Claw

Claw

Rear Cover

F-3-2

2) Remove the Left Rear Cover.
- 4 Screws
- 2 Claws

x4

x2

Claw

Claw

F-3-3

3) Remove the Controller Box Cover.
- 6 Hooks

Hook

Hook

Hook

REAR VIEW

F-3-4

4) Release the 2 harnesses of the Fax Unit in place, and release the harnesses from the Controller PCB.
- 2 Connectors
- 2 Edge Saddles

x2

x2

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5) Remove the G3 Fax Unit.

• 4 Screws

• 3 Hooks

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4

Error Code

- ■ Overview
- ■ User Error Code
- ■ Service Error Code

Overview

Guide to Error Code

When the Board has been installed and '1' is set for service data #1 SSSW SW01 bit 0, communications ending in error will be indicated in the following reports using service error codes: communications management report, reception result report, and error transmission report.
You can also check the code of an error by making the following selections: System Monitor > Fax > Detail.

The major error codes used by the Board are listed on the pages that follow. For information on causes and remedies in connection with other error codes, see the "G3/G4 Facsimile Error Code List" (HY8-23A0-020).
If the Board indicates a service error code, try the following:

- Increase the transmission level.
  Set -8 (dBm) for service data #2 MENU parameter No. 007.

- Decrease the transmission level.
  Set -15 (dBm) to service data #2 MENU parameter No. 007.

- Provide a remedy against echoes.
  Change the following bit setting for service data #1 SSSW SW03:

  Bit4 -> 1: to cause the machine to ignore the first DIS signal from the other party.
        -> 0: to cause the machine to ignore the first DIS signal from the other party.
  Bit5 -> 1: to cause the machine to transmit a tonal signal (1850 or 1650 Hz) in response to the DIS signal from the other party.
        -> 0: to cause the machine not to send a total signal (1850 or 1650 Hz) in response to the DIS signal from the other party.
  Bit6 -> 1: to cause the machine to send a 1850-Hz tonal signal if bit 5 is set to '1'.
        -> 0: to cause the machine to send a 1650-Hz tonal signal if bit 5 is set to '1'.
  Bit7 -> 1: to cause the machine to send a total signal before sending the CED signal.
        -> 0: to causes the machine not to send a tonal signal before sending the CED signal.

- EPT (echo protect tone)
  Change the setting of service data #1 SSSW SW03 bit 1:

  Bit1 -> 1: to cause the machine to send EPT.
        -> 0: to cause the machine not to send EPT.

- Adjust the NL equalizer.
  Set '1' for serve data #2 MENU parameter No. 005.

- Decrease the transmission start speed.
  Decrease the transmission start speed in user mode: System Settings > Communications Settings > Fax Settings > Send Start Speed.

- Make the TCF evaluation standards lenient.
  The Board does not offer a means by which to provide this remedy.

- Make the RTN transmissions conditions lenient.
  Change parameters No. 2 through No. 004 of service data #3 NUMERIC Param.
  No. 002: error rate for all lines; change it so that it is closer to 99%.
  No. 003: number of lines in connection with bursts; change it so that it is closer to 99 lines.
  No. 004: number of errors falling short of a specific number of lines in connection with bursts; change it so that it is closer to 99.

- Increase the length of silence after reception of CFR.
  Set '1' for service data #1 SSSW SW04 bit 4.

  Bit4 -> 1: length of time during which a low-speed signal is ignored after transmission of CFR; 1500 msec
        -> 0: length of time during which a low-speed signal is ignored after transmission of CFR; 700 msec

User Error Code

No.	Description
#001	Different sized originals were scanned without setting the Different Size Originals mode.
#003	Time-out for copying or sending/receiving a single page has occurred.
#005	Time-out for initial identification (T0/T1) has occurred.
#009	Recording paper has jammed or is absent.
#011	The document that you are sending is not placed correctly.
#012	Recording paper is absent at the other party.
#018	Auto call initiation has failed.
#019	Sending could not be performed because the memory of the Remote Fax server machine became full when sending a fax from the Remote Fax client machine
#022	Documents could not be forwarded to the specified destination because there is insufficient memory available. The machine can store up to total of 71 jobs of send and transmission report in memory.
#025	A telephone line not connected to the Remote Fax server machine was specified when sending fax from the Remote Fax client machine.
#037	Image memory overflow at time of reception has occurred.
#040	Sending could not be performed because there was insufficient memory available in the Remote Fax server machine when sending a fax from the Remote Fax client machine.
#080	A subaddress is not set in the recipient's machine.
#081	A password is not set in the recipient's machine.
#099	A job was canceled during transmission to a USB memory media device. A secured print job was automatically canceled after the timeout period elapsed.
#102	The subaddress and/or password do not match.
#107	The document could not be sent because there was insufficient memory available.
#401	The USB memory media device is full or the maximum number of files that can be stored in the root directory (the top level of the directory tree in the USB memory media device) has been reached.
#402	The image transfer failed when transferring to the memory media because an invalid character (such as \) was included in the specified filename.
#403	The job failed because a file with the same name already exists. Generally, if a file with the same name exists, a number ranging from 1 to 999 is added to the tail of the name to prevent naming conflicts. However, this error occurred because a file with the same number added to its file name already exists.
#404	The job failed because the write protect switch of the USB memory media device was on.
#406	The job failed because the USB memory media device was pulled out during transmission. An error occurred while data, such as image data, was being transferred to the USB memory media device. (The connected device may be formatted with a file system that is not supported by the machine.)

No.	Description
#407	The length of the full path to the specified file (or folder) exceeded the supported limit. The transmission to the USB memory media device was not properly performed because the length of the full path including the root and file name exceeded the limit.
#409	The file could not be saved because the maximum number of files that can be saved in the destination has been reached.
#410	Storing cannot be performed because there are too many jobs waiting to be stored.
#411	The files are already locked by the other operations.
#701	The specified Department ID does not exist, or the password has changed.
#702	The document could not be sent because the memory is full.
#703	The memory for image data is full when sending color documents.
#704	An error occurred when reading address information from the Address Book.
#705	The send operation was interrupted because the size of the image data is larger than the maximum data size sets in [Maximum Data Size for Sending].
#706	The address book is currently being imported/exported from the Remote UI, or the machine is busy with other send related functions.
#711	The Fax/I-Fax Inbox memory is full.
#712	The maximum number of files is already stored in the Fax/I-Fax Inbox.
#713	The document in Fax/I-Fax Inbox was deleted before the link to it was sent via e-mail.
#749	You could not execute the job because a service call message is being displayed.
#751	The file server is not functioning. The network is down (the server is unable to connect to the network or was disconnected).
#752	The SMTP server name and e-mail address are incorrect. The domain name is incorrect. The SMTP server is not functioning. The network is down.
#753	A TCP/IP error occurred while sending an e-mail. (Socket, Select error, etc.)
#754	The client machine is not functioning or the network is down when device information is being delivered. The destination setting is incorrect.
#755	Jobs cannot be sent because TCP/IP is not functioning correctly. The IP address is not set. When the machine was turned ON, an IP address was not assigned to the machine by the DHCP, RARP, or BOOTP server.
#759	An error occurred on while sending a link via e-mail to the Mail Box in which the file is stored.
#761	A PDF or XPS file with a digital signature could not be sent, because a digital certificate or key pair registered in the machine is corrupt or could not be accessed.
#762	Could not send to a domain that is not registered as an allowed domain, because [Allow MDN Not via Server] is set to 'On'.
#766	The certificate used to send a PDF or XPS with a digital signature has expired.
#770	Data could not be sent with WebDAV, because the WebDAV server or proxy server does not support SSL communications.

No.	Description
#771	The setting for the Remote Fax Server Address is incorrect. The Remote Fax Server has not been started. The network is not connected. The Remote Fax server could not be connected to because the machine could not connect to the DNS server.
#772	The URL for the Rights Management Server is incorrect.
#773	[The following user mode] is set to 'On', and PDF modes that cannot be set are selected in forwarding settings. [Settings/Registration]>[Function Settings] → [Common] → [Generate File]. >[Optimize PDF for Web]>[On] → [OK]
#801	A timeout error occurred while the machine was communicating with the SMTP server to send an e-mail or send/receive an I-fax. The SMTP server returned an error while trying to connect. The destination is not correct. An error occurred on the server side during transmission to a file server.
#802	The name of the SMTP server is incorrect. The DNS server address settings are incorrect. The domain name is incorrect. Connection to the DNS server failed.
#803	The connection was interrupted due to reasons on the recipient's side before all of the pages could be sent.
#804	You do not have permission to access the folder.
#806	An incorrect user name or password was specified for the sending of a file to a file server. An incorrect destination was specified for the sending of an e-mail message or I-fax.
#807	You do not have access privileges for the specified directory.
#810	A POP server connection error occurred while receiving an I-fax. The POP server returned an error during the connection. A timeout error occurred on the server while connecting to the POP server.
#815	You cannot log on to the file server because the machine is printing a document sent to that server. Simultaneous connections are not possible.
#816	You have reached the quota for the number of pages you can scan.
#817	A communication error occurred between your machine and a cascade copy printer.
#818	The received data is not in a printable file format.
#819	You have received data that cannot be processed (MIME information is incorrect).
#820	You have received data that cannot be processed (BASE 64 or uuencode is incorrect).
#821	You have received data that cannot be processed (TIFF analysis error). When you are using the Media Print function, printing cannot be performed because you have selected a JPEG or TIFF file with unsupported file formats or a corrupted image file.
#822	You have received data that cannot be processed (image data cannot be decoded).
#823	Unable to connect to a cascade copy printer.
#824	A communication error occurred in a cascade copy printer.

No.	Description
#825	The Department ID and password set on the host machine do not match those registered in the cascade copy printers. Printing could not be performed because the Department ID and PIN for a reserved or executing printing job were deleted, or the PIN was changed. Device information could not be delivered because the System Manager is registered on the destination client machine but not on the host machine. Or device information could not be delivered because the System Manager ID and System PIN registered in the client machine differs from the System Manager ID and System PIN registered in the host machine.
#827	You have received data that cannot be processed (contains MIME information that is not supported).
#828	You have received HTML data.
#829	Data consisting of more than approximately 1,000 pages is received.
#830	A DSN (Delivery Status Notification) error notification was received because of an incorrect I-fax address or destination setting, or because the data size of the sent documents exceeds the mail server capacity.
#831	An I-fax document could not be received using SMTP because of the Receive Filter setting in Firewall Settings.
#832	DSN (Delivery Status Notification) mail was not sent because TCP/IP Settings in Network or Communication Settings in E-Mail/I-Fax Settings have not been set. Alternatively, DSN mail was not sent due to a problem with the mail server.
#833	MDN (Mail Delivery Notification) mail was not sent because TCP/IP Settings have not been set, or due to a problem with the mail server.
#834	An MDN (Mail Delivery Notification) error notification was received because of an incorrect I-fax address or destination setting, or because trouble occurred in the network or mail server. Alternatively, the memory of the receiving machine is full.
#835	The maximum number of text lines for receiving an I-fax has been exceeded.
#837	A connection request was received from a host whose connection is restricted by the Receive Filter settings in Firewall Settings.
#839	The user name or password for the SMTP Authentication is incorrect.
#841	An encryption algorithm that matches the mail server does not exist for sending e-mail or I-fax.
#842	The mail server requested authentication using the client certificate for sending an e-mail or I-fax.
#843	There is a large difference between the current time set in the KDC (Key Distribution Center) server and the time set in the machine.
#844	When sending with POP before SMTP, SSL encrypted communication with the POP server failed. Verification of the SSL server certificate was attempted when receiving with POP because [Confirm SSL Certificate for POP RX] is set to 'On', but verification failed and receiving could not be performed.
#845	When sending with POP before SMTP, POP authentication (POP AUTH) failed.
#846	When sending with POP before SMTP, POP authentication (APOP) failed.
#847	Could not save the received file in the Confidential Fax Inbox, as the memory of the Mail Box or Fax/I-Fax Inbox is full.
#849	Device information could not be delivered because the destination client machine is executing a job.

No.	Description
#850	Device information could not be delivered because the destination client machine is operating a screen related to the device information.
#851	There is insufficient memory remaining in the system.
#852	An error occurred because the main power switch was turned OFF while a job was being processed.
#853	A print job sent from a computer via a printer driver is canceled since <Only allow secure print jobs> is set to 'On'.
#854	Device information was delivered from a machine of a different model group with [Restrict Receiving Device Information] set to 'On' in [Device Information Delivery Settings] in [Management Settings] (Settings/Registration) on the destination client machine.
#855	Device information could not be delivered because it included a language that cannot be handled by the destination client machine.
#856	The job was canceled because the memory region for saving temporary data became full.
#857	Data reception timed out or the job was canceled on the host.
#858	A problem occurred in the print data.
#859	An original was not scanned properly, or the orientation of the original was incorrect.
#860	A paper jam occurred during printing.Transparencies not made for the machine were used.A print job was sent using a PDL that is not supported by the machine.An unsupported combination of functions was specified.
#861	An error occurred while processing the print data or image data.
#862	An unsupported combination of functions was specified.
#863	An error occurred while processing the print data or image data.
#865	The functions related to job execution are restricted.An attempt was made to execute a function requiring the hard disk, without the hard disk attached.The maximum number of secure print jobs that can be received at the same time was exceeded.
#868	Failed to communicate with the destination when sending with WebDAV, because access via a proxy server was requested (received HTTP Error 305: Use Proxy).
#869	Received a response from the destination stating that authentication failed when sending with WebDAV (received HTTP Error 401: Unauthorized).
#870	Received a response from the destination stating that the request was denied when sending with WebDAV (received HTTP Error 403: Forbidden).
#871	Received a response from the destination stating that the specified folder could not be found when sending with WebDAV (received HTTP Error 404: Not Found/409: Conflict/410: Gone).
#872	Received a response from the destination stating that access is denied when sending with WebDAV (received HTTP Error 405: Method Not Allowed).
#873	Received a response from the destination stating that proxy authentication failed when sending with WebDAV (received HTTP Error 407: Proxy Authentication Required).
#874	Received a response from the destination stating that the connection timed out when sending with WebDAV (received HTTP Error 408: Request Timeout).
#875	Received a response from the destination stating that chunked encoding was denied when sending with WebDAV (received HTTP Error 411: Length Required).

No.	Description
#876	Received a response from the destination stating that the size of the data was too large when sending with WebDAV (received HTTP Error 413: Request Entity Too Large).
#877	Received a response from the destination stating that the URI (host name + folder path) was too long when sending with WebDAV (received HTTP Error 414: Request-URI Too Long).
#878	Received a response from the destination stating that the server encountered an unexpected condition that prevented it from executing the request when sending with WebDAV (received HTTP Error 500: Internal Server Error).
#879	Received a response from the destination stating that the server does not support the necessary functions to execute the request when sending with WebDAV (received HTTP Error 501: Not Implemented).
#880	Received a response from the destination stating that the proxy server failed to communicate with the server above it when sending with WebDAV (received HTTP Error 502: Bad Gateway).
#881	Received a response from the destination stating that the server could not handle the current request when sending with WebDAV (received HTTP Error 503: Service Unavailable).
#882	Received a response from the destination stating that the proxy server failed to communicate with the server above it when sending with WebDAV (received HTTP Error 504: Gateway Timeout).
#883	Received a response from the destination stating that the server does not support the necessary functions to execute the request when sending with WebDAV (received HTTP Error 505: HTTP Version Not Supported).
#884	Received a response from the destination stating that the server lacks sufficient free disk space to execute the request when sending with WebDAV (received HTTP Error 507: Insufficient Storage).
#885	An unexpected error occurred when sending with WebDAV.
#886	Received a response from the destination stating that the request was invalid when sending with WebDAV (received HTTP Error 400: Bad Request).
#889	The original cannot be scanned or printed because it is embedded with job restriction information.
#899	The e-mail message or I-fax has been successfully sent, but reception may be incomplete because the transmission was relayed via multiple servers. Check the following, as necessary.
#904	Destinations registered in [Favorite Settings] are not updated when the Address Book is retrieved using device information delivery from an imageRUNNER/imagePRESS series machine connected to the network.
#905	The job could not be executed because a network error occurred.
#918	Scanning or printing cannot be performed because there is no QR code on the original. Scanning or printing cannot be performed because the QR code on the original cannot be scanned properly.
#995	The communication reservation was canceled.

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Service Error Code

No.	T/R	Description
##100	[T]	at time of transmission, the procedural signal has been transmitted more than specified.
##101	[T/R]	the modem speed does not match that of the other party.
##102	[T]	at time of transmission, fall-back cannot be used.
##103	[R]	at time of reception, EOL cannot be detected for 5 sec (15 sec if CBT).
##104	[T]	at time of transmission, RTN or PIN is received.
##106	[R]	at time of reception, the procedural signal is received for 6 sec while in wait for the signal.
##107	[R]	at time of reception, the transmitting party cannot use fall-back.
##109	[T]	at time of transmission, a signal other than DIS, DTC, FTT, CFR, or CRP is received, and the procedural signal has been sent more than specified.
##111	[T/R]	memory error has occurred.
##114	[R]	at time of reception, RTN is transmitted.
##200	[R]	at time of reception, no image carrier is detected for 5 sec.
##201	[T/R]	DCN is received outside the normal parity procedure.
##204	[T]	DTC without transmission data is received.
##220	[T/R]	system error (main program out of control) has occurred.
##223	[T/R]	while a communication is under way, the line is cut.
##224	[T/R]	in G3 communication, an error has occurred in the procedural signal.
##226	[T/R]	the stack printer has fallen outside the RAM area.
##229	[R]	the recording unit has remained locked for 1 min.
##232	[T]	encoding error has occurred.
##237	[R]	decoding error has occurred.
##238	[R]	the print control unit is out of order.
##261	[T/R]	system error has occurred.
##280	[T]	at time of transmission, the procedural signal has been transmitted more than specified.
##281	[T]	at time of transmission, the procedural signal has been transmitted more than specified.
##282	[T]	at time of transmission, the procedural signal has been transmitted more than specified.
##283	[T]	at time of transmission, the procedural signal has been transmitted more than specified.
##284	[T]	at time of transmission, DCN is received after transmission of TCF.
##285	[T]	at time of transmission, DCN is received after transmission of EOP.
##286	[T]	at time of transmission, DCN is received after transmission of EOM.
##287	[T]	at time of transmission DCN is received after transmission of MPS.
##288	[T]	after transmission of EOP, a signal other than PIN, PIP, MCF, RTP, or RTN has been received.
##289	[T]	after transmission of EOM, a signal other than PIN, PIP, MCF, RTP, or RTN has been received.
##290	[T]	after transmission of MPS, a signal other than PIN, PIP, MCF, RTP, or RTN has been received.

No.	T/R	Description
##670	[T]	at time of V.8 late start, the V.8 ability of DIS front the receiving party is expected to be detected, and the CI signal is expected to be transmitted in response; however, the procedure fails to advance, and the line is released because of T1 time-out.
##671	[R]	at time of V.8 arrival, procedure fails to move to phase 2 after detection of CM signal from caller, causing T1 time-out and releasing line.
##672	[T]	at time of V.34 transmission, a shift in procedure from phase 2 to phase 3 and thereafter stops, causing the machine to release the line and suffer T1 timeout.
##673	[R]	at time of V.34 reception, a shift in procedure from phase 2 to phase 3 and thereafter stops, causing the machine to release the line and suffer T1 timeout.
##674	[T]	at time of V.34 transmission, a shift in procedure from phase 3 and phase 4 to the control channel and thereafter stops, causing the machine to release the line and suffer T1 timeout.
##675	[R]	at time of V.34 reception, a shift in procedure from phase 3 and phase 4 to the control channel and thereafter stops, causing the machine to release the line and suffer T1 timeout.
##750	[T]	at time of ECM transmission, no meaningful signal is received after transmission of PPS-NULL, causing the procedural signal to be transmitted more than specified.
##752	[T]	at time of ECM transmission, DCN is received after transmission of PPS-NULL.
##753	[T]	at time of ECM transmission, the procedural signal has been transmitted more than specified after transmission of PPS-NULL, or T5 time-out (60 sec) has occurred.
##754	[T]	at time of ECM transmission, the procedural signal has been transmitted more than specified after transmission of PPS-NULL.
##755	[T]	at time of ECM transmission, no meaningful signal is received after transmission of PPS-MPS, causing the procedural signal to be transmitted more than specified.
##757	[T]	at time of ECM transmission, DCN is received after retransmission of PPS-MPS.
##758	[T]	at time of ECM transmission, the procedural signal has been transmitted more than specified after transmission of PPS-MPS, or T5 time-out (60 sec) has occurred.
##759	[T]	at time of ECM transmission, the procedural signal has been transmitted more than specified after transmission of PPS-MPS.
##760	[T]	at time of ECM transmission, no meaningful signal is received after transmission of PPS-EOM, causing the procedural signal to be transmitted more than specified.
##762	[T]	at time of ECM transmission, DCN is received after transmission of PPS-EOM.
##763	[T]	at time of ECM transmission, the procedural signal has been transmitted more than specified after transmission of PPS-MPS, or T5 time-out (60 sec) has occurred.
##764	[T]	at time of ECM transmission, the procedural signal has been transmitted more than specified after transmission of PPS-EOM.
##765	[T]	at time of ECM transmission, no meaningful signal is received after transmission of PPS-EOP, causing the procedural signal to be transmitted more than specified.
##767	[T]	at time of ECM transmission, DCN is received after transmission of PPS-EOP.
##768	[T]	at time of ECM transmission, the procedural signal has been transmitted more than specified after transmission of PPS-EOP, or T5 time-out (60 sec) has occurred.
##769	[T]	at time of ECM transmission, the procedural signal has been transmitted more than specified after transmission of PPS-EOP.
##770	[T]	at time of ECM transmission, no meaningful signal is received after transmission of EOR-NULL, causing the procedural signal to be transmitted more than specified.
##772	[T]	at time of ECM transmission, DCN is received after transmission of EOR-NULL.

No.	T/R	Description
##773	[T]	at time of ECM transmission, the procedural signal has been transmitted more than specified after transmission of EOR-NULL, or T5 time-out (60 sec) has occurred.
##774	[T]	at time of ECM transmission, ERR is received after transmission of EOR-NULL.
##775	[T]	at time of ECM transmission, no meaningful signal is received after transmission of EOR-MPS, causing the procedural signal to be transmitted more than specified.
##777	[T]	at time of ECM transmission, DCN is received after transmission of EOR-MPS.
##778	[T]	at time of ECM transmission, the procedural signal has been transmitted more than specified after transmission EOR-MPS, or T5 time-out (60 sec) has occurred.
##779	[T]	at time of ECM transmission, ERR is received after transmission of EOR-MPS.
##780	[T]	at time of ECM transmission, no meaningful signal is received after transmission of EOR-EOM, causing the procedural signal to be transmitted more than specified.
##782	[T]	at time of ECM transmission, DCN is received after transmission of EOR-EOM.
##783	[T]	at time of ECM transmission, the procedural signal has been transmitted more than specified after transmission of EOR-EOM, or T5 time-out (60 sec) has occurred.
##784	[T]	at time of ECM transmission, ERR is received after transmission of EOR-EOM.
##785	[T]	at time of ECM transmission, no meaningful signal is received after transmission of EOR-EOP, causing the procedural signal to be transmitted more than specified.
##787	[T]	at time of ECM transmission, DCN is received after transmission of EOR-EOP.
##788	[T]	at time of ECM transmission, the procedural signal has been transmitted more than specified after transmission of EOR-EOP, or T5 time-out (60 sec) has occurred.
##789	[T]	at time of ECM transmission, ERR is received after transmission of EOR-EOP.
##790	[R]	at time of ECM reception, ERR is transmitted after transmission of EOR-Q.
##791	[T/R]	while ECM mode procedure is under way, a signal other than a meaningful signal is received.
##792	[R]	at time of ECM reception, PPS-NULL cannot be detected over partial page processing.
##793	[R]	at time of ECM reception, no effective frame is received while high-speed signal reception is under way, thus causing time-out.
##794	[T]	at time of ECM reception, PPR with all 0s is received.
##795	[T/R]	a fault has occurred in code processing for communication.
##796	[T/R]	a fault has occurred in decoding processing after reception of ECM

T-4-2

5

Service Mode

- Outline
- Setting of Bit Switch (SSSW)
- Setting of Menu Switch (MENU)
- Setting of Numeric Parameter (NUMERIC Param.)
- Setting of Destination (TYPE)
- Setting of Printer Functions (PRINTER)
- IPFAX Setting
- Initialization of Set Value (CLEAR)
- Test Mode (TEST)
- Service Report (REPORT)
- DCM

Outline

Service Mode Composition

The Board's service mode consists of the following 10 items (#1 through #10):

Item	Name	Description
#1 SSSW	service soft switch	Use it to register/set up functions related to basic fax services (e.g., error management, echo remedies, communication remedies).
#2 MENU	menu switch setting	Use it to register/setup functions needed at time of installation (e.g., NL equalizer, transmission level).
#3 NUMERIC Param	numeric parameter settings	Use it to enter numeric parameters.
#4 NCU	not to be used for service work	All settings under the item will collectively set in response to the #5 TYPE setting.
#5 TYPE	country settings	Use it to cause the Board to automatically set data under #4 NCU so that it complies with the communication requirements of the country in question.
#6 IPFAX	Communication settings of IPFAX	If the license option for IPFAX has been enabled, IPFAX is displayed.
#7 PRINTER	printer functions setup	Use it to register/set up functions related to basic printer services (e.g., reduction for received images).
#8 CLEAR	data initialization	Use it to reset various data to initial settings.
#9 TEST	test mode	Use it to execute various tests.
#10 REPORT	service report	Use it to print out reports.

T-5-1

Caution:

#6 ISDN is not used in this machine.

Using Service Mode

1) To enter Service Mode.

22) The machine will indicate the accessories that are connected to it (e.g., FEEDER, FAX, BOARD).

Select [FAX] to use service mode items available for the Board.

```
            SERVICE MODE      LEVEL 1

      COPIER
      FEEDER




      FAX
      BOARD
```

F-5-1

COPIER: service mode of the host machine.

FEEDER: service mode of the ADF. (*)

FAX: service mode of the fax. (*)

BOARD: service mode of an accessory board. (*)

*: Indicated only if installed.

For instance, in the case of #1 SSSW, the following holds true; key functions and operations are the same for all screens:

Sssw	Menu	Num	Ncu	Type	IPFAX	Print	Clear	Test	Report

<1/7>   <READY>

SW01   00000000
SW02   10000000
SW03   00000000
SW04   10000000
SW05   00000000
SW06   10000000
SW07   00000000
SW08   10000000

⇐   ⇒   ▽ △ ↵   OK ↵

Previous Page/Next Page key   Press to accept the current input.

F-5-2

- If you want to change 0 to 1 or 1 to 0 on a bit switch, press the desired bit (number) directly.
- If you want to store a change or execute an item, press the OK key.
- Use the keypad to enter a numerical value.
- To return to the previous level of selection, press the Reset key.

Caution:

If you changed a setting in service mode, be sure to turn off and then on the power (making sure that you first turn off the control panel switch and then the main power switch).

The settings made in service mode are stored on the hard disk. The settings associated with the Board are loaded to the G3 fax control PCB only when the main power is tuned on, thus requiring you to turn it off and then on after making a change.

Menu Items

```
#1 SSSW ─── SW01              error management
           SW02              Not used
           SW03              set remedy against echo
           SW04              set remedy against communication error
           SW05              set standard function <DIS signal>
           SW06 to SW08      Not used
           SW09              set communication result display
           SW10 to SW11      Not used
           SW12              set page timer
           SW13              Not used
           SW14              Inch/mm resolution settings
           SW15 to SW24      Not used
           SW25              set report display function
           SW26              set transmission function
           SW27              Not used
           SW28              set V. 8/V. 34
           SW29              Not used
           SW30              Dial tone detection method switching
           SW31 to SW50      Not used
```
F-5-3

```
#2 MENU ─── 001 to 004       Not used
           005               NL equalizer
           006               line monitor
           007               transmission level (ATT)
           008               V.34 modulation speed upper limit
           009               V.34 data speed upper limit
           010 to 020        Not used
```
F-5-4

```
#3 NUM ─── 001               not used
           002               RTN transmission condition (1)
           003               RTN transmission condition (2)
           004               RTN transmission condition (3)
           005               NCC pause time (before ID code)
           006               NCC pause time (after ID code)
           007               pre-pulse time at time of call
           008               not used
           009               number of characters in telephone numbers between
                             transmitting and receiving parties.
           010               line connection identification time
           011               T.30 T1 timer (for reception)
           012               not used
           013               T.30 E0L timer
           014 to 026        not used
           015               hooking detection time
           027               preamble detection time for V.21 low-speed flag
           028 to 080        not used
```
F-5-5

```
#7 PRINT ─── BIT SW ─── SW01 to SW04    not used
                       SW05             reduction/cassette selection
                       SW06             reduction setting
                       SW07 to SW20     not used

            NUM ─── 001                 maximum non-image range
                    002                 not used
                    003                 not used
                    004                 leading edge margin
                    005                 trailing edge margin
                    006 to 030          not used
```
F-5-6

```
#8 CLEAR ─── TEL
            USSW SW
            SRV SW
            NCU
            SRV DATA
            REPORT
            ALL
            COUNTER
            ISDN
```
F-5-7

```
#10 REPORT ─── DATA
              DUMP
```
F-5-8

Setting of Bit Switch (SSSW)

Bit Switch Composition

The registration/setup items of the switch are set according to the positions of its 8 bits; the bit switch shown on the display is as follows, each bit being either 0 or 1:

```
  Bit 7                              Bit 0
┌─────────────────────────────────────────┐
│ SW01    0   0   0   0   0   0   0   0     │
└─────────────────────────────────────────┘
```

F-5-9

Caution:

Do not change service data identified as "not used"; they are set as initial settings.

Sssw	Menu	Num	Ncu	Type	IPFAX	Print	Clear	Test	Report

```
                    <1/7>          <READY>

  SW01   0   0   0   0   0   0   0   0
  SW02   1   0   0   0   0   0   0   0
  SW03   0   0   0   0   0   0   0   0
  SW04   1   0   0   0   0   0   0   0
  SW05   0   0   0   0   0   0   0   0
  SW06   1   0   0   0   0   0   0   0
  SW07   0   0   0   0   0   0   0   0
  SW08   1   0   0   0   0   0   0   0


   ⇐      ⇒      ▽   △   ↵    OK ↵
```

F-5-10

■ SSSW-SW01

● Functional Construction

Bit	Function	1	0
0	service error code	output	not output
1	error dump list	output	not output
2	not used	-	-
3	not used	-	-
4	not used	-	-
5	not used	-	-
6	not used	-	-
7	not used	-	-

T-5-2

Detailed Discussions of Bit 0

Selects whether or not service error codes are output.

When output is selected, service error codes are displayed and in reports.

Detailed Discussions of Bit 1

Selects whether or not error dump lists are output.

When selecting 'output', the error transmission report and the reception result report at the time of error to which the error dump list is attached are output.

■ SSSW-SW03

● Functional Construction

Bit	Function	1	0
0	not used	-	-
1	echo protect tone at high-speed transmission	transmit	do not transmit
2	not used	-	-
3	not used	-	-
4	transmission mode: international transmission (1)	use	do not use
5	transmission mode: international transmission (2) or (3)	use	do not use
6	transmission mode	international transmission (3)	international transmission (2)
7	tonal signal before CED signal transmission	transmit	do not transmit

T-5-3

Detailed Discussions of Bit 1

Use it to enable/disable transmission of an echo protect tone for a high-speed transmission V.29 modem signal (transmission speed at 9600 or 7200 bps).

If errors occur frequently at time of transmission because of the condition of the line, select 'transmit' so that a non-modulation carrier will be transmitted as a pre-image transmission sync signal for about 200 msec.

Error Code:
Any of the following error codes may be indicated because of the line condition at time of transmission
##100, ##104, ##281, ##283, ##750, ##755, ##760, ##765

Detailed Discussions of Bits 4, 5, and 6

Use it to select an appropriate transmission mode: international transmission (1), international transmission (2), or international transmission (3).

Use the service soft switch or the dial registration function to select the appropriate transmission mode if errors occur frequently at time of transmission to overseas.

Error Code:
Any of the following error codes may be indicated because of an echo at time of transmission
##005, ##100, ##101, ##102, ##104, ##201, ##280, ##281, ##283, ##284, ##750, ##760, ##765, ##774, ##779, ##784, ##794

Using the Dial Recognition Function (user level):

Select 'international transmission (1)' when making an entry in the Address Book. If errors still occur, select 'international transmission (2)' and then 'international transmission (3)' in sequence until errors stop. The transmission mode selected using the One-Touch Dial function or the Speed Dial function will be give priority over the setting made by the service soft switch.

An international transmission mode may be selected using the keypad if a mode has been selected using this switch; for settings, see the following table:

Transmission mode	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
International transmission (1)	*	0	0	1	0	0	*	0
International transmission (2)	*	0	1	0	0	0	*	0
International transmission (3)	*	1	1	0	0	0	*	0

T-5-4

International transmission (1): select it to ignore the first DIS signal from the other party.
International transmission (2): select it to transmit a 1850-Hz total signal when transmitting the DIS signal.
International transmission (3): select it to transmit a 1650-Hz total signal when transmitting the DIS signal.

Detailed Discussions of Bit 7

Use it to enable/disable transmission of a 1080-Hz tonal signal before transmission of the CED signal.

Select 'transmit' if errors occur frequently because of an echo when reception is from overseas.

Error Code:
Any of the following error code may be indicated because of an echo at time of reception
##005, ##101, ##106, ##107, ##114, ##200, ##201, ##790

■ SSSW-SW04

● Functional Construction

Bit	Function	1	0
0	not used	-	-
1	not used	-	-
2	the number of final flag sequences of protocol signals	2	1
3	Reception mode after CFR signal transmission	high speed	high speed/low speed
4	the length of the period of ignoring low speed signals after CFR output	1500 ms	700 ms
5	not used	-	-
6	not used	-	-
7	not used	-	-

T-5-5

Detailed Discussions of Bit 2

Use it to select the number of last flag sequences for a protocol signal (transmission speed at 300 bps). Select '2' if the other party fails to receive the protocol signal properly.

Error Code:
Any of the following error codes may be indicated at time of transmission
##100, ##280, ##281, ##750, ##753, ##754, ##755, ##758, ##759, ##760, ##763 ##764, ##765, ##768, ##769,##770, ##773, ##775, ##778, ##780, ##783, ##785, ##788

Detailed Discussions of Bit 3

Use it to select an appropriate reception mode after transmission of the CFR signal.
If errors occur frequently at time of reception because of the condition of the line, select 'high speed' for reception mode and, at the same time, selects 'do not receive' for 'ECM reception.'

Error Code:
Any of the following error codes may be indicated at time of reception because of line condition
##107, ##114, ##201

MEMO:
Be sure to change bit 4 before changing this bit; if errors still occur, change this bit.
When 'high speed' is selected, only high-speed signals (images) will be received after transmission of the CFR signal.

Detailed Discussions of Bit 4

Use it to select the time length during which low-speed signals are ignored after transmission of the CFR signal.
If the condition of the line is not good and, therefore, the reception of image signals is difficult, select '1500 ms.'

■ SSSW-SW05

● Functional Construction

Bit	Function	1	0
0	not used	-	-
1	Conversion from mm to inch (text mode)	convert	do not convert
2	Conversion from mm to inch (text/photo mode)	convert	do not convert
3	end DIS signal bits 33 and over	prohibit	do not prohibit
4	Recording paper length availability declared in DIS signal	A4/B4 size	any size
5	not used	-	-
6	not used	-	-
7	not used	-	-

T-5-6

Detailed Discussions of Bit 1

Use it to enable/disable millimeter/inch conversion in sub scanning direction for images read in text mode.

Detailed Discussions of Bit 2

Use it to enable/disable millimeter/inch conversion in sub scanning direction for images read in text/photo mode while bit 1 is set to '1'.

Detailed Discussions of Bit 3

Use it to enable/disable transmission of bit 33 and thereafter (DIS signal).

Caution:

If 'prohibit' is selected, the Super Fine reception function or Memory Box function cannot be used for communications from non-Canon machines.

Detailed Discussions of Bit 4

Use it to enable/disable declaration of the use of cut sheets (DIS signal).

For reception of an extra-long original, select 'A4/B4 size' if division is to be by the other party.

MEMO:
Some machines are not designed to divide extra-long originals.

■ SSSW-SW12

● Functional Construction

Bit	Function	1	0
0	Time-out period for one page upon transmission	1	0
1	Time-out period for one page upon transmission	1	0
2	Time-out period for one page upon (HT transmission)	1	0
3	Time-out period for one page upon (HT transmission)	1	0
4	Time-out period for one page upon reception	1	0
5	Time-out period for one page upon reception	1	0
6	not used	-	-
7	Respective page timer settings for transmission and for reception	enable	do not enable

T-5-7

The machine will stop the ongoing communication if the transmission/reception of a single original page takes 32 min or more. To use the timer for a purpose other than this function, refer to the tables that follow, and select an appropriate time length.
When 'do not enable' is selected using bit 7, the time-out length for a single page for all modes will depend on the setting of bit 0 and bit 1.

Time-Out Length for Transmission/Reception

	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
8 min	0	*	*	*	*	*	0	0
16 min	0	*	*	*	*	*	0	1
32 min	0	*	*	*	*	*	1	0
64 min	0	*	*	*	*	*	1	1

T-5-8

Time-Out Length for Transmission (in text mode)

	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
8 min	1	*	*	*	*	*	0	0
16 min	1	*	*	*	*	*	0	1
32 min	1	*	*	*	*	*	1	0
64 min	1	*	*	*	*	*	1	1

T-5-9

Time-Out Length for Transmission (image mode other than text mode)

	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
8 min	1	*	*	*	0	0	*	*
16 min	1	*	*	*	0	1	*	*
32 min	1	*	*	*	1	0	*	*
64 min	1	*	*	*	1	1	*	*

T-5-10

Time-Out Length for Reception

	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
8 min	1	*	0	0	*	*	*	*
16 min	1	*	0	1	*	*	*	*
32 min	1	*	1	0	*	*	*	*
64 min	1	*	1	1	*	*	*	*

T-5-11

■ SSSW-SW14

● Functional Construction

Bit	Function	1	0
0	not used	-	-
1	not used	-	-
2	direction of scanning for inch/mm conversion	both main and sub scanning directions	sub scanning direction only
3	not used	-	-
4	inch-configuration resolution declaration	declare	do not declare
5	not used	-	-
6	not used	-	-
7	not used	-	-

T-5-12

Detailed Discussions of Bit 2

Use it to specify whether to convert or not convert an inch-configuration resolution into a millimeter-configuration resolution for image read in G3 transmission: either in sub scanning direction only or in both main and sub scanning directions. The setting is valid only when bit 1 of SW05 of #1 SSSW is set to '1'.

Detailed Discussions of Bit 4

Use it to specify whether to declare or not declare an inch-configuration resolution to the other machine for G3 communication: if 'declare' is selected, the machine will indicate that it reads and records at an inch-configuration resolution using the DIS, DCS, or DTC signal.

■ SSSW-SW24

● Functional Construction

Bit	Function	1	0
0	PIN CODE function	Yes	No
1	Forced PIN CODE function	Yes	No
2	Forced PIN CODE mode	Prefix	Suffix
3	Phone call restriction function	Yes	No
4	Not used	-	-
5	Not used	-	-
6	Not used	-	-
7	Select "ENTER KEY" on program Yes No key menu	Yes	No

T-5-13

Detailed Discussions of Bit 0

When connected to a PBX which has restriction function, set "PIN (Personal Identification Number) CODE function" to "Yes".

Detailed Discussions of Bit 1

When "Yes" is selected, allows entry of the PIN CODE number even if the PIN CODE button is not pressed. (When the Bit 0 "PIN CODE function" is set to "Yes", this bit is enables.)

Detailed Discussions of Bit 2

Selects whether the PIN CODE number is entered prior to, or after the telephone number. When set to "1" the other party's number is sent while dialing, after having sent the PIN CODE. (When the Bit 1 "Forced PIN CODE function" is set to "Yes", this bit is enabled.)

Detailed Discussions of Bit 3

When "Yes" is selected adds "TEL SETTING" to the RESTRICTIVE CODES menu in the "SYSTEM SETTING" for the user data program key menu. Depressing the HOOK/OFFHOOK button for the handset disables the call function for the telephone.

Detailed Discussions of Bit 7

When "Yes" is selected adds "ENTER KEY" to the user data program key menu. To simplify Transmission Reserve operation, the program key outside the quick-release cover can be set as the "ENTER KEY".

■ SSSW-SW25

● Functional Construction

Bit	Function	1	0
0	transmission telephone number indicated report	other party's	caller's
1	not used	-	-
2	not used	-	-
3	not used	-	-
4	not used	-	-
5	not used	-	-
6	not used	-	-
7	not used	-	-

T-5-14

Detailed Discussions of Bit 0

Use it to select the transmission telephone number indicated on the report at the end of transmission.

caller's number: indicates the telephone number of the caller on the report.

number of other party: indicates the telephone number (CSI signal data) sent from the other part on the report.

■ SSSW-SW26

● Functional Construction

Bit	Function	1	0
0	not used	-	-
1	not used	-	-
2	confirmation screen for broadcasting	display	do not display
3	not used	-	-
4	not used	-	-
5	not used	-	-
6	not used	-	-
7	error report at time of transmission suspension	do not generate	generate

T-5-15

Detailed Discussions of Bit 2

Use it to enable/disable indication of a confirmation message before broadcasting in consideration of a mistake during input of addresses.

Detailed Discussions of Bit 7

Use it to enable/disable generation of an error report in response to a press on the Stop key to suspend transmission.

■ SSSW-SW28

● Functional Construction

Bit	Function	1	0
0	Caller V.8 protocol	NO	YES
1	Called party V.8 protocol	NO	YES
2	Caller V.8 protocol late start	NO	YES
3	Called party V.8 protocol late start	NO	YES
4	V.34 reception fallback	Prohibited	Not prohibited
5	V.34 transmission fallback	Prohibited	Not prohibited
6	not used	-	-
7	not used	-	-

T-5-16

Detailed Discussions of Bit 0

Select whether to use the V.8 protocol when calling. If NO is selected, the V.8 protocol is inhibited at calling and the V.21 protocol is used.

Detailed Discussions of Bit 1

Select whether to use the V.8 protocol when called. If NO is selected, the V8 protocol is inhibited when called and the V.21 protocol is used.

Detailed Discussions of Bit 2

Select whether to execute the V.8 procedure in case that the ANSam signal from the reception side is not recognized when originating a call and the existence of the V.8 procedure is informed with the DIS signal from the reception side.

　　Yes: Transmit the CI signal in a response to the DIS signal of the originating side, and execute the V.8 procedure.

　　No: Without transmitting the CI signal in a response to the DIS signal from the reception side, execute the V.21 procedure.

In case of the manual transmission, the V.8 late start is not executed regardless of this setting.

Detailed Discussions of Bit 3

Select whether to inform the existence of the V.8 procedure with the DIS signal that is transmitted after the ANSam signal in case that the ANSam signal at the reception is not recognized at the originating side.

　　Yes: Inform the existence of the V.8 procedure with the DIS signal, and execute the V.8 procedure after transmitting the CI signal by the originating side.

　　No: Without informing the existence of the V.8 procedure, execute the V.21 procedure.

In case of the manual transmission, the V.8 late start is not executed regardless of this setting.

Detailed Discussions of Bit 4

Select whether the receiver falls back during V.34 reception. If 'Prohibit' is selected, the receiver does not fall back.

Detailed Discussions of Bit 5

Select whether the transmitter falls beck during V.34 transmission. If 'Prohibit' is selected, teh transmitter does not fall back.

■ SSSW-SW30

● Functional Construction

Bit	Function	1	0
0	not used	-	-
1	not used	-	-
2	not used	-	-
3	not used	-	-
4	not used	-	-
5	Dial tone detection method switching	New detection method	Old detection method
6	Non-disclosure	Fixed	-
7	not used	-	-

T-5-17

Detailed Discussions of Bit 5

Switching the detection method when executing the dial tone detection at the time of calling.

1: New detection method (Default)

0: Old detection method

Caution:

Be sure to switch the following switches when switching the switch.

- In case setting the switch as 1 (new detection method):

/* DIAL TONE01 */ B11000001
/* DIAL TONE02 */ 350
/* DIAL TONE03 */ 10
/* DIAL TONE04 */ 1
/* DIAL TONE05 */ 100
/* DIAL TONE06 */ 0
/* DIAL TONE07 */ 12
/* DIAL TONE08 */ 7
/* DIAL TONE09 */ 3

- In case setting the switch as 0 (old detection method):

/* DIAL TONE01 */ B11000001
/* DIAL TONE02 */ 600
/* DIAL TONE03 */ 10
/* DIAL TONE04 */ 10
/* DIAL TONE05 */ 0
/* DIAL TONE06 */ 0
/* DIAL TONE07 */ 0
/* DIAL TONE08 */ 5
/* DIAL TONE09 */ 0

Detailed Discussions of Bit 6

This bit is used for other function. (Non-disclosure function)

Caution:

The setting is fixed as '1', and do not change it.

Setting of Menu Switch (MENU)

Menu Switch Composition

Sssw	Menu	Num	Ncu	Type	IPFAX	Print	Clear	Test	Report

```
            <1/3>          <READY>

    001          xxxxx   ← (yyyyy) {aaaaa~bbbbb}

    002          xxxxx   ← (yyyyy) {aaaaa~bbbbb}

    003          xxxxx   ← (yyyyy) {aaaaa~bbbbb}

    004          xxxxx   ← (yyyyy) {aaaaa~bbbbb}

    005          xxxxx   ← (yyyyy) {aaaaa~bbbbb}

    006          xxxxx   ← (yyyyy) {aaaaa~bbbbb}

    007          xxxxx   ← (yyyyy) {aaaaa~bbbbb}

    008          xxxxx   ← (yyyyy) {aaaaa~bbbbb}


    ⇐    ⇒    ▽  △  ↵    OK ↵
```

F-5-11

No.	Function	Range of settings
005	NL equalizer	1: ON, 0: OFF
006	telephone line monitor	from 0 to 3
007	transmission level (ATT)	from 8 to 15 (ex: 15= -15 dBm)
008	V.34 modulation speed upper limit	0:3429, 1:3200, 2:3000, 3:2800, 4:2743, 5:2400
009	V34 data speed upper limit	from 0 to 13

T-5-18

<005: NL Equalizer>

Use it to enable-disable the NL equalizer.

If errors occur often during communication because of the condition of the line, enable (ON) the NL equalizer.

Error Code:

Any of the following error codes may be indicated at time of transmission because of the line condition

##100, ##101, ##102, ##104, ##201, ##281, ##282, ##283, ##750, ##755, ##765, ##774, ##779, ##784, ##789

Any of the following error codes may be indicated at time of transmission because of the line condition

##103, ##107, ##114, ##201, ##790, ##793

<006: Telephone Line Monitor>

Use it to the telephone line monitor function:

0(DIAL): generate the monitor sound of the telephone line using the speaker from the start of transmission to DIS.

1: generate the monitor sound of the telephone line using the speaker from the start of communication to the end of it.

2: not used

3(OFF): do not generate the monitor sound of the telephone line usng the speaker.

<007: ATT Transmission Level>

Use it to set the transmission level (ATT).

Raise the transmission level if errors occur frequently at time of communication because of the condition of the line. (It means close to 8)

Error Code:

Any of the following error codes may be indicated at time of transmission because of the line condition

##100, ##101, ##102, ##104, ##201, ##280, ##281, ##282, ##283, ##284, ##750, ##752, ##754, ##755, ##757, ##759, ##760, ##762, ##764, ##765, ##767, ##769, ##770, ##772, ##774, ##775, ##777, ##779, ##780, ##782, ##784, ##785, ##787, ##789

Any of the following error codes may be indicated at time of reception because of the line condition

##103, ##106, ##107, ##201, ##793

<008: V.34 Modulation Speed Upper Limit>

Use it to set an upper limit to the modulation speed (baud rate) for the V.34 primary channel.

When '4 (2743 baud)' is selected, the actual communication is executed with 2400 baud.

<009: V.34 Data Speed Upper Limit>

Use to set an upper limit to the data transmission speed for the V.34 primary channel between 2.4K and 33.6K bps in increments of 2400 bps. (0: 2.4K to 13: 33.6K bps).

Setting of Numeric Parameter (NUMERIC Param.)

Numerical Parameter Composition

| Sssw | Menu | Num | Ncu | Type | IPFAX | Print | Clear | Test | Report |

```
              <1/10>          <READY>
   001            xxxxx  ←  (yyyyy)  {aaaaa~bbbbb}
   002            xxxxx  ←  (yyyyy)  {aaaaa~bbbbb}
   003            xxxxx  ←  (yyyyy)  {aaaaa~bbbbb}
   004            xxxxx  ←  (yyyyy)  {aaaaa~bbbbb}
   005            xxxxx  ←  (yyyyy)  {aaaaa~bbbbb}
   006            xxxxx  ←  (yyyyy)  {aaaaa~bbbbb}
   007            xxxxx  ←  (yyyyy)  {aaaaa~bbbbb}
   008            xxxxx  ←  (yyyyy)  {aaaaa~bbbbb}

        ⇦     ⇨    ▽   △   ↵   OK ↵
```

F-5-12

No.	Function	Range of settings	Initial setting
002	RTN transmission condition (1)	1% to 99%	10
003	RTN transmission condition (2)	2 to 99 times	15
004	RTN transmission condition (3)	1 to 99 lines	12
005	NCC pause time (before ID code)	1 to 60 sec	4
006	NCC pause time (after ID code)	1 to 60 sec	4
007	pre-pause time at time of placing call	0 to 9999 (x10 ms)	0
009	number of characters in telephone numbers between transmitting and receiving parties	0 to 20 characters	0
010	line connection identification time	0 to 9999 (x10 ms)	5500
011	T.30 T1 timer (for reception)	0 to 9999 (x10 ms)	3500
013	T30. EOL timer	500 to 3000 (x10 ms)	1300
027	preamble detection time for V21 low-speed flag	20 (x 10 ms)	0

T-5-19

<002: RTN transmission condition (1)><003: RTN transmission condition (2)><004: RTN transmission condition (3)>

Use it to set RTN signal transmission conditions. Raise these parameters for more lenient conditions if errors occur frequently at time of reception because of transmission of the RTN signal.

Error Code:
Any of the following error codes may be indicated at time of reception because of RTN signal transmission
##104, ##107, ##114, ##201

MEMO:
RTN signal transmission condition (1) affects the ratio of error lines to the total number of lines per single page of received images.
RTN signal transmission condition (2) affects the standard value (*2) of burst errors (*1).
RTN signal condition (3) affects the number of errors not reaching the standard value of burst errors.
*1: transmission error occurring cover several lines.
*2: for instance, if '15' is set, a single burst error will represent an error occurring continuously cover 15 lines.

If any of these lines is detected while an image signal is being received, the RTN signal will be transmitted after receiving the protocol signal of the transmitting party. Higher parameters restrict the transmission of the RTN signal.

<005: NCC pause length (pre-ID code)>

Use it to set the length of the pause automatically entered between access code and ID code when the NCC (New Common Carrier) line is used for dialing.

<006: NCC pause length (post-ID code)>

Use it to set the length of the pause automatically entered between ID code and telephone number of the other party when the NCC (New Common Carrier) line is used for dialing.

<007: pre-pause length at time of ring>

Use it to set the length of the pause used when placing a call.

<009: number of comparison digits of source telephone number and target telephone number>

Use it to set the number of TSI comparison characters (lower $ characters) for a check on telephone numbers.

<010: line connection identification length>

Use it to set the time for identifying the line connection.

Raise this parameter if errors occur frequently at time of communication because of the condition of the line.

> Error Code:
>
> Any of the following error codes may be indicated because of the condition of the line ##005, ##018

> MEMO:
> The line condition identification time is between when the dial signal is transmitted and when the line condition is cut for the transmitting party, while it is between when the DIS signal is transmitted and when the line is cut for the receiving party.

<011: T.30 T1 timer (for reception)>

Set the T1 timer at the time of reception (the waiting time till receiving the significant signal after the DIS transmission).

Setting of Destination (TYPE)

Overview

When the type shown on the display is set, all the service data is set to match each country domestic telecommunication standards.

Setting of Printer Functions (PRINTER)

● Setting of Bit Switch (SSSW)

■ SSSW-SW05

● Functional Construction

Bit	Function	1	0
0	priority on LTR	place	do not place
1	priority on LGL	place	do not place
2	not used	-	-
3	not used	-	-
4	not used	-	-
5	not used	-	-
6	not used	-	-
7	priority on recording in sub scanning direction	place	do not place

T-5-20

Detailed Discussions of Bits 0 and 1

Use it to enable/disable placement of priority on LTR paper when an image that may be printed at 100% or in even division on A4, LTR, or LGL is received.

The setting of bit 0 and bit 1 affects the order of priority as follows:

Bit1	Bit0	Priority of recording paper
0	0	A4 -> LTR -> LGL
0	1	LTR -> A4 -> LGL
1	0	LGL -> LTR -> A4
1	1	LTR -> LGL -> A4

T-5-21

However, when priority is on recording in sub scanning direction, the order will be as follows even when bit 1 and bit 0 are set to '0': LTR -> A4 -> LGL.

Detailed Discussions of Bit 7

Use it to enable/disable placement of priority on recording in sub scanning direction.

place: if B4 recording paper and A4 recording paper are set and an A4 extra-long image (*) is received, printing will be on the B4 recording paper.

do not place: if B5 horizontal recording paper and A4 recording paper are set and a B4 image is received, printing will be by division and on B5 horizontal recording paper.

*: Image B4 or shorter and that cannot be printed by division and on A4 recording paper.

■ SSSW-SW06

● Functional Construction

Bit	Function	1	0
0	not used	-	-
1	not used	-	-
2	not used	-	-
3	not used	-	-
4	not used	-	-
5	reduced printing from A4 to B5	enable	disable
6	not used	-	-
7	not used	-	-

T-5-22

Detailed Discussions of Bit 5

Set whether to execute the reduction print that forcibly reduces the A4 size document into the B5 size.

This function is invalid when outputting the report.

Setting of Numeric Parameter (NUMERIC Param.)

| Sssw | Menu | Num | Ncu | Type | IPFAX | Print | Clear | Test | Report |

```
<NUM>              <1/4>          <READY>

  001              xxxxx  ← (yyyyy) {aaaaa~bbbbb}
  002              xxxxx  ← (yyyyy) {aaaaa~bbbbb}
  003              xxxxx  ← (yyyyy) {aaaaa~bbbbb}
  004              xxxxx  ← (yyyyy) {aaaaa~bbbbb}
  005              xxxxx  ← (yyyyy) {aaaaa~bbbbb}
  006              xxxxx  ← (yyyyy) {aaaaa~bbbbb}
  007              xxxxx  ← (yyyyy) {aaaaa~bbbbb}
  008              xxxxx  ← (yyyyy) {aaaaa~bbbbb}

       ⇦      ⇨      ▽   △   ↵      OK ↵
```

F-5-13

■ Numerical Parameter Composition

No.	Function	Setting range	Initial setting	Unit
01	Missing areas of printing image when receiving image with longer length than standard	0 to 9999	12	1 mm
04	Leading edge blank area	0 to 9999	3	1 mm
05	Trailing edge blank area	0 to 9999	3	1 mm

T-5-23

<001: printing upon reception of extra-length image>

Use it to set the range of the image to be removed from when printing an extra-length received image.

Lower the parameter to decrease the range if the trailing edge of the received image must be retained (as when it is longer than the effective recording length).

<004: leading edge margin>

Use it to set the leading-edge margin for the effective recording length.

<005: trailing edge margin>

Use it to set the trailing-edge margin for the effective recording length.

IPFAX Setting

IPFAX

■ NETC NUM

Bit	Function	Setting range
1	SW for adjusting the speed at VoIPGW transmission [%]	0-9999* However, the value is fixed in the case of ECM, and is corrected by adding 5%.
2	VoIPGW buffer size [byte]	0-9999* However, when the value is 0, it is internally interpreted as 200.
4	Number of VoIPGW buffer reset frames at ECM * At ECM transmission, when frames of the number of this NUM value have been transmitted, the next frames will be transmitted after the VoIPGW buffer becomes empty.	0-9999* However, when the value is 0, it is internally interpreted as 16.

T-5-24

■ T.38 Setting of Bit

● SW01

Bit	Function	Setting range	
2	T.38 significant bit of DIS (bit123) is ignored. (When this SW is effective, the other party's machine is regarded as IPFAX even if DIS bit123 is 0.)	Ignore	Not ignore
3	Transmission ECM = OFF setting	Effective	Invalid *
4	Reception ECM = OFF setting	Effective	Invalid *

T-5-25

Initialization of Set Value (CLEAR)

Overview

You can select and initialize data by making the following selections; as a result, settings and various parameter values will be reset to the factory settings.

Item	Data to be initialized
TEL	telephone number registration data (*1)
USSW SW	user data and data registered under Service Mode #1 through #3. of user data, the memory management data will not be deleted. image data collected in memory will not be deleted.
SRV SW	user data and data in Service Mode #1 through #3, #7.
NCU	data under Service Mode #4.
SRV DATA	system dump list data.
REPORT	communication control report data.
ALL	all settings/registered data (*1) except data under Service Mode #5 TYPE (*2).
COUNTER	number of prints, number of sheets read.
IPFAX	The content of service mode IPFAX

T-5-26

*1: If the model is capable of storing addresses other than fax addresses, the telephone number data will not be deleted upon execution of 'TEL' and 'ALL'.
To remove the telephone number data, use the host machine's service mode: COPIER > FUNCTION > CLEAR > ADRS-BK.

*2: When 'ALL' is executed, the values suited to the destination of the machine will be stored under 'TYPE'; in the case of Japan, 'standard'.

Test Mode (TEST)

Outline

■ Test Mode Construction

| Sssw | Menu | Num | Ncu | Type | IPFAX | Print | Clear | Test | Report |

ISDNMOD2

MODEM

FACULTY

DATA SET

ISDNMOD

F-5-14

<Using Test Mode>

1) Press the desired item to highlight; then, press the OK key to bring up its screen.

The following table shows text mode items that are valid and invalid when a fax board is installed:

yes: may be used

-: not used

Level 1	Level 2	Fax Board present
MODEM	RELAY-1	yes
	RELAY-2	-
	FREQ	yes
	G3TX	yes
	DTMFTX	yes
	TONERX	-
	V34G3TX	yes
FACULTY	G3 4800TX	yes
	SPEAKER	-
	DETECT1	-
	DETECT2	-
	DETECT3	-
	VOICETX	-
DATA SET		-
ISDNMOD		-
ISDNMOD2		-

T-5-27

Caution:

Do not use items in the table identified as "-."

MODEM Test

■ Relay Test (RELAY-1)

Use it to see if the individual relays on the NCU board go on and off as expected.

| Sssw | Menu | Num | Ncu | Type | IPFAX | Print | Clear | Test | Report |

<MODEM>   <RELAY-1>   <1/1>   <READY>

CML   OFF
P   OFF
S   OFF
H   OFF
D   OFF
R   OFF

⇐   ⇒   ▽   △   ↵   OK ↵

F-5-15

Using Text Mode

1) From the relays indicated on the screen, select the one you want to test; then, turn it off or on using the Up/Down key. (Some of the relays may not actually exist on the NCU board.)

■ Frequency Test (FREQ)

Of the items indicated below, press one; in response, the DC circuit will be closed and the selected frequency will be transmitted using the tone transmission function of the modem. You can also monitor the transmission signal by listening to the sound generated by the speaker. To stop the operation and end test mode, press the ▣ key.

```
┌─────────────────────────────────────────────────────────┐
│ Sssw │ Menu │ Num │ Ncu │ Type │ IPFAX │ Print │ Clear │ Test │ Report │
│                                                         │
│   <MODEM>     <FREQ>        <1/1>        <READY>        │
│                                                         │
│   RBT                                                   │
│   462Hz                                                 │
│   1100Hz                                                │
│   1300Hz                                                │
│   1500Hz                                                │
│   1650Hz                                                │
│   1850Hz                                                │
│   2100Hz                                                │
│                                                         │
│       ⇦        ⇨       ▽  △  ↵     OK ↵               │
└─────────────────────────────────────────────────────────┘
```

F-5-16

Caution:

 'RBT' is not currently supported.

■ G3 Signal Transmission Test (G3 Tx)

Of the items indicated below, press one. In response, the DC circuit will be closed and the selected frequency will be transmitted using the G3 signal transmission function of the modem. You can also monitor the transmission signal by listening to the sound generated by the speaker. To stop the operation and end test mode, press the ▣ key.

```
┌─────────────────────────────────────────────────────────┐
│ Sssw │ Menu │ Num │ Ncu │ Type │ IPFAX │ Print │ Clear │ Test │ Report │
│                                                         │
│   <MODEM>     <G3TX>        <1/2>        <READY>        │
│                                                         │
│   300bps                                                │
│   2400bps                                               │
│   4800bps                                               │
│   7200bps                                               │
│   9600bps                                               │
│   TC7200                                                │
│   TC9600                                                │
│   12000bps                                              │
│                                                         │
│       ⇦        ⇨       ▽  △  ↵     OK ↵               │
└─────────────────────────────────────────────────────────┘
```

F-5-17

```
┌─────────────────────────────────────────────────────────┐
│ Sssw │ Menu │ Num │ Ncu │ Type │ IPFAX │ Print │ Clear │ Test │ Report │
│                                                         │
│   <MODEM>     <G3TX>        <2/2>        <READY>        │
│                                                         │
│   14400bps                                              │
│   300-ALL0                                              │
│   300-ALL1                                              │
│   300-1:1                                               │
│   300-1:4                                               │
│   300-4:1                                               │
│                                                         │
│       ⇦        ⇨       ▽  △  ↵     OK ↵               │
└─────────────────────────────────────────────────────────┘
```

F-5-18

Caution:

'300-ALL0' through '300-4:1' are not currently supported.

■ DTMF Transmission Test

Of the items indicated below, press one; in response, the DC circuit will be closed and the selected DTMF signal will be transmitted using the DTMF transmission function of the modem. You can also monitor the transmission signal by listening to the speaker. To stop the operation and to end test mode, press the ⏎ key.

Sssw	Menu	Num	Ncu	Type	IPFAX	Print	Clear	Test	Report

```
  <MODEM>      <DTMFTX>        <1/1>           <READY>

   LONG       0 1 2 3 4 5 6 7 8 9 * #
   SHORT      0 1 2 3 4 5 6 7 8 9 * #




   ⇦        ⇨        ▽ △ ⏎        OK ⏎
```

F-5-19

Using Text Mode

1) From the items indicated on the screen, select the item you want to test; then, press the key on keypad that corresponds to the DTMF signal to test.

Caution:

'SHORT' is not currently supported.

■ V.34 G3 Signal Transmission Test (V34G3Tx)

Select the transmission speed you want to test, and then select a modulation speed (baud rate); in response, the V.34 G3 transmission signal will be transmitted to the telephone line terminal and the speaker. To stop the operation and to end test mode, press the ⏎ key.

Sssw	Menu	Num	Ncu	Type	IPFAX	Print	Clear	Test	Report

```
<MODEM>        <V34G3TX>        <1/1>           <READY>

   SPEED          33600bps
   3429baud
   3200baud
   3000baud
   2800baud
   2743baud
   2400baud




      ⇦          ⇨         ▽  △  ⏎      OK ⏎
```

F-5-20

Using Text Mode

1) Select 'SPEED', and then select the speed you want to test using the Up/Down key.

2) Select the baud rate you want to test.

◉ Function Test

■ 4800-bps Signal Transmission Test

The DC circuit will be closed, and a 4800-bps signal will be transmitted using the 4800-bps signal transmission function of the modem. You can also monitor the transmission signal by listening to the speaker. To stop the operation and end test mode, press the ⏎ key.

Sssw	Menu	Num	Ncu	Type	IPFAX	Print	Clear	Test	Report

```
<FACULTY>     <G34800TX>              <1/1>   <READY>

   G34800TX







      ⇦          ⇨         ▽  △  ⏎      OK ⏎
```

F-5-21

Service Report (REPORT)

System Data List

Use it to check the settings associated with the service soft switch and service parameters.

```
2003 09/02 TUE 12:00  FAX                                             001

                        *******************************
                        ***   SYSTEM DATA LIST   ***
                        *******************************

        SERIAL NO              XXXXXXXX

              #1 SSSW

                 SW01          ......      00000000
                 SW02          ......      10000000
                 SW03          ......      00000000
                 SW04          ......      10000000
                 SW05          ......      00000000
                 SW06          ......      10000000
                 SW07          ......      00000000
                 SW08          ......      00000000
                 SW09          ......      00000000
                 SW10          ......      00000000
                 SW11          ......      00000000
                 SW12          ......      00000011
                 SW13          ......      00000000
                 SW14          ......      00000000
                 SW15          ......      00000000
                 SW16          ......      00000000
                 SW17          ......      00000000
                 SW18          ......      00000000
                 SW19          ......      00011000
                 SW20          ......      00000000
                 SW21          ......      00000000
                 SW22          ......      00000000
                 SW23          ......      00000000
                 SW24          ......      00000000
                 SW25          ......      00000000
                 SW26          ......      00100000
                 SW27          ......      00000000
                 SW28          ......      00000000
                 SW29          ......      00000000
                 SW30          ......      00000000
                 SW31          ......      00000000
                 SW32          ......      00000000
                 SW33          ......      00000000
                 SW34          ......      00000000
                 SW35          ......      00000000
                 SW36          ......      00000000
                 SW37          ......      00000000
                 SW38          ......      00000000
                 SW39          ......      00000000
                 SW40          ......      00000000
                 SW41          ......      00000000
                 SW42          ......      00000000
                 SW43          ......      00000000
                 SW44          ......      00000000
                 SW45          ......      00000000
                 SW46          ......      00000000
                 SW47          ......      00000000
                 SW48          ......      00000000
                 SW49          ......      00000000
                 SW50          ......      00000000

              #2 MENU
                 01:          ......           0
                 02:          ......           0
                 03:          ......           0
                 04:          ......           0
                 05:          ......           0
                 06:          ......           0
                 07:          ......          10
                 08:          ......           0
                 09:          ......           0
                 10:          ......           2
```

F-5-22

System Dump List

> MEMO:
> A system dump list is generated when you execute the following in service mode: FAX > Report > DUMP.

Use it to check the history of communications, both successful and error.

```
     2013 04/05 FRI 12:00  FAX                                        001

                        *********************************
                        ***   SYSTEM DUMP LIST   ***
                        *********************************

        SERIAL NO              XXXXXXXX

        CLEAR  DATE            2013 02/03 FRI 13:37

*1      TX    =   1298
*2      A4    =   1302   B4    =    49   A3    =    27   LTR   =   0   LGL   =   0
*1      RX    =   1572
*2      A4    =   1581   B4    =    59   A3    =    59   LTR   =   0   LGL   =   0
*3      NWSPD =      0
*3      33600 =      1   31200 =     0   28800 =  2986   26400 =   0   24000 =   0
        21600 =      0   19200 =     0   16800 =     0   14400 =   0   12000 =   0
        9600  =      0   7200  =     0   4800  =     0   2400  =   0
        14400 =     83   12000 =     1   TC9600 =    0   TC7200 =  0
        14400 =      0   14400 =     0
        9600  =      2   7200  =     0   4800  =     4   2400  =   0
*4      STD   =     60   FINE  =  2839   SUPER =   107   ULTRA =  71
*5      MH    =      7   MR    =    32   MMR   =     9   JBIG  = 3029  JPEG  =   0
*6      G3    =     37   ECM   =  3040   G4    =     0   IPECM =   0   IPG3  =   0

*7      #000      0     0      0      0      0      0     0     0
                  0     0      0      0      0      0     0     0
                  0     0      2      0      0      0     0     0
                  0     0      0      0      0      0     0     0
                  0     0      0      0      0      0     0     0
                  0     0      0      0      0      0     0     0
                  0     0      0      0      0      0     0
                  0     0      0      0      0      0
                  0     0      0      0      0      0
                  0     0      0      0      0      0
                  0     0      0     22
                  0     0      0
```

F-5-23

*1: RX, total reception number of times; TX, total transmission number of times.

*2: number of pages sent/received according to original size.

*3: number of pages sent/received in connection with different modem speeds (NWSPD : For IPFAX communication count).

*4: number of communication pages by resolution(Standard, Fine, Super Fine, Ultra Fine).

*5: number of pages sent/received in connection with different coding methods.

*6: number of transmissions/receptions according to mode.

*7: number of occurrences according to error code.

Indication sample

| #280 | 1 | 7 | 3 | 0 | 0 |

↑ number of errors ##280   ↑ number of errors ##281   ↑ number of errors ##282

F-5-24

It provides error information on the 3 most recent communications.

```
                    2003 09/02 TUE 12:00  FAX                                         001
*1 ──────── #1  LATEST              #000
*2 ────────────    START  TIME          09/02  10:00
*3 ────────────    OTHER  PARTY         12345678
*4 ────────────    MAKER  CODE          10001000
*5 ────────────    MACHINE  CODE        0100001  00000000
                   RCV  V.8  FRAME      E0  81  85  D4  90  7E  00  00   <-Not displayed when IPFAX is enabled
                   SYMBOL  RATE         3429  baud
                   DATA  RATE           28800  bps  [V. 34]
                   TX  LVL  REDUCTION     0
                   ERR  ABCODE          00
                   ERR  SECTXB          00
                   ERR  SECRXB          00

*6 ────────────    Rx : ( bit 1 )     00000100  01110111  01011111  00100011  00000001  10101001  00000001  00000001 ( bit 64 )
                       ( bit 65 )     00000001  00000001  00000100  00000000  00000000  00000000  00000000  00000000 ( bit 128 )
*7 ────────────    Tx : ( bit 1 )     00000000  01000010  00011111  00100001  00000001  00000001  00000001  00000001 ( bit 64 )
                       ( bit 65 )     00000001  00000001  00000100  00000000  00000000  00000000  00000000  00000000 ( bit 128 )

*8 ────────────    Rx :  NSF  CSI  DIS            CFR              MCF              MCF
*8 ────────────    Tx :              NSS  TSI  DCS      PIX-288  PPS-NUL      PIX-288  PPS-NUL      PIX-288  PPS-NUL


                   #2                  #000
                      START  TIME          09/02  09:30
                      OTHER  PARTY         12345678
                      MAKER  CODE          10001000
                      MACHINE  CODE        0100001  00000000

                                                                       <-Not displayed when IPFAX is enabled




                      Rx : ( bit 1 )     00000100  01110111  01011111  00100011  00000001  10101001  00000001  00000001 ( bit 64 )
                          ( bit 65 )     00000001  00000001  00000100  00000000  00000000  00000000  00000000  00000000 ( bit 128 )
                      Tx : ( bit 1 )     00000000  01000010  00011111  00100001  00000001  00000001  00000001  00000001 ( bit 64 )
                          ( bit 65 )     00000001  00000001  00000100  00000000  00000000  00000000  00000000  00000000 ( bit 128 )

                      Rx :  NSF  CSI  DIS            CFR              MCF              MCF
                      Tx :              NSS  TSI  DCS      PIX-288  PPS-NUL      PIX-288  PPS-NUL      PIX-288  PPS-NUL


                   #3  OLDEST           #000
                      START  TIME          09/02  09:00
                      OTHER  PARTY         12345678
                      MAKER  CODE          10001000
                      MACHINE  CODE        0100001  00000000
                      RCV  V.8  FRAME      E0  81  85  D4  90  7E  00  00
                      SYMBOL  RATE         3429  baud
                      DATA  RATE           28800  bps  [V. 34]
                      TX  LVL  REDUCTION     0
                      ERR  ABCODE          00
                      ERR  SECTXB          00
                      ERR  SECRXB          00
```

F-5-25

*1: service error code.

*2: START TIME, date and time (in 24-hr notation).

*3: OTHER PARTY, telephone number sent by the other party.

*4: MAKER CODE, manufacturer code.

*5: MACHINE CODE, model code.

*6: bit 1 through bit 96 of DIS, DCS, or DTC that has been received.

*7: bit 1 through bit 96 of DIS, DCS, or DTC that has been transmitted.

*8: RX, procedural signal received; TX, procedural signal transmitted.

Error Transmission Report

An error transmission report is an error transmission report together to which a service error
code and error dump list is attached.

```
2003 09/02 TUE 12:00  FAX                                                    ⅢD001
                         *********************************
                         *** FAX ERROR TX REPORT ***
                         *********************************

                         TX FUNCTION WAS NOT COMPLETED

                         JOB NO.                    1269
                         DESTINATION ADDRESS        12345678
                         PSWD/SUBADDRESS
                         DESTINATION ID
                         ST. TIME                   09/02  09:00
                         USAGE T                    01 ' 50
                         PGS.                       1
                         RESULT                     NG
                                                        1        ##750
                         COMM. MODE                 FAX
```

```
START  TIME        09/02  09:00
OTHER  PARTY       12345678
MAKER  CODE        10001000
MACHINE  CODE      0100001  00000000
RCV V.8  FRAME     E0  81  85  D4  90  7E  00  00    <-Not displayed when IPFAX is enabled
SYMBOL  RATE       3429  baud
DATA  RATE         28800  bps  [V. 34]
TX  LVL  REDUCTION    0
ERR  ABCODE        92
ERR  SECTXB        8A
ERR  SECRXB        80

Rx : ( bit  1 )    00000100  01110111  01011111  00100011  00000001  10101001  00000001  00000001 ( bit  64 )
     ( bit 65 )    00000001  00000001  00000100  00000000  00000000  00000000  00000000  00000000 ( bit 128 )
Tx : ( bit  1 )    00000000  01000010  00011111  00100001  00000001  00000001  00000001  00000001 ( bit  64 )
     ( bit 65 )    00000001  00000001  00000100  00000000  00000000  00000000  00000000  00000000 ( bit 128 )
```

Rx :	NSF CSI DIS		CFR		MCF		MCF	
Tx :		NSS TSI DCS	PIX-288 PPS-NUL		PIX-288 PPS-NUL		PIX-288 PPS-NUL	

F-5-26

DCM

Service modes related to fax of DCM

Service modes related to fax of DCM (Device Configuration Management) are explained.

The service mode related to fax is collectively exported with the service mode of the host machine.

It is not possible to export only the service mode related to fax.

For DCM of the host machine, refer to "DCM" in the Service Manual.

■ Limitations

- The service mode related to fax can be exported and imported only when the following Fax Board is installed.
  - Super G3 FAX Board-AH2 (iR-ADV C2030/C2025/C2020 Series)
  - Super G3 FAX Board-AL1 (iR-ADV 8205/8285/8295/6275/6265/6255 Series)
  - Super G3 FAX Board-AP1 (iR-ADV 4245/4235/4225 Series)
- If the FAX Board is not installed on the distributing device, export of service mode related to fax is not performed.
- If the FAX Board is not installed on the distribution destination device, import of service mode related to fax is not performed.

	Compatibility level (Lv)	Not supported.
SSSW	Lvl2	Can import to a device of a same model.
Menu	Lvl2	Can import to a device of a same model.
Num	Lvl2	Can import to a device of a same model.
Ncu	Lvl0	Ncu is not supported.
Type	Lvl2	Can import to a device of a same model.
ISDN	Lvl2	ISDN model and can import to a device of a same model.
IPFAX	Lvl2	IPFAX model and can import to a device of a same model.
Print	Lvl2	Can import to a device of a same model.

T-5-28

Compatibility level (Lv)	Description
0	Not supported.
1	Can import to a device of the same model and same SN only.
	Usable for the purpose of backup/restore.
2	Can import to a device of a same model.
3	Can import to a device of a different model also.

T-5-29

■ Import/export by service mode

> **Memo**
> For details on the Import/export by service mode, refer to the Service Manual of the product.

● Export

1. Log in to service mode and press [BACKUP].

F-5-27

2. Select [LIST], and select [1](USB) or [2](HDD), and then press [OK].

USB : 1
HDD : 2

F-5-28

3. Select [PASSWD], enter a password from the software keyboard.

F-5-29

4. Select [BACKUP], and press [OK].

F-5-30

5. "OK!" is displayed in the status column when the processing is successfully completed.

F-5-31

● Import

1. Log in to service mode and press [RESTORE].

F-5-32

2. Select [LIST], and select [1](USB) or [2](HDD), and then press [OK].

USB : 1
HDD : 2

F-5-33

3. Select [SELECT]. Enter the selection number displayed on the left side of the file to be selected and press [OK].

03 iAC5255

(USB)
(USB)
e(USB) *
E(USB)

F-5-34

4. Press [->].

F-5-35

5. Select [PASSWD], enter a password from the software keyboard.

F-5-36

6. Select [RESTORE], and then press [OK].

F-5-37

7. "OK!" is displayed in the status column when the processing is successfully completed.

F-5-38

6

Installation

■How to Check This Installation Procedure

■Product Name

■Check Items When Turning OFF the Main Power

■Installation Outline Drawing

■Points to Note When Installing

■Checking the Contents

■Installation Procedure

■Operation Setting

How to Check This Installation Procedure

When Using the Parts Included in the Package

A symbol is described on the illustration in the case of using the parts included in the package of this product.

Packaged Item

F-6-1

Symbols in the Illustration

The frequently-performed operations are described with symbols in this procedure.

Screw

Tighten   Remove

Connector

Connect   Disconnect

Harness

Secure   Free

Claw

Insert   Remove   Push   Plug in   Turn on

Checking instruction

Check   Visual Check   Sound Check

F-6-2

Product Name

Safety regulations require the product's name to be registered. In some regions where this product is sold, the following names may be registered instead.
• F680271

Check Items When Turning OFF the Main Power

Check that the main power switch is OFF.
1) Turn OFF the main power switch of the host machine.
2) Be sure that Control Panel Display and Main Power Lamp are both turned OFF, and then disconnect the power plug.

Installation Outline Drawing

FRONT

F-6-3

Points to Note When Installing

CAUTION:
•   This equipment and the Remote Fax Kit-A1 cannot be used at the same time.

Checking the Contents

[1] FAX Unit x1	[2] Modular Label x1	[3] Screw (TP; M3x6) x5
[4] Modular Unit x1	[5] Telephone Cord (2 Contacts) x1	[6] Telephone Cord (6 Contacts) x1 (Only for Euro model)
[7] PTT Cable x1 (Only for Asia model) (used in Australia)	[9] PTT Plug x3 (Only for Euro model) (used in Germany)　　　　　(used in UK)　　　　　(used in France)	
[10] FCC IC Label x1 (Only for USA model)	[11] FAX Approval Label (GER) x1 (Only for Euro model) A-TICK Lable (AUS) x1 (Only for Asia model) NCC Label x1 (Only for Taiwan model) (There is not the label for Korea model.)	[12] FAX Driver CD x1

Check to make sure that none of the following documentations are missing.

F-6-4

☐

[1] FCC/IC-A Document (Only for USA Model)

☐

[2] Notice for Latest Software

Installation Procedure

■ Preparing the Host Machine

☐
1) Remove the Rear Cover.

• 4 Screws

• 4 Claws

F-6-5

☐
2) Remove the Left Rear Cover.

• 4 Screws

• 2 Claws

F-6-6

☐
3) Remove the Controller Cover.

• 6 Hooks

REAR VIEW F-6-7

■ Installing the Fax Unit

☐
1) Install the Fax Unit.

- 3 Hooks
- 4 Screws (TP; M3X6)

F-6-8

☐
2) Connect the harnesses of the Fax Unit to the Controller PCB.

- 2 Connectors
- 2 Edge Saddles

F-6-9

☐
3) Install the Modular Unit to the Fax Unit.

- 1 Hook
- 1 Screw (TP; M3X6)

F-6-10

☐
4) Connect the Modular Cable to the Modular Unit.

- 1 Connector

F-6-11

5) Cut off the blindfold plates of the Left Rear Cover as shown using side cutter.

> NOTE:
> Check that there is no burr on the aperture after cutting.

F-6-12

6) Return the removed covers to their original positions.

> NOTE:
> When installing the 2nd Line FAX Board-AP1 additionally, install it before the step 6).

- Controller Cover
- Left Rear Cover (2 Claws, 4 Screws; RS-tight)
- Rear Cover (4 Claws, 4 Screws; TP)

■ Procedure after Work

1) Affix the Modular Label.

Modular Label

F-6-13

2) Connect the Telephone Cord (6 contacts) to the PTT Plug matched the field or area.

> NOTE:
> • This step is only for Europe model. It describes a plug for France as an example.
> • Do not connect the Telephone Cord (2 contacts) with the PTT Plug.

F-6-14

☐

3) Connect the PTT Plug or the Telephone Cord to the Modular Jack on the wall side, and
   connect the other side to the Modular Jack for host machine line.

☐

4) Affix the following label in the vacant space except for Korea model.
• FAX Approval Label (GER): Only for Europe
• A-TICK Label (AUS): Only for Australia
• NCC Label: Only for Taiwan

F-6-15

☐

5) Affix the following label in the vacant space for USA model only.
• FCC IC Label (USA): Only for USA

F-6-16

☐

6) Connect the power plug to the outlet, and turn ON the main power switch.

Operation Setting

■ Type Setting

☐

Select the country/region of the FAX Board in Service Mode: FAX > type > TYPE

This setting performs the parameter settings to match the communication specification of country/region.

1) Set the TYPE of country/region to install this equipment, and then press OK.

Service Mode> FAX > type > TYPE

2) Confirm that service mode parameter below is [0].

If the parameter is [1], change it to [0].

COPIER > OPTION > DSPLY-SW > SDTM-DSP

> NOTE:
> To change the above parameter to [0] makes the following menu indication extinguished and auto-shut down function disabled.
> [Settings/Registration]

3) Turn OFF/ON the main power switch to enable the above setting.

■ Basic Setting

> NOTE:
> When "System Manager Information Settings" is configured, be sure to follow the direction of user administrator in order to log in as an administrator.

☐

In this section, procedures for only minimum settings required for FAX communication are described.

1) Set the user telephone number.

[Settings/Registration]> [Function Settings]> [Send]> [Fax Settings]> [Set Line]> [Line 1]> [Register User Telephone No.]> Enter FAX number> [OK]

2) Set the type of telephone line.

[Settings/Registration]> [Function Settings]> [Send]> [Fax Settings]> [Set Line]> [Line 1]> [Select Line Type]> Select the line type to connect> [OK]

3) Turn OFF/ON the main power switch.

■ Fax communication test

☐

Perform the communication test to check if the fax function works properly.

1) Switch the screen to the Send/Fax screen.

2) Send a test original from the remote unit for a communication test to the equipment and check if it can be received correctly.

• Press [Status Monitor/Cancel] > [Send] > [Log] and select [Fax] from pull down menu.

• Press [Print List] > [Print the fax activity report?] > [Yes].

• The number printed following colon(:) in "COMM. MODE" field on Fax Activity Report TX/ RX shows line type used for sending/receiving.

E.g. "ECM:1" => Line 1

3) Send a test original from the equipment to a remote unit with which a communication test can be performed and check if it can be sent correctly.