

A-6

SERVICE NOTES

First Edition

DIGITAL MULTI AUDIO STATION

Issued by RJA

SPECIFICATIONS

A-6 Digital Multi Audio Station Video Canvas

●Tracks
 Tracks: 4 stereo
 V-Tracks: 32 stereo (4 stereo tracks x 8 V-Tracks)
 * One stereo pair of tracks can be recording simultaneously.

●Maximum Polyphony
 4 stereo (total)

●Maximum Useful Capacity
 16 G bytes: 2 G bytes (capacity) x 8 (partition)

●Audio Data Format
 A-6 Original (R-DAC)

●Internal Memory
 Pad Groups: 99
 Pad Clips: 994 (10 pad x 99 group + 4 (favorite))
 Projects: 64
 Effect Patches: 99 (preset) + 99 (user) + 4 (panel)

●Channel Equalizer
 3 band parametric (HI, MID, LOW)
 (5 channel: Track A -- D, PAD)

●Signal Processing
 AD Conversion: 20 bits, 64 times over sampling
 DA Conversion: 20 bits, 128 times over sampling
 Internal Processing: 24 bits (mixer section)

●Sample Rate
 44.1 kHz

●Recording Time (at 2 G bytes, conversion in stereo track)
 9 hours approx. (Including Demo Clips on the HDP6 series hard disk)
 * Times may be slightly depending on the times of recording procedure.

●Number of Track Clips
 Approx. 2,000 clips per 1 project

●Synchronization
 MIDI MTC/MC (Master, Slave)

●Frequency Response
 10 Hz -- 21 kHz (+0/-3 dB)

●Nominal Input Level (variable)
 MIC: -50 -- -20 dBu
 VCR: -10 -- +4 dBu
 CD: -10 -- +4 dBu

Input L, R (Available with A6-OP1 is installed.)
 (MIC): -50 -- -20 dBu
 (LINE): -10 -- +4 dBu

●Input Impedance
 MIC: 100 k ohms
 VCR: 47 k ohms
 CD: 47 k ohms
 Input L, R (Available with A6-OP1 is installed.): 6 k ohms

●Nominal Output Level
 Master Out: -10 dBu
 Monitor Out: -10 dBu
 Output L, R (Available with A6-OP1 is installed.): +4 dBu

●Output Impedance
 Master Out: 2 k ohms
 Monitor Out: 2 k ohms
 Headphones: 10 ohms
 Output L, R (Available with A6-OP1 is installed.): 600 ohms

●Recommended Load Impedance
 Master Out: 10 k ohms or greater
 Monitor Out: 10 k ohms or greater
 Headphones: 4 -- 600 ohms
 Output L, R (Available with A6-OP1 is installed.): 10 k ohms or greater

●S/N Ratio (Line AD/DA total, IHF-A, typ.)
 Master Out: 92 dB
 Monitor Out: 92 dB

●Display
 LCD UNIT 69.0 x 25.0 mm (with backlight)

●Connectors
 MIC In Jack (1/4 inch phone type)
 VCR In Jacks L, R (RCA phone type)
 CD In Jacks L, R (RCA phone type)
 Master Out Jacks L, R (RCA phone type)
 Monitor Jacks L, R (RCA phone type)
 Headphones Jack (Stereo 1/4 inch phone type)
 GPI In Jack (1/4 inch phone type)
 MIDI Connectors (IN, OUT/THRU)

* Available with the Multi I/O Expansion "A6-OP1" is installed.
 SCSI Connector (DB-25 type)
 Digital In Connector (Coaxial type)
 Digital Out Connector (Coaxial type)
 Input L, R (XLR type, balanced, line/mic selective)
 Output L, R (XLR type, balanced)

●Power Supply
 AC 117 V, AC 230 V or AC 240 V

●Power Consumption
 16 W (Including internal hard disk)

●Dimension
 394 (W) x 343 (D) x 99 (H) mm
 15-9/16 (H) x 13-9/16 (D) x 3-15/16 (H) inches

●Weight
 4.1 kg (Excluding internal hard disk and A6-OP1)
 9 lbs 1 oz

●Accessories
 Owner's Manual Set (English) (#71125145)
 AC Cord 120V (#00894378)
 AC Cord 230V (#00894389)
 AC Cord 240V (#23485124)
 AC Cord 240VE (#00907001)
 Memo Sheet (#17048432)
 Discovery Demo CD (English) (#17048434)

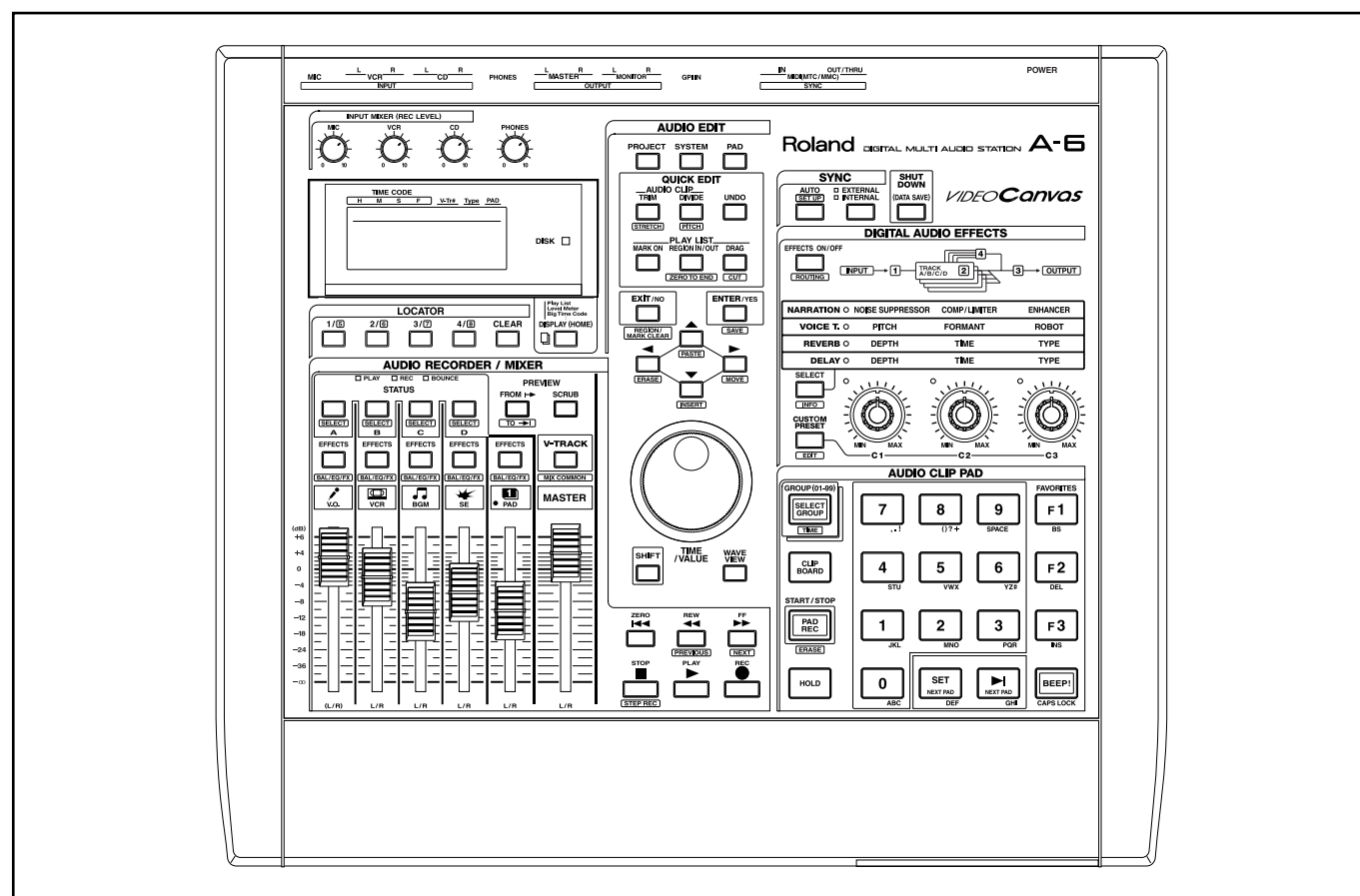
●Options
 Internal Hard Disk Drive Unit: HDP6 Series
 Multi I/O Expansion: A6-OP1
 Video MIDI Sync Interface: SI-80S

(0 dBu = 0.775 V rms)

* In the interest of product improvement, the specifications and/or appearance of this unit are subject to change without prior notice.

TABLE OF CONTENTS

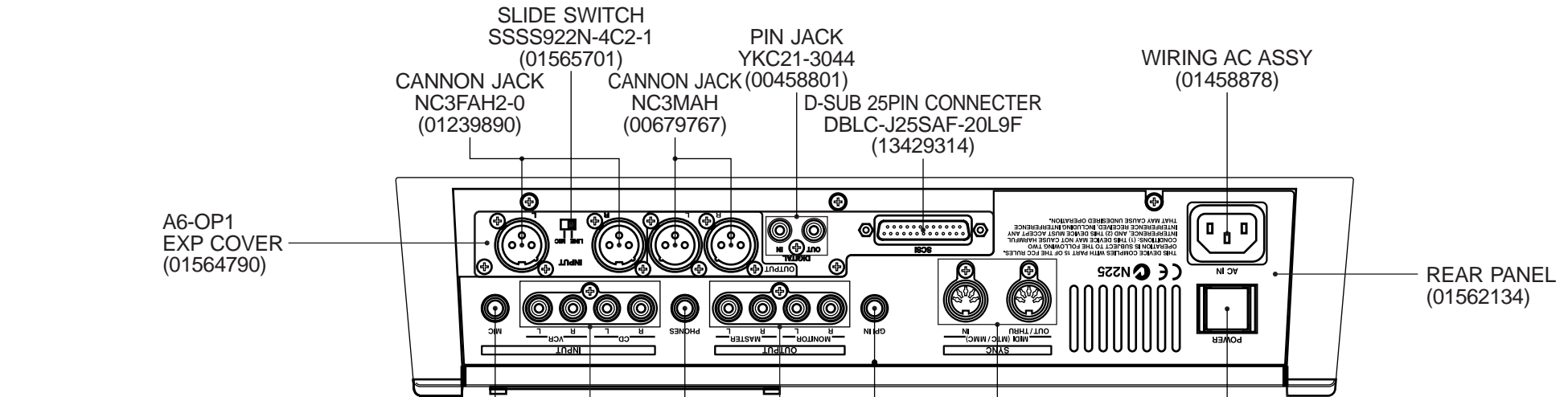
A-6	Page
SPECIFICATIONS.....	1
LOCATION OF CONTROLS.....	2
EXPLODED VIEW.....	3
BLOCK DIAGRAM.....	4
PARTS LIST.....	5
TEST MODE.....	6~8
SYSTEM SOFTWARE UPDATE.....	8
CIRCUIT DIAGRAM & BOARD.....	9~15
IC DATA.....	16
A6-OP1	
SPECIFICATIONS.....	17
INSTALLING THE.....	17
PARTS LIST.....	18
CIRCUIT DIAGRAM & BOARD.....	19~20



Copyright © 1998 by ROLAND CORPORATION

All rights reserved. No part of this publication may be reproduced in any form without the written permission of ROLAND CORPORATION.

LOCATION OF CONTROLS (A-6 + A6-OP1)



(REAR VIEW)

P R-KNOB SF-A MWG/LCG (01347301)
9M/M ROTARY POT. RK09L1140 10KB (01457234)

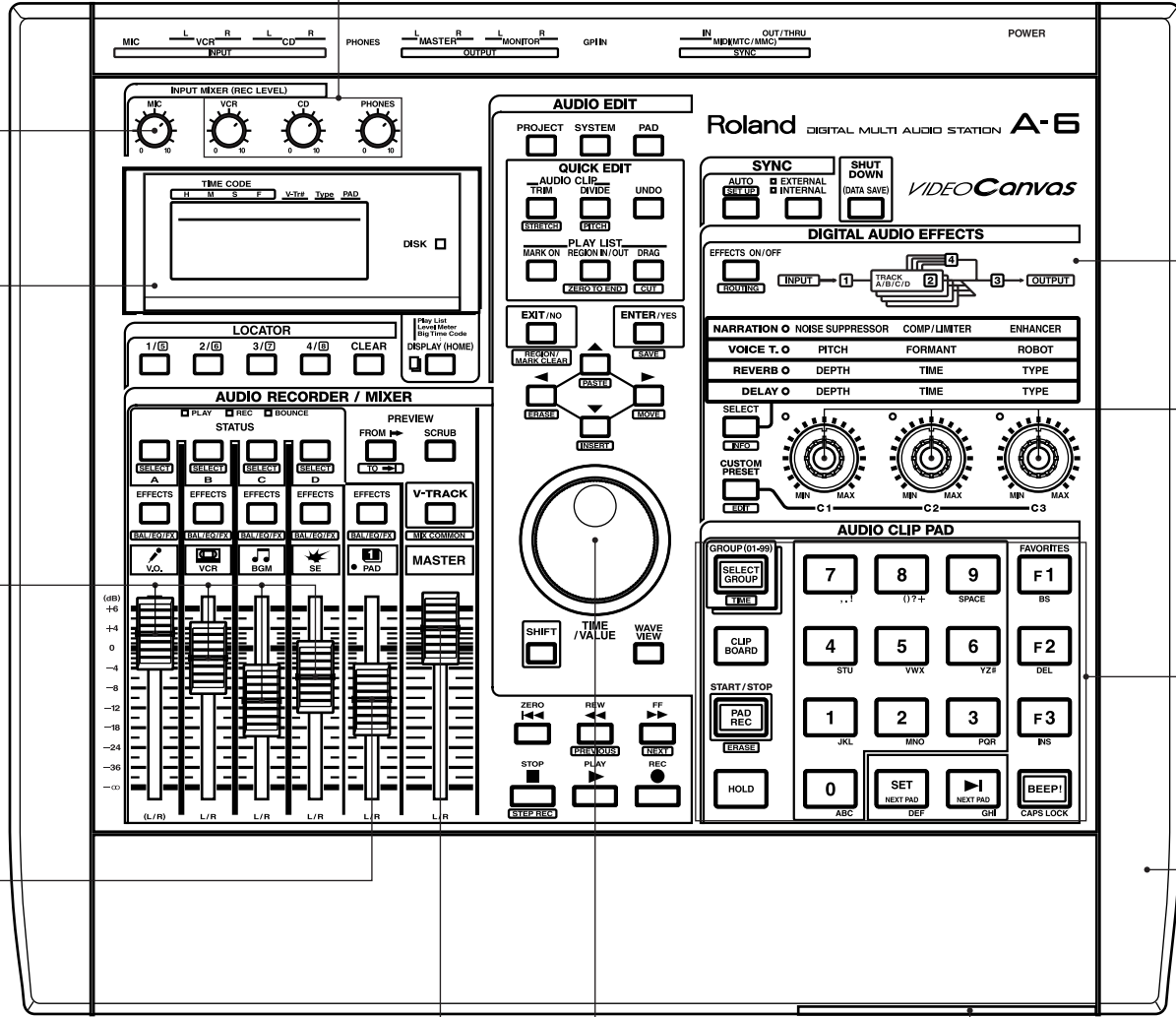
P R-KNOB SF-A MWG/LCG (01347301)
9M/M ROTARY POT. EVUF2K1B14 10KB (01340234)

DISPLAY COVER (01562090)
LCD RCM6038T-A (01348490)

U S-KNOB M1 LCG/DCG (01349423)
60M/M SLIDE POT. EWA Q1A C10 B54 50KB (01342934)

U S-KNOB M1 BLU/LCG (01569801)
60M/M SLIDE POT. EWA Q1A C10 B54 50KB (01342934)

U S-KNOB M1 MRD/LCG (01349434)
60M/M SLIDE POT. EWA Q1A C10 B54 50KB (01342934)



TOP PANEL (01562145)

J R-KNOB MF MCG/LCG (01562123)
12M/M ROTARY POT. EVJY95F01B14 10KB (01452701)

RUBBER SW (01562167)

TOP CASE (01562089)

D R-KNOB L MCG (00677223)
ROTARY ENCODER EC16B24104 L=15 (01124478)

HD COVER (01562178)

(TOP VIEW)

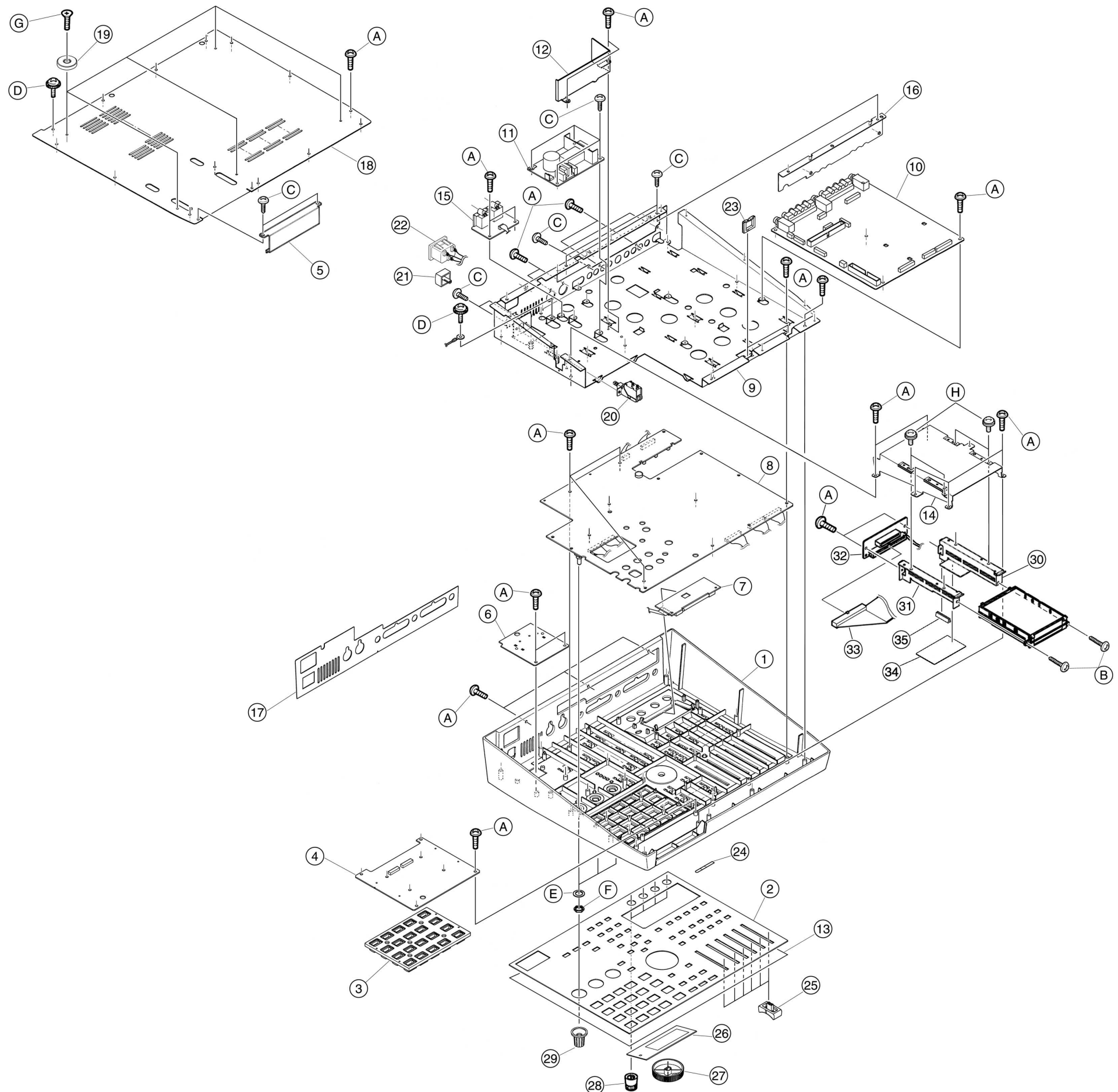
EXPLODED VIEW (A-6)

[PARTS]

No.	PART No.	PART NAME	
①	01562089	TOP CASE	
②	01562145	TOP PANEL	
③	01562167	RUBBER SW	
④	71016045	SWITCH BOARD	
⑤	01562178	HD COVER	
⑥	71124723	BEAM BOARD	
⑦	01348490	LCD UNIT RCM6038T-A	
⑧	70909012	PANEL BOARD	
⑨	01348501	SUB CHASSIS	
⑩	71127056	MAIN BOARD	
⑪	01127590	SWITCHING REGULATOR A1KW1AA240	
⑫	01458678	SHIELD PANEL	
⑬	01670223	(JAPAN ONLY)	
⑭	01457178	HD HOLDER	
⑮	71016034	MIDI BOARD	
⑯	01562101	EXP COVER	
⑰	01562134	REAR PANEL	
⑱	01348590	BOTTOM COVER	
⑲	22355160	FOOT D25	
⑳	13129139	AC PUSH SWITCH SDDL1-A-D-2 TV-5 5A/250V	
㉑	22495565	BUTTON F S-BUTTON MX BLK	
㉒	01458878	WIRING AC ASSY	
㉓	00902790	BUSHING EDS-1208U	for AC CORD
㉔	17048436	STATUS SEAL 04484-202	
㉕	01349423	KNOB U S-KNOB M1 LCG/DCG	(TRACK)
	01569801	KNOB U S-KNOB M1 BLU/LCG	(PAD)
	01349434	KNOB U S-KNOB M1 MRD/LCG	(MASTER)
㉖	01562090	DISPLAY COVER	
㉗	00677223	KNOB D R-KNOB L MCG	(VALUE)
㉘	01347301	KNOB P R-KNOB SF-A MWG/LCG	
㉙	01562123	KNOB J R-KNOB MF MCG/LCG	(EFFECTS)
㉚	00897812	ANGLE HD-R	
㉛	00897823	ANGLE HD-L	
㉜	71124767	CONNECTOR BOARD	
㉝	01562078	WIRING HDD-A	
㉞	01673867	HD SHEET	
㉟	*****	EDGING CE-012 L=20	

[SCREW]

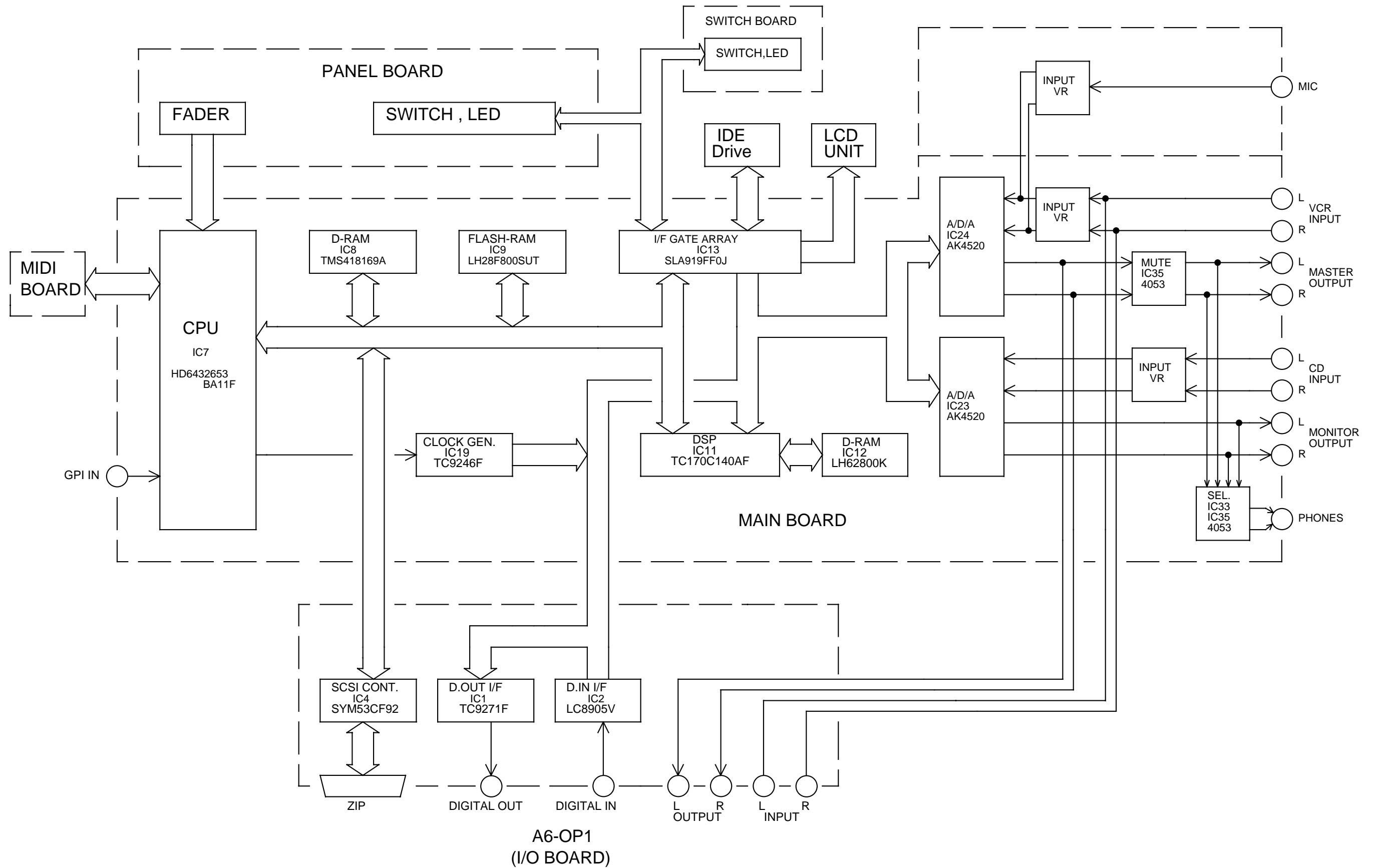
Ⓐ	40011101	M3x8 Binding Taptight B BZC
Ⓑ	40015956	M3x12 Binding Taptight S BZC
Ⓒ	40012534	M3x6 Binding Taptight S BZC
Ⓓ	*****	M4x8 LO2 BZC
Ⓔ	*****	M9 SPACER INNER GEAR TYPE
Ⓕ	*****	M9 NUT THIN TYPE
Ⓖ	40011156	M3x8 Flat Taptight B BZC
Ⓕ	40012945	M3x6 Pan Machine Screw W/SW+PW BZC



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

A BLOCK DIAGRAM

B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U



TEST MODE

●Equipment:

- MIDI cable
- Foot Switch (DP-2, or other suitable one)
- Hard disk drive unit (equivalent to HDP A6-21)
- Oscillator (Wave form generator)
- Oscilloscope
- Headphones

* Other required equipment for testing the Multi I/O Expansion A6-OP1:

- CD player with digital output connector (coaxial type)

- DAT recorder or other similar recorder with digital input connector (coaxial type)
- Digital audio cable (coaxial type)
- Zip drive (SCSI type)
- SCSI cable (DB-25 type)
- Audio cables (XLR type, Male - Female)

●Verifying version

While in the test mode, the top of the screen displays the CPU software version and the system software version in the format shown below:

```
1.00 1.000
```

Left: CPU version; right: system version

●Entering the TEST MODE

1. While holding STATUS (track D) and EFFECT (track D) buttons under AUDIO RECORDER/MIXER, turn on POWER switch. See Note: in step 4 below.
2. When "CHECK A6-OP1 .." appears at the center of the screen, release the buttons.
3. Test options will be displayed. Among the test options shown below, options 1. LCD to 4. Switch are displayed on the initial screen.
4. If the option board, A6-OP1 is installed, "OP-1" appears on the upper right-side of the screen.

Note: When the Zip drive is to be used during test, connect it before turning on the A-6. Set Termination to "ON" and SCSI ID to "6".

5. As mentioned before, the top of the LCD screen display shows the CPU software version (at the left) and the system software version (at the right).

(LCD SCREEN)	(TEST ITEMS)
>1. LCD	LCD contrast check (1)
2. LCD contrast	LCD contrast check (2)
3. LED	LED check
4. Switch	Switch check
5. Encoder	Encoder dial check
6. fader	Fader volume check
7. Pot	Rotary volume check
8. Beam	Beam check (*1)
9. Foot SW	Foot switch check
10.MIDI	MIDI check
11.IDE	IDE drive check
12.SCSI	SCSI check (*2)
13.Analog I/O	Analog input and output check
14.Digital I/O	Digital input and output check (*2)
15.Initialize	Initialize the settings of the system data.

*1 This item is not used for A-6.

*2 This item is used at the installation of the optional Multi I/O Expansion (A6-OP1).

Selecting these test items, press [▼] or [▲] to move the cursor ">" appears on the left side of the LCD to desired item. Press [ENTER/YES].

When the testing is completed the menu screen is appeared again. After the test, the screen exits to the menu screen.

●Test Options

1. LCD

In the LCD CHECK screen, "Push [>] KEY" appears in the middle of the LCD.

All LCD dots are turned on when [>(PLAY)] (LED blinks green) is pressed here.

Press [>(PLAY)] again, all LCD dots are turned off. Repeats turning the LCD on and off alternately each time when [>(PLAY)] is pressed.

To finish the test, press [●(REC)] (LED blinks red), the menu screen appears.

2. LCD contrast

In the LCD CONT CHECK screen, "CONTRAST = 5" appears at the bottom of the LCD.

To change the contrast, rotate the [TIME/VALUE] dial.

When the value of the contrast "CONTRAST = **" changed 0 to 15, "LCD OK!!" appears on the display.

To finish the test, press [●(REC)] (LED blinks red), the menu screen appears.

3. LED

In the LED CHECK screen, "Push [<<] [>>] KEY" appears on the LCD, then all LED's are lit.

When press [>>] at this point, only "DISK INDICATOR" LED is lit. After this, the LED is lit in order of the top left side each time the button is pressed.

("STATUS" has two color LED's so first the red LED is lit then the green one is lit.) When the last LED is lit and complete the checking of LED, all LED's are lit.

"LED OK!!" appears on the display.

To finish the test, press [●(REC)] (LED blinks red), the menu screen appears.

4. Switch

In the screen, "0 67" appears on the right side of the LCD, and "*****" appears under that.

When press any button here, that pressed button's name or mark is displayed in the "*****" section while the button is pressed.

The approximately button location is indicated on the LCD each time the button is pressed. "** SW OK!!" appears when all the buttons have been pressed.

To finish the test, press [●(REC)] (LED blinks red), the menu screen appears.

5. Encoder

In the ENCODER CHECK screen, the graphics move to left or right which response to the [TIME/VALUE] dial's movement are displayed.

"Value: 50" appears under the graphics.

When rotate the [TIME/VALUE] dial at this point, the value in the "Value: 50" is changed within 0-100.

When the value is changed within 0 - 100, "OK!!" appears on the up right of the LCD.

To finish the test, press [●(REC)] (LED blinks red), the menu screen appears.

6. Fader

In the FADER CHECK screen, the six fader (slide volume) conditions are displayed on the left side of the LCD.

The display responses to the each fader's (slide volume's) movement.

If the faders worked correctly from bottom to top, "OK" appears at the bottom and top of the each fader displayed in the LCD.

When "OK" is displayed on all of the faders, "OK!!" appears in the middle of the screen.

To finish the test, press [●(REC)] (LED blinks red), the menu screen appears.

7. Pot

In the POT CHECK screen, the conditions of three rotary volumes in the DIGITAL AUDIO EFFECTS section are displayed.

The display responses to the each volume's movement.

If the each volume works correctly from MIN to MAX, "OK" appears on the left and right side of the displayed volumes.

When "OK" is displayed on all of the volumes, "**OK!!**" appears on the top of the LCD.

To finish the test, press [●(REC)] (LED blinks red), the menu screen appears.

8. Beam

This item is not used for A-6.

9. Foot SW

Connect the foot switch (DP-2) to [GPI IN] connector on the A-6 rear panel before start testing.

In the FOOT SW CHECK screen, "[OFF] 0" appears on the LCD. Step on the foot switch at this point, the display is changed to "[ON] 127" and "**OK!!**" appeared.

To finish the test, press [●(REC)] (LED blinks red), the menu screen appears.

10. MIDI

Connect [MIDI IN] and [MIDI OUT] connector on the A-6 rear panel with MIDI cable before start testing.

In the MIDI CHECK screen, "MIDI THRU", "IN - > OUT" are appeared on the LCD. Press [UNDO] at this point. "OUT- > IN" appears and if there is no error, "**OK!!**" message is appeared. If there is any malfunction on the MIDI circuit, "**NG!!**" message would be appeared.

To finish the test, press [●(REC)] (LED blinks red), the menu screen appears.

11. IDE

Install the hard disk drive unit (equivalent to HDPA6-21) to the A-6 before start testing. (Turn off the power when installing the hard disk drive unit.)

In the IDE CHECK screen, IDE Interface test starts automatically.

If there is no error, "IDE CHECK OK!!" appears about several seconds later.

To finish the test, press [●(REC)] (LED blinks red), the menu screen appears.

12. SCSI

Before start testing, connect both [SCSI] connector of the zip drive and A6-OP1 with SCSI cable, insert a zip disk to the zip drive, turn the terminator switch on, set the SCSI ID of the zip drive to 6, and turn on the power of the zip drive.

In the SCSI CHECK screen, SCSI test starts automatically. If there is no error, "SCSI CHECK OK!!" appears.

Followings are example messages when there is any malfunctions on SCSI.

"NG! A6-OP1(SPC)" message displayed.

→ Check the IC4(NCR53CF92) on the A6-OP1.

"NG! NO DRIVE" message displayed.

→ Check the SCSI ID of the zip drive, and check SCSI cable, etc.

To finish the test, press [●(REC)] (LED blinks red), the menu screen appears.

13. Analog I/O

In the ANALOG CHECK screen, "Fs=32.0kHz" and other messages are appeared on the LCD.

The check procedures are described as below.

a. [CD] INPUT - > [MASTER] OUTPUT TEST

Turn the [CD] volume on the INPUT MIXER section to the MAX.

Connect the oscillator (wave form generator) to [CD] INPUT, Input the sine wave with 1kHz and 620mVp-p. (The setting of the oscillator is in common with the all checks.)

Connect the oscilloscope to the [MASTER] OUTPUT. If the connection is correct, the sine wave about 8Vp-p is output.

b. MUTE CIRCUIT TEST

Under the condition (a.) above, press [4/(8)] on the LOCATOR section.

The MUTE circuit is normal condition when "Mute: OFF" on the up right of the LCD is changed to "Mute ON" and the wave form output is stopped(muted) at the same time.

c. [VCR] INPUT - > [MONITOR] OUTPUT TEST

Turn the [VCR] volume on the INPUT MIXER section to MAX.

Reconnect the oscillator (wave form generator) to [VCR] INPUT and the oscilloscope to [MONITOR] OUTPUT.

At this point, check the input wave form as same as the procedure (a.).

The sine wave has about 8Vp-p is output under normal condition.

d. SWITCHING SAMPLING FREQUENCY TEST

Under the condition (c.), press [3/(7)] on the LOCATOR section to switch "Fs=32.0kHz" to "Fs= 44.1kHz" on the up left of the LCD.

If there is no changes of the wave form, the check is successful.

e. HEADPHONES TEST

The display "MASTER" under the "PHONE" is changed from "MAS" -> "MON"-> "M+M"-> "OFF" each time [2(6)] on LOCATOR section is pressed.

The headphones output also switched simultaneously. First connect the headphones and input the oscillator's (wave form generator's) signal to [CD] INPUT.

When switch the output and there is no error, the sound can be heard from the headphones at only "MAS" and "M+M".

When connect the oscillator (wave form generator) to [VCR] INPUT and there is no error, the sound can be heard from the headphones at only "MON" and "M+M".

- f. OPTIONAL BOARD (A6-OP1) ANALOG INPUT/OUTPUT TEST
 Connect [INPUT](LR) and [OUTPUT](LR) of the A6-OP1 with a pair of XLR-Type audio cable.
 ([OUTPUT]L -> [INPUT]L, [OUTPUT]R -> [INPUT]R)
 Turn the [CD] and [VCR] volume on the INPUT MIXER section to the direction of 10 o'clock.
 Connect the oscillator (wave form generator) to [CD] INPUT, Input the sine wave with 1kHz and 640mVp-p.
 Connect the oscilloscope to the [MASTER] OUTPUT.
 If the connection is correct, the sine wave about 8Vp-p is output.
 To finish the test, press [●(REC)] (LED blinks red), the menu screen appears.

14. Digital I/O

In the DIGITAL CHECK screen, "IN:-----" appears on the left side of the LCD. Press [1/(5)] on the LOCATOR section to change "IN;COAX."
 * "IN:OPT" is not used for A-6.

a. DIGITAL INPUT TEST

Connect the CD player's digital output connector (coaxial-type) and A6-OP1's [DIGITAL IN] connector with digital audio cable (coaxial-type).
 Connect the headphones to A-6's [PHONES] connector.
 When the power of the CD player is OFF, "Unlock" appears on the right side of the LCD.
 "Unlock" is changed to "Locked" when the power of the CD player is turned on.
 When playing back the CD, the sound can be heard from the headphones if the connections are successful.

b. DIGITAL OUTPUT TEST

Connect the A6-OP1 [DIGITAL OUT] connector and output and DAT recorder's digital input (coaxial-type).
 DAT recorder is now in the monitor status for the digital input.
 Connect the headphones to DAT recorder.
 At the test (a.), if the CD playback sound can be heard from DAT recorder, the test is successful.
 To finish the test, press [●(REC)] (LED blinks red), the menu screen appears.

15. Initialize

Perform the following procedure when the letters of the system parameter become impossible to read by the destruction of the system parameter in the flash memory, or you wish to return to the factory settings.
 After entering the INITIALIZE screen, press [UNDO].
 The system parameter and user effects patch starts being initialized.
 The initialized system parameters are as follows;
 system common parameters, system MIDI parameters.
 Press [●(REC)] (LED blinks red), the menu screen appears.

●About the destruction of the flash memory

If the flash memory (IC9 on the Main board) is damaged or destroyed from the malfunctions of the software / hardware, following messages are appeared on the LCD.

<< EMERGENCY >>
 SYSTEM is BROKEN! Please consult qualified Roland Service.

If these messages are appeared when turning on the power, re-install the system software is required.
 If there is a still problem, exchange the flash memory in case of the flash memory's default. And re-install the system software.
 If the flash memory is replaced with new one, re-installation of the system software and "Initialize" operation above are required.

A-6 SYSTEM SOFTWARE UPDATE USING THE SMF (Ver. Up Disk(SMF) P/No.17048933)

The latest system software of the A-6 is stored to the floppy disk named "A-6 System Ver. 1.xx SMF" as the standard MIDI file format (SMF format).

Check the following SMF's included to the floppy disk.

A-6 System Ver. 1.xx SMF disk
 A6#1 .MID
 A6#2 .MID
 A6#3 .MID
 A6#4 .MID
 A6#5 .MID
 A6#6 .MID
 A6#7 .MID
 A6#8 .MID

Update A-6 system software by following the procedure described below.

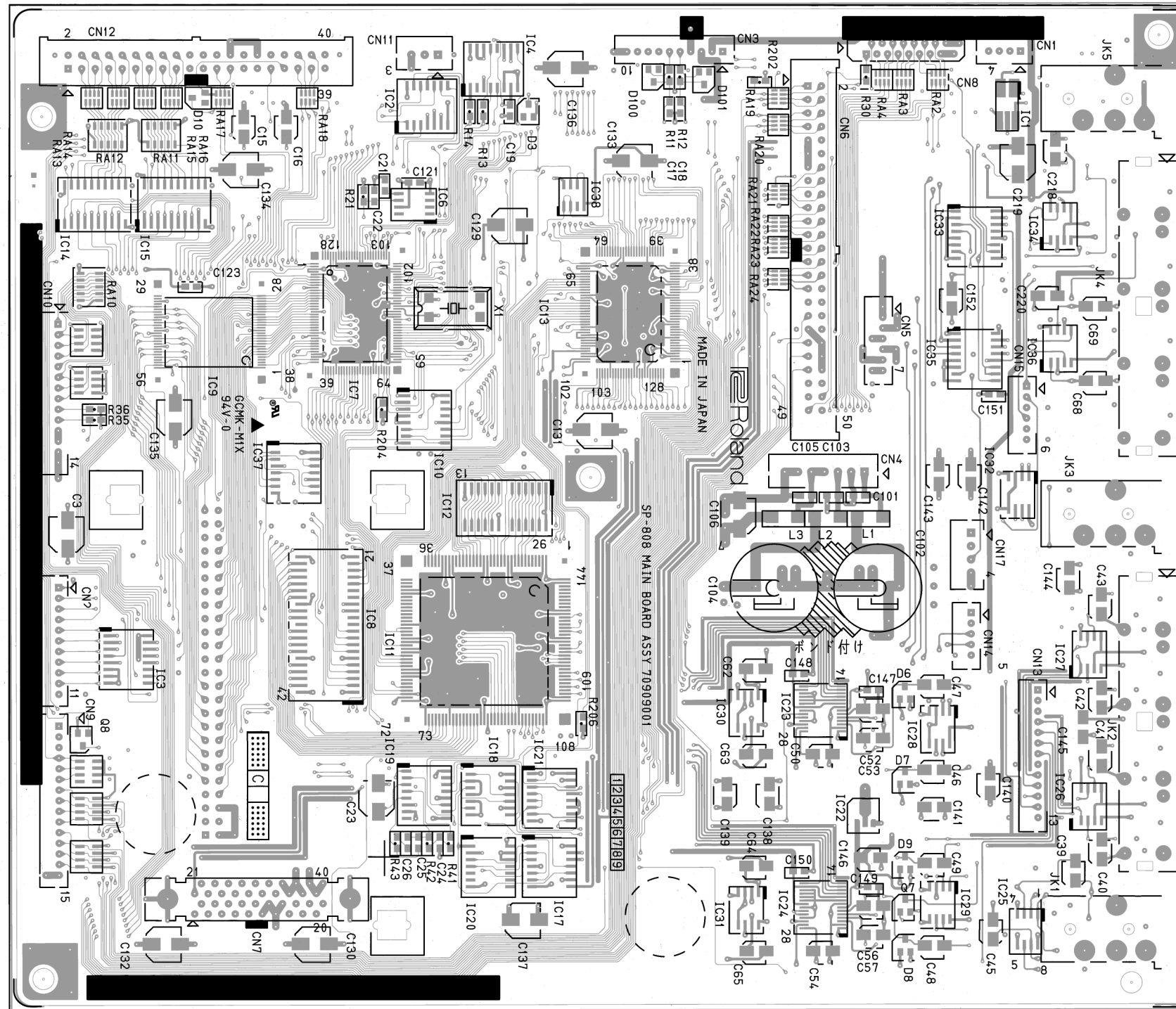
1. Connect a MIDI cable between two connectors; MIDI OUT connector of the MIDI Sequencer that can play back SMF data, and MIDI IN connector of A-6.
 It is convenient to use the MIDI Sequencer such as a SB-55 sound brush that can play back some SMF's continuously.
2. While holding down Track A's [EFFECTS (BAL/EQ/FX)], turn on the A-6's power. MIDI update screen is displayed.
3. Check the message "waiting MIDI..." is appeared on the display. Playback the SMF data in order the number 1 to 8.
 While the data is being received "Receiving.. (x/8)" is displayed and the pad indicator (PAD) blinks. ("x" is the SMF data number being received.)
4. When all of SMF data is received "Update System? (Y/N)" is appeared on the display. Press [ENTER/YES].
 Note: Never turn the power off while the message "• KEEP POWER ON •" is being displayed.
5. When "Update Complete" and "You may TURN OFF" are appeared on the display, turn the power off and turn it on again.
 Now complete the update A-6 system software.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

A CIRCUIT BOARD

B MAIN BOARD ASSY (71127056)

C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U

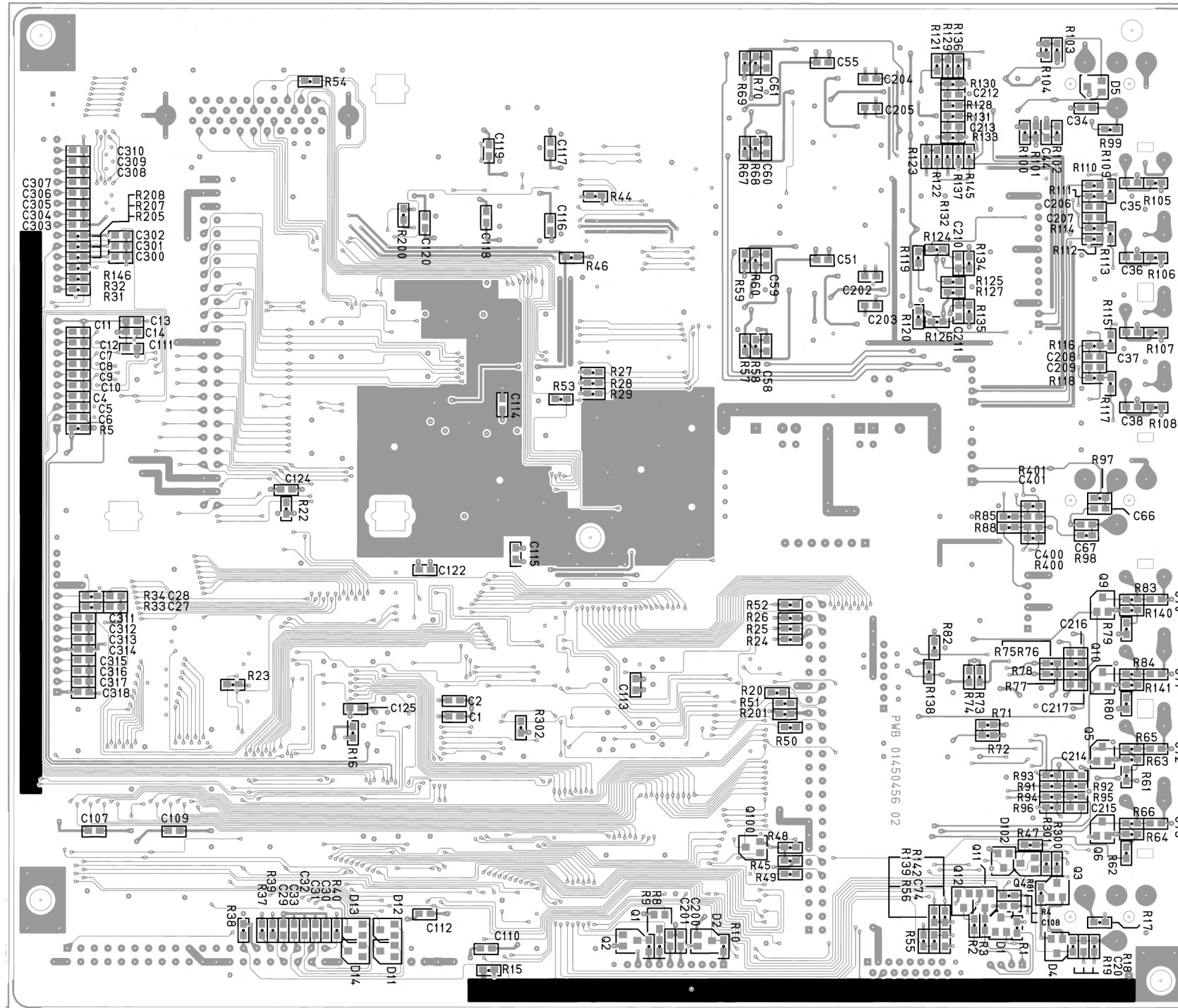


View from component side.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

A MAIN BOARD ASSY (71127056)

B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U



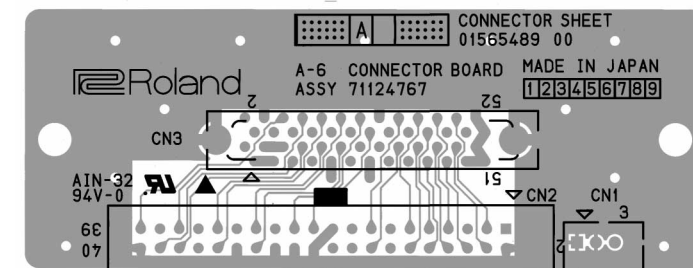
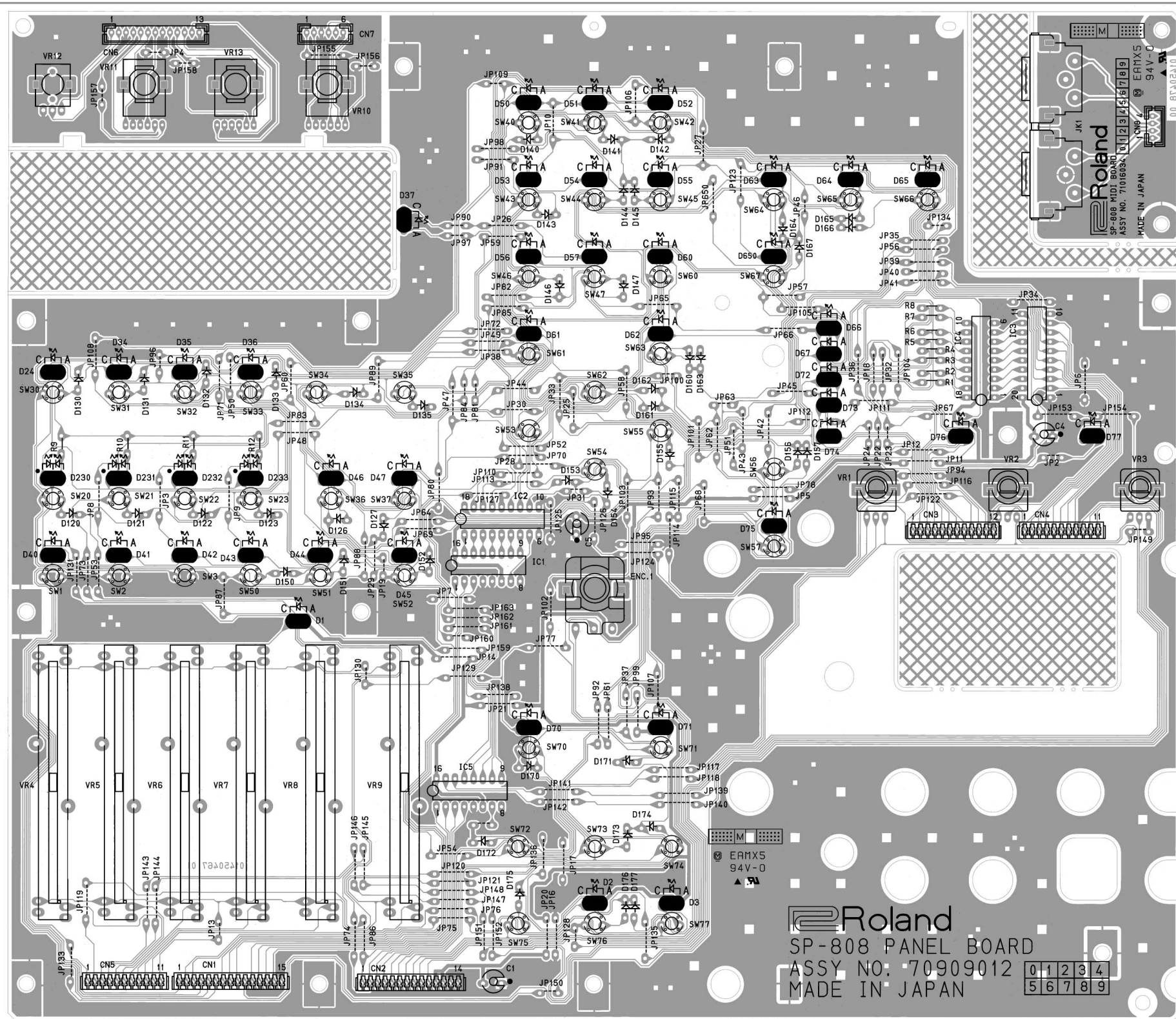
View from foil side.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

A PANEL BOARD ASSY (70909012) / MIDI BOARD ASSY (71016034)
/CONNECTOR BOARD ASSY (71124767)

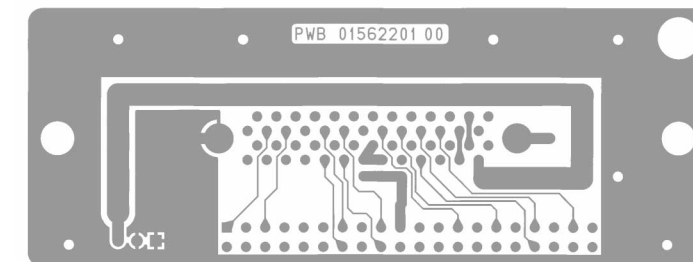
MIDI BOARD ASSY
(71016034)

B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U



View from component side.

CONNECTOR BOARD ASSY
(71124767)



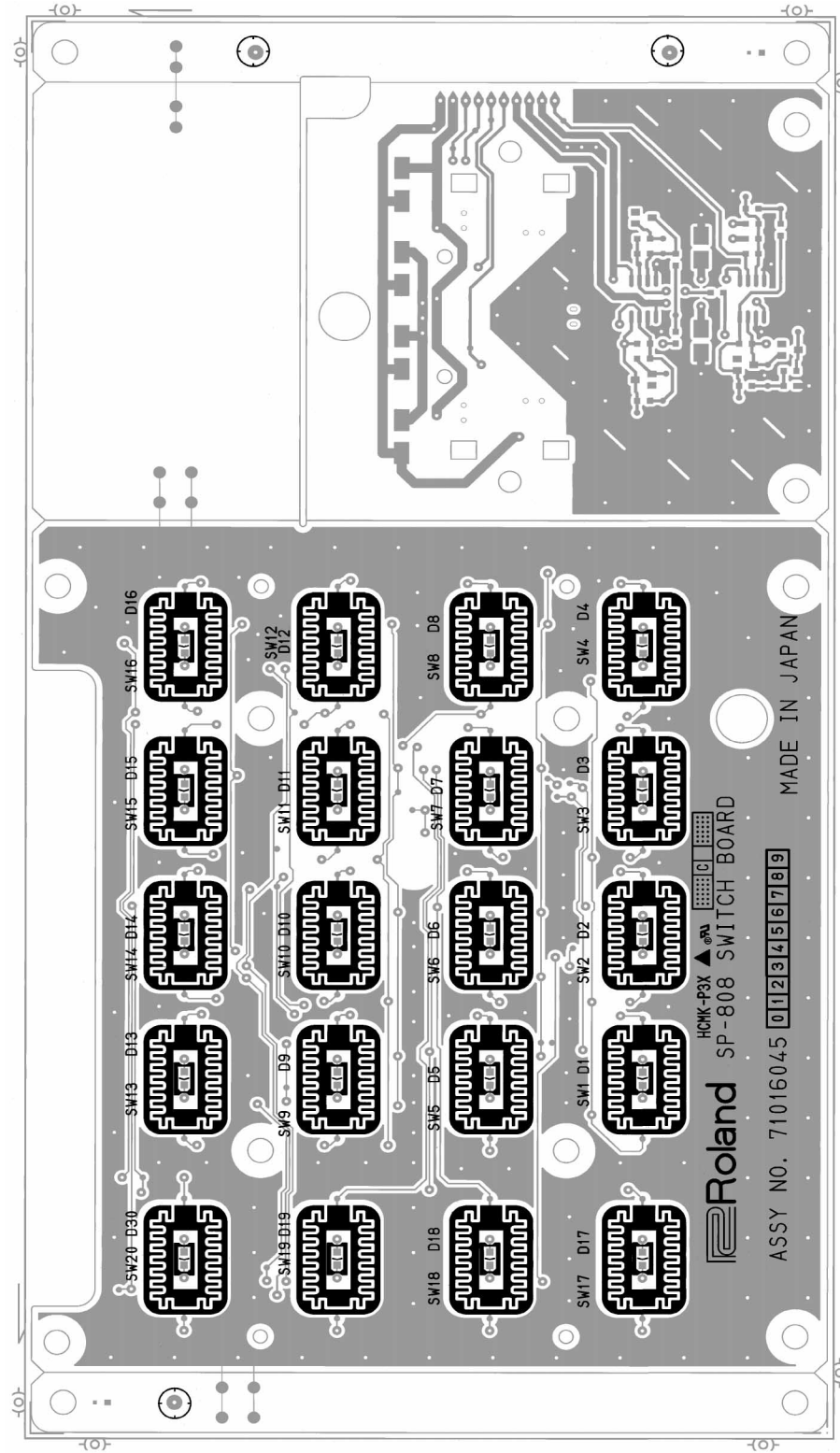
View from foil side.

↑
PANEL BOARD ASSY (70909012)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

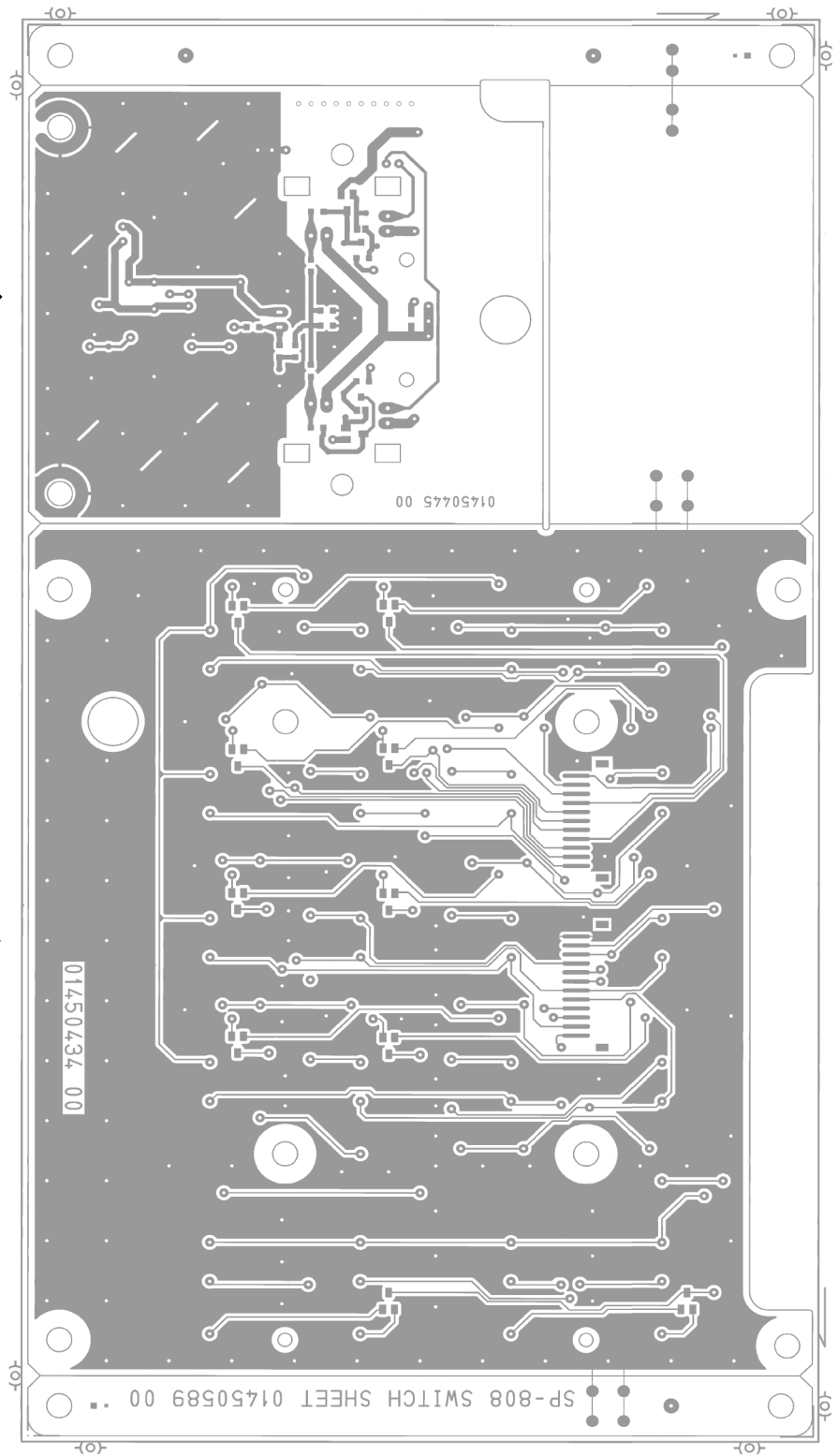
A SW BOARD ASSY (71016045) / BEAM BOARD ASSY (71124723)

B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U



← BEAM BOARD ASSY (71124723) →

← SW BOARD ASSY (71016045) →



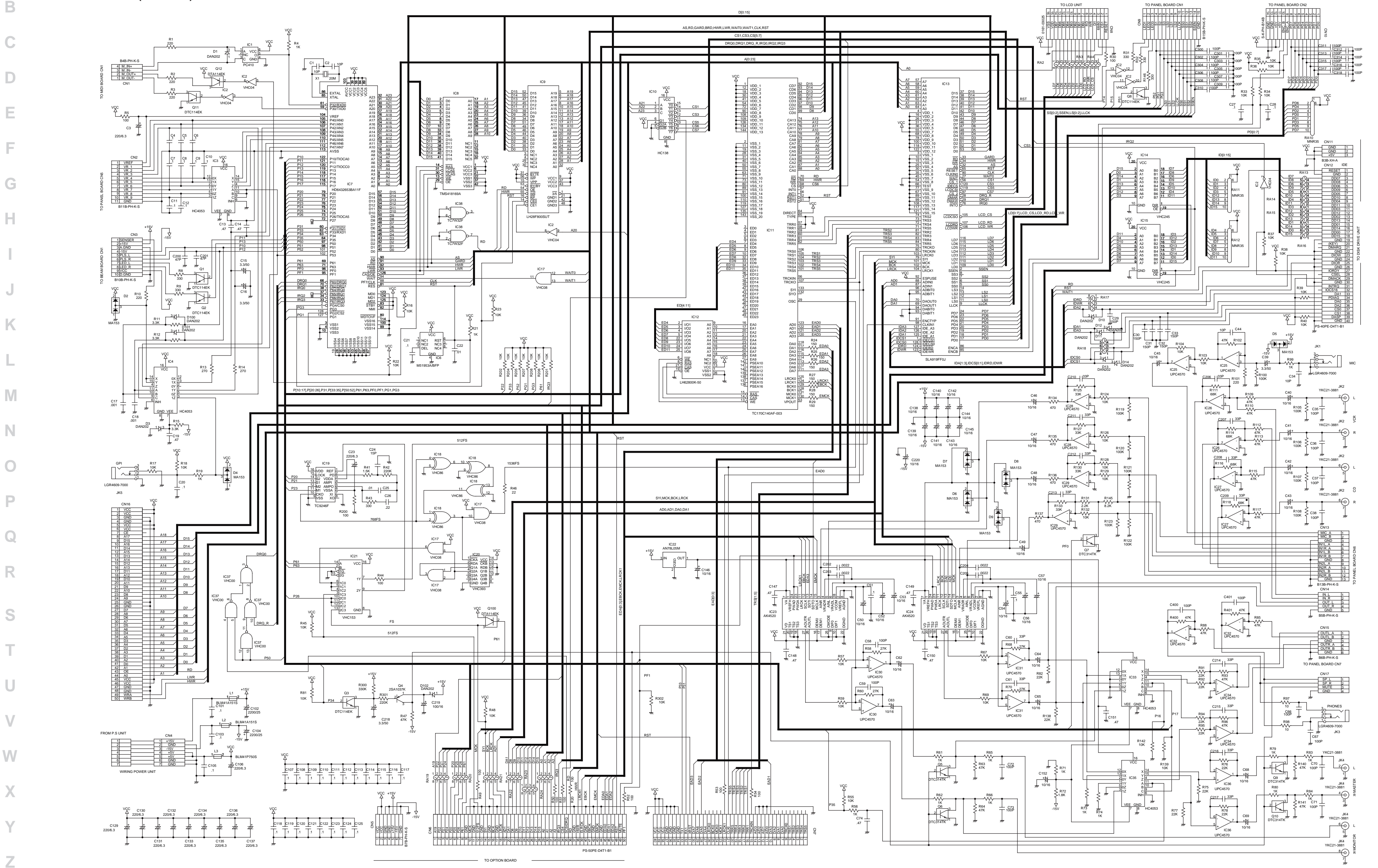
View from component side.

View from foil side.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

A CIRCUIT DIAGRAM

B MAIN BOARD ASSY (71127056)

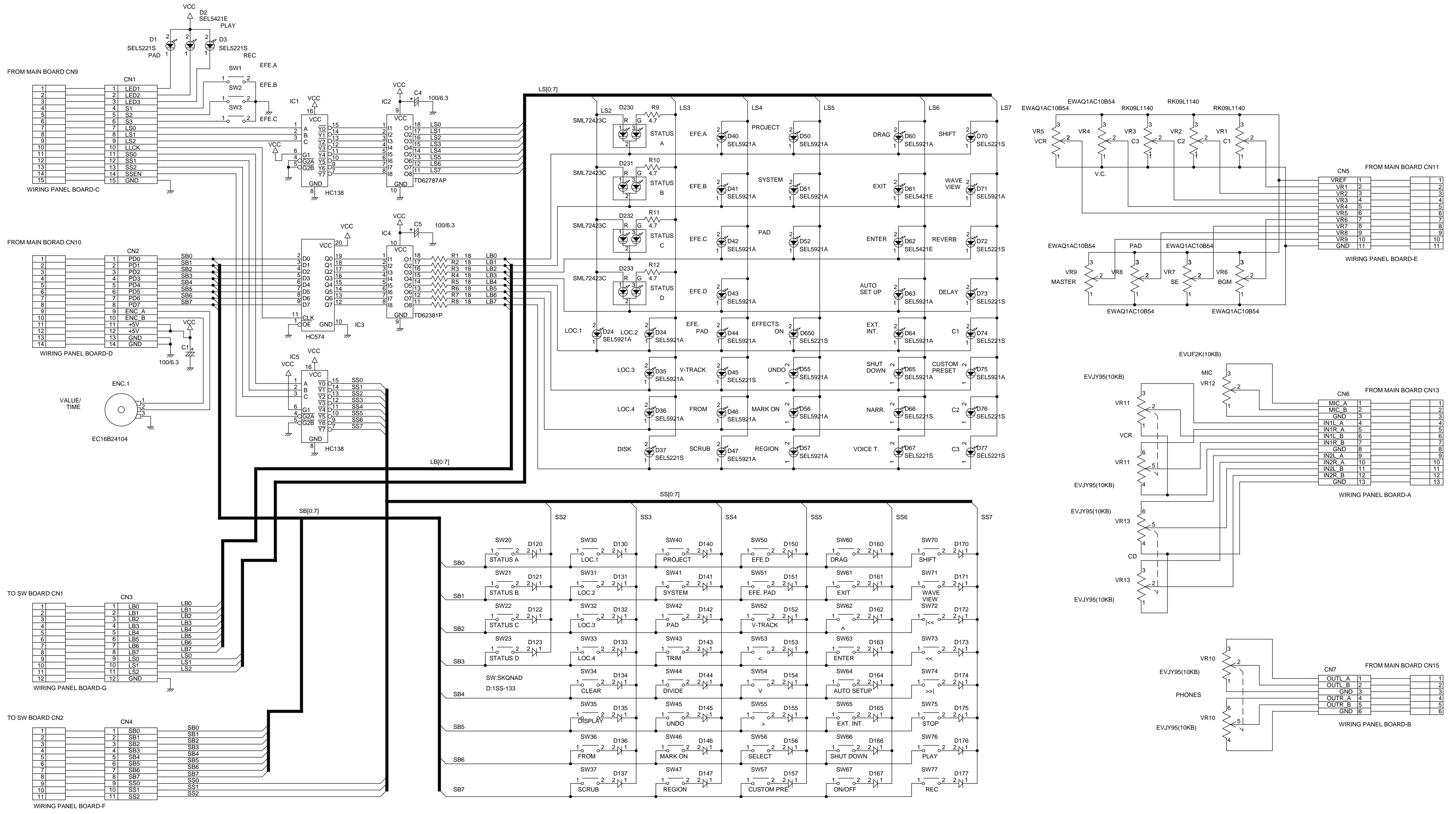


Z TO OPTION BOARD PS-50PE-D41-B1 TO MONITOR

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z

PANEL BOARD ASSY (70909012)

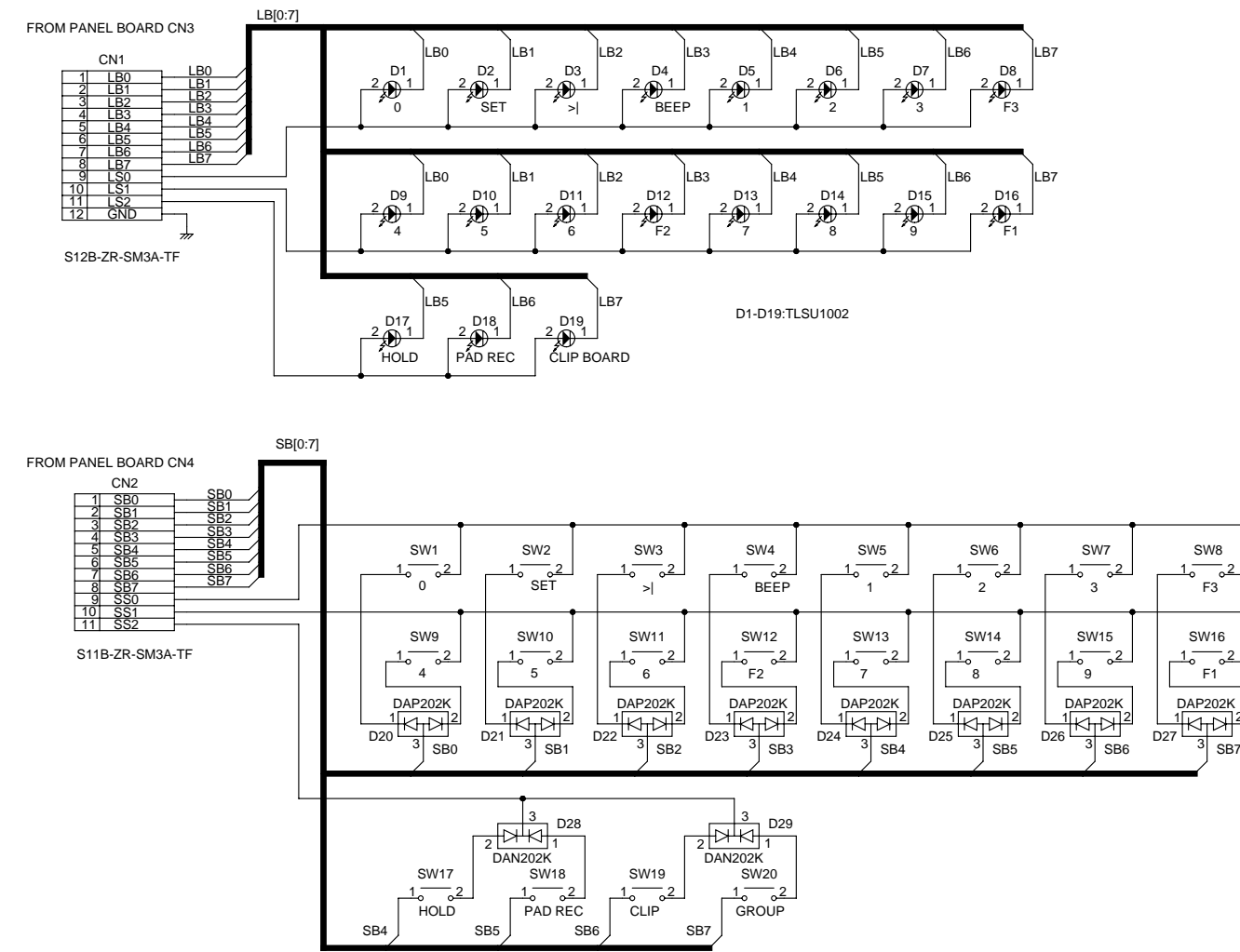
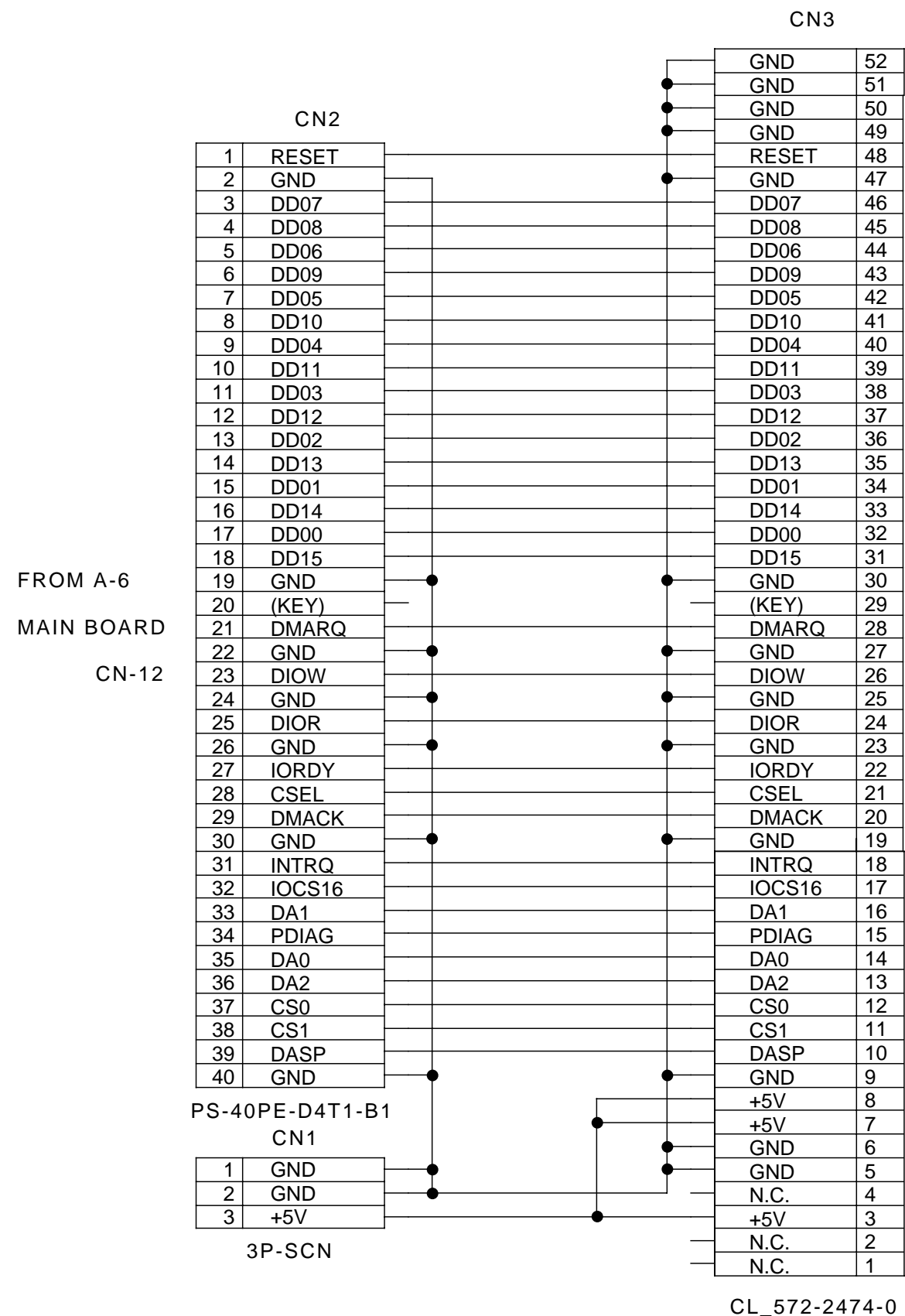


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

A CONNECTOR BOARD ASSY (71124767)

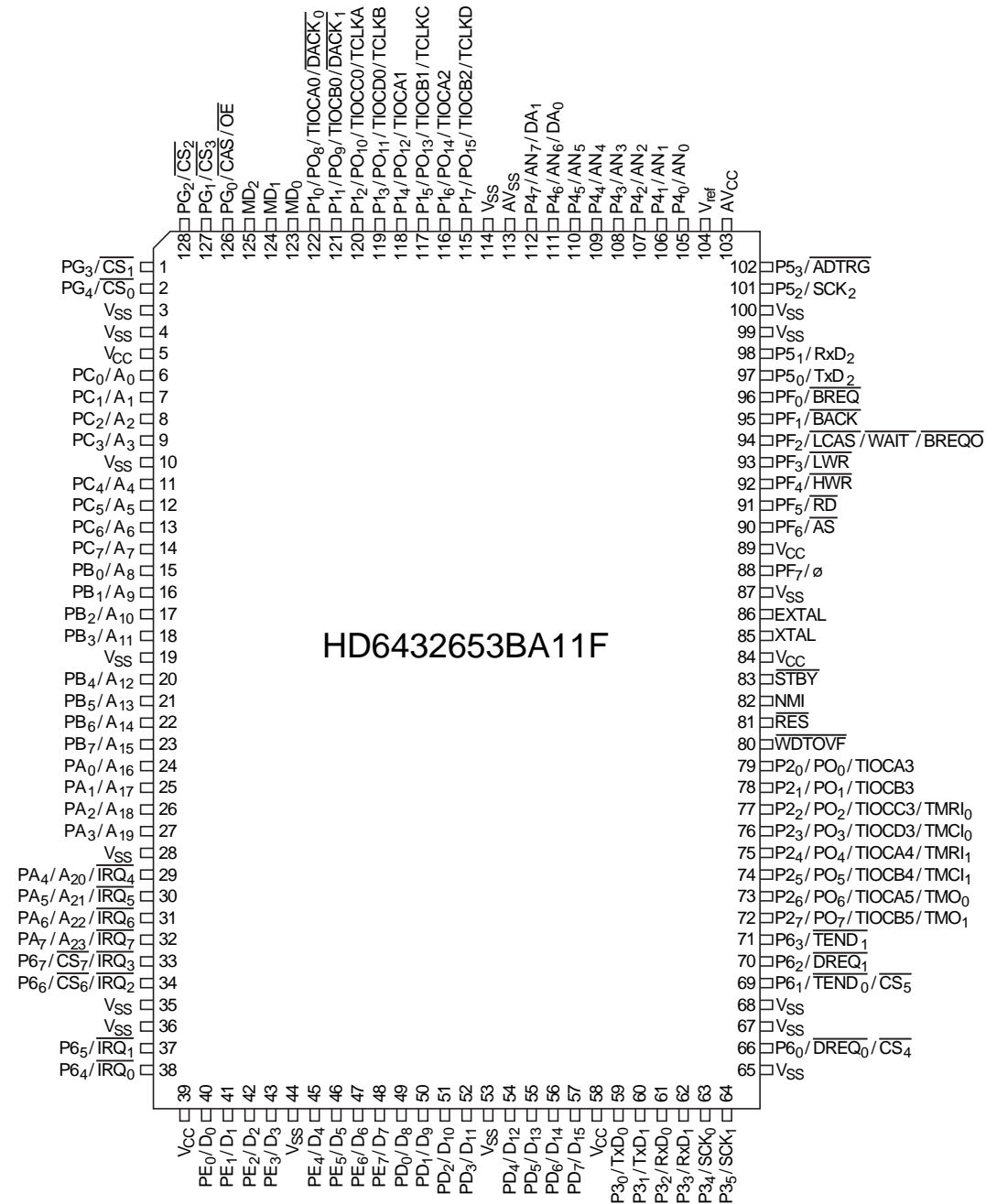
SWITCH BOARD ASSY (71016045)

B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U

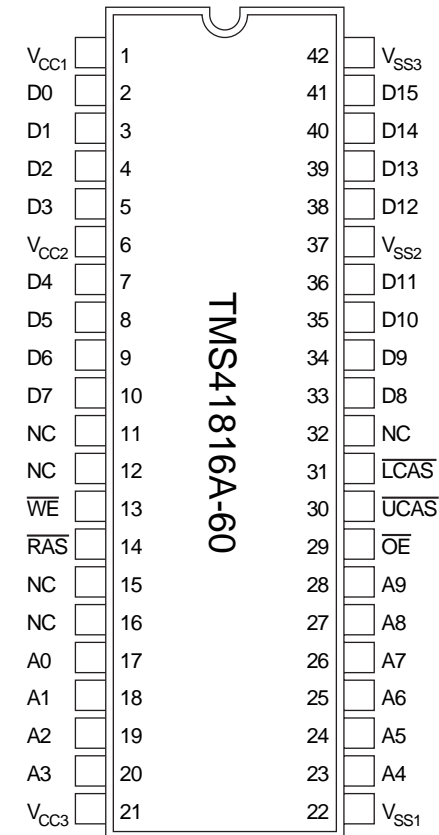


IC DATA

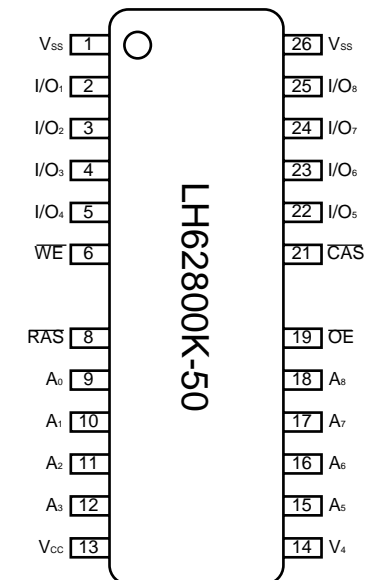
CPU
HD6432653BA11F (01340201)
IC7 on MB



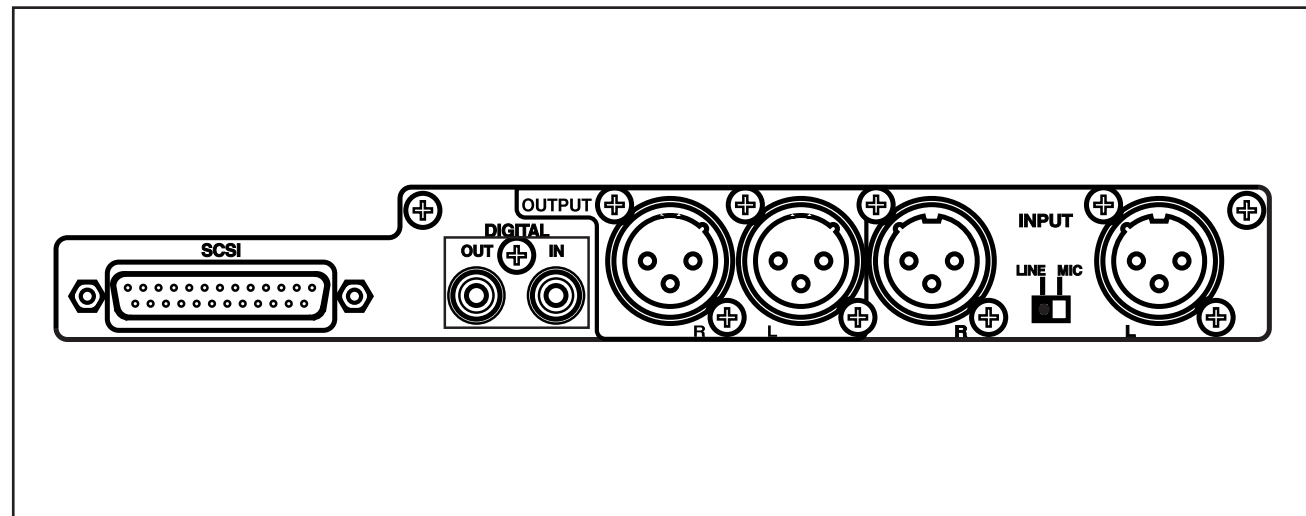
16M DRAM
TMS41816A-60 (01347745)
IC8 on MB



4M DRAM
LH62800K-50 (01347756)
IC12 on MB



A6-OP1



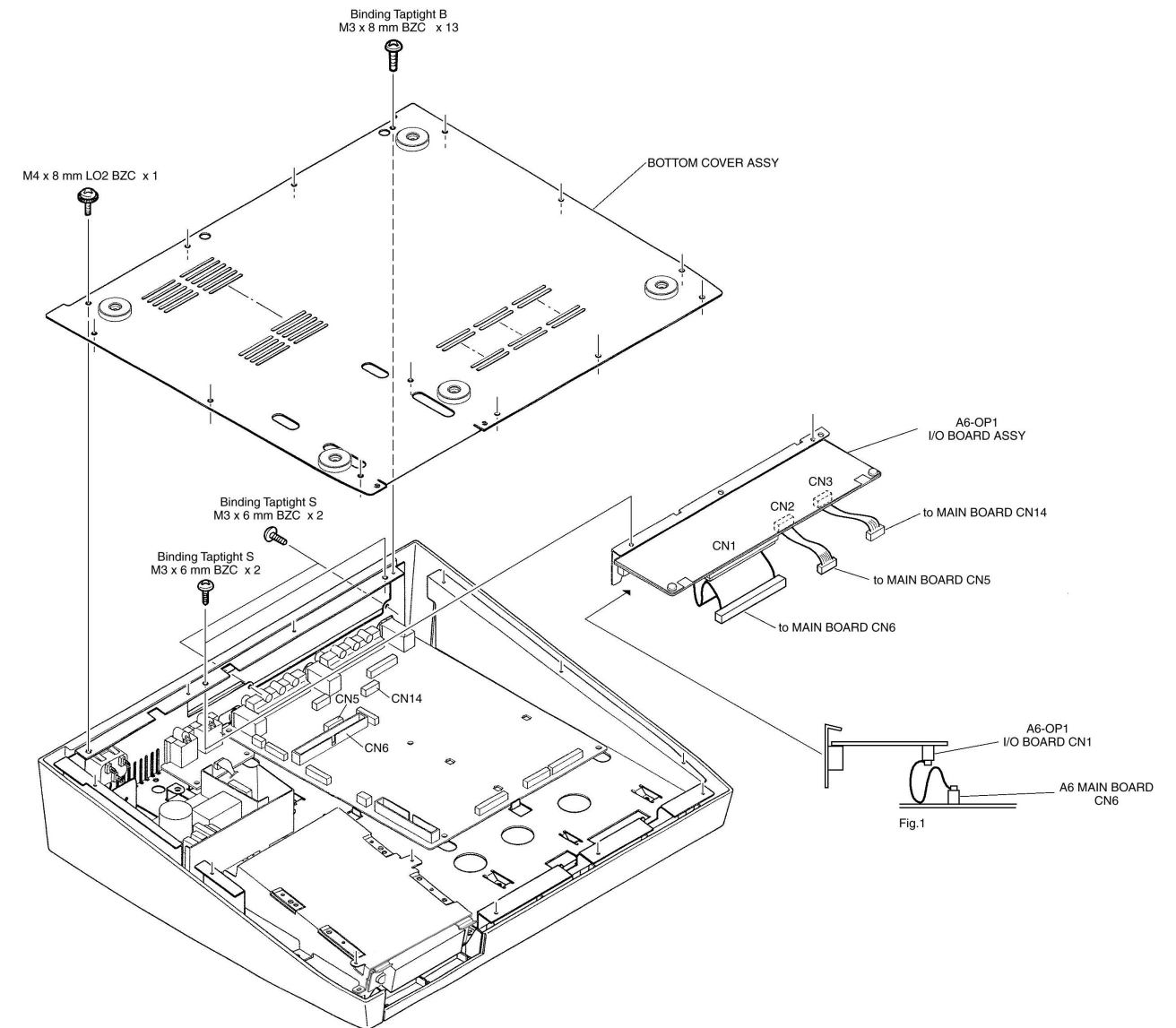
SPECIFICATIONS A6-OP1

●A6-OP1 Multi I/O Expansion Board

- *SCSI Connector (25-pin D-SUB type)
- *Coaxial Digital In Connector
- *Coaxial Digital Out Connector
- *XLR Analog In Connector
- *XLR Analog Out Connector
- *CD, VCR In L, R and MONOTOR, MASTER Out L, R (RCA phono type)

INSTALLING THE A6-OP1

1. Turn off the A-6. Remove all connecting cables from the A-6.
2. Place the A-6 upside down. Remove the bottom cover.
3. Remove the EXP cover from the A-6.
4. Plug in A6-OP1 connector, with a length of the flat cable bent, into the A-6 main board connector. See Fig. 1.
5. Screw-lock the A6-OP1.
6. Attach and secure the A6 bottom cover.
7. Enter the test mode: holding down STATUS (track D) and EFFECTS (track D) buttons of AUDIO RECORDER/MIXER, turn on the A-6. Verify that upper-right area of the screen displays "OP-1".
8. Turn off the A-6.



PARTS LIST

SAFETY PRECAUTIONS:

The parts marked Δ have safety-related characteristics. Use only listed parts for replacement.

CONSIDERATIONS ON PARTS ORDERING

When ordering any parts listed in the parts list, please specify the following items in the order sheet.

QTY	PART NUMBER	DESCRIPTION	MODEL NUMBER
Ex. 10	22575241	Sharp Key	C-20/50
15	2247017300	Knob (orange)	DAC-15D

Failure to completely fill the above items with correct number and description will result in delayed or even undelivered replacement.

NOTE: The parts marked # are new (initial parts)

Warning! : There is the possibility that you will burn your hands when you touch Power Supply parts soon after the power supply is turned off.

PCB ASSY

[E] 71126790 A6-OP1 I/O BOARD ASSY

JACK SOCKET

00458801	YKC21-3044	PIN JACK	JK5
01239890	NC3FAH2-0	CANNON	JK1,JK2
00679767	NC3MAH	CANNON	JK3,JK4
13429314	DBLC-J25SAF-20L9F	D-SUB	JK6

IC

00893356	SYM53CF92	SIO	IC4
15249111	TC7WU04F(TE12L)	CMOS	IC3
15249112	TC7W32F(TE12L)	CMOS	IC7
15259706T0	TC74HCU04AF(EL)	CMOS	IC6
15289105	UPC4570G2-T2	BIPOLAR OP AMP	IC8-IC12
00893990	BH9595FP TP	SCSI ACTIVE TERMINATOR	IC5
00121078	TC9271F(ELP)	DIF/TRANSMITTER	IC1
01124378	LC8905V-TLM	DIF/RECEIVER	IC2

TRANSISTOR

15329505	DTC314TKT146		Q1-Q4
----------	--------------	--	-------

DIODE

00673789	SB20-03P-TD	SCHOTTKY DIODE	D1
15339103	MA153-(TX)	DIODE ARRAY	D2-D5

CAPACITOR

01564778	RV2-16V100MZ7-R	CHEMICAL	C101.C102.C105.C106.C107.C108
01347778	6.3CV220BS	CHEMICAL	C4.C6.C7.C100.C103.C104
# 01565712	RV2-25V330MZ7-R	CHEMICAL	C10.C12.C15.C17.C22.C23.C28.C29

FILTER

01458667	BLM41P750S	FERRITE BEAD	L1
----------	------------	--------------	----

CRYSTOL SESONATOR

01342145	MA-406 25.000MHZ TE24	X'TAL	X1
----------	-----------------------	-------	----

SWITCH

# 01565701	SSSS922N-4C2-1*	SLIDE SWITCH	SW1
------------	-----------------	--------------	-----

CONNECTOR

13369851	PS-50PE-D4T1-B1-K		CN1
----------	-------------------	--	-----

WIRING CABLE

# 01565390	A6-OP1 WIRING		CN3
01452590	WIRING OPTION-A		CN1
01452601	WIRING OPTION-B		CN2

TRANSFORMER

12449615	PT-10244-615		T1
----------	--------------	--	----

CHASSIS

# 01564790	A6-OP1 EXP COVER		
------------	------------------	--	--

PACKING

01456334	PACKING CASE		
----------	--------------	--	--

MISCELLANEOUS

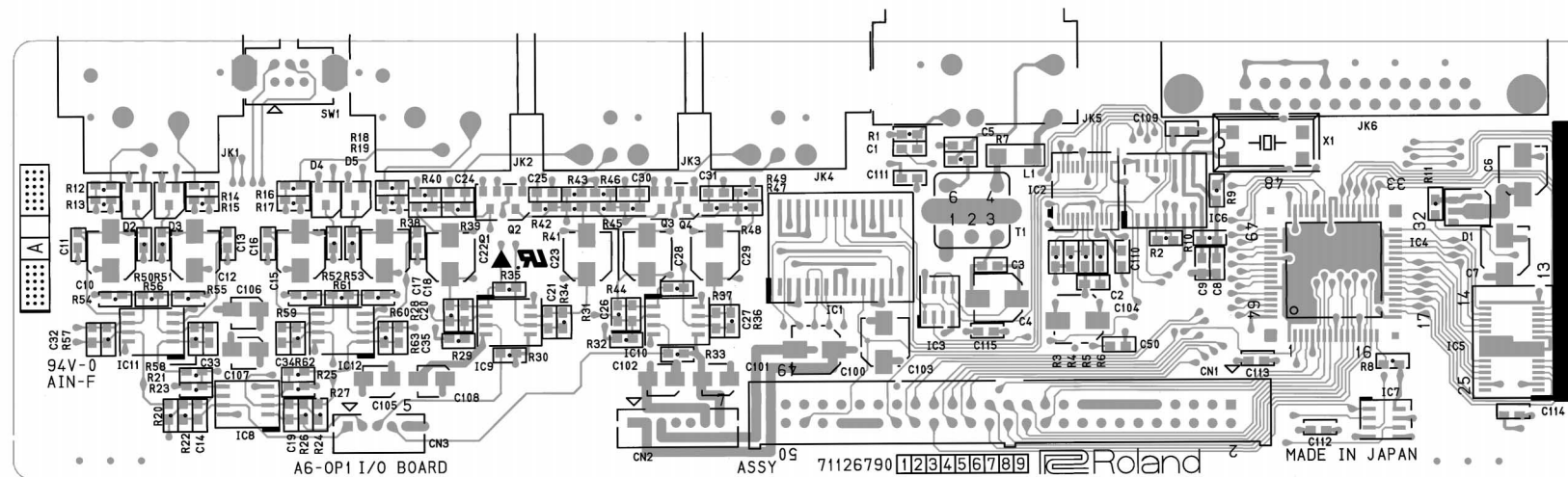
# 01569456	SHIELD SHEET		
# 01561623	UC-300287 L=10	EMI GASKET	

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

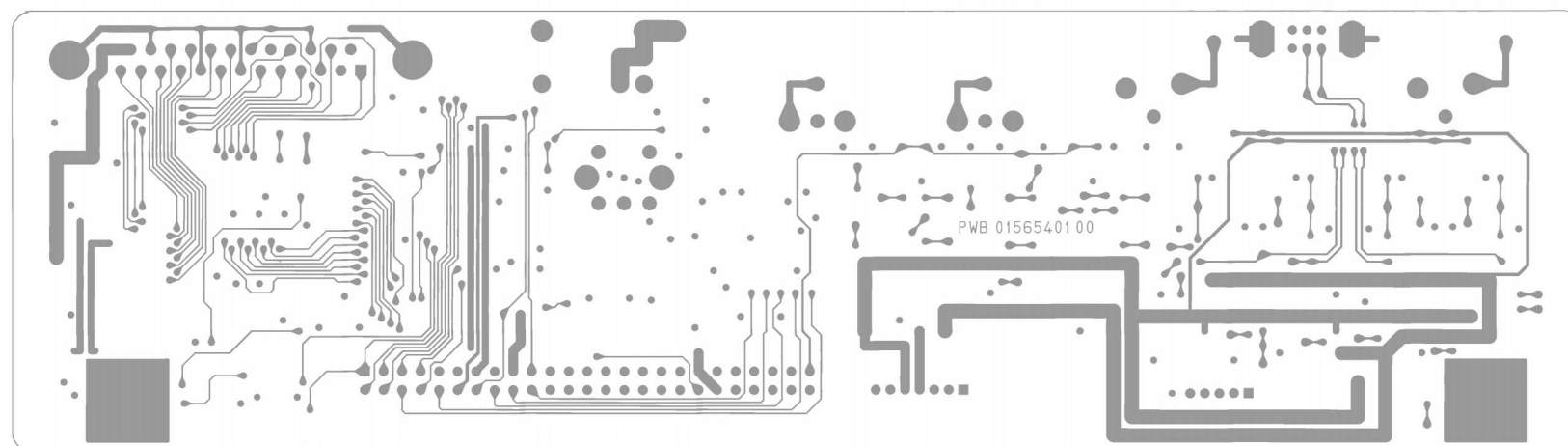
A CIRCUIT BOARD (A6-OP1)

B A6-OP1 I/O BOARD ASSY (71126790)

C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U



View from component side.



View from foil side.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

A CIRCUIT DIAGRAM

A6-OP1 I/O BOARD ASSY (71126790)

