

E-500

SERVICE NOTES

First Edition

Issued by RES

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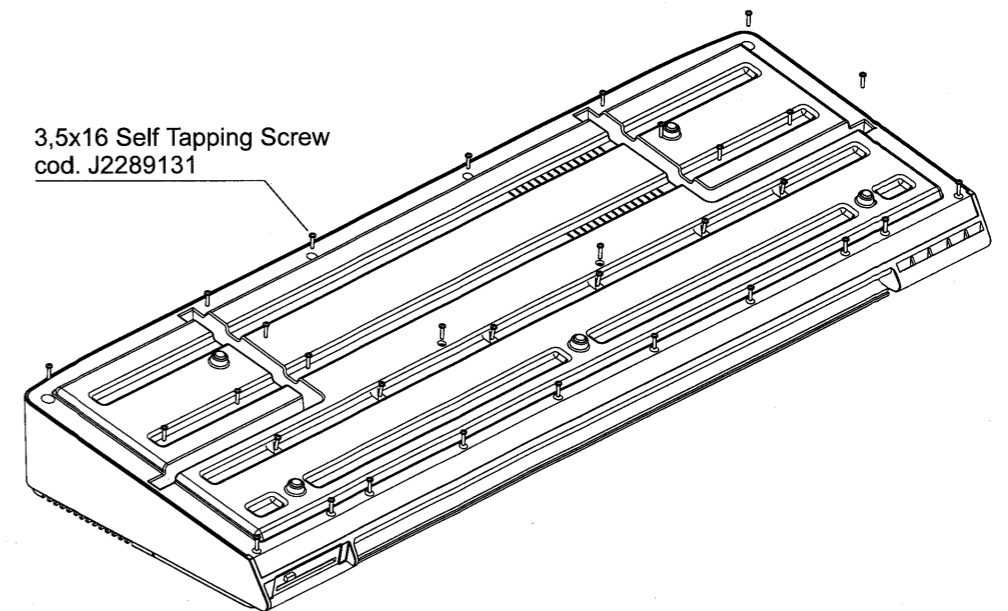
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SPECIFICATIONS

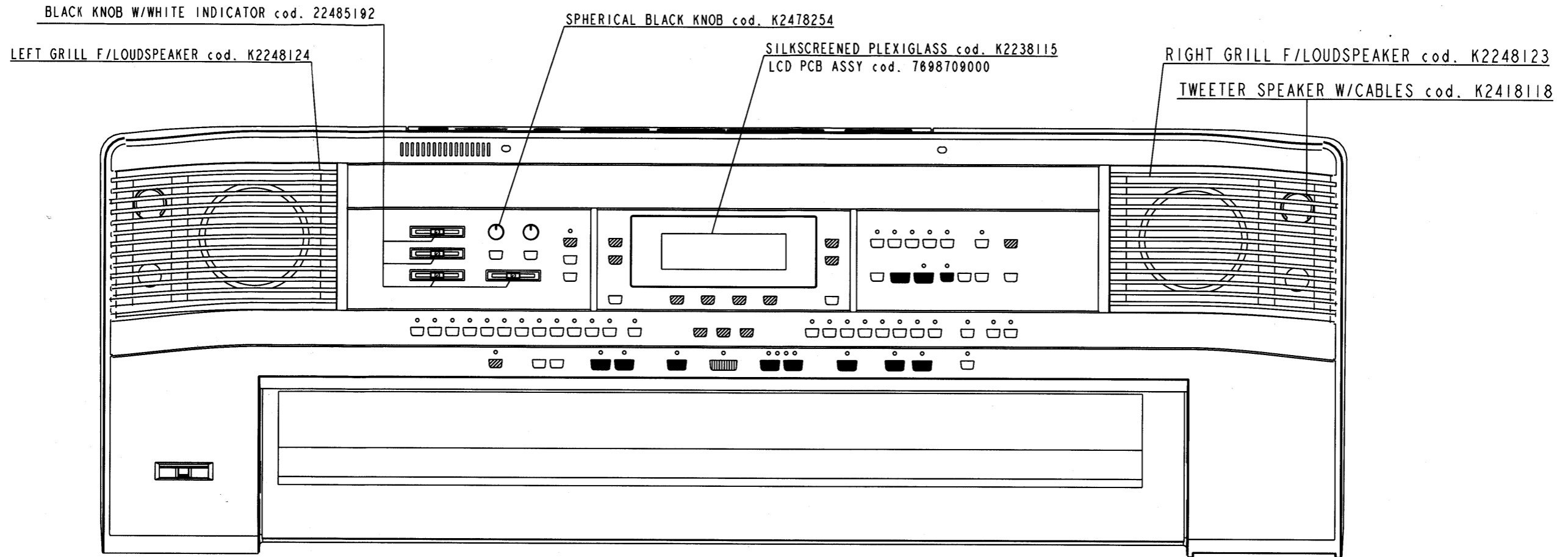
- Keyboard 61 Keys, velocity sensitive keyboard
- Touch sensitivity Super Light, Light, Medium, Heavy, Super Heavy
- Keyboard modes Whole, Split, Layer, Split Arranger, Piano Style Arranger, Manual Drum/SFX
- Sound Source Conforms to GM/GS
- Maximum polyphony 64 Voices
- Tones 8 Groups, 124 Variations, (Tone Expansion mode: 270 Variations)
- Manual Drum/SFX Set 8 Drum Sets, 1 SFX set
- Effects Reverb (8 types), Chorus (8 types) + DSP (Rotary, Symphatetic, etc.)
- User Programs 16 memories
- Music Styles Internal: 111
- Programmable Music Styles Yes
- Melody Intelligent 18 different pre-set pattern
- Composer 16 Tracks (easy mode 5-tracks)
- 1 Song
- Approx 30.000 notes
- Tempo 20-250
- Resolution 120 tpqn
- Recording Method: Real-Time / Step (Chord Sequence Mode)
- Edit Functions: Copy, Quantize, Erase, Delete, Insert.
- Songs: Max 99
- Notes: Approx 120.000 (2DD), Approx 240.000 (2HD)
- Playback: SMF 0/1, "i" format, KR
- Save: SMF 0, KR
- In-line help 4 Languages (English, German, French, Japanese)
- Disk Drive 3,5" Micro FDD (2DD/2HD)
- Display 240x64 dot graphic LCD with CFL backlighting
- Lyrics On display
- On external TV/Monitor (with optional LVC-1)
- Connectors Output Jacks (Mono/Stereo), Mic Input with Echo and Volume controls, Phones Jack (stereo), Pedal inputs (Damper, Soft, Sostenuto), MIDI connectors (In, Out, Thru)
- Rated Power Output 10W x 2
- Speakers Two-way stereo system, in Bass Reflex boxes (10 cm x2 / 3 cm x2)
- Power Supply AC 100V - 240V
- Power Consumption 36W (100V, 117V, 230V, 230VE, 240VA)
- Dimensions 1150 (W) x 410 (D) x 140 (H) mm.
- Weight 14 Kg
- Options MSA Music Style Disks, SMF Music Data, Headphones (RH-20/80/120), LVC-1 Lyrics to Video Converter, KS-12 Keyboard Stand, DP-2 Pedal Switch, PK-5 Dynamic MIDI Pedal.



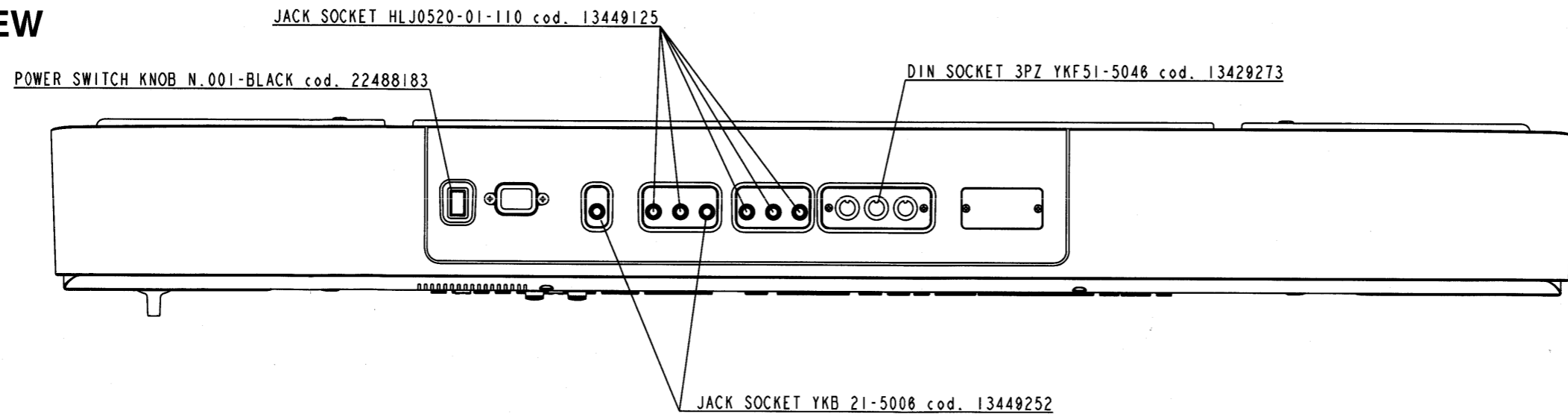
DISASSEMBLY








LOCATION OF CONTROLS



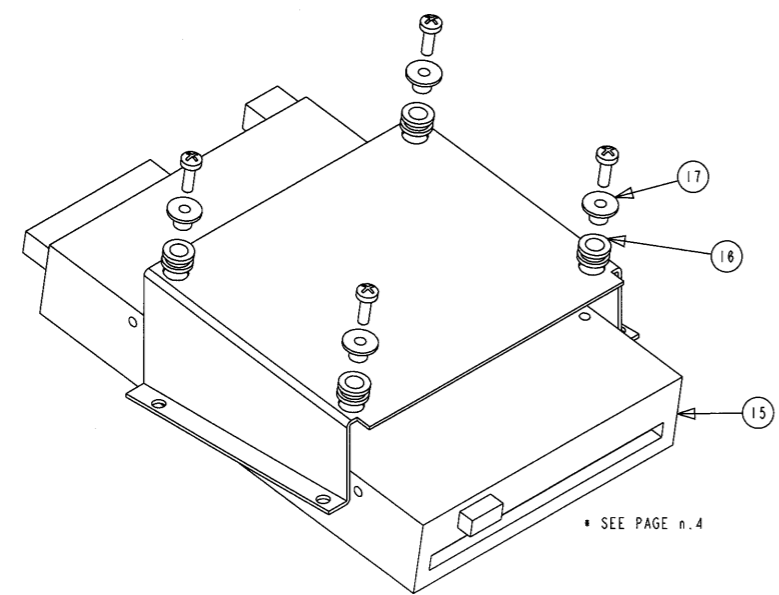
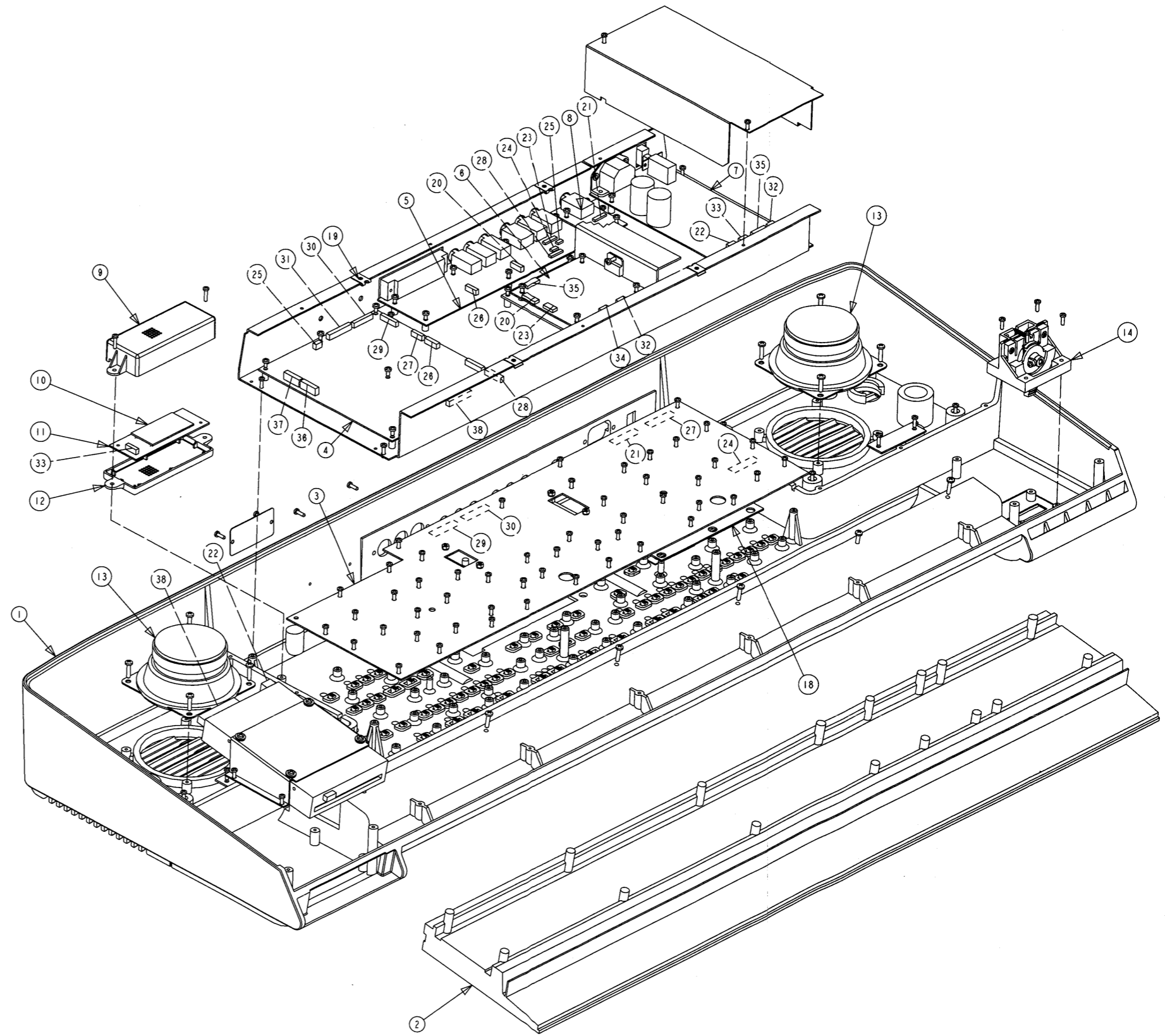
REAR VIEW



-  BUTTOM mm 11.7x6.8 (BLACK) cod. K2478220
-  BUTTOM mm 11.7x6.8 (GREY) cod. K2478226
-  BUTTOM mm 11.7x6.8 (RED) cod. K2478225
-  BUTTOM mm 17.3x8.3 (BLACK) cod. K2478219
-  BUTTOM mm 24.7x8.3 (GREY) cod. K2478218

EXPLODED VIEW

No	PARTS NAME	PARTS NUMBER
1	VARN+SILK. TOP CABINET	7698722000
2	81-KEY KEYBOARD ASSY TP/9	7626223001
3	CONTROLS PCB ASSY	7698704000
4	MAIN BOARD PCB ASSY	7698707000
5	JACK SOCKET ASSY	7698702000
6	AMPLIFIER PCB ASSY	7698701000
7	SWITCHING POWER SUPPLY SWM-30	J2409103
8	MICROPHONE JACK ASSY	7698703000
9	PROTECTING BOX COVER F/INVERTER	K2248127
10	INVERTER MODULE CXA-M10AL	00900901
11	INVERTER PCB ASSY	7698708000
12	PROTECTING BOX BASE F/INVERTER	K2248128
13	WOOFER SPEAKER D=90mm	K2418117
14	PITCH BENDER W/SENSOR+CABLE(52)	K3278105
*	15 FLOPPY D.DRIVER JU-257 A166P	J2409101
16	RUBBER GUIDE BUSHING	22265242
17	BRASS BUSHING	22165134
18	ANTIDUST COVER PL30N	K2248126
19	DOUBLE ELASTIC PLATE	J2159103
20	7P CABLE ASSY (18) -2C D/R	7697239001
21	1P COAXIAL CABLE ASSY (82) -2C	7698712000
22	3P CABLE ASSY (78) (W/4PC+4PC)	7698713000
23	1P+2P SHIEL. CBL ASSY (20) -2C	7698714000
24	2P+2P COAXIAL CBL ASSY (122) P2	7698715000
25	3P CABLE ASSY (36) -2C P.2	7698716000
26	7P CABLE ASSY (18) -2C P.2	7698717000
27	8P CABLE ASSY (94) -2C P.2	7698718000
28	7P+1P COAXIAL CBL ASSY (32) P.2	7698719000
29	9P CABLE ASSY (52) -2C P.2	7698720000
30	12P CABLE ASSY (52) -2C P.2	7698710000
31	14P CABLE ASSY (70) -2C P.2	7698721000
32	4P CABLE ASSY (28) -2C	K3468155
33	4P CABLE ASSY (80) -2C	K3468156
34	4P CABLE ASSY (52/58) (W/4PC)	K3468154
35	7P CABLE ASSY (38) -2C	K3468157
36	18P FLAT CABLE ASSY (82) -2C	K3468158
37	18P FLAT CABLE ASSY (72) -2C/D	K3468163
38	34P FLAT CABLE ASSY (80) -2C	K3468150



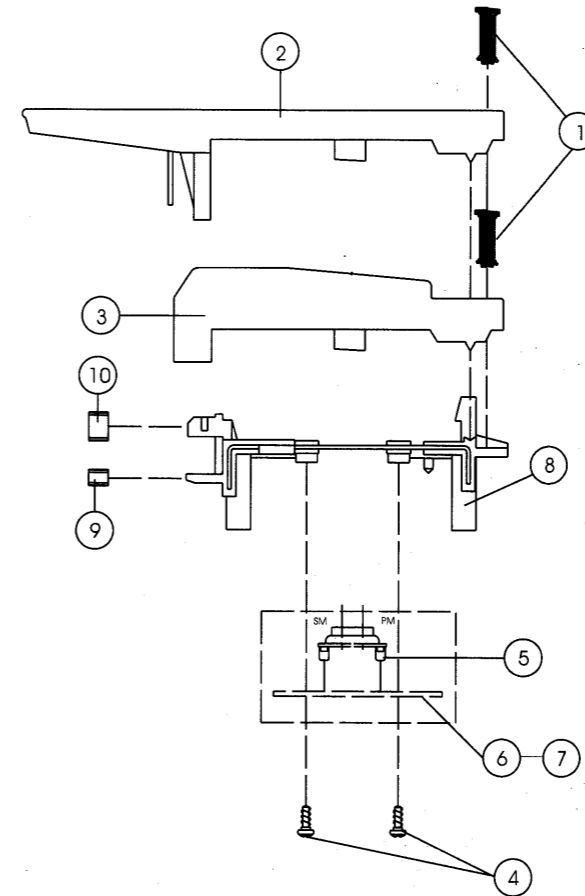
• SEE PAGE n.4

KEYBOARD PARTS LIST

KEYBOARD ASSY (61key)

ASSY 7625001000

No.	Description	Code
1	KEY SPRING	22178233
2	NATURAL KEY C5 (DO)	22578319
	NATURAL KEY D6 (RE)	22578328
	NATURAL KEY E7 (MI)	22578329
	NATURAL KEY F1 (FA)	22578330
	NATURAL KEY G2 (SOL)	22578331
	NATURAL KEY A3 (LA)	22578332
	NATURAL KEY B4 (SI)	22578333
2	NATURAL KEY C8 (DO fin)	22578334
	NATURAL KEY C8 (DO fin)	22578334
3	SHARP KEY	22578335
4	2,9 x 8 mm Self-Tapping Screw TCTC PRBZ (Screw. No.J2289104 or 206132908)	
5	12P RUBBER CONTACT	22185238
	13P RUBBER CONTACT	22185239
6	LEFT CONTACT PCB ASSY +RUBBER CONTACT	7624505000
7	RIGHT CONTACT PCB ASSY +RUBBER CONTACT	7624504000
8	PLASTIC CHASSIS	22818761
9	GUIDE BUSHING INFERIOR	J2359104
10	GUIDE BUSHING SUPERIOR	22158789



FDD SWITCH SETTING FOR E-500

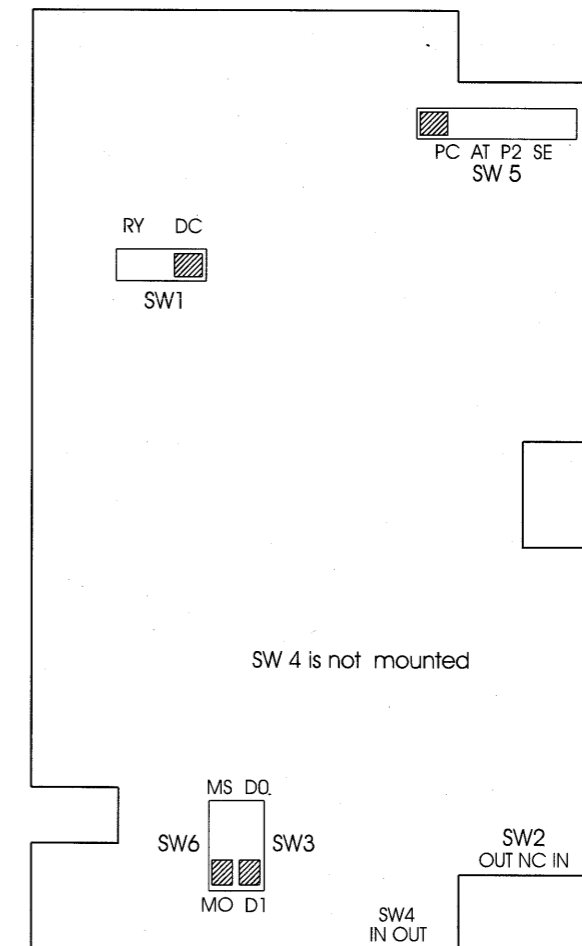
ATTENTION: Before using the JU257A 166P FDD (J2409101) in the model E-500, please don't forget to change the switch positions according to the setting shown in the table 1 (B).

	A	B
SW3	D0	D1
SW1	RY	DC
SW6	MO	MO
SW2	OUT	NC
SW5	PC	PC

TABLE 1

A = This is the setting of the FDD switches when you receive the Floppy Disk Drive JU257A 166P (J2409101).

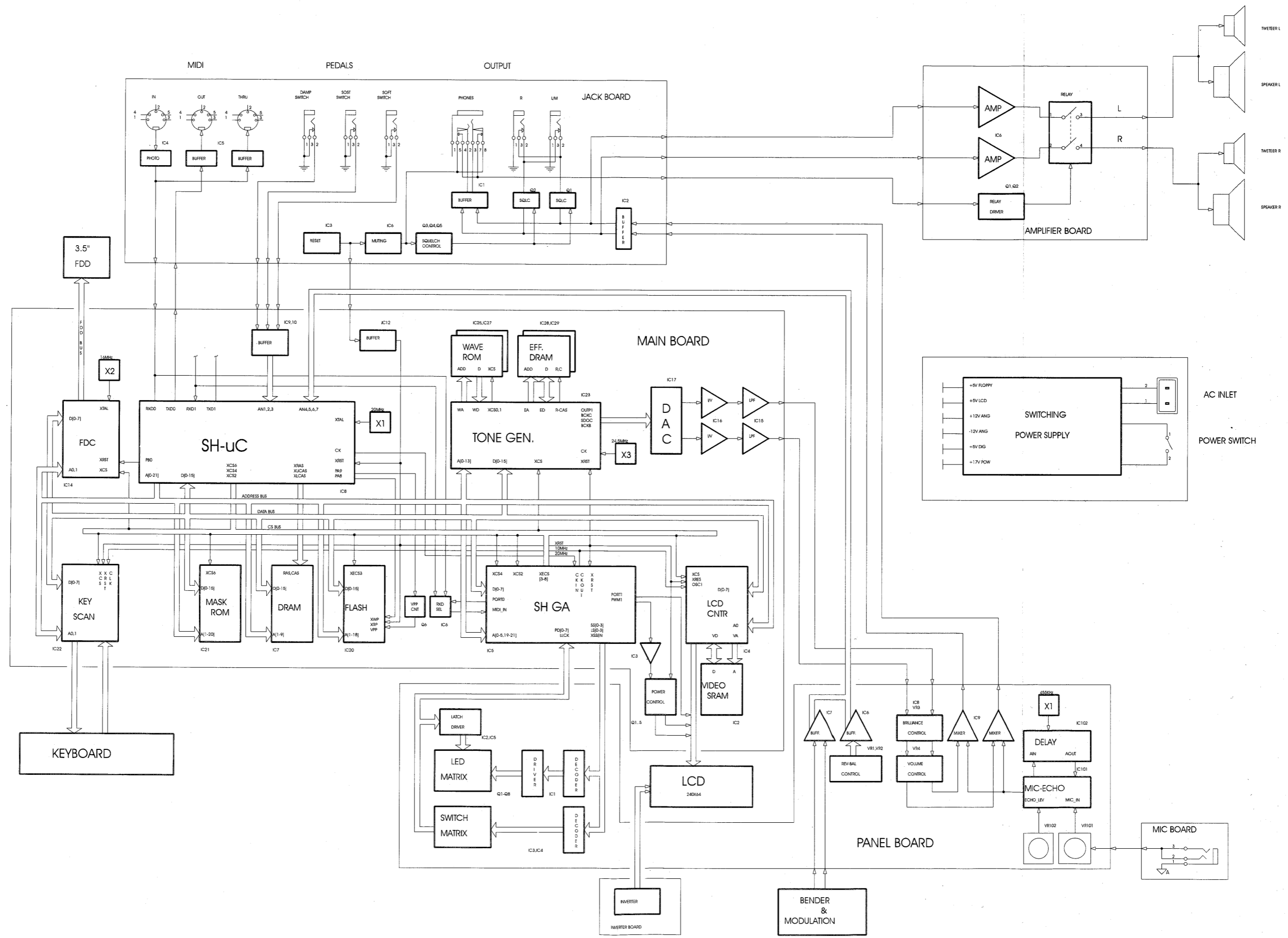
B = Setting of the FDD switches for E-500.



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

A BLOCK DIAGRAM

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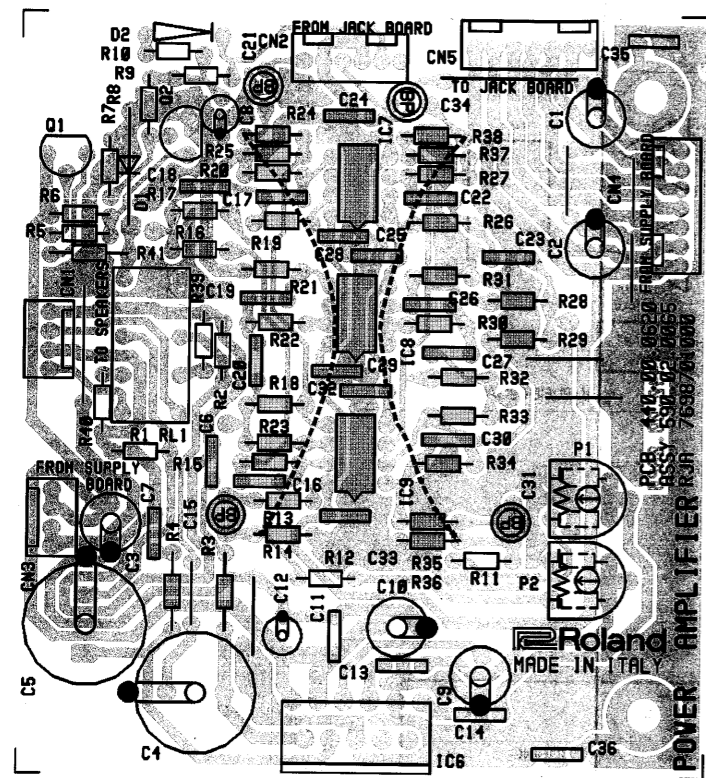


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

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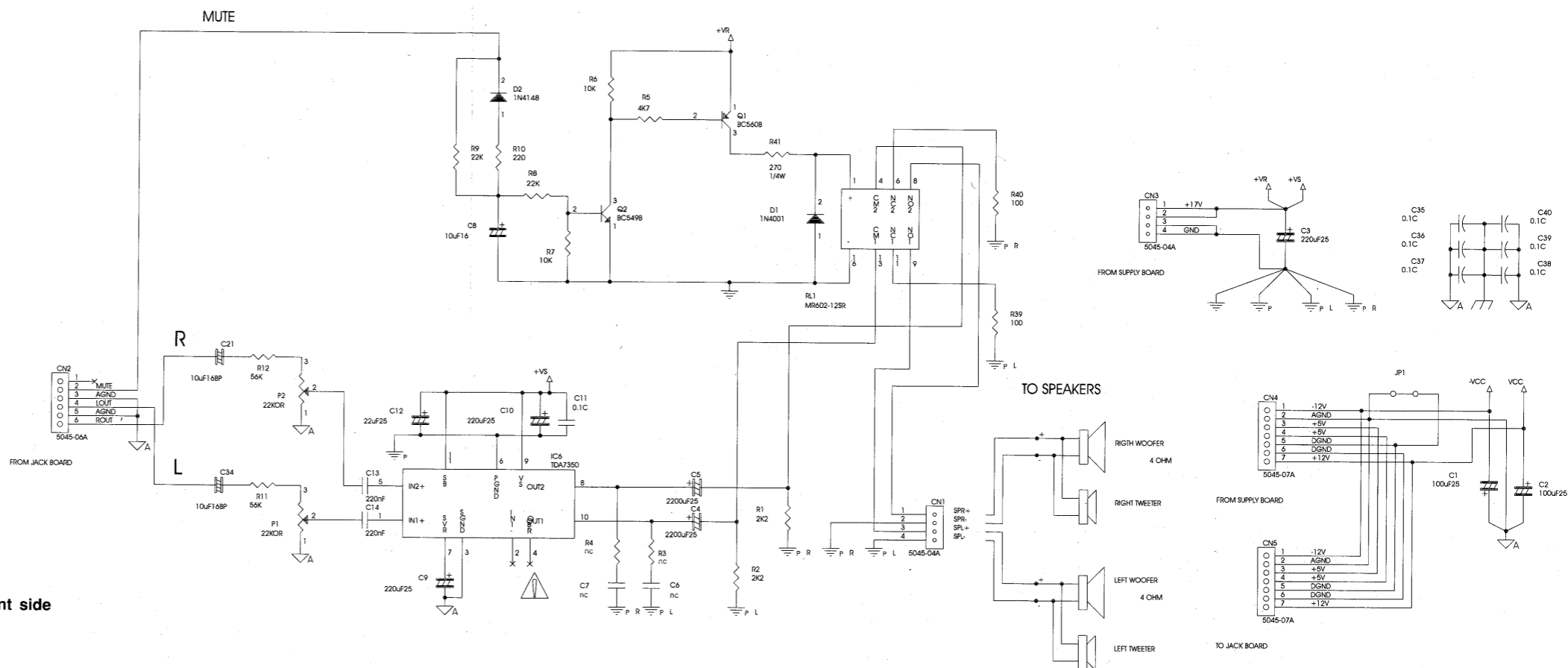
POWER & AMPLIFIER PCB ASSY ASSY 7698701000

CIRCUIT DIAGRAM POWER & AMPLIFIER PCB ASSY



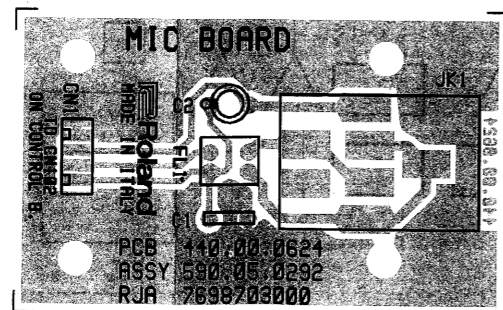
View from component side

■ NOT mounted component
- - - Jumper

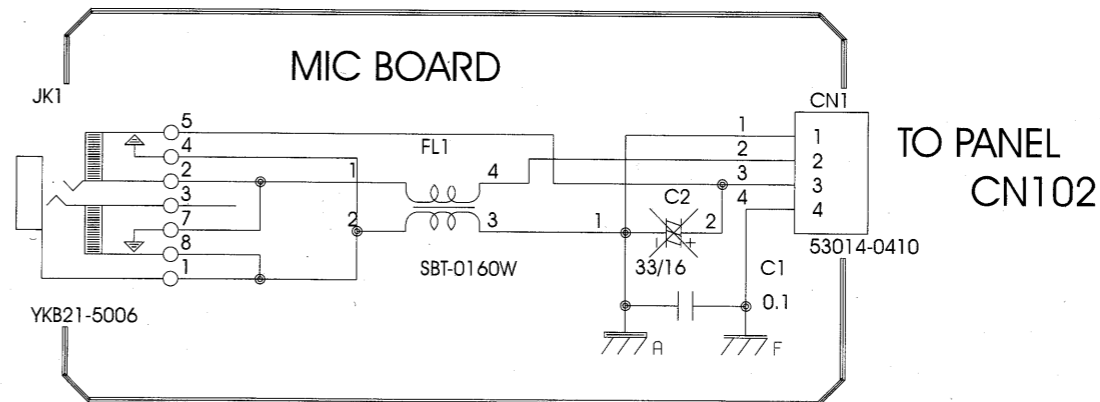


MIC PCB ASSY ASSY 7698703000

CIRCUIT DIAGRAM MIC PCB ASSY



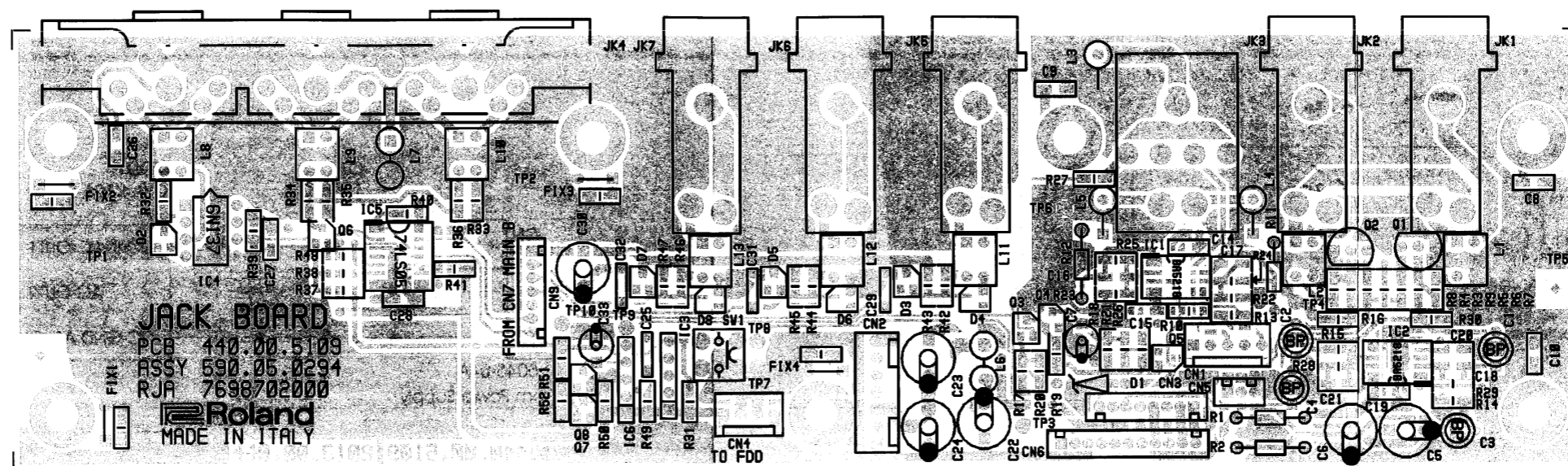
View from component side



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 29 30

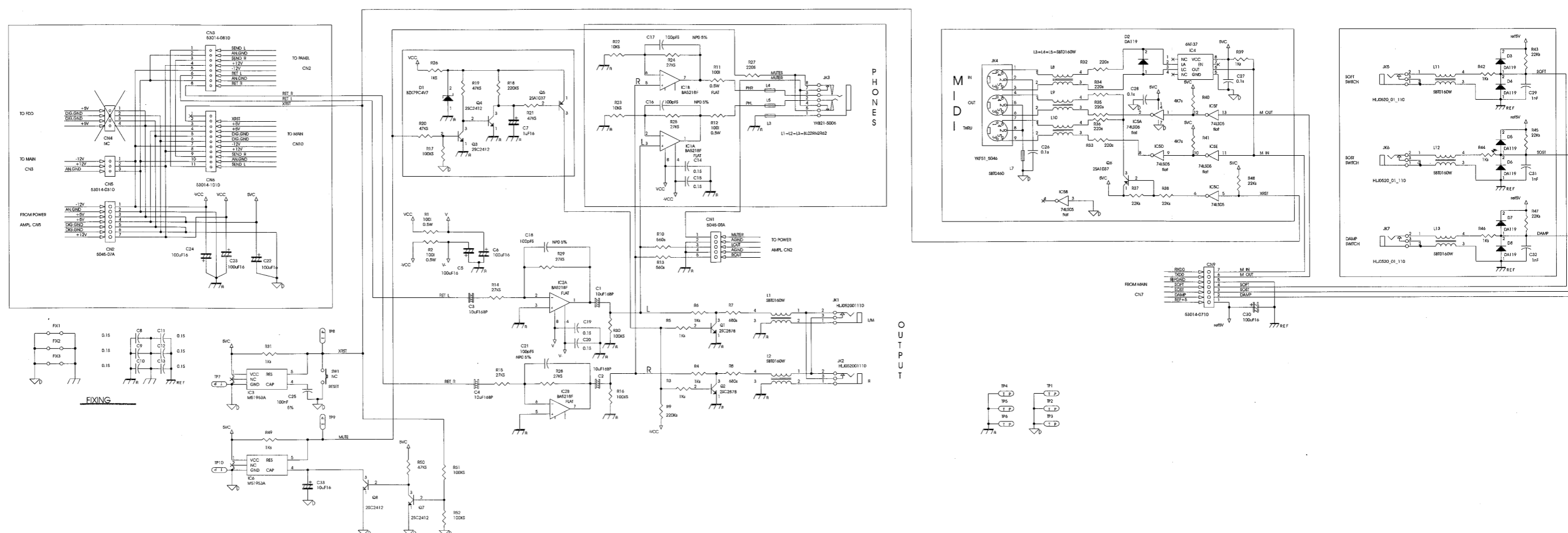
A JACK PCB ASSY ASSY 7698702000

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CIRCUIT DIAGRAM (JACK PCB ASSY)

View from component side

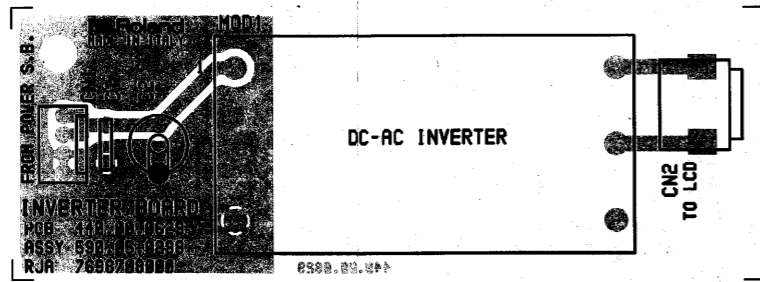


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

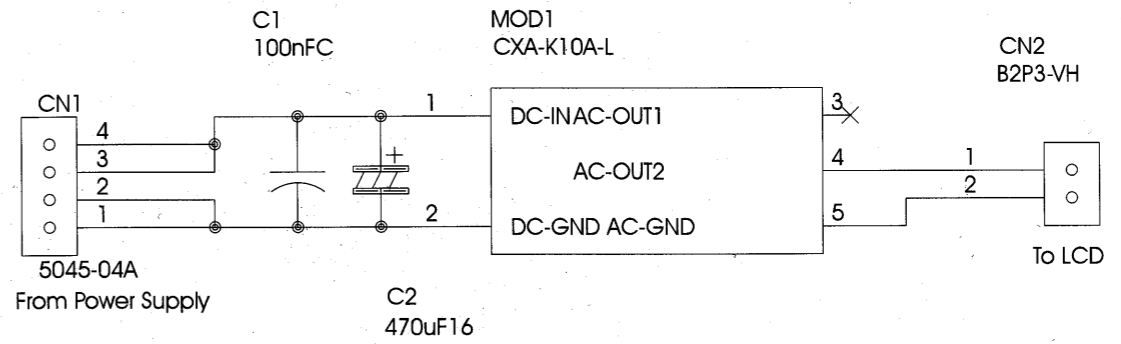
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INVERTER PCB ASSY ASSY 7698708000

CIRCUIT DIAGRAM (INVERTER PCB ASSY)

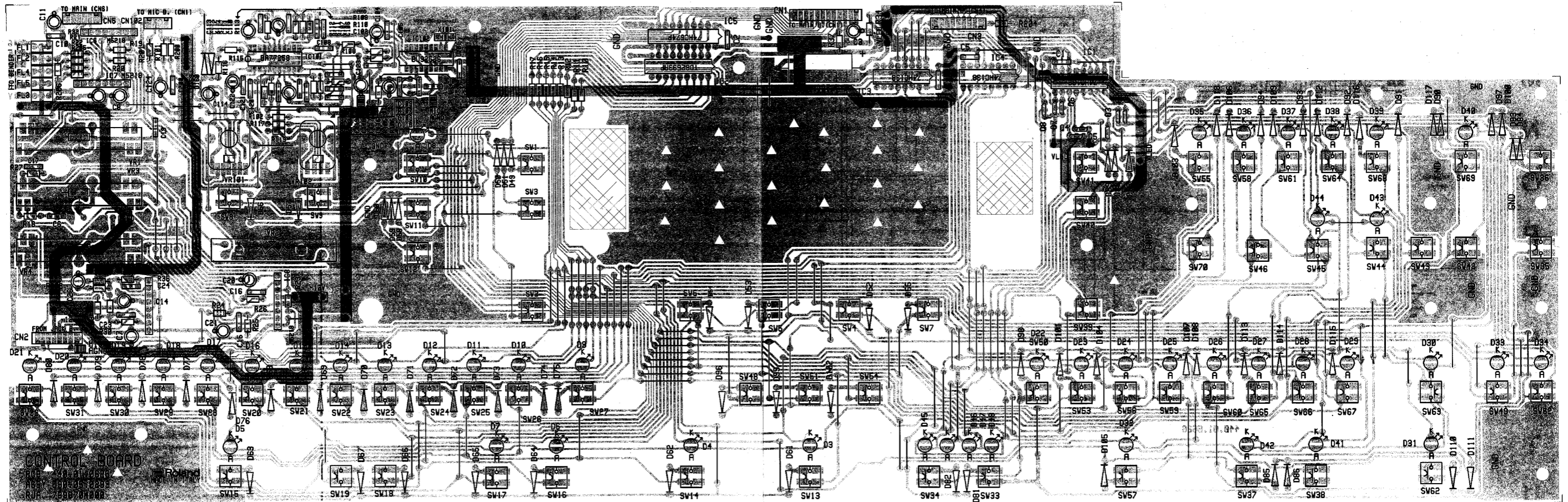


View from component side



CIRCUIT DIAGRAM (CONTROL PCB ASSY) ASSY 7698704000

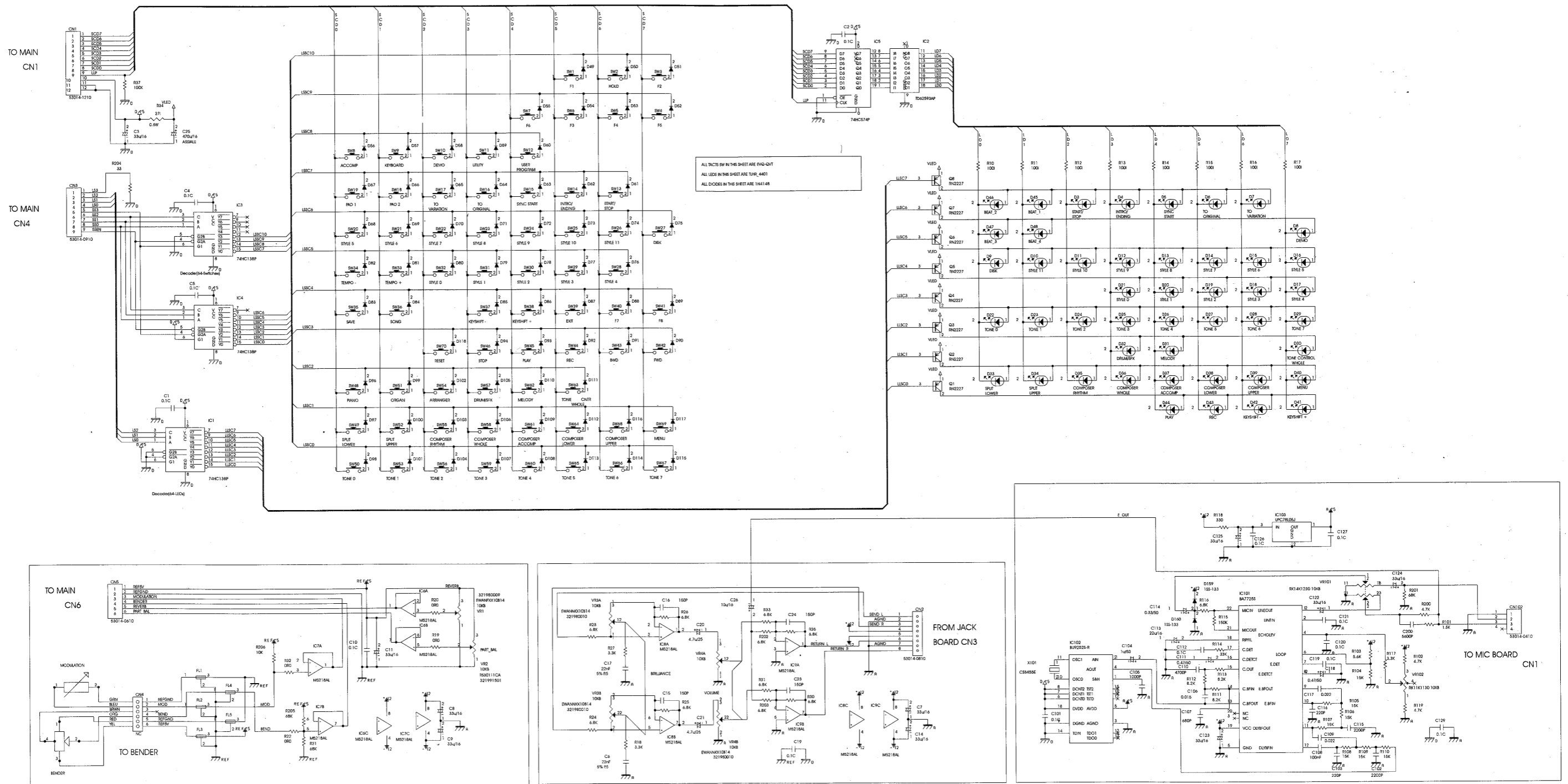
View from component side



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 29 30

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CIRCUIT DIAGRAM (CONTROL PCB ASSY)

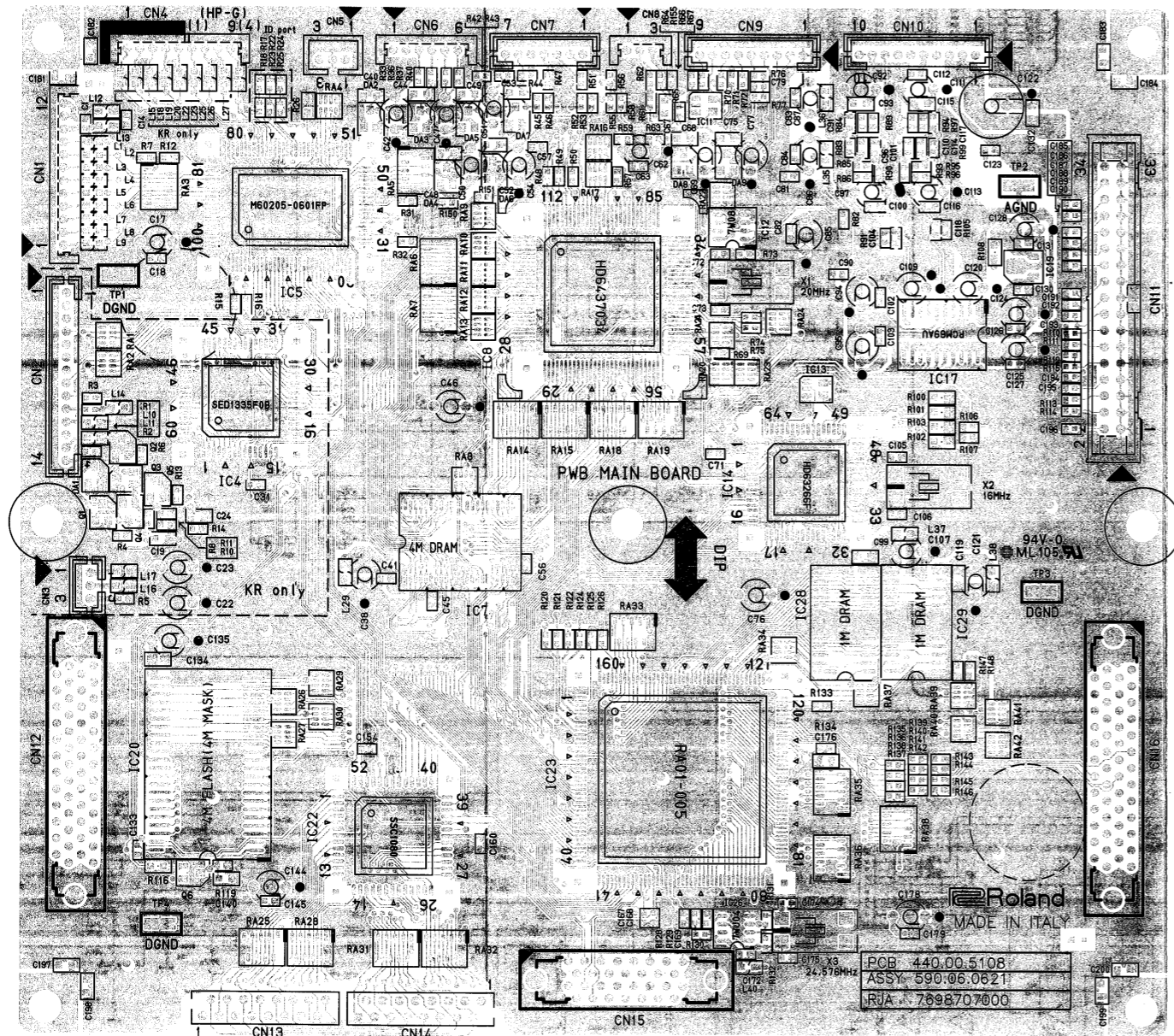


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

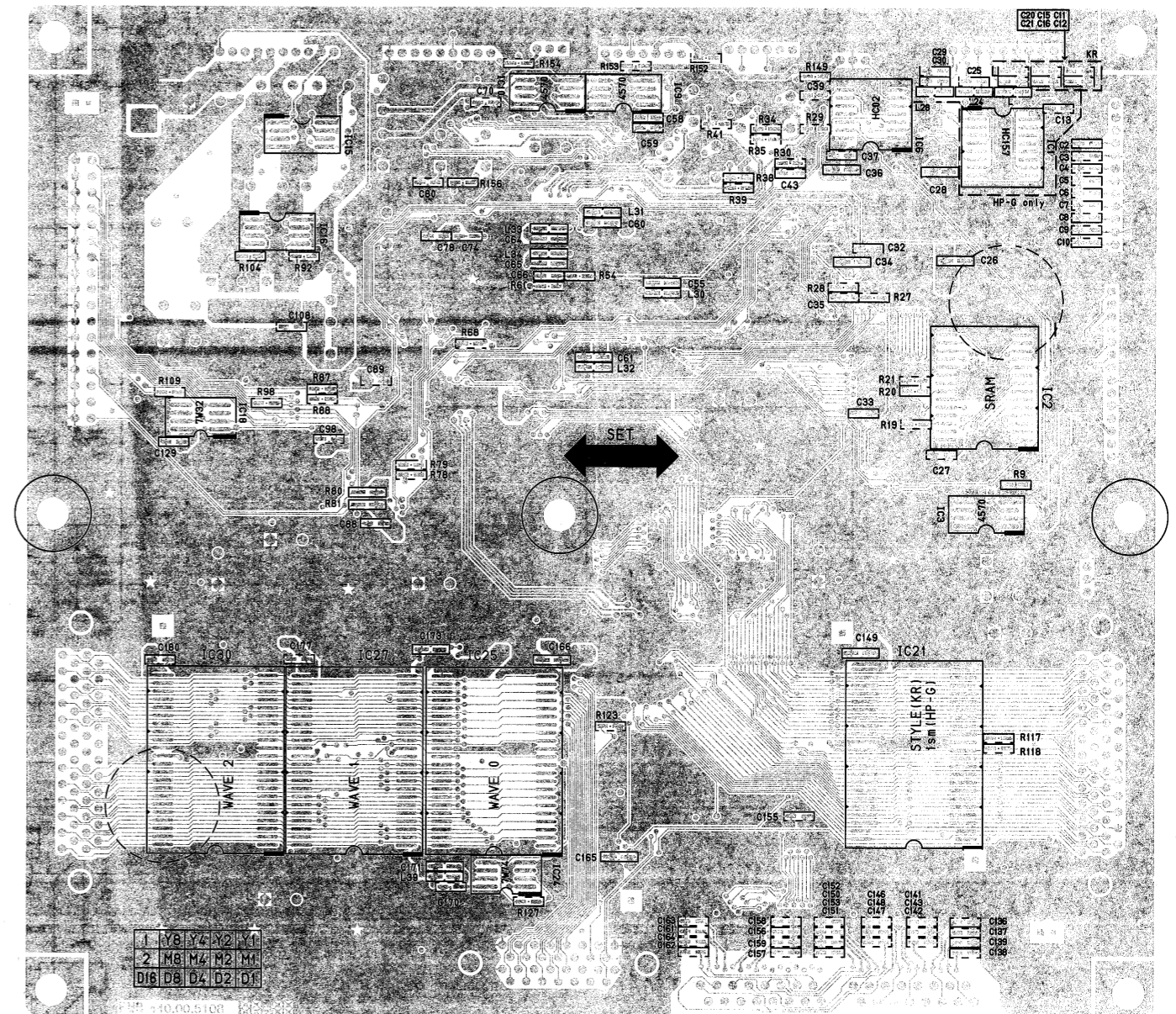
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MAIN PCB ASSY ASSY 7698707000

NOTE
 When you replace the MAIN BOARD [REDACTED] you must reperform bender adjustment.
 Refer to [BENDER VALUE SETTING] item in the test mode.



View from component side

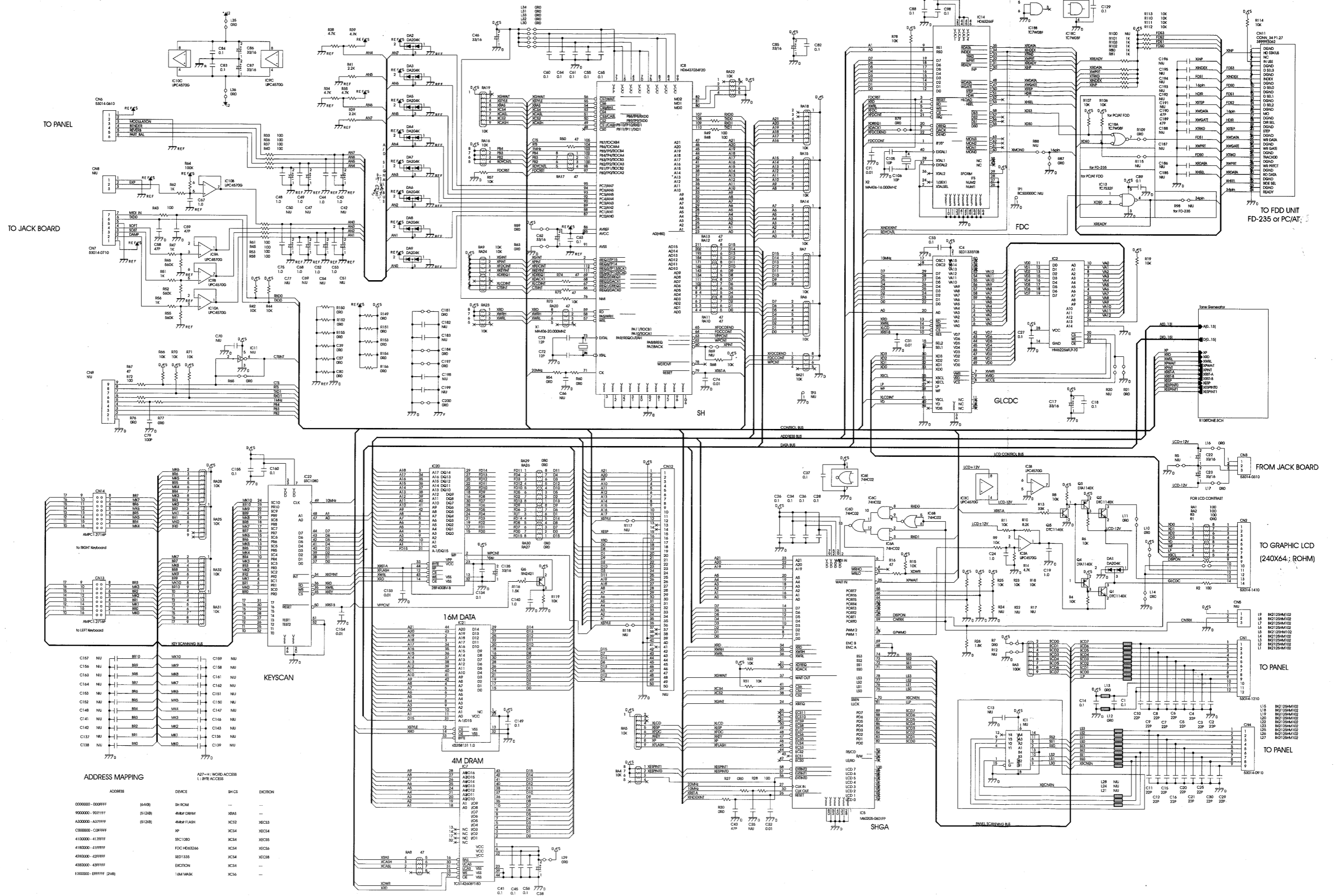


View from solder side

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

CIRCUIT DIAGRAM (MAIN PCB ASSY) 1/2

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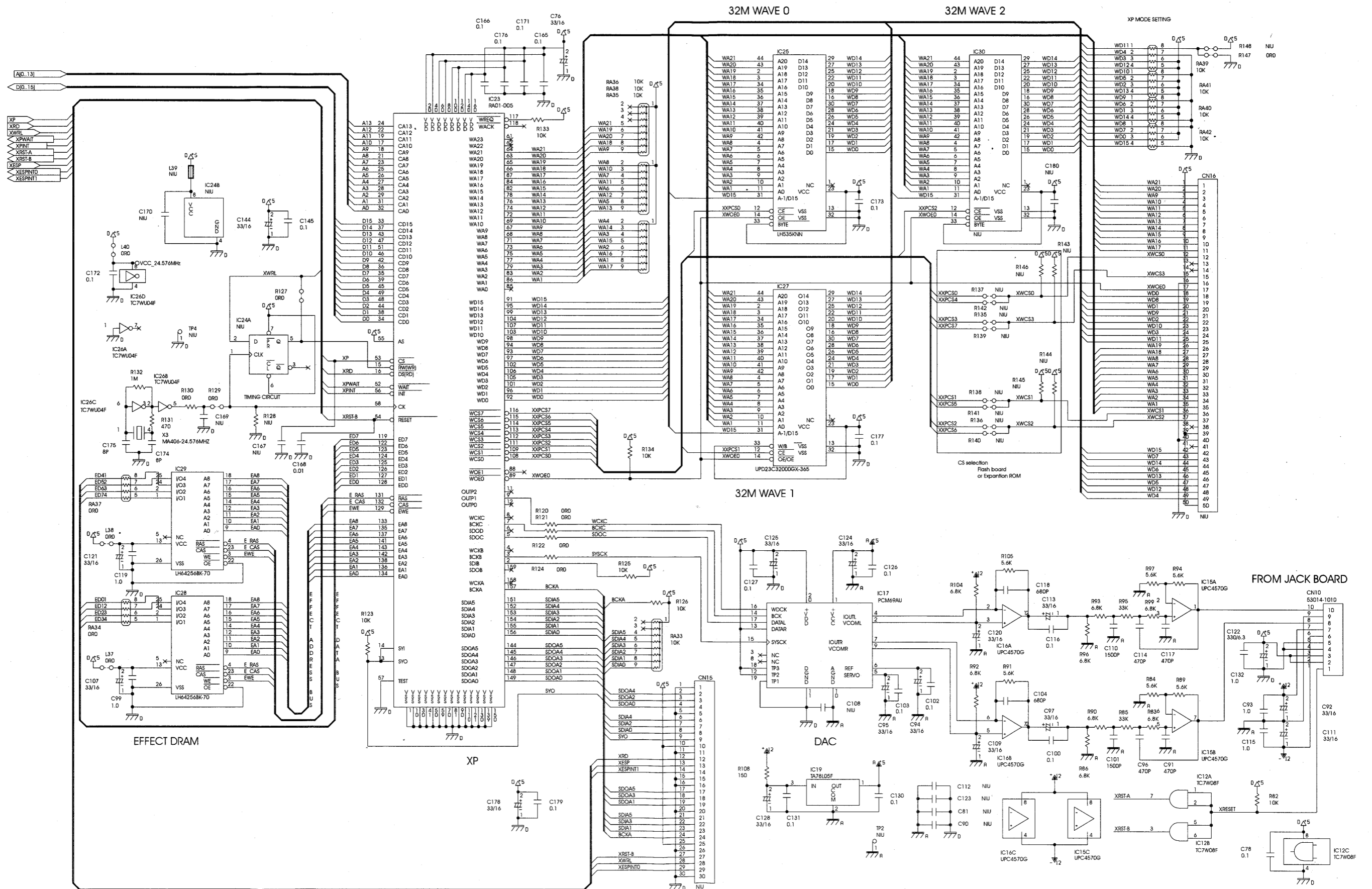
ADDRESS MAPPING

ADDRESS	DEVICE	SH CS	FUNCTION
000000 - 000FFF	(5408) SR ROM	—	—
900000 - 907FFF	(5128) 4MB DRAM	XRAS	—
A30000 - A37FFF	4MB FLASH	XCS3	—
C00000 - C0FFFF	XP	XCS4	XCS4
410000 - 417FFF	SHC (80)	XCS4	XCS5
418000 - 41FFFF	FDC HEAD266	XCS4	XCS6
490000 - 49FFFF	SHD1335	XCS4	XCS8
4B0000 - 4BFFFF	EXICION	XCS4	—
1E0000 - 1EFFFF (2MB)	16M MASK	XCS6	—

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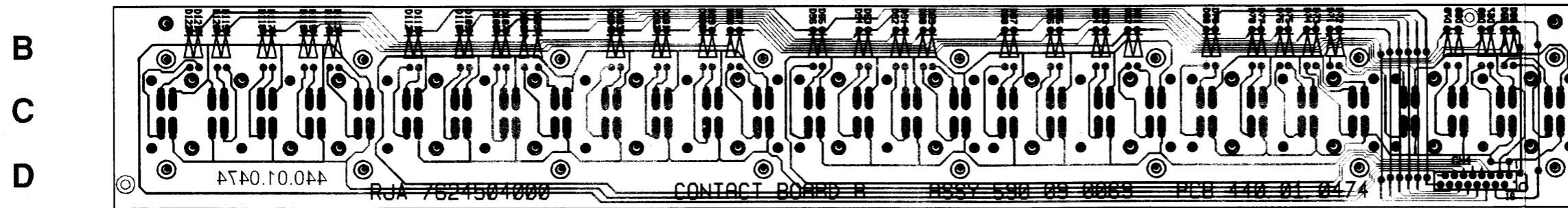
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CIRCUIT DIAGRAM (MAIN PCB ASSY) 2/2



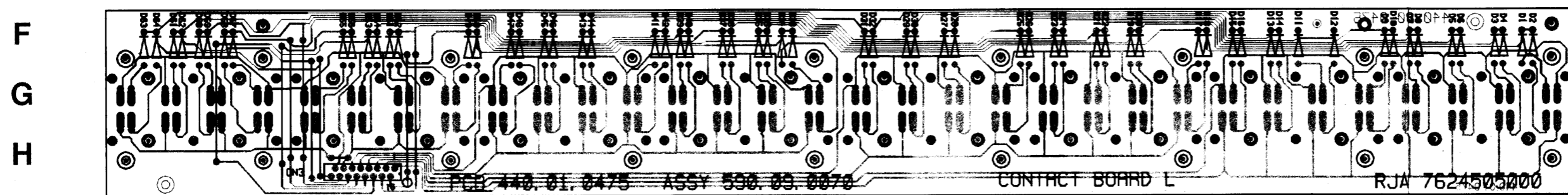
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A RIGHT CONTACT PCB ASSY w/RUBBER ASSY 7624504000



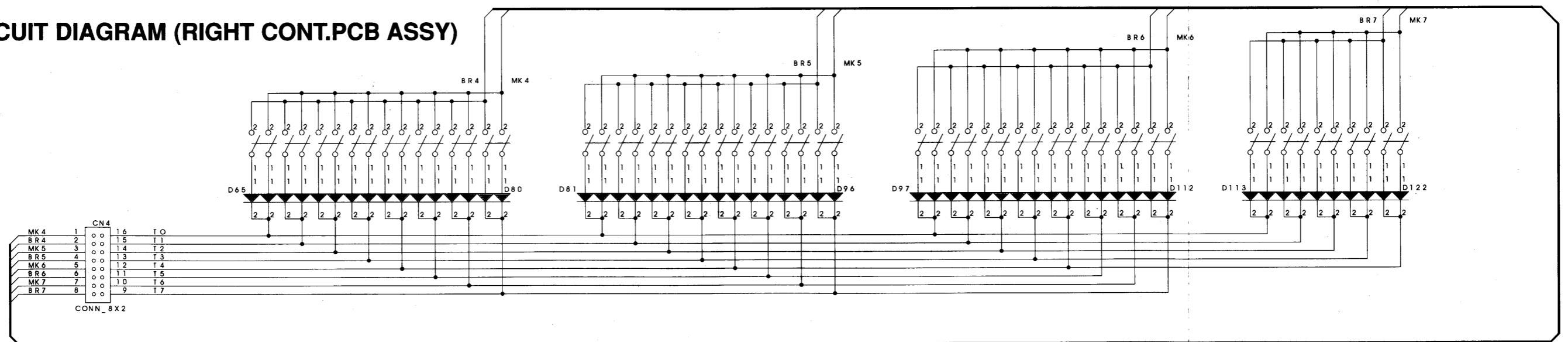
View from component side

E LEFT CONTACT PCB ASSY w/RUBBER ASSY 7624505000

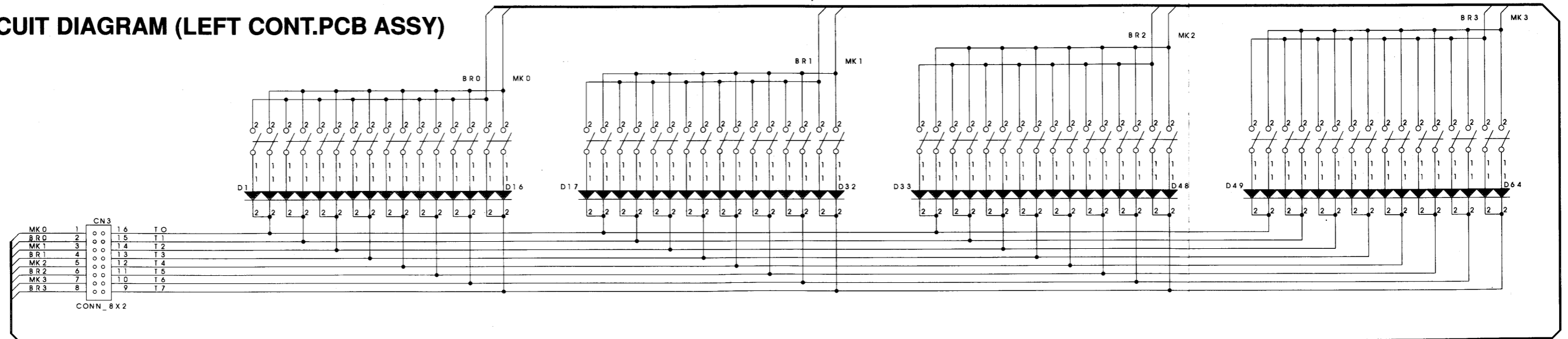


View from component side

I CIRCUIT DIAGRAM (RIGHT CONT.PCB ASSY)



P CIRCUIT DIAGRAM (LEFT CONT.PCB ASSY)



PARTS LIST E-500 (117V/230V/230VE/240VA)

SAFETY PRECAUTIONS :

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

CONSIDERATION ON PARTS ORDERING

When ordering any parts listed in the parts list, please specify the following items in the order sheet.
Ex. QTY PART NUMBER DESCRIPTION MODEL NUMBER
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). The parts marked Δ have Safety - Related characteristics. Use only listed parts for replacement.

RCB = Right Contact Board PSB = Power Supp. Board
LCB = Left Contact Board PAB = Power & Amp. Board
CB = Control Board MB = Main Board
IB = Inverter Board MICB = Mic Board
JB = Jack Board

CASING

Table with columns: Part #, Description, Model Number. Includes items like MUSIC SCORE HOLDER, MUSIC REST, RIGHT GRILL F/LOUDSPEAKER, etc.

KNOB BUTTON

Table with columns: Part #, Description, Model Number. Includes items like SPHERICAL BLACK KNOB, BUTTON, POWER SWITCH KNOB, etc.

SWITCH

Table with columns: Part #, Description, Model Number. Includes item: SWITCH EVQ-QSB 05K GR.160 on CB

JACK, SOCKET

Table with columns: Part #, Description, Model Number. Includes items: JACK SOCKET, JACK SOCKET, DIN SOCKET

DISPLAY UNIT

Table with columns: Part #, Description, Model Number. Includes item: LCD PCB ASSY E-500

DISK DRIVE UNIT

Table with columns: Part #, Description, Model Number. Includes item: FLOPPY D.DRIVER JU-257 A166P (Refer to FDD SWITCH SETTING FOR E-500 Pag.4)

BENDER UNIT

Table with columns: Part #, Description, Model Number. Includes item: PITCH BENDER W/SENSOR +CBL(52)

SPEAKER

Table with columns: Part #, Description, Model Number. Includes items: WOOFER SPEAKER D.90 MM, TWEETER SPEAKER W/CABLES

KEYBOARD ASSY

Table with columns: Part #, Description, Model Number. Includes item: 61-KEY KEYBOARD ASSY TP/9

POWER SUPPLY UNIT

Table with columns: Part #, Description, Model Number. Includes item: SWITCHING POWER SUPPLY SWM-30 (100V,230V,230VE,240VA)

PCB ASSY

Table with columns: Part #, Description, Model Number. Includes items: AMPLIFIER PCB ASSY, MICROPHONE PCB ASSY, CONTROLS PCB ASSY, etc.

IC

Table with columns: Part #, Description, Model Number. Includes items: INVERTER MODULE, PHOTO-COUPLER, MASK ROM, etc.

Table with columns: Part #, Description, Model Number. Includes items: I.C. HD63266FP-64A, CUSTOM IC, LCD Controller, CMOS, etc.

TRANSISTOR

Table with columns: Part #, Description, Model Number. Includes items: TRANSISTOR BC/560-B, BC/549-B, 2SC-2878-A/B, etc.

DIODE

Table with columns: Part #, Description, Model Number. Includes items: DIODE 1N-4148, CHIP DIODE DA119, DA-204K, etc.

RESISTOR

Table with columns: Part #, Description, Model Number. Includes items: CHIP RES. ARRAY 8X 10K +C, RESISTOR ARRAY 1608 4X100 E/8, etc.

POTENTIOMETER

Table with columns: Part #, Description, Model Number. Includes items: ROT. POT. 10KB 14K 1230, SLIDER POT. NFX-X10 B14, etc.

CAPACITOR

Table with columns: Part #, Description, Model Number. Includes items: POLYEST. COND. 0805 470P 5%, POLYEST. COND. 0805 680P 5%, etc.

INDUCTOR, COIL, FILTER

Table with columns: Part #, Description, Model Number. Includes items: NOISE SUP. BL02RN2-R62, NOISE SUP. SBT-0160W, etc.

CRYSTAL, RESONATOR

Table with columns: Part #, Description, Model Number. Includes items: QUARTZ 20000 MHZ MA-406, QUARTZ 16000 MHZ MA-406, etc.

RELAY

Table with columns: Part #, Description, Model Number. Includes item: RELAY DS2YS-12V RL1 on PAB

CONNECTOR

Table with columns: Part #, Description, Model Number. Includes items: 34P MALE CONN., 16P FEM. CONN., 4P MALE CONN., etc.

WIRING, CABLE

Table with columns: Part #, Description, Model Number. Includes items: 4P CABLE ASSY (28) 2C, 4P CABLE ASSY (90) 2C, etc.

SCREW

Table with columns: Part #, Description, Model Number. Includes items: SELF TAP.SCREW 2.9X 6 TC TC, SELF TAP.SCREW 2.9X10 TC TC, etc.

PACKING

Table with columns: Part #, Description, Model Number. Includes items: RIGHT POLYST. END-SIDE E-500, LEFT POLYST. END-SIDE E-500, etc.

MISCELLANEOUS

Table with columns: Part #, Description, Model Number. Includes items: BRASS BUSHING, SPACER F/LED H.12 HEX, etc.

ACCESSORIES

Table with columns: Part #, Description, Model Number. Includes items: MIDI GUIDE, OWNER'S MANUAL (E) E-500, etc.

Note : Replacement should be made on a unit basis.No replacements available for individual parts. Replacement only be a unit.

Test Mode

NOTE : Once you enter the test mode, you cannot exit without turning off the power.
 When you enter the test mode, recorded data into the unit will be lost.
 If you wish to keep the recorded data, save it to a disk before you enter the test mode.

CAUTION

In the destination check(10.), make sure to press Drums/SFX button after confirming the correspondence between the destination (the voltage specification) and the LCD display. (Jump to 12. Test mode end.)
 If you press Part Volume Accomp button in this situation, the test will proceed to 11.
 Factory Setup and user settings will be lost.

• Items required:

- One MIDI cable
- Oscilloscope
- 3.5inch 2DD disk, 2HD disk (both formatted by the E-500 or, KR, HP-G, MT-families)

• Entering the test mode

Holding down Part Volume Accomp button, press Track2/Bass/Accomp button and Track4/Upper button simultaneously.

• Exiting the test mode

Turn off the power.

• Proceeding the test

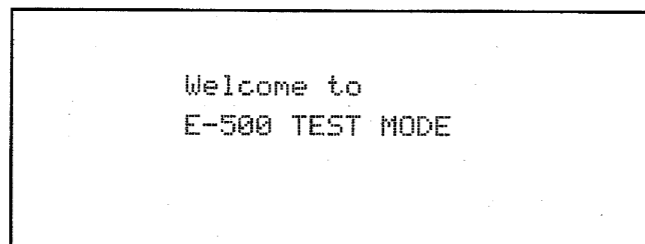
Press Part Volume Accomp button, and you can proceed to the next test.
 Contents of the test mode are the following:

1. Device and ROM version check
2. Switch/LED check
3. Speaker/effect check
4. A/D check
5. MIDI check
6. Disk drive check
7. LCD dot check
8. Display ON/OFF/display scanning lines/video RAM check
9. LCD contrast check
10. Destination setting check
11. Factory setup
12. Test mode end

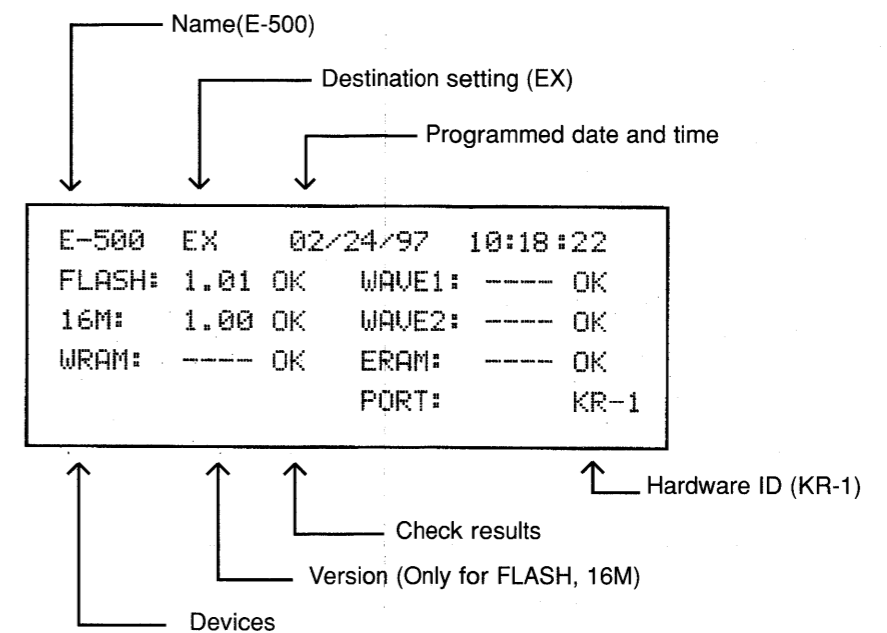
In 12., you can return to the beginning of the test mode by pressing Part Volume Accomp button.

1. Device and ROM version check

Once entered the test mode, the display below appears and automatically device checks are performed.



After a few seconds, the display below will appear.



In this situation, you can move to 10. Destination setting by pressing Piano and Arranger button simultaneously.

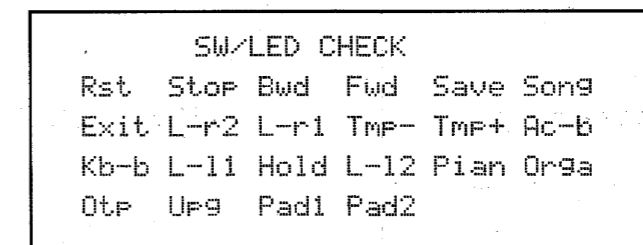
Correspondences between the display and the device are as follows:

Display	Device
FLASH	FLASH MEMORY for program (IC20)
16M	MASK ROM for data (IC21)
WRAM	Work DRAM (IC7)
WAVE1	WAVE ROM 1 (IC25)
WAVE2	WAVE ROM 2 (IC27)
ERAM	XP chip (IC23) and Effect DRAM's(IC28,IC29)

NOTE : During the device check, do not press the keyboard. If you press a key, "NG" may appear in the results of WAVE1, WAVE2, ERAM check.

2. Switch/LED check

All LED's on the panel light, and the names of the buttons without LED appear in the display.



Correspondences between the display or the beat LED and the button is as follows:

Display	Button
Rst	Reset
Stop	Stop
Bwd	Bwd
Fwd	Fwd

Save	Save
Song	Song
Exit	Exit
L-r2	LCD lower right
L-r1	LCD upper right
Tmp-	Tempo -
Tmp+	Tempo +
Ac-b	Part Volume Accomp
Kb-b	Part Volume Keyboard
L-l1	LCD upper left
Hold	Hold
L-l2	LCD lower left
Pian	One Touch Piano
Orga	One Touch Organ
Otp	One Touch Arranger
Upg	User Program
Pad1	Pad 1
Pad2	Pad 2

Beat LED	Button
Beat1	Below the LCD, first from the left
Beat2	Below the LCD, second from the left
Beat3	Below the LCD, third from the left
Beat4	Below the LCD, fourth from the left

NOTE : You press Part Volume Accomp button to enter this test, so "Ac-b" do not appear.

Press each button, and a piano sound is heard and the LED in the button or the button name in the display will go dark.

In the case of 4 buttons below the LCD, the corresponding beat LED will go dark.

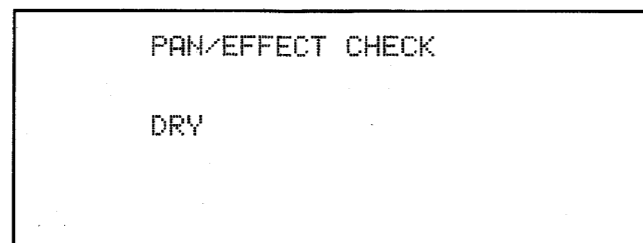
NOTE : Once you start the test, you can not proceed to the next test until all buttons are checked. But if you press Part Volume Accomp button before starting the test, you can proceed to the next test.

3. Speaker/effect check

Press the buttons whose LED's blink, and a specified sound will be heard.

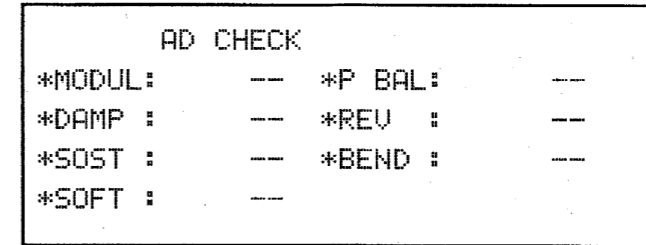
Button	Sound	Display
Pop	Piano 1 without effect	DRY
Piano Style	Piano 1 with chorus	CHORUS
Ballad	Piano 1 with reverb	REVERB
Rock	Piano 1 with resonance	RESONANCE
Country	Sine wave from left speaker	PAN L
Big Band	Sine wave from right speaker	PAN R
Swing	Sine wave from both speaker	CENTER

The display shown below appears.



4. A/D check

The display shown below appears.



Move the [Part Balance] and [Reverb] sliders, pedals, bender and modulation lever; the value from 0 to 10 will be displayed.

At this time, a sine wave sound whose pitch corresponds with the value is heard.

When the value is 10, a metronome sound is heard.

After all values are displayed, "*" before the channel name will disappear when the value is 0.

In case of P BAL(Part Balance) slider, check that value is "5" when the slider is in the center click position.

In this case, "*" will disappear when the value is 5 or 10.

• Bender value setting

In case of BEND(Pitch Bender) level, check that value is "5" when the level is in the central position.

It is possible to adjust the center value pressing [Demo] and [Drum/SFX] buttons; the string "Adjusting" will appear for a few second, then "Completed" will be displayed.

Check again the Bender; "*" will disappear when the value is 0, 5 or 10.

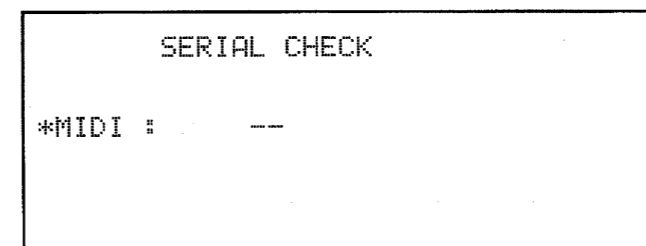
If the values of two or more channels are changed simultaneously, "—" is displayed.

Correspondences between the display and the channel are shown below:

Display	Channel
MODUL	Modulation level
DAMP	Damper pedal
SOST	Sostenuto pedal
SOFT	Soft pedal
P BAL	[Part Balance] slider
REV	[Reverb] slider
BEND	Pitch Bender level

5. MIDI check

The display below appears.



• MIDI check

Connect a MIDI cable to the MIDI IN and OUT, and check that the result of the MIDI loop back test is "OK".

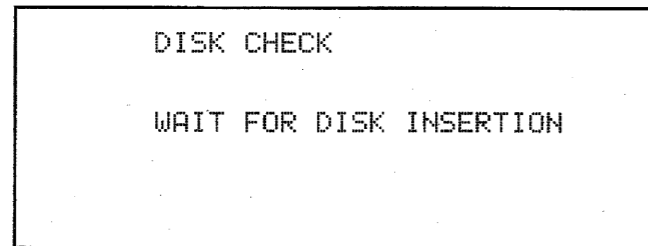
When the MIDI cable is pulled out, the result will return to "—".

6. Disk drive check

Prepare a 2HD disk and a 2DD disk both formatted by E-500, or KR, HP-G, MT families.

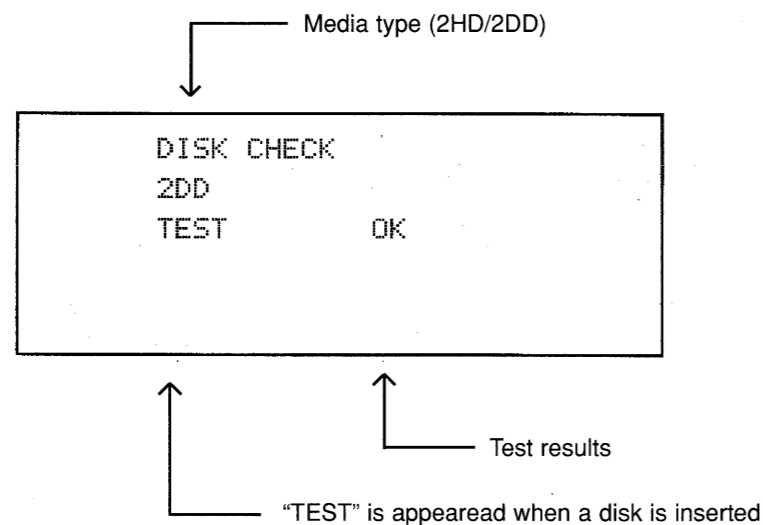
NOTE : After this check, data within the disks will be lost.

The message below is displayed until you insert a disk.
The test will start on insertion.



Disk type(2HD/2DD) is specified and displayed.
Check that the media type and the displayed result are the same, and check the following:

1. Insert a 2DD disk(protect ON) and check the display "PROTECT ON".
In case of protected disk, the test is no more proceeded.
2. Insert a 2DD disk(protect OFF) and check the result is "OK".
3. Insert a 2HD disk(protect OFF) and check the result is "OK".

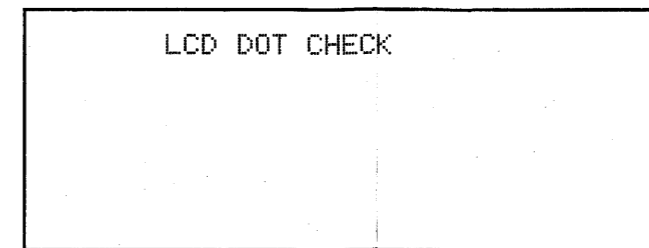


Along the progression of the test, track LED's will light one by one.
When Upper/4 LED light and "OK" is displayed, the results is OK.
If an error occurs, the problems will be indicated as follows.

Display	Error
SEEK ERROR	Head seek error
FORMAT ERROR	Format error
READ(F) ERROR	Read error
VERIFY(F) ERROR	Verify error
WRITE ERROR	Write error
READ ERROR	Read error
VERIFY ERROR	Verify error

7. LCD dot check

The display below is appeared.



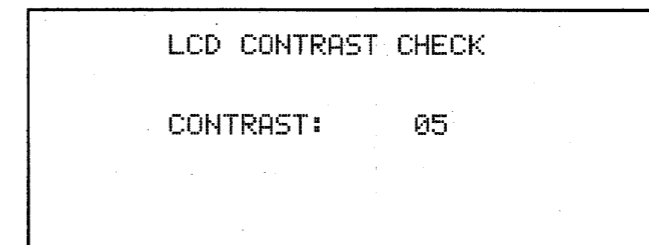
Press One Touch Piano button and check that the whole display turns white.
Press One Touch Arranger button and check that the whole display turns blue.
Press One Touch Piano and One Touch Arranger button simultaneously, and check that the whole display blinks.

8. Display ON/OFF/display scanning line/video RAM check

The vertical stripes whose widths periodically change appear in the display.
Check that there is no irregularity in the stripe.
Press One Touch Arranger button and check the whole display turns blue.
Press One Touch Piano button and check the stripe reappears.

9. LCD contrast check

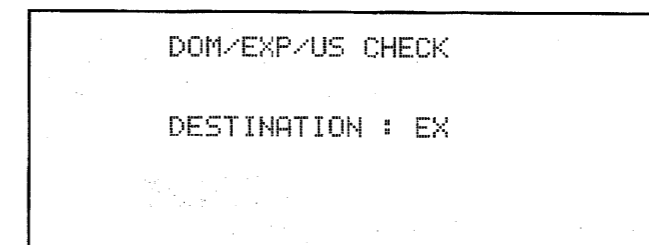
The display below is appeared.



The contrast value varies from 00 to 09.
Press One Touch Piano button and check that the value increases and the whole display becomes darker.
Press One Touch Arranger button and check that the value decreases and the whole display becomes brighter.
When One Touch Piano and One Touch Arranger buttons simultaneously, the value will return to 05 (default value).

10. Destination setting check

The display below is appeared.



• Destination check

Check that the destination is set to EX.

CAUTION

If you do not wish to perform Factory Setup, make sure to press Drums/SFX button after the check of the destination.
If you press Part Volume Accomp button in this situation, 11.Factory Setup(next item) will be performed and

user settings will be lost.
 If you wish to keep user settings, surely press Drums/SFX button.
 (Jump to 12.Test mode-end.)

• Changing the destination

You can change the destination setting by pressing one of One Touch Program buttons while holding down Demo button.
 At this time, you can return to 1.Device check by pressing Exit button (wait a few seconds).

When pressing Demo button, the message "DOM/EXP/US CHECK" will change to "SET DESTINATION".
 Pressing one of One Touch Program buttons while holding button down, the message "NOW LOADING" will appear in the right of "DESTINATION" and change to one of "EX"/"US"/"DM" messages.
 Then the destination setting is changed.
 (We call this procedure "Changing Procedure" below.)
 If something is wrong with the flash memory, "FLASH NG" will be displayed.

CAUTION

When you perform the Changing Procedure, automatically the factory setup is loaded and user settings will be lost.

The correspondences between each switch and the destination are below:

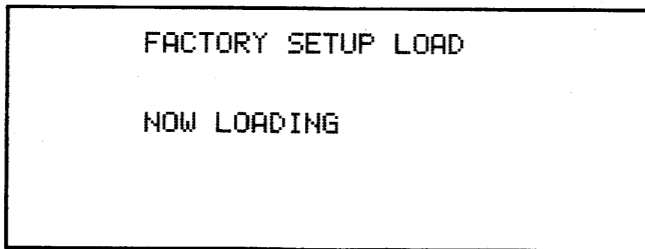
Display	Button
EX	Piano
US	Organ
DM	Arranger

CAUTION

If you turn off the power before one of "EX"/"US"/"DM"/"FLASH NG" messages appears during the Changing Procedure, the main program will be destroyed.
 Do not turn off the power during the Changing Procedure.
 If you turn off in this situation, you must reload the main program according to "How to Version Up".

11. Factory setup

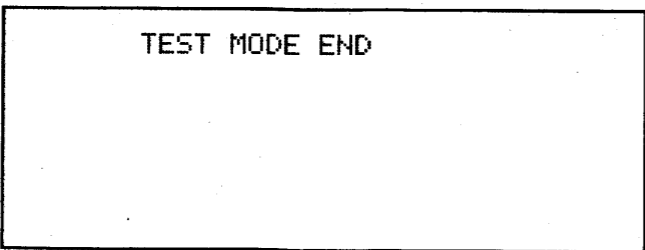
Automatically the factory setup will be loaded.



In case of normal end, "COMPLETED" will be appeared.
 If the loading is failed owing to memory troubles or anything, "FLASH NG" will be appeared.

12. Test mode end

The display below appears and shows the end of the test mode.



CHANGE INFORMATION

SYMPTON

When using the microphone on the "MIC" Input there is the possibility that some instruments are affected by HIGH FREQ. NOISE.

MEASURE

CONTROL BOARD ASSY 7698704000

Add in parallel to resistor R115 (150K) :

N° 1 capacitor 47pF 5% ceramic code J3519108 C130 (on the Circuit Diagram)

EFFECTIVE

230VE	ZJ61040 up	from MARCH 1997
240VA	ZJ61140 up	from MARCH 1997
117V	ZJ61039 up	from MARCH 1997
230V	ZJ61250 up	from MARCH 1997

SERVICE RESPONSE

Make this modification only on the instruments affected by this defect.

