

SUPER G3 FAX BOARD-J1

SERVICE MANUAL

REVISION 1

Canon

AUG. 2001

FY8-13HD-010

Application

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Caution

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

1 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.
	Refers to the Copier Basics Series for a better understanding of the contents.

2 Outline of the Manual

This Service Manual contains basic information needed to service the G3 FAX Board designed for installation to the iR2200/iR2800/iR3300 in the field, conducted for the purpose of maintaining its product quality and a specific level of performance. For descriptions on how to use the iR2200/iR2800/iR3300, see the separately prepared Service Manual.

This Service Manual consists of the following chapters:

Chapter 1	Outline:	features, specifications, system configuration, list of user modes
Chapter 2	Basic Operation:	functional construction, outline of electrical circuitry, power supply
Chapter 3	Troubleshooting:	points to Note for Troubleshooting, upgrading
Chapter 4	Installation:	installation
Chapter 5	Service Mode:	using service mode, list of service modes
Chapter 6	Error Code:	list of error codes, main causes, list of measures
Appendix:		circuit diagram

The descriptions are updated from time to time to reflect product improvements, and major changes are communicated in the form of Service Information bulletins.

All service persons are expected to familiarize themselves with the contents of this Service Manual and Service Information bulletins and acquire a level of knowledge and skill required to promptly respond to the needs of the field.



This Service Manual does not provide detailed descriptions on how to use the Board or detailed information on user reports. See the separately prepared booklet.

The detailed explanations on SSSW/parameters are limited to those used in association with the Board; for others, see the separately prepared "G3 Facsimile Service Data Handbook" (Rev.0; HY8-23A1-000).

As for error codes, full explanations are on those newly added to the Board or those for which measures specific to the Board are offered; for others, see the separately prepared "G3 Facsimile Error Code List" (Rev.1; HY8-23A0-010).

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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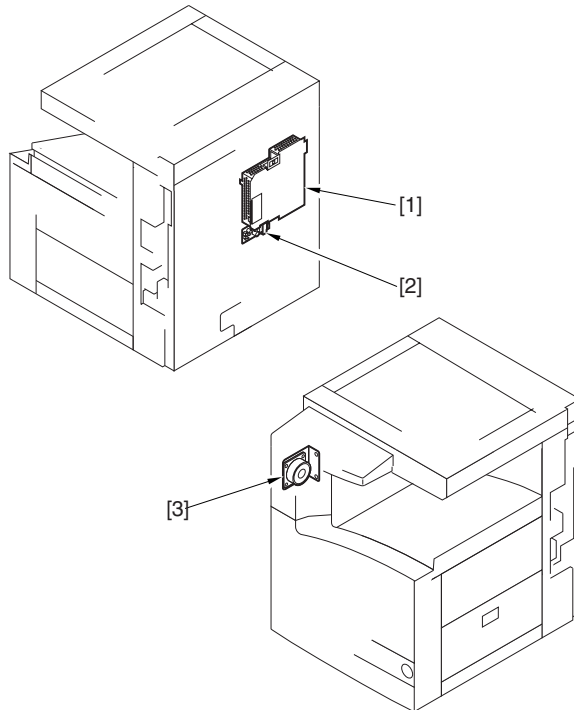
CHAPTER 1

OUTLINE

1 Outline

The Board combines image processing functions and telephone-based communication functions to enable a digital copier to operate as a highly functional fax-in-one machine.

It transmits images at a speed of 33.6 kbps max., taking advantage of a V.34-standard modem recommended under ITU-T.



- [1] Super G3 FAX Board-J1
- [2] Off-hook detection Unit
- [3] Speaker Unit

F01-101-01

2 Specifications

Lines Used

- subscriber line (PSTN)

Method of 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, TC9.6Kbps, 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, V34 (300bps, 600bps, 1200bps)

Speed of Transmission

- 33.6Kbps, 31.2Kbps, 28.8Kbps, 26.4Kbps, 24Kbps, 21.6Kbps, 19.2Kbps
16.8Kbps, 14.4Kbps, 12Kbps, TC9.6Kbps, TC7.2Kbps, 9.6Kbps,
7.2Kbps, 4.8Kbps, 2.4Kbps
equipped with auto fall-back function

Method of Coding

- JBIG, MMR, MR, MH

G3-Unique Abbreviation

- None

Modem IC

- Conexant FM336

Error Correction

- ITU-T ECM method

Specifications for the Reader Unit

Size of Originals for Transmission

- A3, A4, A4R, A5R, B4, B5, B5R
LTR, LTRR, LGL, 11×17, STMT, STMTR
DADF-H1 in use: transmission of double-sided originals possible

Density of Scanning Lines

Standard	8dot/mm×3.85 lines/mm
Fine	8dot/mm×7.7 lines/mm
Super Fine	8dot/mm×15.4 lines/mm
Ultra Fine	16dot/mm×15.4 lines/mm

Reproduction of Halftone

PD method (same as when making copier; 256 gradations)

DONE Stamp

if DADF-H1 is in use ink color: Pink
may be at end of transmission or of reading (by selection)

Specifications for the Recording Unit

Maximum reception size	A3(297×420mm)
Density of scanning lines	600×600dpi
Trial shot	yes

Memory Specifications

Image memory	3,700 pages (approx; using Canon FAX standard Chart No. 1)
memory type	hard disk (about 4 GB of image area)
Method of Storage	JBIG

Other Specifications

ECM Function

yes

Polling Function

yes

Memory Box Function

yes

Password Reception

yes

Transfer Function

yes

Telephone Number Notice Function (as source)

yes

User Abbreviation Notice Function

yes

Display Language Switch Function

yes (among installed language modules)

Remote UI (RUI) function

yes

check on communications history, check on received fails, registration of various user mode settings
import/export of electrical telephone directory

3 List of USER Modes

3.1 User Mode>Custom Fax Settings

level 1	level 2	
1. User Settings	Standard key settings:	no setting*, Delayed TX, memory box, sender's name, RX mode, Document size, Test Print, Zoom TX.
	Unit Telephone # :	
	Unit Name :	input mode (Alphabet, other)
	Sender's Names(TTI):	input mode (Alphabet, other); 99 items max.
	TX Terminal ID:	on*, off on>option setting image (inside, outside*) telephone # mark (FAX*, TEL)
	Density Control:	lighter < > darker; 9 settings
	Tel Line Type:	Pulse*, tone
	Volume Control:	alarm Volume: (0 to 8, 4*) monitor volume: (0 to 8, 4*)
	standard settings:	Store and Initialize possible
2. Store Destinations	A many as 200 items (from *001 to *200) may be stored;	15 addresses each are indicated per screen, and indexes may be stored for each.
3. TX Settings	ECM TX:	on*, off
	pause time:	1 to 15 sec, 2 sec*
	auto redial:	on*, off on>option setting Redial Times: 1 to 15 times, 2 times* Redial Interval: 2 to 99 min, 2 min* TX Error Resend: Error and 1st page*, All pages, Off
	Stamp Document (if DADF-H1 in use)	
4. RX Settings	ECM RX:	on*, off
	Received Page Footer:	on, off*

*Factory Setting

5. Printer Settings	Select Cassette	switch A:	on*, off
		switch B:	on*, off
		switch C:	on*, off
		switch D:	on*, off
	Receive reduction:	on*, off	
		on>option setting	
		RX Reduction:	auto*, Fix. Red.
		reduce %:	75, 90*, 95, 97%
		reduce direction:	vertical/horizontal, vertical only*
	Two-sided Print:	on, off*	
	2-on-1 Log:	on, off*	
6. File Settings	Memory Box Store/Set	49 boxes	setting

3.2 User Mode>Report Settings

level 1	level 2	
1. Custom settings>Fax	TX report:	on, for error only*, off yes>Report with TX Image on*, off
	Activity report	auto Print every 40 communications: on*, off Send/Receive separate: on, off* Daily Activity Report Time: on, off* on>time input
	RX report:	on, for error only, off*
	memory box RX report:	on*, off
2. Print List>Fax	address book list 1, address book list 2, group Destination list, user's data list	

*Factory Setting

3.3 User Mode>System Settings>Communication Settings

level 1

level 2

1. Send start speed:

33600*/14400/9600/7200/4800/2400bps

2. Receive start speed:

33600*/14400/9600/7200/4800/2400bps

3. Transfer setting:

on, off*

on>option setting

Password (optional)

transfer destination

Select transfer destination:

on*, off

on>Select address

Print RX Document:

on*, off

Transfer Start Time:

everyday (5 times), Select Days
(5 times by day of week), off*

Transfer Ending Time:

everyday (5 times), Select Days
(5 times by day of week), off*

4. memory Lock setting:

on, off*

on>option setting

Password (optional)

report print: on*, off

memory Lock start time:

every day (5 time), select Days (5 times by day of week),
off*

memory Lock End Time:

every day (5 time), select Days (5 times by day of week),
off*

5. PIN Code Access:

on, off*

(120V only)

on>PIN Code Position

Option*, Prefix, Suffix

6. R-KEY Setting

PSTN*, PBX PBX>On: Prefix, Hooking, Earth connection

(220/240V)

7. M-KEY Setting

Access code: 132

(UK only)

ID code:

8. E-KEY Setting

Access code:

(SPAIN only)

ID code:

9. Receive password:

20 characters

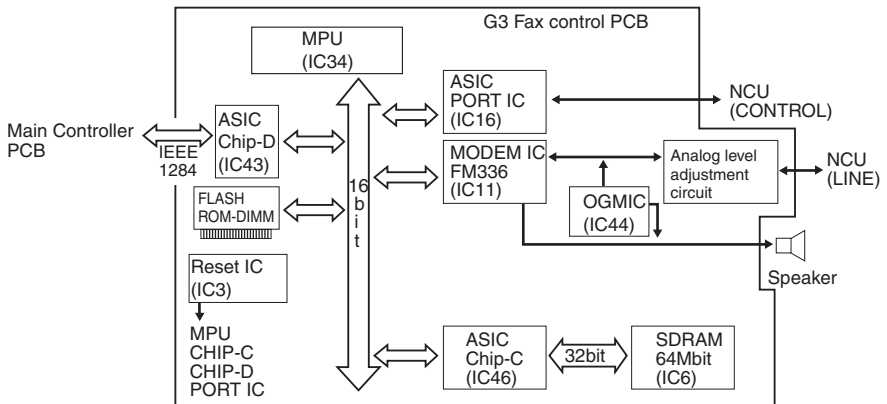
*Factory setting.

CHAPTER 2

BASIC OPERATION

1 G3 Fax Control PCB

1.1 G3 Fax Control PCB Block Diagram



F02-101-01

1.2 Components of the G3 Fax Control PCB

MPU (IC34)

μPD703107GJ-025-UEN (V850E-MA1) from NEC is an MPU used to control the communications exchanged on the line.

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

ASIC (IC46)

MB87J1762PFVS from Fujitsu is an ASIC (chip-D) used for JBIG coding/decoding and SDRAM control. A 64M-bit SDRAM is connected to it.

ASIC (IC43)

μPD82870GD-001-LML from NEC used for ASIC (chip D) serves to control the bi-directional, parallel communications of the IEEE1284 cable (interface with the main controller PCB), to control the chips around the MPU, to process detection of off-hook state, and to process CI counter operations.

G3 FAX Control DIMM Slot (J11)

The 16M-bit flash ROM DIMM installed to this slot contains a program used to control communications on an analog telephone line. The DIMM may be upgraded by downloading using a Service Support Tool or by replacement.

ASIC (IC16)

μPD65882GC-015-8EU from NEC is an ASIC (port IC), and is used to control the NCU and various ports such as for speakers.

SDRAM (IC6)

The 64M-bit SDRAM serves as memory for coding/decoding of image data for transmission/reception or as a work area for the MPU.

RESET IC (IC3)

The reset IC is used when resetting the MPU of the Board, as when the power is turned on or when the voltage of the power drops.

MODEM IC (IC11)

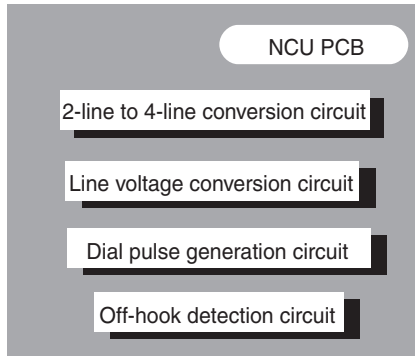
FM336 from CONEXANT is a modem used for G3 modulation as prescribed by ITU-T V.17, V.21, V.27ter, V.29, and V.34. At time of reception, the received data from the line is subjected to G3 demodulation as prescribed by ITU-T V.17, V.21, V.27ter, V.29, and V.34.

OGMIC (IC44)

OGMIC is used to reproduce voice messages.

2 NCU PCB

2.1 Block Diagram of the NCU PCB



F02 -201-01

2.2 Functions of the NCU PCB

2-Line to 4-Line Conversion Circuit

It converts signals from a 2-line telephone line into transmission signals and reception signals for a 4-line signal line. In addition, it prevents transmission signals from the modem from invading the reception circuit.

Dial Pulse Generation Circuit

The dial pulse generation circuit generates dial pulses by turning on and off the relay in the circuit using control signals from the G3 fax control PCB, thereby enabling the fax board to transmit dial signals using the dial line.

Off-Hook Detection Circuit

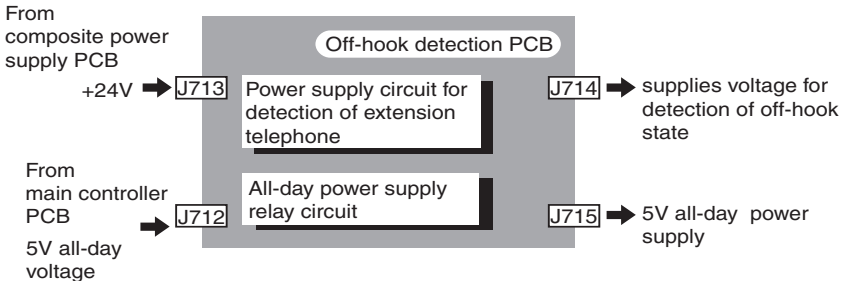
It identifies the condition of the telephone or the handset (option) connected to the telephone terminal as being off- or on-hook in relation to the DC current flowing into it.

Circuit Voltage Conversion Circuit

The primary side of the NC board circuit is controlled by means of a line voltage of +48 VDC; the DC component is cut out using a capacitor, thereby converting only the audio signals in voltages of a model level.

3 Off-hook detection PCB

3.1 Block Diagram of the Off-hook detection PCB



F02-301-01

3.2 Functions of the Off-hook detection PCB

Power Supply Circuit Used to Detect an Extension

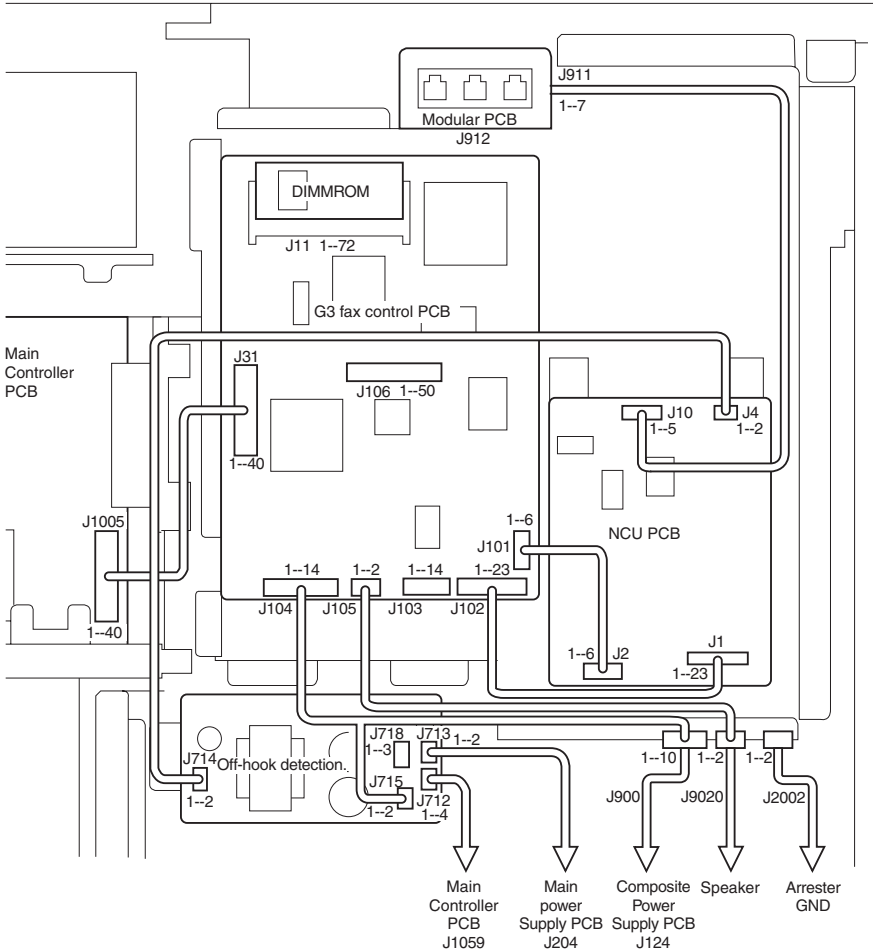
To detect the connection of an extension, the Off-hook detection PCB generates a DC voltage of +48 V to supply to the extension terminal. A transformer is used to separate the primary side and the secondary side by an electrical means.

All-Day Power Supply Circuit

The main controller circuit generates all-day 5 VB from all-night +3.3 VB. To operate the FC detection circuit of the G3 fax control PCB at all times, the +5 VB voltage is sent to the G3 fax control PCB by way of the Off-hook detection PCB.

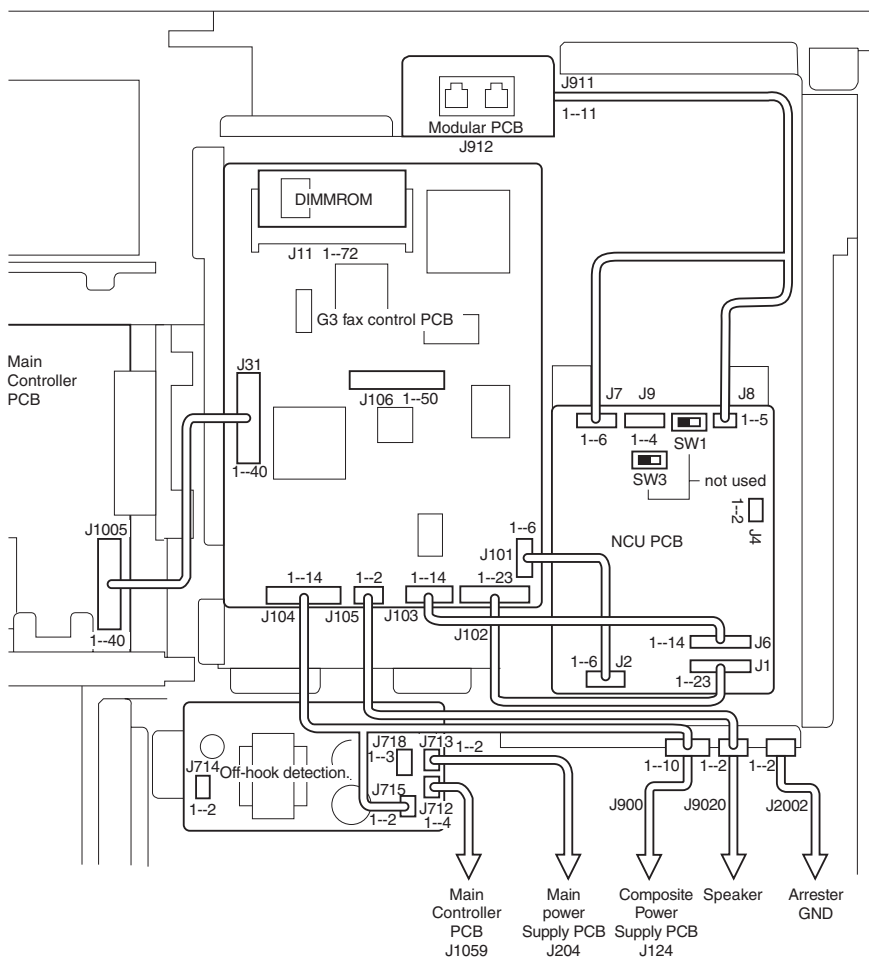
4 Wiring Diagram

4.1 120V



F02-401-01

4.2 220/240V



F02-402-01

5 Signals

G3 fax control PCB (J31)← →Main controller PCB (J1005)

J31	J105	signal	Description
A1	A20	FSTROBE	host clock
A2	A19	FD0	data signal 0
A3	A18	FD1	data signal 1
A4	A17	FD2	data signal 2
A5	A16	FD3	data signal 3
A6	A15	FD4	data signal 4
A7	A14	FD5	data sing 5
A8	A13	FD6	data signal 6
A9	A12	FD7	data signal 7
A10	A11	FNACK	peripheral clock
A11	A10	FBUSY	forward ACK signal
A12	A9	FPERROR	reverse ACK signal
A13	A8	FSELECT	transfer mode switch signal (H=ECP mode)
A14	A7	FRESET	forced reset signal
A15	A6	FOPTIONO	board detection signal (H=present)
A16	A5	NC	not used
A17	A4	NC	not used
A18	A3	GND	3.3V ground
A19	A2	FSPKON	speaker ON (L=being generated)
A20	A1	HPDIR	not used
B1	B20	PWCTL	ESS release command signal to fax board (L=ESS release)
B2	B19	CICNT	pseudo CI control signal
B3	B18	NC	not used
B4	B17	ESSACT	ESS release request signal (L=ESS release) for G4
B5	B16	FSPOUT	line monitor analog output
B6	B15	GND	3.3V ground
B7	B14	FCID	CI/FC/CNG detection signal
B8	B13	FOFFHK	OFFHOOK signal
A9	B12	BUSDIR	bus direction control signal to HOST
B10	B11	NC	not used
B11	B10	NC	not used
B12	B9	NC	not used
B13	B8	GND	3.3V ground
B14	B7	GND	3.3V ground
B15	B6	GND	3.3V ground
B16	B5	GND	3.3V ground
B17	B4	FNSELECT IN	1284 active (H=ECP mode)
B18	B3	FNINT	nReverse request
B19	B2	FNFAULT	nPeripheral request (L= data from peripheral present)
B20	B1	FNAUTOFD	reverse mode control signal

G3 fax control PCB (J101) ← → NCU PCB (J2)

J101	J2	signal	Description
1	6	AGND	analog ground
2	5	NC	not used
3	4	+12V	relay power supply
4	3	ANLGIN	line monitor signal
5	2	TX	4-line transmission signal
6	1	RX	4-line reception signal

G3 fax control PCB (J102) ← → NCU PCB (J1)

J102	J1	Signal	Description
1	1	DGND	digital ground
2	2	BIT2	for future use
3	3	BIT1	for future use
4	4	BIT0	for future use
5	5	LPL2	line polarity signal 2 (H=L2 positive)
6	6	LPL1	line polarity signal 1 (H=L1 positive)
7	7	HOOK2	external telephone off-hook detection signal (H=off-hook)
8	8	HOOK1	extension telephone off-hook detection signal (H=off-hook)
9	9	CI0R	CI1 and CI2 OR signal (H=C1 present)
10	10	CI2	CI detection signal 1 (H=CI present)
11	11	CI1	CI detection signal 2 H=C1 present)
12	12	LPRD	polarity reversal detection relay drive signal (H=ON)
13	13	DCD	DC relay drive signal (H=ON)
14	14	CMLD	CML relay drive signal (H=ON)
15	15	HRD	H relay drive signal (H=ON)
16	16	PRD	P relay drive signal (H=ON)
17	17	SRD	S relay drive signal (H=ON)
18	18	VHGND	VH ground
19	19	VHGND	VH ground
20	20	VH	off-hook detection power supply
21	21	VCC	ESS 3.3 V all-time drive power supply
22	22	+3.3V	logic drive voltage
23	23	DGND	digital ground

G3 fax control PCB (J103) ← → NCU PCB (J6) [220/240V only]

J103	J6	Signal	Description
1	14	OUT	output of telephone line DC current
2	13	IPSEL1	for impedance selection 1
3	12	IPSEL2	for impedance selection 2
4	11	IPSEL3	for impedance selection 3
5	10	DCSEL	for DC resistance setting
6	9	DCLIM	for DC current restriction setting
7	8	RRD	R relay control signal
8	7	NOR	CI impedance selection in no sound receiving
9	6	C1	for DC cut capacitor selection 1
10	5	C2	for DC cut capacitor selection 2
11	4	CIST1	CI impedance setting 1
12	3	CIST2	CI impedance setting 2
13	2	AST	CI impedance setting for AUS
14	1	NZ	CI impedance setting for N.Z.

G3 fax control PCB (J104) ← → Composite power supply PCB (J124), Off-hook detection PCB (J715)

J104	J124/J715	signal	Description
1	-	GND4	not used
2	-	+12V	not used
3	1(J124)	GND0	3.3V digital ground
4	2(J124)	GND0	3.3V digital ground
5	3(J124)	+3.3V	3.3V power supply (at time of ESS, OFF)
6	4(J124)	+3.3V	3.3V power supply (at time of ESS, OFF)
7	5(J124)	GND3	3.3VS digital ground
8	6(J124)	+3.3VS	ESS 3.3V all-time drive power supply
9	7(J124)	GND2	5V digital ground
10	8(J124)	GND2	5V digital ground
11	9(J124)	+5V	5V power supply (at time of ESS, OFF)
12	10(J124)	+5V	5V power supply (at time of ESS, OFF)
13	1(J715)	+5VS	ESS 5V all-time drive power supply
14	2(J715)	GND1	5VS analog ground

G3 fax control PCB (J105) ← → Relay connector to speaker

J105	SPK	signal	Description
1	1	SPKR1	Speaker output
2	2	SPKR2	Speaker output

NCU PCB (J3)← →Modular PCB (J911)

J3	J911	signal	Description
7	1	T1	not used
6	2	T2	not used
5	3	NC	not used
4	4	L1	telephone line connection
3	5	L2	telephone line connection
2	-	-	not used
1	-	-	not used

NCU PCB (J4)← →Off-hook detection PCB (J714) [120V only]

J4	J714	signal	Description
1	1	VH	off-hook detection power supply
2	2	OVH	ground

Off-hook detection PCB (J712)← →Main controller PCB (J1059)

J712	J1059	signal	Description
1	1	OVA	+5V all-day power ground
2	2	5VB	+5V all-day power supply
3	3	OVD	not used
4	4	CICNT	not used

Off-hook detection PCB (J713)← →Main power supply PCB (J204)

J713	J204	signal	Description
1	9	24VU3	+24V power supply
2	10	OVU3	+24V ground

Off-hook detection PCB (J715)← →G3 fax control PCB (J104)

J715	J104	signal	Description
1	13	5VB	+5V all-day power supply
2	14	OVA	+5V all-day ground

Off-hook detection PCB (J718)

not used

Modular PCB (J912)← →Modular Cable

J912	Cable	signal	Description
1	-	L22	not used
2	-	L21	not used
3	-	L12	telephone line 1 connection
4	-	L11	telephone line 1 connection
5	-	T2	not used
6	-	T1	not used

CHAPTER 3

TROUBLESHOOTING



REF.

If an error code is indicated in the presence of an error, see the descriptions on error code in Chapter 6; to find out how to generate a service error code, see 1.1.1 “Generating Service Error Code” in Chapter 6.

1 Points to Note for Troubleshooting

Take note of the following when troubleshooting the Board:

1.1 When Turning Off the Main Power

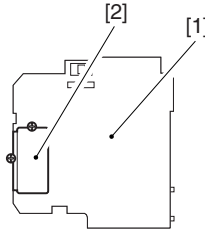
The Board stores image control data and image data on the hard disk. If reception is complete, the received images will be retained after the main power is turned off. On the other hand, transmission images will be lost when the main power is turned off. (In response, a memory clear list will be generated.)

1.2 Points to Note When Changing Service Mode Settings

If you ever change service mode settings, be sure to turn off and then on the main power. The settings made in service mode are stored on the host's hard disk. The settings related to the Board are loaded from the hard disk to the G3 fax control PCB, requiring that that main power be turned off and then on again whenever a change has been made.

1.3 Points to Note When Accessing the DC Controller PCB

If you have to access the DC controller PCB, as for replacing the DIMM, you will have to remove the G3 FAX Board [1]. To facilitate the work, detach the connector cover [2] shown in the figure, and disconnect the connector found on the G3 fax control PCB before detaching the G3 FAX Board. (This way, you will have to remove fewer screws as compared with disconnecting the connector on the controller side.)



F03-103-01

1.4 Matching the Software Version with the Host

If you are to install the Board to a product that has been shipped as a copier model, you must upgrade the software version of the host. (Otherwise, the system may not operate normally).

If the Board fails to operate normally, use the Service Support Tool to upgrade each of the following modules to its latest version: System, BootROM, Language, Remote UI.

1.5 Setup of Hardware Switch of NCU Board

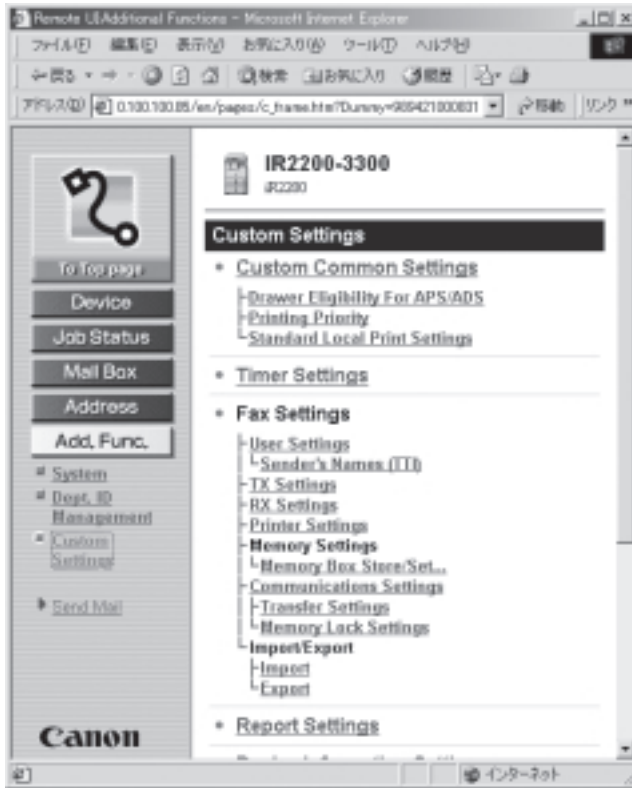
The hardware switch (SW1, SW2, SW3=220V/240V) is in NCU board of a product is not used. Therefore, it is not necessary to set up also especially at the time of NCU board change.

1.6 Backing Up the Address Book

The data for an address book is stored on the host's hard disk, and may be backed up using the remote user interface. If the user's environment allows the use of a remote user interface, advise the user to back up the data as often as possible. The presence of a backup will make restoration as in response to a fault on the hard disk easy.

Remote UI

Additional Functions>Custom Settings>Fax Settings>Import/Export



F03-106-01

2 Problems at Time of Installation

The G3 FAX board is not recognized.

Cause:	The main controller will automatically identify the presence of a G3 fax control PCB by communication with it at time of power-on. The cable used for the communication may not be connected.
Remedy:	Check to see if the cable between the main controller PCB and the G3 fax control PCB is correctly connected. (J1005 on the main controller PCB, J31 on the G3 fax control PCB)

E674-0001 Error

Cause:	E674-0001 is indicated when the MPU of the G3 FAX control PCB does not respond although the main controller PCB and the G3 fax controller PCB are electrically connected. It also occurs when the G3 FAX control PCB is not supplied with power and, as a result, the MPU of the G3 fax board is not operating.
Remedy:	Check to see if the cable between the main controller PCB and the G3 fax control PCB is correctly connected. (J1005 on the main controller PCB, J31 on the G3 fax control PCB)
Remedy:	Check to see if the G3 FAX Board DIMM is correctly installed. Or, the program in the DIMM may be out of order. Replace the DIMM with a normal one.
Remedy:	Check to find out if the power line to the G3 FAX Board is correctly connected. (J104 on the G3 fax control PCB and J124 on the low-voltage power supply PCB)

3 Common Problems

Communications fail.

Cause:	The telephone line is not connected to the line modular jack.
Remedy:	Connect the telephone line to the line modular jack (middle terminal).

Calling fails.

Cause:	The wrong type of line (tone dial) is selected.
Remedy:	Select the correct line type.

No sound is generated by the speaker.

Cause:	The speaker is not correctly connected.
Remedy:	Check the wiring from the G3 fax control PCB to the speaker. (J105 of the G3 fax control PCB to the host relay cable; relay cable between speaker behind the support cover and the copier)

The DONE stamp fails to operate.

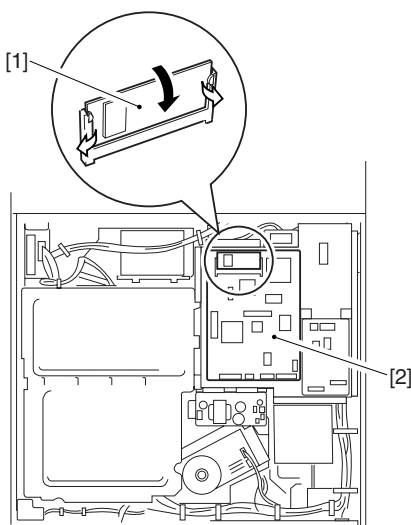
Cause:	the stamp has run out of ink.
Remedy:	Replace the stamp cartridge.

4 Upgrading

The firmware of the Board may be upgraded by either of the following two ways:

1. By replacing the DIMM ROM.
2. By upgrading the firmware contained by the DIMM ROM using a Service Support Tool.

For method 1 above, upgrading is done by mere replacement of the DIMM ROM shown in the following diagram:

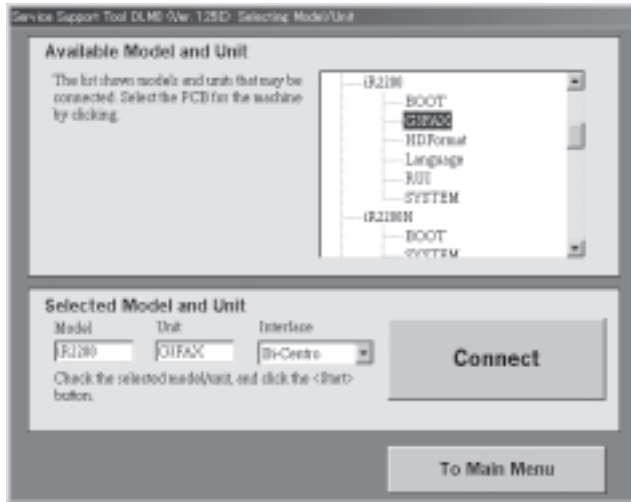


- [1] DIMM ROM
[2] G3 fax control PCB

F03-400-01

It may be upgraded using the Service Support Tool as shown in the following diagram; for an introduction to how to use the Service Support Tool, see the host's Service Manual.

- 1) Using the System CD, copy the firmware fails for the Board to the Service Support Tool. At the end, [G3FAX] will appear under [iR2200] as a unit.



F03-400-02

- 2) Connect the PC on which the Service Support Tool is run to the host. The connection may be by means of a parallel cable or by way of a network.
- 3) Make the following selections in service mode: COPIER>Function>System>Download; then, operate the host so that it is ready for downloading. (You cannot upgrade G3FAX in Download Mode, which request presses on both 2 and 8 keys to start.)
- 4) Select [G3FAX] under [iR2200], which appeared in step 1), and start downloading. Take care not to turn off the power until downloading ends.
- 5) When downloading has ended, you must turn off and then on the host.
- 6) When the host has started up, make the following selections to check the version of the new firmware: COPIER>Display>Version>FAX (e.: WLD-18-06).



If upgrading has failed (as by turning off the power in the middle by mistake), you must replace the DIMM ROM to upgrade. Take extra care.

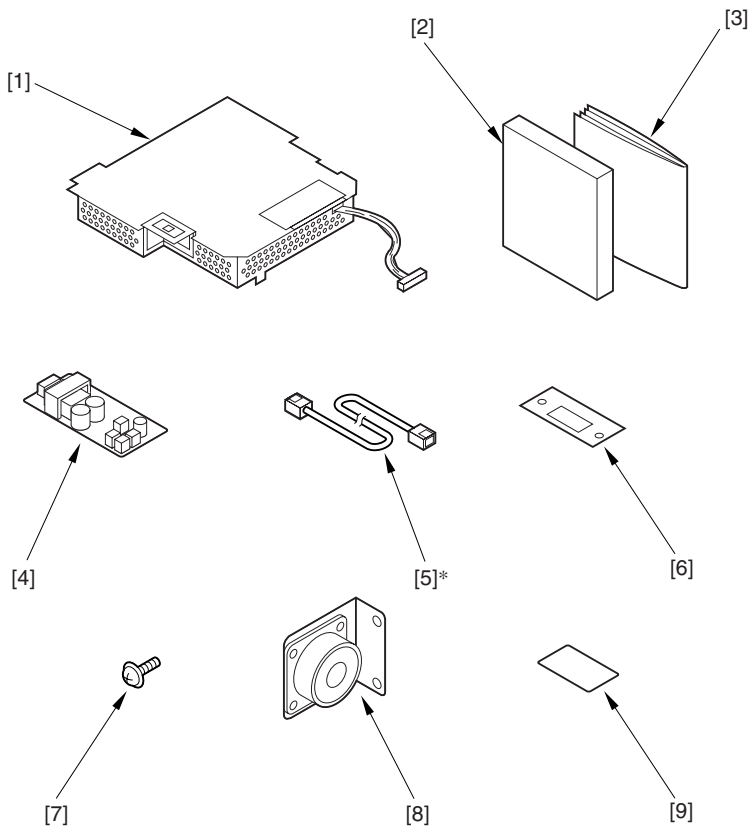
CHAPTER 4

INSTALLATION

1 INSTALLATION

1.1 Checking the Contents

Open the shipping box, and check to make sure that none of the following is missing:



F04-101-01

[1] Super G3 FAX Board-J1	1 unit	[6] Modular cover	1 pc.
[2] User's Guide	1 pc.	[7] Mounting screw	7 pc.
[3] Installation Procedure	1 pc.	[8] Speaker unit	1 pc.
[4] Off hook detection unit	1 pc.	[9] Super G3 label	1 pc.
[5] Modular cable	1 pc.		

*The cable which suited the standard of each country is enclosed.

1.2 Before Starting the Work

Keep the following in mind when installing the G3 FAX Board to its host machine:

- a. The power plug of the host machine must remain disconnected.
- b. The screws must be identified by type (length, diameter) and location.
- c. All screws of the metal covers must be tightened properly. A missing screw can lead to noise and, ultimately, to malfunction.



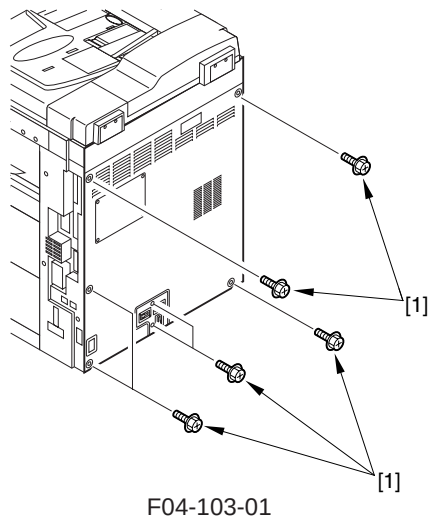
Matching the Software Version with the Host

If you are to install the Board to a product that has been shipped as a copier model, you must upgrade the software version of the host. (Otherwise, the system may not operate normally).

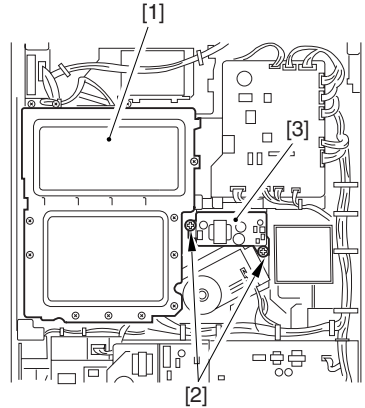
If the Board fails to operate normally, use the Service Support Tool to upgrade each of the following modules to its latest version: System, BootROM, Language, Remote UI.

1.3 Installation to the Host Machine

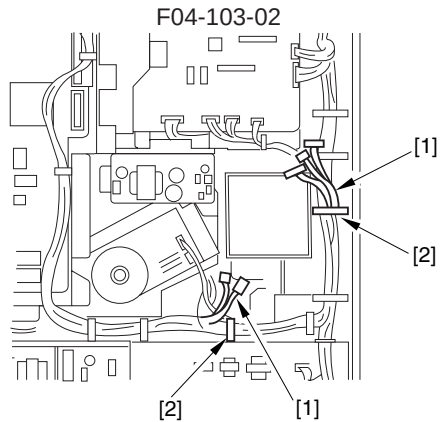
- 1) Remove the seven screws [1], and detach the rear cover.



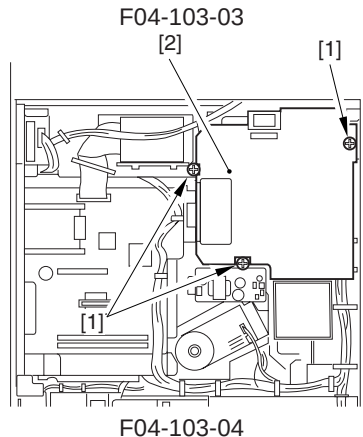
- 2) Remove the controller cover [1], and mount the off hook detection unit [3] using the 2 screws [2] that come with the Board. (This step will be necessary for the installation of the Board.)



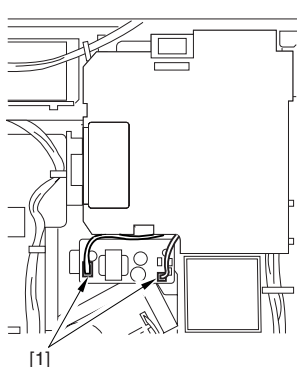
- 3) Free the cables [1] needed for the installation of the G3 FAX Board from the cable clip [2]. (3 pc. on the right, 2 pc. at the bottom)



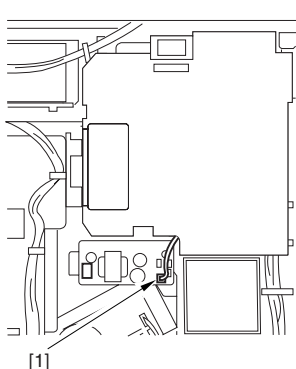
- 4) Mount the Board [2] with three screws [1].



- 5) Connect the two cables (120V) or one cable (220V/240V) [1] from the G3 FAX Board to the off hook detection unit.

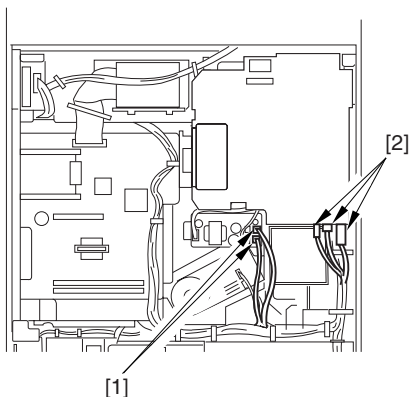


(120V)
F04-103-05a



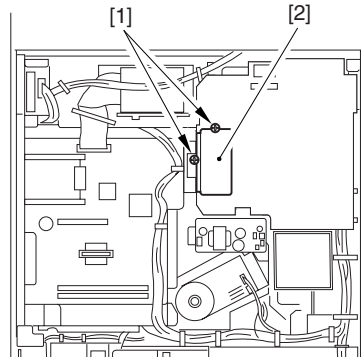
(220V/240V)
F04-103-05b

- 6) Connect the two cable [1] from the machine to the off hook detection unit. Connect the three cables [2] to the right bottom of the G3 FAX Board.



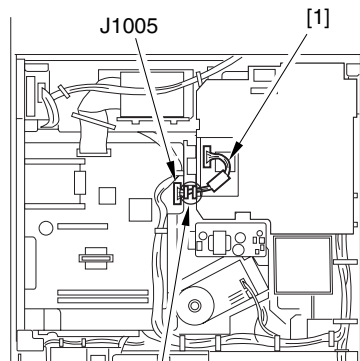
F04-103-06

- 7) Remove the two screws [1], and detach the connector cover [2] of the Board.



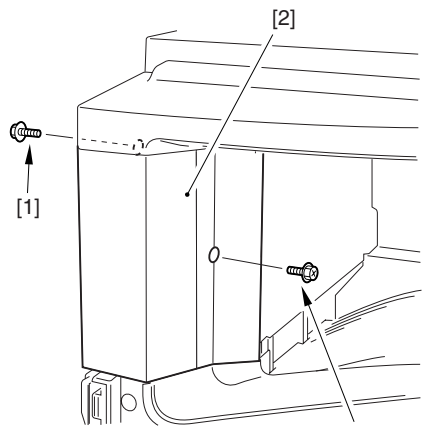
F04-103-07

- 8) Connect the cable [1] from the G3 FAX Board to the main controller PCB. The cable set the cable guide [2]. Mount back the connector cover.



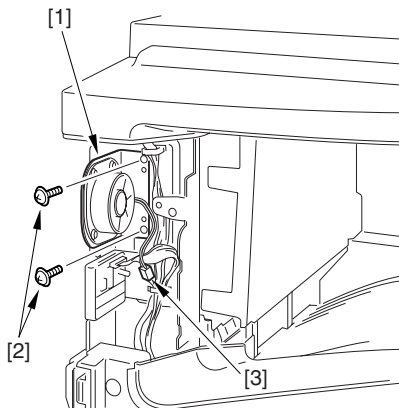
F04-103-08

- 9) Remove the two screws [1], and detach the support cover [2].



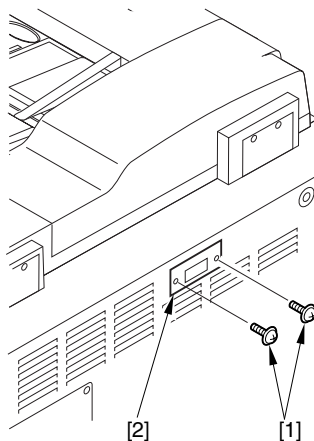
F04-103-09

- 10) Mount the speaker unit [1] with two screws [2], and connect the speaker to the cable [3] of the machine.



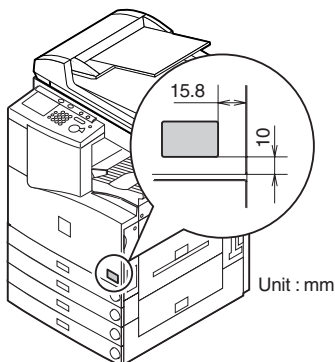
F04-103-10

- 11) Mount back the support cover.
12) Before mounting the rear cover, remove the face cover, and mount the modular cover [2] using the two screws [1] removed to detach the cover.



F04-103-11

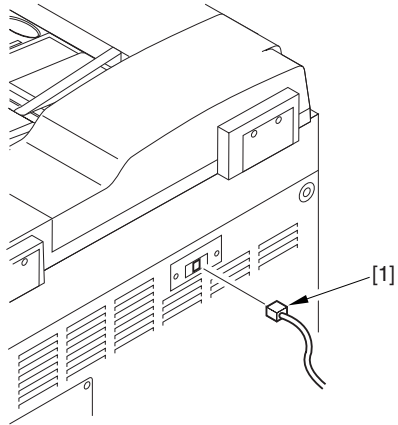
- 13) Mount back all covers.
14) Attach the Super G3 label where indicated.



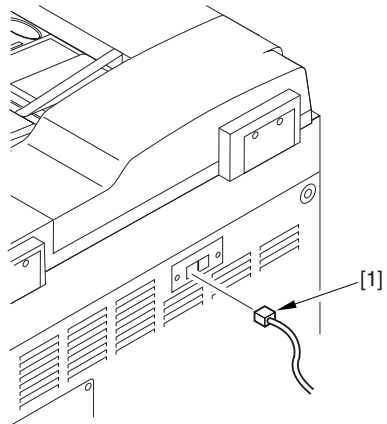
F04-103-12

1.4 Connecting to the Telephone Line

- 1) Turn off the main power of the host machine.
- 2) Connect one end of the modular cable to the modular jack in the wall.
- 3) Connect the other end of the modular cable [1] to the modular jack (middle=120V, left=220V/240V) for the telephone line (on the machine).



(120V)
F04-104-01a



(220V/240V)
F04-104-01b

- 4) Turn on the main power of the host machine.

1.5 Selecting the Type

Select the country for the Board using service mode. This will set the parameters to suit the type of telephone line used in the selected country.

- 1) In [FAX>Type] of service mode, select the name of the country; then, press the OK button on the touch panel.



For a 100V model, be sure to select [Standard].

- 2) Execute [ALL CLEAR]. Select [FAX>Clear>ALL], and press the OK button on the touch panel.
- 3) Press the Reset button three times to return to the Initial screen.
- 4) Turn off and then on the main power.

1.6 Setting Telephone Number and the Type of Line

The discussions that follow are limited to the minimum settings that must be made to use FAX functions. Be sure to register addresses for the electronic telephone book function and make transmission/reception settings according to the needs of the user.

- 1) Make the following selections: user mode>custom fax settings>user settings >unit name; then, register the name of the origin (which will appear on the header of faxes).
- 2) Make the following selections: user mode>custom fax settings>user settings >unit telephone #; then, register the telephone number of the user.
- 3) Make the following selections: user mode>custom fax settings>user settings >tel line type; then, select either tone or pulse to suit the type of telephone line used. (default: tone)

1.7 Checking the Operation of FAX Functions

- 1) Select the Fax Operation screen, and press the On-Hook button.
- 2) Enter the telephone service number using the keypad, and check to make sure that the telephone service can be heard. If not, check to make sure that the telephone line is correctly connected to the telephone line modular jack of the host machine and that the selected type of telephone line matches the telephone line actually in use.
- 3) Enter the telephone number of a party with which a communication test may be conducted using the keypad, and transmit a document to see it reaches the party correctly.
- 4) Enter the telephone number of the host machine, and find out the call arrives. If it fails to arrive, check with the user; the machine may be connected to the wrong telephone number, in which case the correct telephone number must be registered as the origin.
- 5) Ask the party taking party in the communication test to send a test document to the user's telephone number to see if it is received correctly.

CHAPTER 5

SERVICE MODE

1 Service Mode

1.1 Outline

The service mode function consists of the following nine items (#1 through #5, #7 through #10):

#1 SSSW: service soft switch

Use it to enter inputs/settings associated with basic fax service functions: e.g., error management, echo correction, communication error correction.

#2 MENU: menu switch setting

Use it to enter inputs/settings associated with functions needed at time of installation; e.g., NL equalizer, transmission level.

#3 NUMERIC Param: numeric parameter setting

Use it to enter numeric parameters.

#4: NCU: (disabled for service)

All settings under the item will collectively set in response to the #5 TYPE setting.

#5 TYPE: country setting

These setting items are for telephone network control functions such as the selection signal transmission conditions and the detection conditions, for the control signals sent from the exchange.

#7 PRINTER: printer functions setting

Use it to enter inputs/settings associated with the basic printer functions; e.g., reduction preferences for received images.

#8 CLEAR: data initialization mode setting

Use it to initialize various data to their initial settings.

#9 TEST:

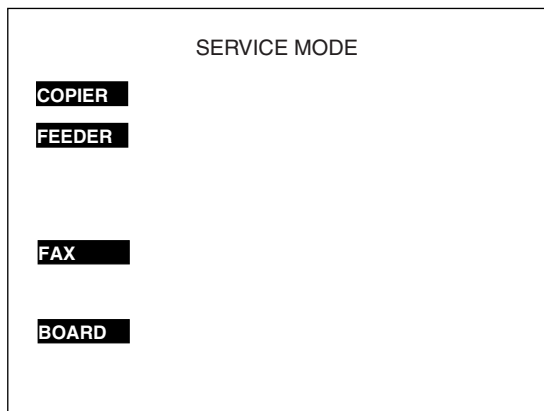
Use it to execute various tests.

#10 REPORT:

Use it to print a report.

1.2 Using Service Mode

- 1) Press the Additional Functions key “” in the control panel.
- 2) Press [2] and [8] on the keypad at the same time.
- 3) Press the Additional Functions key “” in the control panel.
The connected options will be indicated: FEEDER, FAX, BOARD.
Select [FAX] to start the FAX board's service mode.



F05-102-01

COPIER: Select it to use the host's service mode.

FEEDER: Select it to use the ADF's service mode.*

FAX: Select it to use the FAX board's service mode.*

BOARD: Select it to use the option board's service mode.*

*Indicated only when installed.

1.3 Guide to the Keys

The following cites the #1 SSSW screen for discussion. The same meanings and methods of operation apply to all screens.

Sssw	Menu	Num	Ncu	Type	ISDN	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	



Previous Page/Next Page key



Press to accept the current input.

F05-103-01

- In the case of a bit switch, press the desired bit (number) directly to change from 0 to 1 or from 1 to 0.
- To change a value or to execute an item, press the OK key.
- To enter a numerical input, use the keypad.
- To return to the previous level, Press the Reset key.



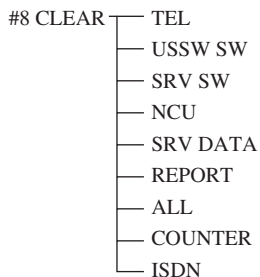
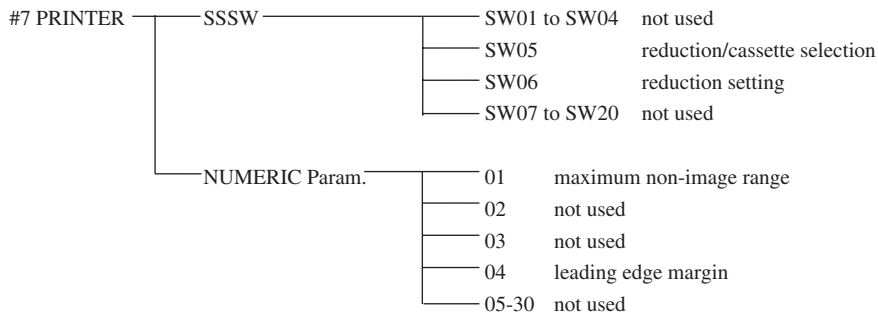
If you ever change service mode settings, be sure to turn off and then on the main power. The settings made in service mode are stored on the host's hard disk. The settings related to the Board are loaded from the hard disk to the G3 fax control PCB, requiring that that main power be turned off and then on again whenever a change has been made.

2 List of Service Mode 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 to SW24	Not used
	SW25	set report display function
	SW26	set transmission function
	SW27	Not used
	SW28	set V, 8/V, 34
	SW29 to SW30	Not used

#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	pseudo CI signal frequency
	011 to 020	Not used

#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. E0L timer
	014	not used
	015	hooking detection time
	016	time to response call at time of FAX/TEX switch
	017	pseudo RBT signal pattern ON time
	018	pseudo RBT signal pattern OFF time (short)
	019	pseudo RBT signal pattern OFF time (long)
	020	pseudo CI signal pattern ON time
	021	pseudo CI signal pattern OFF time (short)
	022	pseudo CI signal pattern OFF time (long)
	023	CNG detection level at time of FAX/TEL switch
	024	pseudo RBT transmission level at time of FAX/TEL switch
	025	CNG monitor time for answering device function
	026	no sound detection level for answering device function
	027	preamble detection time for V21 low-speed flag
	028-80	not used



3 Using the Bit Switches(#1SSSW)

Each of the input/setting items of this switch consists of 8 bits. The bits indicated on the display are as follows, and each bit is set to either '0' or '1'.

	Bit 7				Bit 0			
SW01	0	0	0	0	0	0	0	0



Not used the service data if so indicated. Its initial setting must always be used.

Sssw	Menu	Num	Ncu	Type	ISDN	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 ↵									

F05-301-01

#SSSW-SW01: error management

Bit	Function	1	0	Factory setting
0	service error code	output	not output	0
1	error dump list	output	not output	0
2	not used	-	-	
3	not used	-	-	
4	not used	-	-	
5	not used	-	-	
6	not used	-	-	
7	User setting restriction	setting possible	setting restricted 0	

[Bit 0]

Selects whether or not service error codes are output.

When “Output” is selected, service error codes are displayed and in reports.

[Bit 1]

Selects whether or not error dump lists are output.

[Bit 7]

When “setting restricted” is selected, certain items cannot be set by the user, depending on the country setting. When “setting possible” is selected, all items are user selectable, regardless of the country type setting.

#1 SSSW-SW03: echo solution setting

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

[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.



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

[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.



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

[Bit 4, 5, 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.



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 \ Bit	7	6	5	4	3	2	1	0
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.

#1 SSSW-SW04: communication error remedy setting

Bit	Function	1	0	Factory setting
0	not used	-	-	0
1	not used	-	-	0
2	the number of final flag sequences of protocol signals	2	1	0
3	Reception mode after CFR signal transmission	high speed	high speed/ low speed	0
4	the length of the period of ignoring low speed signals after CFR output	1500 msec	700 msec	0
5	not used	-	-	0
6	CNG signal for manual transmission	do not transmit	transmit	0
7	CED signal for manual receiving	do not transmit	transmit	1

[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.



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

[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'.



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.

[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'.

[Bit 6]

Use it to enable/disable transmission of the CNG signal in manual mode.

Select [TRANSMIT] if errors in which a switch-over to fax mode fails when a fax communication is transmitted manually (FAX/TEL switch-over mode).

[Bit 7]

Use it to enable/disable transmission of the CED signal in manual reception mode.

Select 'transmit' if the other party does not start transmission when manual reception is started.

#1 SSSW-SW5: standard function (DIS signal) setting

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

[Bit 1]

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

[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'.

[Bit 3]

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.

[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.

#1 SSSW-SW9: display setting

Bit	Function	1	0	Factory setting
0	communication result display (normal end)	Retain	Do not retain	0
1	communication result display (error end)	Retain	Do not retain	0
2	not used	-	-	
3	not used	-	-	
4	not used	-	-	
5	not used	-	-	
6	not used	-	-	
7	not used	-	-	

[Bit 0]

Use it to enable/disable retention of the display of the communication result when the communication ends normally. When 'do not retain' is selected, the display will be removed in 10 sec after the end of the communication. When 'retain' is selected on the other hand, the display will remain until any key is pressed.

[Bit 1]

Use it to select how the display of the communication result may be removed when the communication ends in error. When 'do not retain' is selected, the display will be removed in 10 sec after the end of the communication. When 'retain' is selected on the other hand, the display will remain until any key is pressed.

#1 SSSW-SW12: page timer setting

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

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 'disable' 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

Time-out time \ Bit	7	6	5	4	3	2	1	0
8 min	0	*	*	*	*	*	0	0
16 min	0	*	*	*	*	*	0	1
32 min	0	*	*	*	*	*	1	0
64 min	0	*	*	*	*	*	1	1

Time-Out Length for Transmission (in text mode)

Time-out time \ Bit	7	6	5	4	3	2	1	0
8 min	1	*	*	*	*	*	0	0
16 min	1	*	*	*	*	*	0	1
32 min	1	*	*	*	*	*	1	0
64 min	1	*	*	*	*	*	1	1

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

Time-out time \ Bit	7	6	5	4	3	2	1	0
8 min	1	*	*	*	0	0	*	*
16 min	1	*	*	*	0	1	*	*
32 min	1	*	*	*	1	0	*	*
64 min	1	*	*	*	1	1	*	*

Time-Out Length for Reception

Time-out time \ Bit	7	6	5	4	3	2	1	0
8 min	1	*	0	0	*	*	*	*
16 min	1	*	0	1	*	*	*	*
32 min	1	*	1	0	*	*	*	*
64 min	1	*	1	1	*	*	*	*

#1 SSSW-SW25: report display function setting

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

[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.



When 'caller's' is selected, the telephone number (CSI signal data) from the other party will be indicated on the report if the call is made not using the One-Touch Dial or Speed Dial function.

#1 SSSW-SW26: transmission function setting

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

[Bit 2]

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

[Bit 7]

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

#1 SSSW-SW28(service soft switch 28: V.8/ V.34 protocol settings)

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

[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.

[Bit 1]

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

[Bit 2]

If ANSam signal is not received during transmission (mainly manual 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.

[Bit 3]

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

[Bit 4]

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

[Bit 5]

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

4 Menu Switch Setting (#2 MENU)

Sssw	Menu	Num	Ncu	Type	ISDN	Print	Clear	Test	Report
						<1/1>	<READY>		
	005	xxxxx	←	(yyyyy)	{aaaaa~bbbbb}				
	006	xxxxx	←	(yyyyy)	{aaaaa~bbbbb}				
	007	xxxxx	←	(yyyyy)	{aaaaa~bbbbb}				
	008	xxxxx	←	(yyyyy)	{aaaaa~bbbbb}				
	009	xxxxx	←	(yyyyy)	{aaaaa~bbbbb}				
	010	xxxxx	←	(yyyyy)	{aaaaa~bbbbb}				
← ⇒ ▽ △ ↶ OK ↶									

F05-401-01

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
008	V.34 modulation speed upper limit	0:3429, 1:3200, 2:3000, 3:2800, 4:2743, 5:2400
009	V.34 data speed upper limit	from 0 to 13
010	not used	-

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.



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 set the telephone line monitor function:

- 0: 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: generate the monitor sound of the telephone line2 (Option).
- 3: do not generate the monitor sound of the telephone line using 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)



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.

009 V.34 data speed upper limit

Use it 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 Setting Various Parameters (#3 NUMERIC Param.)

Sssw	Menu	Num	Ncu	Type	ISDN	Print	Clear	Test	Report
						<1/3>		<READY>	
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}				
009		xxxxx	←	(yyyyy)	{aaaaa-bbbbb}				
010		xxxxx	←	(yyyyy)	{aaaaa-bbbbb}				
011		xxxxx	←	(yyyyy)	{aaaaa-bbbbb}				
		←	→	▽	△	↵	OK ↵		

F05-501-01

No.	Function	Range of settings	Initial setting (USA)
02	RTN transmission condition (1)	1% to 99%	10
03	RTN transmission condition (2)	2 to 99 times	15
04	RTN transmission condition (3)	1 to 99 lines	12
05	NCC pause time (before ID code)	1 to 60 sec	4
06	NCC pause time (after ID code)	1 to 60 sec	4
07	pre-pause time at time of placing call	0 to 9999($\times 10$ ms)	4
09	number of characters in telephone numbers between transmitting and receiving parties	0 to 20 characters	6
10	line connection identification time	0 to 9999($\times 10$ ms)	5500
11	T.30 T1 timer (for reception)	0 to 9999($\times 10$ ms)	3500
13	T30. EOL timer	500 to 3000($\times 10$ ms)	1300
15	hooking detection time	0 to 999($\times 10$ ms)	120
16	time to response at time of FAX/TEL switch-over	0 to 9	4
17	pseudo RBT signal pattern ON time	0 to 999($\times 10$ ms)	100
18	pseudo RBT signal pattern OFF time (short)	0 to 999($\times 10$ ms)	0
19	pseudo RBT signal pattern OFF time (long)	0 to 999($\times 10$ ms)	200
20	pseudo CI signal pattern ON time	0 to 999($\times 10$ ms)	100
21	pseudo CI signal pattern OFF time (short)	0 to 999($\times 10$ ms)	0
22	pseudo CI signal pattern OFF time (long)	0 to 999($\times 10$ ms)	200
23	CNG detection level at time of FAX/TEL switch-over	0 to 7	4
24	pseudo RBT transmission level at time of FAX/TEL switch-over	10 to 20	20
25	CNG monitor time for answering device function	0 to 999($\times 10$ ms)	60
26	no sound detection level for answering device mode	0 to 7	4
27	preamble detection time for V21 low-speed flag	20 ($\times 10$ ms)	0

[No. 02, 03, 04]

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.



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.

[No. 05]

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.

[No. 06]

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.

[No. 07]

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

This SW is effective only when detection of a dial tone is disabled (i.e., #4 NCU 2.DIALTONE SW01 bit 7=0). The length of time between when the line is acquired and when a call is placed may be set in increments of 10 msec.

[No. 09]

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

[No. 10]

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.



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.

[No. 11]

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

[No. 13]

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).

[No. 15]

Use it to set the hooking detection time.

[No. 16]

Use it to set the time from when the line is acquired and when the pseudo RBT signal is transmitted at the time of a FAX/TEL switch-over.

[No. 17, 18, 19]

Use it to set the pseudo RBT signal pattern transmitted at time of a FAX/TEL switch-over.

[No. 20, 21, 22]

Use it to set the CI signal pattern transmitted at time of a FAX/TEL switch-over.

[No. 23]

Use it to set the CNG detection level at time of a FAX/TEL switch-over.

[No. 24]

Use it to set the pseudo RBT transmission level at time of a FAX/TEL switch-over.

[No. 25]

Use it to set the time during which the absence of a sound on the line, CNG signal, or 2nd NSS signal transmitted by the other party after the answering device acquires the line when the answering mode is selected.

[No. 26]

Use it to set the level used to detect the absence of sound in answering device mode.

[No. 27]

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.

6 Selecting the Country (#5 TYPE)

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

7 Setting Printer Functions (#7 PRINTER)

7.1 Service Software Switches

#7 Printer-SW05 (reduction, cassette selection)

Bit	Function	1	0	Factory setting
0	priority on LTR	place	do not place	0
1	priority on LGL	place	do not place	0
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	0

[Bit 0, 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	Bit2	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 0> A4 -> LGL.

[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.

#7 Printer-SW06 (reduction)

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

[Bit 5]

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.

7.2 NUMERIC Param. (numeric parameter setting)

Sssw	Menu	Num	Ncu	Type	ISDN	Print	Clear	Test	Report
<NUM>		<1/4>		<READY>					
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 ↵									

F05-702-01

No.	Function	Setting range	Initial setting	Unit
01	Missing areas of printing image when receiving image with longer length than standard	0 to9999	15	1mm
04	Leading edge blank area	0 to9999	8	1mm

[No. 1]

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).

[No. 4]

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

8 Initializing the Settings (#8 CLEAR)

Select any of the following items to initialize the appropriate data item.

When initialized, the parameter settings in question will be returned to factory settings.

Item	Data initialize
TEL	telephone number registration data, memory box
USER SW	user data and data stored under SSSW#1 through #3 (The user data under memory management will not be affected. The image data stored in memory will not be erased.)
SERVICE SW	user data and contents of #1, SSSW, #2MENU, #3NUM, #7PRINT
NCU	contents of SSSW#4
ISDN	not used
SERVICE DATA	contents of the system dump list
REPORT	contents of the communication management report
ALL	all settings/registered data (except image data & Type settings)
COUNTER	number of prints, number of pages read

9 SSSW Default Setting

The default Setting value of each country is shown below.

TYPE	USA	EUROPE	U.K	SWEDEN	SWISS	AUSTRIA
#1 SSSW						
SW01	00000000	00000000	00000000	00000000	00000000	00000000
SW02	00000000	00000000	00000000	00000000	00000000	00000000
SW03	00000000	00000000	00000000	00000000	00000000	00000000
SW04	10000000	10000000	10000000	10000000	10000000	10000000
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	00011000	00011000	00011000	00011000	00011000	00011000
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
SW29	00000000	00000000	00000000	00000000	00000000	00000000
SW30	00000000	00000000	00000000	00000000	00000000	00000000
#2 MENU						
05:	OFF	OFF	OFF	OFF	OFF	OFF
06:	DIAL	DIAL	DIAL	DIAL	DIAL	DIAL
07:	10	10	10	10	10	10
08:	3429baud	3429baud	3429baud	3429baud	3429baud	3429baud
09:	33600bps	33600bps	33600bps	33600bps	33600bps	33600bps
10:	25Hz	25Hz	25Hz	25Hz	25Hz	25Hz

TYPE	DENMARK	NORWAY	HOLAND	BELGIUM	AUSTRALIA	FINLAND
#1 SSSW						
SW01	00000000	00000000	00000000	00000000	00000000	00000000
SW02	00000000	00000000	00000000	00000000	00000000	00000000
SW03	00000000	00000000	00000000	00000000	00000000	00000000
SW04	10000000	10000000	10000000	10000000	10000000	10000000
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	00011000	00011000	00011000	00011000	00011000	00011000
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
SW29	00000000	00000000	00000000	00000000	00000000	00000000
SW30	00000000	00000000	00000000	00000000	00000000	00000000
#2 MENU						
05:	OFF	OFF	OFF	OFF	OFF	OFF
06:	DIAL	DIAL	DIAL	DIAL	DIAL	DIAL
07:	10	10	10	10	12	10
08:	3429baud	3429baud	3429baud	3429baud	3429baud	3429baud
09:	33600bps	33600bps	33600bps	33600bps	33600bps	33600bps
10:	25Hz	25Hz	25Hz	25Hz	25Hz	25Hz

TYPE	N.Z.	ITALY	SPAIN	PORTUGAL	IRELAND	HONG KONG
#1 SSSW						
SW01	00000000	00000000	00000000	00000000	00000000	00000000
SW02	00000000	00000000	00000000	00000000	00000000	00000000
SW03	00000000	00000000	00000000	00000000	00000000	00000000
SW04	10000000	10000000	10000000	10000000	10000000	10000000
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	00011000	00011000	00011000	00011000	00011000	00011000
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
SW29	00000000	00000000	00000000	00000000	00000000	00000000
SW30	00000000	00000000	00000000	00000000	00000000	00000000
#2 MENU						
05:	OFF	OFF	OFF	OFF	OFF	OFF
06:	DIAL	DIAL	DIAL	DIAL	DIAL	DIAL
07:	10	10	10	10	10	10
08:	3429baud	3429baud	3429baud	3429baud	3429baud	3429baud
09:	33600bps	33600bps	33600bps	33600bps	33600bps	33600bps
10:	25Hz	25Hz	25Hz	25Hz	25Hz	25Hz

TYPE	MALASIA	HUNGARY	SAF	CHINA	GERMAN	FRANCE
#1 SSSW						
SW01	00000000	00000000	00000000	00000000	00000000	00000000
SW02	00000000	00000000	00000000	00000000	00000000	00000000
SW03	00000000	00000000	00000000	00000000	00000000	00000000
SW04	10000000	10000000	10000000	10000000	10000000	10000000
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	00011000	00011000	00011000	00011000	00011000	00011000
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	00000001	00000001
SW26	00100000	00100000	00100000	00100000	00100000	00100000
SW27	00000000	00000000	00000000	00000000	00000000	00000000
SW28	00000000	00000000	00000000	00000000	00000000	00000000
SW29	00000000	00000000	00000000	00000000	00000000	00000000
SW30	00000000	00000000	00000000	00000000	00000000	00000000
#2 MENU						
05:	OFF	OFF	OFF	OFF	OFF	OFF
06:	DIAL	DIAL	DIAL	DIAL	DIAL	DIAL
07:	10	10	10	13	10	10
08:	3429baud	3429baud	3429baud	3429baud	3429baud	3429baud
09:	33600bps	33600bps	33600bps	33600bps	33600bps	33600bps
10:	25Hz	25Hz	25Hz	25Hz	25Hz	25Hz

TYPE	SINGAPORE	CZECH	SLOVENIA	KOREA	CANADA
#1 SSW					
SW01	00000000	00000000	00000000	00000000	00000000
SW02	00000000	00000000	00000000	00000000	00000000
SW03	00000000	00000000	00000000	00000000	00000000
SW04	10000000	10000000	10000000	10000000	10000000
SW05	00000000	00000000	00000000	00000000	00000000
SW06	10000000	10000000	10000000	10000000	10000000
SW07	00000000	00000000	00000000	00000000	00000000
SW08	00000000	00000000	00000000	00000000	00000000
SW09	00000000	00000000	00000000	00000000	00000000
SW10	00000000	00000000	00000000	00000000	00000000
SW11	00000000	00000000	00000000	00000000	00000000
SW12	00000011	00000011	00000011	00000011	00000011
SW13	00000000	00000000	00000000	00000000	00000000
SW14	00000000	00000000	00000000	00000000	00000000
SW15	00000000	00000000	00000000	00000000	00000000
SW16	00000000	00000000	00000000	00000000	00000000
SW17	00000000	00000000	00000000	00000000	00000000
SW18	00000000	00000000	00000000	00000000	00000000
SW19	00011000	00011000	00011000	00011000	00011000
SW20	00000000	00000000	00000000	00000000	00000000
SW21	00000000	00000000	00000000	00000000	00000000
SW22	00000000	00000000	00000000	00000000	00000000
SW23	00000000	00000000	00000000	00000000	00000000
SW24	00000000	00000000	00000000	00000000	00000000
SW25	00000000	00000000	00000000	00000000	00000000
SW26	00100000	00100000	00100000	00100000	00100000
SW27	00000000	00000000	00000000	00000000	00000000
SW28	00000000	00000000	00000000	00000000	00000000
SW29	00000000	00000000	00000000	00000000	00000000
SW30	00000000	00000000	00000000	00000000	00000000
#2 MENU					
05:	OFF	OFF	OFF	OFF	OFF
06:	DIAL	DIAL	DIAL	DIAL	DIAL
07:	12	10	10	10	10
08:	3429baud	3429baud	3429baud	3429baud	3429baud
09:	33600bps	33600bps	33600bps	33600bps	33600bps
10:	25Hz	25Hz	25Hz	25Hz	25Hz

TYPE	USA	EUROPE	U.K	SWEDEN	SWISS	AUSTRIA
#3 NUMERIC						
Param						
02:	10	10	10	10	10	10
03:	15	15	15	15	15	15
04:	12	12	12	12	12	12
05:	4	4	4	0	0	0
06:	4	4	1	0	0	0
07:	4	0	0	0	0	0
09:	6	6	6	6	6	6
10:	5500	5500	5500	6000	8500	5500
11:	3500	3500	3500	3500	3500	3500
13:	1300	1320	1320	1320	1320	1320
15:	120	120	120	120	120	120
16:	4	4	2	4	2	2
17:	100	100	40	100	100	100
18:	0	0	20	0	0	0
19:	200	400	200	400	400	400
20:	100	100	40	100	100	100
21:	0	0	20	0	0	0
22:	200	400	200	400	400	400
23:	4	4	7	7	7	7
24:	20	10	10	10	10	10
25:	60	60	60	60	60	60
26:	4	4	5	5	5	5
#5 TYPE	USA	EUROPE	U.K	SWEDEN	SWISS	AUSTRIA

TYPE	DENMARK	NORWAY	HOLAND	BELGIUM	AUSTRALIA	FINLAND
#3 NUMERIC						
Param						
02:	10	10	10	10	10	10
03:	15	15	15	15	15	15
04:	12	12	12	12	12	12
05:	0	0	0	0	0	0
06:	0	0	0	0	0	0
07:	0	0	0	0	0	0
09:	6	6	6	6	6	6
10:	5500	5500	6000	5500	5500	5500
11:	3500	3500	3500	3500	3500	3500
13:	1320	1320	1320	1320	1320	1320
15:	120	120	120	120	120	120
16:	4	2	4	2	4	4
17:	75	30	100	100	100	100
18:	0	30	0	0	0	0
19:	250	400	400	300	400	400
20:	100	30	100	100	100	100
21:	0	30	0	0	0	0
22:	400	400	400	300	400	400
23:	7	7	7	7	7	7
24:	10	10	10	10	10	12
25:	60	60	60	60	60	60
26:	5	5	5	5	5	5
#5 TYPE	DENMARK	NORWAY	HOLAND	BELGIUM	AUSTRALIA	FINLAND

TYPE	N.Z.	ITALY	SPAIN	PORTUGAL	IRELAND	HONG KONG
#3 NUMERIC						
Param						
02:	10	10	10	10	10	10
03:	15	15	15	15	15	15
04:	12	12	12	12	12	12
05:	0	0	15	0	0	4
06:	0	0	3	0	0	1
07:	0	0	0	0	0	0
09:	6	6	6	6	6	6
10:	5500	5500	5500	5500	5500	5500
11:	3500	3500	3500	3500	3500	3500
13:	1320	1320	1320	1320	1320	1320
15:	120	120	120	120	120	120
16:	2	2	4	4	4	4
17:	40	30	150	40	40	40
18:	20	30	0	20	20	20
19:	200	400	300	200	200	200
20:	40	30	150	40	40	40
21:	20	30	0	20	20	20
22:	200	400	300	200	200	200
23:	7	7	7	7	6	7
24:	10	10	10	10	10	10
25:	60	60	60	60	60	60
26:	5	5	5	5	3	5
#5 TYPE	N.Z.	ITALY	SPAIN	PORTUGAL	IRELAND	HONG KONG

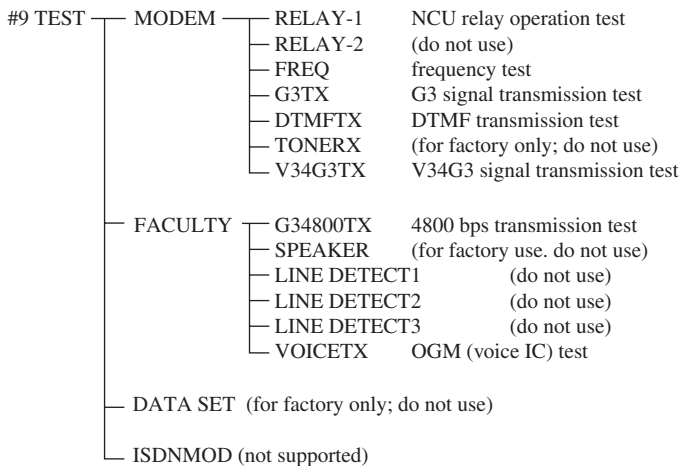
TYPE	MALASIA	HUNGARY	SAF	CHINA	GERMAN	FRANCE
#3 NUMERIC						
Param						
02:	10	10	10	10	10	10
03:	15	15	15	15	15	15
04:	12	12	12	12	6	12
05:	0	0	0	0	0	0
06:	0	0	0	0	0	0
07:	0	0	0	0	0	0
09:	6	6	6	6	6	6
10:	5500	5500	3500	4500	6000	14000
11:	3500	3500	3500	3500	3500	3800
13:	1320	1320	1320	1320	1320	1320
15:	120	120	120	120	120	120
16:	4	4	4	4	4	2
17:	100	100	40	100	40	30
18:	0	0	20	0	20	30
19:	400	400	200	400	200	400
20:	100	100	40	100	100	150
21:	0	0	20	0	0	0
22:	400	400	200	400	200	300
23:	7	7	7	7	9	6
24:	10	10	10	10	10	10
25:	60	60	60	60	60	60
26:	5	5	5	5	5	5
#5 TYPE	MALASIA	HUNGARY	SAF	CHINA	GERMAN	FRANCE

TYPE	SINGAPORE	CZECH	SLOVENIA	KOREA	CANADA
#3 NUMERIC					
Param					
02:	10	10	10	10	10
03:	15	15	15	15	15
04:	12	12	12	12	12
05:	0	0	0	4	4
06:	0	0	0	4	4
07:	0	0	0	0	0
09:	6	6	6	6	6
10:	5500	5500	5500	5500	5500
11:	3500	3500	3500	3500	3500
13:	1320	1320	1320	1320	1300
15:	120	120	120	120	120
16:	4	4	4	4	4
17:	100	100	100	40	100
18:	0	0	0	20	0
19:	400	400	400	200	200
20:	100	100	100	40	100
21:	0	0	0	20	0
22:	400	400	400	200	200
23:	7	7	7	6	4
24:	10	10	10	10	20
25:	60	60	60	60	60
26:	5	5	5	4	4
#5 TYPE	SINGAPORE	CZECH	SLOVENIA	KOREA	CANADA

10 Test Mode (#9 TEST)

Sssw	Menu	Num	Ncu	Type	ISDN	Print	Clear	Test	Report
<MODEM>					<READY>				
RELAY-1									
RELAY-2									
FREQ									
G3TX									
DTMFTX									
TONERX									
V34G3TX									
									

F05-1000-01



Using the Mode

- Press an item to highlight; then, press the OK key to bring up the respective Items screen.

10.1 MODEM Test

10.1.1 Relay Test

Use it to see if each of the relays on the NCU board goes ON/OFF.

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								
← → ▽ △ ↵ OK ↵									

F05-1001-01

Using the Mode

- 1) Select the relay to test from among the items indicated; then, use the Up/Down key to switch between ON and OFF.

Note that some of the relays indicated may not be mounted on the NCU.

10.1.2 Frequency Test (FREQ)

Press one of the times from those indicated in the following figure. As a result, the appropriate DC circuit will be closed, and the selected frequency will be transmitted using the tone transmission function of the modem. (The transmission signal may be monitored using the speaker). To stop the operation, press the  key, thereby suspending the ongoing test mode.

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

F05-1001-02



'RBT' above is yet to be supported.

10.1.3 G3 Signal Transmission Test (G3 Tx)

Press one of the items from those indicated in the folding figure. As a result, the DC circuit will be closed, and the selected frequency will be transmitted using the G3 signal transmission function from the modem. (The transmission signal may be monitored using the speaker.) To stop the operation, press the  key, thereby suspending the ongoing test mode.

Sssw	Menu	Num	Ncu	Type	ISDN	Print	Clear	Test	Report
<MODEM>		<G3TX>		<1/2>		<READY>			
300bps 2400bps 4800bps 7200bps 9600bps TC7200bps TC9600bps 12000bps									
← → ▽ △ ↵ OK ↵									

F05-1001-03

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 ↵									

F05-1001-04



'300-ALL0' through '300-4: 1' of the above items are yet to be supported.

10.1.4DTMF Transmission Test

Press one of the items from those indicated in the following figure. As a result, the DC circuit will be closed, and the transmitted DTMF signal will be transmitted Using the DTMF transmission function of the modem. (The transmission signal may be monitored using the speaker.) To stop the operation, press the  key, thereby suspending the ongoing test mode.

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 * #							
     									

F05-1001-05

Using the Mode

- 1) Select an item from those indicated on the screen, and press the key on the keypad corresponding to the DTMF signal to test.



'SHORT' in the above items is yet to be supported.

10.1.5V.34 G3 signal Transmission Test (V34G3Tx)

Select the transmission speed to test so as to select a modulation speed (baud rate). As a result, the V.34 G3 transmission signal will be transmitted to the telephone line terminal and the speaker.

To stop the operation, press the  key, thereby suspending the ongoing test mode.

Sssw	Menu	Num	Ncu	Type	ISDN	Print	Clear	Test	Report
<MODEM>		<V34G3TX>		<1/1>		<READY>			
SPEED		36600bps							
3429baud									
3200baud									
3000baud									
2800baud									
2743baud									
2400baud									
									
									

F05-1001-06

Using the Mode

- 1) Select [SPEED], and use the Up/Down key to select the speed to test.
- 2) Select the baud rate to test.

10.2 Function Test

10.2.1 4800bps Signal Transmission Test

The DC circuit will be closed, and a 4800bps signal will be transmitted using the 4800bps signal transmission function of the modem. (The transmission signal may be mounted using the speaker.)

To stop the operation, press the  key, thereby suspending the ongoing test mode.

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

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

G34800TX

←

→

▽

△

↵

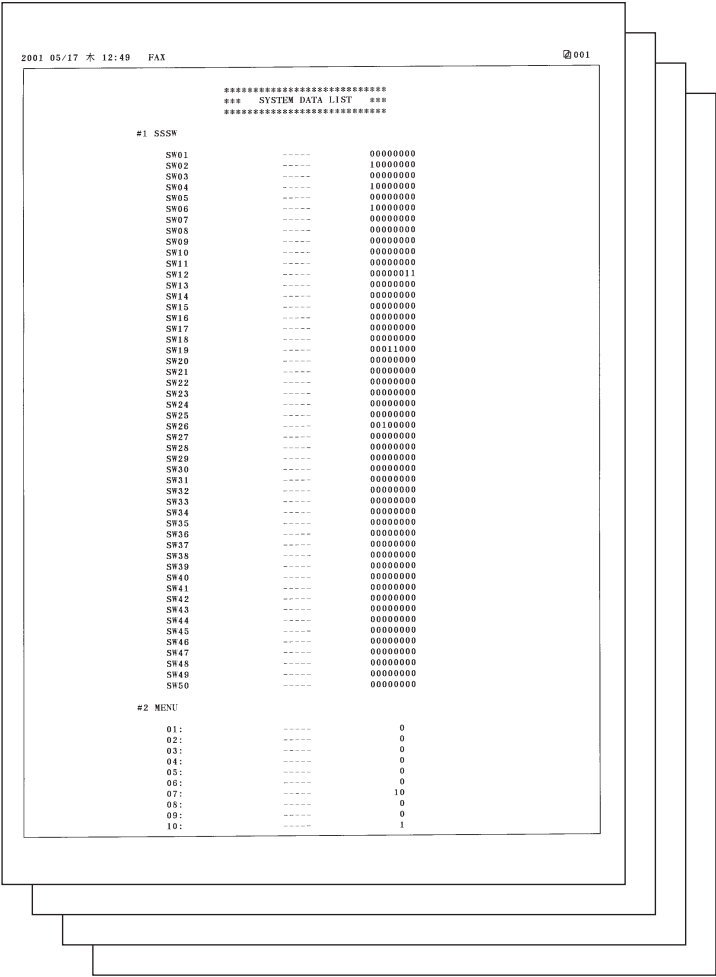
OK ↵

F05-1002-01

11 Service Report

11.1 System Data List

A system data list indicates the current settings of the service soft switches and service parameters.



F05-1101-01

Guide to Indication

##280	1	7	3	0	0
	number of	number of	number of		
	##280 errors	##281 errors	## 282 errors		

Indicate the most recent three communication errors:

2001 05/17 木 12:45 FAX 003

*1 — #1 LATEST ##755

*2 — START TIME 05/11 9:51

*3 — OTHER PARTY 32125

*4 — MAKER CODE 10001000

*5 — MACHINE CODE 01101110 00000000

RCV V.8 FRAME E0 81 85 D4 90 7E 00 00

SYMBOL RATE 3429 baud

DATA RATE 26400 bps [V.34]

TX LVL REDUCTION 0

ERR ABCODE 92

ERR SECTXB 8a

ERR SECKXB 80

*6 — RX : (bit 1) 00000100 01110111 01010001 00100011 00000001 10101011 11000001 (bit 56)

(bit 57) 00000001 00000001 00000100 00000000 00000000 (bit 96)

*7 — TX : (bit 1) 00000000 01000000 00011111 00100001 00000001 00000001 00000001 (bit 56)

(bit 57) 00000001 00000001 00000100 00000000 00000000 (bit 96)

*8 —	Rx : NSF CSI DIS	CFR	PPR
*8 —	Tx :	NSS DCS	PIX-264 PPS-MPS PIX-264 PPS-MPS PPS-MPS PPS-MPS DCN
	Rx :		
	Tx :		

#2 ##874

START TIME 05/14 15:16

OTHER PARTY 32125

MAKER CODE 00000000

DATA RATE

RX : (bit 1) 00000000 00000000 00000000 00000000 00000000 00000000 00000000 (bit 56)

(bit 57) 00000000 00000000 00000000 00000000 00000000 (bit 96)

TX : (bit 1) 00000000 00000000 00000000 00000000 00000000 00000000 00000000 (bit 56)

(bit 57) 00000000 00000000 00000000 00000000 00000000 (bit 96)

Rx :	
Tx :	

#3 OLDEST ##873

START TIME 05/14 19:30

OTHER PARTY

MAKER CODE 00000000

DATA RATE

RX : (bit 1) 00000000 00000000 00000000 00000000 00000000 00000000 00000000 (bit 56)

(bit 57) 00000000 00000000 00000000 00000000 00000000 (bit 96)

TX : (bit 1) 00000000 00000000 00000000 00000000 00000000 00000000 00000000 (bit 56)

(bit 57) 00000000 00000000 00000000 00000000 00000000 (bit 96)

Rx :	
Tx : DCN	

F05-1102-02

- *1: service error code.
- *2: STARTTIME: data and time (in 24-hour notation).
- *3: OTHER PARTY: telephone number sent by other party.
- *4: MAKER CODE: manufacturer code.
- *5: MACHINE CODE: mode code.
- *6: bit 1 through 96 of DIS, DCS, or DTC received.
- *7: bit 1 through 96 of DIS, DCS, or DTC transmitted.
- *8: RX for protocol signal received;
TX for protocol signal transmitted.

11.3 Error Transmission Report

The following report combines an error transmission report with service error codes and error dump list.

05/22/2001 TUE 09:18 FAX

001

*** ERROR TX REPORT ***

TX FUNCTION WAS NOT COMPLETED

JOB NO. 0132
DESTINATION ADDRESS 32126
PSWD/SUBADDRESS
DESTINATION ID
ST. TIME 05/22 09:17
USAGE T 00'51
PGS. 1
RESULT NG ##765

START TIME 05/22 9:17
OTHER PARTY 32126
MAKER CODE 10001000
MACHINE CODE 10101010 00000000
RCV V.8 FRAME E0 81 85 D4 90 7E 00 00
SYMBOL RATE 3429 baud
DATA RATE 24000 bps [V.34]
TX LVL REDUCTION 0
ERR ABCODE 92
ERR SECTXB 8a
ERR SECRXB 80

Rx : (bit 1) 00000100 01110011 01010101 00100011 00000001 10101011 11000001 (bit 56)
(bit 57) 00000001 00000001 00000100 00000000 00000000 (bit 96)
Tx : (bit 1) 00000000 01000000 00011111 00100001 00000001 00000001 00000001 (bit 56)
(bit 57) 00000001 00000001 00000100 00000000 00000000 (bit 96)

Rx :	NSF CSI DIS	CFR	PPR	PPR
Tx :	NSS DCS	PIX-240 PPS-EOP PPS-EOP	PIX-240 PPS-EOP PPS-EOP	
Rx :				
Tx :	PIX-240 PPS-EOP PPS-EOP PPS-EOP DCN			

F05-1103-01

CHAPTER 6

ERROR CODES

1 Generating Service Error Codes

When the Board is installed and bit 0 of service data #1 SSSW SW01 is set to '1', a service error code will be indicated on the following reports if a communication ends in error: communications control report, reception results report, and error transmission report. The display will also indicate the following in response to an error:

System Monitor>Fax>Details

The screenshot shows a window titled '[Details]' with a 'Print' button in the top right corner. The window contains a list of fax details:

■ Job Number	▷ 0001
■ Set Time	▷ 2001 05/11 11:11
■ Department ID	▷ -----
■ Destination	▷ 01234
■ Pages	▷ 4
■ Mode	▷ Send
■ Start Time	▷ 11:11
■ Status	▷ NG (##674)

Below the list, there is a 'Done' button with a right arrow and a 'Cancel' button with a left arrow.

F06-101-01

2 Outline of Error Codes

The major error codes indicated by the Board are listed under 1.2.3. For such information as on causes and remedies for other error codes, see the G3 Facsimile Error Code Service Handbook (Rev. 1; HY8-23A0-010).

The following is a table of remedies to provide in response to a service error code:

- **Increase the Transmission Level**
Set service data # 2 MENU parameter No. 07 to '-8' (dBm).
- **Decrease the Transmission Level**
Reset service data #2 MENU parameter No. 07 to '-15' (dBm).
- **Measures Against Echoing**
Change the following bits of service data #1 SSSW SW03 as follows:
 - bit 4 →1: ignore the first DIS signal from the other party.
 →0: do not ignore the first DIS signal from the other party.
 - bit 5 →1: transmit a tonal signal (1850 or 1650 Hz) in response to a DIS signal for the other party.
 →0: do not transmit a tonal signal (1850 or 1650 Hz) in response to a DIS signal from the other party.
 - bit 6 →1: if bit 5 is set to '1', transmit a tonal signal (1850 Hz).
 →0: if bit 5 is set to '1', transmit a tonal signal (1650 Hz).
 - bit 7 →1: transmit a tonal signal before sending a CED signal.
 →0: do not transmit a tonal signal before sending a CED signal.
- **EPT (Echo Protect Tone)**
Change bit 1 of service data #1 SSSW SW03.
 - bit 1 →1: transmit EPT.
 - 0: do not transmit EPT.
- **Adjust the NL equalizer.**
Set service data #2 MENU parameter No. 05 to 'ON'.
- **Decrease the transmission start speed.**
Lower the transmission start speed using the Communications setting (System setting).
- **Make TCF evaluation standard lenient.**
The Board does not provide this remedy.
- **Make RTN transmission conditions lenient.**
Change service data #3 NUMERIC Param. parameters No. 02 through No. 04.
 - No. 02 Error rate for tonal lines: use setting closer to 99%
 - No. 03 Number of lines for burst: use setting closer to 99 lines.
 - No. 04 Number of errors not reaching the number of lines for burst: use setting closer to 99.
- **Make the no-sound period after CFR reception longer.**
Set service data #1 SSSW SW04 bit 4 to '1'.
 - Bit 4 →1: after CFR transmission, ignore low-speed signal for 1500 msec.
 - 0: after CFR transmission, ignore low-speed signal for 700 msec.

3 List of Error Codes

Those error codes newly added with the Board are indicated by the notation “New.”

- User Error Code

No.	T/R	Description
#001	T	original jam
#003	T/R	single page copy or transit/receive time-out
#005	T/R	initial identification time (T0/T1) time-out
#008	R	recording paper jam/recording paper absent
#009	R	recording paper jam/recording paper absent
#011	R	recording paper absent at other party
#012	T	other party out of paper
#018	T/R	auto calling error
#021	R	at time of polling, DCN received
#022	T	calling fault
#037	R	at time of reception, image memory overflow
#052	R	toner absent and image memory overflow
#080	T	other party not equipped with F code reception function/setting
#081	T	other party not equipped with password reception function/setting
#082	R	other party not equipped with selective polling function/setting
#083	R	at time of polling, F code/password setting absent
#084	R	In polling reception, other party does not have password reception.
#099	T/R	during communication, stop key pressed
#102	T/R	F code/password mismatch
#107	R	direct transmission error
#995	T/R	memory communication reservation cancel

• Service Error Codes

No.	T/R	Description
##100	T	Excessive Repeat Protocol during
##101	T/R	Modem Speed Different from Other Party
##102	T	Fall Back Failure during Transmission
##103	R	Fail to Detect EOL for 5 Seconds (15 seconds for CBT) during Reception
##104	T	RTN or PIN Received during Transmission
##106	R	Fail to Receive Protocol for 6 Seconds when Waiting for Protocol during Reception
##107	R	Fall Back Failure on Transmission Side during Reception
##109	T	Receive Signals Other than DIS, DTC, FTT, CFR or CRP after DCS Transmission and Exceed the Number of Protocol retransmissions during Transmission
##111	T/R	Memory Error
##114	R	RTN Transmission during Reception
##200	R	Fail to Detect Picture Reception Carrier for 5 Seconds during Reception
##201	T/R	DCN Reception Other than Normal Binary Protocol
##204	T	Receive DTC without Transmission Data In Direct Tx, CEP 2, Receive DIS after Image Transmission without Transmission Data
##220	T/R	System Error (main Program runaway)
##224	T/R	Receive DCN in response to DTC/DIS Fail Polling Reception Abnormal Protocol during G3 Communication
##226	T/R	Stack Pointer Not within RAM Range
##229	R	Recording Unit Locked for 1 Minute
##238	R	PRINT Control Unit Malfunction
##261	T/R	System Error Between Modem and SCNT
##280	T	Excessive Repeat Protocol Command during Transmission
##281	T	Excessive Repeat Protocol Command during Transmission
##282	T	Excessive Repeat Protocol during Transmission
##283	T	Excessive Repeat Protocol during Transmission
##284	T	DCN Reception after TCF Transmission
##285	T	DCN Reception after EOP Transmission
##286	T	DCN Reception after EOM Transmission
##287	T	DCN Reception after MPS Transmission
##288	T	Receive Signals Other than PIN, PIP, MCF, RTP or RTN after EOP Transmission
##289	T	Receive Signals Other than PIN, PIP, MCF, RTP or RTN after EOM Transmission
##290	T	Receive Signals Other than PIN, PIP, MCF, RTP or RTN after MPS transmission
NEW##670	T	at time of V.8 late start, V.8 ability of DIS from receiving party i detected for CI signal transmission; procedure fails, causing T1 time-out and releasing line

No.	T/R	Description
NEW##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
NEW##672	T	at time of V.34 transmission, procedure fails to move from phase 2 to phase 3, causing T1 time-out and releasing line
NEW##673	R	at time of V.34 reception, procedure fails to move from phase 2 to phase 3, causing T1-time-out and releasing line
NEW##674	T	at time of V.34 transmission, procedure fails to move from phase 3 or phase 4 to control channel, causing T1 time-out and releasing line
NEW##675	R	at time of V.34 reception, procedure fails to move from phase 3 or phase 4 to control channel, causing T1 time-out and releasing line
##750	T	Exceed Repeat Protocol Due to Failure to Receive Significant Signals after Transmitting PPS-NULL during ECM Transmission
##752	T	Receive DCN after PPS-NULL Transmission During ECM Transmission
##753	T	Exceed Protocol Retransmission Limit or T5 Time (60 seconds) after PPS-NULL transmission during ECM Transmission
##754	T	Exceed Retransmit Protocol after PPS-NULL Transmission during ECM Transmission
##755	T	Exceed Protocol Retransmission Limit Due to Failure to Receive Significant Signals after PPS-MPS Transmission during ECM Transmission re-transmissions
##757	T	Receive DCN after PPS-MPS transmission during ECM Transmission
##758	T	Exceed Protocol Retransmission Limit or T5 Time (60 seconds) after PPS-MPS Transmission during ECM Transmission
##759	T	Exceed Retransmit Protocol after PPS-MPS Transmission during ECM Transmission
##760	T	Exceed Protocol Retransmission Limit Due to Failure to Receive Significant Signals after PPS-EOM Transmission during ECM Transmission
##762	T	Receive DCN after PPS-EOM Transmission during ECM Transmission
##763	T	Exceed protocol Retransmission Limit or T5 Time (60 Seconds) after PPS-MPS Transmission during ECM Transmission
##764	T	Exceed Retransmit Protocol after PPS-EOM Transmission during ECM Transmission
##765	T	Exceed Protocol Retransmission Limit Due to Failure to Receive Significant Signals after PPS-EOP Transmission during ECM Transmission
##767	T	Receive DCN after PPS-EOP Transmission during ECM Transmission

No.	T/R	Description
##768	T	Exceed Protocol Retransmission Limit or T5 Time (60 Seconds) after PPS-EOP Transmission during ECM Transmission
##769	T	Exceed Retransmit Protocol after PPS-EOP Transmission during ECM Transmission
##770	T	Exceed Repeat Protocol Limit Due to Failure to Receive Significant Signals after Transmitting EOR-NULL during ECM Transmission
##772	T	Receive DCN after EOR-NULL Transmission during ECM Transmission
##773	T	Exceed protocol Retransmission limit or T5 Time (60 seconds) after EOR-NULL Transmission during ECM Transmission
##774	T	Receive ERR after EOR-NULL Transmission during ECM Transmission
##775	T	Exceed Protocol Retransmission Limit Due to Failure to Receive Significant Signals after EOR-MPS Transmission during ECM Transmission
##777	T	Receive DCN after EOR-MPS Transmission during ECM Transmission
##778	T	Exceed Protocol Retransmission Limit or T5 Time (60 seconds) after EOR-EPS Transmission during ECM Transmission
##779	T	Receive ERR after EOR-MPS Transmission during ECM Transmission
##780	T	Exceed Protocol Retransmission Limit Due to Failure to Receive Significant Signals after EOR-EOM transmission during ECM Transmission
##782	T	Receive DCN after EOR-EOM Transmission during ECM Transmission
##783	T	Exceed Protocol Retransmission Limit or T5 Time (60 seconds) after EOR-EOM Transmission during ECM Transmission
##784	T	Receive ERR after EOR-EOM Transmission during ECM Transmission
##785	T	Exceed Protocol Retransmission Limit Due to Failure to Receive Significant Signals after EOR-EOP Transmission during ECM Transmission
##787	T	Receive DCN after EOR-EOP Transmission during ECM Transmission
##788	T	Exceed Protocol Retransmission Limit or T5 Time (60 seconds) after EOR-EOP Transmission during ECM Transmission
##789	T	Receive ERR after EOR-EOP Transmission during ECM Transmission
##790	R	Transmit ERR after EOR-Q Reception during ECM Reception

No.	T/R	Description
##791	T/R	Receive Non-Significant Signals during ECM Mode Procedures
##792	R	Fail to Detect PPS-NULL between Partial Pages during ECM Reception
##793	R	Time Over Due to Failure to Receive Valid Frame during High Speed Signal Reception upon ECM Reception
##794	T	Receive All 0 PPR during ECM Transmission
##795	T/R	Trouble in the decoding processing during communication
##796	T/R	An error occurred during the course of decoding processing in communication

4 Causes of and Remedies for Newly Added Error Codes

The following is a table of causes of and remedies against error codes that have been added newly with the Board:

#670 (transmission)		At time of V.8 late start, the receiving party detects the DIS V.8 ability before transmitting the CI signal; however, this procedure fails, causing a T1 time-out and releasing the line.
Cause:	When the CI signal is transmitted, the line on the receiving party is cut or the ANSam/DIS of the receiving party cannot be detected.	
Remedy:	Use service data #1 SSSW SW28 bit 0 to prohibit the V.8/V.34 procedure of the caller. Use service data #2 MENU No. 07 to increase the transmission level within the range between -8 and -15 dBm.	
#671 (reception)		When V.8 arrives, the procedure fails to move to phase 2 after detecting the CM signal, causing a T1 time-out and releasing the line.
Cause:	In phase 1, the line of the caller is cut or the signal of the caller cannot be detected.	
Remedy:	Use service data 31 SSSW SW28 bit 1 to prohibit the V.8/V.34 procedure of the caller. Use service data #2 MENU No. 07 to increase the transmission level within the range between -8 and -15 dBm.	
#672 (transmission)		At time of V.34 transmission, the procedure fails to move from phase 2 to phase 3, causing a T1 time-out and releasing the line.
Cause:	In phase 2, the line of the receiving party is cut or the signal of the receiving party cannot be detected.	
Remedy:	Use service data #1 SSSW SW28 bit 0 to prohibit the V.8/V.34 procedure of the caller. Use service data #2 MENU No. 07 to increase the transmission level within the range between -8 and -15 dBm.	
#673 (reception)		At time of V.34 reception, the procedure fails to move from phase 2 to phase 3, causing a T1 time-out and releasing the line.
Cause:	In phase 2, the line of the transmitting party is cut or the signal of the transmitting side cannot be detected.	
Remedy:	Use service data #1 SSSW SW28 bit 1 to prohibit the V.8/V.34 procedure. Use service data #2 MENU No. 07 to increase the transmission level in the range between -8 and -15 dBm.	

##674 (transmission) At time of V.34 transmission, the procedure fails to move from phase 3 or phase 4 to control channel, causing a T1 time-out and releasing the line.

Cause: In phase 3 or phase 4, the line of the receiving side is cut or the signal of the receiving side cannot be detected.

Remedy: Use service data #1 SSSW SW28 bit 0 to prohibit the V.8/V.34 procedure of the caller.
 Use service data #2 MENU No. 07 to increase the transmission level within the range between -8 and -15 dBm.

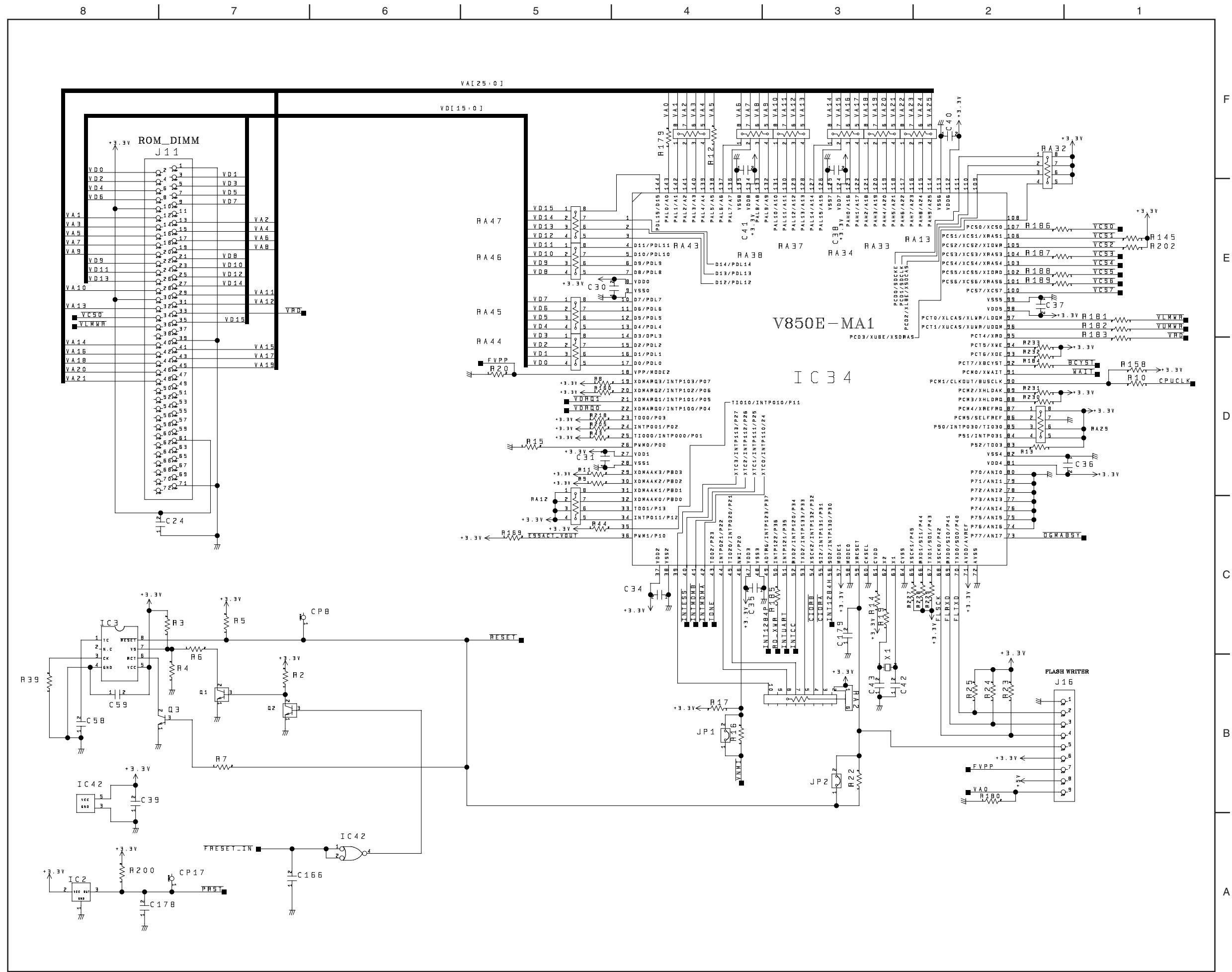
##675 (reception) At time of V.4 reception, the procedure fails to move from phase 3 or phase 4 to control channel, causing a T1 time-out and releasing the line.

Cause: In phase 3 or phase 4, the line of the transmitting side is cut or the signal of the transmitting side cannot be detected.

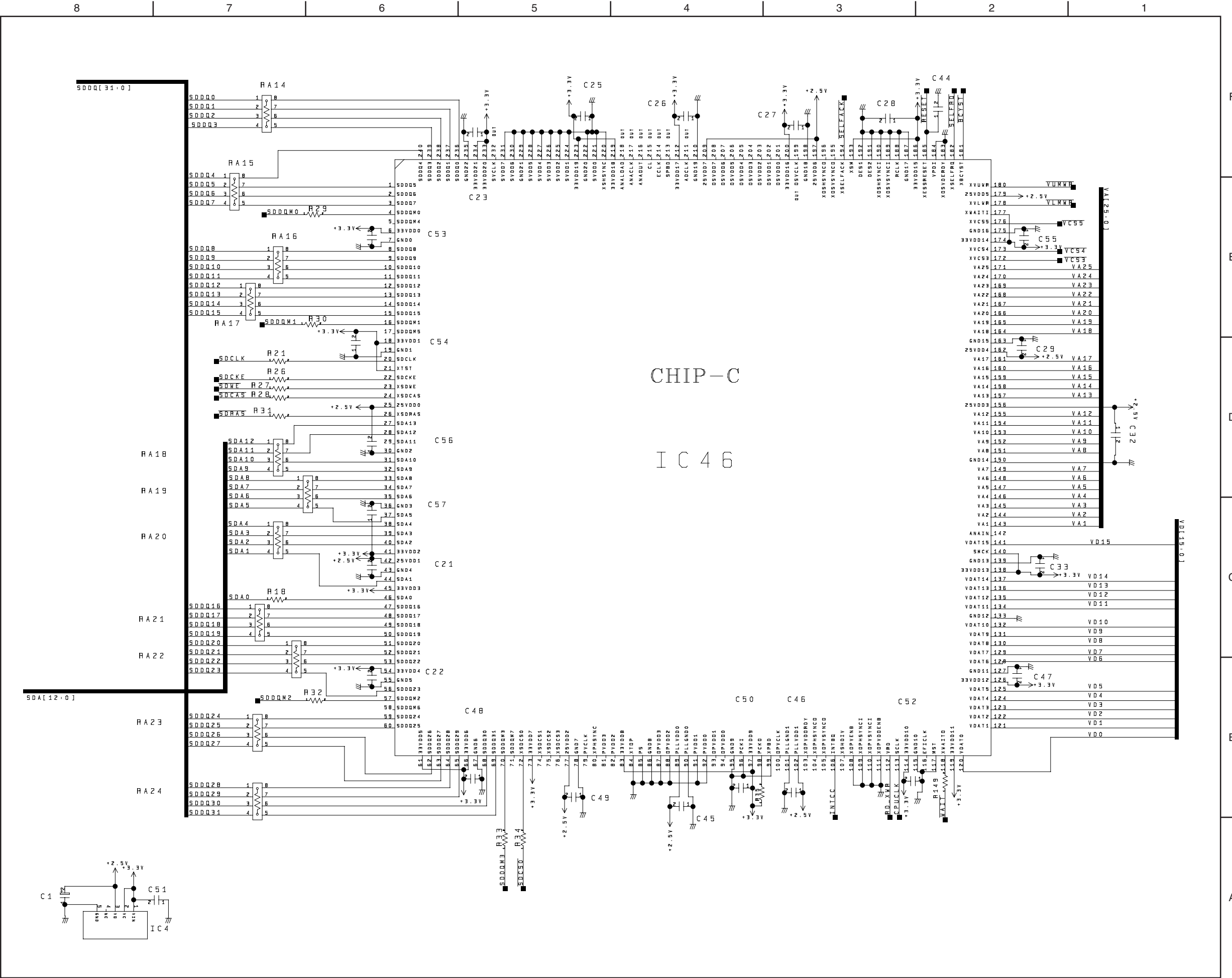
Remedy: Use service data #1 SSSW SW28 bit 1 to prohibit the V.8/V.34 procedure of the caller.
 Use service data #2 MENU No. 07 to increase the transmission level in the range between -8 and -15 dBm.

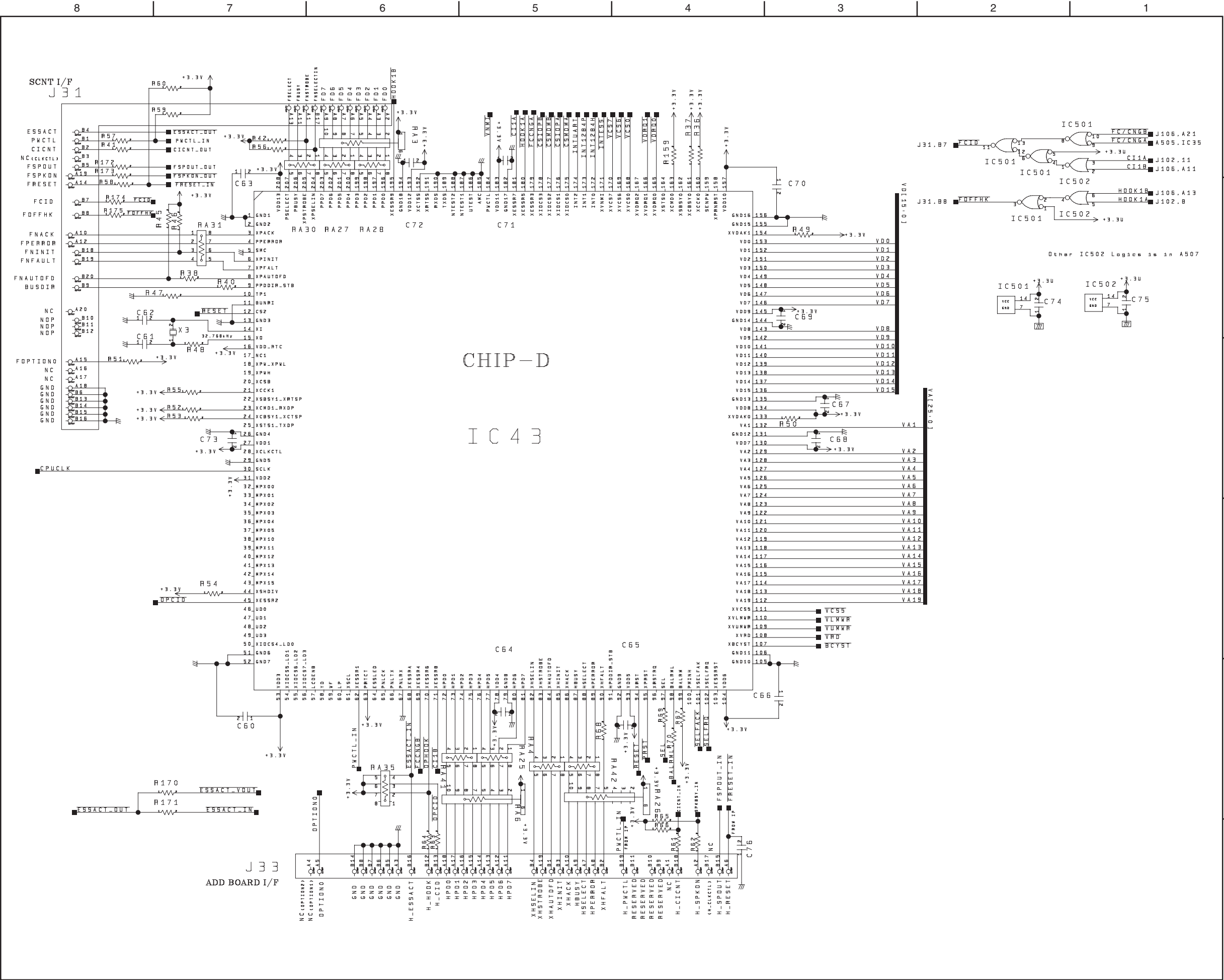
APPENDIX

1.1 G3 FAX CONTROL PCB (120V/220V/240V)(1/8)

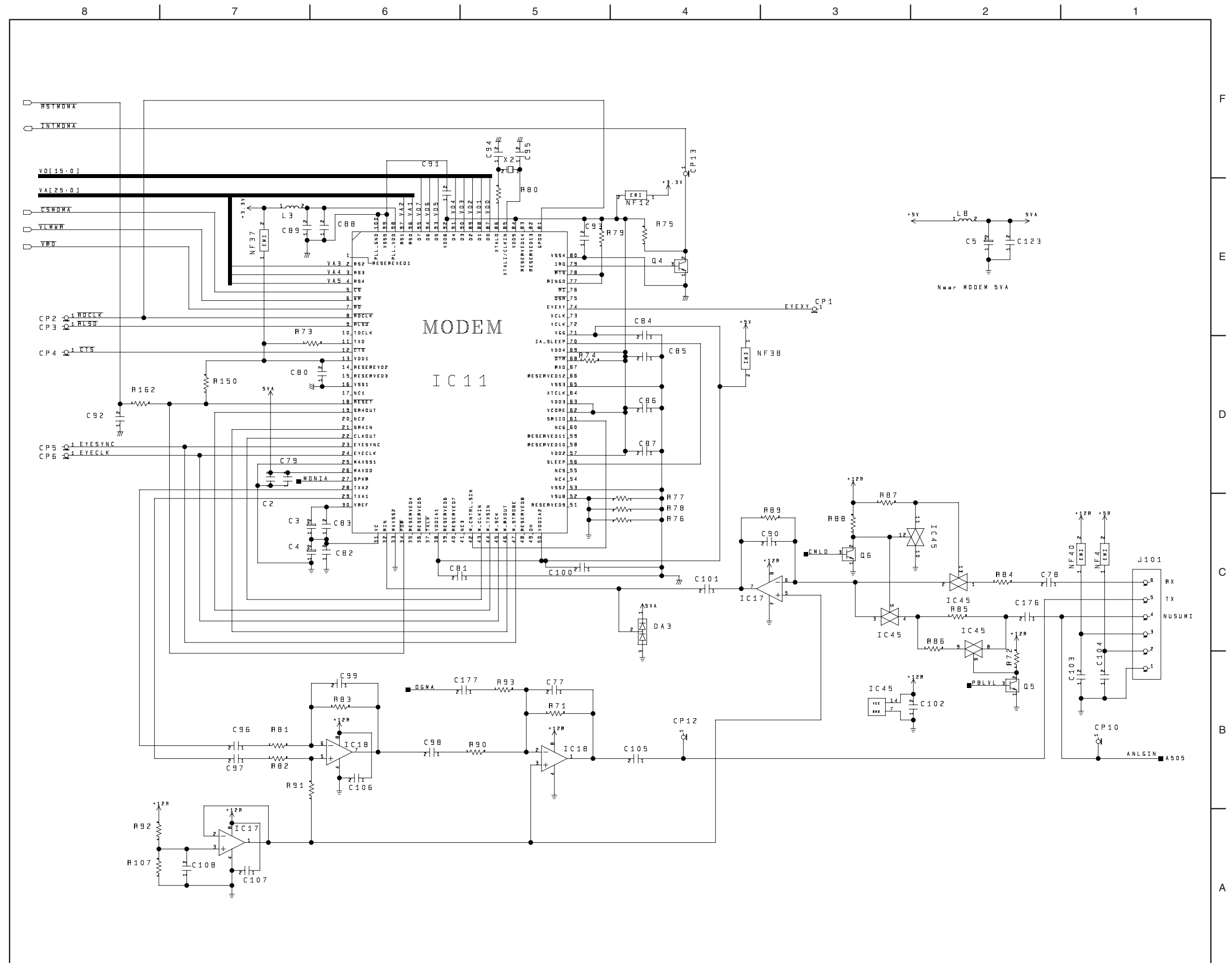


G3 FAX CONTROL PCB (120V/220V/240V) (2/8)

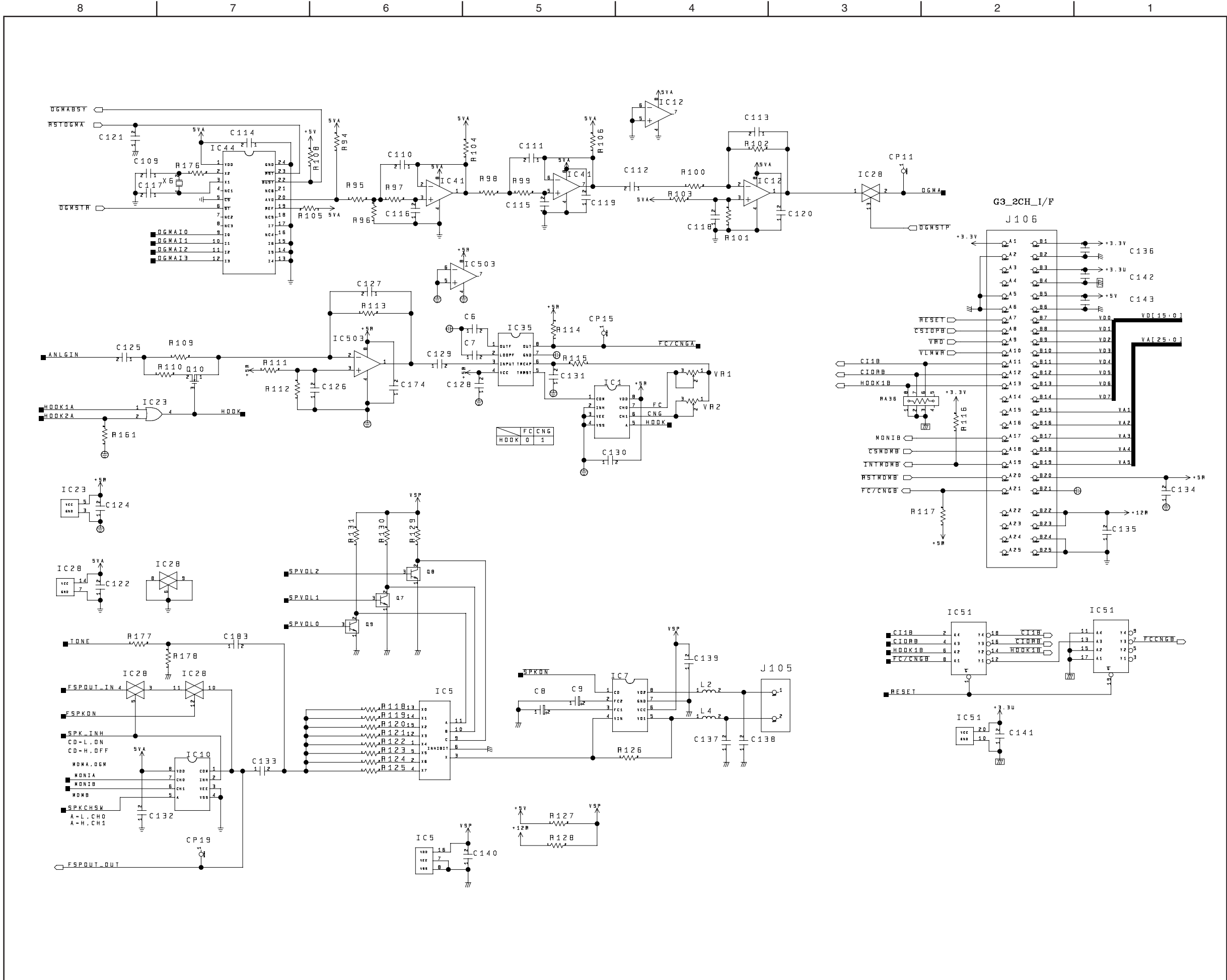




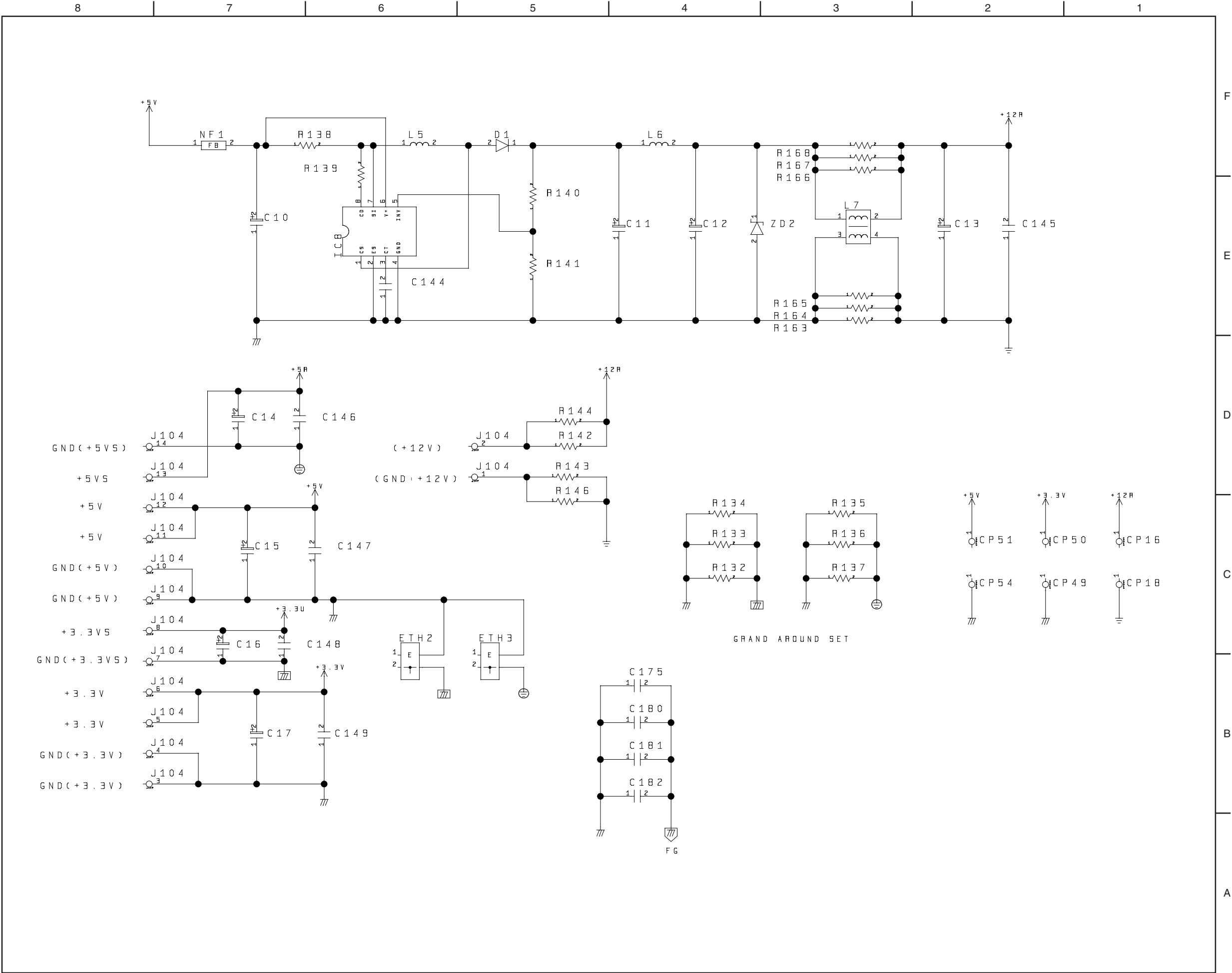
G3 FAX CONTROL PCB (120V/220V/240V)(4/8)

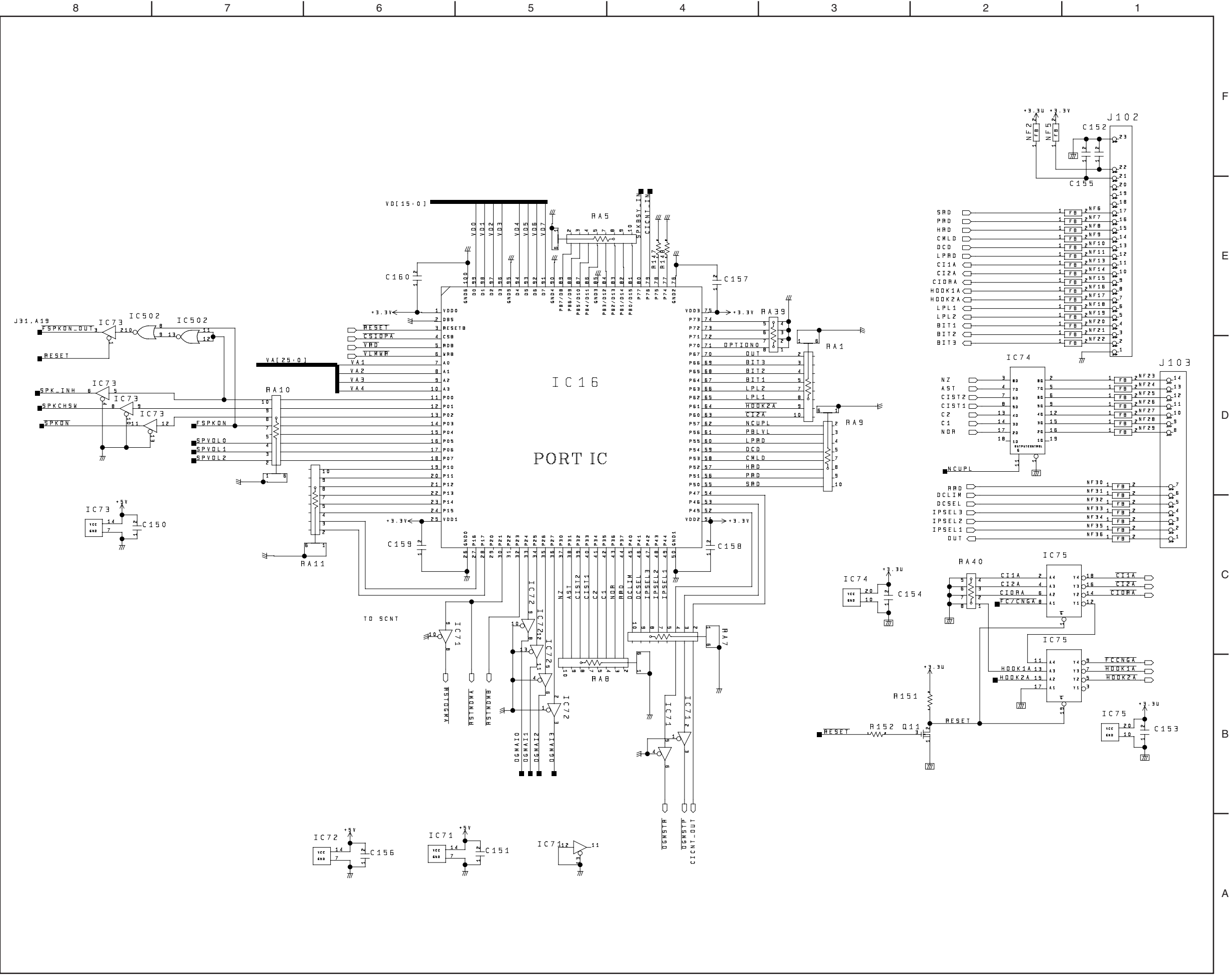


G3 FAX CONTROL PCB (120V/220V/240V) (5/8)

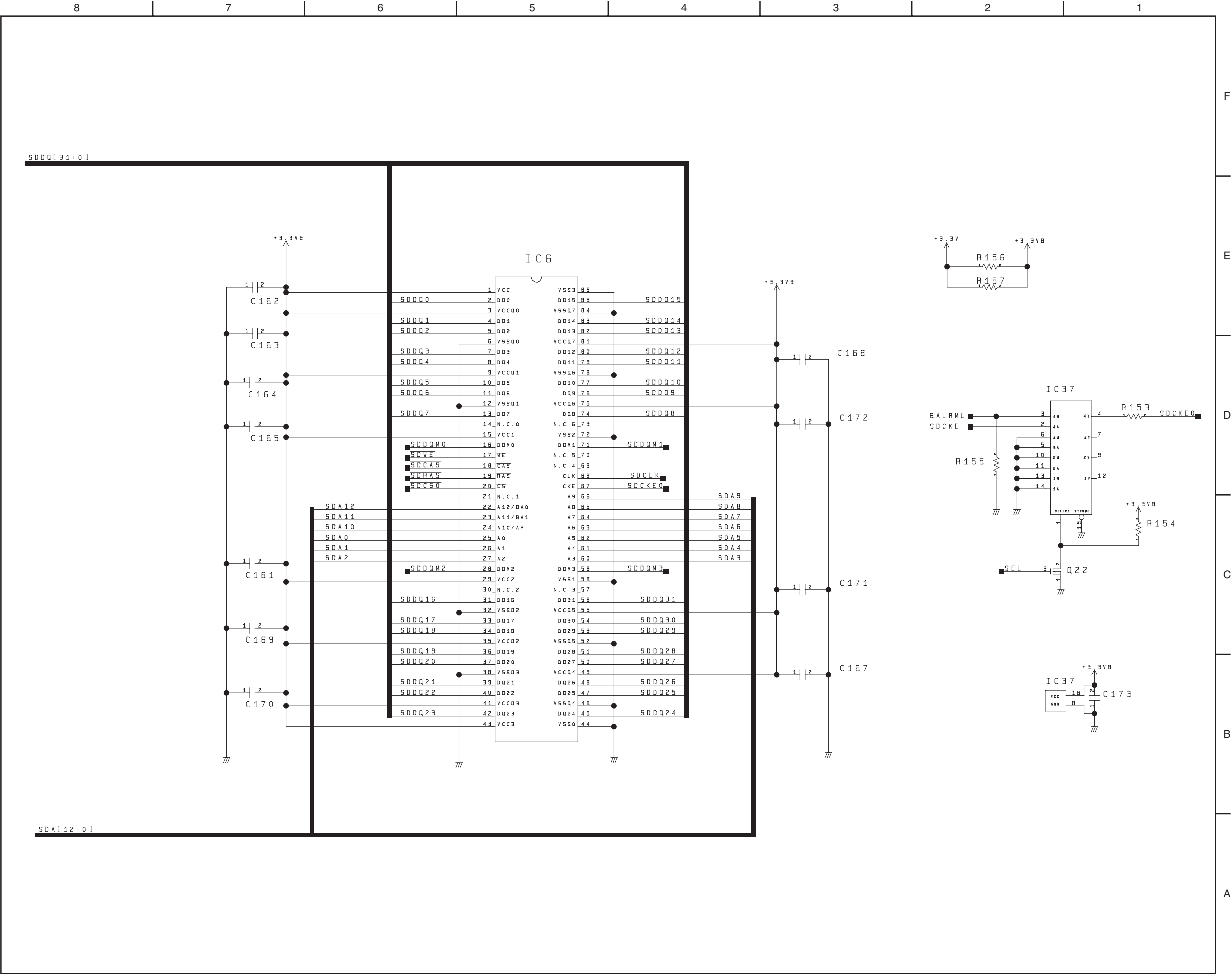


G3 FAX CONTROL PCB (120V/220V/240V)(6/8)

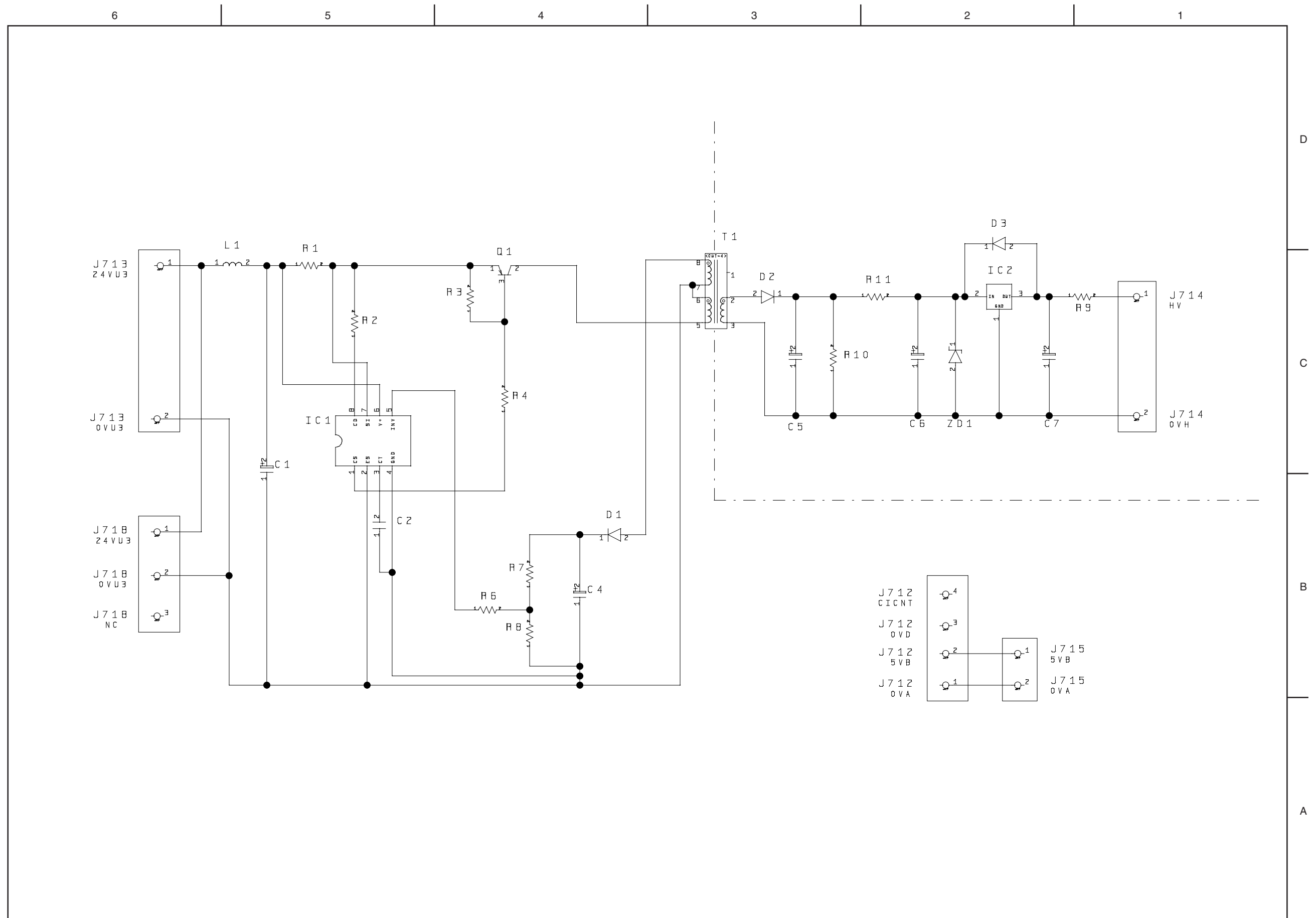




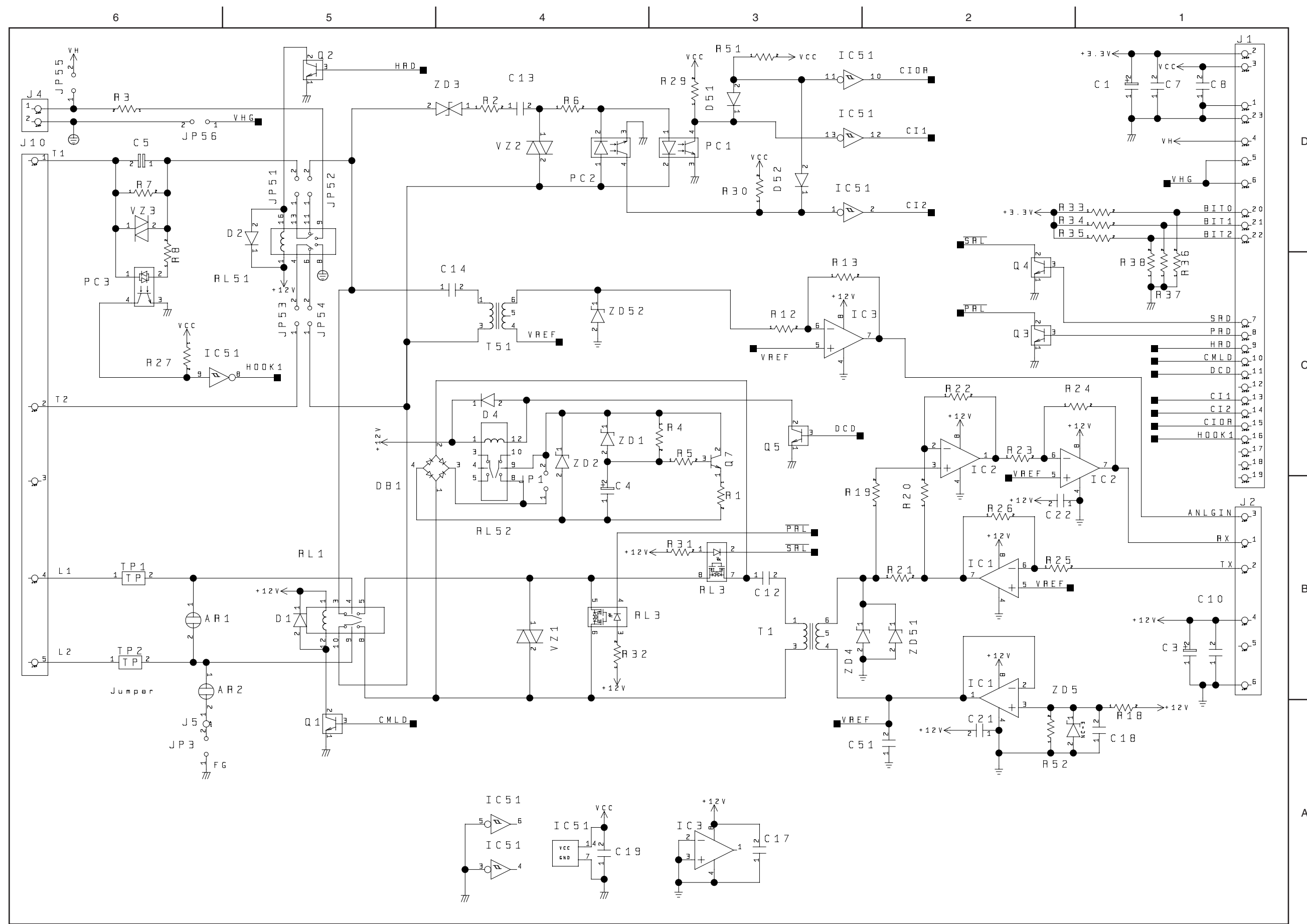
G3 FAX CONTROL PCB (120V/220V/240V) (8/8)



1.2 OFF-HOOK DETECTION PCB (120V/220V/240V)

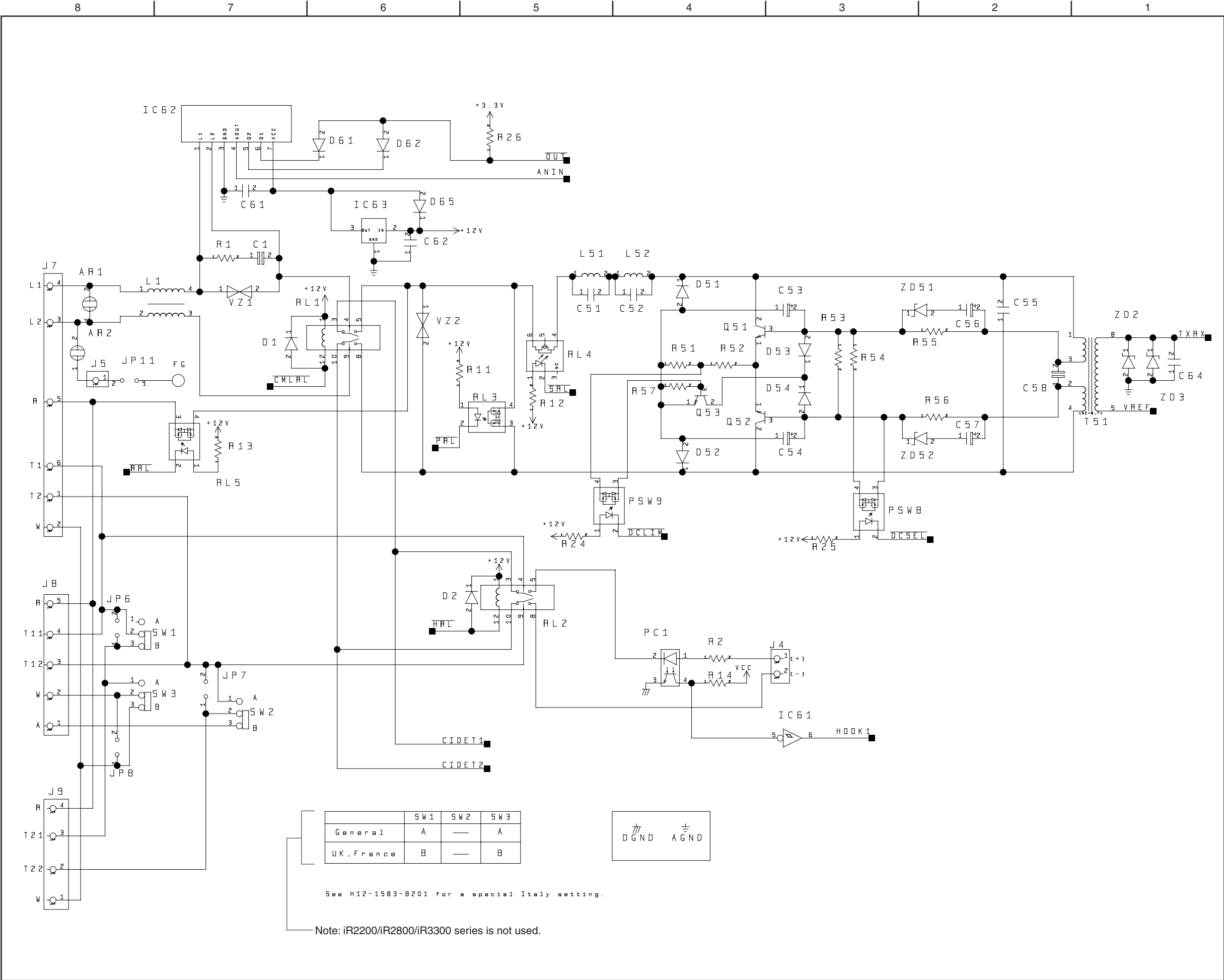


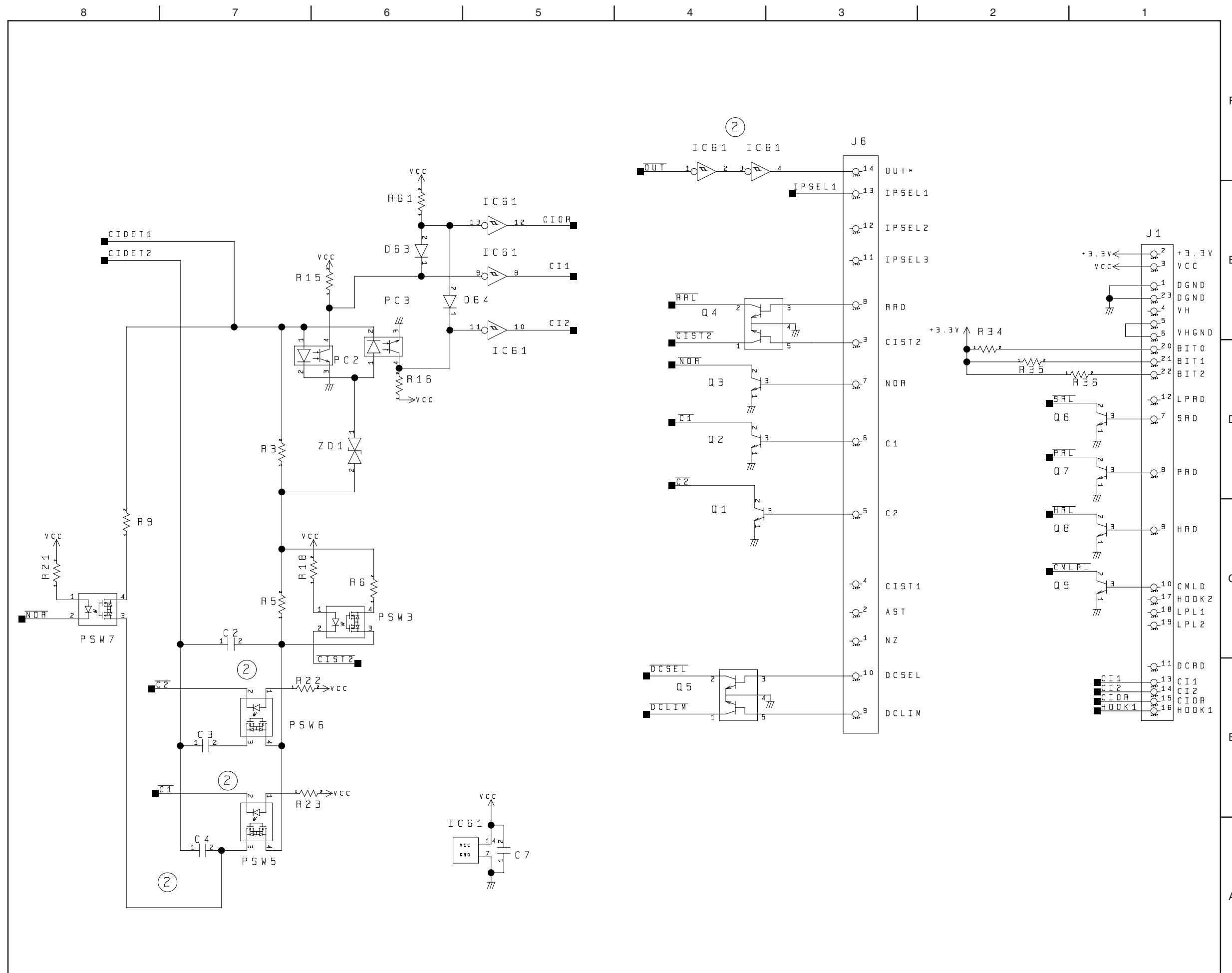
1.3 NCU PCB (USA) (1/2)

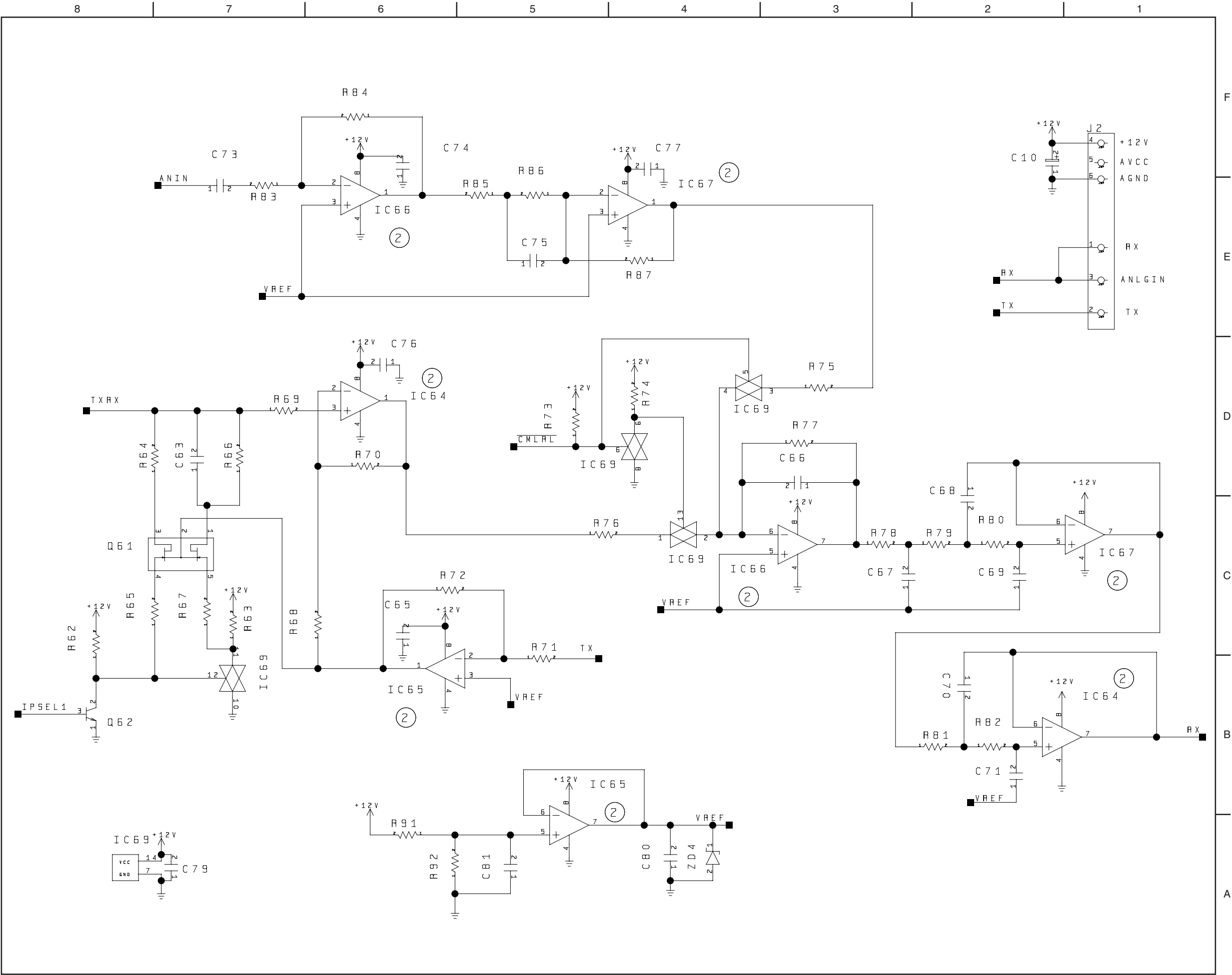


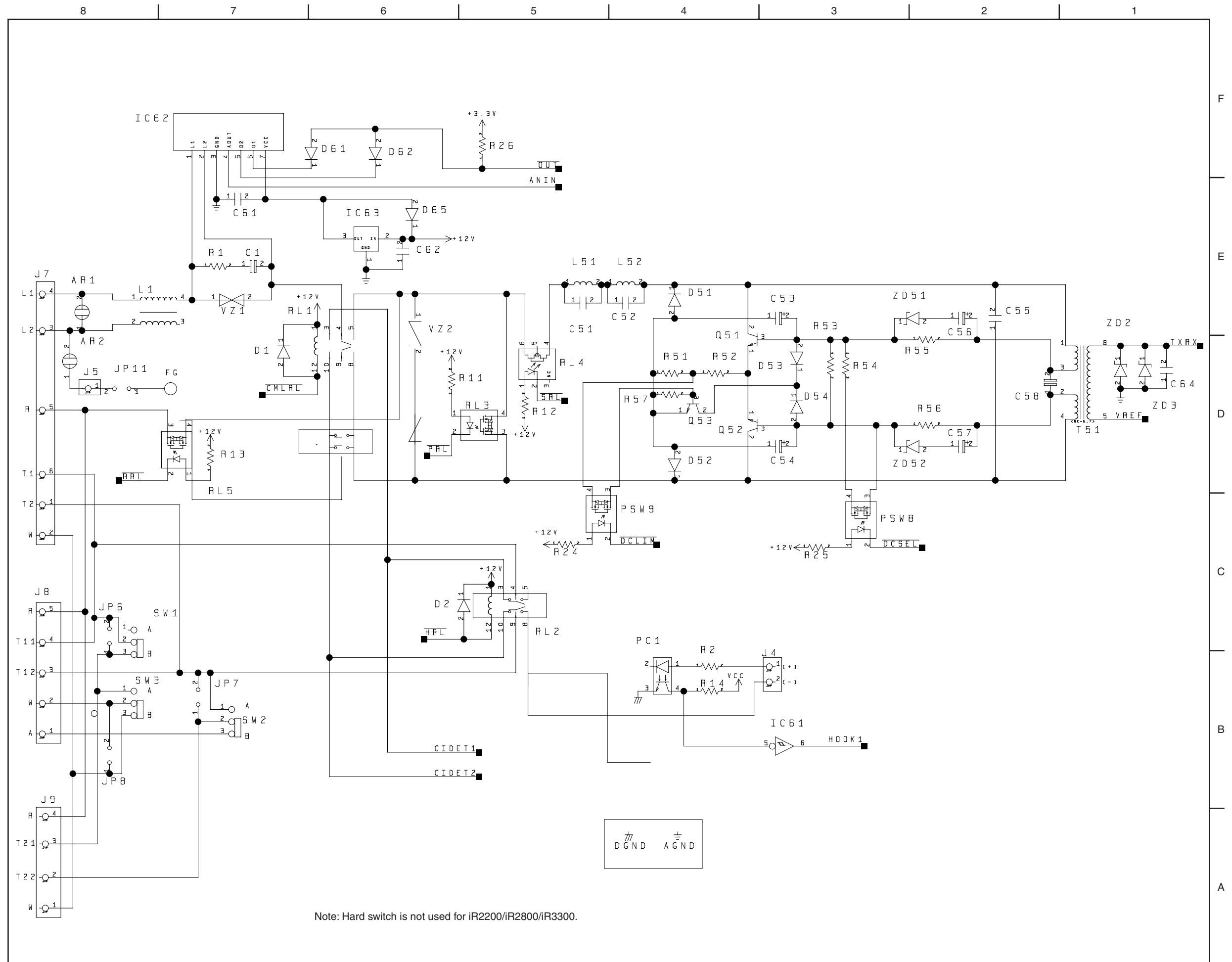
6	5	4	3	2	1
J U 1 1-0 0-2	J U 1 1 1-0 0-2	J U 2 1 1-0 0-2	J U 3 1 1-0 0-2	J P 1 0 1 1-0 0-2	D
J U 2 1-0 0-2	J U 1 2 1-0 0-2	J U 2 2 1-0 0-2	J U 3 2 1-0 0-2	J P 1 0 2 1-0 0-2	
J U 3 1-0 0-2	J U 1 3 1-0 0-2	J U 2 3 1-0 0-2	J U 3 3 1-0 0-2	J P 1 0 3 1-0 0-2	
J U 4 1-0 0-2	J U 1 4 1-0 0-2	J U 2 4 1-0 0-2	J U 3 4 1-0 0-2	J P 1 0 4 1-0 0-2	
J U 5 1-0 0-2	J U 1 5 1-0 0-2	J U 2 5 1-0 0-2	J U 3 5 1-0 0-2		C
J U 6 1-0 0-2	J U 1 6 1-0 0-2	J U 2 6 1-0 0-2	J U 3 6 1-0 0-2		
J U 7 1-0 0-2	J U 1 7 1-0 0-2	J U 2 7 1-0 0-2	J U 3 7 1-0 0-2		
J U 8 1-0 0-2	J U 1 8 1-0 0-2	J U 2 8 1-0 0-2	J U 3 8 1-0 0-2		
J U 9 1-0 0-2	J U 1 9 1-0 0-2	J U 2 9 1-0 0-2	J U 3 9 1-0 0-2		B
J U 1 0 1-0 0-2	J U 2 0 1-0 0-2	J U 3 0 1-0 0-2	J U 4 0 1-0 0-2		
					A

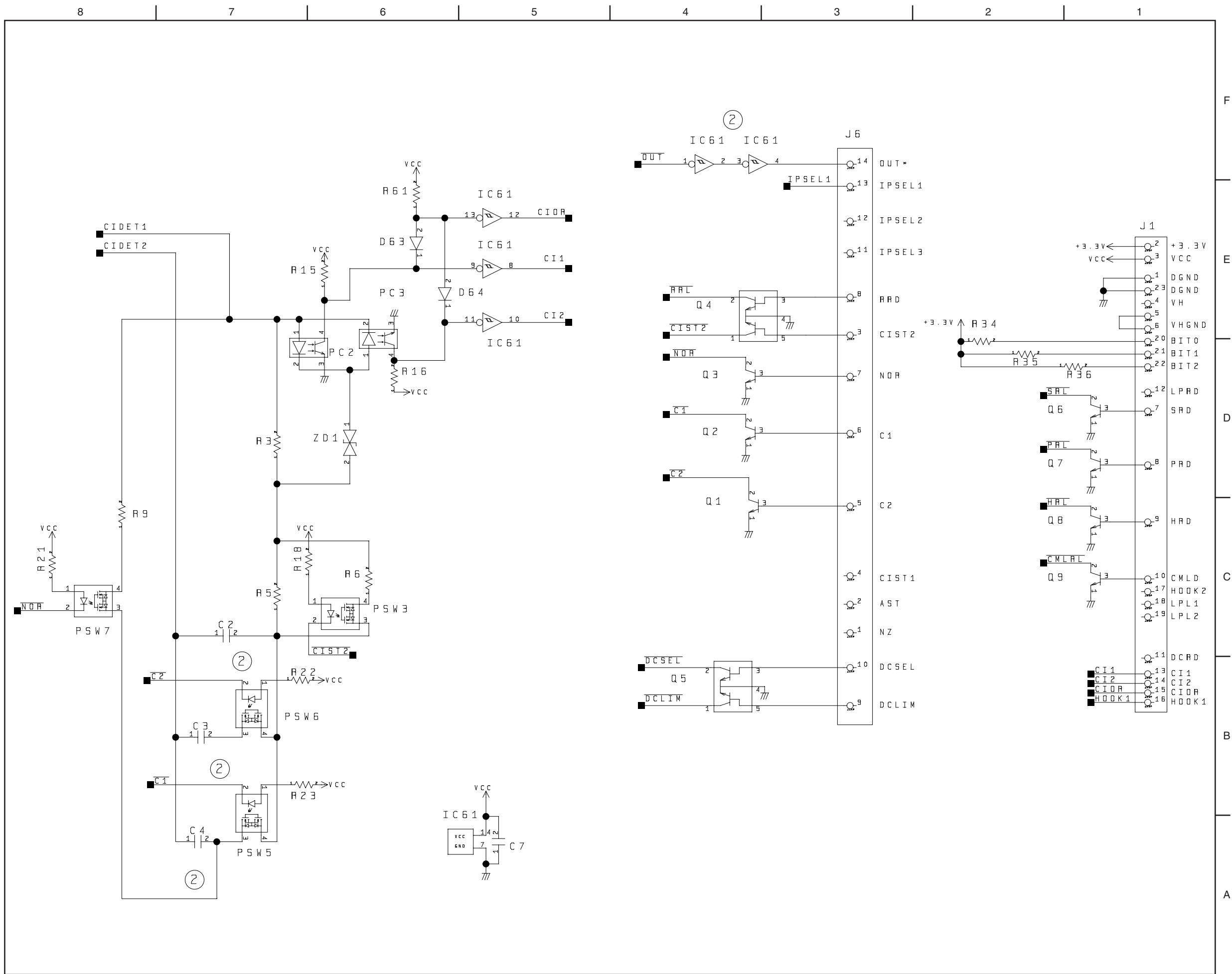
1.4 NCU PCB (EU) (1/3)

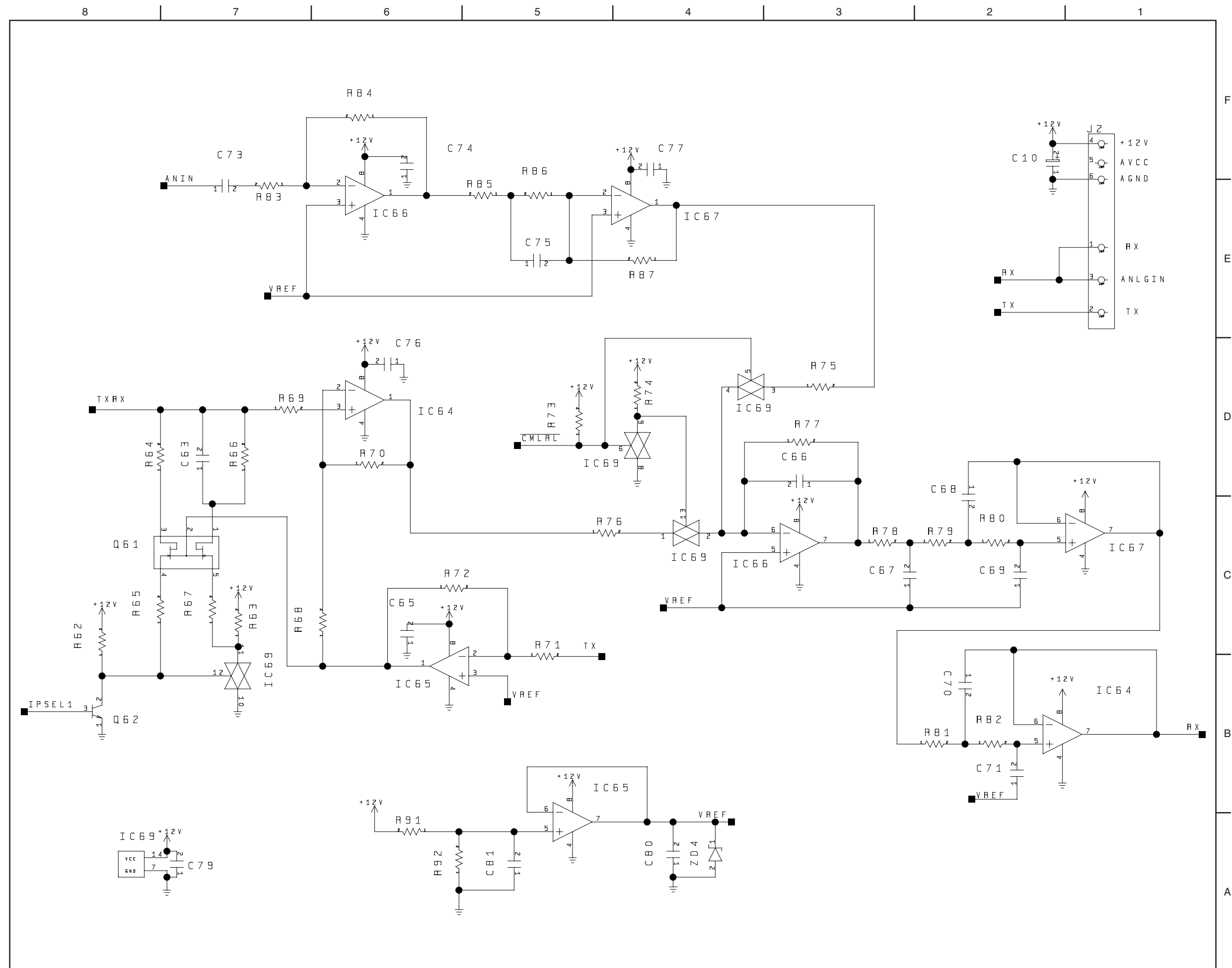






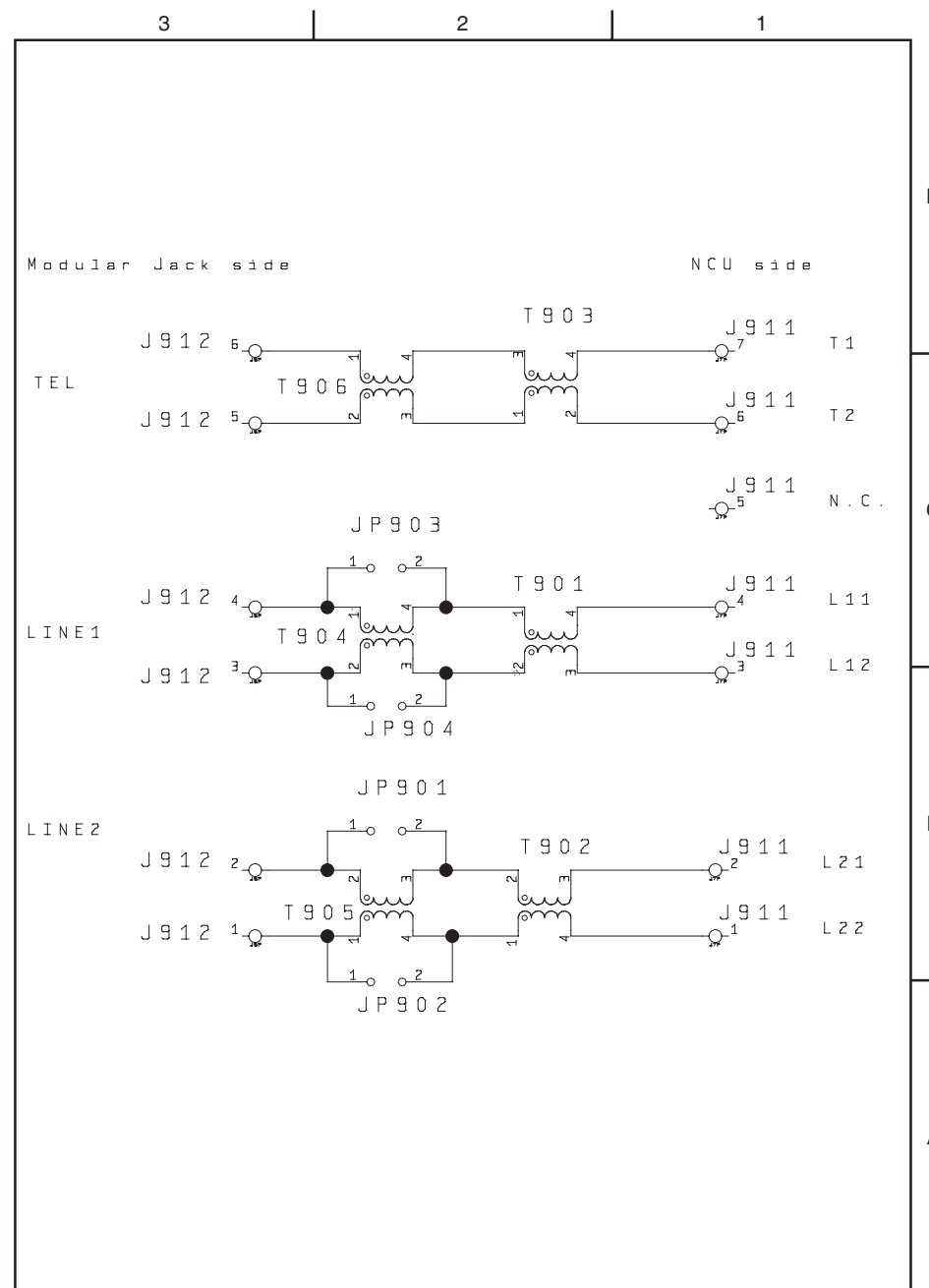




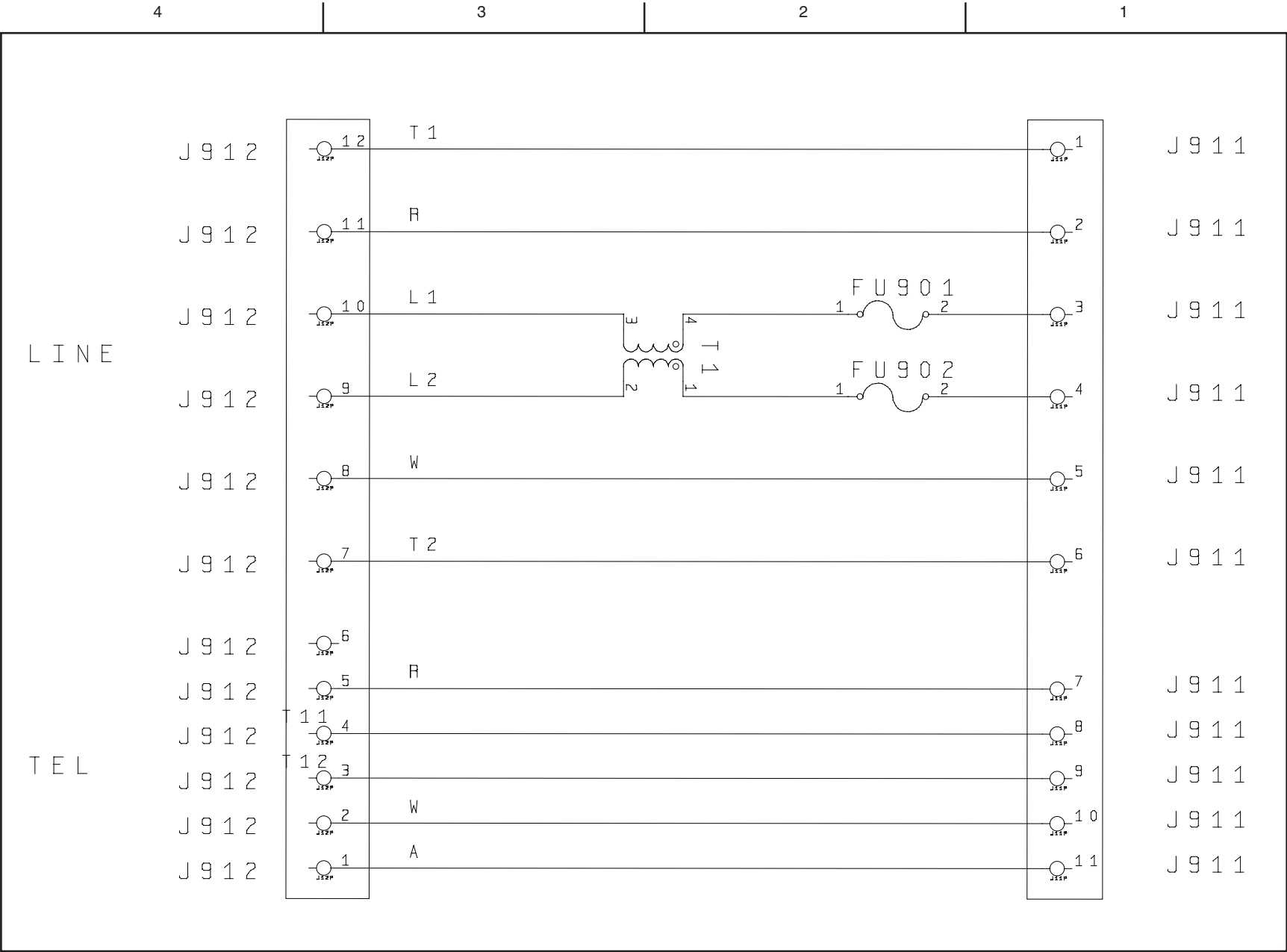


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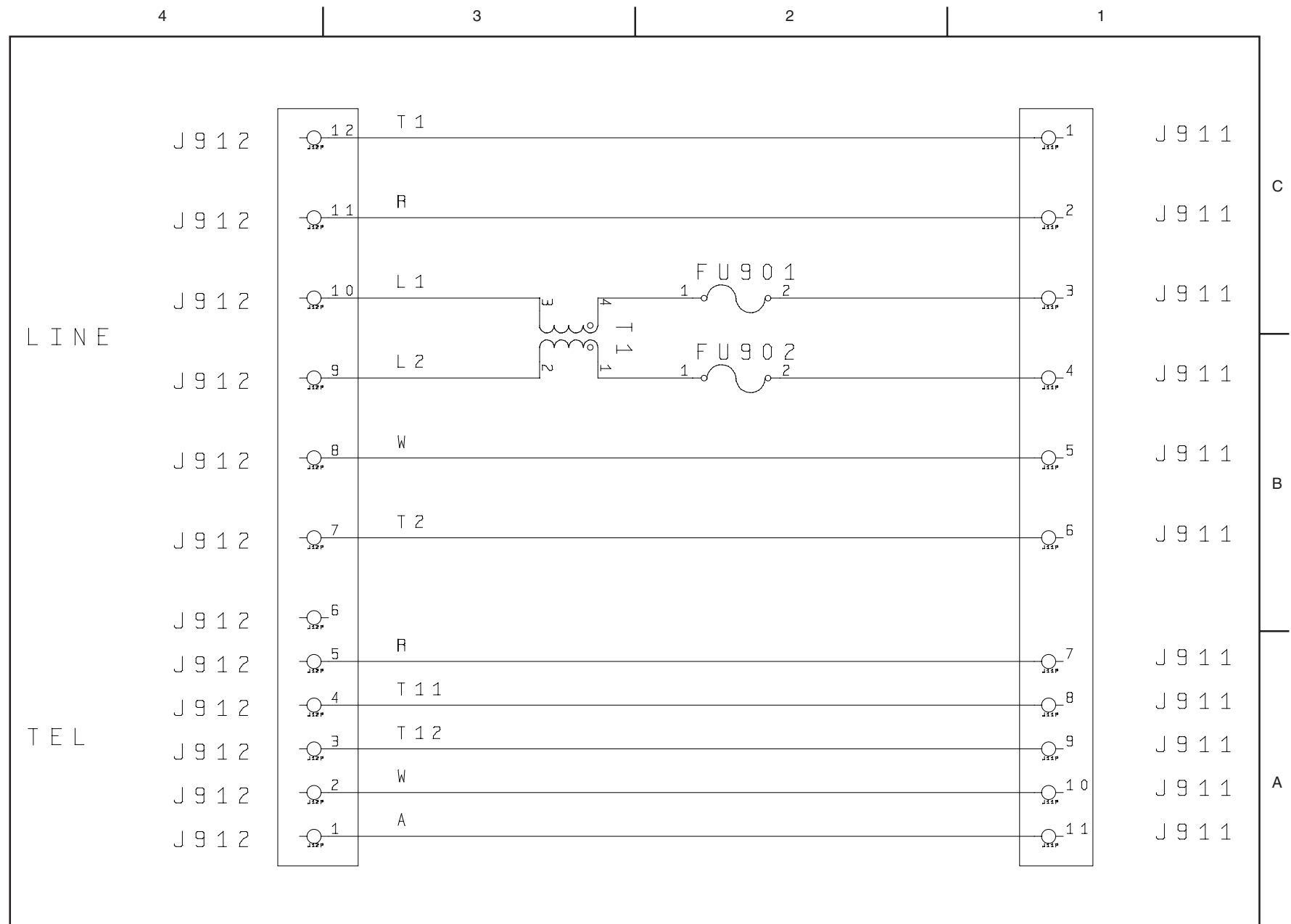
1.6 G3 MODULAR PCB (USA)



1.7 G3 MODULAR PCB (EU)



1.8 G3 MODULAR PCB (ASIA/AUS)



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