

Service Manual

FAX Board

Super G3 FAX Board-N1

The Canon logo is displayed in a bold, black, sans-serif font. The letter 'C' is stylized with a thick stroke and a small gap at the top. The letters 'a', 'n', 'o', and 'n' are also in a bold, sans-serif font, with the 'o' being slightly smaller than the 'n's.

Nov 12 2003

Application

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

Corrections

This manual may contain technical inaccuracies or typographical errors due to improvements or changes in products. When changes occur in applicable products or in the contents of this manual, Canon will release technical information as the need arises. In the event of major changes in the contents of this manual over a long or short period, Canon will issue a new edition of this manual.

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Caution

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

Symbols Used

This documentation uses the following symbols to indicate special information:

Symbol	Description
	Indicates an item of a non-specific nature, possibly classified as Note, Caution, or Warning.
	Indicates an item requiring care to avoid electric shocks.
	Indicates an item requiring care to avoid combustion (fire).
	Indicates an item prohibiting disassembly to avoid electric shocks or problems.
	Indicates an item requiring disconnection of the power plug from the electric outlet.
 Memo	Indicates an item intended to provide notes assisting the understanding of the topic in question.
 REF.	Indicates an item of reference assisting the understanding of the topic in question.
	Provides a description of a service mode.
	Provides a description of the nature of an error indication.

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."

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Chapter 1 Specifications

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1.1 Product Specifications

1.1.1 Specifications

0002-4632

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Item	Description
Communication	G3
Line type	Subscriber line (PSTN)
Modulation	<G3 image signal> ITU-T V.27ter (2.4Kbps, 4.8Kbps) ITU-T V.29 (7.2Kbps, 9.6Kbps) ITU-T V.17 (TC 7.2Kbps, TC 9.6Kbps, 12Kbps, 14.4Kbps) ITU-T V.34 (2.4Kbps, 4.8Kbps, 7.2Kbps, 9.6Kbps, 12Kbps, 14.4Kbps, 16.8Kbps, 19.2Kbps, 21.6Kbps, 24Kbps, 26.4Kbps, 28.8Kbps, 31.2Kbps, 33.6Kbps) <G3 procedure signal> ITU-T V.21 No.2 (300bps) ITU-T V.8, V.34 (300bps)
Transmission speed	33.6Kbps, 31.2Kbps, 28.8Kbps, 23.4Kbps, 24Kbps, 21.6Kbps, 19.2Kbps, 16.8Kbps, 14.4Kbps, 12Kbps, TC 9.6Kbps, TC7.2Kbps, 9.6Kbps, 7.2Kbps, 4.8Kbps, 2.4Kbps auto fallback function
Coding method	JBIG, MMR, MR, MH
G3-specific abridged procedure	no
Modem IC	conexant FM336
Error correction	ITU-T ECM
Transmission original size	A3, A4, A4R, A5, A5R, B4, B5, B5R, LTR, LTRR, LGL, 11×17, 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 (300 x 300 dpi): 8 dots/mm x 15.4 lines/mm Ultra Fine (400 x 400 dpi): 16 dots/mm x 15.4 lines/mm
Halftone	T-BIC

Item	Description
Recording unit	maximum reception size: A3 (297mm x 420mm) scanning line density: 600dpi x 600dpi
Memory	image memory: 3800 prints (Canon Fax Standard Chart No. 1) memory type: hard disk (image area of 11.7 GB) storage: MMR
Extension telephone connection	no
Answering machine connection	no
Fax/Tel switch-over	no
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)

Chapter 2 Functions

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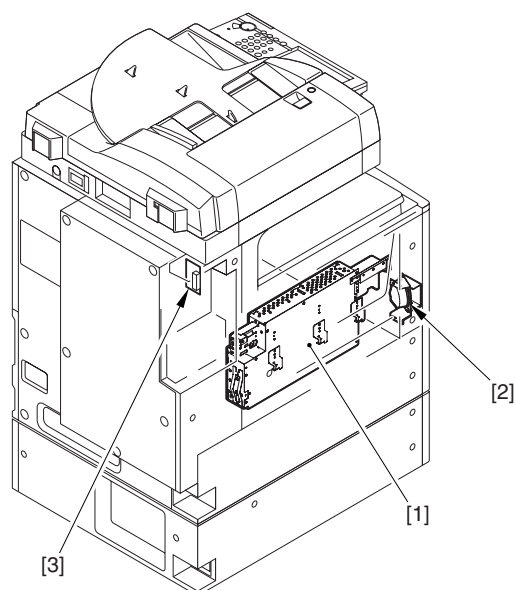
2.1 Basic Construction

2.1.1 Overview

0003-0557

The board is designed to enable a digital copier to serve as a high-performance multi-functional machine (image processing functions and communication functions over the telephone line).

It is capable of communicating at a maximum rate of 33.6 kbps, thanks to the presence of a V.34-compliant modem (ITU-T).



F-2-1

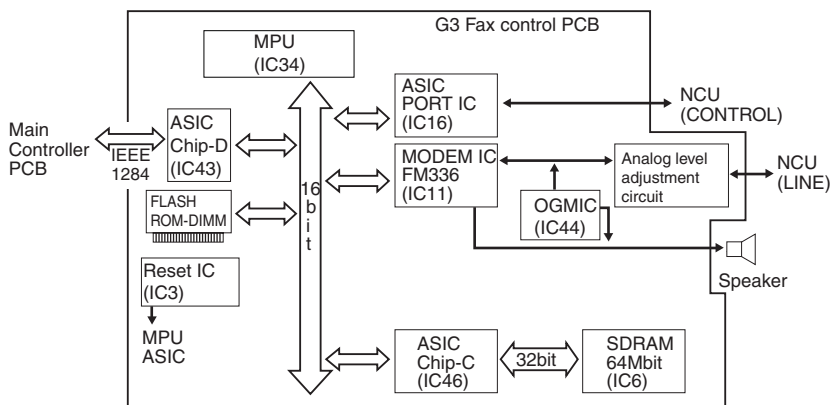
[1] Super G3 Fax Board-N1

[2] Speaker unit

[3] Modular PCB

2.1.2 G3 FAX Control PCB

0003-0558



F-2-2

MPU (IC34)

It controls communications executed over the telephone line.

It is equipped with a 256-KB internal ROM and a 10-KB internal RAM, and is driven by 3.3 V.

ASIC (IC46)

It codes/decodes JBIG data, and controls SDRAM. The 64-megabit SDRAM is connected by a 32-bit bus.

ASIC (IC43)

It is the interface to the main controller PCB. It controls the bi-directional parallel communications executed over the IEEE1284 interface connected to the main controller PCB; it also controls the chips around the MPU and processes CI counter data.

G3FAX Control DIMM Slot (J11)

The 16-megabit flash ROM DIMM to be fitted to this slot contains programs used to control communications on an analog telephone line. The DIMM may be upgraded by downloading the appropriate programs using a service support tool or thorough replacement.

ASIC (IC16)

It controls the NCU and various ports for the speaker and the like.

SDRAM (IC6)

It is a 64-megabit SDRAM used to code/decode image data for transmission and reception; it is also used as work area memory for the MPU.

Reset IC (IC3)

It is used to reset the MPU and the like on the Board at time of power-on or in the event of a drop in power voltage.

MODEM IC (IC11)

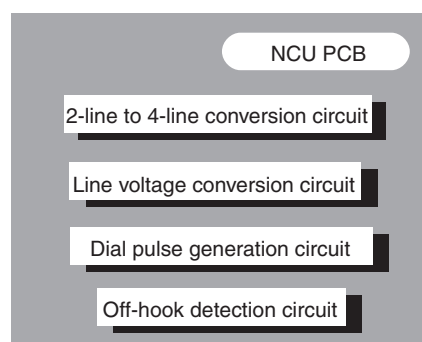
It is an FM336 modem used to modulate the transmission data it receives from the MPU at time of line transmission in keeping with the standards of ITU-T V.17, V.21, V.27ter., V.29, or V.34; at time of reception, it demodulates the data it receives from the line in keeping with the standards of ITU-T V.17, V.21, V.27ter., V.29, or V.34.

OGM IC (IC44)

Not used.

2.1.3 NCU PCB

0003-0559



F-2-3

2-Line/4-Line Conversion Circuitry

Signals from a 2-line telephone line are converted into transmission signals and reception signals (4 lines). It also serves to prevent intrusion of signals from the modem into the reception circuit.

Dial Pulse Generator Circuit

It turns on and off the relay within the circuit using the control signal from the G3 fax controller PCB to generate dial pulses so that dial signals will be generated by the fax on a dial-pulse line.

Off-Hook Detection Circuit

Not used.

Line Voltage Conversion Circuit

The primary side of the NCU board is controlled by a line voltage of +48 VDC. The DC component is cut out by the work of a capacitor and, as a result, only audio signals are converted into voltages suited to the level of the modem.

Chapter 3 Installation

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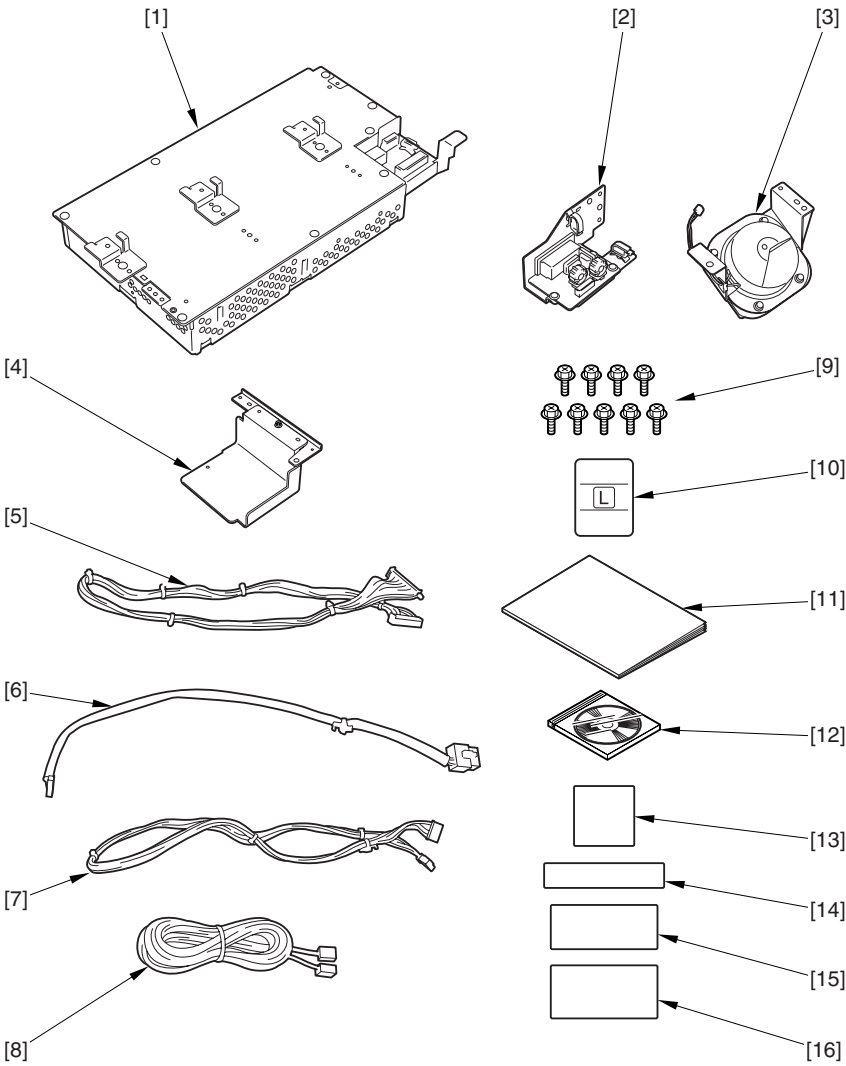
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3.1 Making Pre-Checks

3.1.1 Checking the Contents

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⚠ The Board requires the presence of the separately sold Resolution Switching Board-A1 for operation.



F-3-1

T-3-1

[1]	G3 fax unit	---	1 pc.	[9]	Screw (M3x8)	---	9 pc.
[2]	Modular unit	---	1 pc.	[10]	Modular label	---	1 pc.
[3]	Speaker unit	---	1 pc.	[11]	Fax Guide	---	1 pc.
[4]	Dust-blocking cover	---	1 pc.	[12]	Fax driver CD-ROM unit	---	1 pc.
[5]	Fax communication cable	---	1 pc.	[13]	Super G3 label	---	1 pc.
[6]	Modular cable	---	1 pc.	[14]	FCC label	---	1 pc.
[7]	Fax power cable	---	1 pc.	[15]	A-TICK label	---	1 pc.
[8]	Modular cord	---	1 pc.	[16]	Fax certification label	---	1 pc.

3.2 Unpacking and Installation

3.2.1 Installation Procedure

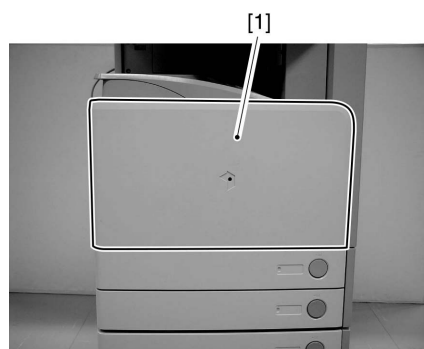
3.2.1.1 Preparing the Host Machine

0003-1583



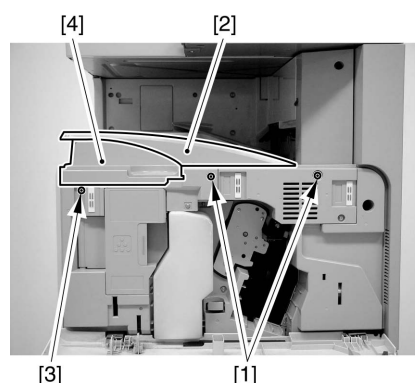
- Be sure that the host machine has properly been installed before starting the work.
- Be sure to turn off the control panel power switch and the main power switch in sequence; then, disconnect the power plug from the power outlet.

1) Open the front cover [1].



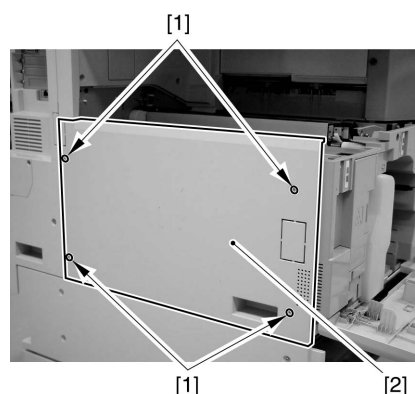
F-3-2

2) Loosen the 2 screws [1], and detach the delivery tray [2]; then, remove the screw [3], and detach the delivery tray lower cover [4].



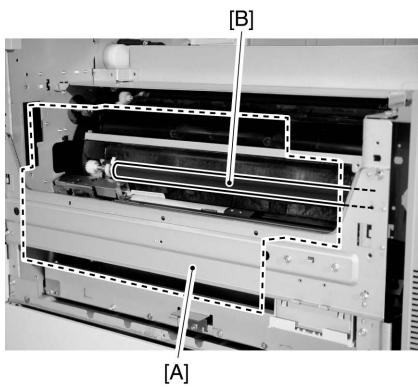
F-3-3

3) Remove the 4 screws [1], and detach the left cover [2].



F-3-4

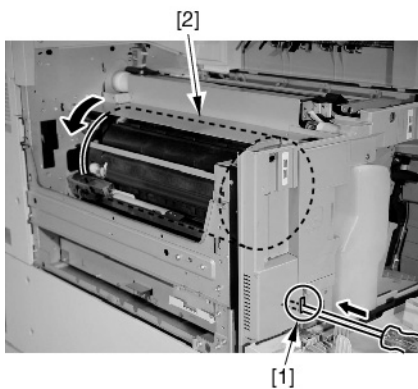
⚠ The G3 fax unit is located near the developing rotary assembly [A]; depending on where the developing cylinder [B] is found, the plate of the unit can damage the surface of the cylinder when the unit is being mounted.



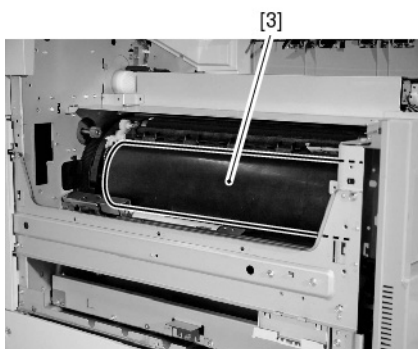
F-3-5

Be sure to perform step 4) so that the developing cylinder may be put out of the way to avoid damage.

- 4) Insert a screwdriver through the angular hole [1] of the inside cover (left); then, turn the developing rotary [2] counterclockwise by hand until the toner cartridge (Bk) [3] is where it is in the figure.



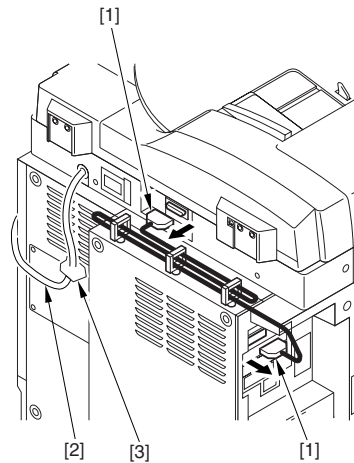
F-3-6



F-3-7

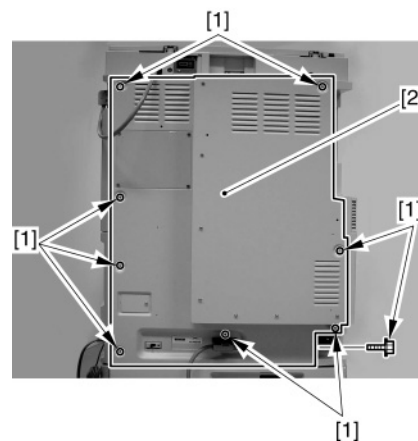
⚠ When turning the developing rotary, take full care not to touch the developing cylinder.

- 5) Remove the 2 connectors [1] of the reader communication cable. Then, remove the reader power cable [2] from the cable clump [3].



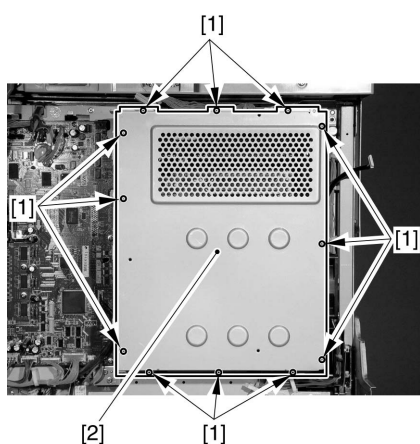
F-3-8

- 6) Remove the 9 screws [1], and detach the rear cover [2].



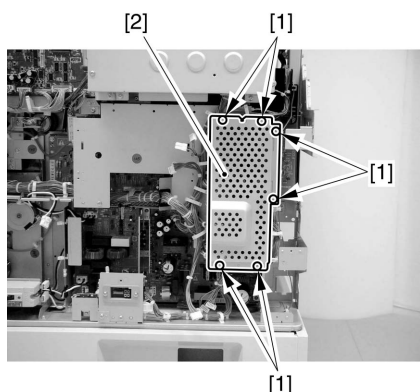
F-3-9

- 7) Remove the 12 screws [1], and detach the controller cover [2].



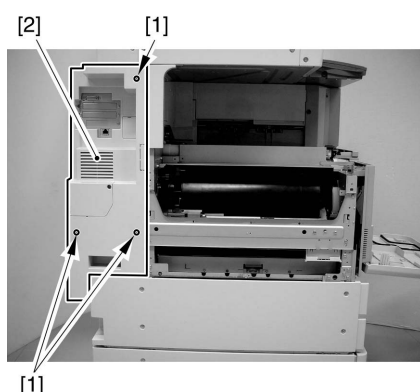
F-3-10

8) Remove the 6 screws [1], and detach the controller power supply cover [2].



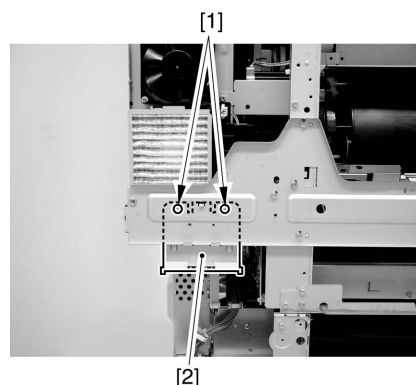
F-3-11

9) Remove the 3 screws [1], and detach the left cover (rear) [2].



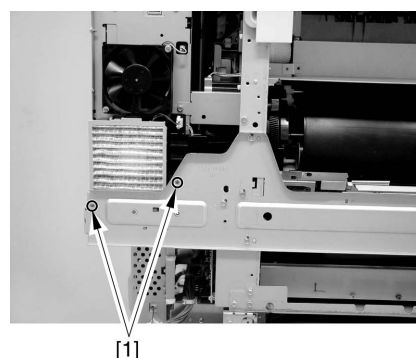
F-3-12

10) Remove the 2 screws [1], and detach the left grip (rear) [2].

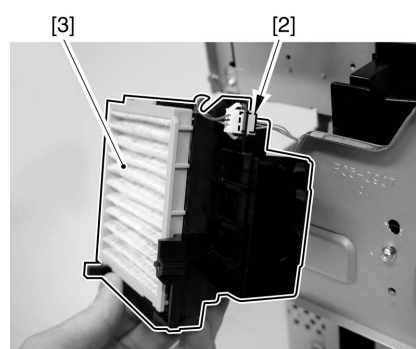


F-3-13

11) Remove the 2 screws [1], and disconnect the connector [2]; then, detach the fan assembly [3].



F-3-14



F-3-15

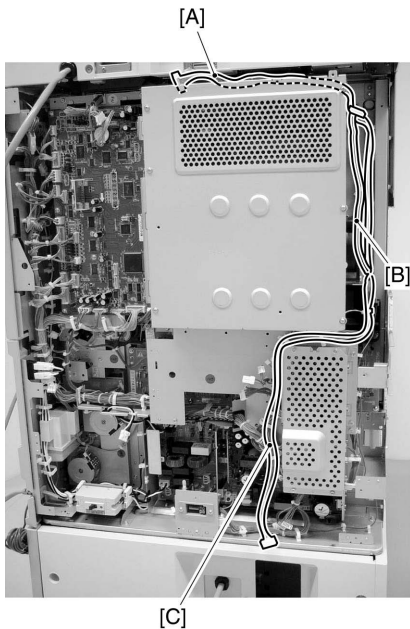
3.2.1.2 Connecting the Connector and Mounting the Modular Unit

0003-1584

⚠ Be sure that the power plug of the host machine is disconnected.

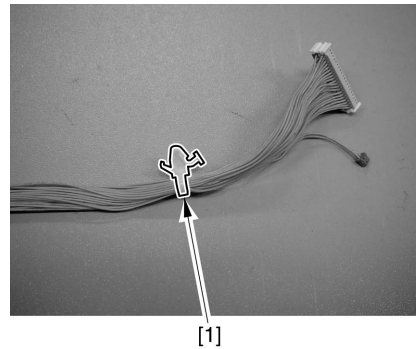
Memo:

The cables that come with the Board are of 3 types: fax communication cable [A], modular cable [B], and fax power cable [C]. These cables are routed as follows:

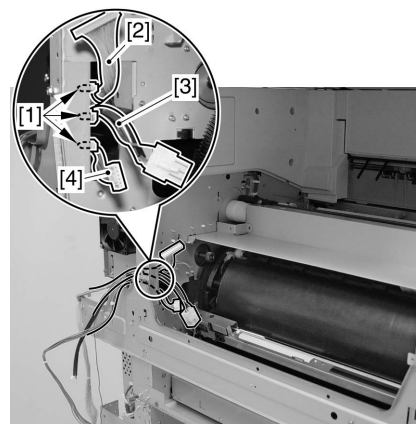


F-3-16

1) Fit the foot of the reuse band [1] attached to one end of each cable (fax communication cable in photo) in place on the rear frame; starting from the top, the fax communication cable [2], modular cable [3], and fax power cable [4].

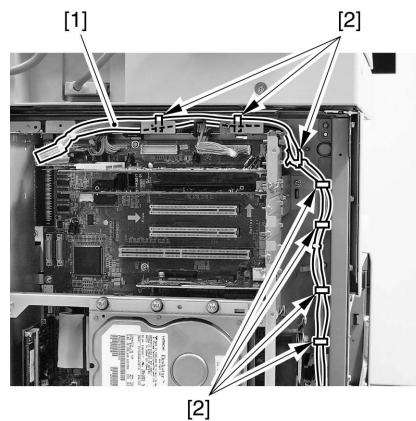


F-3-17



F-3-18

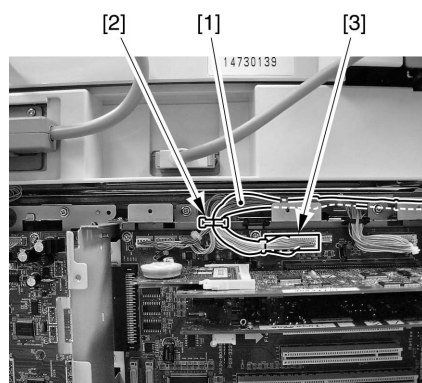
2) Fix the fax communication cable [1] in place with 7 cable clamps [2].



F-3-19

3) Fix the fax communication cable [1] in place using the edge saddle [2] of the controller box, and connect it to the connector (J1210) [3] of the main

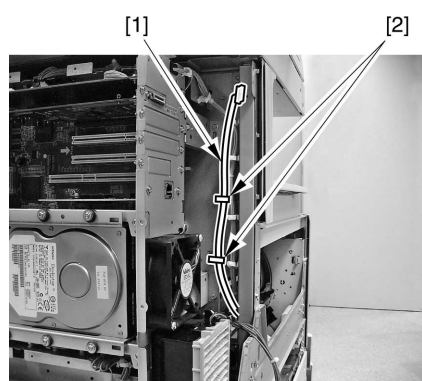
controller PCB.



F-3-20

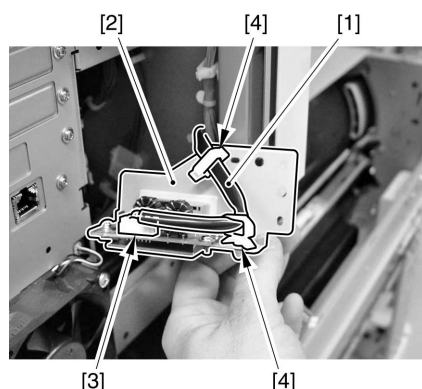
4) Put the controller cover back in place.

5) Secure the modular cable [1] in place using 2 cable clamps [2].



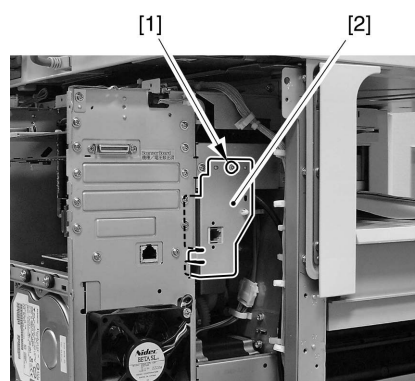
F-3-21

6) Connect the modular cable [1] to the connector [3] of the included modular unit [2]; then, fix it in place with 2 cable clamps [4].



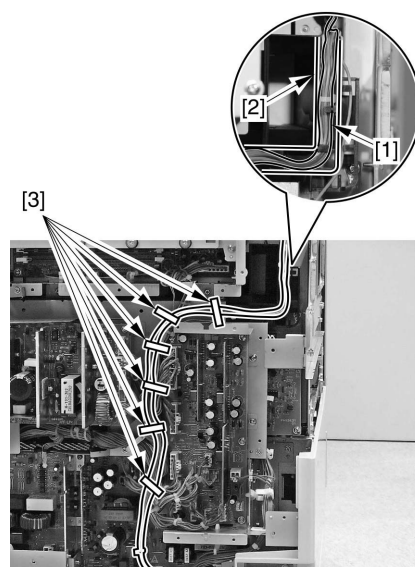
F-3-22

7) Mount the modular unit [2] using the included screw [1].



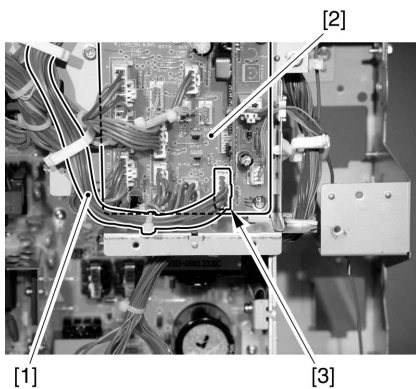
F-3-23

8) Route the fax power cable [1] through the cable guide [2]; then, fix it in place using 6 cable clamps [3].



F-3-24

9) Connect the fax power cable [1] to the connector (J221) [3] on the controller power supply PCB [2].



F-3-25

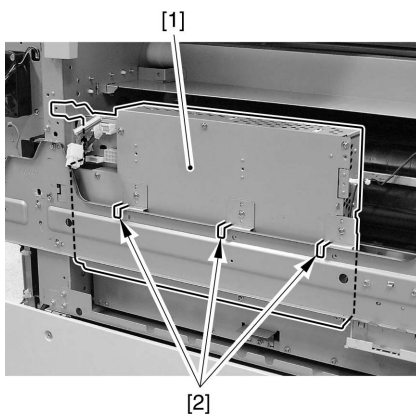
10) Put the controller power supply cover back in place.

3.2.1.3 Mounting the G3 Fax

Unit

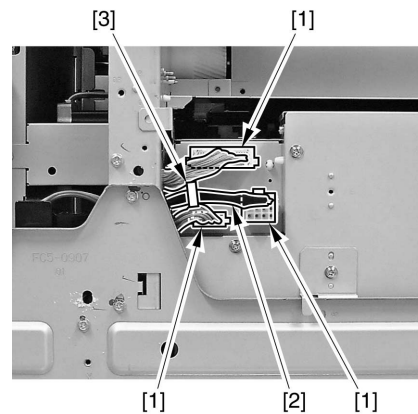
0003-1586

1) Hook the 3 points of the bent [2] of the fax unit [1] in place on the machine left side plate.



F-3-26

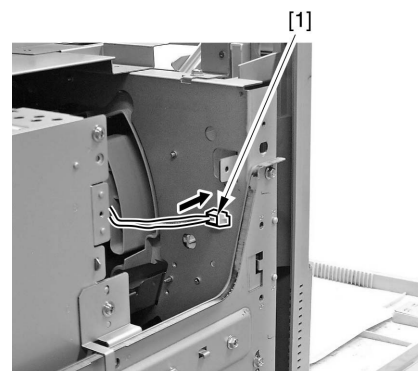
2) Connect the 3 cables to the 3 relay connectors [1] of the G3 fax unit.



F-3-27

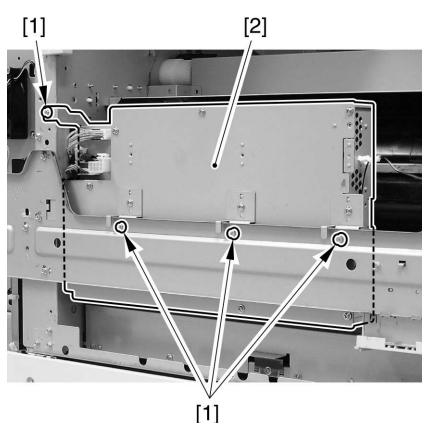
⚠ Of the 3 cables, use a cable clamp [3] for the modular cable [2] only.

3) Mount the speaker cable (w/ relay connector) [1] connected to the G3 fax unit by pushing it through the hole in the machine front side plate.



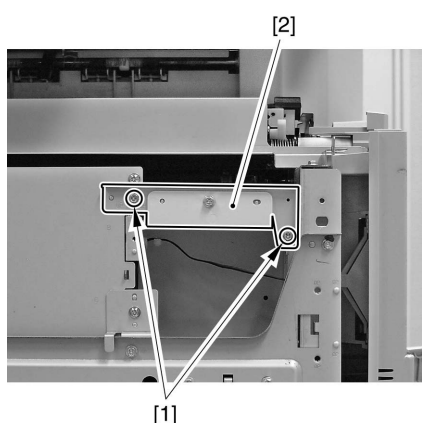
F-3-28

4) Secure the G3 fax unit [2] in place using the 4 included screws [1].



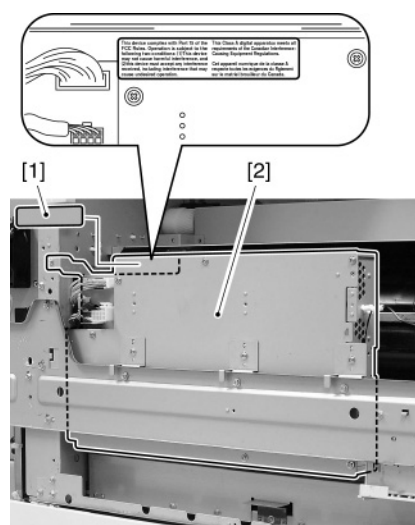
F-3-29

- 5) Mount the included dust-blocking cover [2] using the 2 included screws [1].



F-3-30

- 6) Attach the FCC label [1] in the package (only C.USA/C.CI/C.LTN) to the front side of the FAX unit [2].



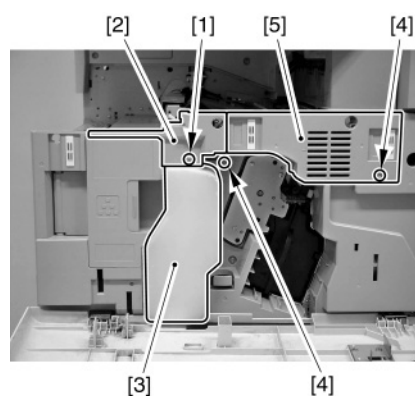
F-3-31

3.2.1.4 Mounting the Speaker

Unit

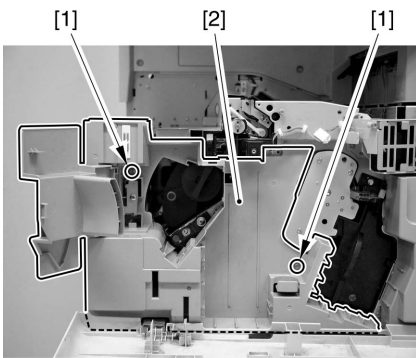
0003-1083

- 1) Open the front cover, then the toner container replacement cover.
- 2) Remove the screw [1], and detach the waste toner unit retainer [2] and the ITB waste toner unit [3]; then, remove the 2 screws [4], and detach the inside cover (middle) [5].



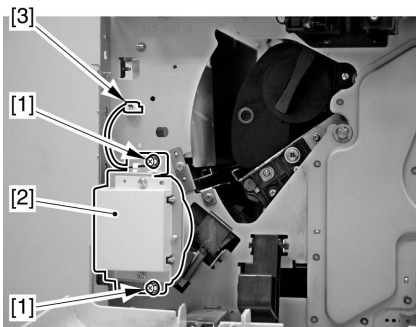
F-3-32

- 3) Remove the 2 screws [1], and detach the inside cover (left) [2].



F-3-33

- 4) Mount the included speaker unit [2] using the 2 included screws [1]; then, connect the speaker cable to the relay connector [3].



F-3-34

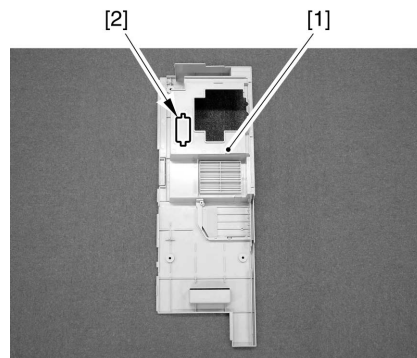
3.2.1.5 After the Work

0003-1587

- 1) Mount the removed fan assembly and the left grip (rear) back in place.

⚠ Ensure that the fan cable is not caught when attaching the fan assembly.

- 2) Detach the face cover [2], which is snapped in place to the left cover (rear) [1].

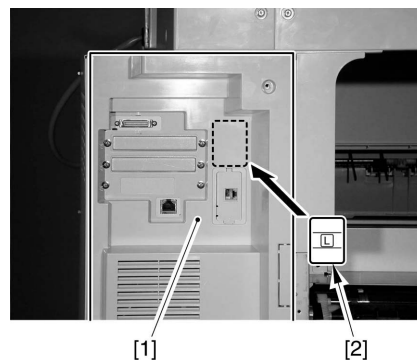


F-3-35

Memo:

The detached face cover will no longer be used.

- 3) Mount the left cover (rear) [1]; then, attach the included modular label [2] to the correct location of the left cover (rear) [1].



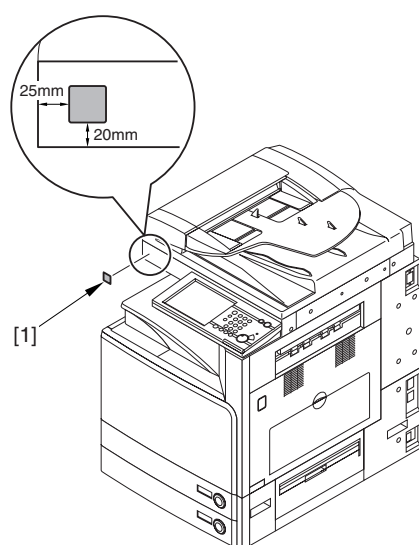
F-3-36

- 4) Mount the removed covers back in place; then, close the front cover.
5) Attach the various labels that come with the board to the machine.

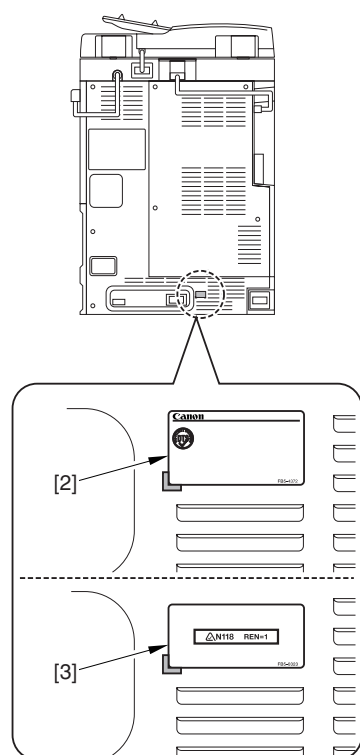
[1] Super G3 label (only C.USA, C.CI, C.LTN)

[2] Fax certification label (only C.DEU)

[3] A-TICK label (only C.A)



F-3-37



F-3-38

3.2.2 Checking the Operation

3.2.2.1 Type Settings 0003-1651

In service mode, select the type of the fax board as follows: press the Additional Function key, press the 2 and 8 keys at the same time, and press the Additional Function key once again; then, select [fax] and then [type], and select the country using the Up/Down key. At the end, press the OK key.

3.2.2.2 Settings According to Line Type 0003-1140

Select either dial pulse (20PPS/10PPS) or push tone to suit the type of telephone line being used:

Additional Functions key > Communication Settings > User Settings > Tel Line Type.

3.2.2.3 Fax Communication Test 0003-1653

Carry out a communications test to see if the fax functions of the machine operate as expected:

- 1) Bring up the Send screen on the control panel.
- 2) Send a test original to a party capable of a communication test, and check to see if the original is sent normally.
- 3) Send a text original from the other party, and check to see if the original is sent normally.

- 6) Connect one end of the included modular cord to the modular jack in the wall; then, connect the other end to the L side of the modular jack of the board.
- 7) Connect the power plug of the host machine to the power outlet; then, turn on the main power switch.

Chapter 4 Parts

Replacement Procedure

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4.1.1.1 Removing the Left Cover	4-1
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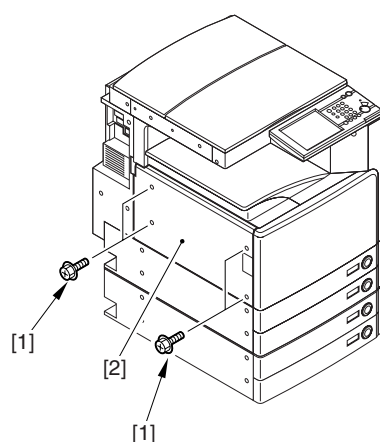
4.1 Removing from the Host Machine

4.1.1 FAX Unit

4.1.1.1 Removing the Left Cover

0002-7869

- 1) Remove the 4 screws [1], and detach the left cover [2].

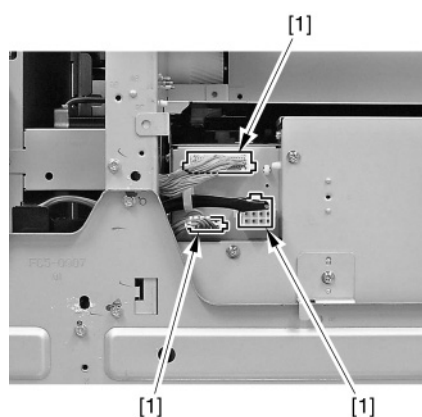


F-4-1

4.1.1.2 Removing the FAX Unit

0003-0560

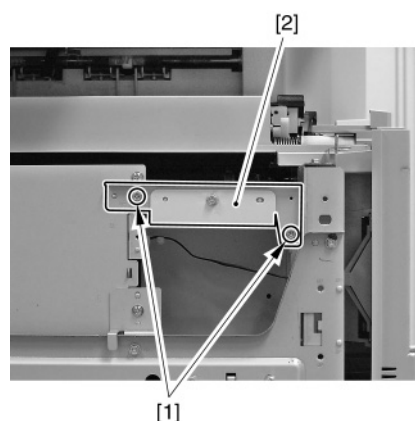
- 1) Disconnect the cable from the 3 connectors [1].



F-4-2

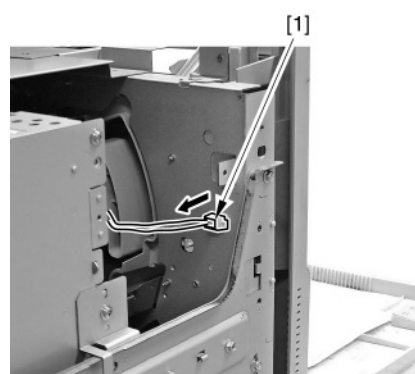
- 2) Remove the 2 screws [1], and detach the dust-

blocking cover [2].



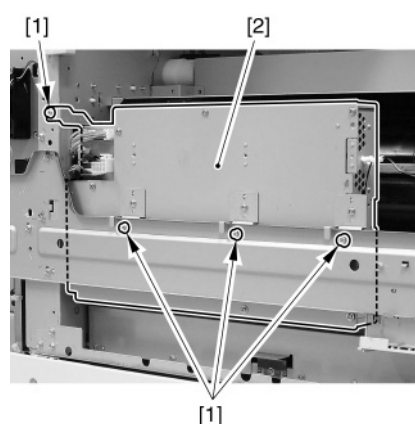
F-4-3

- 3) Disconnect the speaker cable from the relay connector [1].



F-4-4

- 4) Remove the 4 screws [1], and detach the fax unit [2] from the machine.



F-4-5

Chapter 5 Service Mode

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5.1 Outline

5.1.1 Service Mode Composition

0003-0566

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

#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.

#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

Use it to execute various tests.

#10 REPORT

Use it to print out reports.

5.1.2 Using Service Mode

0001-0537

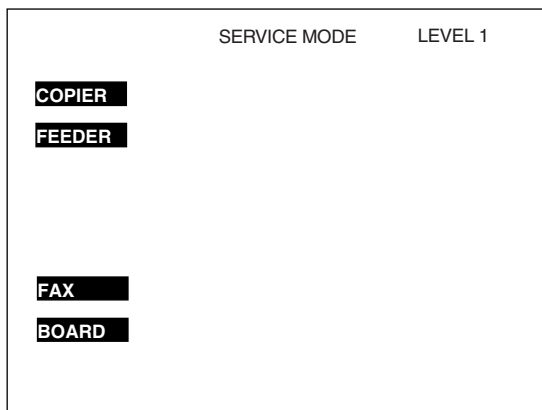
1) Press the User Mode key " on the control panel.

2) Press the keys 2 and 8 on the keypad at the same time.

3) Press the User Mode key " on the control panel once again.

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.



F-5-1

COPIER: service mode of the host machine.

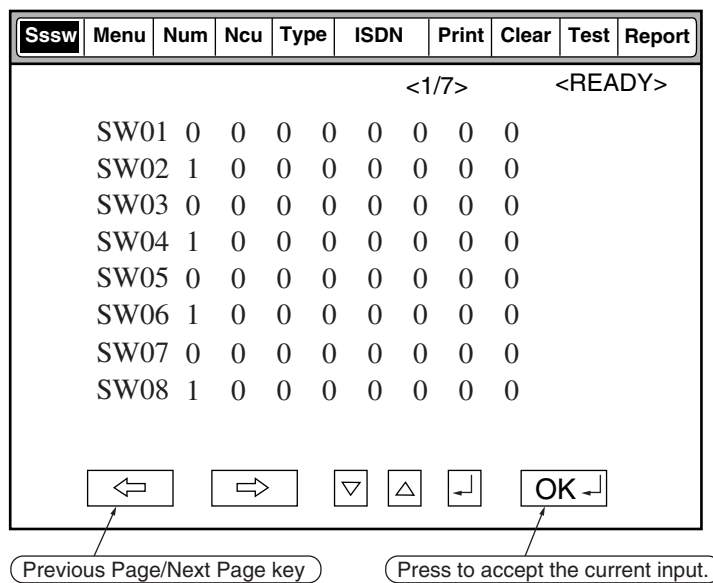
FEEDER: service mode of the ADF. (*)

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:



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.

⚠ 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.

5.1.3 Menu Items

0003-0567

#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 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 NUMERIC	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	T30. EOL timer
	014 to 026	not used
	015	hooking detection time
	027	preamble detection time for V21 low-speed flag
	028 to 080	not used

F-5-5

#7 PRINTER	SSSW	SW01 to SW04	not used
		SW05	reduction/cassette selection
		SW06	reduction setting
		SW07 to SW20	not used
	NUMERIC Param.	01	maximum non-image range
		02	not used
		03	not used
		04	leading edge margin
		05	trailing edge margin
		06 to 30	not used

F-5-6

#8 CLEAR	TEL
	USSW SW
	SRV SW
	NCU
	SRV DATA
	REPORT
	ALL
	COUNTER
	ISDN

F-5-7

#10 CLEAR	DATA
	DUMP

F-5-8

5.2 Setting of Bit Switch (SSSW)

5.2.1 Outline

5.2.1.1 Bit Switch Composition

0001-0539

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

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

Sssw	Menu	Num	Ncu	Type	ISDN	Print	Clear	Test	Report
						<1/7>		<READY>	
		SW01	0	0	0	0	0	0	0
		SW02	1	0	0	0	0	0	0
		SW03	0	0	0	0	0	0	0
		SW04	1	0	0	0	0	0	0
		SW05	0	0	0	0	0	0	0
		SW06	1	0	0	0	0	0	0
		SW07	0	0	0	0	0	0	0
		SW08	1	0	0	0	0	0	0
← → ▽ △ ↵ OK ↵									

F-5-10

5.2.2 SSSW-SW01: Error/Copy Management

5.2.2.1 Functional Construction

0001-0540

T-5-1

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	-	-

5.2.2.2 Detailed Discussions of Bit 0

0001-0541

Selects whether or not service error codes are output.

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

5.2.2.3 Detailed Discussions of Bit 1

0001-0543

Selects whether or not error dump lists are output.

5.2.3 SSSW-SW03: Setting of Echo Measures

5.2.3.1 Functional Construction

0001-0598

T-5-2

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	-	-

Bit	Function	1	0
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

5.2.3.2 Detailed Discussions of Bit 1

0001-0604

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.

Memo: 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

5.2.3.3 Detailed Discussions of Bits 4, 5, and 6

0001-0607

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.

Memo: 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:

T-5-3

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

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.

5.2.3.4 Detailed Discussions of Bit 7

0001-0605

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.

Memo: 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

5.2.4 SSSW-SW04: Setting of Communication Trouble Measures

5.2.4.1 Functional Construction

0003-0651

T-5-4

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

Bit	Function	1	0
5	not used	-	-
6	not used	-	-
7	not used	-	-

5.2.4.2 Detailed Discussions of Bit 2

0001-0614

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.

Memo: 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

5.2.4.3 Detailed Discussions of Bit 3

0001-0615

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.'

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

##107, ##114, ##201

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.

5.2.4.4 Detailed Discussions of Bit 4

0001-0617

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.'

5.2.5 SSSW-SW05: Setting of Standard Functions (DIS signal)

5.2.5.1 Functional Construction

0001-0620

T-5-5

Bit	Function	1	0
0	not used	-	-

Bit	Function	1	0
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	-	-

5.2.5.2 Detailed Discussions of Bit 1

0001-0621

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

5.2.5.3 Detailed Discussions of Bit 2

0001-0622

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'.

5.2.5.4 Detailed Discussions of Bit 3

0001-0623

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

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

5.2.5.5 Detailed Discussions of Bit 4

0001-0624

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.

5.2.6 SSSW-SW12: Setting of Page Timer

5.2.6.1 Functional Construction

0001-0628

T-5-6

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

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.

T-5-7

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	*	*	*	*

5.2.7 SSSW-SW14: Setting of Inch/Millimeter-base Resolution

5.2.7.1 Functional Construction

0001-6985

T-5-11

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

5.2.7.2 Detailed Discussions of Bit 2

0001-6995

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'.

5.2.7.3 Detailed Discussions of Bit 4

0001-6996

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.

5.2.8 SSSW-SW25: Setting of Report Indication Functions

5.2.8.1 Functional Construction

0001-0636

T-5-12

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	-	-

5.2.8.2 Detailed Discussions of Bit 0

0001-0641

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.

5.2.9 SSSW-SW26: Setting of transmission functions

5.2.9.1 Functional Construction

0001-0642

T-5-13

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	-	-

Bit	Function	1	0
5	not used	-	-
6	not used	-	-
7	error report at time of transmission suspension	do not generate	generate

5.2.9.2 Detailed Discussions of Bit 2

0001-0646

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

5.2.9.3 Detailed Discussions of Bit 7

0001-0647

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

5.2.10 SSSW-SW28: Procedure Setting for V.8/V.34

5.2.10.1 Functional Construction

0001-0649

T-5-14

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	N o t prohibited
5	V.34 transmission fallback	Prohibited	N o t prohibited
6	not used	-	-
7	not used	-	-

5.2.10.2 Detailed Discussions of Bit 0

0001-0652

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.

5.2.10.3 Detailed Discussions of Bit 1

0001-0653

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.

5.2.10.4 Detailed Discussions of Bit 2

0001-0654

If ANSam signal is not received during transmission, select whether to use the V.8 protocol when the other fax machine declares the V.8 protocol in DIS signal. If NO is selected, the CI signal is not transmitted and the V.8 protocol is not used even if the DIS that specifies the V.8 protocol is received.

5.2.10.5 Detailed Discussions of Bit 3

0001-0655

Select whether to declare the V.8 protocol in DIS signal for reception. If NO is selected, the V.8 protocol cannot be used because it is not declared in DIS signal.

5.2.10.6 Detailed Discussions of Bit 4

0001-0656

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

5.2.10.7 Detailed Discussions of Bit 5

0001-0657

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

5.3 Setting of Menu Switch (MENU)

5.3.1 Menu Switch Composition

0003-0683

Ssw	Menu	Num	Ncu	Type	ISDN	Print	Clear	Test	Report
					<1/3>	<READY>			
		001		xxxxx	← (yyyyy) {aaaaa~bbbb}				
		002		xxxxx	← (yyyyy) {aaaaa~bbbb}				
		003		xxxxx	← (yyyyy) {aaaaa~bbbb}				
		004		xxxxx	← (yyyyy) {aaaaa~bbbb}				
		005		xxxxx	← (yyyyy) {aaaaa~bbbb}				
		006		xxxxx	← (yyyyy) {aaaaa~bbbb}				
		007		xxxxx	← (yyyyy) {aaaaa~bbbb}				
		008		xxxxx	← (yyyyy) {aaaaa~bbbb}				
					← → ▽ △ ↵ OK ↵				

F-5-11

T-5-15

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

5.3.2 <005: NL Equalizer>

0001-0660

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.

Memo:

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

5.3.3 <006: Telephone Line Monitor>

0001-0661

Use it to the telephone line monitor function:

T-5-16

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 using the speaker.

5.3.4 <007: ATT Transmission Level>

0001-0662

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)

Memo:

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

5.3.5 <008: V.34 Modulation Speed Upper Limit>

0001-0663

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

5.3.6 <009: V.34 Data Speed Upper Limit>

0001-3623

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).

5.4 Setting of Numeric Parameter (NUMERIC Param.)

5.4.1 Numerical Parameter Composition

0003-0686

Sssw	Menu	Num	Ncu	Type	ISDN	Print	Clear	Test	Report
					<1/10>	<READY>			
001		xxxxx	←	(yyyyy)	{aaaaa~bbbb}				
002		xxxxx	←	(yyyyy)	{aaaaa~bbbb}				
003		xxxxx	←	(yyyyy)	{aaaaa~bbbb}				
004		xxxxx	←	(yyyyy)	{aaaaa~bbbb}				
005		xxxxx	←	(yyyyy)	{aaaaa~bbbb}				
006		xxxxx	←	(yyyyy)	{aaaaa~bbbb}				
007		xxxxx	←	(yyyyy)	{aaaaa~bbbb}				
008		xxxxx	←	(yyyyy)	{aaaaa~bbbb}				
					←	→	▽	△	↵
					OK ↵				

F-5-12

T-5-17

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 (x10ms)	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 (10ms)	5500
011	T.30 T1 timer (for reception)	0 to 9999 (10ms)	3500
013	T30. EOL timer	500 to 3000 (10ms)	1300
027	preamble detection time for V21 low-speed flag	20 (x10ms)	0

5.4.2 <002: RTN transmission condition (1)><003: RTN transmission condition (2)><004: RTN transmission condition (3)>

0001-0666

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.

Memo:

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

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.

5.4.3 <005: NCC pause length (pre-ID code)>

0001-0667

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.

5.4.4 <006: NCC pause length (post-ID code)>

0001-0668

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.

5.4.5 <007: pre-pause length at time of ring>

0001-0669

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

5.4.6 <009: number of comparison digits of source telephone number and target telephone number>

0001-0670

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

5.4.7 <010: line connection identification length>**0001-0671**

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.

Memo: Any of the following error codes may be indicated because of the condition of the line

##005, ##018

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.

5.4.8 <011: T.30 T1 timer (for reception)>**0001-0672**

Set it so that the T1 time may be varied. (The regulations governing the T1 timer vary from country to country (PTT)).

5.4.9 <013: T.30 EOL timer>**0001-0673**

Set it so that the 1-line transmission time is longer for reception to prevent reception errors caused by a long data length per line (e.g., computer FAX).

5.4.10 <027: V.21 low-speed flag preamble identification length>**0001-0680**

Use it to detect the time of detection after which command analysis is started after detecting V.21 low-speed command preambles continuously for a specific period of time.

5.5 Setting of Destination (TYPE)

5.5.1 Overview

0003-0692

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

5.6 Setting of Printer Functions (PRINTER)

5.6.1 Setting of Bit Switch (SSSW)

5.6.1.1 SSSW-SW05: Setting of Reduction/Cassette Selection

5.6.1.1.1 Functional Construction

0001-3624

T-5-18

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

5.6.1.1.2 Detailed Discussions of Bits 0 and 1

0001-3626

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:

T-5-19

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

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.

5.6.1.1.3 Detailed Discussions of Bit 7

0001-3628

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

T-5-20

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.

5.6.1.2 SSSW-SW06: Reduction Setting

5.6.1.2.1 Functional Construction

0001-3630

T-5-21

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	-	-

5.6.1.2.2 Detailed Discussions of Bit 5

0001-3631

Use it to force printing on B5 by reduction (of A4 received image). Setting this bit will cause all A4 reports to be printed in B5 by division.

5.6.2 Setting of Numeric Parameter (NUMERIC Param.)

5.6.2.1 Numerical Parameter Composition

0001-3634

Ssw	Menu	Num	Ncu	Type	ISDN	Print	Clear	Test	Report
<NUM> 001 xxxxx 002 xxxxx 003 xxxxx 004 xxxxx 005 xxxxx 006 xxxxx 007 xxxxx 008 xxxxx <1/4> ←(yyyyy)␣{aaaaa~bbbbb} <READY> ←(yyyyy)␣{aaaaa~bbbbb}									

←

→

▽

△

↵

OK↵

F-5-13

T-5-22

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	1mm
04	Leading edge blank area	0 to 9999	3	1mm
05	Trailing edge blank area	0 to 9999	3	1mm

5.6.2.2 <001: printing upon reception of extra-length image>

0001-3639

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).

5.6.2.3 <004: leading edge margin>

0001-3640

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

5.6.2.4 <005: trailing edge margin>

0001-7013

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

5.7 Initialization of Set Value (CLEAR)

5.7.1 Overview

0001-7010

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.

T-5-23

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

*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'.

5.8 Default Settings

5.8.1 Default Settings

0003-0814

T-5-24

TYPE	USA	EUROPE1	U.K	SWEDEN	SWISS	AUSTRIA
#1 SSSW						
SW01	00000000	00010000	00010000	00010000	00010000	00010000
SW02	00000000	00000000	00000000	00000000	00000000	00000000
SW03	00000000	00000000	00000000	00000000	00000000	00000000
SW04	10000000	00000000	00000000	00000000	00000000	00000000
SW05	00000000	00000000	00000000	00000000	00000000	00000000
SW06	10000000	10000000	10000000	10000000	10000000	10000000
SW07	00000000	00000000	00000000	00000000	00000000	00000000
SW08	00000000	00000000	00000000	00000000	00000000	00000000
SW09	00000000	00000000	00000000	00000000	00000000	00000000
SW10	00000000	00000000	00000000	00000000	00000000	00000000
SW11	00000000	00000000	00000000	00000000	00000000	00000000
SW12	00000011	00000011	00000011	00000011	00000011	00000011
SW13	00000000	00000000	00000000	00000000	00000000	00000000
SW14	00000000	00000000	00000000	00000000	00000000	00000000
SW15	00000000	00000000	00000000	00000000	00000000	00000000
SW16	00000000	00000000	00000000	00000000	00000000	00000000
SW17	00000000	00000000	00000000	00000000	00000000	00000000
SW18	00000000	00000000	00000000	00000000	00000000	00000000
SW19	00000000	00000000	00000000	00000000	00000000	00000000
SW20	00000000	00000000	00000000	00000000	00000000	00000000
SW21	00000000	00000000	00000000	00000000	00000000	00000000
SW22	00000000	00000000	00000000	00000000	00000000	00000000
SW23	00000000	00000000	00000000	00000000	00000000	00000000
SW24	00000000	00000000	00000000	00000000	00000000	00000000
SW25	00000000	00000000	00000000	00000000	00000000	00000000
SW26	00100000	00100000	00100000	00100000	00100000	00100000

TYPE	USA	EUROPE1	U.K	SWEDEN	SWISS	AUSTRIA
SW27	00000000	00000000	00000000	00000000	00000000	00000000
SW28	00000000	00000000	00000000	00000000	00000000	00000000
#2 MENU						
005:	OFF	OFF	OFF	OFF	OFF	OFF
006:	DIAL	DIAL	DIAL	DIAL	DIAL	DIAL
007:	10	10	10	10	10	10
008:	3429baud	3429baud	3429baud	3429baud	3429baud	3429baud
009:	33600bps	33600bps	33600bps	33600bps	33600bps	33600bps
#3 NUMERIC Param.						
002:	10	10	10	10	10	10
003:	15	15	15	15	15	15
004:	12	12	12	12	12	12
005:	4	4	4	0	0	0
006:	4	4	1	0	0	0
007:	0	0	0	0	0	0
009:	6	6	6	6	6	6
010:	5500	5500	5500	5500	5500	5500
011:	3500	3500	3500	3500	3500	3500
013:	1300	1300	1300	1300	1300	1300
027:	0	0	0	0	0	0

T-5-25

TYPE	DENMARK	NORWAY	HOLAND	BELGIUM	AUSTRIA	FINLAND
#1 SSSW						
SW01	00010000	00010000	00010000	00010000	00010000	00010000
SW02	00000000	00000000	00000000	00000000	00000000	00000000
SW03	00000000	00000000	00000000	00000000	00000000	00000000
SW04	00000000	00000000	00000000	00000000	00000000	00000000
SW05	00000000	00000000	00000000	00000000	00000000	00000000
SW06	10000000	10000000	10000000	10000000	10000000	10000000
SW07	00000000	00000000	00000000	00000000	00000000	00000000
SW08	00000000	00000000	00000000	00000000	00000000	00000000

TYPE	DENMAR K	NORWAY	HOLAND	BELGIU M	AUSTRA LIA	FINLAND
SW09	00000000	00000000	00000000	00000000	00000000	00000000
SW10	00000000	00000000	00000000	00000000	00000000	00000000
SW11	00000000	00000000	00000000	00000000	00000000	00000000
SW12	00000011	00000011	00000011	00000011	00000011	00000011
SW13	00000000	00000000	00000000	00000000	00000000	00000000
SW14	00000000	00000000	00000000	00000000	00000000	00000000
SW15	00000000	00000000	00000000	00000000	00000000	00000000
SW16	00000000	00000000	00000000	00000000	00000000	00000000
SW17	00000000	00000000	00000000	00000000	00000000	00000000
SW18	00000000	00000000	00000000	00000000	00000000	00000000
SW19	00000000	00000000	00000000	00000000	00000000	00000000
SW20	00000000	00000000	00000000	00000000	00000000	00000000
SW21	00000000	00000000	00000000	00000000	00000000	00000000
SW22	00000000	00000000	00000000	00000000	00000000	00000000
SW23	00000000	00000000	00000000	00000000	00000000	00000000
SW24	00000000	00000000	00000000	00000000	00000000	00000000
SW25	00000000	00000000	00000000	00000000	00000000	00000000
SW26	00100000	00100000	00100000	00100000	00100000	00100000
SW27	00000000	00000000	00000000	00000000	00000000	00000000
SW28	00000000	00000000	00000000	00000000	00000000	00000000
#2 MENU						
005:	OFF	OFF	OFF	OFF	OFF	OFF
006:	DIAL	DIAL	DIAL	DIAL	DIAL	DIAL
007:	10	10	10	10	10	10
008:	3429baud	3429baud	3429baud	3429baud	3429baud	3429baud
009:	33600bps	33600bps	33600bps	33600bps	33600bps	33600bps
#3 NUMERIC Param.						
002:	10	10	10	10	10	10
003:	15	15	15	15	15	15
004:	12	12	12	12	12	12
005:	0	0	0	0	0	0
006:	0	0	0	0	0	0

TYPE	DENMARK	NORWAY	HOLAND	BELGIUM	AUSTRALIA	FINLAND
007:	0	0	0	0	0	0
009:	6	6	6	6	6	6
010:	5500	5500	5500	5500	5500	5500
011:	3500	3500	3500	3500	3500	3500
013:	1300	1300	1300	1300	1300	1300
027:	0	0	0	0	0	0

T-5-26

TYPE	N.Z.	ITALY	SPAIN	PORTUGAL	IRELAND	HONG KONG
#1 SSSW						
SW01	00010000	00010000	00010000	00010000	00010000	00010000
SW02	00000000	00000000	00000000	00000000	00000000	00000000
SW03	00000000	00000000	00000000	00000000	00000000	00000000
SW04	00000010	00000000	00000000	00000000	00000000	00000000
SW05	00000000	00000000	00000000	00000000	00000000	00000000
SW06	10000000	10000000	10000000	10000000	10000000	10000000
SW07	00000000	00000000	00000000	00000000	00000000	00000000
SW08	00000000	00000000	00000000	00000000	00000000	00000000
SW09	00000000	00000000	00000000	00000000	00000000	00000000
SW10	00000000	00000000	00000000	00000000	00000000	00000000
SW11	00000000	00000000	00000000	00000000	00000000	00000000
SW12	00000011	00000011	00000011	00000011	00000011	00000011
SW13	00000000	00000000	00000000	00000000	00000000	00000000
SW14	00000000	00000000	00000000	00000000	00000000	00000000
SW15	00000000	00000000	00000000	00000000	00000000	00000000
SW16	00000000	00000000	00000000	00000000	00000000	00000000
SW17	00000000	00000000	00000000	00000000	00000000	00000000
SW18	00000000	00000000	00000000	00000000	00000000	00000000
SW19	00000000	00000000	00000000	00000000	00000000	00000000
SW20	00000000	00000000	00000000	00000000	00000000	00000000
SW21	00000000	00000000	00000000	00000000	00000000	00000000

TYPE	N.Z.	ITALY	SPAIN	PORTUG AL	IRELAND	HONG KONG
SW22	00000000	00000000	00000000	00000000	00000000	00000000
SW23	00000000	00000000	00000000	00000000	00000000	00000000
SW24	00000000	00000000	00000000	00000000	00000000	00000000
SW25	00000000	00000000	00000000	00000000	00000000	00000000
SW26	00100000	00100000	00100000	00100000	00100000	00100000
SW27	00000000	00000000	00000000	00000000	00000000	00000000
SW28	00000000	00000000	00000000	00000000	00000000	00000000

#2 MENU

005:	OFF	OFF	OFF	OFF	OFF	OFF
006:	DIAL	DIAL	DIAL	DIAL	DIAL	DIAL
007:	10	10	10	10	10	10
008:	3429baud	3429baud	3429baud	3429baud	3429baud	3429baud
009:	33600bps	33600bps	33600bps	33600bps	33600bps	33600bps

#3 NUMERIC Param.

002:	10	10	10	10	10	10
003:	15	15	15	15	15	15
004:	12	12	12	12	12	12
005:	0	0	15	0	0	4
006:	0	0	3	0	0	1
007:	0	0	0	0	0	0
009:	6	6	6	6	6	6
010:	5500	5500	5500	5500	5500	5500
011:	3500	3500	3500	3500	3500	3500
013:	1300	1300	1300	1300	1300	1300
027:	0	0	0	0	0	0

T-5-27

TYPE	MALASIA	HUNGAR Y	SAF	KOREA	CHINA	GERMAN Y
#1 SSSW						
SW01	00010000	00010000	00010000	00010000	00010000	00010000
SW02	00000000	00000000	00000000	00000000	00000000	00000000

TYPE	MALASIA	HUNGAR Y	SAF	KOREA	CHINA	GERMAN Y
SW03	00000000	00000000	00000000	00000000	00000000	00000000
SW04	00000000	00000000	00000000	00000000	00000000	00000000
SW05	00000000	00000000	00000000	00000000	00000000	00000000
SW06	10000000	10000000	10000000	10000000	10000000	10000000
SW07	00000000	00000000	00000000	00000000	00000000	00000000
SW08	00000000	00000000	00000000	00000000	00000000	00000000
SW09	00000000	00000000	00000000	00000000	00000000	00000000
SW10	00000000	00000000	00000000	00000000	00000000	00000000
SW11	00000000	00000000	00000000	00000000	00000000	00000000
SW12	00000011	00000011	00000011	00000011	00000011	00000011
SW13	00000000	00000000	00000000	00000000	00000000	00000000
SW14	00000000	00000000	00000000	00000000	00000000	00000000
SW15	00000000	00000000	00000000	00000000	00000000	00000000
SW16	00000000	00000000	00000000	00000000	00000000	00000000
SW17	00000000	00000000	00000000	00000000	00000000	00000000
SW18	00000000	00000000	00000000	00000000	00000000	00000000
SW19	00000000	00000000	00000000	00000000	00000000	00000000
SW20	00000000	00000000	00000000	00000000	00000000	00000000
SW21	00000000	00000000	00000000	00000000	00000000	00000000
SW22	00000000	00000000	00000000	00000000	00000000	00001000
SW23	00000000	00000000	00000000	00000000	00000000	00000000
SW24	00000000	00000000	00000000	00000000	00000000	00000000
SW25	00000000	00000001	00000000	00000000	00000000	00000101
SW26	00100000	00100000	00100000	00100000	00100000	00100000
SW27	00000000	00000000	00000000	00000000	00000000	00000000
SW28	00000000	00000000	00000000	00000000	00000000	00000000
#2 MENU						
005:	OFF	OFF	OFF	OFF	OFF	OFF
006:	DIAL	DIAL	DIAL	DIAL	DIAL	DIAL
007:	10	10	10	10	13	10
008:	3429baud	3429baud	3429baud	3429baud	3429baud	3429baud
009:	33600bps	33600bps	33600bps	33600bps	33600bps	33600bps

TYPE	MALASIA	HUNGAR Y	SAF	KOREA	CHINA	GERMAN Y
#3 NUMERIC Param.						
002:	10	10	10	10	10	10
003:	15	15	15	15	15	15
004:	12	12	12	12	12	6
005:	0	0	0	4	0	0
006:	0	0	0	4	0	0
007:	0	0	0	0	0	0
009:	6	6	6	6	6	6
010:	5500	5500	5500	5500	4500	9000
011:	3500	3500	3500	3500	3500	3500
013:	1300	1300	1300	1300	1300	1300
027:	0	0	0	0	0	0

T-5-28

TYPE	FRANCE	SINGAPO RE	CZECH	SLOVENI A	CANADA	ASIA
#1 SSSW						
SW01	00010000	00010000	00010000	00010000	00000000	00010000
SW02	00000000	00000000	00000000	00000000	00000000	00000000
SW03	00000000	00000000	00000000	00000000	00000000	00000000
SW04	00000000	00000000	00000000	00000000	10000000	00000000
SW05	00000000	00000000	00000000	00000000	00000000	00000000
SW06	10000000	10000000	10000000	10000000	10000000	10000000
SW07	00000000	00000000	00000000	00000000	00000000	00000000
SW08	00000000	00000000	00000000	00000000	00000000	00000000
SW09	00000000	00000000	00000000	00000000	00000000	00000000
SW10	00000000	00000000	00000000	00000000	00000000	00000000
SW11	00000000	00000000	00000000	00000000	00000000	00000000
SW12	00000011	00000011	00000011	00000011	00000011	00000011
SW13	00000000	00000000	00000000	00000000	00000000	00000000
SW14	00000000	00000000	00000000	00000000	00000000	00000000
SW15	00000000	00000000	00000000	00000000	00000000	00000000

TYPE	FRANCE	SINGAPORE	CZECH	SLOVENIA	CANADA	ASIA
SW16	00000000	00000000	00000000	00000000	00000000	00000000
SW17	00000000	00000000	00000000	00000000	00000000	00000000
SW18	00000000	00000000	00000000	00000000	00000000	00000000
SW19	00000000	00000000	00000000	00000000	00011000	00000000
SW20	00000000	00000000	00000000	00000000	00000000	00000000
SW21	00000000	00000000	00000000	00000000	00000000	00000000
SW22	00000000	00000000	00000000	00000000	00000000	00000000
SW23	00000000	00000000	00000000	00000000	00000000	00000000
SW24	00000000	00000000	00000000	00000000	00000000	00000000
SW25	00000000	00000000	00000000	00000000	00000000	00000000
SW26	00100000	00100000	00100000	00100000	00100000	00100000
SW27	00000000	00000000	00000000	00000000	00000000	00000000
SW28	00000000	00000000	00000000	00000000	00000000	00000000
#2 MENU						
005:	OFF	OFF	OFF	OFF	OFF	OFF
006:	DIAL	DIAL	DIAL	DIAL	DIAL	DIAL
007:	10	10	10	10	10	10
008:	3429baud	3429baud	3429baud	3429baud	3429baud	3429baud
009:	33600bps	33600bps	33600bps	33600bps	33600bps	33600bps
#3 NUMERIC Param.						
002:	10	10	10	10	10	10
003:	15	15	15	15	15	15
004:	12	12	12	12	12	12
005:	0	0	4	0	4	4
006:	0	0	4	0	4	4
007:	0	0	0	0	0	0
009:	6	6	6	6	6	6
010:	5500	5500	5500	5500	5500	5500
011:	3800	3500	3500	3500	3500	3500
013:	1300	1300	1300	1300	1300	1300
027:	0	0	0	0	0	0

T-5-29

TYPE	POLAND	EUROPE2	TAIWAN
#1 SSSW			
SW01	00010000	00010000	00000000
SW02	00000000	00000000	00000000
SW03	00000000	00000000	00000000
SW04	00000000	00000000	10000000
SW05	00000000	00000000	00000000
SW06	10000000	10000000	10000000
SW07	00000000	00000000	00000000
SW08	00000000	00000000	00000000
SW09	00000000	00000000	00000000
SW10	00000000	00000000	00000000
SW11	00000000	00000000	00000000
SW12	00000011	00000011	00000011
SW13	00000000	00000000	00000000
SW14	00000000	00000000	00000000
SW15	00000000	00000000	00000000
SW16	00000000	00000000	00000000
SW17	00000000	00000000	00000000
SW18	00000000	00000000	00000000
SW19	00000000	00000000	00000000
SW20	00000000	00000000	00000000
SW21	00000000	00000000	00000000
SW22	00000000	00000000	00000000
SW23	00000000	00000000	00000000
SW24	00000000	00000000	00000000
SW25	00000000	00000000	00000000
SW26	00100000	00100000	00100000
SW27	00000000	00000000	00000000
SW28	00000000	00000000	00000000
#2 MENU			
005:	OFF	OFF	OFF
006:	DIAL	DIAL	DIAL

TYPE	POLAND	EUROPE2	TAIWAN
007:	10	10	10
008:	3429baud	3429baud	3429baud
009:	33600bps	33600bps	33600bps
#3 NUMERIC Param.			
002:	10	10	10
003:	15	15	15
004:	12	12	12
005:	4	4	4
006:	4	4	4
007:	0	0	0
009:	6	6	6
010:	5500	5500	5500
011:	3500	3500	3500
013:	1300	1300	1300
027:	0	0	0

5.9 Test Mode (TEST)

5.9.1 Outline

5.9.1.1 Test Mode Construction

0003-1049

Sssw	Menu	Num	Ncu	Type	ISDN	Print	Clear	Test	Report
------	------	-----	-----	------	------	-------	-------	------	--------

ISDNMOD2

MODEM

FACULTY

DATA SET

ISDNMOD

F-5-14

<Using Test Mode>

- 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

no: not used

T-5-30

Level 1	Level 2	Super G3 Fax Board present
MODEM	RELAY-1	yes
	RELAY-2	no
	FREQ	yes
	G3TX	yes
	DTMFTX	yes
	TONERX	no
	V34G3TX	yes

Level 1	Level 2	Super G3 Fax Board present
FACULTY	G3 4800TX	yes
	SPEAKER	no
	LINE DETECT1	no
	LINE DETECT2	no
	LINE DETECT3	no
	VOICETX	no
DATA SET		no
ISDNMOD		no
ISDNMOD2		no

⚠ Do not use items in the table identified as "no."

5.9.2 MODEM Test

5.9.2.1 Relay Test (RELAY-1)

0001-3653

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

Sssw	Menu	Num	Ncu	Type	ISDN	Print	Clear	Test	Report
------	------	-----	-----	------	------	-------	-------	-------------	--------

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

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

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.)

5.9.2.2 Frequency Test (FREQ)

0001-3654

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	ISDN	Print	Clear	Test	Report
<MODEM>		<FREQ>		<1/1>		<READY>			
RBT									
462Hz									
1100Hz									
1300Hz									
1500Hz									
1650Hz									
1850Hz									
2100Hz									
									

F-5-16

 'RBT' is not currently supported.

5.9.2.3 G3 Signal Transmission Test (G3 Tx)

0001-3655

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	ISDN	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	ISDN	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

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

5.9.2.4 DTMF Transmission Test

0001-3656

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	ISDN	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.

! 'SHORT' is not currently supported.

5.9.2.5 V.34 G3 Signal Transmission Test (V34G3Tx)

0001-3657

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	ISDN	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.

5.9.3 Function Test

5.9.3.1 4800-bps Signal Transmission Test

0001-3660

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	ISDN	Print	Clear	Test	Report
<FACULTY> <G34800TX> <1/1> <READY> G34800TX ← → ▽ △ ↵ OK ↵									

F-5-21

5.10 Service Report (REPORT)

5.10.1 System Data List

0001-3662

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	XXXXXXX	
#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

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5.10.2 System Dump List

0001-3663

Memo:
A system dump list is generated when you execute the following in service mode: fax>report>data.

- System Dump List
Use it to check the history of communications, both successful and error.


```

2003 09/02 TUE 12:00 FAX                                0001
#1 LATEST                                                #000
*1 -----
*2 ----- START TIME 09/02 10:00
*3 ----- OTHER PARTY 12345678
*4 ----- MAKER CODE 10001000
*5 ----- MACHINE CODE 0100001 00000000
      RCV V.S 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

*6 ----- Rx : ( bit 1 ) 00000100 01110111 01011111 00100011 00000001 10101001 00000001 ( bit 56 )
      ( bit 57 ) 00000001 00000001 00000100 00000000 00000000 ( bit 96 )
*7 ----- Tx : ( bit 1 ) 00000000 01000010 00011111 00100001 00000001 00000001 00000001 ( bit 56 )
      ( bit 57 ) 00000001 00000001 00000100 00000000 00000000 ( bit 96 )

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

#2
#2 ----- #000
      START TIME 09/02 09:30
      OTHER PARTY 12345678
      MAKER CODE 10001000
      MACHINE CODE 0100001 00000000
      RCV V.S 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

      Rx : ( bit 1 ) 00000100 01110111 01011111 00100011 00000001 10101001 00000001 ( bit 56 )
      ( bit 57 ) 00000001 00000001 00000100 00000000 00000000 ( bit 96 )
      Tx : ( bit 1 ) 00000000 01000010 00011111 00100001 00000001 00000001 00000001 ( bit 56 )
      ( bit 57 ) 00000001 00000001 00000100 00000000 00000000 ( bit 96 )

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

#3 OLDEST
#3 ----- #000
      START TIME 09/02 09:00
      OTHER PARTY 12345678
      MAKER CODE 10001000
      MACHINE CODE 0100001 00000000
      RCV V.S 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

```

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- *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.

5.10.3 Error Transmission Report

0001-3665

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 001

*** FAX ERROR TX REPORT ***

TX FUNCTION WAS NOT COMPLETED

JOB NO.
DESTINATION ADDRESS
PSWD/SUBADDRESS
DESTINATION ID
ST. TIME
USAGE T
PGS.
RESULT

1269
12345678

09/02 09:00
01 ' 50
1
NG
1

##750

START TIME
OTHER PARTY
MAKER CODE
MACHINE CODE
RCV V.s FRAME
SYMBOL RATE
DATA RATE
TX LVL REDUCTION
ERR ABCODE
ERR SECTXB
ERR SECRXB

09/02 09:00
12345678
10001000
0100001 00000000
E0 81 85 D4 90 7E 00 00
3429 baud
28800 bps [V.34]
0
92
8A
80

Rx : (bit 1)
(bit 57)
Tx : (bit 1)
(bit 57)

00000100 01110111 01011111 00100011 00000001 10101001 00000001
00000001 00000001 00000100 00000000 00000000
00000000 01000010 00011111 00100001 00000001 00000001 00000001
00000001 00000001 00000100 00000000 00000000

(bit 56)
(bit 96)
(bit 56)
(bit 96)

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

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Chapter 6 Error Code

Contents

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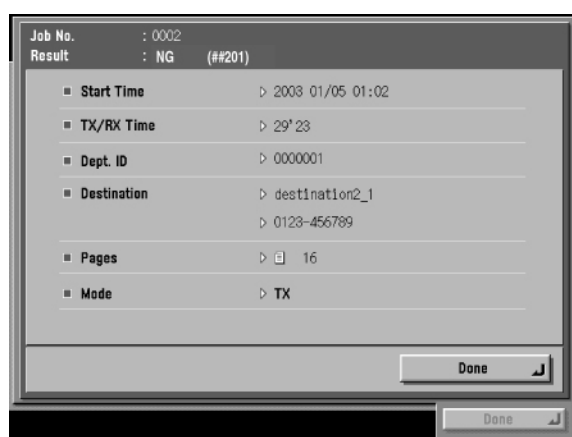
6.1 Overview

6.1.1 Guide to Error Code

0003-0709

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.



F-6-1

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:

T-6-1

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:

T-6-2

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.

T-6-3

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

6.2 User Error Code

6.2.1 User Error Code

0001-3697

T-6-4

No.	T/R	Description
#001	[T]	an original has jammed.
#003	[T/R]	time-out for copying or sending/receiving a single page has occurred.
#005	[T/R]	time-out for initial identification (T0/T1) has occurred.
#008	[R]	a mismatch of passwords at time of polling transmission has occurred.
#009	[R]	recording paper has jammed or is absent.
#012	[T]	recording paper is absent at the other party.
#018	[T/R]	auto call initiation has failed.
#022	[T]	call initiation has failed.
#037	[R]	image memory overflow at time of reception has occurred.
#080	[T]	the other party has no F code reception function/or is not set to receive it.
#081	[T]	the other party has no password reception function/or is not to receive it.
#099	[T/R]	the Stop key is pressed while a communication is under way.
#102	[T/R]	a mismatch of F-code/password has occurred.
#995	[T/R]	a memory communication reservation has been cancelled.

6.3 Service Error Code

6.3.1 Service Error Code

0001-3738

T-6-5

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.

No.	T/R	Description
##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.
##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.

No.	T/R	Description
##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.

No.	T/R	Description
##772	[T]	at time of ECM transmission, DCN is received after transmission of EOR-NULL.
##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.

No.	T/R	Description
##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

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