

# BR-1180 / BR-1180CD

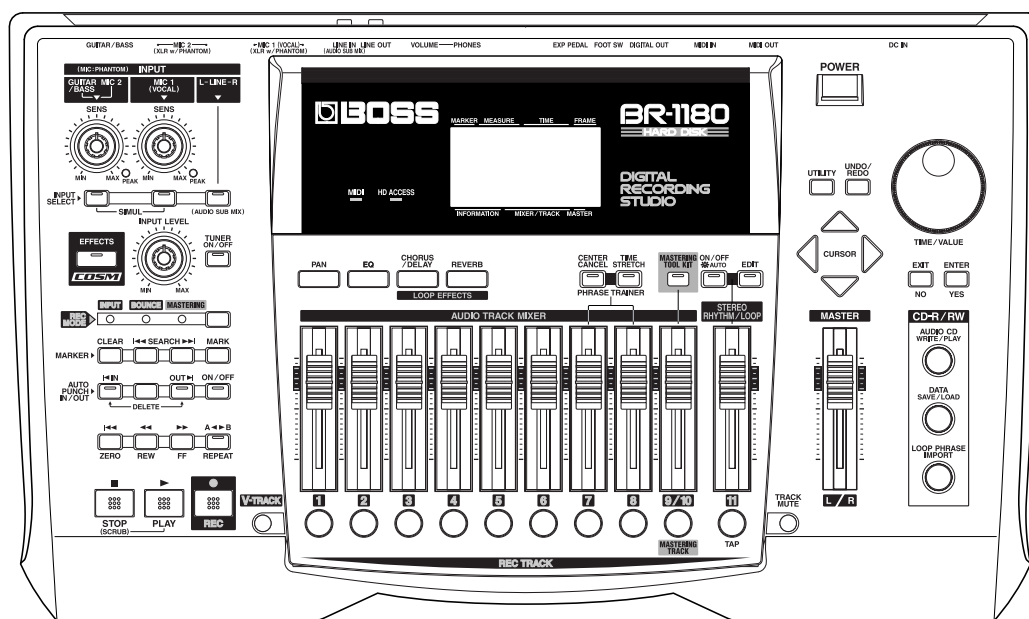
DIGITAL RECORDING STUDIO

# SERVICE NOTES

*Issued by RJA*

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# SPECIFICATIONS

BR-1180: Digital Recording Studio

BR-1180CD: Digital Recording Studio (built-in CD-R/RW drive)

## Tracks

Track: 10 V-Track: 80 (8 V-Tracks per each Track)

- \* Up to 2 tracks can be recorded simultaneously, and up to 10 tracks can be played back simultaneously.

## Maximum Useful Capacity/Recording Time

Internal Hard Disk: 20 G bytes

Data type	Recording time
LIN	60 hours
MT1	120 hours
MT2	160 hours
LV1	190 hours
LV2	240 hours

(conversion in 1 track, times approximate)

- \* The above-listed recording times are approximate. Times may be slightly shorter depending on the number of songs and size of imported loop phrase that were created.
- \* The above number is the total for all the tracks that are used. If each of the ten tracks contain an equal amount of data, the length of the resulting song will be approximately 1/10 of the above.

## Signal Processing

AD Conversion: 24 bit, AF Method (Guitar/Bass)

24 bit, AF Method (Mic)

24 bit,  $\Delta\Sigma$  Modulation (Line)24 bit,  $\Delta\Sigma$  Modulation (Simul)DA Conversion: 24 bit,  $\Delta\Sigma$  Modulation

Internal Processing: 24 bit (digital mixer section)

Recording Data: 16 bit linear (data type: LIN)

## Sample Rate

44.1 kHz

## Frequency Response

20 Hz-20 kHz (+1/-3 dB)

## Total Distortion

0.15 % or less

(INPUT SENS : CENTER, 1 kHz at nominal output level, data type: LIN)

## Nominal Input Level (Variable)

GUITAR/BASS jack: -10 dBu

MIC 1, 2 jack: -40 dBu

LINE jack: -10 dBu

## Input Impedance

GUITAR/BASS jack: 1 M ohms

MIC 1, 2 jack (TRS): 2.2 k ohms (HOT-COLD)

1.1 k ohms (HOT-GND, COLD-GND)

MIC 1, 2 jack (XLR): 2.2 k ohms (HOT-COLD)

1.1 k ohms (HOT-GND, COLD-GND)

LINE IN jack: 50 k ohms

## Nominal Output Level

LINE OUT jack: -10 dBu

## Output Impedance

LINE OUT jack: 2 k ohms

PHONES jack: 100 ohms

## Recommended Load Impedance

LINE OUT jack: 20 k ohms or greater

PHONES jack: 8-50 ohms

## Residual Noise Level

LINE OUT jack: -87dBu or less

(INPUT SELECT: GUITAR/BASS, input terminated with 1 k $\Omega$ , INPUT SENS: CENTER, IHF-A, typ.)

## Interface

DIGITAL OUT: S/PDIF (Optical type)

## Display

64 x 40mm (Backlit LCD)

## Connectors

MIDI IN connector

MIDI OUT connector

DIGITAL OUT connector (optical type)

FOOT SW jack (1/4 inch phone type)

EXP PEDAL jack (1/4 inch phone type)

PHONES jack (Stereo 1/4 inch phone type)

LINE OUT jack L/R (RCA Phono type)

LINE IN jack L/R (RCA Phono type)

MIC 1, 2 jack (TRS balanced, 1/4 inch phone type)

MIC 1, 2 connector (XLR balanced)

GUITAR/BASS jack (1/4 inch phone type)

## Power Supply

DC 12 V; Supply AC Adaptor (Roland PSB-3U)

## Power Consumption

3 A

## Dimensions

460 (W) x 273 (D) x 87 (H) mm

18-1/8 (W) x 10-3/4 (D) x 3-7/16 (H) mm

## Weight

BR-1180CD: 3.85 kg/8 lbs 8 oz

BR-1180: 3.50 kg/7 lbs 12 oz

(Excluding AC Adaptor)

## Accessories

AC Adaptor: PSB-3U (#02900423)

AC CORD 100V(#00894367)

120V(#00894378)

230V(#00894389)

240VE(#00907001)

240VA(#23495124)

Owner's Manual Japanese(#72018489)

English(#72018367)

Roland Service (information sheet)(#\*\*\*\*\*)

DISCRETE DRUMS (CD-ROM(#\*\*\*\*\*); BR-1180CD only)

## Options

CD-R/RW drive (for BR-1180): CDI-BR-1

Expression Pedal: EV-5 (Roland)

Foot Switch: FS-5U

Pedal Switch: DP-2 (Roland)

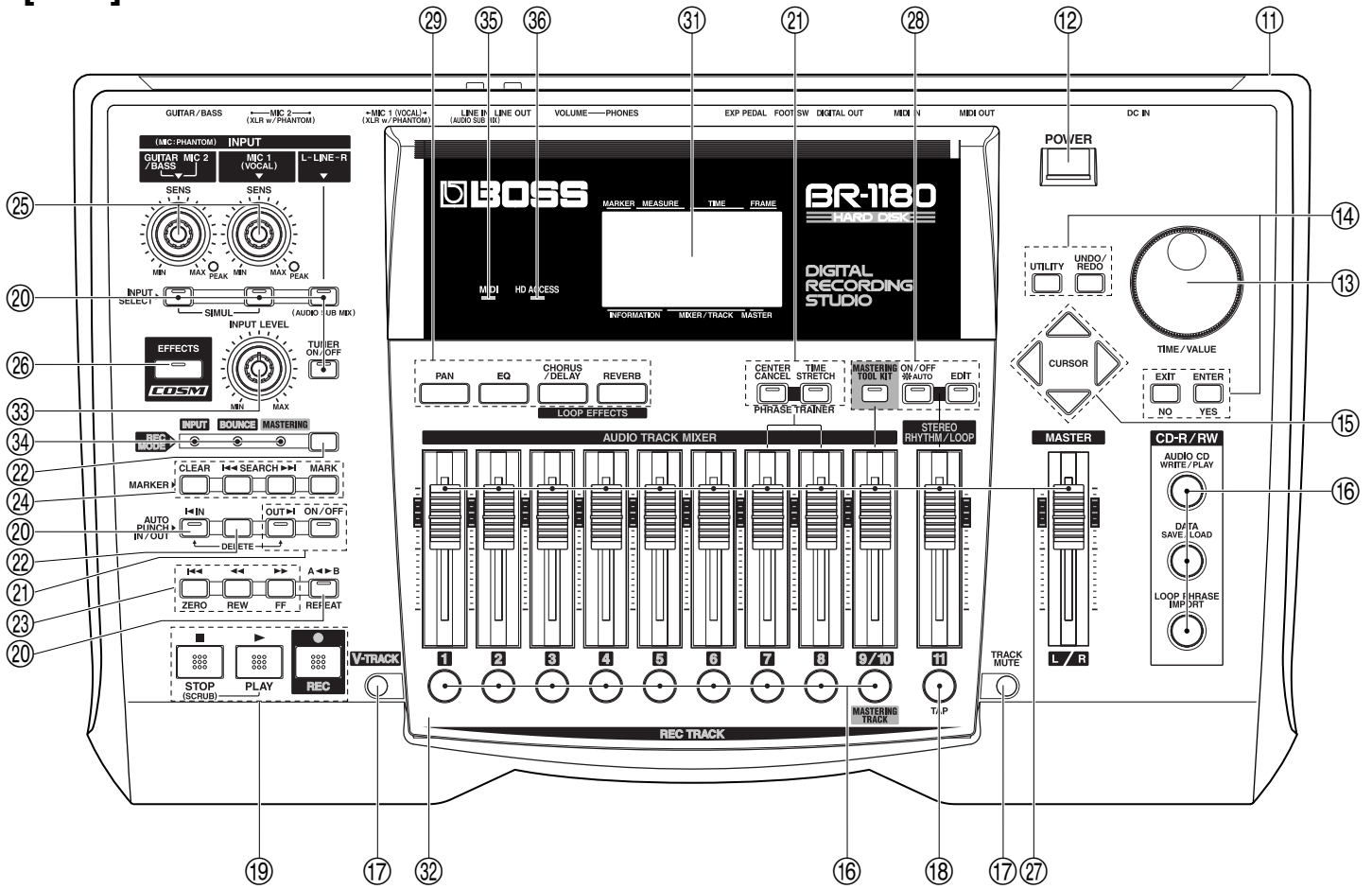
\* 0dBu = 0.775V rms

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

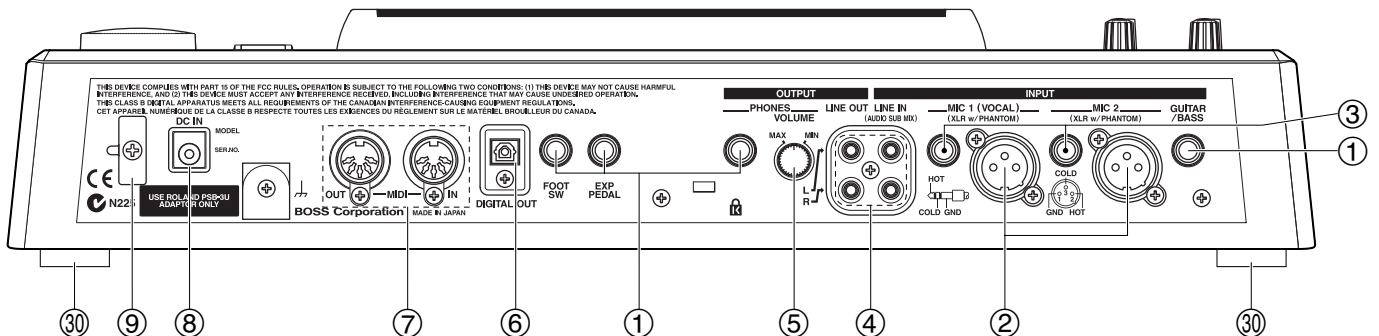


# LOCATION OF CONTROLS

[TOP]



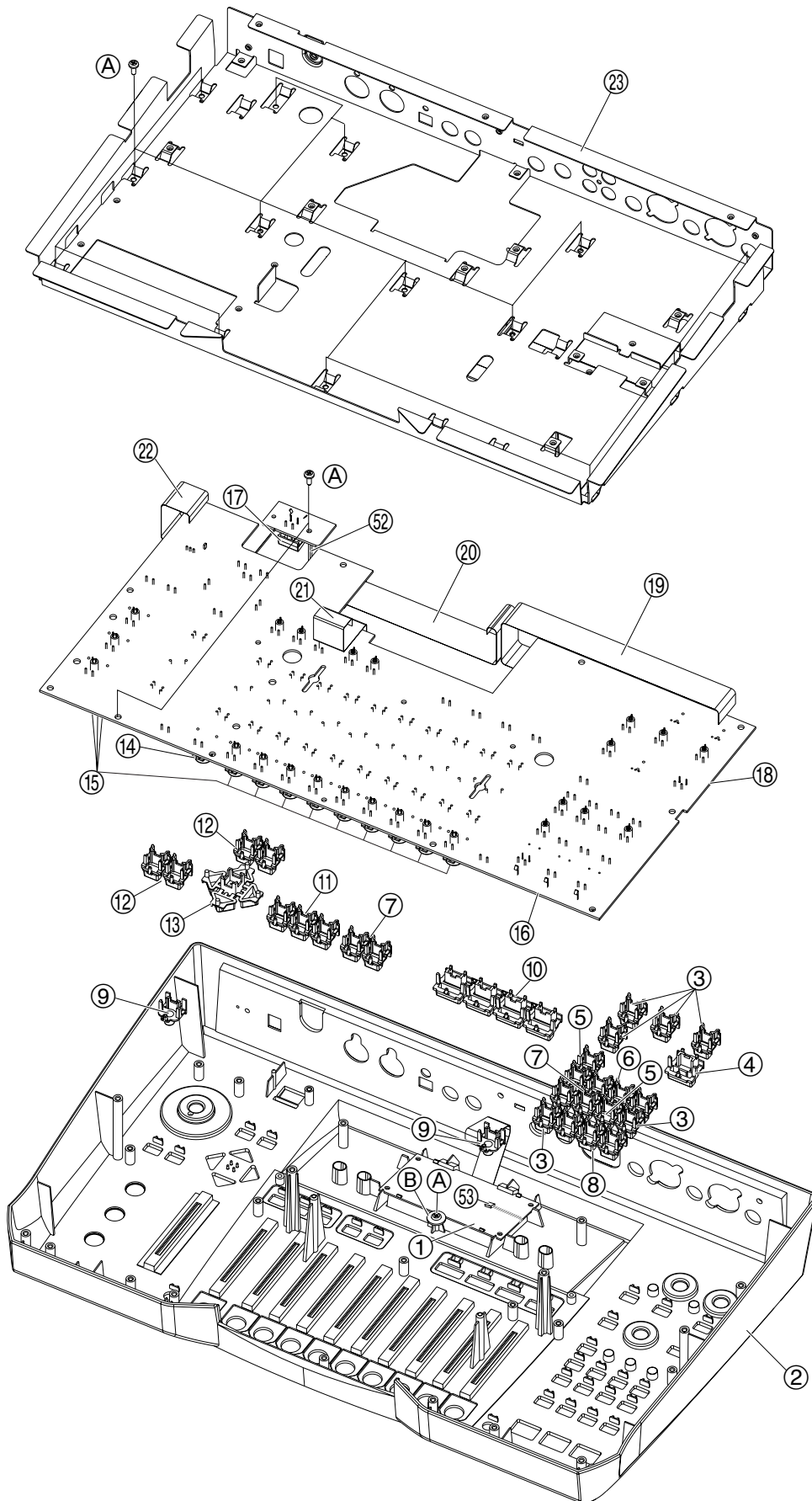
[REAR]



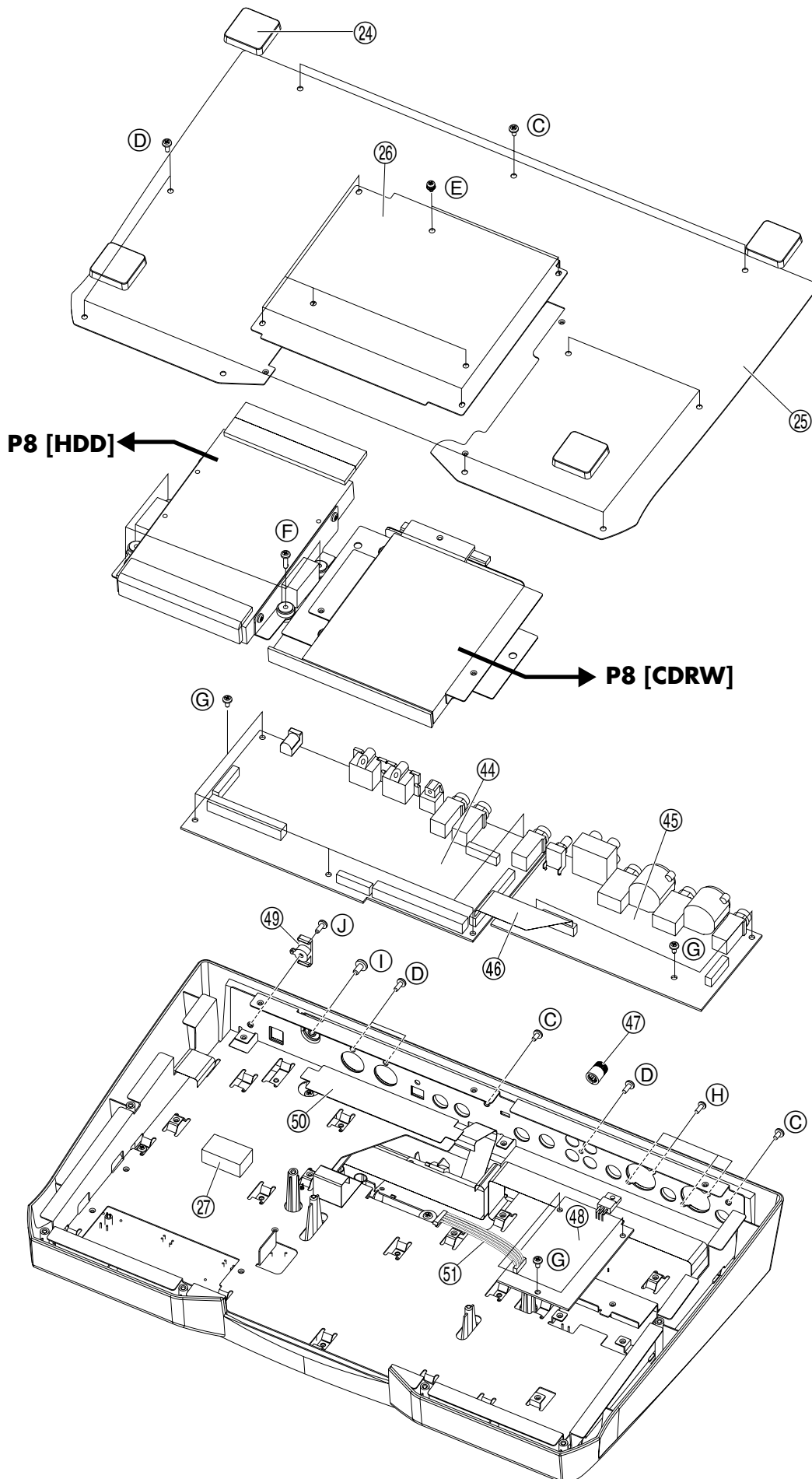
# LOCATION OF CONTROLS PARTS LIST

No.	PART CODE	PART NAME	DESCRIPTION	Q'TY
1	00569278	6.5MM JACK	LGR4609-7100	4
2	01239890	XLR JACK	NC3FAH2-0	2
3	13449258	6.5MM JACK	HLJ4306-01-3080	2
4	02900478	RCA(PIN JACK)	YKC21-3282	1
5	01340412	P R-KNOB	SF-A BLK/LCG	1
	02900467	9M/M ROTARY POTENTIOMETER	EVJC25FB6A54 50KAX2	1
6	02568778	IC (OPTICAL CONNECTOR)	GP1FA350TZ	1
7	13429825	MIDI CONNECTOR	YKF51-5054 2PZ	1
8	02900312	DC JACK	HEC0470-01-640	1
9	22365714	CORD HOOK	236-714	1
10	02896767	BOTTOM COVER		1
11	02896756	TOP CASE		1
12	02011456	Y S-KEYTOP	SX1H BLK	1
	01340290	TACT SWITCH	EVQ11A H=5.0	1
13	22485303	D R-KNOB(ALPHA-DIAL)	L BLK 248-303	1
	01905467	ROTARY ENCODER	EVE GC1 F20 24B	1
14	00900190	D S-KEYTOP	SX2H BLK	2
	01340290	TACT SWITCH	EVQ11A H=5.0	2
15	01234090	D T-KEYTOP	MX4B BLK	1
	01340290	TACT SWITCH	EVQ11A H=5.0	4
16	02013090	F C-KEYTOP	MX1H CLR	12
	01340290	TACT SWITCH	EVQ11A H=5.0	12
	01904178	LED (CLR)	SPR-505MVWT31	12
17	01670512	F C-KEYTOP	SX1H BLK	2
	01340290	TACT SWITCH	EVQ11A H=5.0	2
18	02123467	F C-KEYTOP	MX1H BLK	1
	01340290	TACT SWITCH	EVQ11A H=5.0	1
19	01783945	N S-KEYTOP	MD3H	1
	01340290	TACT SWITCH	EVQ11A H=5.0	3
	15029348	LED (GREEN)	SLR-342MCT32 (PLAY)	1
	01904112	LED	SLR-342VCT32 .NP.Q RANK (REC)	
20	00900145	D S-KEYTOP	SD1H BLK	6
	01340290	TACT SWITCH	EVQ11A H=5.0	6
	01904112	LED	SLR-342VCT32 N.P.Q RANK	6
21	00900156	D S-KEYTOP	SD2H BLK	2
	01340290	TACT SWITCH	EVQ11A H=5.0	4
	01904112	LED	SLR-342VCT32 N.P.Q RANK	4
22	00900189	D S-KEYTOP	SX1H BLK	1
	01340290	TACT SWITCH	EVQ11A H=5.0	1
23	00904245	D S-KEYTOP	SX3H BLK	1
	01340290	TACT SWITCH	EVQ11A H=5.0	3
24	00904256	D S-KEYTOP	SX4H BLK	1
	01340290	TACT SWITCH	EVQ11A H=5.0	4
25	02457512	J R-KNOB	SFA BLK/LCG	2
	02896701	9M/M ROTARY POTENTIOMETER	EVUF2K4A15 100KA	2
26	22495277	D S-KEYTOP	MD1H BLK 249-277(W/WINDOW)	1
	01340290	TACT SWITCH	EVQ11A H=5.0	1
	01904112	LED	SLR-342VCT32 N.P.Q RANK	1
27	01902289	U S-KNOB	M BLK LCG	11
	01677312	POTENTIOMERTER (SLIDE)	EWAP1AC10 B54 50KB	11
28	00900167	D S-KEYTOP	SD3H BLK	1
	01340290	TACT SWITCH	EVQ11A H=5.0	3
	01904112	LED	SLR-342VCT32 N.P.Q RANK	3
29	22495271	DS-KEYTOP	MX4H BLK 249-271	1
	01340290	TACT SWITCH	EVQ11A H=5.0	4
30	22355334	FOOT MKS	235-334	4
31	02896789	DISPLAY COVER		1
	17041159	LCD	F-51320GNY-LY-AA W/TAPE	1
32	02896790	PANEL SHEET		1
33	02457512	J R-KNOB	SFA BLK/LCG	1
	02896712	9M/M ROTARY POTENTIOMETER	EVUF2KFK4B54 50KB	1
34	01904189	LED	SEL2210R D RANK	3
35	15039237	LED	SLR-342MC3F (GREEN)	1
36	15029347	LED (RED)	SLR-342VC3F	1

# EXPLODED VIEW 1

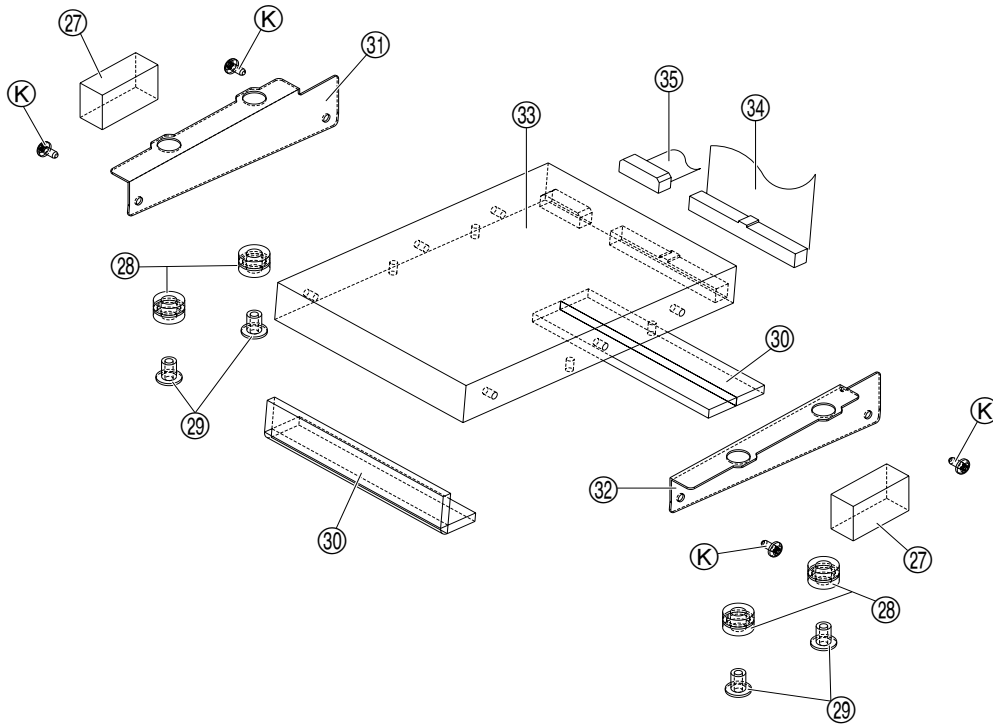


# EXPLODED VIEW 2

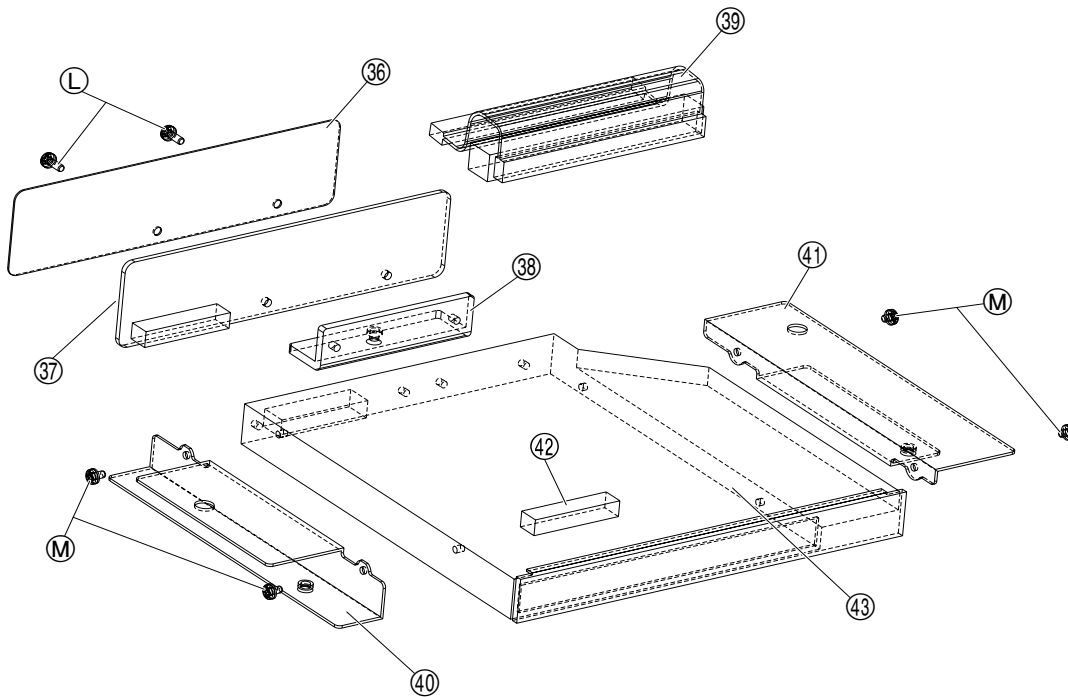


# EXPLODED VIEW 3

## HHD



## CDRW





# EXPLODED VIEW PARTS LIST

## [Parts]

No.	Parts Code	Parts Name
1	17041159	LCD F-51320GNY-LY-AA W/TAPE
2	02896756	TOP CASE
3	00900145	D S-KEYTOP SD1H BLK
4	22495277	D S-KEYTOP MD1H BLK
5	00900189	D S-KEYTOP SX1H BLK
6	00904256	D S-KEYTOP SX4H BLK
7	00900156	D S-KEYTOP SD2H BLK
8	00904245	D S-KEYTOP SX3H BLK
9	01670512	F C-KEYTOP SX1H BLK
10	22495271	D S-KEYTOP MX4H BLK
11	00900167	D S-KEYTOP SD3H BLK
12	00900190	D S-KEYTOP SX2H BLK
13	01234090	D T-KEYTOP MX4B BLK
14	02123467	F C-KEYTOP MX1H BLK
15	02013090	F C-KEYTOP MX1H CLR
16	01783945	N S-KEYTOP MD3H
17	02011456	Y S-KEYTOP SX1H BLK
18	*****	SW BOARD ASSY (on 72015312 SW SHEET ASSY)
19	02121456	BNCD-P=1.25-K-14-220
20	02673245	BNCD-P=1.25-K-16-220
21	02673223	BNCD-P=1.25-K-18-90
22	02124845	BNCD-P=1.25-K-18-150
23	02896778	CHASSIS
24	22355334	FOOT MKS
25	02896767	BOTTOM COVER
26	02896801	CDRW COVER
27	02904778	HDD SIDE CUSHION
28	02904745	HDD BUSH VB-1209-55
29	02904756	HDD COLLAR
30	02904767	HDD FRONT CUSHION
31	02896823	HDD HOLDER R
32	02896812	HDD HOLDER L
33	02897167	HDD MAXTOR 541DX 2B 020HI
34	02904623	WIRING HDD IDE
35	02900412	WIRING HDD POWER
36	02899445	INSULATING SHEET CDRW
37	72017823	CDI-BR-1 PCB ASSY
38	02899434	DD HOLDER CDRW STOP
39	02902156	WIRING IDE
40	02899401	DD HOLDER CDRW L
41	02899412	DD HOLDER CDRW R
42	01016223	FOOT 01016223
43	02782990	ATAPI CD-RW DRIVE UJDA340
44	72015301	MAIN BOARD ASSY
45	*****	ANALOG BOARD ASSY (on 72015312 SW SHEET ASSY)
46	02124845	BNCD-P=1.25-K-18-150
47	01340412	P R-KNOB SF-A BLK/LCG
48	*****	+5V POWER BOARD ASSY (on 72015312 SW SHEET ASSY)
49	22365714	CORD HOOK
50	02896834	INSULATING SHEET MAIN
51	02896956	WIRING 5V POWER
52	02903223	RIBBON CABLE JWFV 2X70-P2.0
53	02896978	WIRING 2 LCD

## [Screws]

No.	Parts Code	Parts Name
A	40011278	SCREW 3x8 BINDING TAPTITE P ZC
B	40457245	WASHER M3x12x1 ZC
C	40012534	SCREW 3x6 BINDING TAPTITE S BZC
D	40011312	SCREW 3x8 BINDING TAPTITE P BZC
E	40011490	SCREW M3x6 PAN HEAD W/SW+PW BZC
F	40015956	SCREW 3x12 BINDING TAPTITE S BZC
G	40012512	SCREW 3x6 BINDING TAPTITE S ZC
H	40233012	SCREW 2.6x8 BINDING TAPTITE P BZC
I	40019134	SCREW M4x8 BINDING TAPTITE S W/INTERNAL TOOTH WASHER BZC
J	40019123	SCREW 3x8 BINDING TAPTITE S BZC
K	40450367	SCREW 6-32UNC 1008SR/KM003
L	40233978	SCREW M2x8 PAN HEAD W/SW+PW ZC
M	40455867	SCREW 2x2.5 BINDING MACHINE ZC

# PARTS LIST

**SAFETY PRECAUTIONS:**

The parts marked  $\Delta$  have safety-related characteristics. Use only listed parts for replacement.

**CONSIDERATION ON PARTS ORDRING**

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)

**CASING**

			Q'ty
#	02896756	TOP CASE	1
#	02896801	CDRW COVER	1
#	02896767	BOTTOM COVER	1
#	02896789	DISPLAY COVER	1

**CHASSIS**

#	02896778	CHASSIS		1
#	02896812	HDD HOLDER L		1
#	02896823	HDD HOLDER R		1
#	02899401	DD HOLDER CDRW L	BR-1180CD ONLY	1
#	02899412	DD HOLDER CDRW R	BR-1180CD ONLY	1
#	02899434	DD HOLDER CDRW STOP	BR-1180CD ONLY	1

**KNOB, BUTTON**

	02013090	F C-KEYTOP	MX1H CLR	12
	00900145	D S-KEYTOP	SD1H BLK	6
	00900156	D S-KEYTOP	SD2H BLK	2
	00900167	D S-KEYTOP	SD3H BLK	1
	00900189	D S-KEYTOP	SX1H BLK	2
	00900190	D S-KEYTOP	SX2H BLK	2
	00904245	D S-KEYTOP	SX3H BLK	1
	00904256	D S-KEYTOP	SX4H BLK	1
	01234090	D T-KEYTOP	MX4B BLK	1
	01670512	F C-KEYTOP	SX1H BLK	2
	01783945	N S-KEYTOP	MD3H	1
	02011456	Y S-KEYTOP	SX1H BLK	1
	02123467	F C-KEYTOP	MX1H BLK	1
	22495271	DS-KEYTOP	MX4H BLK 249-271	1
	22495277	D S-KEYTOP	MD1H BLK 249-277(W/WINDOW)	1
	02457512	J R-KNOB	SFA BLK/LCG	3
	01340412	P R-KNOB	SF-A BLK/LCG	1
	22485303	D R-KNOB(ALPHA-DIAL)	L BLK 248-303	1
	01902289	U S-KNOB	M BLK LCG	11

**SWITCH**

	01340290	EVQ11A H=5.0	TACT SWITCH	SW1,SW2,SW3,SW4,SW5,SW6,SW7,SW8,SW9,S W10,SW11,SW12,SW13,SW14,SW15,SW16,SW17, SW18,SW19,SW20,SW21,SW22,SW23,SW24,SW2 5,SW26,SW27,SW28,SW29,SW30,SW31,SW32,SW 33,SW34,SW35,SW36,SW37,SW38,SW39,SW40,S W41,SW42,SW43,SW44,SW45,SW46,SW47,SW48, SW49,SW50,SW51,SW52,SW53,SW54 on SWB	54
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**JACK, EXT TERMINAL**

	13429825	YKF51-5054 2PZ	MIDI CONNECTOR	JK9 on MB	1
	00569278	LGR4609-7100	6.5MM JACK	JK1 on ANB. JK7,10,11 on MB	4
#	02900312	HEC0470-01-640	DC JACK	JK8 on MB	1
	01239890	NC3FAH2-0	XLR JACK	JK2,JK4 on ANB	2
#	02900478	YKC21-3282	RCA(PIN JACK)	JK5 on ANB	1
	13449258	HLJ4306-01-3080	6.5MM JACK	JK3,JK6 on ANB.	2

**DISPLAY UNIT**

	17041159	F-51320GNY-LY-AA W/TAPE	LCD		1
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NOTE: Replacement F-51320GNY-LY-AA should be made on a unit base.

**DISK DRIVE UNIT**

#	02897167	MAXTOR 541DX 2B 020HI	HDD		1
		NOTE: Replacement MAXTOR 541DX 2B 020HI should be made on a unit base.			
	02782990	UJDA340	ATAPI CD-RW DRIVE	BR-1180CD ONLY	1
		NOTE: Replacement UJDA340 should be made on a unit base.			

**PCB ASSY**

#	72015301	MAIN BOARD ASSY			1	
#	72015312	SW SHEET ASSY			1	
		NOTE: 'SW SHEET ASSY' includes the following parts.				
	*****	BR-1180	ANALOG BOARD ASSY	Assy(Unit)	1	
	*****	BR-1180	+5V POWER BOARD ASSY	Assy(Unit)	1	
	*****	BR-1180	SW BOARD ASSY	Assy(Unit)	1	
		NOTE: 'BR-1180 SW BOARD ASSY' includes the following parts.				
#	02903223	RIBBON CABLE	JWV 2X70-P2.0		1	
	40013334	SPACER PLASTIC PIPE	3.2X5X10 CLARYTY		2	
	40344367	LED SPACER	POLYCARBONATE-PIPE 3X6X10.5		5	
#	72017823	PCB ASSY			BR-1180CD ONLY	1

**IC**

#	02900434	UPD7031060A058-UEN	IC (CPU 16BIT)	IC28 on MB.	1
	02231767	RA0A-101 (TC223C080AF-101)	IC (DSP)	IC27 on MB	1
#	02896745	S1L50753F27B000	IC (I/F)	IC36 on MB	1
	02568489	GM71V18163CT-6	IC (DRAM)	IC47 on MB	1
	02457634	MBM29LV160BE70TN-K	IC (FLASH MEMORY)	IC24 on MB	1
	02451434	AK4552VT	IC (AD/DA)	IC5 on MB	1
	02892334	TC74LCX245FT(EL)	IC (CMOS)	IC35,IC39 on MB	2
#	02900267	TC7S66F(TE85R)	IC (CMOS)	IC46 on MB	1
	02458090	TC4066BFT(EL)	IC (CMOS)	IC2,IC6,IC13 on MB	3
	01672623	TC74HC4053AFT(EL)	IC (TTL)	IC29,IC32 on MB	2
	01121845	TC7W04FU TE12L	IC (CMOS)	IC23 on MB	1
	01348912	TC7SH08FU(TE85L)	IC (CMOS)	IC40 on MB	1
	02124934	TC74VHC541FTEL	IC (CMOS)	IC37,IC42 on MB	2
	00458034	TC75S51F TE85R	IC (OP AMP)	IC33 on MB	1
	00346445	NJM2100M(TE3)	IC (BIPOLEAR OP AMP)	IC3 on MB	1
	15189261	M5218AFP-600E	IC (BIPOLEAR OP AMP)	IC7,IC8 on MB	2
	01458445	UPC29M33T-T1	IC (REGULATOR)	IC49 on MB	1
#	02903734	TA78M09F(TE16L)	IC (REGULATOR)	IC48 on MB	1
	01899790	UPC29L33T-E2	IC (REGULATOR)	IC1 on MB	1
	02563467	NJM2374AM-TE1	IC (SWITCHING REGULATOR)	IC9 on MB	1
#	02900201	M62270GP-C60J	DC-DC IC(REGULATOR)	IC22 on MB	1
	01785178	TC9271FS	IC (DIGITAL OUT IF)	IC25 on MB	1
#	02903745	S-80930CNMC-G80	IC (RESET)	IC34 on MB	1
	02568778	GP1FA350TZ	IC (OPTICAL CONNECTOR)	CN1 on MB	1
	15289124	PC-4007	IC (PHOTO COUPLER)	IC26 on MB	1
	15189250	M5218AL	IC (BIPOLEAR OP AMP)	IC20 on SWB. IC4,IC11,IC12 on ANB	4
	15189190	M5216L-600Y	IC (BIPOLEAR OP AMP)	IC10 on ANB	1
#	02898412	NJM2374AD	IC (SWITCHING REGULATOR)	IC21 on +5PB	1
	02673812	HY57V641620HGT-P	IC (DRAM)	IC30 on MB	1

**TRANSISTOR**

	02780423	POWER MOSFET CPH6302-TL	TRANSISTOR	Q29 on MB	1
	15309104	2SA1586-GR(TE85R)	TRANSISTOR	Q7 on MB	1
#	02900301	TPC8303(TE12L)	TRANSISTOR	Q21,Q22,Q31 on MB	3
	15329501	DTA143EK T146	TRANSISTOR	Q38 on MB	1
	00239812	DTC114EUT106	TRANSISTOR	Q2,Q3,Q4,Q5,Q6,8,12,14,23,24,27,30,33,34,36 on MB	15
	02340645	RN1441-A(TE85L)	TRANSISTOR	Q11,Q13 on MB	2
#	02900212	M54563FP-200D	TRANSISTOR	IC38 on MB	1
#	02900234	M54585KP-200D	TRANSISTOR	IC41 on MB	1
	15129179	2SC2458-GR(TPE4)	TRANSISTOR	Q16,Q17,Q18,Q19 on SWB	4
	15139123	2SK184-GR(TPE4)	TRANSISTOR	Q1 on ANB	1
#	02896734	RN1241-A(TAPE4)	TRANSISTOR	Q9,Q10 on ANB	2
#	02904634	2SJ438	TRANSISTOR	Q20 on +5PB	1

**DIODE**

	15339119T0	1SS352(TPH3)	SWITCHING DIODE	D1,D57,D58 on MB	3
	01780045	RB051L-40	SCHOTTKY DIODE	D55,D56 on MB	2
	15339120T0	1SS302(TE85R)	ARRAY DIODE	DA1,DA2 on MB	2
	15019126	1SS133 T-77	SWITCHING DIODE	D3,D5,D6,D7,D8,D9,D10,D11,D12,D13,D14,D15, D16,D17,D18,D19,D20,D21,D22,D23,D24,D25,D2 6,D27,D28,D29,D30,D31,D32,D33,D34,D35,D36,D 37,D38,D39,D40,D41,D42,D43,D44,D45,D46,D47, D48,D49,D50,D51,D52,D53,D100,D101 on SWB	52
	01904189	SEL2210R D RANK	LED	LED1,LED2,LED17,LED18,LED19 on SWB	5

DIODE

01904112	SLR-342VCT32 N.P.Q RANK	LED	LED3,LED4,LED5,LED8,LED9,LED10,LED11,LED12,LED13,LED14,LED15,LED16,LED20,LED30,LED32 on SWB	15
15029347	SLR-342VC3F	LED (RED)	LED34 on SWB	1
15029348	SLR-342MCT32	LED (GREEN)	LED31 on SWB	1
15039237	SLR-342MC3F	LED (GREEN)	LED33 on SWB	1
01904178	SPR-505MVWT31	LED (CLR)	LED6,LED7,LED21,LED22,LED23,LED24,LED25,LED26,LED27,LED28,LED29,LED35 on SWB	12
15019297	30DF2-FC	DIODE	D54 on +5PB	1

RESISTOR

00567156	RPC05T 102 J	MTL.FILM RESISTOR	L41,L42,L46,R42,R141,R147,R153,R164,R182,R188,R191,R218,R274 on MB	13	
00567501	RPC05T 474 J	MTL.FILM RESISTOR	R167 on MB	1	
00567023	RPC05T 101 J	MTL.FILM RESISTOR	R36,R151,R159 on MB	3	
00566867	RPC05T 100 J	MTL.FILM RESISTOR	R4 on MB	1	
01454890	MCR50 JZH J 220	MTL.FILM RESISTOR	R150 on MB	1	
01011856	RPC05T 0R0 J	MTL.FILM RESISTOR	L16L,26,L28,R275 on MB	4	
00567412	RPC05T 104 J	MTL.FILM RESISTOR	R6,R7,R23,R24,R31,R32,R33,R34,R35,R38,R41,R77,R84,R89,R92,R96,R101,R138,R139,R143,R144,R146,R232,R233,R234,R235,R236,R237,R259,R260,R262,R263,R264,R265 on MB	34	
00567345	RPC05T 333 J	MTL.FILM RESISTOR	R11,R20,R40 on MB	3	
00567323	RPC05T 223 J	MTL.FILM RESISTOR	R48,R63 on MB	2	
00567289	RPC05T 103 J	MTL.FILM RESISTOR	R1,R2,R5,R15,R45,R46,R49,R60,R61,R64,R148,R152,R155,R156,R158,R163,R174,R179,R185,R186,R187,R189,R190,R192,R210,R219,R222,R225,R230,R238,R249,R250,R270 on MB	33	
00567256	RPC05T 562 J	MTL.FILM RESISTOR	R47,R62,R231 on MB	3	
00567245	RPC05T 472 J	MTL.FILM RESISTOR	R17,R21,R74,R79 on MB	4	
00566967	RPC05T 470 J	MTL.FILM RESISTOR	R81,R94,R160,R161,R162,R165,R166,R168,R169,R170,R171,R172,R173,R175,R176,R177,R178,R180,R181,R183,R193,R194,R195,R196,R197,R198,R199,R200,R201,R202,R203,R204,R205,R206,R207,R208,R209,R211,R212,R213,R214,R215,R216,R217,R248,R251,R253,R254,R255,R269 on MB	50	
00566912	RPC05T 220 J	MTL.FILM RESISTOR	R149,R227,R228 on MB	3	
00566934	RPC05T 330 J	MTL.FILM RESISTOR	R229,R226 on MB	2	
00567012	RPC05T 820 J	MTL.FILM RESISTOR	R220,R221 on MB	2	
00567034	RPC05T 121 J	MTL.FILM RESISTOR	R154 on MB	1	
00567045	RPC05T 151 J	MTL.FILM RESISTOR	R39 on MB	1	
00567190	RPC05T 222 J	MTL.FILM RESISTOR	R18 on MB	1	
00567234	RPC05T 392 J	MTL.FILM RESISTOR	R37 on MB	1	
00567312	RPC05T 183 J	MTL.FILM RESISTOR	R44,R58 on MB	2	
00567378	RPC05T 473 J	MTL.FILM RESISTOR	R43,R184 on MB	2	
01670256	SR73K2ETD 0.22OHMJ	MTL.FILM RESISTOR	R273 on MB	1	
15399945	MCR100 101J	RESISTOR	R261 on MB	1	
01011845	EXBV8V0R000V	RESISTOR ARRAY	RA38,RA39 on MB	2	
00126112	EXBV8V101JV	RESISTOR ARRAY	RA25,RA26,RA27,RA30,RA31,RA32 on MB	6	
00126134	EXB-A10E103J	RESISTOR ARRAY	RA1,RA2,RA15,RA16,RA20,RA33,RA34 on MB	7	
00909590	EXBV8V330JV	RESISTOR ARRAY	RA17,RA18,RA21,RA23,RA28 on MB	5	
01013578	EXBV8V470JV	RESISTOR ARRAY	RA3,RA4,RA5,RA6,RA7,RA8,RA11,RA12,RA13,RA14,19 on MB	11	
03015667	EXBV8V471JV	RESISTOR ARRAY	RA40,RA41 on MB	2	
15409113	EXBV8V103JV	RESISTOR ARRAY	RA9,RA10,RA22,RA24 on MB	4	
01897723	RD16ST26A 105 J	CARBON RESISTOR	R108 on SWB. R9,R127 on ANB	3	
01897745	RD16ST26A 472 J	CARBON RESISTOR	R111,R115,R130,R133 on SWB. R13,R14,R68,R73,R75,R90,R95,R99,R103,R104 on ANB	14	
01897545	RD16ST26A 101 J	CARBON RESISTOR	R113,R132,R259 on SWB	4	
01788301	RD16ST26A 102 J	CARBON RESISTOR	R107,R110,R126,R129 on SWB. R22,R27,R51,R52,R57,R66,R67,R71 on ANB. R134 on +5PB	13	
01788389	RD16ST26A 183 J	CARBON RESISTOR	R109,R128 on SWB.	2	
01897712	RD16ST26A 104 J	CARBON RESISTOR	R112,R131 on SWB. R53,R54,R69,R70,R83,R85,R86,R87,R97,R98 on ANB	12	
01897578	RD16ST26A 331 J	CARBON RESISTOR	R88,R100 on ANB.	2	
01897645	RD16ST26A 103 J	CARBON RESISTOR	R8,R12,R257,R258 on ANB	4	
01897667	RD16ST26A 223 J	CARBON RESISTOR	R76,R91 on ANB	2	
01897690	RD16ST26A 473 J	CARBON RESISTOR	R16,R25,R26,R59,R65,R78,R82,R105,R106 on ANB	9	
01897823	RD16ST26A 333 J	CARBON RESISTOR	R19,R28,R56,R72 on ANB	4	
01788267	RD16ST26A 221 J	CARBON RESISTOR	R80,R93 on ANB	2	
#	02903201	RSS1/2 T26 682 J	MTL.OXIDE RESISTOR	R29,R30,R50,R55 on ANB	4
#	01900912	SN14K2CT26 2201F	MTL.FILM RESISTOR	R140 on +5PB	1
#	02907389	SN14K2CT26 7501F	MTL.FILM RESISTOR	R136 on +5PB	1
	01458689	SRPX2 L15 0.1 J	MTL.FILM RESISTOR	R137,R135 on +5PB	2

POTENTIOMETER

#	02896701	EVUF2K4A15 100KA	9M/M ROTARY POTENTIOMETER	VR2,VR9 on SWB	2
#	02896712	EVUF2KFK4B54 50KB	9M/M ROTARY POTENTIOMETER	VR8 on SWB	1
	01677312	EWAP1AC10 B54 50KB	POTENTIOMETER (SLIDE)	VR3,VR4,VR5,VR6,VR7,VR10,VR11,VR12,VR13,VR14,VR15 on SWB	11
#	02900467	EVJC25FB6A54 50KAX2	9M/M ROTARY POTENTIOMETER	VR1 on ANB	1

CAPACITOR					
	01674401	ECUV1H331JCV	CERAMIC CAPACITOR	C50 on MB	1
	01674612	ECJ1VB1H103K	CERAMIC CAPACITOR	C146,C147,C148,C149,C150,C151,C161,C162,C163,C164,C165,C210,C213,C214,C215,C216,C217,C218,C219,C220,C221,C222,C223,C224,C225,C226,C228,C233,C234,C235,C236,C237,C238,C239,C240,C241,C242,C243,C244,C245,C246,C247,C248,C287,C314,C316,C318 on MB	47
	01674334	ECUV1H101JCV	CERAMIC CAPACITOR	C296,C297,C298,C299,C300,C301,C302,C303,C304,C305,C306 on MB	11
	01674167	ECUV1H100DCV	CERAMIC CAPACITOR	C12,C23,C176,C177 on MB	4
	01674312	ECUV1H820JCV	CERAMIC CAPACITOR	C51,C59 on MB	2
	01674478	ECJ1VB1H122K	CERAMIC CAPACITOR	C54,C65 on MB	2
	01674556	ECJ1VB1H472K	CERAMIC CAPACITOR	C259,C260 on MB	2
	01674701	ECJ1VF1E104Z 0.1UF/16VK	CERAMIC CAPACITOR	C1,C3,C4,C7,C8,C20,C41,C42,C90,C91,C111,C113,C117,C118,C121,C123,C124,C126,C127,C128,C130,C131,C132,C133,C134,C135,C136,C137,C138,C139,C140,C141,C142,C143,C144,C152,C154,C155,C156,C157,C158,C159,C166,C167,C168,C170,C171,C175,C179,C180,C181,C182,C183,C184,C185,C186,C187,C188,C189,C190,C195,C196,C197,C198,C199,C200,C201,C202,C203,C205,C208,C209,C211,C212,C227,C229,C230,C231,C232,C249,C250,C251,C252,C253,C254,C255,C257,C267,C289,C292,C293,C294,C308 on MB	93
	02014356	ECEV1CA101WP	CHEMICAL CAPACITOR	C43,C115,C116,C129,C145,C153,C204,C206,C258 on MB	9
	15369152	ECEV1CA100SR	CHEMICAL CAPACITOR	C2,C5,C6,C9,C18,C26,C27,C73,C79,C89,C125,C160,C169,C174,C310 on MB	15
#	02897056	ECEV1CA471UP	CHEMICAL CAPACITOR	C112,C119,C120,C286 on MB	4
	01904856	ECEV1CA470WR	CHEMICAL CAPACITOR	C17,C25,C40,C288,C295 on MB	5
#	02897012	ECEV1HA330UP	CHEMICAL CAPACITOR	C44 on MB	1
#	02897034	ECEV1HA101UP	CHEMICAL CAPACITOR	C45 on MB	1
#	02897045	ECEV1CA220WR	CHEMICAL CAPACITOR	C46,C49 on MB	2
	15369262	ECEV1HA010SR	CHEMICAL CAPACITOR	C21,C256,C261,C262,C263 on MB	5
	03015678	ECEV1AA101WR	CHEMICAL CAPACITOR	C310 on MB	1
	13519452	DD306-959F104Z25(100NF/25V Z)	CERAMIC CAPACITOR	C97,C102 on SWB. C10,C34,C35,C36,C48,C97 on ANB	7
	13519692	DD104-989SL100D50	CERAMIC CAPACITOR	C95,C104 on SWB. C31,C58 on ANB	4
	02897890	RC3-16V100M-T2	CHEMICAL CAPACITOR	C94,C96,C98,C99,C100,C101,C103,C105,C106,C107 on SWB	10
	13519667	DD104-989SL470J50	CERAMIC CAPACITOR	C71,C82 on ANB	2
	13519671	DD104-989SL101J50 100PF 50VK	CERAMIC CAPACITOR	C13 on ANB	1
	13519673	DD105-989SL151J50	CAPACITOR	C32,C37,C60,C61,C78,C87 on ANB	6
	01454889	RA2-16V470MT2 470UF/16V	CHEMICAL CAPACITOR	C16,C24,C30,C39,C57,C66,C92 on ANB	7
	01900823	RA2-16V100M-T2	CHEMICAL CAPACITOR	C14,C15,C19,C22,C33,C47,C52,C53,C55,C62,C63,C67,C68,C69,C70,C72,C74,C76,C77,C81,C85,C86,C88,C93 on ANB	24
	01900845	RA2-50V470M-T2	CHEMICAL CAPACITOR	C29,C38,C56,C65 on ANB	4
	01900834	RA2-16V101M-T2	CHEMICAL CAPACITOR	C75,C84 on ANB	2
	13519628	DD104-989B331K50	CERAMIC CAPACITOR	C110 on ANB	1
	00679089	16MV2200HC	CAPACITOR	C109 on +5PB	1
	02239623	RA2-16V102M-T2	CHEMICAL CAPACITOR	C2 on +5PB	1
INDUCTOR, COIL, FILTER					
	01893634	LQH4N151K04	COIL	L5 on MB	1
	00237212	SH-202	CHOKE COIL	FL1 on MB	1
	02780378	ELL6SH2R7M	CHOKE COIL	L4,L13 on MB	2
	02780389	ELC10D470E	CHOKE COIL	L14 on MB. L13 on +5PB	2
	01565578	N1608Z601T01	FERRITE-BEAD	L10,L11,L15,L17,L18,L19,L20,L21,L22,L23,L24,L25,L29,L30,L32,L33,L34,L35,L36,L37,L38,L39,L40,L43,L44,L45,L47,L48,L49 on MB	29
	02238234	TSL0709RA-151KR52	CHOKE COIL	L16 on ANB	1
	00891689	SBT-0260TF	EMI FILTER	L15 on ANB	1
	01904001	TSL1315S-101	CHOKE COIL	L12 on +5PB	1
CRYSTAL, RESONATOR					
	02673267	CX-49G 5MHZ	CRYSTAL	X1 on MB	1
	02672401	SG-8002JC 67.7376MHZ PC	CRYSTAL	X2 on MB	1
ENCODER					
	01905467	EVE GC1 F20 24B	ROTARY ENCODER	EN1 on SWB	1
CONNECTOR					
	01908656	18FE-BT-VK-N	CONNECTOR	CN110,112,113 on MB. CN104 on ANB	4
	01908645	16FE-BT-VK-N	CONNECTOR	CN111 on MB	1
#	02896934	52559-3092	CONNECTOR	CN6 on MB	1
	13369570	B2B-PH-K-S (2P)	CONNECTOR	CN115 on MB	1
	02237512	75501-0X0-B	CONNECTOR P/N	CN5 on MB. CN101 on CDB	2
	02349545	P/N 75401-0X0-B	CONNECTOR	CN4 on MB	1

**CONNECTOR**

	13369594	B4B-XH-A	CONNECTOR	CN114 on +5PB	3
	02010867	16FE-ST-VK-N	CONNECTOR	CN108 on SWB	1
	02010878	18FE-ST-VK-N FOR WIRING	CONNECTOR	CN106,107 on SWB	2
	02122456	14FE-ST-VK-N	CONNECTOR	CN105 on SWB	1
	01908634	14FE-BT-VK-N	CONNECTOR	CN103 on ANB	1
	02782645	24 5600 050 100 883	CONNECTOR	CN102 on CDB BR-1180CD ONLY	1

**WIRING, CABLE**

#	02904623	WIRING	HDD IDE		1
#	02896956	WIRING	5V POWER		1
#	02896978	WIRING	2 LCD		1
#	02900412	WIRING	HDD POWER		1
	02673223	BAN CARD	BNCD-P=1.25-K-18-90		2
	02124845	BAN CARD	BNCD-P=1.25-K-18-150		1
	02121456	BAN CARD	BNCD-P=1.25-K-14-220		1
	02673245	BAN CARD	BNCD-P=1.25-K-16-220		1
#	02902156	WIRING	IDE	BR-1180CD ONLY	1

**SCREW**

	40450367	SCREW 6-32UNC	1008SR/KM003		4
	40233012	SCREW M2.6X8	BINDING TAPTITE FEBZC		4
	40011278	SCREW 3X8	BINDING TAPTITE P FE ZC		17
	40011312	SCREW 3X8	BINDING TAPTITE P BZC		12
	40019123	SCREW 3X8	BINDING TAPTITE S BZC		1
	40019134	S-TITE BINDING 4*8 ZC	WITH SPRING LOCK WASHER		1
	40012534	SCREW 3X6	BINDING TAPTITE S FE BZC		5
	40012512	SCREW 3X6	BINDING TAPTITE S ZC		12
	40015956	SCREW M3X12	BINDING HEAD S-TIGHT BZC		7(4)
	40011490	SCREW M3X6	PAN MACHINE W/SW BZC		7(4)
#	40457245	PLAIN WASHER 3X12X1	ZC		1
	40233978	SCREW M2X8	PAN MACHINE W/SW+PW ZC	BR-1180CD ONLY	2
#	40455867	SCREW M2X2.5	PAN MACHINE W/SW	BR-1180CD ONLY	4

**PACKING**

#	02904712	UPPER PAD			1
#	02904723	LOWER PAD			1
#	02904990	SIDE PAD R			1
#	02904989	SIDE PAD L			1
#	02896845	PACKING CASE			1
#	02904912	OUTER PACKING CASE			1/2
#	02907178	PACKAGE LABEL			1

**MISCELLANEOUS**

#	02907145	WARNING LABEL	ADAPTOR TAG		1
	22365714	CORD HOOK	236-714		1
	22355334	FOOT MKS	235-334		4
#	02896790	PANEL SHEET			1
#	02896834	INSULATING SHEET	MAIN		1
#	02904756	HDD COLLAR			4
#	02904767	HDD FRONT CUSHION			2
#	02904778	HDD SIDE CUSHION			3
#	02904745	ISOLATOR	VB-1209-55 FOR HDD		4
	01016223	FOOT	30X10X3	BR-1180CD ONLY	1
#	02899445	INSULATING SHEET	CDRW	BR-1180CD ONLY	1
#	40458189	CORD BINDER	CB-4 CLEAR		1
	40456956	LABEL	CD R/W LABEL	BR-1180CD ONLY	1

**ACCESSORIES (STANDARD)**

△ #	02900423	AC ADAPTOR	PSB-3U DC		1
△	00894367	AC CORD SET	100V SP18A+IS14 VCTF2X0.75		1
△	00894378	AC CORD SET	120V SP301+IS14 SJT18/3		1
△	00894389	AC CORD SET	230V SP22+IS14 H05VV-F3G1.0		1
△	00907001	AC CORD SET	240VE KP-610 GTTBS-3 KS-31A		1
△	23495124	AC CORD SET	240VA SC-144-JO1 ES303-10HMA		1
#	*****	DISCRETE DRAMS CDROM	BR-1180CD ONLY		1
#	72018489	OWNER'S MANUAL SET	JAPANESE		1
#	72018367	OWNER'S MANUAL SET	ENGLISH		1
	40232389	WARRANTY CARD	FOR BOSS JAPAN ONLY		1

## CHECKING THE VERSION NUMBER

Press the [POWER] button while pressing the [REC TRACK1] and [UNDO/REDO] buttons.

The test mode screen will be displayed and the version numbers for the CPU mask and FLASH ROMs will be displayed.

\* Continue pressing the [REC TRACK1] and [UNDO/REDO] buttons until the test mode screen is displayed.

\* How to exit

1. Press the [EXIT] button.
2. "Press Power SW" is displayed.
3. Press the [POWER] button for at least 2 seconds.
4. The unit's power will be turned off.

## USERS DATA SAVE AND LOAD

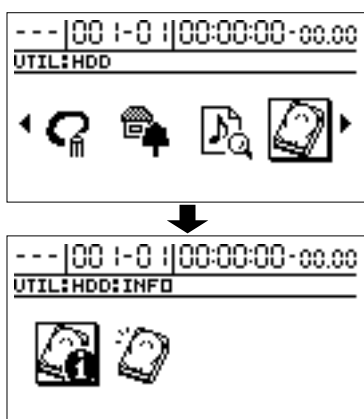
When saving or reloading user data, check the hard disk partitions by viewing "hard disk information" and perform as follows for all partitions of the hard disk.

\* Installation of CD-R/W drive is necessary when performing the following steps on the BR-1180. Contact the Roland Service Center for the method of installing the CD-R/W drive. See the "CDI-BR-1 Installation Procedures" in this service note for the installation procedure.

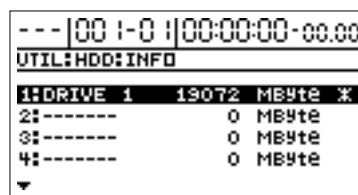
### Viewing information about the hard disk (Hard Disk Information)

You can display information about the hard disk.

1. Press [UTILITY].
2. Use [CURSOR] to select the "HDD" icon, then press [ENTER].



3. Using [CURSOR] again to select the "INFO" icon, then press [ENTER]. The size of each drive (partition) appears. The currently selected drive is indicated by an asterisk ("\*").

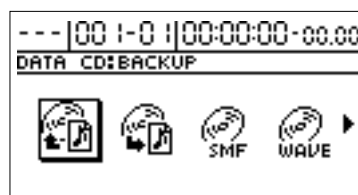


The BR-1180/BR-1180CD is set with one drive at the factory, so only one drive will appear in the display.

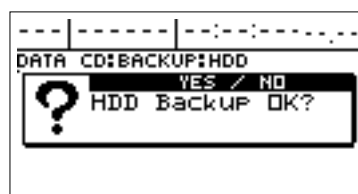
4. If you want to switch the drive being used, use [CURSOR] to move the cursor to the drive you want to use, then press [ENTER].
  - \* If you are in the process of recording a song at this point, the message "Save Current?" appear. If you want to save the current song, press [YES]; press [NO] if you do not need to save the song.
5. The message "Now Loading..." appears. When "Complete!" appears, the switch is completed.
  - \* Drives can be switched only when multiple drives have been created.

### Saving the content of the hard disk to CD-R/RW discs (HDD Backup)

1. Place a writable CD-R/RW disc (a blank disc) in the CD-R/RW drive.
2. After the CD-R/RW drive's indicator has stopped flashing, press [DATA SAVE/LOAD].
3. Use [CURSOR] to select the "BACKUP" icon, then press [ENTER].



4. Using [CURSOR] again to select the "HDD" icon, then press [ENTER]. The message "HDD Backup Ok?" appears.



\* If a CD-R/RW disc that already has data written to it is loaded, the message "Not Blank Disc" appears, and you cannot proceed with the backup. Be sure to use only blank discs. If a CD-RW disc is inserted, the message "Erase Disc?" appears. Pressing [ENTER] here begins erasure of the disc.

5. Press [YES].
  - \* If you are in the process of recording a song at this point, the message "Save Current?" may appear. If you want to save the current song to the hard disk, press [YES]; press [NO] if you do not need to save the song. Note, though, that if you do press [NO], the data currently being recorded will be lost.

The message "Write Speed?" appears.



6. Set the write speed.
 

If the write speed indicated is acceptable, go on to Step 8.

If you want to change the write speed, rotate the TIME/VALUE dial to change the value, then proceed to Step 7.

Write Speed:

  - x2 (352 kbps) Writes twice as fast.
  - x4 (704 kbps) Writes four times as fast.
  - x8 (1408 kbps) Writes eight times as fast.
  - \* With some media, the range of write speeds may be limited. In such cases, the values that can be set with the TIME/VALUE dial may also be limited.
7. Press [ENTER].
 

The message "Write Sure?" appears.

  - \* To cancel, press [NO].
8. Press [ENTER].
 

Writing to the CD-R/RW disc begins.

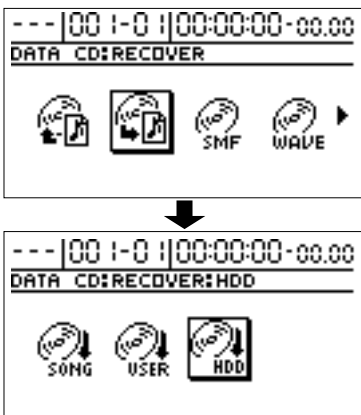
The backup begins.

When "Complete!" appears, the backup is finished.

  - \* If the content of the hard disk does not fit on one CD-R/RW disc, the backup is then made to multiple discs. In this case, have a number of blank discs on hand, and replace the discs according to the instructions as they appear on the screen.

## Loading the saved content of the hard disk to the BR-1180CD (HDD Recover)

1. Place the CD-R/RW disc containing the saved hard disk data in the CD-R/RW drive.
2. After the CD-R/RW drive's indicator has stopped flashing, press [DATA SAVE/LOAD].
3. Use [CURSOR] to select the "RECOVER" icon then press [ENTER].



4. Using [CURSOR] again to move the cursor to "HDD," then press [ENTER].
 

The message "HDD Recover Ok?" appears.



5. Press [YES], and when the message "Initialize HDD?" appears, press [YES] again.
 

The hard disk is initialized, then the recovery begins.

When "Complete!" appears, the loading is finished.

  - \* When you execute HDD Recover, all data stored on the hard disk up to that point is erased and overwritten by the data on the CD-R/RW disc. Note that this data cannot be recovered once it has been erased.

## RESTORING THE FACTORY SETTINGS

### Initializing hard disk

\* Note that all user and demo song data are lost when this operation is performed.

1. Press the [POWER] button while pressing the [REC TRACK5] and [UNDO/REDO] buttons.
 

Continue pressing the switch until 1 TEST MENU is displayed.
2. Select "23 INITIALIZE HDD" by turning the [TIME/VALUE] knob.
3. Press the [ENTER] button.
4. "Initialize OK?" is displayed.
5. Press the [ENTER] button again.
 

The initializing begins .
6. "24 POWER OFF" is displayed.
7. The unit's power is turned off when the [POWER] button is pressed for at least 2 seconds.

### Loading the demo song

\* Note that all user data are lost when this operation is performed.

\* There is data which is not initialized only by load operation of a Demo song. Please operate the above "Initializing hard disk" when you exchange the hard disk.

1. Press the [POWER] button while pressing the [REC TRACK7] and [UNDO/REDO] buttons.
 

Continue pressing the button until "Insert Disc" is displayed.
2. Place the CD-R (#17041161) for loading the demo song on the tray.
3. "Initialize HDD?" is displayed.
4. Press [ENTER]
 

The hard disk is initialized, then the loading demo song begins.
5. The unit's power will be turned off automatically.



# SYSTEM SOFTWARE UPDATE PROCEDURE

## Updating from CD-R

### Required Items

- Update data CD-ROM for service (#17041160)
1. Press the [POWER] button while pressing the [STOP] and [PLAY] buttons.  
Current version number is displayed.
  2. When "Insert Disk" is displayed, take out the tray by pressing the eject button for CD-R/RW.
  3. Set the CD-R for updating into the tray and close it.
  4. The new version number, date and check sum are displayed.
  5. When the system displays "Update OK?", press the [ENTER/YES] button.
  6. "Now Writing..." is displayed.
  7. When "Complete" is displayed, press the [POWER] button and turn off the unit's power.
  8. If you fail the update, please redo from Procedure 1.

## Updating for SMF

### Required Items

- Update data CD-ROM for service (#17041160)  
Please use if from CD-R, changing in to media for sequencers.
  - \* *The SMF data contents of 32 files.*
1. Press the [POWER] button while pressing the [STOP], [PLAY] and [REC] buttons.  
Current version number is displayed.
  2. When "Waiting SMF" is displayed, send the SMF data (32 files) from the sequencer, etc.
  3. This work is repeated 32 times.  
NOTE: When you sent the next file, please wait about 5 seconds.
  4. When "Complete" is displayed, press the [POWER] button and turn off the unit's power.

# TEST MODE

## Required Item

- Oscillator
- Oscilloscope
- Foot switch (FS-5U etc)
- Expression Pedal (EV-5 etc)
- MIDI Cable
- Audio or Headphone
- Tester
- Pharutom
- Noise Meter
- Blank CD-RW
- Device (include the Digital In terminal)

## How to enter the test mode

Press the [POWER] button while pressing the [REC TRACK1] and [UNDO/REDO] buttons.

"1 DEVICE screen" is displayed, and the device check for test mode, item 1 will start.

- \* *Continue pressing the [REC TRACK 1] and [UNDO/REDO] buttons until the test mode screen appears.*

## Test item

The test mode items are as follows.

1. DEVICE
2. SW
3. FOOT SW
4. EXP PEDAL
5. ENCODER & LCD
6. FADER
7. LED
8. MIDI
9. MUTE
10. GUITAR A/B
11. AF/AD
12. MIC2 PHANTOM
13. GTR/MIC2 AUDIO
14. MIC1 A/B
15. MIC1 PHANTOM
16. MIC1 AUDIO
17. SUB MIX
18. SUB MIX AUDIO
19. LINE ON/OFF
20. LINE AUDIO
21. HARD DISK
22. CD-RW DRIVE
23. INITIALIZE HDD
24. POWER OFF

## Moving through test items

Cursor [RIGHT]: proceeds to the next item

Cursor [LEFT]: returns to previous item

- \* You can forcefully move through items by performing the above operation while pressing the [STOP] button.
- \* For 3 FOOT SW and later items, the test mode can be exited midway and the unit's power turned off by pressing the [POWER] button.

## Other settings

1. Set the FOOT SW (FS-5U) polarity switch to the jack side.
2. Please connect the FOOT SW (FS-5U etc)
3. Please connect the Expression pedal (EV-5 etc)

## Test contents

### 1. DEVICE

1. The version numbers for the CPU mask and FLASH ROMs are displayed.

The system proceeds to the following tests automatically.

When an error occurs, the device that the error has occurred on will be displayed.

- RAM check inside the CPU
  - ROM check inside the CPU
  - SDRAM check
  - FLASH ROM (MEMORY) check
  - GATE ARRAY check
  - ESP check
2. The device name is displayed during the check.
  3. If no error occurs, "Device OK!" will be displayed.
  4. Press the [RIGHT] cursor button and proceed to the next item.

### 2.SW

1. Press the button according to the LCD display.
2. When the button is pressed, the button to be pressed next is displayed on the LCD screen.  
If a button different from the one displayed is pressed, "Err:Check NG!" is displayed.
3. Lastly, press the [LOOP PHRASE IMPORT] button to proceed to the next item.

### 3.FOOT SW

1. Step on the FOOT switch.  
When the FOOT switch is pressed, it will automatically proceed to the next item.

### 4.EXP PEDAL

1. Bring back the EXP PEDAL to the front and press down again.
2. Confirm that "127 OK" is displayed.
3. Confirm that the value remains as "127" even when the EXP PEDAL plug is pulled out.
4. Press the [RIGHT] cursor button and proceed to the next item.

### 5.ENCODER & LCD

1. All dots are displayed when the encoder is turned.
2. Turn the encoder to the right and confirm that the LCD display becomes darker.
3. Turn the encoder to the left and confirm that the LCD display becomes lighter.
4. Press the [RIGHT] cursor button and proceed to the next item.

## 6.FADER

KNOB/FADER name to be operated is displayed.

1. Turn the INPUT LEVEL knob from MIN to MAX.
2. Move TRACK faders 1 to 11 sequentially from MIN to MAX.
3. Move the MASTER fader from MIN to MAX.  
If all faders are "OK", the system will automatically proceed to the next item.  
If a fader different from the one displayed is moved, "Err:Other moved t" is displayed.

## 7.LED

When you enter this item, all LEDs other than PEAK come on.

1. The LEDs come on one by one in the following order when the [RIGHT] cursor button is pressed.

[INPUT SELECT GUITAR] -> [INPUT SELECT MIC1] -> [INPUT SELECT LINE] -> "MIDI" -> "HD ACCESS" -> [EFECT] -> [TUNER] -> [REC MODE INPUT] -> [REC MODE BOUNCE] -> [REC MODE MASTERING] -> [AUTO PUNCH IN] -> [AUTO PUNCH OUT] -> [AUTO PUNCH ON/OFF] -> [REPEAT] -> [PLAY] -> [REC] -> [REC TRACK 1](GREEN)(RED) -> [REC TRACK 2] (GREEN)(RED) -> [REC TRACK 3](GREEN)(RED) -> [REC TRACK 4](GREEN)(RED) -> [REC TRACK 5](GREEN)(RED) -> [REC TRACK 6](GREEN)(RED) -> [REC TRACK 7](GREEN)(RED) -> [REC TRACK 8](GREEN)(RED) -> [REC TRACK 9/10] (GREEN)(RED) -> [LOOP PHRASE IMPORT](GREEN)(RED) -> [DATA SAVE/LOAD](GREEN)(RED) -> [AUDIO CD WRITE/PLAY](GREEN)(RED) -> [RHYTHM EDIT] -> [RHYTHM ON/OFF] -> [MASTERING TOOL KIT] -> [TIME STRETCH] -> [CENTER CANCEL] -> Return

2. When the [RIGHT] cursor button is pressed, the LEDs for [REC TRACK] 1 to 9/10 and CD-R/RW sections all come on in red.
3. When the [RIGHT] cursor button is pressed, the LEDs for [REC TRACK] 1 to 9/10 and CD-R/RW sections all come on in green.
4. Press the [RIGHT] cursor button and proceed to the next item.

## 8 MIDI

1. Confirm that "NG" is displayed when the MIDI cable is not connected.
2. Connect MIDI OUT and MIDI IN using the MIDI cable and confirm that "OK" is displayed.
3. Press the [RIGHT] cursor button and proceed to the next item.

## 9.MUTE

1. Internal oscillation signal (1kHz: Sine wave) is output and on and off of mute is repeated at regular intervals.
2. Confirm that the waveforms for LINE OUT and PHONE appear and disappear at regular intervals.  
\* Since this mute occurs on analog circuits, some sound leaks in even during MUTE.
3. Press the [RIGHT] cursor button and proceed to the next item.

## 10.GUITAR A/B

1. Input a 40mV, 1kHz rectangular wave to MIC2(XLR)
2. Confirm that the waveforms for the L/R channels of LINE OUT alternately appear and disappear.

## 11.AF/AD

1. Input a 200mVp-p, 1kHz sine wave to GUITAR/BASS jack.
2. Lower SENS of GUITAR/BASS, and confirm that the size of L and R when LINE OUT Rch distortion disappears is equal.
3. Pull out the GUITAR/BASS jack after inspection.
4. Press the [RIGHT] cursor button and proceed to the next item.

## 12.MIC2 PHANTOM

1. Pressing the [ENTER] button switches PHANTOM on and off.
2. Using a tester, measure the voltage between the MIC2(XLR) 2(HOT) and 3(COLD) pins and 1(GND) while PHANTOM is on, and confirm that it is 45V to 50V.
3. Connect an instrument (condenser mic, etc) compatible with PHANTOM power to MIC2 and confirm that the waveform that is input is output from LINE OUT.
4. Press the [RIGHT] cursor button and proceed to the next item.

## 13.GTR/MIC2 AUDIO

1. Input a 40mV, 1kHz rectangular wave to MIC2(XLR).
2. Move the SENS knob of GUITAR/BASS from MAX to MIN to MAX, and confirm that the waveform for the L/R channels of LINE OUT changes smoothly.
3. Confirm that the PEAK LED starts to come on when the SENS knob is turned to 2 o'clock.
4. Confirm that the waveform disappears when a short plug is inserted into MIC2(TRS).
5. Pull out the short plug.
6. Pull out MIC2(XLR).
7. Turn SENS of MIC2 to MAX and confirm that the residual noise level for LINE OUT L/R is -78dBu(JIS-A).
8. Press the [RIGHT] cursor button and proceed to the next item.

## 14.MIC1 A/B

1. Input a 40mVp-p, 1kHz rectangular wave to MIC1(XLR)
2. Confirm that waveforms for the L/R channels of LINE OUT appear and disappear alternately
3. Press the [RIGHT] cursor button and proceed to the next item.

## 15.MIC1 PHANTOM

1. Pressing the [ENTER] button switches PHANTOM on and off.
2. Using a tester, measure the voltage between the MIC1(XLR) 2(HOT) and 3(COLD) pins and 1(GND) while PHANTOM is on, and confirm that it is 45V to 50V.
3. Connect an instrument (condenser mic, etc) compatible with PHANTOM power to MIC1 and confirm that the waveform that is input is output from LINE OUT.
4. Press the [RIGHT] cursor button and proceed to the next item.

## 16.MIC1 AUDIO

1. Input a 40mVp-p, 1kHz rectangular wave to MIC1(XLR).
2. Move the SENS knob of MIC1 from MAX to MIN to MAX, and confirm that the waveform for the L/R channels of LINE OUT changes smoothly.
3. Confirm that the PEAK LED starts to come on when the SENS knob is turned to 2 o'clock.
4. Confirm that the waveform disappears when a short plug is inserted into MIC1(TRS).
5. Pull out the short plug.
6. Pull out MIC1(XLR).
7. Turn SENS of MIC1 to MAX and confirm that the residual noise level for LINE OUT L/R is -78dBu(JIS-A).
8. Press the [RIGHT] cursor button and proceed to the next item.

## 17.SUB MIX

1. Input a 1kHz 400mVp-p rectangular wave to LINE IN L/R.
2. Confirm that the waveforms for the L/R channels of LINE OUT appear and disappear.
3. Press the [RIGHT] cursor button and proceed to the next item.

## 18.SUB MIX AUDIO

1. Input a 1kHz 400mVp-p rectangular wave to LINE IN L/R.
2. Confirm that waveform is output from LINE OUT L/R.
3. Press the [RIGHT] cursor button and proceed to the next item.

## 19.LINE ON/OFF

1. Input a 1kHz 400mVp-p rectangular wave to LINE IN L/R.
2. Confirm that the waveforms for the L/R channels of LINE OUT appear and disappear.
3. Press the [RIGHT] cursor button and proceed to the next item.

## 20.LINE AUDIO

1. Input a 1kHz rectangular wave to LINE IN L/R.
2. Confirm that the waveform is output from LINE OUT L/R.
3. Turn the [PHONE VOLUME] knob and confirm that the waveform changes smoothly.
4. Pull out the plug for LINE IN L/R.
5. Confirm that residual noise for LINE OUT L/R is -80dBm(JIS-A) or under.
6. Press the [RIGHT] cursor button and proceed to the next item.

## 21.HARD DISK

Reading, writing and verification of the hard disk is performed. If no error occurs, it will automatically proceed.

## 22.CD-RW DRIVE

The firmware and the model name for the CD-RW drive are displayed.

1. Place the CD-RW(CD-R) media on the tray.
2. CD-RW writing and verification are performed.

\* *The test can be performed 99 times with one CD-R.*  
When using a CD-RW, erase data using CD ERASE of user mode after testing 99 times.

## 23.INITIALIZE HDD

\* *All contents of the hard disk are lost when this item is executed.*  
If not executing, press the [RIGHT] cursor button and proceed to the next item.

1. Pressing the [ENTER] button initializes the hard disk.
2. If no error occurs "OK" is displayed, and it will automatically proceed to the next item.

## 24.POWER OFF

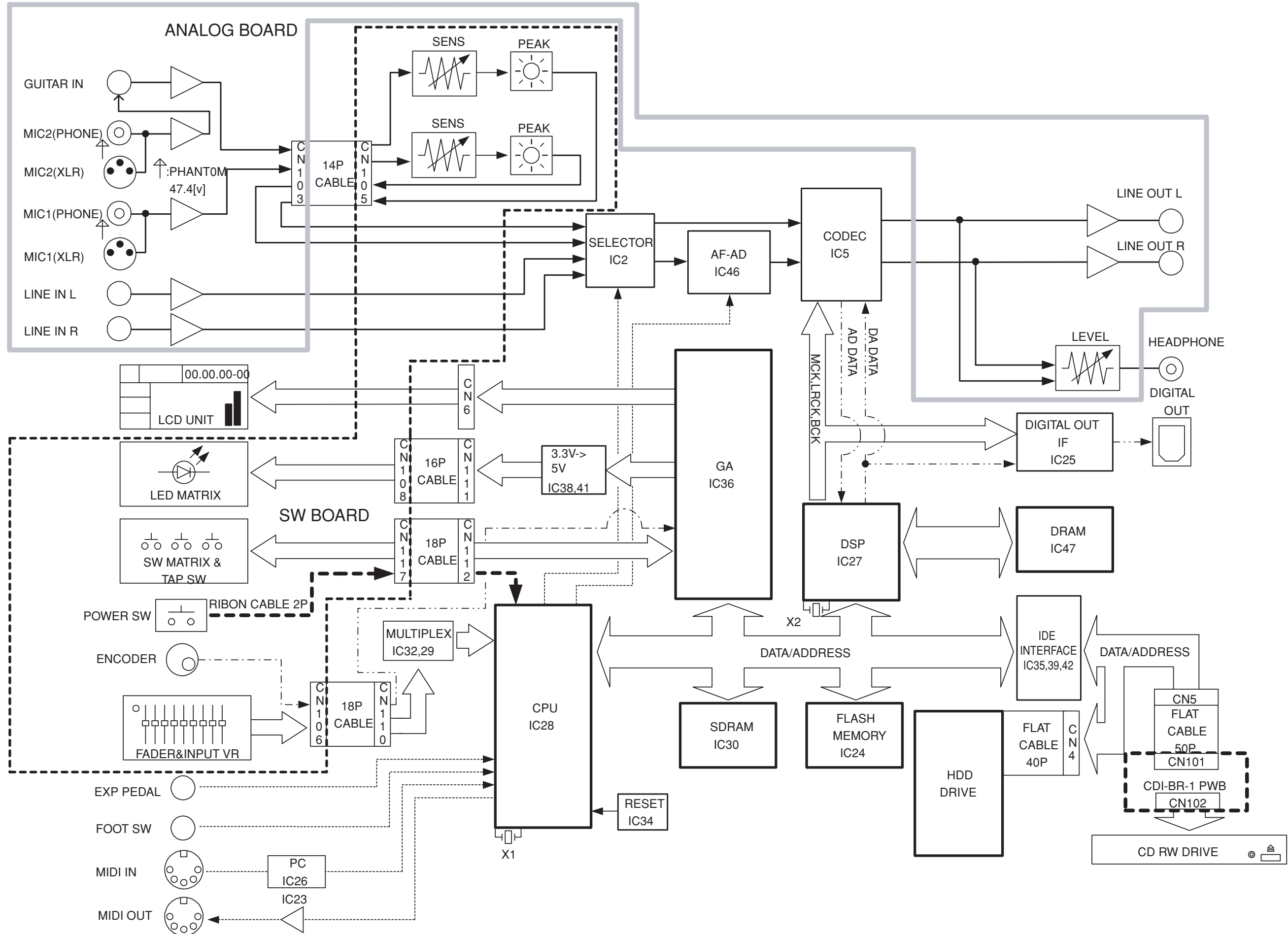
1. Input signal with level high enough to light up the PEAK LED for MIC2(XLR).
2. Press the [POWER] switch for at least 2 seconds.
3. Confirm that LCD backlight and "PEAK LED" go out.

## Check items for user mode

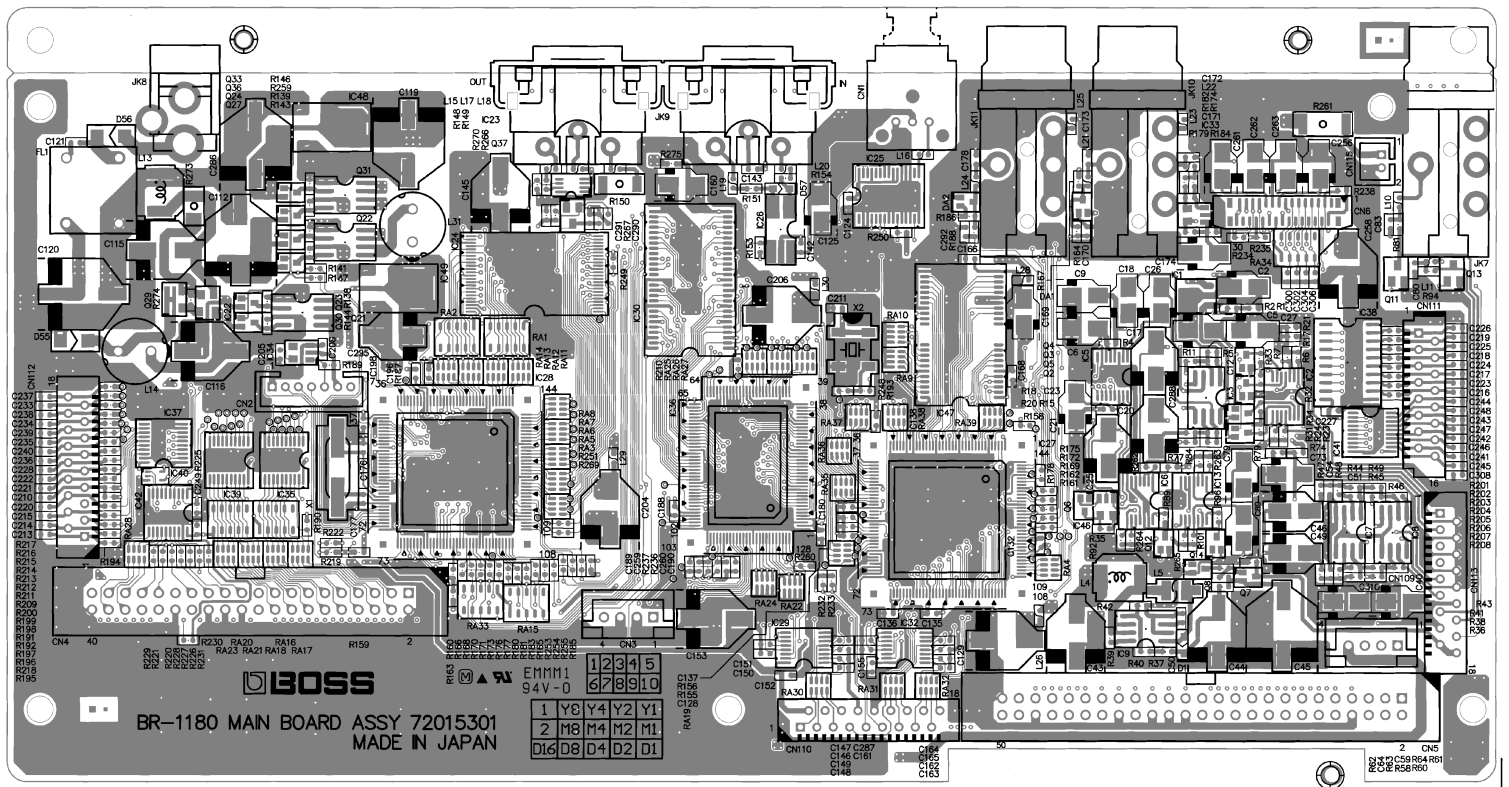
### Checking DIGITAL OUT

1. Connect an instrument with optical DIGITAL IN.
2. Play the BR-1180 and confirm that the signal is output from DIGITAL OUT.

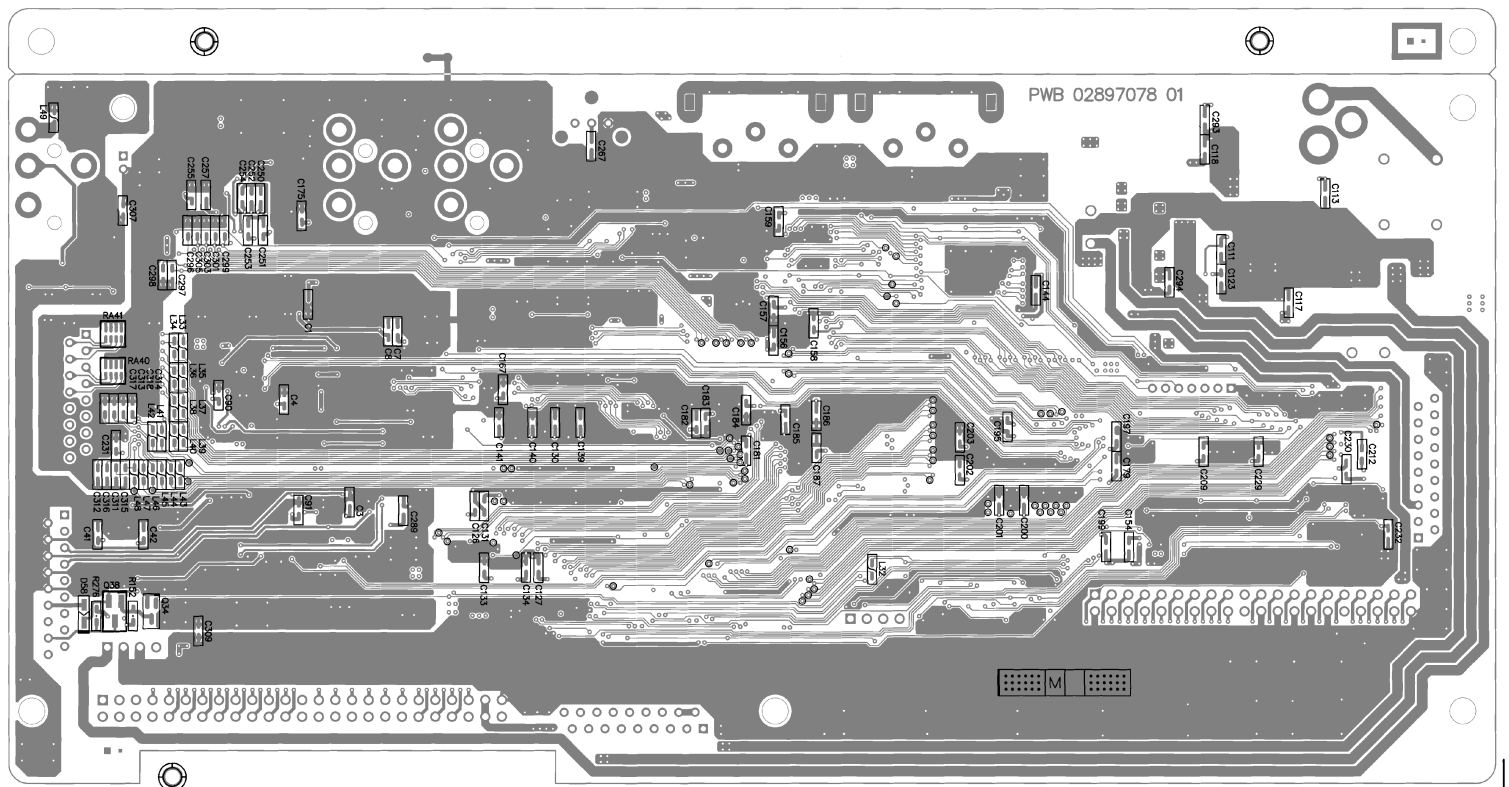
# BLOCK DIAGRAM



# CIRCUIT BOARD(MAIN)



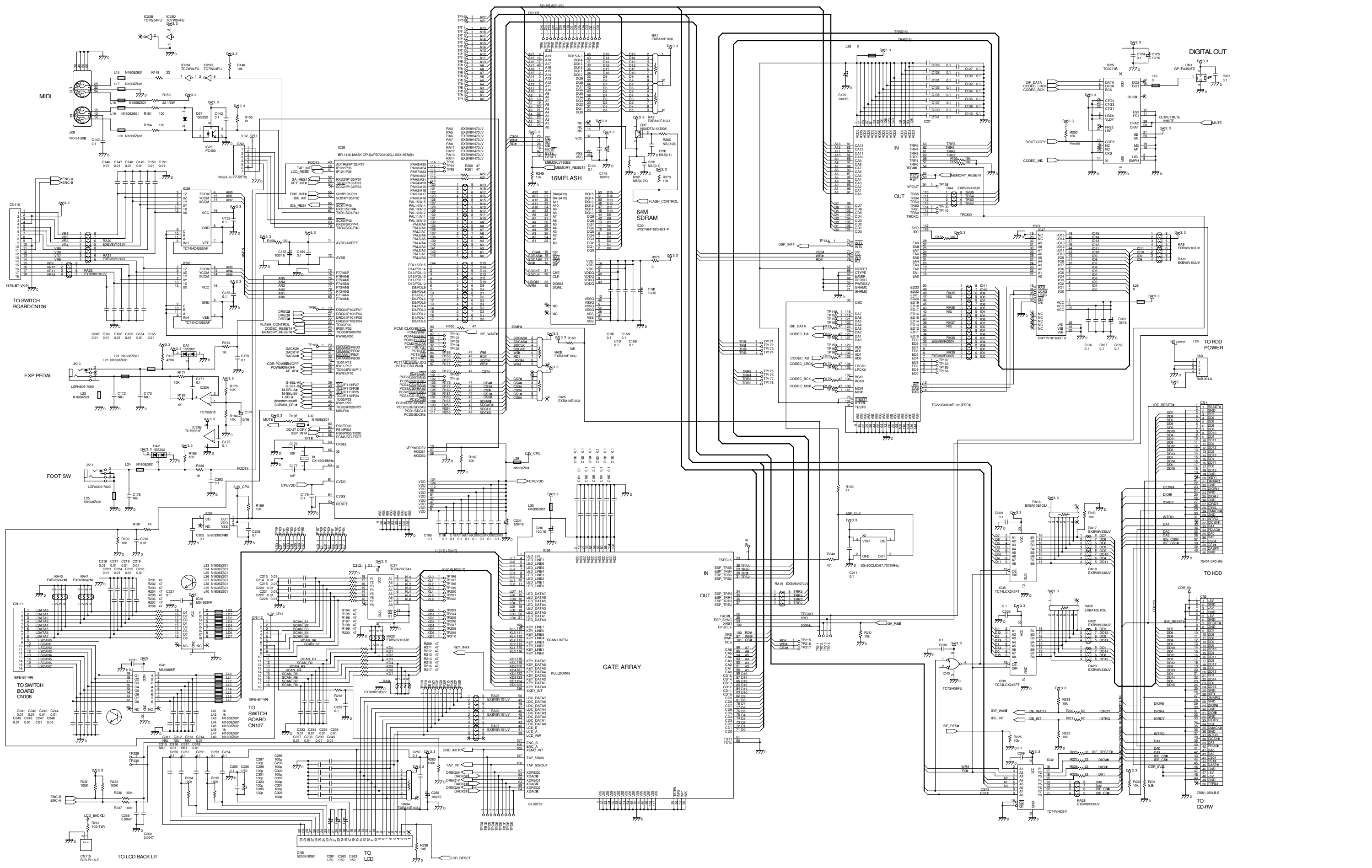
View from components side



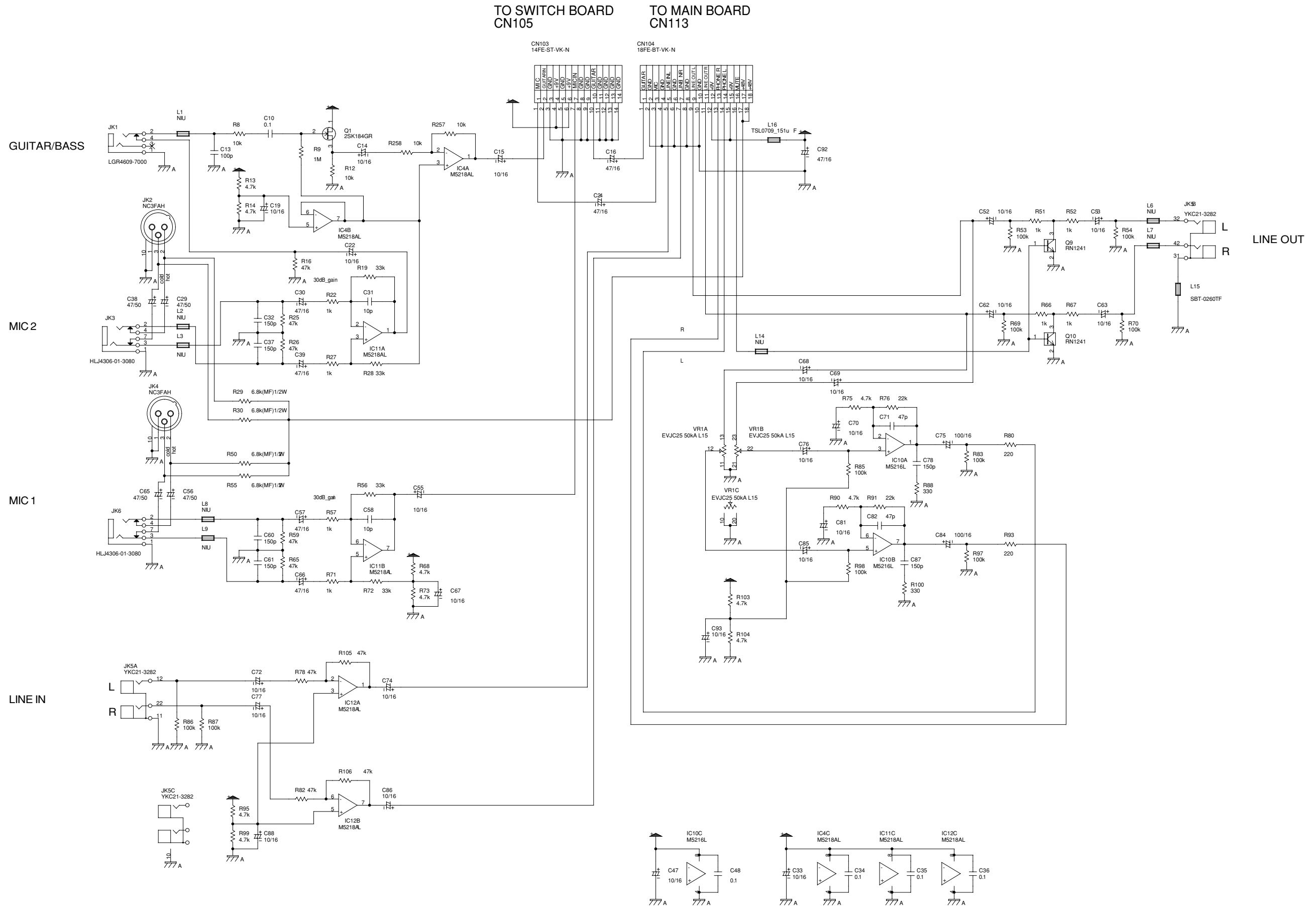
View from foil side



# CIRCUIT DIAGRAM (MAIN 1/4)

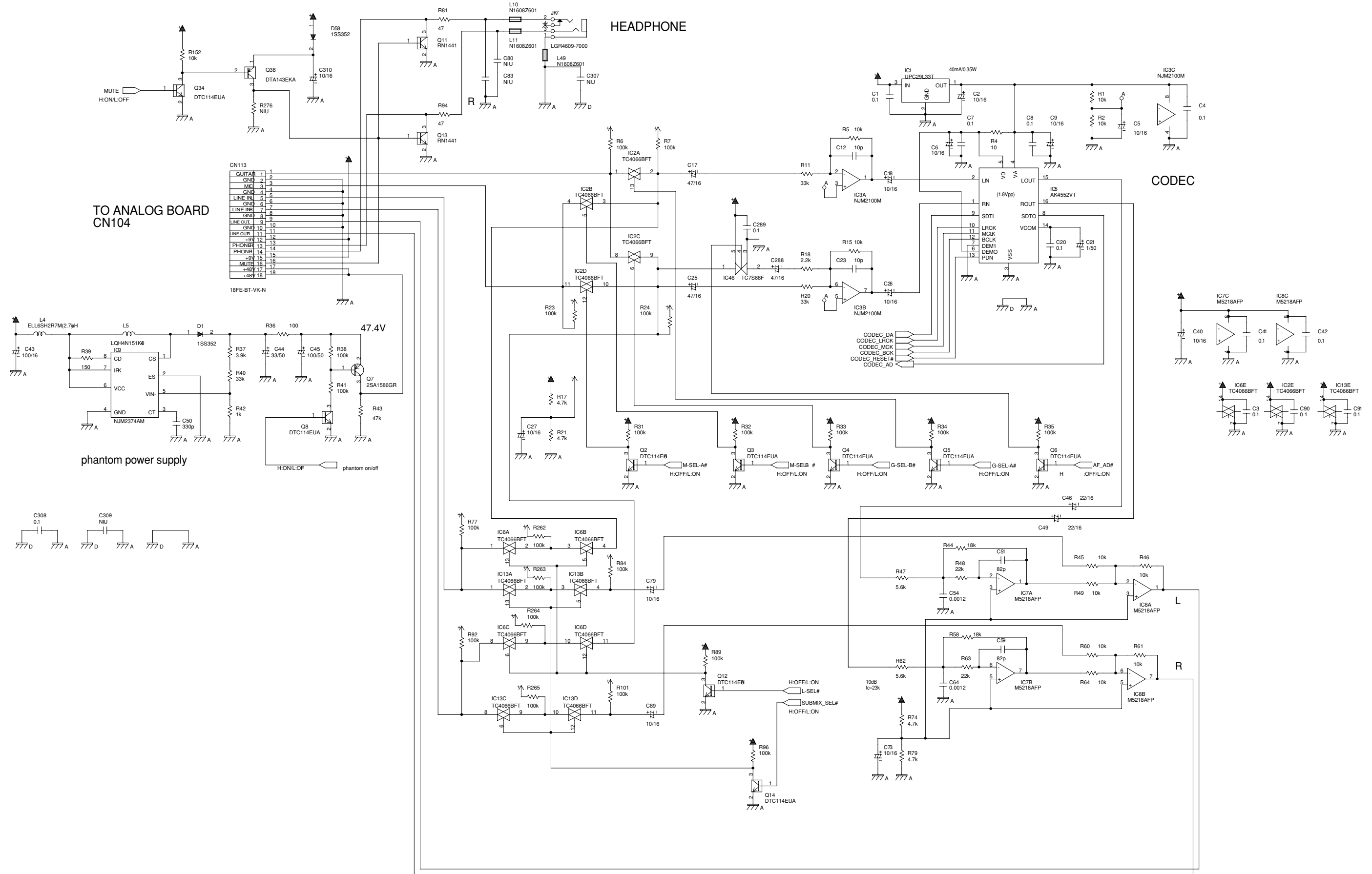


# CIRCUIT DIAGRAM(MAIN 2/4)

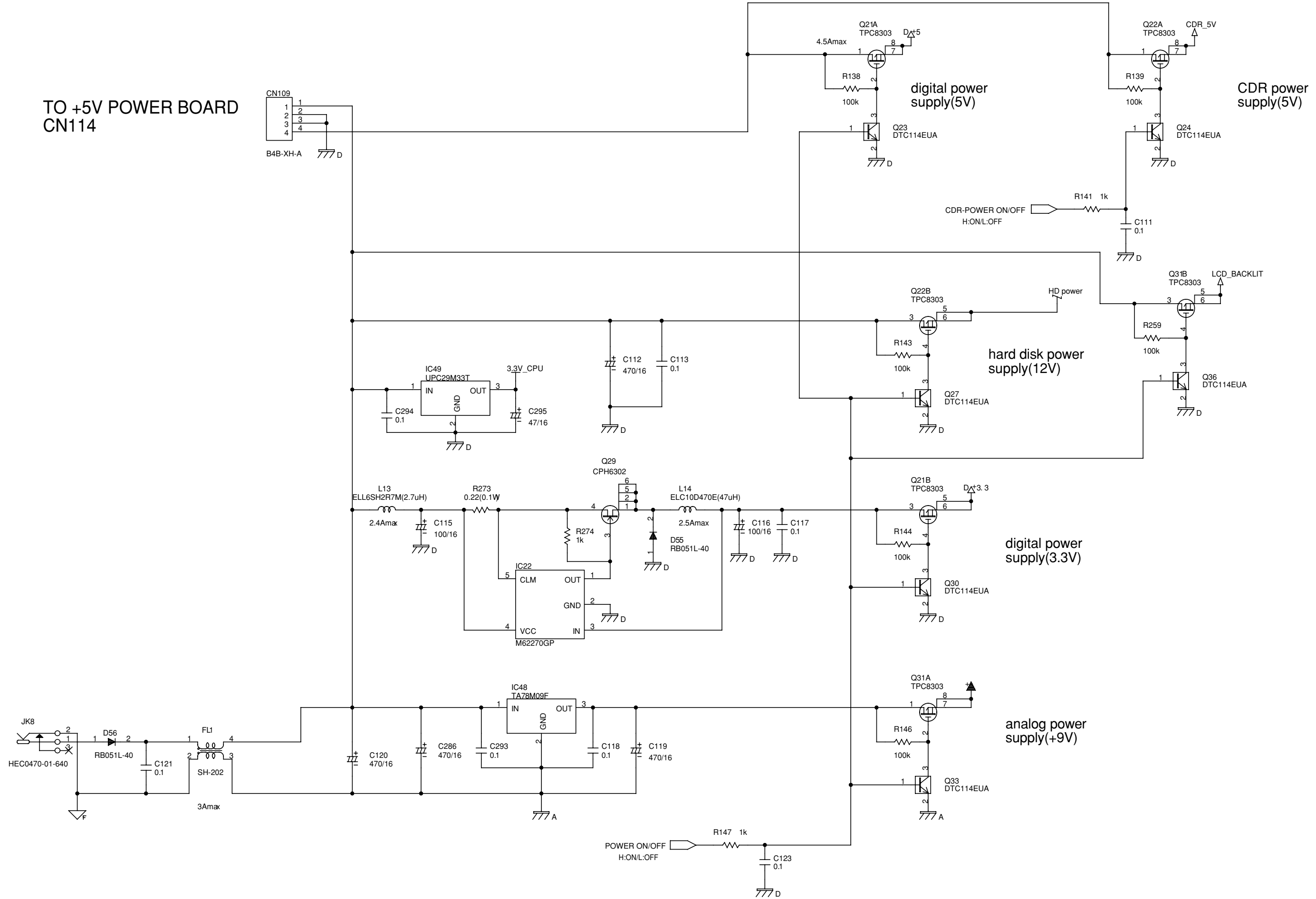




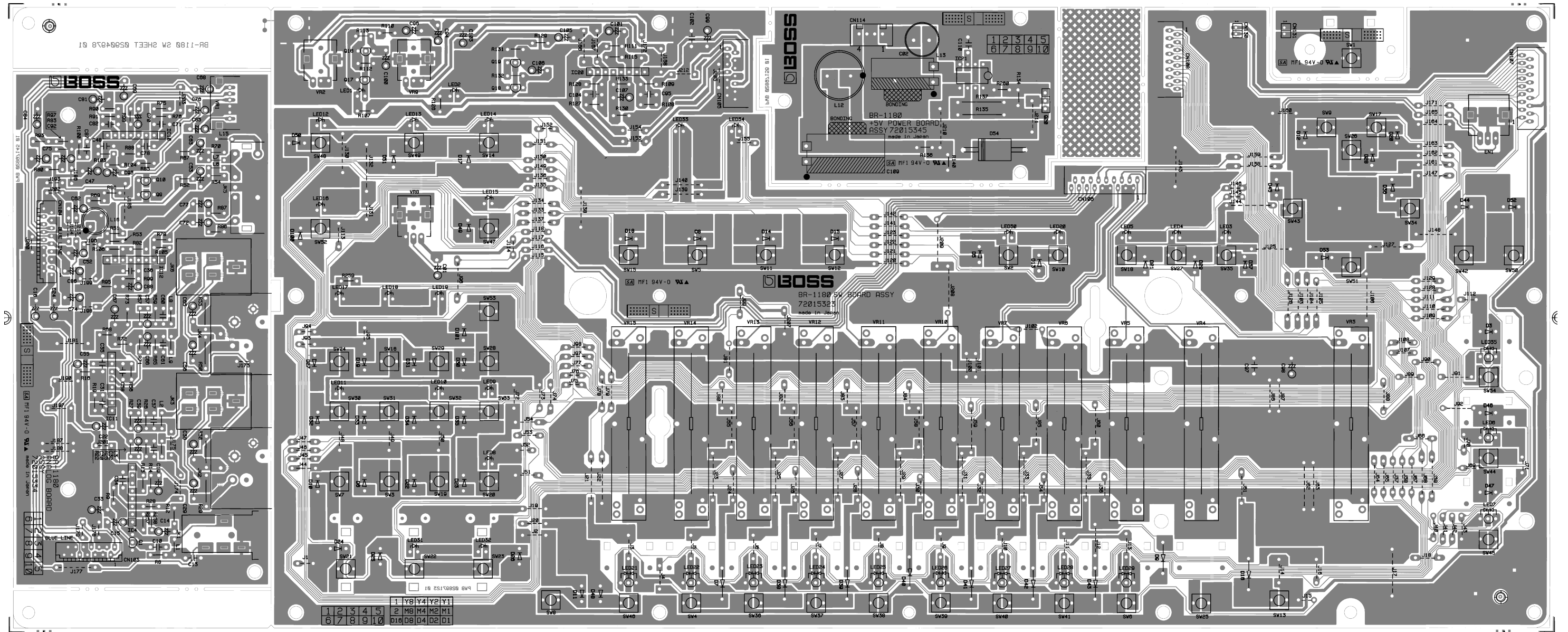
# CIRCUIT DIAGRAM(MAIN 3/4)



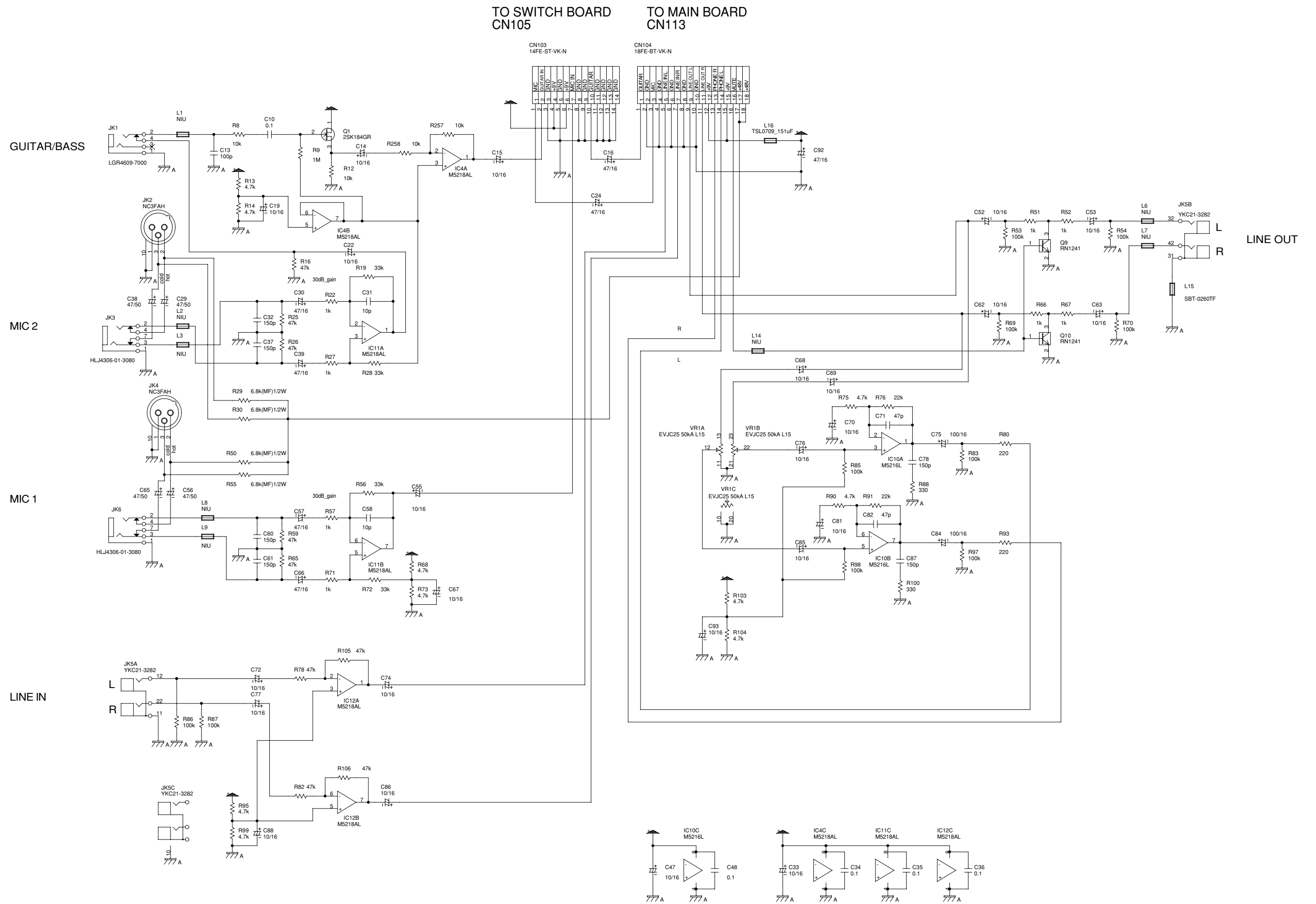
# CIRCUIT DIAGRAM(MAIN 4/4)



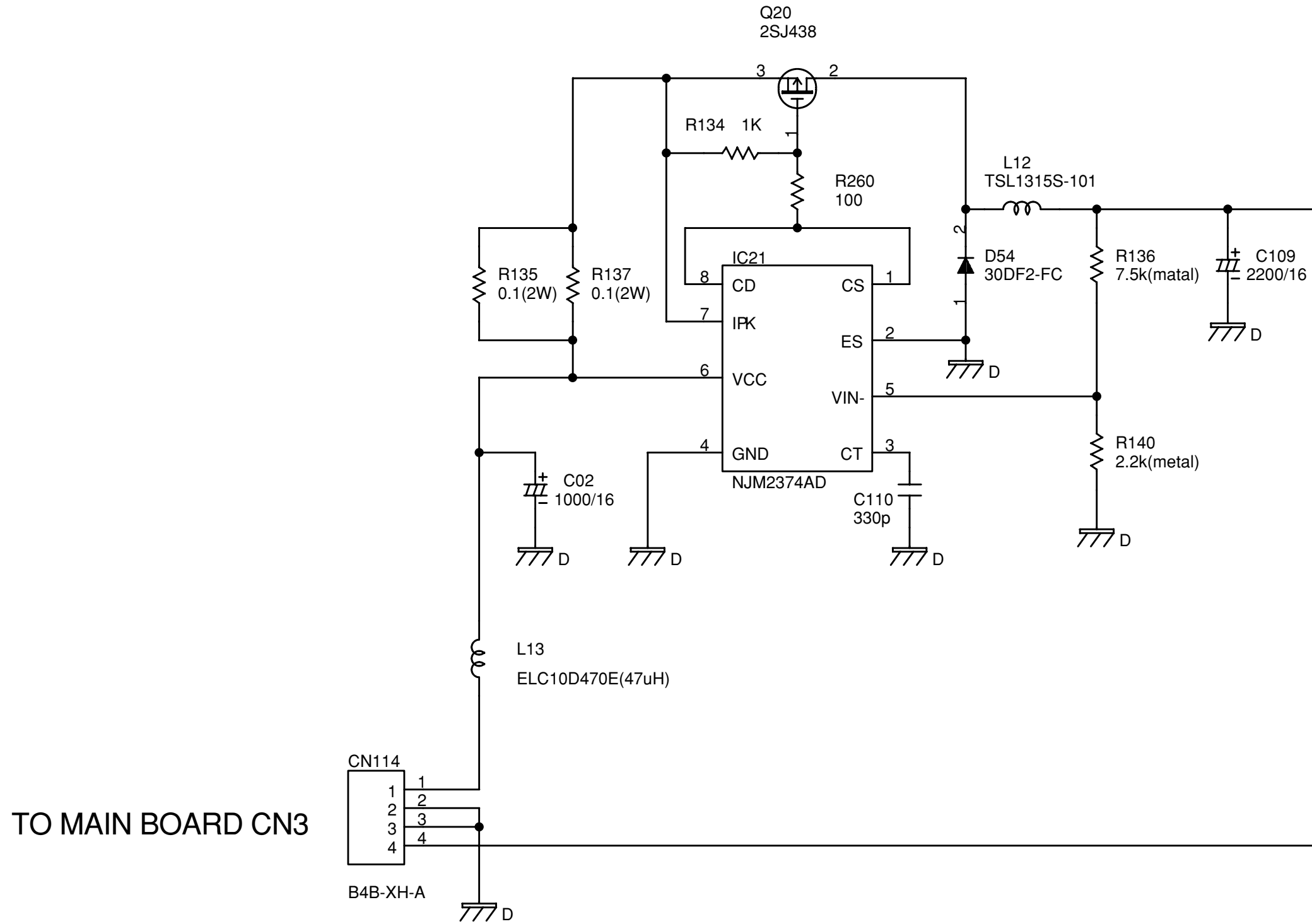
# CIRCUIT BOARD(SW SHEET ASSY)



# CIRCUIT BOARD(ANALOG)



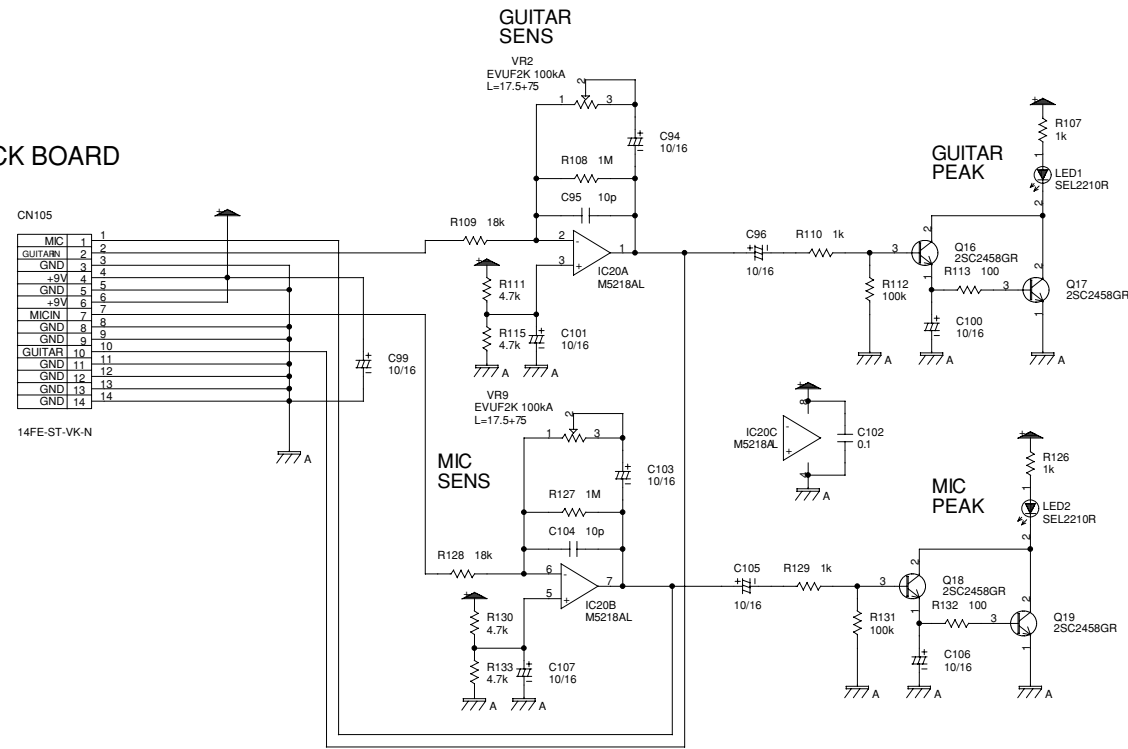
**CIRCUIT DIAGRAM(+5V BOARD)**



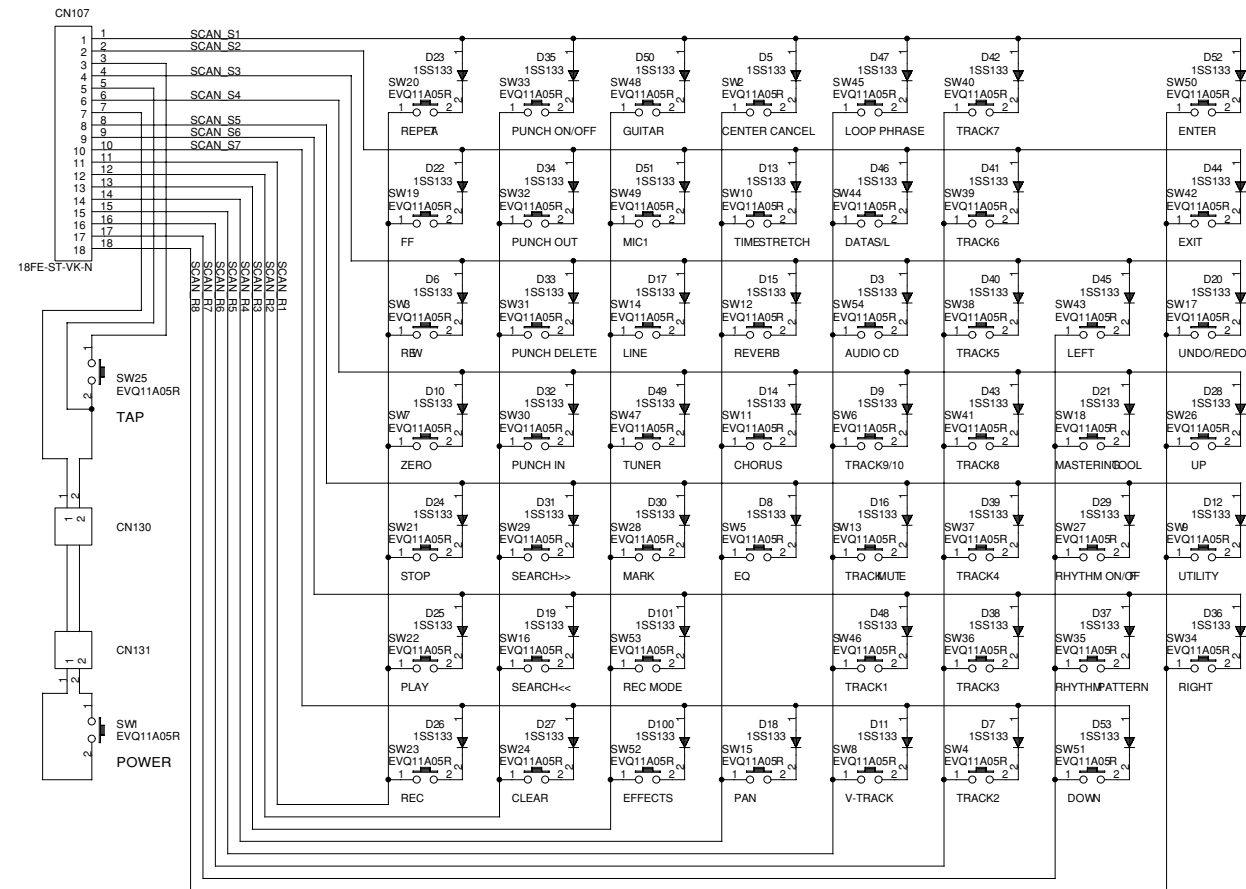
TO MAIN BOARD CN3

# CIRCUIT DIAGRAM(SW)

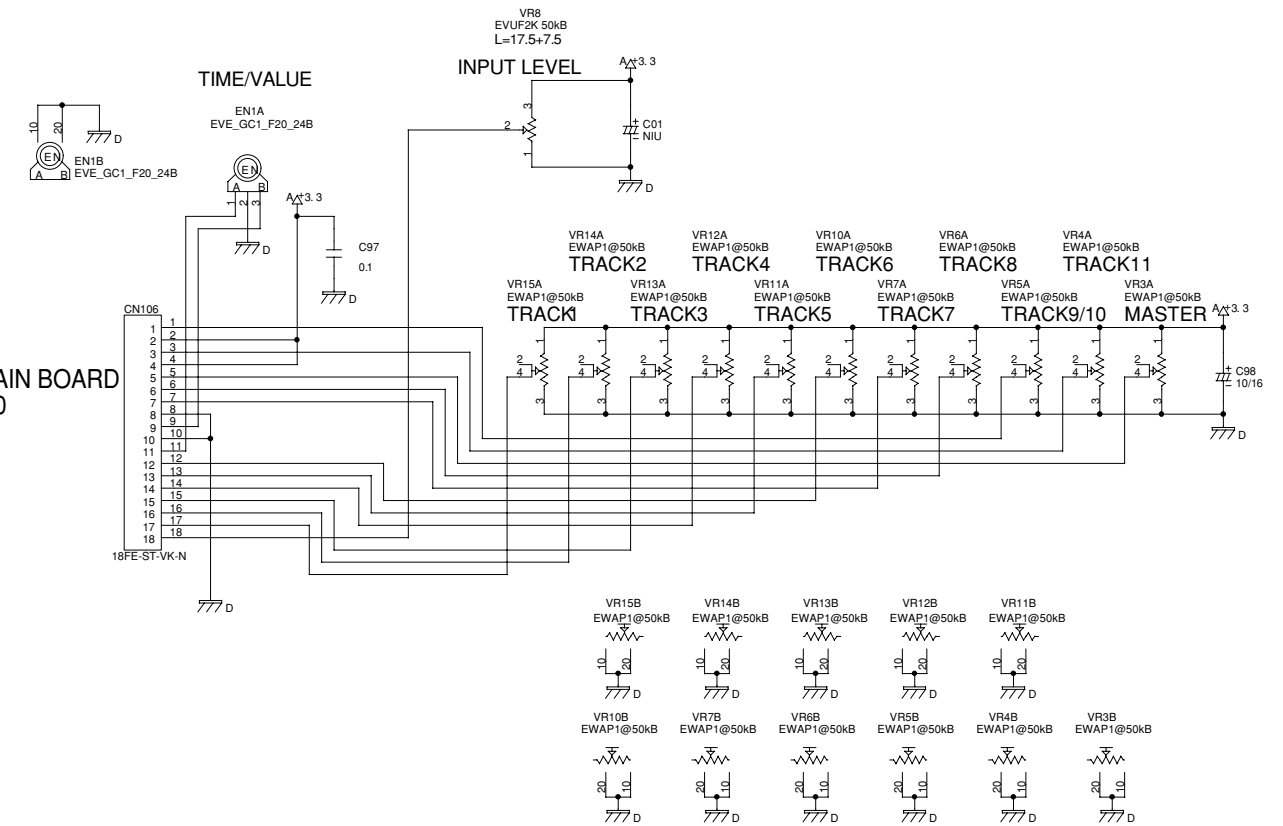
TO JACK BOARD  
CN103



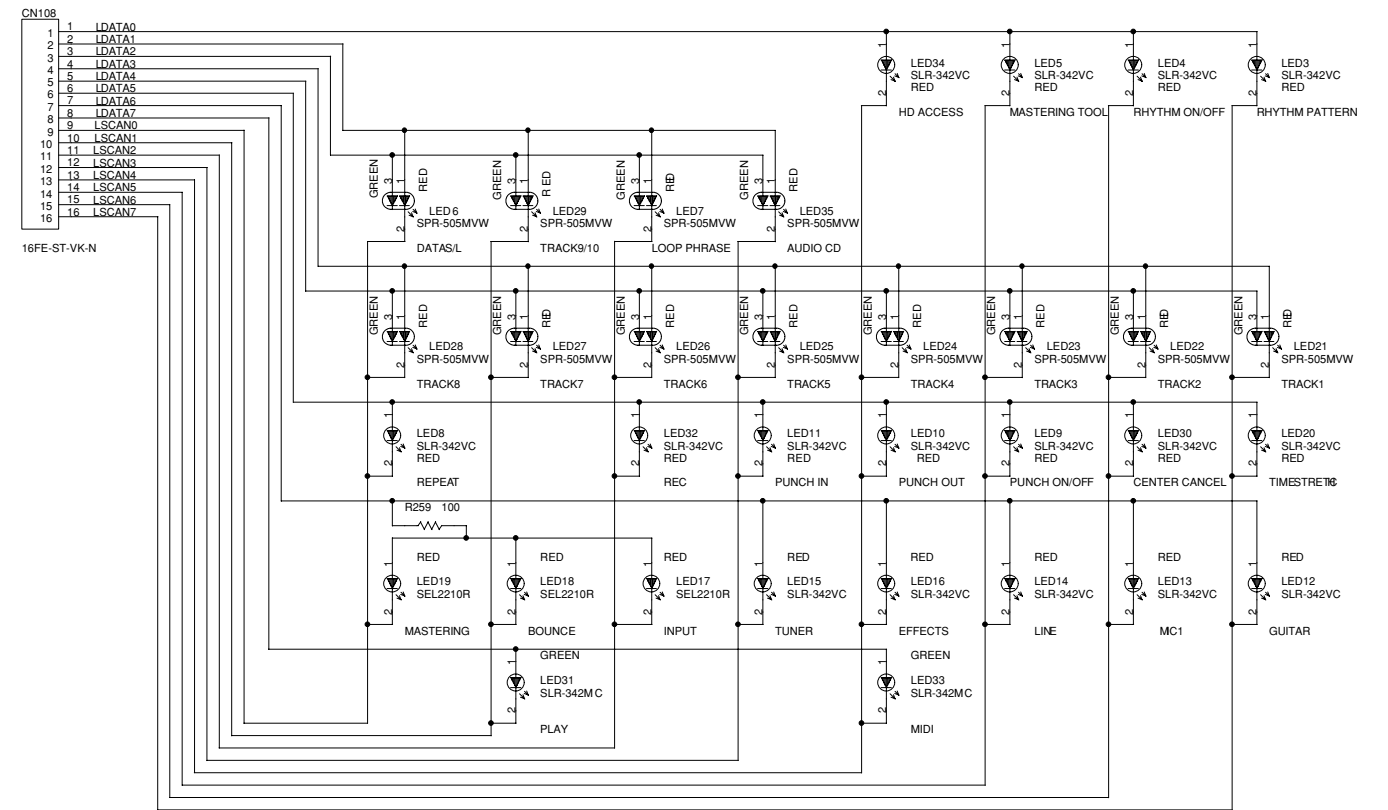
TO MAIN BOARD  
CN112



TO MAIN BOARD  
CN110



TO MAIN BOARD  
CN111



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## ERROR MESSAGES

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If an operational problem occurs while in mode, the following message is displayed.

### Device test

#### NG: CPU RAM

Description: RAM inside the CPU cannot be read or written properly.

Cause: CPU malfunction.

#### NG DRAM

Description: DRAM externally connected to the CPU cannot be read or written properly.

Cause: DRAM malfunction.  
Pattern short, pattern shortage or solder malfunction between CPU and DRAM.

#### NG: ESP IRAM0

#### NG: ESP IRAM1

#### NG: ESP GRAM

#### NG: ESP PRAM0

#### NG: ESP PRAM1

Description: internal memory cannot be read or written properly.

Cause: ESP malfunction.  
Pattern short, pattern shortage or solder malfunction between ESP and CPU.

#### NG: ESP ERAM A0

#### NG: ESP ERAM A1

Description: DRAM externally connected to ESP cannot be read or written properly.

Cause: external DRAM malfunction.  
Address bus malfunction between ESP and external DRAM.

#### NG: ESP ERAM D0

#### NG: ESP ERAM D1

Description: DRAM externally connected to ESP cannot be read or written properly.

Cause: external DRAM malfunction.  
Data bus malfunction between ESP and external DRAM.

#### NG: GATE ARRAY MARQ

Description: DMA request from GATE ARRAY to CPU is not executed.

Cause: GATE ARRAY malfunction.  
Pattern short, pattern shortage or solder malfunction between CPU and GATE ARRAY.  
Clock is not supplied to GATE ARRAY.  
Synchronized signal from ESP is not input to GATE ARRAY.

#### NG: GATE ARRAY READ

Description: Reading cannot be made properly from GATE ARRAY.

Cause: GATE ARRAY malfunction.  
Pattern shortage, pattern short or solder malfunction between CPU and GATE ARRAY.

#### NG: GATE ARRAY VERIFY

Description: sound signal sent to GATE ARRAY does not return to CPU properly.

Cause: GATE ARRAY malfunction.  
Pattern short, pattern shortage or solder malfunction between CPU and GATE ARRAY.  
Pattern short, pattern shortage or solder malfunction between ESP and GATE ARRAY.  
Clock is not input to ESP correctly.  
ESP malfunction.

### SW test

#### Err: Check NG!

Description: button other than the one specified is pressed.

Cause: operational error.  
Switch detection circuit malfunction.

### FADER test

#### Err: Others moved

Description: fader other than the one specified was moved.

Cause: operational error.  
Short circuit between the faders.  
Abnormal analog reference voltage.

### HDD test

#### HDD Verify Error!!

Description: read and write failure to HDD.

Cause: Pattern short or pattern shortage between HDD and CPU.

#### HDD Time Out!!

Description: HDD does not return response.

Cause: pattern shortage between HDD and CPU.  
Connection failure of HDD.

#### No Disc!

Description: HDD cannot be recognized.

Cause: pattern shortage between HDD and CPU.  
Connection failure of HDD.  
Incompatible drive is connected.

### CD-RW test

#### Write Error!

#### Read Error!

#### Verify Error!

Description: CD-RW disc read and write failure .

Cause: Pattern short or pattern shortage between CD-RW and CPU.  
Abnormal power supply to the CD-RW drive  
CD-RW drive connection failure.  
Incompatible CD-RW drive is connected.

#### Finalized Disc!

Description: since the disc is already finalized, it cannot be written.  
(Replace with an empty disk)

#### Disc Full!

Description: CD-RW disc is full.  
(This will be displayed when this test is repeated several times on the same disc. Either replace with an empty disc, or erase data on the disc prior to use)

### MIDI test

#### NG

Description: MIDI IN and MIDI OUT are not connected.

Cause: MIDI OUT error.  
MIDI IN error.  
MIDI cable break.

# CDI-BR-1



## SPECIFICATIONS

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**BR-1180 will become the same specification as BR-1180CD, when CDI-BR-1 is attached.**

## ACCESSORIES

OWNER'S MANUAL ENGLISH/JAPANESE(#72017812)

DISCRETE DRUM CD-ROM (#\*\*\*\*\*)



# **PARTS LIST**

**SAFETY PRECAUTIONS:**

The parts marked  $\Delta$  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.

	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)

**CHASSIS**

			<b>Q'ty</b>
02899401	DD HOLDER CDRW L		1
02899412	DD HOLDER CDRW R		1
02899434	DD HOLDER CDRW STOP		1

**DISK DRIVE UNIT**

02782990	UJDA340	ATAPI CD-RW DRIVE	1
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NOTE: Replacement UJDA340 should be made on a unit base.

**PCB ASSY**

#	72017823	PCB ASSY	CDI-BR-1	1
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**CONNECTOR**

02237512	75501-0X0-B	CONNECTOR P/N	CN101 on CDB	1
02782645	24 5600 050 100 883	CONNECTOR	CN102 on CDB	1

**WIRING, CABLE**

02902156	WIRING	IDE	1
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**SCREW**

40233978	SCREW M2X8	PAN MACHINE W/SW+PW ZC	2
40011490	SCREW M3X6	PAN MACHINE W/SW BZC	3
40455867	SCREW M2X2.5	PAN MACHNE W/SW	4

**PACKING**

#	02899378	PAD LOWER	1
#	02899356	PACKING CASE	1
#	02899389	OUTER PACKING CASE	1

**MISCELLANEOUS**

01016223	FOOT	30X10X3	1
02899445	INSULATING SHEET	CDRW	1
40456956	LABEL	CD R/W LABEL	

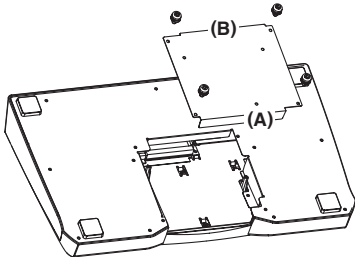
**ACCESSORIES (STANDARD)**

	*****	DISCRETE DRAMS CDROM	1	
#	72017812	OWNER'S MANUAL SET	ENGLISH/JAPANESE	1

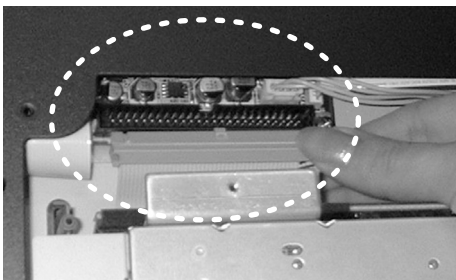
## INSTALLING THE CDI-BR-1

When installing CDI-BR-1, perform as follows.

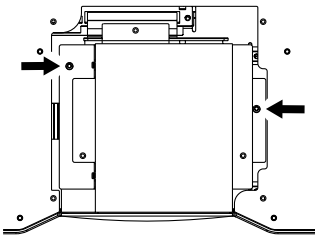
1. Turn off the power to the BR-1180 and any connected devices, and disconnect the AC adapter and all other connector cables.
2. Turn the BR-1180 over, remove the screws at the positions shown in the figure, and remove the cover.



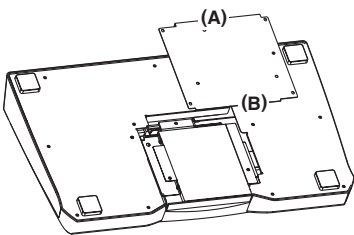
3. Align the CDI-BR-1's connector with the BR-1180's socket and insert the connector securely.



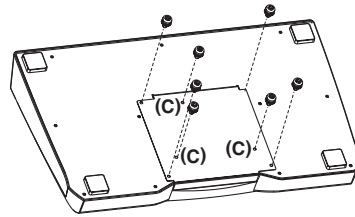
4. Position the CDI-BR-1 as shown in the figure so that the CDI-BR-1's and BR-1180's attachment holes are aligned.



5. Replace the cover with the positions of the (A) and (B) sections of the cover are reversed relative to their positions prior to the cover's removal.



6. Tighten the screws included with the CDI-BR-1 in the positions indicated in the figure (C) until snug, tighten the cover attachment screws until they are snug, and then securely tighten all of the screws.



7. Turn the BR-1180 back over to its original position.
8. Check the operation of the unit.  
Confirm operation through "Test mode: 22.CD-RW DRIVE".

\* If the test mode does not operate properly, turn off the power, then repeat from INSTALLING THE CDI-BR-1 operation 1.

## The wiring exchange method

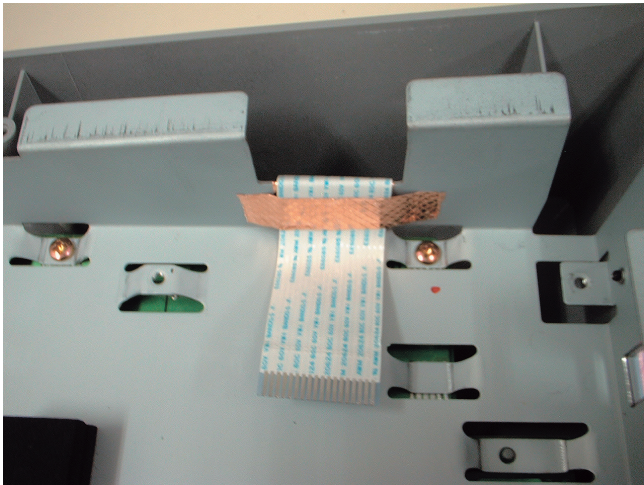
### BAN CARD BNCD-P=1.25-K-18-150(#02124845)

When BNCD-P=1.25-K-18-150 (#02124845) is exchanged, please fix BAN CARD to a chassis in the following procedure.

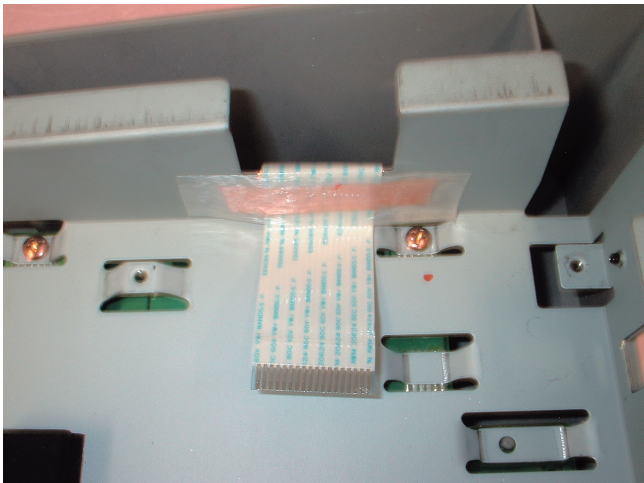
1. You sticks 3M copper tape #2245 (#40346367) on the portion with which BAN CARD and chassis are in contact



2. BAN CARD and a chassis are fixed by 3M copper tape #2245 (#40346367).



3. In addition, filament tape #3883 (#40122645) is stuck on a copper tape.



### WIRING 5V POWER(#02896956)

When WIRING 5V POWER (#02896956) is exchanged, please fix to a chassis by filament tape #3883 (#40122645) at the following figure.

