

BR-1200CD

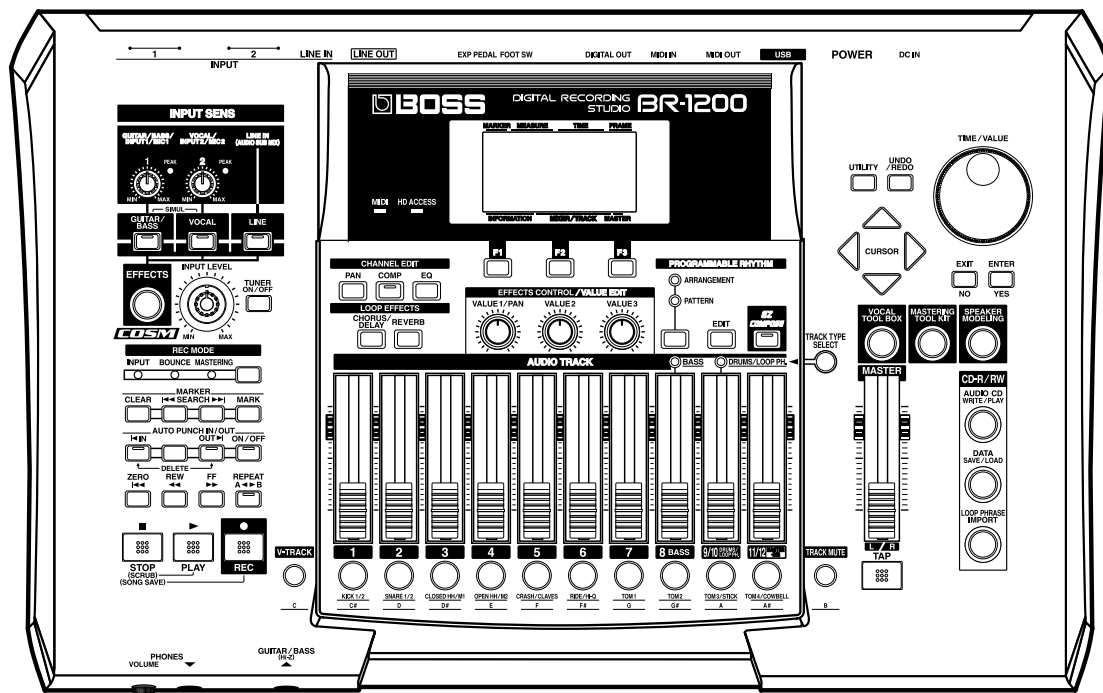
DIGITAL RECORDING STUDIO

SERVICE NOTES

Issued by RJA

TABLE OF CONTENTS

CAUTIONARY NOTES	2	CIRCUIT DIAGRAM (MAIN BOARD ANALOG)	30
SPECIFICATIONS.....	2	CIRCUIT DIAGRAM (MAIN BOARD PHANTOM).....	30
LOCATION OF CONTROLS	4	CIRCUIT DIAGRAM (MAIN BOARD CPU)	32
LOCATION OF CONTROLS PARTS LIST	5	CIRCUIT DIAGRAM (MAIN BOARD DSP).....	34
EXPLODED VIEW	6	CIRCUIT DIAGRAM (MAIN BOARD DIGITAL OUT) ...	36
EXPLODED VIEW PARTS LIST	7	CIRCUIT DIAGRAM (MAIN BOARD USB).....	36
WIRING FORMING	8	CIRCUIT BOARD (ANALOG BOARD)	37
PARTS LIST.....	10	CIRCUIT DIAGRAM (ANALOG BOARD).....	38
CHECKING THE VERSION NUMBER.....	15	CIRCUIT BOARD (SW SHEET)	40
USERS DATA SAVE AND LOAD.....	15	CIRCUIT DIAGRAM (SW SHEET,SW BOARD).....	42
TEST MODE.....	17	CIRCUIT DIAGRAM (SW SHEET,GUITAR INPUT BOARD)....	44
INITIALIZING ALL BR-1200CD SETTINGS (INITIALIZE)....	20	CIRCUIT DIAGRAM (SW SHEET,+5V POWER BOARD) ...	45
SYSTEM SOFTWARE UPDATING INSTRUCTIONS.....	23	CIRCUIT BOARD (CD CN BOARD)	46
BLOCK DIAGRAM.....	24	CIRCUIT DIAGRAM (CD CN BOAR).....	46
CIRCUIT BOARD (MAIN BOARD).....	26	ERROR MESSAGES	47
CIRCUIT DIAGRAM (MAIN BOARD POWER)	28		



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CAUTIONARY NOTES

User data status

User data status after each of the following processes is described below. Whenever carrying out procedures that involve deleting or erasing user data, always be sure to back up the user data to some form of external media (refer to Saving and Loading Data).

Process	User Data
Checking Version number	Preserved
Factory Reset	Deleted
System Update	Preserved
Test Mode	Preserved

* Executing Test Mode during Factory Reset deletes the user data.

PARTS LIST

Due to one or more of the following reasons, parts with parts code ***** cannot be supplied as service parts.

- Part supplied only as a component in a complete assembly
- Copyright does not permit the part to be supplied
- Part is sold commercially

CIRCUIT BOARD

NIU meant that "NOT IN USE" there don't set any contents in the Circuit Diagram.

There has silk-screen only in the Circuit Board.

SPECIFICATIONS

BR-1200CD: Digital Recording Studio

Tracks

Track: 12 V-Track: 192 (16 V-Tracks per each Track)

Up to 2 tracks can be recorded simultaneously, and up to 12 tracks can be played back simultaneously.

Maximum Useful Capacity/Recording Time

Internal Hard Disk:

40 G bytes (recording time; 120 hours) (conversion in one track)

* The recording time is approximate. Times may be slightly shorter depending on the number of songs and size of imported loop phrase that were created.

* The recording time is the total for all the tracks that are used. If each of the twelve tracks contain an equal amount of data, the length of the resulting song will be approximately 1/12 of the above.

Signal Processing

AD Conversion: 24 bit, AF Method (Guitar/Bass)
24 bit, $\Delta\Sigma$ Modulation (VOCAL)
24 bit, $\Delta\Sigma$ Modulation (SIMUL)
24 bit, $\Delta\Sigma$ Modulation (LINE)

DA Conversion: 24 bit, $\Delta\Sigma$ Modulation

Internal Processing: 24 bit (digital mixer section)

Recording Data: 16 bit linear

Sample Rate

44.1 kHz

Frequency Response

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

Total Distortion

0.05% or less

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

Nominal Input Level (Variable)

GUITAR/BASS jack: -20 dBu

MIC 1, 2 jacks (TRS balanced/XLR): -40 dBu

LINE IN jacks: -10 dBu

Input Impedance

GUITAR/BASS jack: 1 M ohms

MIC 1, 2 jacks: 12.5 k ohms (HOT-COLD)

(TRS balanced/XLR) 6.5 k ohms (HOT-GND, COLD-GND)

LINE IN jack: 22 k ohms

Nominal Output Level

LINE OUT jacks: -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: -87 dBu or less

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

Interface

DIGITAL OUT: S/PDIF 16-24 bit (optical type)

USB connector (B type)

Display

64 x 40 mm (Backlit LCD)

Connectors

MIDI IN connector

MIDI OUT connector

USB connector

DIGITAL OUT connector (optical type)

FOOT SW jack (1/4 inch phone type)

EXP PEDAL jack (Stereo 1/4 inch phone type)

LINE OUT jacks (RCA Phono type)

LINE IN jacks (RCA Phono type)

MIC 1, 2 jacks (TRS balanced/XLR)

PHONES jack (Stereo 1/4 inch phone type)

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

Power Supply

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

Power Consumption

3.0 A

Dimensions

478 (W) x 297 (D) x 95 (H) mm

18-7/8 (W) x 11-3/4 (D) x 3-3/4 (H) inches

Weight

4.1 kg / 9 lbs 1 oz (Excluding AC Adaptor)

Accessories

AC Adaptor: PSB-3U (#02900423)

AC Cord : 120V (#00894378)

: 230V (#00894389)

: 240VE (#00907001)

Owner's Manual :English (#72902990)

:Japanese (#72898789)

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

CD-ROM "DISCRETE DRUMS" (#03891601)

Options

Expression Pedal: EV-5 (Roland)

Foot Volume/Expression: FV-300L

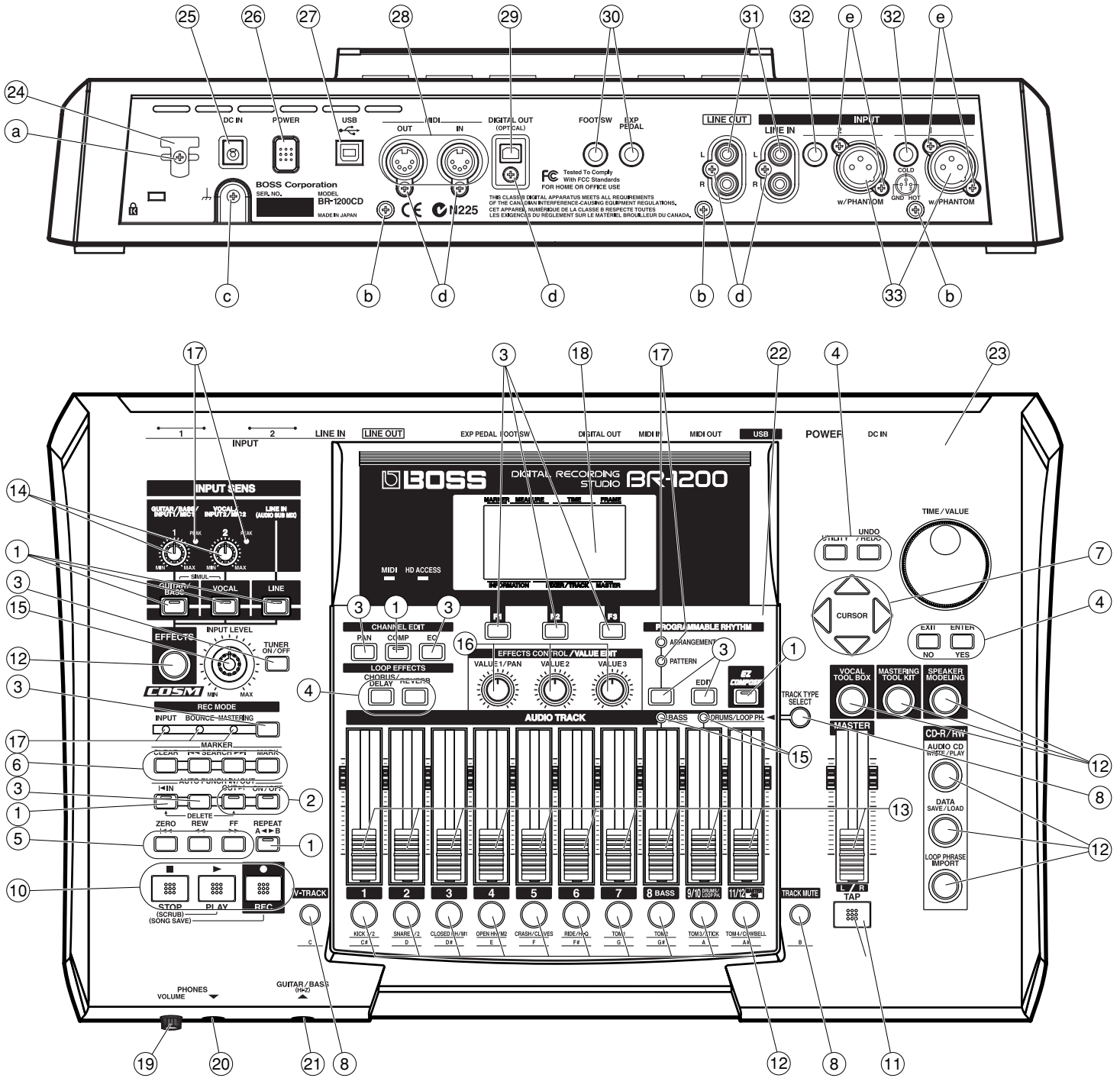
Foot Switch: FS-5U

Pedal Switch: DP-2 (Roland)

* $0\text{ dBu} = 0.775\text{ Vrms}$

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

LOCATION OF CONTROLS



LOCATION OF CONTROLS PARTS LIST

[PART]

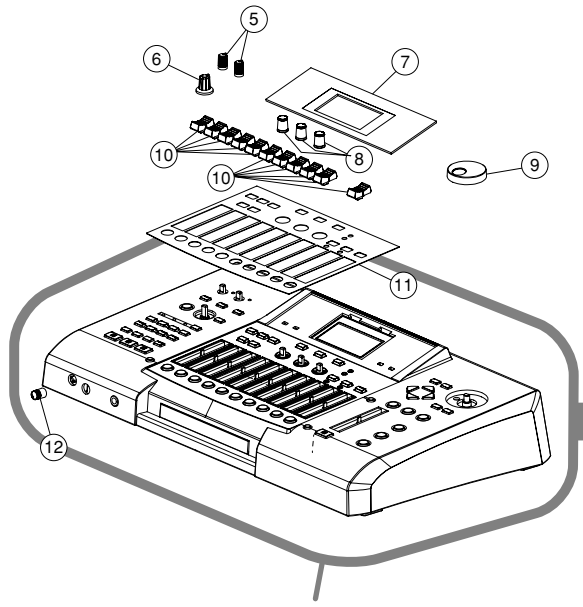
NO	PART CODE	CATEGORY	PART NAME	DESCRIPTION	Q'TY
1	00900145	KNOB,BUTTON	D S-KEYTOP	SD1H BLK	1
	01904112	DIODE	LED(RED)	SLR-342VCT32 N.P.Q RANK	1
	01340290	SWITCH	TACT SWITCH	EVQ11A H=5.0	1
2	00900156	KNOB,BUTTON	D S-KEYTOP	SD2H BLK	2
	01904112	DIODE	LED(RED)	SLR-342VCT32 N.P.Q RANK	2
	01340290	SWITCH	TACT SWITCH	EVQ11A H=5.0	2
3	00900189	KNOB,BUTTON	D S-KEYTOP	SX1H BLK	1
	01340290	SWITCH	TACT SWITCH	EVQ11A H=5.0	1
4	00900190	KNOB,BUTTON	D S-KEYTOP	SX2H BLK	2
	01340290	SWITCH	TACT SWITCH	EVQ11A H=5.0	2
5	00904245	KNOB,BUTTON	D S-KEYTOP	SX3H BLK	3
	01340290	SWITCH	TACT SWITCH	EVQ11A H=5.0	3
6	00904256	KNOB,BUTTON	D S-KEYTOP	SX4H BLK	4
	01340290	SWITCH	TACT SWITCH	EVQ11A H=5.0	4
7	01234090	KNOB,BUTTON	D T-KEYTOP	MX4B BLK	1
	01340290	SWITCH	TACT SWITCH	EVQ11A H=5.0	1
8	01670512	KNOB,BUTTON	F C-KEYTOP	SX1H BLK	1
	01340290	SWITCH	TACT SWITCH	EVQ11A H=5.0	1
9	22485303	KNOB,BUTTON	D R-KNOB(ALPHA-DIAL)	L BLK 248-303	1
	01905467	ENCODER	ROTARY ENCODER	EVE GC1 F20 24B	1
10	01783945	KNOB,BUTTON	N S-KEYTOP	MD3H	1
	01904112	DIODE	LED(RED)	SLR-342VCT32 N.P.Q RANK	1
	15029348	DIODE	LED (GREEN)	SLR-342MCT32	1
	01340290	SWITCH	TACT SWITCH	EVQ11A H=5.0	3
11	01783923	KNOB,BUTTON	N S-KEYTOP	MD1H	1
	01340290	SWITCH	TACT SWITCH	EVQ11A H=5.0	1
12	02013090	KNOB,BUTTON	F C-KEYTOP	MX1H CLR	1
	03786756	DIODE	LED	SML76755WN-TP15	1
	01340290	SWITCH	TACT SWITCH	EVQ11A H=5.0	1
13	01902289	KNOB,BUTTON	U S-KNOB	M BLK LCG	1
	01677312	POTENTIOMETER	45M/M SLIDE POTENTIOMETER	EWAP1AC10 B54 (50KB/MS)	1
14	01891801	KNOB,BUTTON	U R-KNOB	S1 LCG BLK	1
	03783023	POTENTIOMETER	9M/M ROTARY POTENTIOMETER	EVUJFUFK315D 100KRD	1
15	02457512	KNOB,BUTTON	J R-KNOB	SFA BLK/LCG	1
	02896712	POTENTIOMETER	9M/M ROTARY POTENTIOMETER	EVUF2KFK4B54 50KB	1
16	03125589	KNOB,BUTTON	M R-KNOB	MF-ELA BLK/LCG	1
	03789645	POTENTIOMETER	POTENTIOMETER	EVUF2KFK3B54	1
17	00785856	DIODE	LED	SLR-342VR3F	1
18	03785190	CASING	DISPLAY COVER		1
	02565034	DISPLAY UNIT	LCD	F-51320GNY-LY-AA	1
	15029347	DIODE	LED (RED)	SLR-342VC3F	1
	15039237	DIODE	LED(GREEN)	SLR-342MC3F	1
19	01340412	KNOB,BUTTON	P R-KNOB	SF-A BLK/LCG	1
	02900467	POTENTIOMETER	9M/M ROTARY POTENTIOMETER	EVJC25FB6A54 50KAX2	1
20	00569278	JACK,EXT TERMINAL	6.5MM JACK	LGR4609-7100	1
21	13449252	JACK,EXT TERMINAL	6.5MM JACK	YKB21-5006 (STEREO W/SW)	1
22	03785201	MISCELLANEOUS	PANEL SHEET		1
23	03785156	CASING	TOP CASE		1
24	22360712	MISCELLANEOUS	CORD HOOK	236-712	1
25	02900312	JACK,EXT TERMINAL	DC JACK	HEC0470-01-640	1
26	32490595	KNOB,BUTTON	P S-KEY	MX BLK	1
	03891678	SWITCH	PUSH SWITCH	SPUP190300	1
27	02781189	JACK,EXT TERMINAL	USB CONNECTOR	YKF45-0021	1
28	13429825	JACK,EXT TERMINAL	MIDI CONNECTOR	YKF51-5054 2PZ	1
29	03454101	JACK,EXT TERMINAL	IC (OPTICAL)	GP1FA313TZ	1
30	00569278	JACK,EXT TERMINAL	6.5MM JACK	LGR4609-7100	1
31	03453290	JACK,EXT TERMINAL	RCA(PIN)	YKC21-3488N	1
32	00569278	JACK,EXT TERMINAL	6.5MM JACK	LGR4609-7100	1
33	03459223	JACK,EXT TERMINAL	XLR CONNECTOR	JY-5033A	1

[SCREW]

NO	PART CODE	PART NAME	DESCRIPTION	Q'TY
a	40127689	SCREW 3X10 BZC	BIDING TAPTITE S BZC	1
b	40012534	SCREW 3X6 BZC	BIDING TAPTITE S BZC	3
c	40011378	SCREW 4X8 BZC	BIDING TAPTITE S BZC	1
d	40011312	SCREW 3X8 BZC	BIDING TAPTITE P BZC	5
e	40233012	SCREW 2.6X8 BZC	BIDING TAPTITE P BZC	4

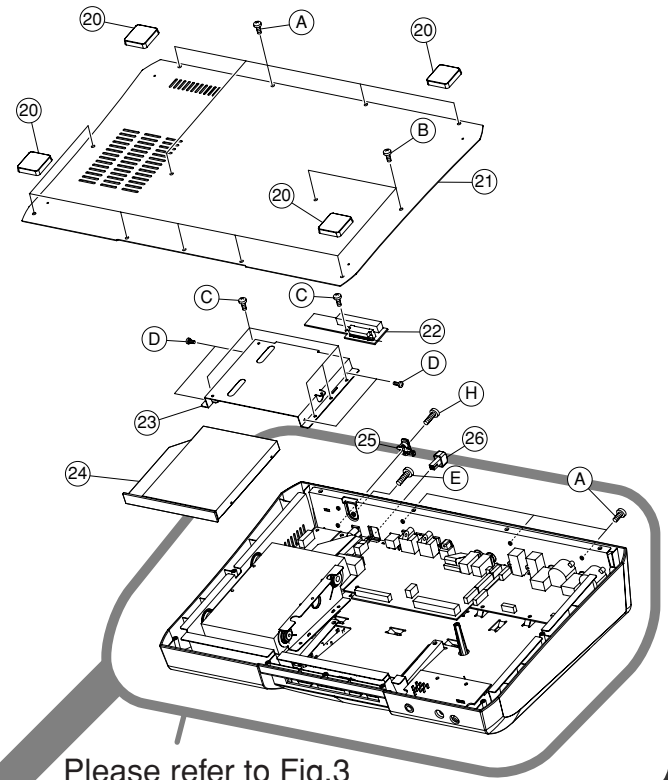
EXPLODED VIEW

Fig.1



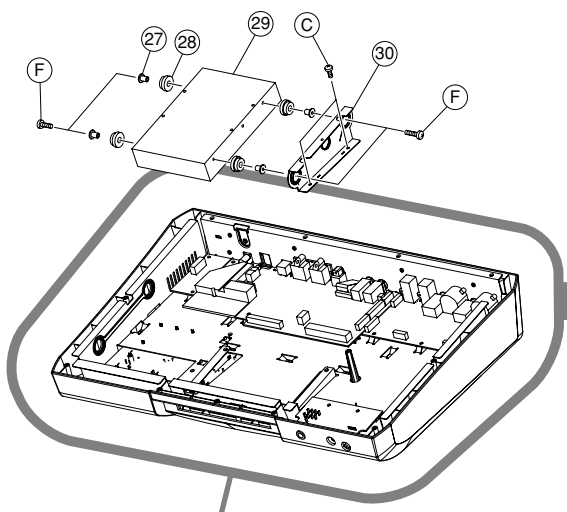
Please refer to Fig.2

Fig.2



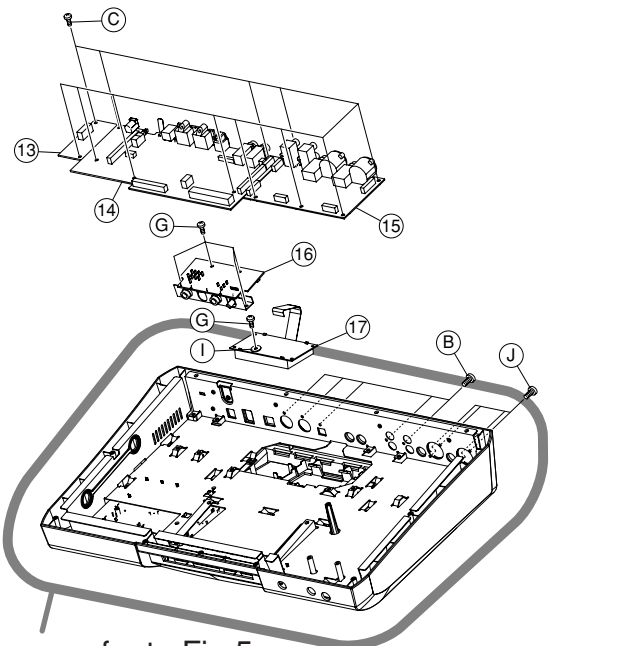
Please refer to Fig.3

Fig.3

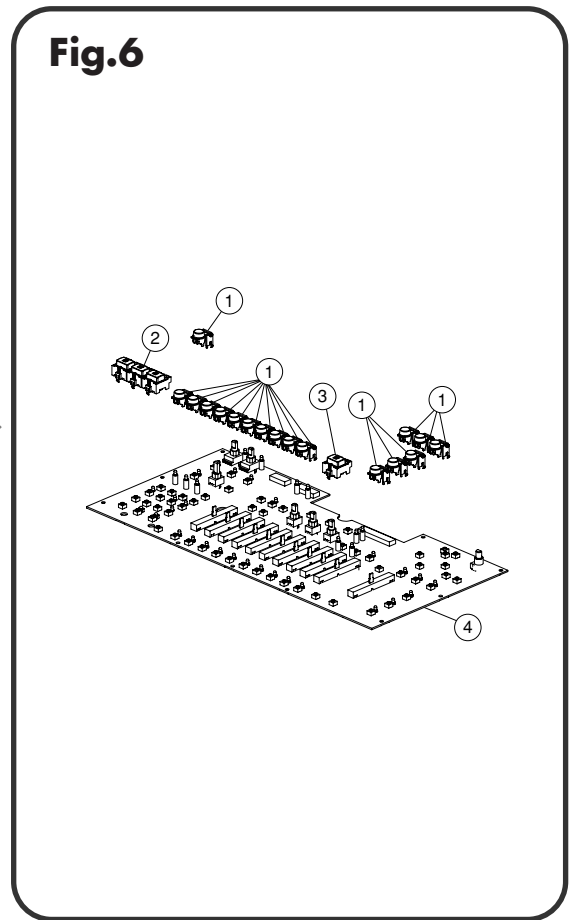
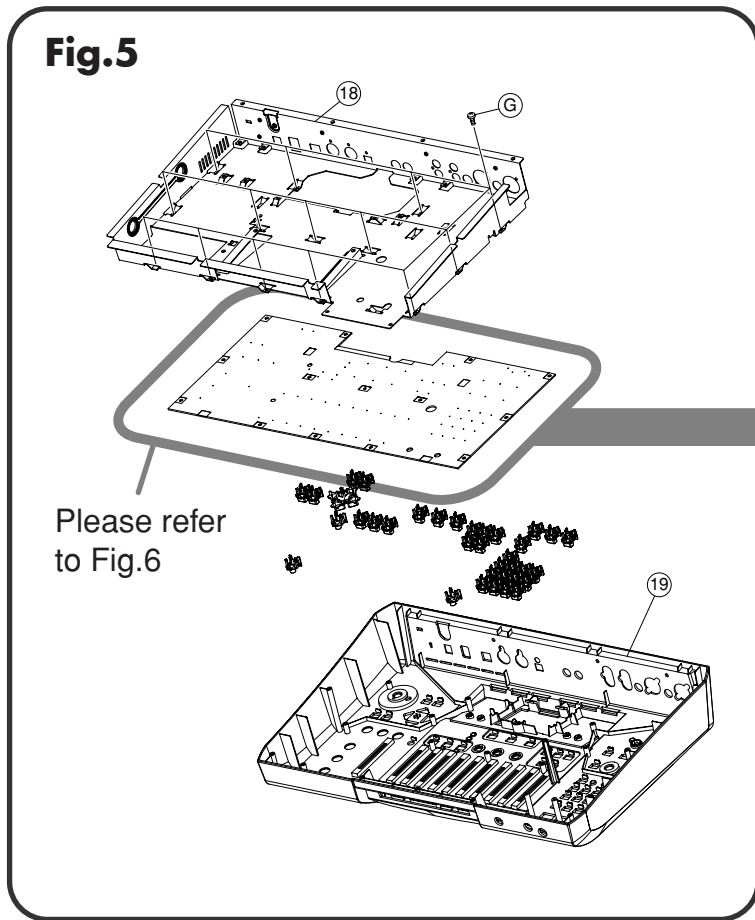


Please refer to Fig.4

Fig.4



Please refer to Fig.5



EXPLODED VIEW PARTS LIST

[PARTS]

No	Part Code	Part Name	Description
1	02013090	F C-KEYTOP	MX1H CLR
2	01783945	N S-KEYTOP	MD3H
3	01783923	N S-KEYTOP	MD1H
4,13,16	72898834	SW SHEET ASSY	
NOTE: 'SW SHEET ASSY' includes the following parts.			
4	*****	SW BOARD ASSY	
13	*****	5V POWER BOARD ASSY	
16	*****	GUITAR BOARD ASSY	
5	01891801	U R-KNOB	S1 LCG BLK
6	22485303	D R-KNOB(ALPHA-DIAL)	L BLK 248-303
7	03785190	DISPLAY COVER	
8	03125589	M R-KNOB	MF-ELA BLK/LCG
9	32490595	P S-KEY	MX BLK
10	01902289	U S-KNOB	M BLK LCG
11	03785201	PANEL SHEET	
12	01340412	P R-KNOB	SF-A BLK/LCG
14	72898812	MAIN BOARD ASSY	
15	72899078	ANALOG BOARD ASSY	
17	02565034	LCD	F-51320GNY-LY-AA
18	03785178	CHASSIS	
19	03785156	TOP CASE	
20	22355334	FOOT MKS	235-334
21	03785189	BOTTOM COVER	
22	72899267	CD CN PCB ASSY	
23	03786823	CDRW HOLDER	
24	03785701	DVD DRIVE UNIT	UJDA760RL-A
25	22360712	CORD HOOK	236-712
26	32490595	P S-KEY	MX BLK
27	03459645	HDD COLLAR	COLLAR
28	03896301	HDD INSULATOR	
29	03789445	HARD DISK	ST340014A
30	03345945	HDD HOLDER	

[SCREW]

No	Part Code	Part Name	Description
A	40012534	SCREW 3X6	BINDING TAPTITE S FE BZC
B	40011312	SCREW 3X8	BINDING TAPTITE P BZC
C	40012512	SCREW 3X6	BINDING TAPTITE S ZC
D	40455867	SCREW M2X2.5	PAN MACHNE W/SW
E	40011378	SCREW M4X8	BINDING TAPTITE S FE BZC
F	40563112	SCREW 6-32X1/2	UNIFY
G	40011278	SCREW 3X8	BINDING TAPTITE P FE ZC
H	40127689	SCREW M3X10	BINDING TAPTIGHT S TYPE FE BZC
I	40457245	PLAIN WASHER 3X12X1	ZC
J	40233012	SCREW M2.6X8	BINDING TAPTITE P BZC

WIRING FORMING

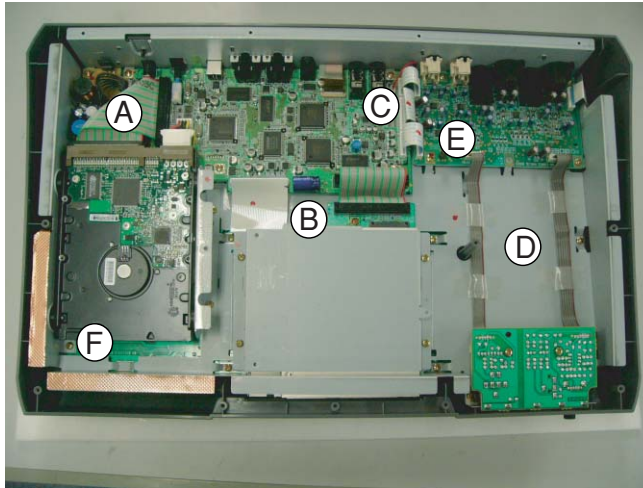
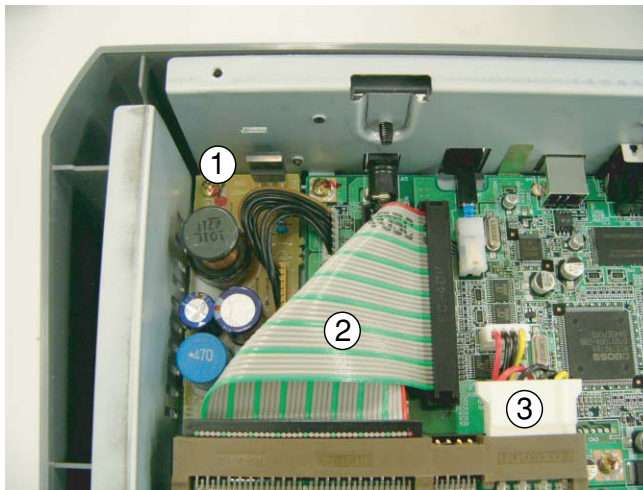
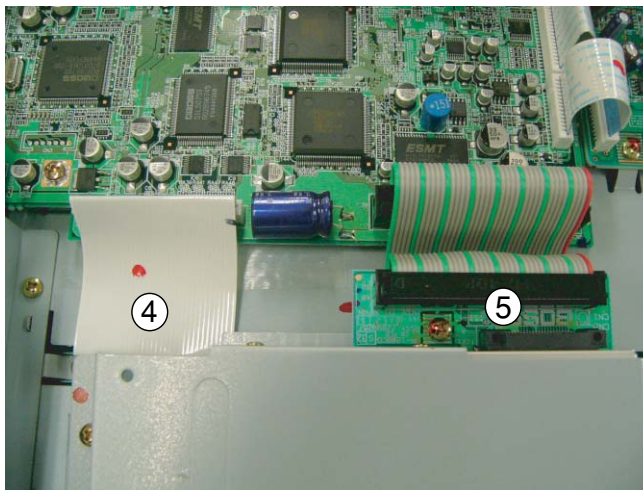


fig.A



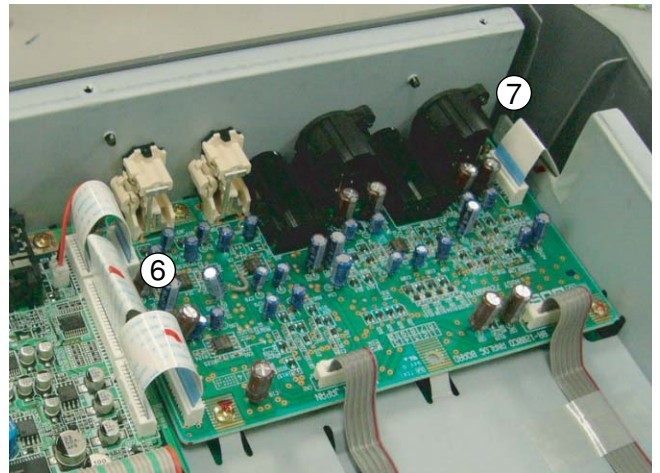
1. 5V POWER (5V POWER WIRING #03785389) ...Please lay it down low to Chassis side.
2. HDD IDE (WIRING HDD IDE #02904623) ...Move up to the BOTTOM direction. Please note the connector doesn't come off.
3. HDD POWER (WIRING HDD POWER #03893789) ...Don't expand and reform operation internally.

fig.B



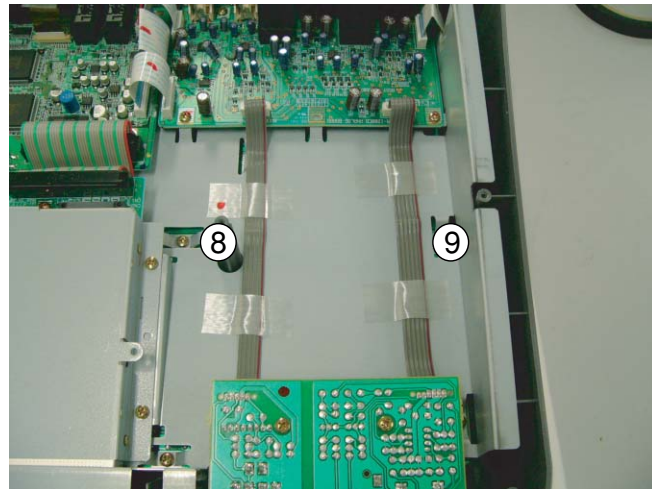
4. VR/LED BAN CARD (BNCD-P=1.25-K-34-130 #03789856) ...Don't hit the CD holder and fold up from connect side.
5. CD IDE (WIRING HDD IDE #02904623) ...Fold up into board internal side.

fig.C



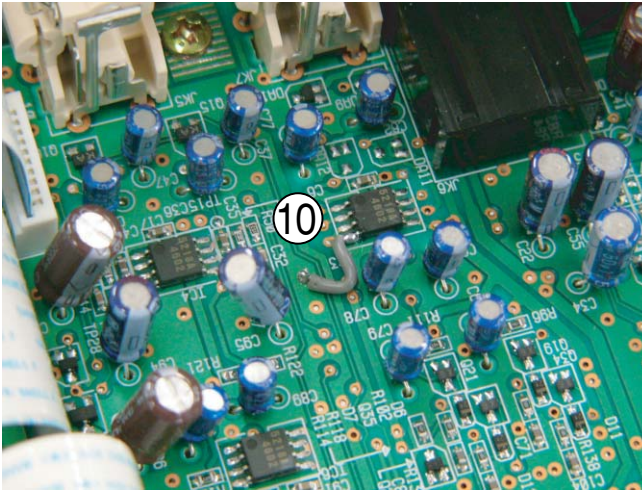
6. SW BAN CARD (BNCD-P=1.25-K-20-110 #03789901) ...Top of knob, don't lay it down to ANALOG BOARD side.
7. GAIN/PEAK LED BAN CARD (BNCD-P=1.25-K-12-200 #03343256) ...As same the procedure 6.

fig.D



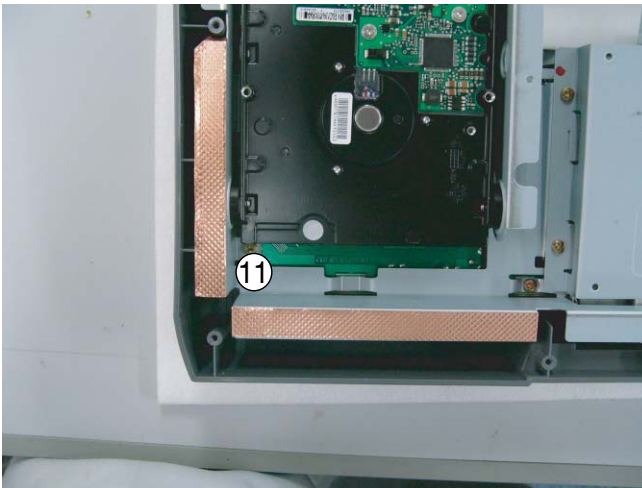
8. GUITAR CABLE (JWFV 5X175-P2.0 #02568523) ...Fit with the Chassis and put on Filament tape #3883(#40122645) from top side.
9. PHONES CABLE (JWFV 6X175-P2.0 #03789912) ...Fit with the Chassis and put on Filament tape #3883(#40122645) from top side.

fig.E

**10.** Noise measure ...

The analog GND synchronizer is short-circuited in the AWG24 line.
Depends on the analog board revision since serial No. ZT34785, and the measures do not exist.

fig.F

**11.** EMI measure ...

Put on the 3M bronze tape #2245(#40346367) as same the picture.

PARTS LIST

SAFETY PRECAUTIONS:

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

Due to one or more of the following reasons, parts with parts code ***** cannot be supplied as service parts.

- Part supplied only as a component in a complete assembly
- Copyright does not permit the part to be supplied
- Part is sold commercially

NOTE: The parts marked # are new. (initial parts) The description "Q'TY" means a necessary number of the parts per one product.

CASING

#	03785156	TOP CASE		1
#	03785189	BOTTOM COVER		1
#	03785190	DISPLAY COVER		1

CHASSIS

#	03785178	CHASSIS		1
	03345945	HDD HOLDER		1
#	03786823	CDRW HOLDER	on CD-R	1

KNOB, BUTTON

	02013090	F C-KEYTOP	MX1H CLR	17
	00900145	D S-KEYTOP	SD1H BLK	7
	00900156	D S-KEYTOP	SD2H BLK	1
	00900189	D S-KEYTOP	SX1H BLK	10
	00900190	D S-KEYTOP	SX2H BLK	3
	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	3
	01783923	N S-KEYTOP	MD1H	1
	01783945	N S-KEYTOP	MD3H	1
	32490595	P S-KEY	MX BLK	1
	02457512	J R-KNOB	SFA BLK/LCG	1
	03125589	M R-KNOB	MF-ELA BLK/LCG	3
	01340412	P R-KNOB	SF-A BLK/LCG	1
	01891801	U R-KNOB	S1 LCG BLK	2
	22485303	D R-KNOB(ALPHA-DIAL)	L BLK 248-303	1
	01902289	U S-KNOB	M BLK LCG	11

SWITCH

#	03891678	PUSH SWITCH	SPUP190300	SW1on MAIN	1
	01340290	TACT SWITCH	EVQ11A H=5.0	SW58,SW59,SW60,SW6,SW7,SW8,SW9,SW10,SW11,SW12,SW13,SW14,SW15,SW16,SW17,SW18,SW19,SW20,SW21,SW22,SW23,SW24,SW25,SW26,SW27,SW28,SW29,SW30,SW31,SW32,SW34,SW35,SW36,SW37,SW38,SW39,SW40,SW41,SW42,SW43,SW44,SW45,SW46,SW47,SW48,SW49,SW50,SW51,SW52,SW53,SW54,SW55,SW56,SW57,SW58,SW59,SW60,SW61on SW	60

JACK, EXT TERMINAL

	03454101	IC (OPTICAL)	GP1FA313TZ	CN10 on MAIN	1
	13429825	MIDI CONNECTOR	YKF51-5054 2PZ	JK1 on MAIN	1
	02781189	USB CONNECTOR	YKF45-0021	JK4 on MAIN	1
	00569278	6.5MM JACK	LGR4609-7100	JK2,JK3 on MAIN, JK2 on GUITAR	2+1
	02900312	DC JACK	HEC0470-01-640	JK5 on MAIN	1
	13449252	6.5MM JACK	YKB21-5006 (STEREO W/SW)	JK1 on GUITAR	1
	03459223	XLR CONNECTOR	JY-5033A	JK4,JK2 on ANALOG	2
	03453290	RCA(PIN)	YKC21-3488N	JK5,JK7 on ANALOG	2
	13449258	6.5MM JACK	HLJ4306-01-3080	JK6,JK3 on ANALOG	2

DISPLAY UNIT

	02565034	F-51320GNY-LY-AA	LCD		1
		NOTE: Replacement F-51320GNY-LY-AA should be made on a unit base.			

DISK DRIVE UNIT

#	03789445	ST340014A	HARD DISK	on HARD	1
		NOTE: Replacement ST340014A should be made on a unit base.			
	03785701	UJDA760RL-A	DVD DRIVE UNIT	on CD-R	1
		NOTE: Replacement UJDA760RL-A should be made on a unit base.			

PCB ASSY

#	72898812	MAIN BOARD ASSY			1
		NOTE: 'MAIN BOARD ASSY' includes the following parts.			
#	03893790	LEAF		on MAIN	1
#	72898823	SW SHEET ASSY			1
		NOTE: 'SW SHEET ASSY' includes the following parts.			
#	*****	SW BOARD ASSY			1
		NOTE: 'BR-1200CD SW BOARD ASSY' includes the following parts.			
	12169406	LED SPACER	LDS-100Y 10MM	on SW	11
#	*****	5V POWER BOARD ASSY			1
		NOTE: 'BR-1200CD 5V POWER BOARD ASSY' includes the following parts.			
#	03785389	5V POWER WIRING		on 5V	1
#	*****	GUITAR BOARD ASSY			1
		NOTE: 'BR-1200CD GUITAR BOARD ASSY' includes the following parts.			
	02568523	RIBBON CABLE	JWFW 5 X 175 - P2.0	on GUITAR	1
#	03789912	RIBBON CABLE	JWFW 6 X 175 - P2.0	on GUITAR	1
#	03786812	JACK HOLDER PHONES BOARD		on GUITAR	1
#	72899078	ANALOG BOARD ASSY			1
#	72899267	CD CN PCB ASSY		on CD-R	1

IC

#	03786789	UPD703106AGJ-095-UEN	IC (CPU)	IC5 on MAIN	1
	02900978	M66291GP	IC (USB CONTROLLER)	IC23 on MAIN	1
	02231767	RA0A-101 (TC223C080AF-101)	IC (DSP)	IC20,IC19 on MAIN	2
	02896745	S1L50753F27B000	IC (I/F)	IC13 on MAIN	1
	03670112	M11L16161SA-45T (0.18U)	IC (DRAM)	IC22 on MAIN	1
	03341590	TC58FVM5B2ATG65BAH	IC (FLASH MEMORY)	IC2 on MAIN	1
	03459123	M12L128168AP1L	IC (SDRAM)	IC7 on MAIN	1
	02451434	AK4552VT	IC (AD/DA)	IC32 on MAIN	1
	01672634	TC74HC4052AFT(EL)	IC (COMS)	IC9,IC6 on MAIN	2
	02458045	SN74LV157APWR	IC (CMOS)	IC18,IC21 on MAIN	2
	02675689	HD74LV245ATELL	IC (CMOS)	IC4,IC8,IC11 on MAIN	3
	01783523	TC74VHCT245AFT(EL)	IC (CMOS)	IC15 on MAIN	1
#	03785601	SN74LV04APWR	IC (CMOS)	IC1 on MAIN	1
#	03785612	SN74AHC1G08DCR	IC (CMOS)	IC10 on MAIN	1
	00346445	NJM2100M(TE3)	IC (BIPOlar OP AMP)	IC30 on MAIN	1
	01014634	TA7809F(TE16L)	IC (REGULATOR)	IC27 on MAIN	1
	01458445	UPC29M33T-T1	IC (REGULATOR)	IC25 on MAIN	1
	01678512	UPC2933T-T2	IC (REGULATOR)	IC26 on MAIN	1
	01899790	UPC29L33T-E2	IC (REGULATOR)	IC26 on MAIN	1
	02563467	NJM2374AM-TE1	IC (SWITCHING REGULATOR)	IC34 on MAIN	1
	03784256	CS8406-CZ ZR	IC (DIF/TRANSMITTER)	IC17 on MAIN	1
	02903745	S-80930CNMC-G80	IC (RESET)	IC12 on MAIN	1
	15289124	PC-400T	IC (PHOTO COUPLER)	IC3 on MAIN	1
	02678945	BU2090	IC	IC4,IC5,IC6,IC7 on SW	4
	03560856	PQ1CG3032FZ	IC (REGULATOR)	IC1 on 5V	1
	15189188	M5238AL	IC (JFET OP AMP)	IC2 on GUITAR	1
	02346123	NJM4556AD	IC (OP AMP)	IC3 on GUITAR	1
	15189261	M5218AFP-600E	IC (BIPOlar OP AMP)	IC2,IC3,IC4,IC6 on ANALOG	4

TRANSISTOR

	15309104	2SA1586-GR(TE85R)	TRANSISTOR	Chip on MAIN	1
	03344078	2SC4738-GR(TE85R)	TRANSISTOR	Chip on MAIN	1+1
	02900301	TPC8303(TE12L)	TRANSISTOR	Chip on MAIN	1
	02780423	POWER MOSFET CPH6302-TL	TRANSISTOR	Chip on MAIN	1
	00239812	DTC114EUT106	TRANSISTOR	Chip on MAIN, ANALOG	3+7
	02340645	RN1441-A(TE85L)	TRANSISTOR	Chip on MAIN, on ANALOG	1+2
#	03564378	2SK879-GR(TE85L)	TRANSISTOR	Chip on MAIN	1
	15129164	DTC114ESTP	DIGITAL TRANSISTOR	Q5 on SW	1
	15129204	DTC343TS TP	TRANSISTOR	Q3,Q4 on GUITAR	2
	15319107	2SC4116-GR(TE85R)	TRANSISTOR	Chip on ANALOG	8
	15329103T0	2SK880-GR(TE85R)	FET	Chip on ANALOG	12
	00239801	DTA114EU T-106	TRANSISTOR	Chip on ANALOG	1
	15329501	DTA143EK T146	TRANSISTOR	Chip on ANALOG	1

DIODE

	03453356	1SS362(TE85L)	DIODE	Chip on MAIN	2
	03343090	1SS387(TPH3)	SWITCHING DIODE	Chip on MAIN	1
	15339119T0	1SS352(TPH3)	SWITCHING DIODE	Chip on MAIN	1
	01899723	MA111-(TX)	SWITCHING DIODE	Chip on MAIN, on ANALOG	1+1
	02454856	RB081L-20 TE25	SCHOTTKY DIODE	Chip on MAIN, on 5V	1+1

DIODE					
	15019126	1SS133 T-77	SWITCHING DIODE	D1,D2,D3,D4,D5,D6,D7,D8,D9,D10,D11,D12,D13 ,D14,D15,D16,D17,D18,D19,D20,D21,D22,D23,D2 4,D25,D26,D27,D28,D29,D30,D31,D32,D33,D34,D 35,D36,D37,D38,D39,D40,D41,D42,D43,D44,D45, D46,D47,D48,D49,D50,D51,D52,D53,D54,D55,D5 6,D57,D63,D64on SW,D62 on GUITAR	59 +1
	00785856	SLR-342VR3F	LED	LED1,LED2,LED19,LED20,LED1,LED2,LED19,L ED20,LED21,LED29,LED30,LED31,LED32on SW	9
	01904112	SLR-342VCT32 N.P.Q RANK	LED(RED)	LED13,LED15,LED16,LED17,LED18,LED22,LED 23,LED24,LED25,LED26,LED33,LED34,LED35,L ED36,LED37,LED38,LED39on SW	17
	15029347	SLR-342VC3F	LED (RED)	LED28 on SW	1
	15029348	SLR-342MCT32	LED (GREEN)	LED14 on SW	1
	15039237	SLR-342MC3F	LED(GREEN)	LED27 on SW	1
#	03786756	SML76755WN-TP15	LED	LED3,LED4,LED5,LED6,LED7,LED8,LED9,LED1 0,LED11,LED12 on SW	10
	02783023	RB500V-40	DIODE	Chip on ANALOG	12
	01897189	MA147-(TX)	ARRAY DIODE	Chip on ANALOG	6
RESISTOR					
	02673401	RR0816P-102-D	MTL.FILM RESISTOR	Chip on MAIN	1
	00567378	RPC05T 473 J	MTL.FILM RESISTOR	Chip on MAIN, on ANALOG	4 +18
	15399945	MCR100 101J	RESISTOR	Chip on MAIN	1
	00567323	RPC05T 223 J	MTL.FILM RESISTOR	Chip on MAIN	1
	00567289	RPC05T 103 J	MTL.FILM RESISTOR	Chip on MAIN, on ANALOG	23 +5
	00567156	RPC05T 102 J	MTL.FILM RESISTOR	Chip on MAIN, on ANALOG	5+8
	00566967	RPC05T 470 J	MTL.FILM RESISTOR	Chip on MAIN, on ANALOG	14 +8
#	03453289	MCR25 JZH JL R51	MTL.FILM RESISTOR	Chip on MAIN	1
	03567712	RR0816P-303-D	MTL.FILM RESISTOR	Chip on MAIN, on ANALOG	2+4
	01905001	RR0816P-103-D	MTL.FILM RESISTOR	Chip on MAIN	2
	00566867	RPC05T 100 J	MTL.FILM RESISTOR	Chip on MAIN	2
	00566912	RPC05T 220 J	MTL.FILM RESISTOR	Chip on MAIN	4
	00566923	RPC05T 270 J	MTL.FILM RESISTOR	Chip on MAIN	2
	00566934	RPC05T 330 J	MTL.FILM RESISTOR	Chip on MAIN	6
	00567012	RPC05T 820 J	MTL.FILM RESISTOR	Chip on MAIN	2
	00567023	RPC05T 101 J	MTL.FILM RESISTOR	Chip on MAIN, on ANALOG	2+2
	00567034	RPC05T 121 J	MTL.FILM RESISTOR	Chip on MAIN	1
	00567045	RPC05T 151 J	MTL.FILM RESISTOR	Chip on MAIN	1
	00567178	RPC05T 152 J	MTL.FILM RESISTOR	Chip on MAIN	1
	00567201	RPC05T 272 J	MTL.FILM RESISTOR	Chip on MAIN, on ANALOG	1+3
	00567245	RPC05T 472 J	MTL.FILM RESISTOR	Chip on MAIN, on ANALOG	3+2
	00567256	RPC05T 562 J	MTL.FILM RESISTOR	Chip on MAIN	1
	01904978	RR0816P-202-D	MTL.FILM RESISTOR	Chip on MAIN	1
	00567501	RPC05T 474 J	MTL.FILM RESISTOR	Chip on MAIN	1
	00567556	RPC05T 105 J	MTL.FILM RESISTOR	Chip on MAIN, on ANALOG	2 +13
	01454890	MCR50 JZH J 220	MTL.FILM RESISTOR	Chip on MAIN	1
	01566912	RR0816P-333-D	MTL.FILM RESISTOR	Chip on MAIN	1
	00567412	RPC05T 104 J	MTL.FILM RESISTOR	Chip on MAIN, on ANALOG	16 +22
	01905056	RR0816P-392-D	MTL.FILM RESISTOR	Chip on MAIN	1
	01011856	RPC05T 0R0 J	MTL.FILM RESISTOR	Chip on MAIN, on ANALOG	35 +20
	15409113	EXBV8V103JV	RESISTOR ARRAY	Chip on MAIN	4
	00126112	EXBV8V101JV	RESISTOR ARRAY	Chip on MAIN	7
	00344289	EXBV8V333JV	RESISTOR ARRAY	Chip on MAIN	2
	00909590	EXBV8V330JV	RESISTOR ARRAY	Chip on MAIN	4
	01011845	EXBV8V0R000V	RESISTOR ARRAY	Chip on MAIN	3
	01013578	EXBV8V470JV	RESISTOR ARRAY	Chip on MAIN	20
	01457145	EXBE10C103J	RESISTOR ARRAY	Chip on MAIN	7
	13749777T0	SR25TRE 151 J	CARBON RESISTOR	R122,R124,R126,R128,R130,R132,R134,R136,R138, R140,R142,R155on SW	12
	13749781T0	SR25TRE 221 J	CARBON RESISTOR	R121,R123,R125,R127,R129,R131,R133,R135,R137, R139,R141,R143,R144,R145,R146,R147,R148,R149, R150,R151,R152,R153,R154,R157,R158,R159,R160, R161,R162,R163,R164,R165,R166,R167,R171on SW	35
	13749845T0	SR25TRE 104 J 1/4W	CARBON RESISTOR	R156,R168 on SW,R103,R112,R118,R119on GUITAR	2+4
	03560878	MRS25CTR 3001 F	MTL.FILM RESISTOR	R1 on 5V	1
	13799754T0	MR16 TR KF 1K	METAL FILM RESISTOR	R3 on 5V	1
	13749765T0	SR25TRE 470 J	CARBON RESISTOR	R116,R111 on GUITAR	2
	13749773T0	SR25TRE 101 J	CARBON RESISTOR	R110,R115 on GUITAR	2
	13749813T0	SR25TRE 472 J	CARBON RESISTOR	R108,R113,R117,R120 on GUITAR	4
	13749821T0	SR25TRE 103 J	CARBON RESISTOR	R104 on GUITAR	1
	13749829T0	SR25TRE 223 J	CARBON RESISTOR	R109,R114 on GUITAR	2
	13749869T0	SR25TRE 105 J	CARBON RESISTOR	R105 on GUITAR	1
#	03346734	SR25TRE 0R0 J	CARBON RESISTOR	C3 on ANALOG	1
	00567067	RPC05T 221 J	MTL.FILM RESISTOR	Chip on ANALOG	2
	00567267	RPC05T 682 J	MTL.FILM RESISTOR	Chip on ANALOG	4
	00567390	RPC05T 683 J	MTL.FILM RESISTOR	Chip on ANALOG	4
#	03459256	MCR50JZHJ682	MTL.FILM RESISTOR	Chip on ANALOG	4

RESISTOR					
	02678545	RR0816P-153-D	MTL.FILM RESISTOR	Chip on ANALOG	6
POTENTIOMETER					
	03783023	EVUJFUFK315D 100KRD	9M/M ROTARY POTENTIOMETER	VR1,VR2 on SW	2
#	03789645	EVUF2KFK3B54	POTENTIOMETER	VR3,VR4,VR5 on SW	3
	02896712	EVUF2KFK4B54 50KB	9M/M ROTARY POTENTIOMETER	VR6 on SW	1
	01677312	EWAP1AC10 B54 (50KB/MS)	45M/M SLIDE POTENTIOMETER	VR7,VR8,VR9,VR10,VR11,VR12,VR13,VR14,VR15,VR16,VR17on SW	11
	02900467	EVJ2C25FB6A54 50KAX2	9M/M ROTARY POTENTIOMETER	VR18 on GUITAR	1
CAPACITOR					
	02129534	ECJ1VB1H102K	CERAMIC CAPACITOR	Chip on MAIN	1
	01674167	ECUV1H100DCV	CERAMIC CAPACITOR	Chip on MAIN	3
	01674401	ECUV1H331JCV	CERAMIC CAPACITOR	Chip on MAIN	1
	00567978	GRM39F104Z25PT	CERAMIC CAPACITOR	Chip on MAIN, on ANALOG	95
	00567945	GRM39B103K50PT	CERAMIC CAPACITOR	Chip on MAIN	+5
	01674712	ECJ1VF1A105Z	CERAMIC CAPACITOR	Chip on MAIN	39
	01674212	ECJ1VC1H220J	CERAMIC CAPACITOR	Chip on MAIN	51
	01674423	ECUV1H471JCV	CERAMIC CAPACITOR	Chip on MAIN	2
	01674556	ECJ1VB1H472K	CERAMIC CAPACITOR	Chip on MAIN	2
	01674689	ECJ1VF1H473Z	CERAMIC CAPACITOR	Chip on MAIN, on ANALOG	2
	01674190	ECJ1VC1H150J	CERAMIC CAPACITOR	Chip on MAIN	1
	01675278	GRM39CH101J50PT	CERAMIC CAPACITOR	Chip on MAIN, on ANALOG	+12
	03454889	EEE1HA010SR	CHEMICAL CAPACITOR	Chip on MAIN	2
	03454901	EEE1HA101UP	CHEMICAL CAPACITOR	Chip on MAIN	11
#	03454923	EEE1HA330UP	CHEMICAL CAPACITOR	Chip on MAIN	+2
	03348445	EEE1CA471UP	CHEMICAL CAPACITOR	Chip on MAIN	1
	03454823	EEE1CA470WR	CHEMICAL CAPACITOR	Chip on MAIN	3
	03454789	EEE1CA220WR	CHEMICAL CAPACITOR	Chip on MAIN	3
	02010812	ECA0JM472	CHEMICAL CAPACITOR	Chip on MAIN	1
	02900512	EEE1CA100SR	CHEMICAL CAPACITOR	Chip on MAIN	1
	02345145	RV2-16V101M-R	CHEMICAL CAPACITOR	Chip on MAIN	13
	13529132	RPE132-901F104Z50	CERAMIC CAPACITOR	C1,C5,C29,C30,C31,C32,C33,C34,C101on SW, C8 on 5V,C12 on GUITAR	13
	13639698	ECEA0JKS101B (H=5MM)	CHEMICAL CAPACITOR	C2,C3 on SW	9+1
	02784812	RE3-16V102M-T2	CHEMICAL CAPACITOR	C6 on 5V	+1
	13649270	ECA1CM222B 2200UF/16V	CAPACITOR	C7 on 5V	2
	03018545	RPE2C1H101J2M1A01A	CERAMIC CAPACITOR	C11,C20,C26 on GUITAR	1
	03344323	RPE2C1H470J2M1Z01A	CERAMIC CAPACITOR	C17,C23 on GUITAR	3
	01900834	RA2-16V101M-T2	CHEMICAL CAPACITOR	C18,C24 on GUITAR, C10,C18,C26,C97,C98 on ANALOG	2
	13639549	ECA1CM470B	CHEMICAL CAPACITOR	C22,C16 on GUITAR, C15,C55 on ANALOG	2+5
	02782901	RE3-50V010MB-T2	CHEMICAL CAPACITOR	C10 on GUITAR, on ANALOG	2+2
	02891767	RC2-16V100M-T2	CHEMICAL CAPACITOR	C9,C14,C15,C19,C25,C28 on GUITAR, C27,C33,C36,C37,C46,C47,C50,C60,C62,C63,C64,C77,C78,C79,C90,C99,C102,C107,C108 on ANALOG	1+2
	02897901	RC3-25V4R7M-T2	CHEMICAL CAPACITOR	C27 on GUITAR, on ANALOG	6
	01674278	ECJ1VCH470J	CERAMIC CAPACITOR	Chip on ANALOG	+19
	01674312	ECUV1H820JCV	CERAMIC CAPACITOR	Chip on ANALOG	4
	01674356	ECUV1H151JCV	CERAMIC CAPACITOR	Chip on ANALOG	4
	01674389	ECJ1VC1H221J	CERAMIC CAPACITOR	Chip on ANALOG	2
	01674489	ECJ1VB1H152K	CERAMIC CAPACITOR	Chip on ANALOG	6
	01900845	RA2-50V470M-T2	CHEMICAL CAPACITOR	C21,C23,C41,C42 on ANALOG	4
	13639547M1	ECA1CM220B	CHEMICAL CAPACITOR	C94,C95 on ANALOG	4
	13639606M0	ECEA1HM100B 10UF/50V	CHEMICAL CAPACITOR	C22 on ANALOG	2
					1
INDUCTOR, COIL, FILTER					
	02451367	ZCYS51R5-M3PAT	CHOKE COIL	Chip on MAIN	1
	02238234	TSL0709RA-151KR52	CHOKE COIL	L37 on MAIN	1
	00237212	SH-202	CHOKE COIL	FL1 on MAIN	1
	01565578	N1608Z601T01	FERRITE-BEAD	Chip on MAIN, on ANALOG	15
					+2
#	03895345	N1608ZA202T01	FERRITE-BEAD	Chip on MAIN	1
	12449268	BL02RN2-R62T2	FERRITE-BEAD	L1,L2 on SW	2
#	03785690	ELC18B101L	CHOKE	L4 on 5V	1
#	03785634	TSL1315S-470K3R4-PF	CHOKE	L3 on 5V	1
CRYSTAL, RESONATOR					
	02673267	CX-49G 5MHZ	CRYSTAL	Chip on MAIN	1
	02781412	CX-49G 6.000MHZ	CRYSTAL	Chip on MAIN	1
	02672401	SG-8002JC 67.7376MHZ PC	CRYSTAL	Chip on MAIN	1
ENCODER					
	01905467	EVE GC1 F20 24B	ROTARY ENCODER	EN1 on SW	1

CONNECTOR

	02014445	20FE-BT-VK-N	CONNECTOR	CN7 on MAIN	1
	02896934	52559-3092	CONNECTOR	CN9 on MAIN	1
	01908634	14FE-BT-VK-N	CONNECTOR	CN12 on MAIN, CN14 on ANALOG	1+1
	02018990	34FE-BT-VK-N	CONNECTOR	CN4 on MAIN	1
	13369570	B2B-PH-K-S (2P)	CONNECTOR	CN8 on MAIN	1
	13369594	B4B-XH-A	CONNECTOR	CN8 on MAIN	1
	03340278	B7B-PH-K-S(PB FREE)	CONNECTOR	CN11 on MAIN	1
	01909589	10FE-BT-VK-N	CONNECTOR	CN13 on MAIN, CN5 on ANALOG	1+1
	02349545	P/N 75401-0X0-B	CONNECTOR	CN1,CN5 on MAIN, CN1 on CD CN	2+1
	02018712	20FE-ST-VK-N FOR WIRING	CONNECTOR	CN3 on SW	1
	02564678	12FE-ST-VK-N	CONNECTOR	CN1 on SW	1
#	03785623	34FE-ST-VK-N	CONNECTOR	CN2 on SW	1
	01909601	12FE-BT-VK-N	CONNECTOR	CN3 on ANALOG	1
	13369600	52147-0510(5P)	WIRE TRAP	CN2 on ANALOG	1
	13369601	52147-0610(6P)	WIRE TRAP	CN6 on ANALOG	1
	03124967	KX14-50KL7.9H1	CONNECTOR	CN2 on CD CN	1

WIRING, CABLE

#	03893789	WIRING HDD POWER			1
	02896978	WIRING	2 LCD		1
	02904623	WIRING	HDD IDE		2
	03343256	BAN CARD	BNCD-P=1.25-K-12-200		1
#	03789856	BAN CARD	BNCD-P=1.25-K-34-130		1
#	03789878	BAN CARD	BNCD-P=1.25-K-10-50		1
#	03789901	BAN CARD	BNCD-P=1.25-K-20-110		1
#	03789967	BAN CARD	BNCD-P=1.25-K-14-50		1

SCREW

	40233012	SCREW M2.6X8	BINDING TAPTITE P BZC		4
	40011312	SCREW 3X8	BINDING TAPTITE P BZC		13
	40011278	SCREW 3X8	BINDING TAPTITE P FE ZC		19
	40127689	SCREW M3X10	BINDING TAPTIGHT S TYPE FE BZC		1
	40012534	SCREW 3X6	BINDING TAPTITE S FE BZC		8
	40012512	SCREW 3X6	BINDING TAPTITE S ZC		18
	40011378	SCREW M4X8	BINDING TAPTITE S FE BZC		1
	40457245	PLAIN WASHER 3X12X1	ZC		1
	40455867	SCREW M2X2.5	PAN MACHNE W/SW	on CD-R	4
	40563112	SCREW 6-32X1/2	UNIFY	on HARD	4

PACKING

#	03785267	PACKING CASE UPPER			1
#	03785245	ACCESORIE PAD			1
#	03785223	SIDE PAD L			1
#	03785234	ADAPTOR PAD			1
#	03785256	SIDE PAD R			1
#	03896290	PACKING CASE LOWER			1
#	03785412	OUTER PACKING CASE			1

MISCELLANEOUS

	40346367	COPPER TAPE	3M #2245 12X20M		1
	40122556	DOUBLE FACED ADHESHIVE TAPE	#575X W30MM 30M 10P 30CM		1
	40122645	NITTO FILAMENT TAPE	#3883 W19MM 50M 60P (CM)		1
	22360712	CORD HOOK	236-712		1
	22355334	FOOT MKS	235-334		4
#	40569489	ADAPTOR LABEL			1
#	03785201	PANEL SHEET			1
	01016223	FOOT	30X10X3	on CD-R	1
	03459645	HDD COLLAR	COLLAR	on HARD	4
#	03896301	HDD INSULATOR		on HARD	4
	40341112	UV 50CC	BOND (ARONTITE)	on HARD	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
	40232389	WARRANTY CARD	FOR BOSS JAPAN ONLY		1
#	03891601	CD-ROM	DISCRETE DRUM		1
#	72898789	OWNER'S MANUAL	JAPANESE		1
#	72902990	OWNER'S MANUAL	ENGLISH		1
	40563756	LEAFLET HDD CAUTION (COPY)	JAPANESE/ENGLISH		1
	*****	RUS REGISTRATION CARD			1
	40343723	VINYL TIE	200M/M BLK		1

CHECKING THE VERSION NUMBER

1. With the unit in normal operating mode, simultaneously press the [ENTER/YES] and [EXIT/NO] buttons.
2. The version is indicated in the display.
3. Press [ENTER/YES] (or [EXIT/NO]) to return to the normal screen.

NOTE

The version number can be checked in Test mode as well. For more detailed information, check the Test mode categories.

USERS DATA SAVE AND LOAD

Saving Data on the Hard Disk to CD-R/RW Discs (User Backup)

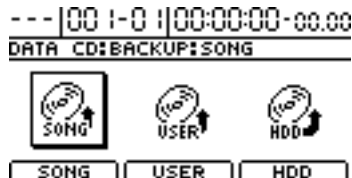
The BR-1200CD allows you to back up the following types of user data to CD-R/RW discs.

- Insert effect patches
- Mastering Tool Kit patches
- Speaker Modeling patches
- Vocal Tool Box patches
- Rhythm arrangements, drum patterns, bass patterns
- Loop Phrases

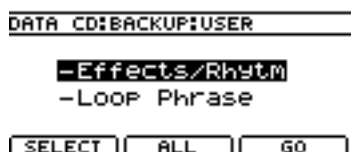
1. Insert an empty CD-R/RW disc into the BR-1200CD's CD-R/RW drive. The drive's access indicator will begin to flash. Wait until this indicator stops flashing and turns off before proceeding.
2. Press CD-R/RW [DATA SAVE/LOAD]. The Data CD screen will appear.



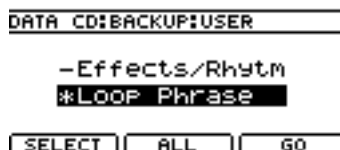
3. Move the cursor to BACKUP icon, and press [ENTER/YES]. Alternatively, you can press [F1] (BACKUP) if the BACKUP icon is currently displayed. The Backup Menu screen will appear.



4. Press [F2] (USER) or move the cursor to USER icon, and then press [ENTER/YES]. The User Backup screen will appear.



5. Move the cursor to the type of data you want to back up and press [F1] (SELECT). The data will be selected for backup.



A number of types of data can be selected in this way for backup, and an asterisk (*) will be displayed for each selected type. To cancel a selection, simply press [F1] once again.

Data that can be backed up:

Effects/Rhythm:

- Insert Effects User Patches
- Vocal Tool Box User Patches
- Mastering User Kit User Patches
- Speaker Modeling User Patches
- User Rhythm Arrangement
- User drum pattern
- User bass pattern

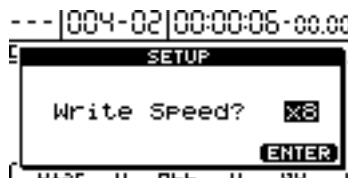
The data described above will all be saved.

Loop Phrase:

User loop phrases will all be saved.

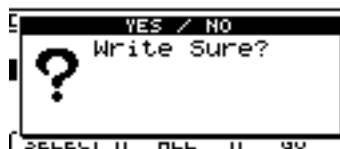
If you would like to back up all such data on the hard disk in a single operation, press [F2] (ALL). All data types will be selected for backup. To cancel this selection, press [F2] once again. This deselects all data types.

6. When you have selected all of the data you want to back up, press [F3] (GO). The message "Write Speed?" will appear.



7. Use the TIME/VALUE dial to set the write speed.
8. Press [ENTER/YES].

If you want to cancel the backup, press [EXIT/NO]. The message "Write Sure?" will appear.



9. Press [ENTER/YES] once again. The BR-1200CD will begin writing data to the CD-R/RW disc. When the message "Complete!" appears, it indicates that the backup has been successfully completed.

NOTE

- The range of available write speeds can sometimes be limited by the type of media being used. In such a case, the BR-1200CD will allow you to select only the supported speeds.
- If an error occurs, try changing the write speed and then carry out the writing process over again.
- The actual time required to complete writing to a disc will be longer than the time calculated from the write speed. The data is converted into CD format during the writing process, and this accounts for the extra time requirement.

Reading backup user data back into the hard disk (User Recover)

1. Insert a CD-R/RW disc containing backup user data into the BR-1200CD's CD-R/RW drive.
The drive's access indicator will begin to flash. Wait until this indicator stops flashing and turns off before proceeding.

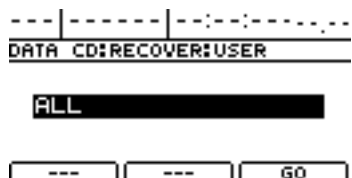
2. Press CD-R/RW [DATA SAVE/LOAD].
The Data CD Menu screen will appear.



3. Move the cursor to RECOVER icon, and press [ENTER/YES].
Alternatively, you can press [F2] (RECOVER) if the RECOVER icon is currently displayed.
The Recover screen will appear.



4. Press [F2] (USER).



5. Use the TIME/VALUE dial to select the data you want to recover.
If you select the data that has no backup data, “*EMPTY” will be displayed.

Data that can be recovered:

ALL

All of the user data on the CD-R/RW disc

EFFECTS

All insert effects patches from the user bank will be recovered.

MASTERING TOOL KIT

The Mastering Tool Kit's user bank will be recovered.

SPEAKER MODELING

The Speaker Modeling user bank will be recovered.

VOCAL TOOL BOX

The Vocal Tool Box's user bank will be recovered.

RHYTHM

User rhythm arrangements, user drum patterns, user bass patterns, and user loop phrases will all be recovered.

ARRANGEMENT

Only user rhythm arrangements will be recovered.

DRUM&BASS PATTERN

Only user drum patterns and user bass patterns will be recovered.

LOOP PHRASE ALL

User loop phrases from banks A through H will be recovered.

LOOP PHRASE A-H

Only user loop phrases from the selected bank will be recovered.

If you select “LOOP PHRASE A-H,” a recovery destination will appear at the bottom of the display. If you want to change this setting, move the cursor to “Destination” and then select a new recovery destination using the TIME/VALUE dial.

6. When you have selected all of the data you want to recover, press [F3] (GO).
The BR-1200CD will start the recovery process. When the message “Complete!” appears, it indicates that the recovery has been completed successfully.

NOTE

If the hard disk contains any data of the same type as that being recovered, it will be completely overwritten in the recovery process. As it will not be possible to restore this data, care should be taken to ensure that important data is not accidentally overwritten in this way.

Saving the Entire Contents of the Hard Disk to a CD-R/RW Disc (HDD Backup)

The BR-1200CD allows you to back up all of the data on the internal hard disk onto CD-R/RW discs, regardless of the type of data or the song in which it is used. Data that's been backed up this way can later be recovered whenever needed.

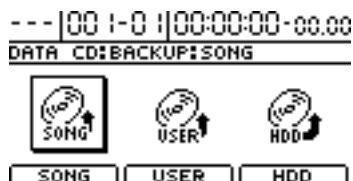
Note, however, that this type of backup is limited to the data contained in the currently selected drive or partition. If you would also like to back up data from another drive or partition, you will need to change the current drive first. Note also that recovered data will be stored on the currently selected drive.

1. Insert an empty CD-R/RW disc into the BR-1200CD's CD-R/RW drive.
The drive's access indicator will begin to flash. Wait until this indicator stops flashing and turns off before proceeding.

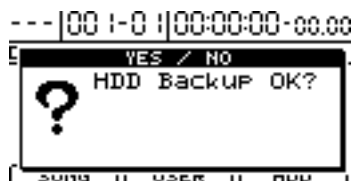
2. Press CD-R/RW [DATA SAVE/LOAD].
The Data CD Menu screen will appear.



3. Move the cursor to BACKUP icon, and press [ENTER/YES].
Alternatively, you can press [F1] (BACKUP) if the BACKUP icon is currently displayed.
The Backup Menu screen will appear.



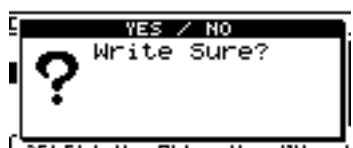
4. Press [F3] (HDD).
The message “HDD Backup OK?” will appear.



5. Press [ENTER/YES].
The message “Write Speed?” will appear.



6. Use the TIME/VALUE dial to set the write speed.
7. Press [ENTER/YES].
If you want to cancel the backup, press [EXIT/NO].
The message “Write Sure?” will appear.



8. Press [ENTER/YES] once again.
The BR-1200CD will begin writing data to the CD-R/RW disc. When the message "Complete!" appears, it indicates that the backup has been successfully completed.

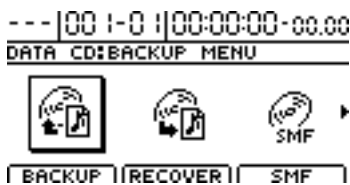
NOTE

- The range of available write speeds can sometimes be limited by the type of media being used. In such a case, the BR-1200CD will allow you to select only the supported speeds.
- If an error occurs, try changing the write speed and then carry out the writing process over again.
- The actual time required to complete writing to a disc will be longer than the time calculated from the write speed. The data is converted into CD format during the writing process, and this accounts for the extra time requirement.

Reading backed-up hard disk contents back into the hard disk (HDD Recover)

1. Insert a CD-R/RW disc containing an HDD backup into the BR-1200CD's CD-R/RW drive.
The drive's access indicator will begin to flash. Wait until this indicator stops flashing and turns off before proceeding.

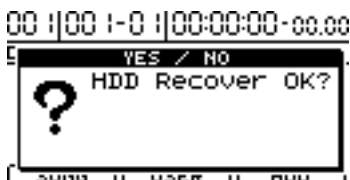
2. Press CD-R/RW [DATA SAVE/LOAD].
The Data CD Menu screen will appear.



3. Move the cursor to RECOVER icon, and press [ENTER/YES].
Alternatively, you can press [F2] (RECOVER) if the RECOVER icon is currently displayed.
The Recover screen will appear.



4. Press [F3] (HDD).
The message "HDD Recover OK?" will appear.



5. Press [ENTER/YES].
The hard disk will be initialized and then the recovery process will begin. When the message "Complete!" appears, it indicates that the recovery has been completed successfully.

NOTE

When HDD Recover is carried out, all data and songs that you have stored on the hard disk will be overwritten with the contents of the CD-R/RW and erased. As it will not be possible to restore data or songs erased in this way, extra care should be taken.

TEST MODE

Required Equipment

- Oscillator
- Mixer or other device capable of balanced output (for input of signals to XLR jacks)
- Oscilloscope
- EV-5 expression pedal
- FS-5U foot switch
- MIDI Cable
- Tester
- Noise meter
- Blank CD-RW disc (You can use one hundred times)
- Device equipped with DIGITAL IN (optical) connector
- Computer equipped with USB port (OS: Windows XP)
- Necessary cables for connections
- Stereo headphones

Initial Device Settings

INPUT SENS	MAX
INPUT LEVEL	MAX
VALUE 1-3	MAX
AUDIO TRACK 1-12	MAX
MASTER	MAX
PHONES VOLUME	CENTER
FOOT SW (FS-5U)	Set the polarity switch to the jack side.
EXP PEDAL (EV-5)	Set the MIN. VR to "0."

Entering Test Mode

Simultaneously hold down the [TRACK1] and [UNDO/REDO] switches and press the [POWER] switch.
Continue to hold down the [TRACK1] and [UNDO/REDO] switches until the Test mode screen is displayed.

Switching Test Categories

Hold down the [STOP] button in press the following buttons to force a switch to other test categories.

CURSOR [->]: Advance to the next category
CURSOR [-<]: Return to the previous category

To Exit Test Mode

Turn off the power to the unit.

Test items

Test mode covers the following items.

1. DEVICE
2. SW & LED
3. FOOT SW
4. EXP PEDAL
5. ENCODER & LCD
6. KNOB/FADER
7. MIDI
8. MUTE
9. GUITAR/MIC1 A/B
10. AF-AD

11. MIC1 PHANTOM
12. GUITAR/MIC1 AUDIO
13. MIC2 A/B
14. MIC2 PHANTOM
15. MIC2 AUDIO
16. SUB MIX
17. SUB MIX AUDIO
18. POWER OFF
19. LINE AUDIO
20. USB
21. HARD DISK
22. CD-RW DRIVE
23. POWER OFF

- | | | |
|---------------------|----|--|
| PLAY | -> | PLAY goes off |
| REC | -> | REC goes off |
| V-TRACK | | |
| TRACK1 | -> | TRACK1 goes off |
| TRACK2 | -> | TRACK2 goes off |
| TRACK3 | -> | TRACK3 goes off |
| TRACK4 | -> | TRACK4 goes off |
| TRACK5 | -> | TRACK5 goes off |
| TRACK6 | -> | TRACK6 goes off |
| TRACK7 | -> | TRACK7 goes off |
| TRACK8 | -> | TRACK8 goes off |
| TRACK9/10 | -> | TRACK9/10 goes off |
| TRACK11/12 | -> | TRACK11/12 goes off |
| REVERB | | |
| CHO/DELAY | | |
| PAN | | |
| COMP | -> | COMP goes off |
| EQ | | |
| F1 | | |
| F2 | | |
| F3 | | |
| PATTERN/ARRANGE | -> | PATTERN goes off->ARRANGE goes off |
| EDIT | | |
| EZ COMPOSE | -> | EZ COMPOSE goes off |
| UTILITY | | |
| UNDO/REDO | | |
| CURSOR UP | | |
| CURSOR LEFT | | |
| CURSOR DOWN | | |
| CURSOR RIGHT | | |
| EXIT | | |
| ENTER | | |
| SPEAKER MODELING | -> | SPEAKER MODELING goes off |
| MASTERING TOOL KIT | -> | MASTERING TOOL KIT goes off |
| VOCAL TOOL BOX | -> | VOCAL TOOL BOX goes off |
| TRACK TYPE | -> | BASS goes off->DRUM/LOOP PHRASE goes off |
| AUDIO CD WRITE/PLAY | -> | AUDIO CD WRITE/PLAY goes off |
| DATA SAVE/LOAD | -> | DATA SAVE/LOAD goes off |
| LOOP PHRASE IMPORT | -> | LOOP PHRASE IMPORT goes off |
| TAP | | |
| TRACK MUTE | | |

Lastly, when the [TRACK MUTE] button is pressed, the procedure automatically advances to the next test.

Test Categories

1. DEVICE

1. The CPU mask ROM version number and FLASH ROM version number are indicated in the display.

The following tests are performed automatically.

- FLASH MEMORY CHECK
- DRAM CHECK
- ESP CHECK
- GATE ARRAY CHECK
- DIF (DIGITAL OUT) CHECK

During the check, the name of the respective device appears in the display.

If an error is detected, the name of the device in which the error occurred is indicated in the display.

If there is no error, "Device OK!" appears in the display.

2. Press the CURSOR [->] button to advance to the next test.

2.SW & LED

SW TEST

1. Press the buttons as directed in the instructions appearing in the LCD (-> SWITCH & LED test sequence).

Each time a button is pressed, the next button to be pressed is indicated in the LCD screen.

If a button other than the one indicated is pressed, the message "*Wrong Switch*" is displayed.

If the button has a corresponding LED, confirm that the LED goes off when the button is pressed.

- | | | |
|------------------|----|-----------------------------|
| LINE | -> | LINE goes off |
| VOCAL | -> | VOCAL goes off |
| GUITAR | -> | GUITAR goes off |
| EFFECTS | -> | EFFECTS goes off |
| TUNER | | |
| REC MODE | | |
| MARKER | | |
| MARK | | |
| MARKER SEARCH >> | -> | REC MODE MASTERING goes off |
| MARKER SEARCH << | -> | REC MODE BOUNCE goes off |
| MARKER CLEAR | -> | REC MODE INPUT goes off |
| PUNCH IN | -> | PUNCH IN goes off |
| PUNCH DELETE | | |
| PUNCH OUT | -> | PUNCH OUT goes off |
| PUNCH ON/OFF | -> | PUNCH ON/OFF goes off |
| REPEAT | -> | REPEAT goes off |
| FF | | |
| REW | | |
| ZERO | | |
| STOP | -> | STOP goes off |

LED TEST

1. Confirm that the TRACK LEDs are lit (red).
2. Press the CURSOR [->] button to advance to the next check.
3. Confirm that the TRACK LEDs are lit up (green).
4. Press the CURSOR [->] button to advance to the next check.

3.FOOT SW

1. Press the foot switch.
The procedure automatically advances to the next test when the foot switch is pressed.

4.EXP PEDAL

1. Press the expression pedal fully forward.
2. Confirm that "127 OK" appears in the display.
3. Confirm that the displayed value changes from "000" to "127" as the expression pedal is adjusted.
4. With the expression pedal fully forward, disconnect the expression pedal plug and confirm that "127" appears in the display.
5. Press the CURSOR [->] button to advance to the next check.

5. ENCODER & LCD

1. Rotate the ENCODER to the right (clockwise) and confirm that the LCD becomes darker.
2. Rotate the ENCODER to the left (counterclockwise) and confirm that the LCD becomes lighter.
3. Adjust so that the black portions are crisply defined, and that no black bleeds into the background portion.
4. Press the [ENTER/YES] switch to store the standard reference contrast setting.
"Complete!" appears in the display, and the procedure advances to the next step.

6. KNOB/FADER

1. Following the directions in the LCD, adjust the knobs and faders from MIN to MAX.
2. Each time a knob or fader is adjusted from MIN to MAX, the next knob or fader to be adjusted is indicated in the LCD screen.
If a knob or fader other than the one indicated is adjusted, the message "***Wrong Fader/Knob***" is displayed.
When finally the Master fader is adjusted, the procedure automatically advances to the next step.

7. MIDI

1. Confirm that, with no MIDI cable connected, "--" is indicated in the screen.
2. Connect the MIDI IN and MIDI OUT connectors with a MIDI cable.
Confirm that "****" appears in the display, followed by "OK."
3. Press the CURSOR [->] button to advance to the next check.

8. MUTE

1. A signal (200 Hz sine wave) is output from the internal oscillator, and the muting is repeatedly switched on and off at a fixed interval.
2. Connect an oscilloscope to LINE OUT L/R.
3. Connect a pair of stereo headphones to the PHONES jack.
4. Connect a device equipped with a DIGITAL IN connector to DIGITAL OUT.
5. Check the waveform from LINE OUT L/R and the output from the stereo headphones and DIGITAL OUT to confirm that the output appears and disappears at the fixed interval.
6. Press the CURSOR [->] button to advance to the next check.

9. GUITAR/MIC1 A/B

1. Connect an oscilloscope to LINE OUT L/R.
2. Input a 200 Hz rectangular wave at 5 mVp-p to the MIC1 (XLR) connector.
3. Confirm that the waveform from LINE OUT L/R alternately appears and disappears at a fixed interval. Also confirm that there is no irregularity in the waveform.
4. Input a 200 Hz rectangular wave signal at 60 mVp-p to the GUITAR/BASS jack.
5. Confirm that the waveform from LINE OUT L/R alternately appears and disappears at a fixed interval. Also confirm that there is no irregularity in the waveform.
6. Press the CURSOR [->] button to advance to the next check.

10. AF-AD

1. Connect an oscilloscope to LINE OUT L/R.
2. Input a 200 Hz sine wave at 15 mVp-p to the GUITAR/BASS jack.
3. Turn down the MIC1 [INPUT SENS] knob until it is turned down completely, and confirm that the left and right waveforms are of equal amplitude when the distortion in the LINE OUT right channel is no longer present.
4. Disconnect the GUITAR/BASS jack.
5. Press the CURSOR [->] button to advance to the next check.

11. MIC1 PHANTOM

1. Press the [ENTER] button to switch PHANTOM on and off.
2. With PHANTOM on, use a tester to measure the voltage between the MIC1 (XLR) #1 pin (GND) and #2 pin (HOT) and between the #1 pin and the #3 pin (COLD), and confirm that the voltage is in a range from 45 V to 50 V.
3. Connect a phantom powered device (e.g., condenser mic) to MIC1, and confirm that the input waveform is output from LINE OUT.
4. Press the CURSOR [->] switch to advance to the next test.

12. GUITAR/MIC1 AUDIO

1. Connect an oscilloscope to LINE OUT L/R.
2. Input a 200 Hz sine wave at 100 mVp-p to the GUITAR/BASS jack.
3. Rotate the MIC1 [INPUT SENS] knob from MAX to MIN to MAX again, and confirm that the waveform from LINE OUT L/R changes smoothly.
4. Rotate the [INPUT SENS] knob to the 4 o'clock to 5 o'clock position and confirm that the PEAK LED starts to light up.
5. Disconnect the GUITAR/BASS jack.
6. Input a 200 Hz sine wave signal at 15 mVp-p to the MIC1 (XLR) connector.
7. Rotate the MIC1 [INPUT SENS] knob from MAX to MIN to MAX again, and confirm that the change in the waveform from LINE OUT L/R is smooth. Also confirm that no rasping or other noise appears in the waveform.
8. Rotate the [INPUT SENS] knob to the 4 o'clock to 5 o'clock position and confirm that the PEAK LED starts to light up.
9. Connect a short plug to the MIC1 (TRS) jack and confirm that the waveform stops in the oscilloscope.
10. Disconnect the short plug from MIC1 (TRS).
11. Connect a short plug to the GUITAR/BASS jack and confirm that the waveform stops in the oscilloscope.
12. Disconnect the MIC1 (XLR) connector.
13. Connect a noise meter to LINE OUT L/R.
14. Confirm that the residual noise in LINE OUT L/R is no more than -72 dBu (JIS-A) when the MIC1 [INPUT SENS] knob is set to MAX.
15. Disconnect the short plug from the GUITAR/BASS jack.
16. Confirm that the residual noise in LINE OUT L/R is no more than -76 dBu (JIS-A) when the MIC1 [INPUT SENS] knob is set to MAX.
17. Press the CURSOR [->] button to advance to the next check.

13. MIC2 A/B

1. Connect an oscilloscope to LINE OUT L/R.
2. Input a 200 Hz rectangular wave at 5 mVp-p to the MIC2 (XLR) connector.
3. Confirm that the waveform from LINE OUT L/R alternately appears and disappears at a fixed interval. Also confirm that there is no irregularity in the waveform.
4. Press the CURSOR [->] button to advance to the next check.

14. MIC2 PHANTOM

1. Press the [ENTER] button to switch the phantom power on and off.
2. With PHANTOM on, use a tester to measure the voltage between the MIC2 (XLR) #1 pin (GND) and #2 pin (HOT) and between the #1 pin and the #3 pin (COLD), and confirm that the voltage is in a range from 45 V to 50 V.
3. Connect a phantom powered device (e.g., condenser mic) to MIC2, and confirm that the input waveform is output from LINE OUT.
4. Press the CURSOR [->] switch to advance to the next test.

15.MIC2 AUDIO

1. Connect an oscilloscope to LINE OUT L/R.
2. Input a 200 Hz sine wave at 15 mVp-p to the MIC2 (XLR) connector.
3. Rotate the MIC2 [INPUT SENS] knob from MAX to MIN to MAX again, and confirm that the change in the waveform from LINE OUT L/R is smooth. Also confirm that no rasping or other noise appears in the waveform.
4. Rotate the [INPUT SENS] knob to the 4 o'clock to 5 o'clock position and confirm that the PEAK LED starts to light up.
5. Connect a short plug to the MIC2 (TRS) jack and confirm that the waveform stops in the oscilloscope.
6. Disconnect the short plug from MIC2 (TRS).
7. Disconnect the MIC2 (XLR) connector.
8. Connect a noise meter to LINE OUT L/R.
9. Confirm that the residual noise in LINE OUT L/R is no more than -76 dBu (JIS-A) when the MIC2 [INPUT SENS] knob is set to MAX.
10. Press the CURSOR [->] button to advance to the next check.

16.SUB MIX

1. Connect an oscilloscope to LINE OUT L/R.
2. Input a 200 Hz rectangular wave at 1 mVp-p to LINE IN L/R.
3. Confirm that the waveform from LINE OUT L/R alternately appears and disappears at a fixed interval.
4. Press the CURSOR [->] button to advance to the next check.

17.SUB MIX AUDIO

1. Connect an oscilloscope to LINE OUT L/R.
2. Input a 200 Hz rectangular wave at 1 mVp-p to LINE IN L/R.
3. Confirm output of the waveform from LINE OUT L/R.
4. Press the CURSOR [->] button to advance to the next check.

18.LINE ON/OFF

1. Connect an oscilloscope to LINE OUT L/R.
2. Input a 200 Hz rectangular wave at 1 mVp-p to LINE IN L/R.
3. Confirm that the waveform from LINE OUT L/R alternately appears and disappears at a fixed interval.
4. Press the CURSOR [->] button to advance to the next check.

19.LINE AUDIO

1. Connect an oscilloscope to LINE OUT L/R.
2. Input a 200 kHz rectangular wave at 1 mVp-p to LINE IN L/R.
3. Confirm output of the waveform from LINE OUT L/R.
4. Rotate the [PHONES VOLUME] knob from MAX to MIN to MAX again, and confirm that the change in the waveform from the PHONES jack is smooth.
5. Disconnect LINE IN L/R).
6. Connect a noise meter to LINE OUT L/R.
7. Confirm that the residual noise in LINE OUT L/R is no more than -85 dBu (JIS-A).
8. Press the CURSOR [->] button to advance to the next check.

20.USB

1. Use a USB cable to connect the unit's USB connector to a computer's USB port.
2. Transmission is checked automatically
3. If no error occurs, "OK" is indicated, and the procedure automatically advances to the next test.

21.HARD DISK

1. A check of the hard disk is run.
If no error occurs, "OK" is indicated, and the procedure automatically advances to the next test.

22.CD-RW DRIVE

1. The CD-RW drive model name and firmware version are indicated.
The drive tray opens automatically; insert a blank CD-RW (CD-RW). Write to the disc, and display the checksum.
If no error occurs, the CD-R/RW tray opens automatically, and the procedure automatically advances to the next test.

23.POWER OFF

1. Input a 200 Hz sine wave so that the PEAK LED lights up.
2. Press the [POWER] switch, and confirm that the LCD display, LCD backlighting, and go out the PEAK LED.

INITIALIZING ALL BR-1200CD SETTINGS (INITIALIZE)

The Initialize function allows you to return all of the following BR-1200CD parameters to their original settings.

Global Parameters

- Reference Pitch in Tuner parameters
- System parameters
- Sync parameters
- MIDI parameters
- Marker parameters
- Scene parameters
- Scrub and Preview parameters

Mixer Parameters

- Track Compressor, EQ, Pan
- Loop Effects
- Input Select
- Recording Mode

Effect Patch Data

- User patches from all insert effect banks
- Vocal Tool Box user patches
- Mastering Tool Kit user patches
- Speaker Modeling user patches

1. Press [UTILITY].

The Utility screen will appear.



2. Move the cursor to the INITIALIZE icon and press [ENTER/YES].

Icons representing the various things that can be initialized will appear.



GLOBAL icon



When this icon is selected

- Reference Pitch in Tuner parameters
- System parameters
- Sync parameters
- MIDI parameters
- Marker parameters
- Scene parameters
- Scrub and Preview parameters

will be initialized and returned to the values they had at the time of purchase.

MIXER icon



When this icon is selected,

- Track Compressor, EQ, Pan
- Loop Effects
- Input Select
- Recording Mode

will be returned to the values they normally have immediately after Song New (p. 48) is performed.

EFFECTS icon



When this icon is selected,

- User patches from all insert effect banks
- Vocal Tool Box user patches
- Mastering Tool Kit user patches
- Speaker Modeling user patches

will be initialized and returned to their values at the time of purchase (i.e., the values for preset patches).

ALL icon



When this icon is selected, all global parameters, effect patches, and mixer parameters will be initialized.

In addition, all data for song markers, Tempo Maps, Sync Tracks, scenes, and the like will be cleared. The display contrast will also be returned to the factory default contrast setting.

1. Move the cursor to the icon for the parameters to be initialized and press [ENTER/YES].

Alternatively, you can push the FUNCTION button below the relevant icon.

The message "Initialize *** OK?" will appear.

Example:) When GLOBAL icon is selected



4. Press [ENTER/YES].
The message "Sure?" will appear.



5. Press [ENTER/YES] once again.
The BR-1200CD will start the initialization process. When this process has finished, the message "Complete!" will appear and you'll automatically be returned to the top screen.

NOTE

Precautions for initialization

- Press [EXIT/NO] if you want to cancel an initialization process.
- In certain cases, the message "Save Current?" will appear during the initialization procedure, and this indicates that the current song contains audio that has been newly recorded or edited, or modified parameters that have not yet been saved. If you want to save your song before starting the initialization process, press [ENTER/YES]; if this will not be necessary, press [EXIT/NO]. If you proceed without saving your song, all of the new recordings, audio edits, and new parameter settings will be permanently lost.

Initializing the hard disk (Disk Initialize)

The appropriate settings for the internal hard disk were made before the BR-1200CD left the factory, so it is ready for immediate use.

If for any reason the hard disk can no longer be written to or read from, or if you immediately want to delete all data from the disk, you can carry out Disk Initialize.

NOTE

- Take care to note that all data on the hard disk is lost when you execute Disk Initialize. The demo songs programmed at the factory are also deleted.
- We recommend creating a backup of your data on a CD-R/RW disc or other media as your situation requires.

1. Press [UTILITY].
The Utility screen will appear.



2. Move the cursor to the HDD icon and press [ENTER/YES].
The Hard Disk screen will appear.



3. Move the cursor to the INITIALIZE icon and press [ENTER/YES]. The message "FORMAT MODE: NORMAL" appears.



4. Use the TIME/VALUE dial to select the initialization mode.

NORMAL

This is the usual format. The hard disk is formatted as a single partition. The maximum partition size is 40 GB.

SURFACE SCAN

The entire hard disk is formatted as "NORMAL" after all of the storage sectors of the hard disk are checked.

With a 40 GB hard disk, such checking takes roughly 2-3 hours to complete.

If you press [EXIT/NO] while the check is still in progress, the check is stopped at that point, and formatting continues in "NORMAL" mode.

DIV 2 through 8

This separates the hard disk into drives (partitions) of equal size. You cannot set the drives so that they are of different sizes.

Example) When using "DIV 5" in formatting the partitions on a 40 GB hard disk.

$$40\text{GB} / 5 = 8\text{GB}$$

This creates five partitions, each containing 8 GB.

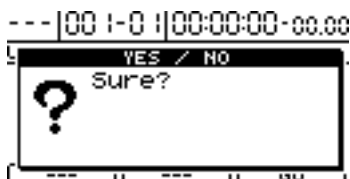
The maximum size for a single partition is 40 GB.

Initialization is set to "NORMAL" at the factory.

ONLY CUR. PARTITION (Only Current Partition)

This initializes only the currently selected partition when the hard disk is divided into multiple partitions. If the hard disk has not been divided into separate partitions, the NORMAL setting is used to initialize the entire hard disk.

5. Press [F3] (GO).
The message "Sure?" appears.



6. Press [ENTER/YES]. (If you wish to cancel the initialization, press [EXIT/NO]).
"Now Initializing..." appears in the display, and initialization begins.
After the initialization is completed properly, the message "Complete!" will appear and the top screen returns to the display.
A new song "SONG 001" will be created on the hard disk.

NOTE

The state of progress of the initialization will be shown on the display, and you should not turn off the BR-1200CD until this procedure has been completed. Failure to observe this precaution could considerably reduce the life span of the hard disk or could result in it being permanently damaged.

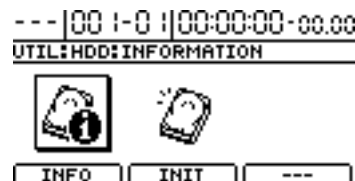
Initializing only one of multiple partitions

Now you can specify a single partition for initialization when using multiple partitions.

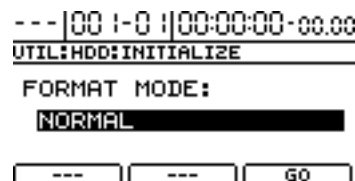
- First, select the drive you want to initialize.
See the step 4 in the "Viewing information about the hard disk (Hard Disk Information)" (p. 284).
- Press [UTILITY].
The Utility screen will appear.



3. Move the cursor to the HDD icon and press [ENTER/YES].
The Hard Disk screen will appear.



4. Move the cursor to the INITIALIZE icon and press [ENTER/YES].
The Hard disk Initialize screen will appear.



5. Rotate the TIME/VALUE dial to set "Format Mode" to "ONLY CUR. PARTITION."

NOTE

Take care to note that selecting anything other than "ONLY CUR.PARTITION" will result in the entire hard disk being initialized.

- Press [F3] (GO).
The message "Sure?" appears.
- Press [ENTER/YES].
"Now Initializing..." appears, and initialization of the drive begins. The process is finished when "Complete!" appears.

NOTE

Use of this feature is not required if you are using the default factory settings without any changes.

SYSTEM SOFTWARE UPDATING INSTRUCTIONS

Updating from CD-R

Required Items

- Updater CD-ROM (#17041569)
1. Simultaneously hold Procedures down the [STOP] and [PLAY] buttons and press the [POWER] button.
 - * *Continue to hold down the [STOP] and [PLAY] switches until the updater screen is displayed.*
 2. When "Insert Disk" is displayed, press the CD-R/RW drive's [EJECT] button to open the CD-R/RW drive tray.
 3. Place the updater CD in the CD-R/RW drive.
 4. Close the CD-R/RW drive tray; the contents are read from the CD, and the version is displayed.
 5. Confirm the content shown. "Update OK?" appears in the display; press the [ENTER/YES] button of the update is to be performed. (Press the [EXIT/NO] button if abandoning the update.)
 6. The update begins.
 - * *Do not turn off the power while the update is in progress.*
 - When the update is finished, the message "Completed" is displayed, and the CD-R/RW drive tray automatically opens.
 7. When "Power Off" appears in the display, press the [POWER] button to turn off the power.



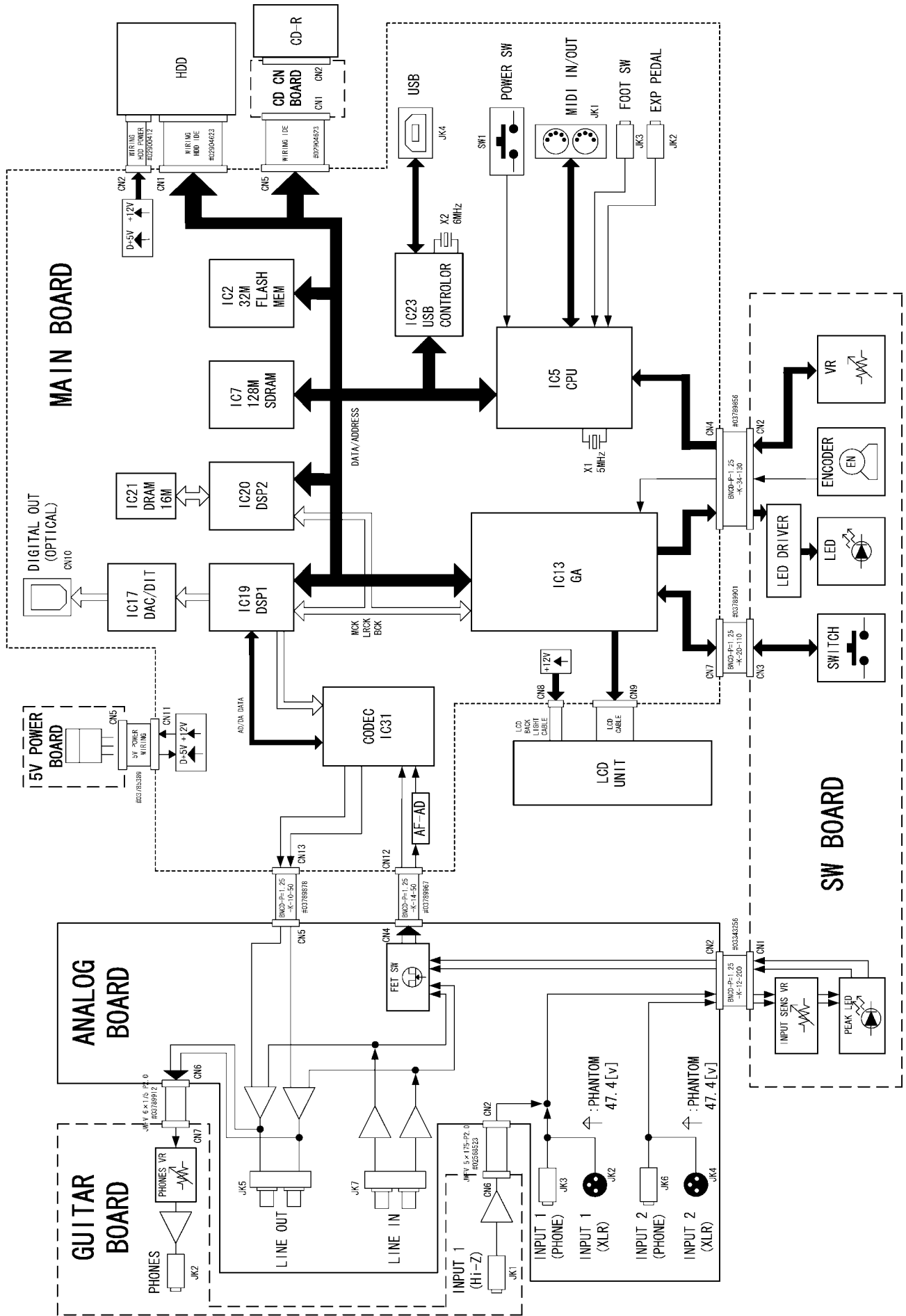
When you file the update procedure, please retry the update procedure.
(from 1st procedure)

Updating for SMF

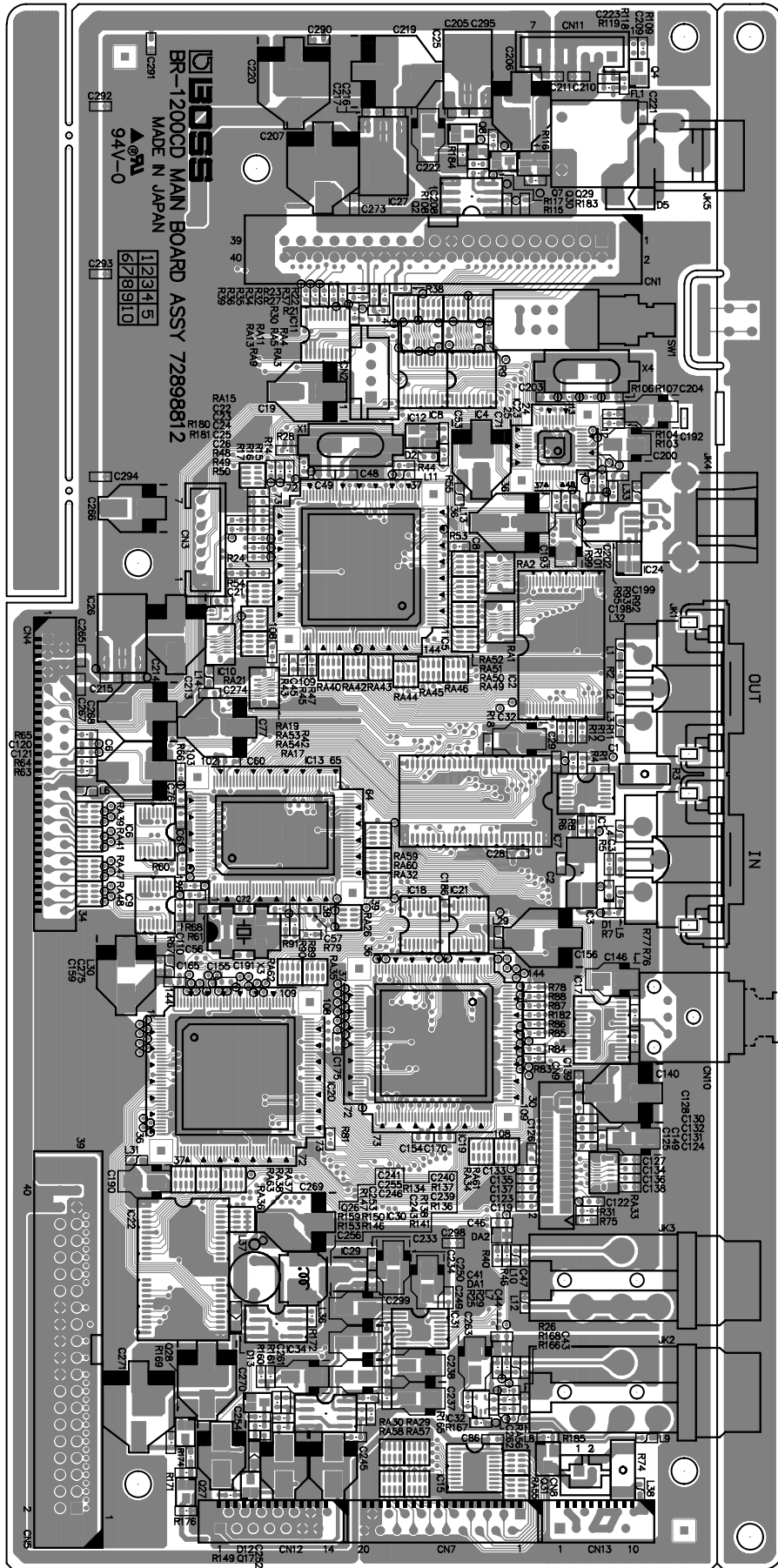
Required Items

- Update data CD-ROM for service (#17041569)
 - Sequencers(MC-80 etc.)
Please use if from CD-R, changing in to media for sequencers.
 - * *The SMF data contents of 64 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 (64 files) from the sequencer, etc.
 3. This work is repeated 64 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.

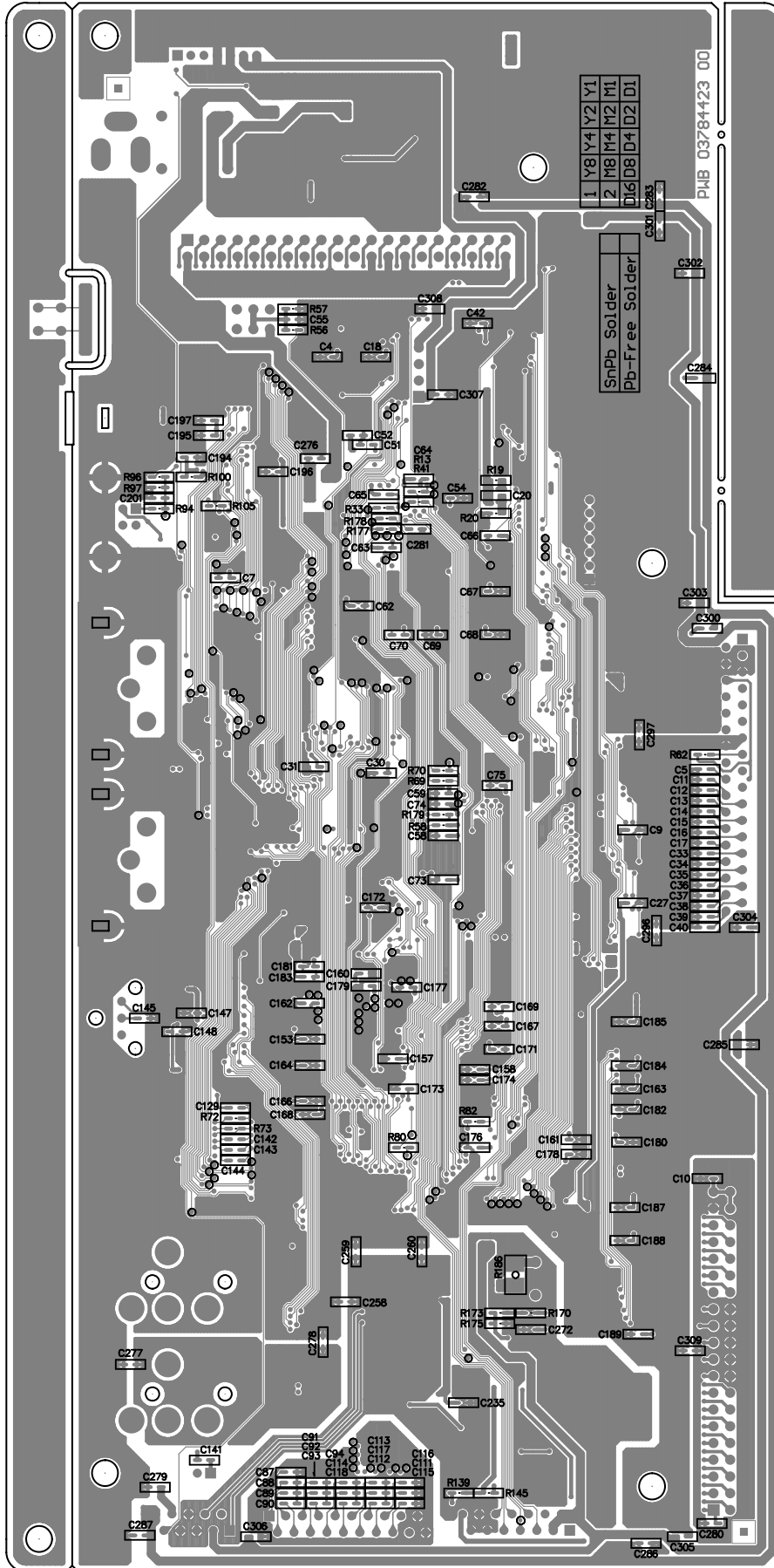
BLOCK DIAGRAM



CIRCUIT BOARD (MAIN BOARD)

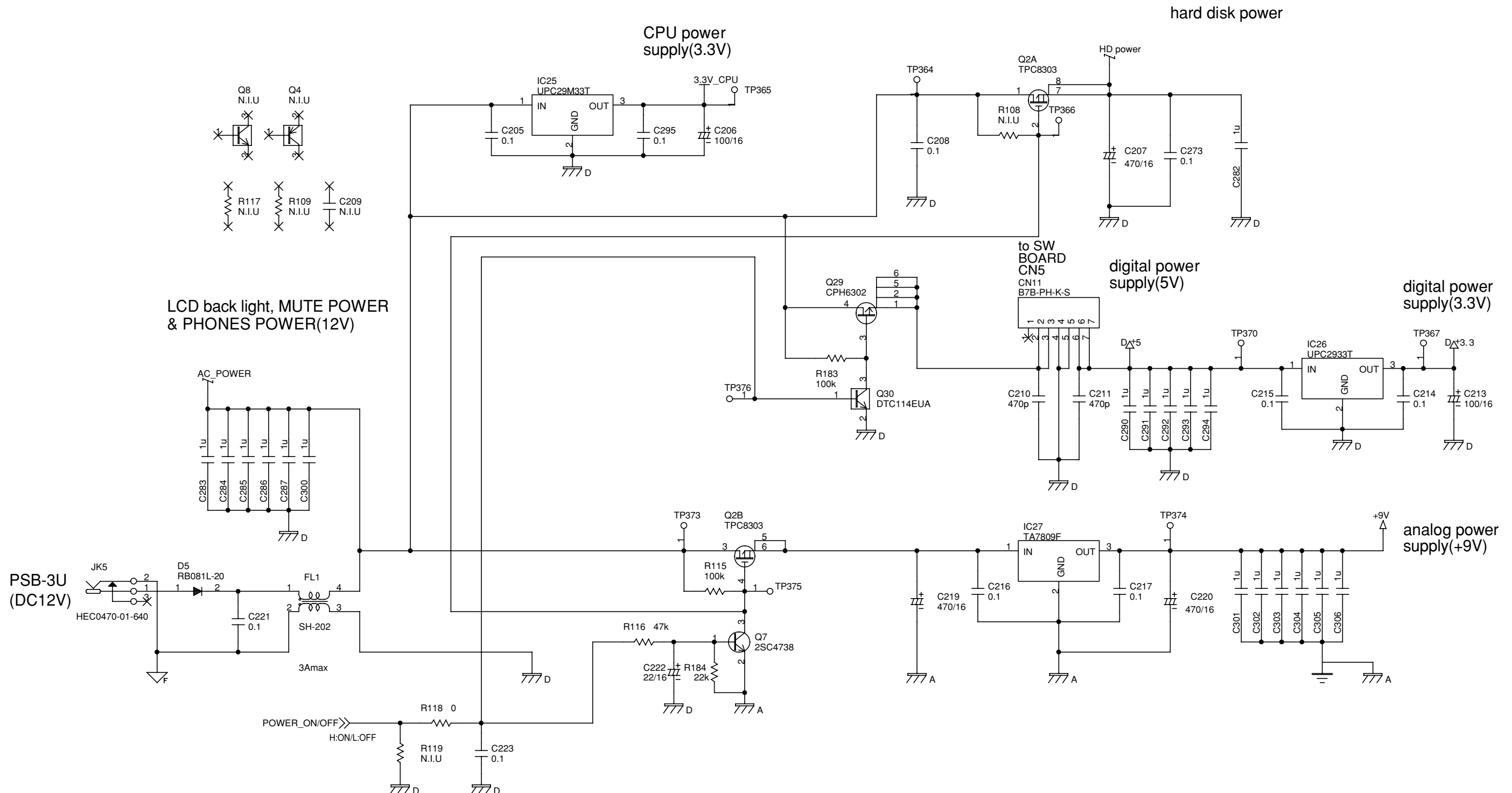


View from components side



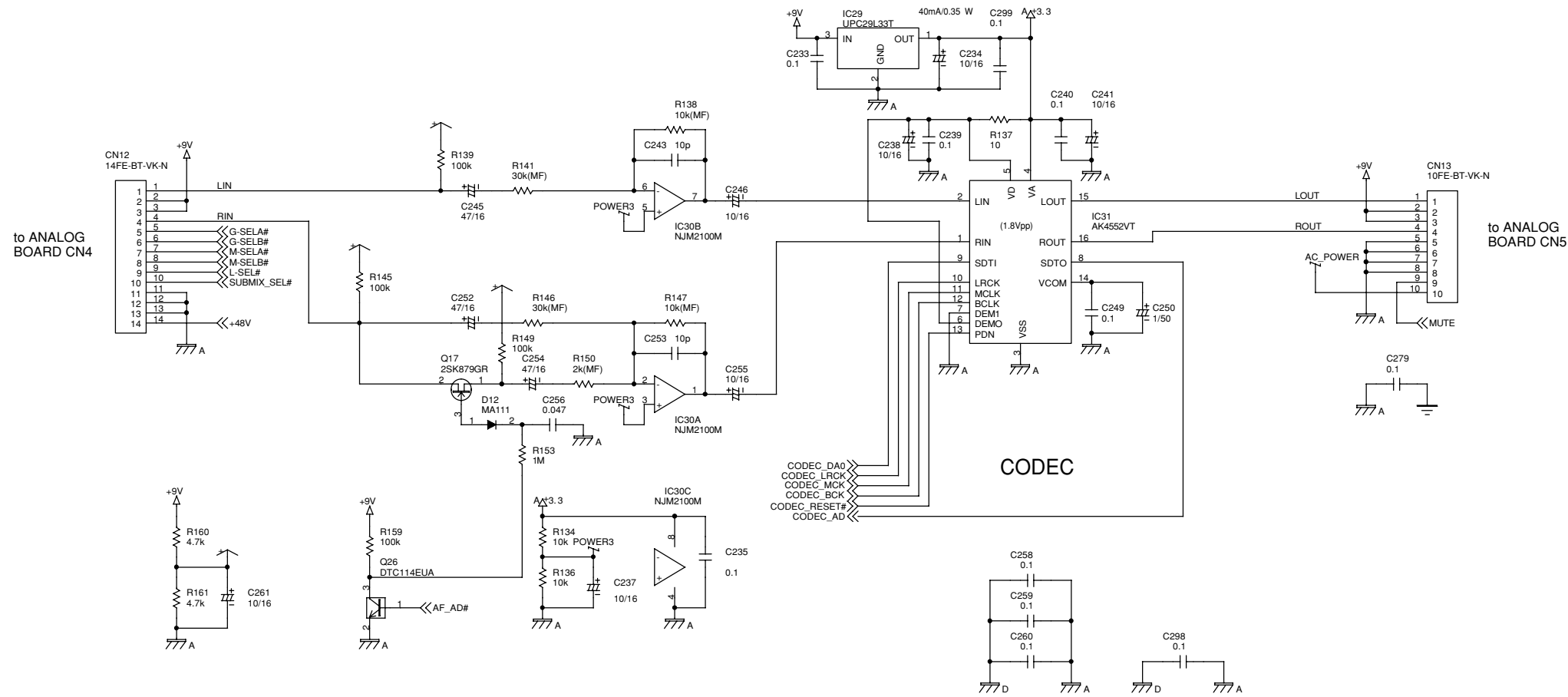
View from foil side

CIRCUIT DIAGRAM (MAIN BOARD POWER)



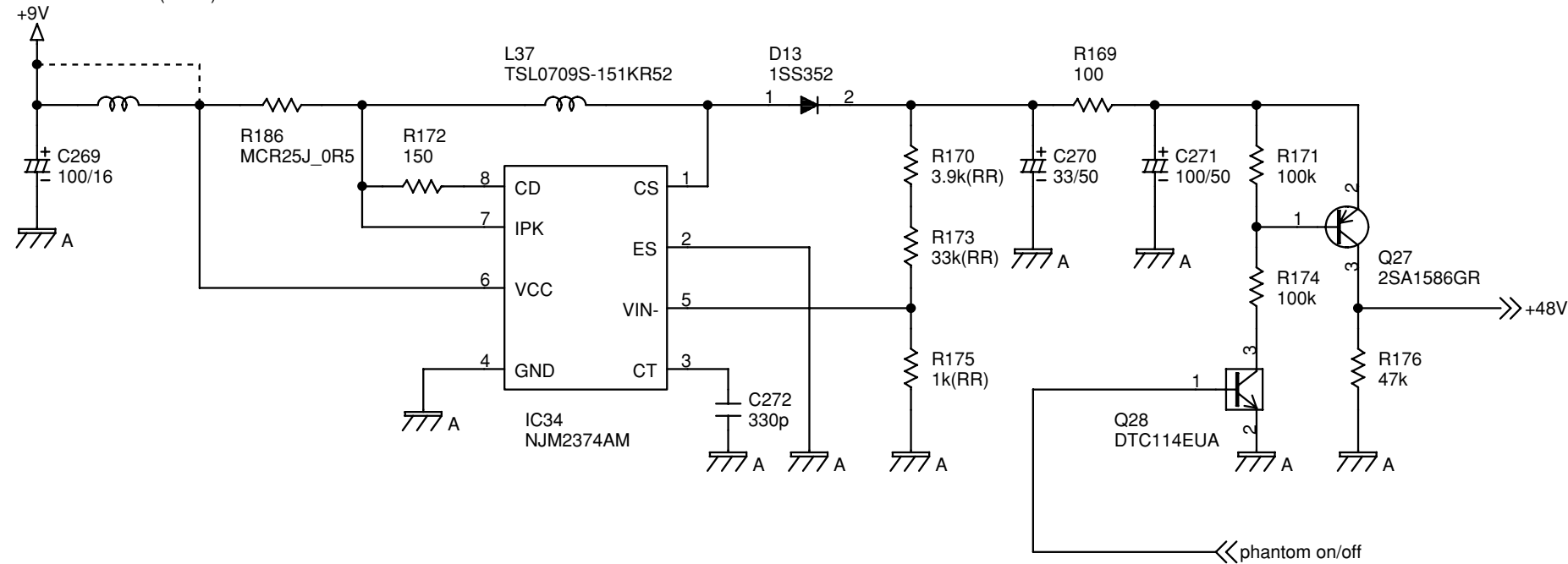
CPU power supply(3.3V):regulator
 digital power supply(3.3V):DC-DC convertor
 digital power supply(5V):DC-DC convertor
 analog power supply(+9V):regulator
 hard disk power & LCD back light supply(12V):AC adaptor direct

CIRCUIT DIAGRAM (MAIN BOARD ANALOG)

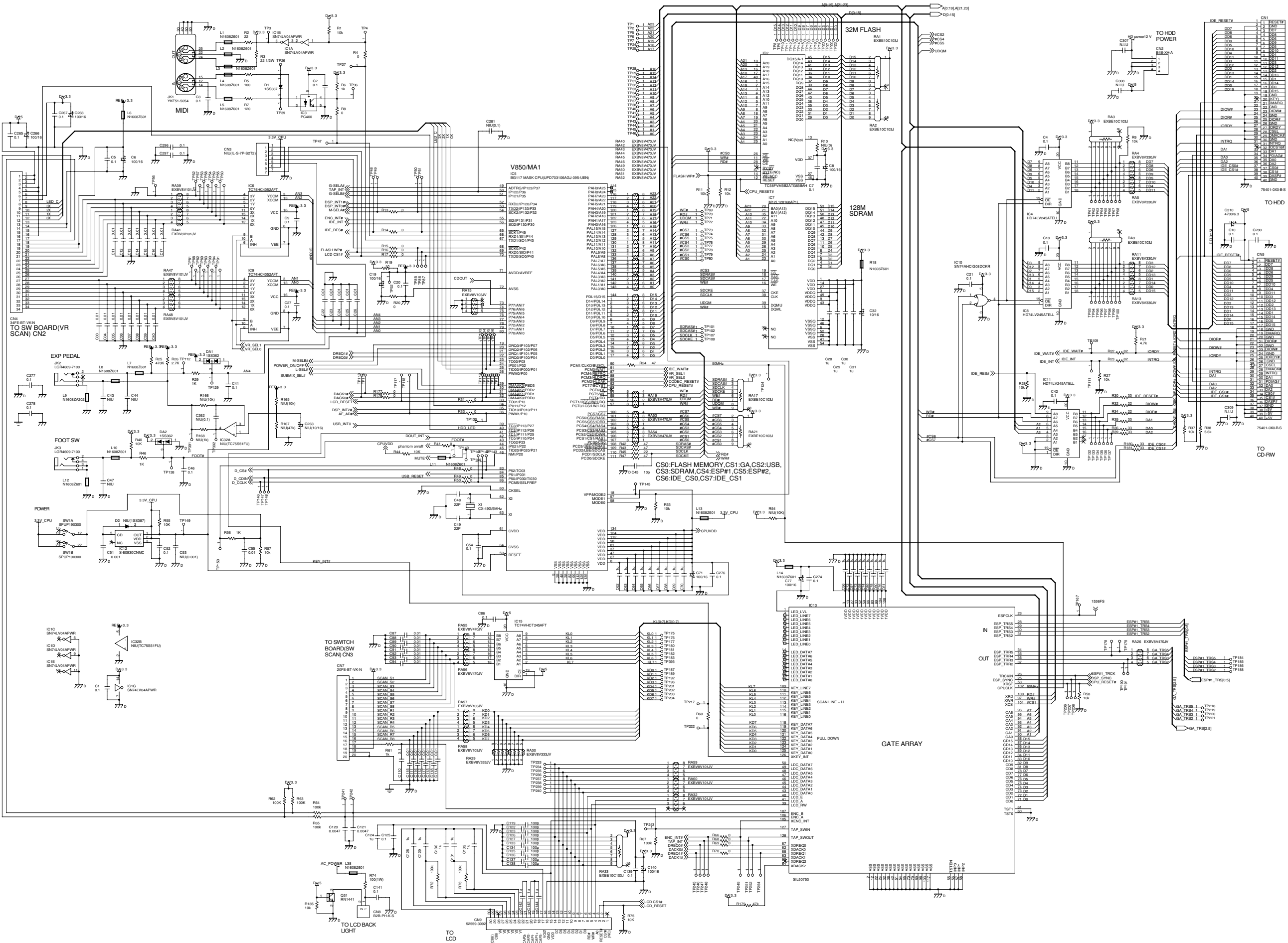


CIRCUIT DIAGRAM (MAIN BOARD PHANTOM)

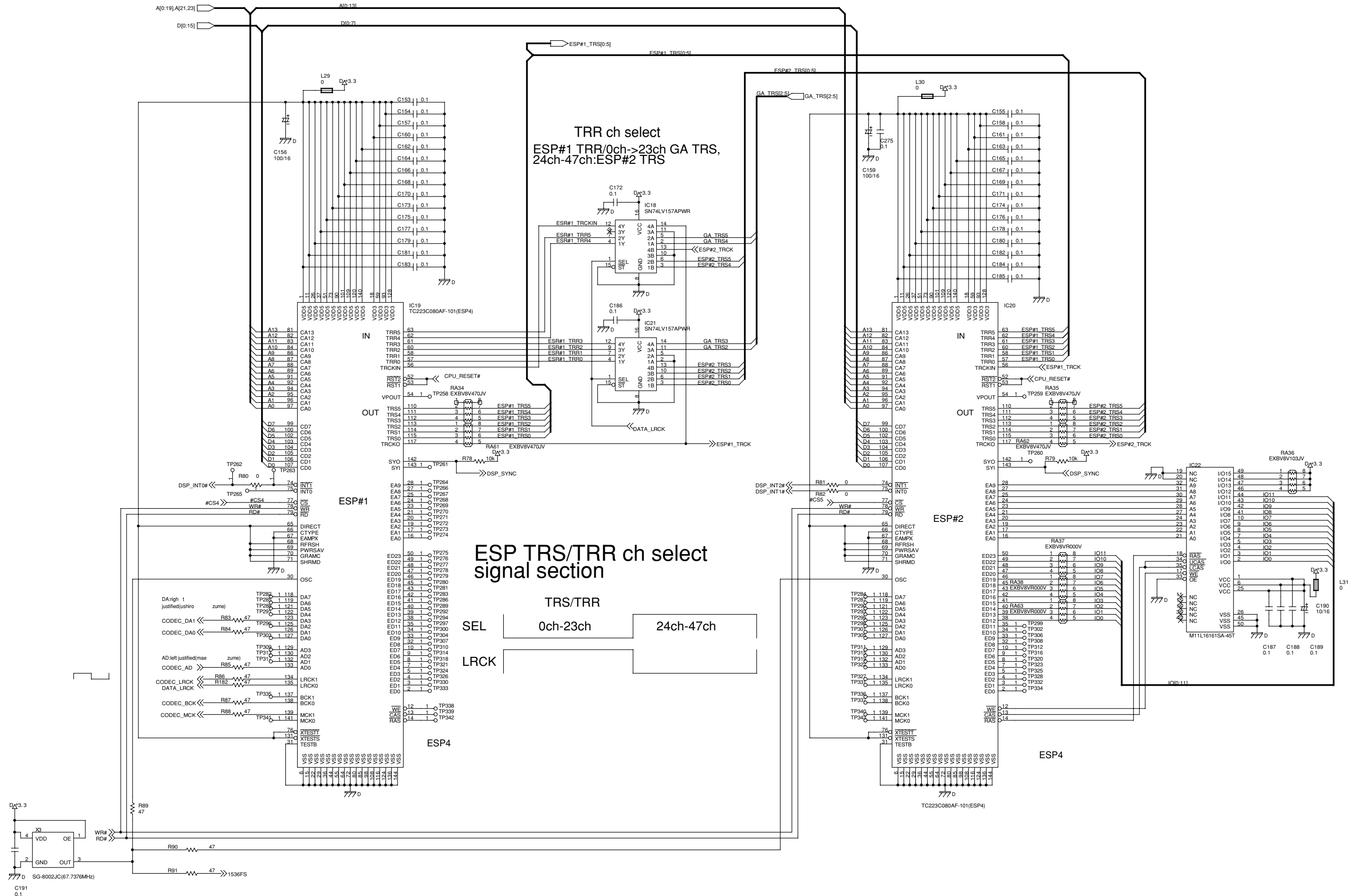
*1.00Lot~12.99Lot:ELL6SH2R7M(2.7uH)
 13.00Lot~:JUMPER
 L36
 ELL6SH2R7M(2.7uH)
 Or JUMPER(---)



CIRCUIT DIAGRAM (MAIN BOARD CPU)

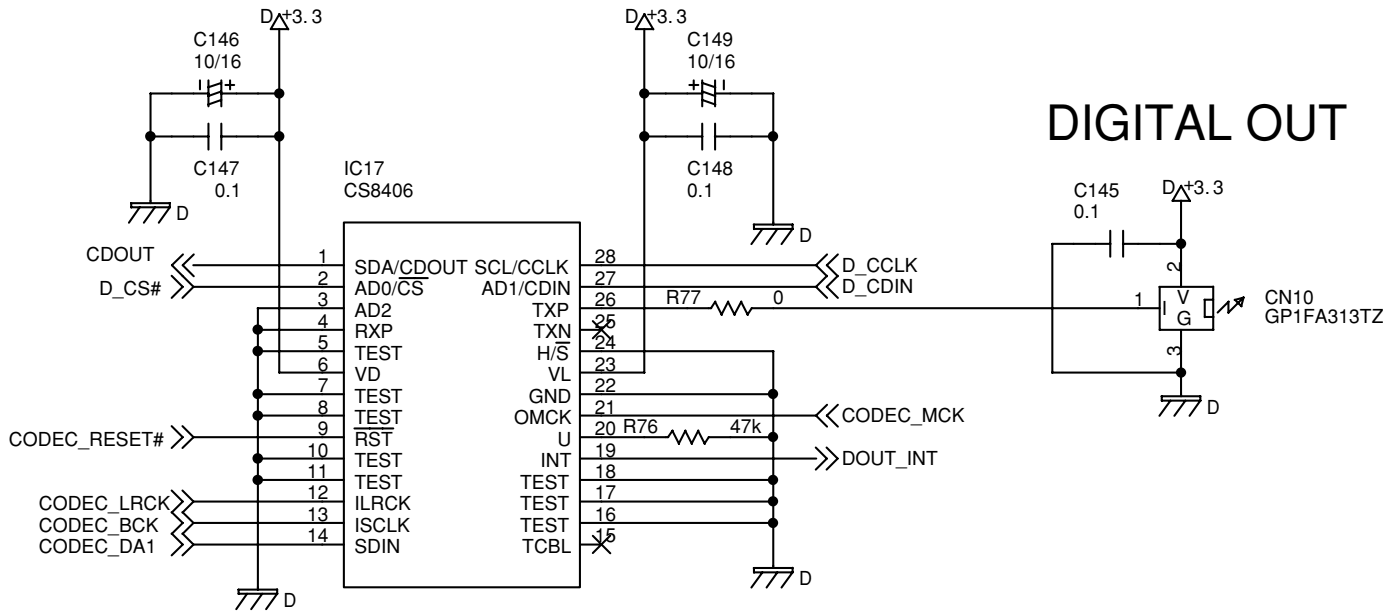


CIRCUIT DIAGRAM (MAIN BOARD DSP)

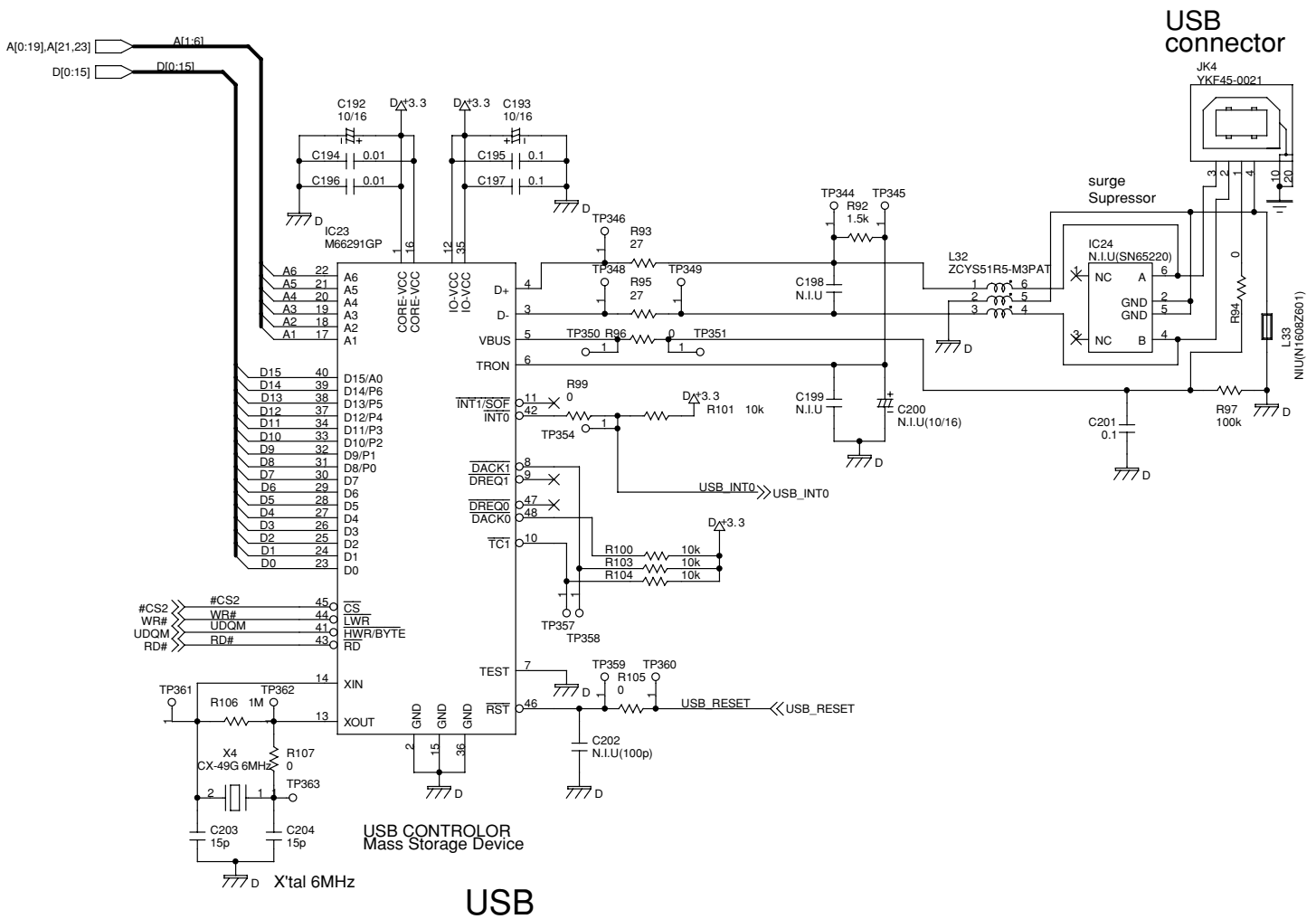


CIRCUIT DIAGRAM (MAIN BOARD DIGITAL OUT)

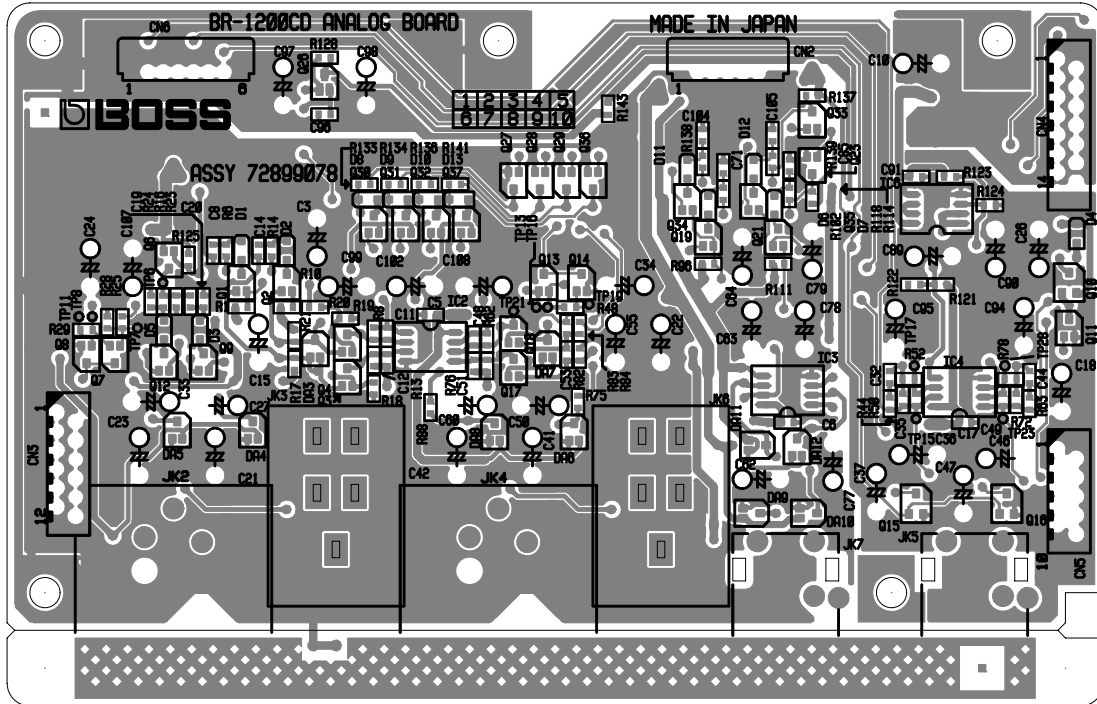
DAC/DIT



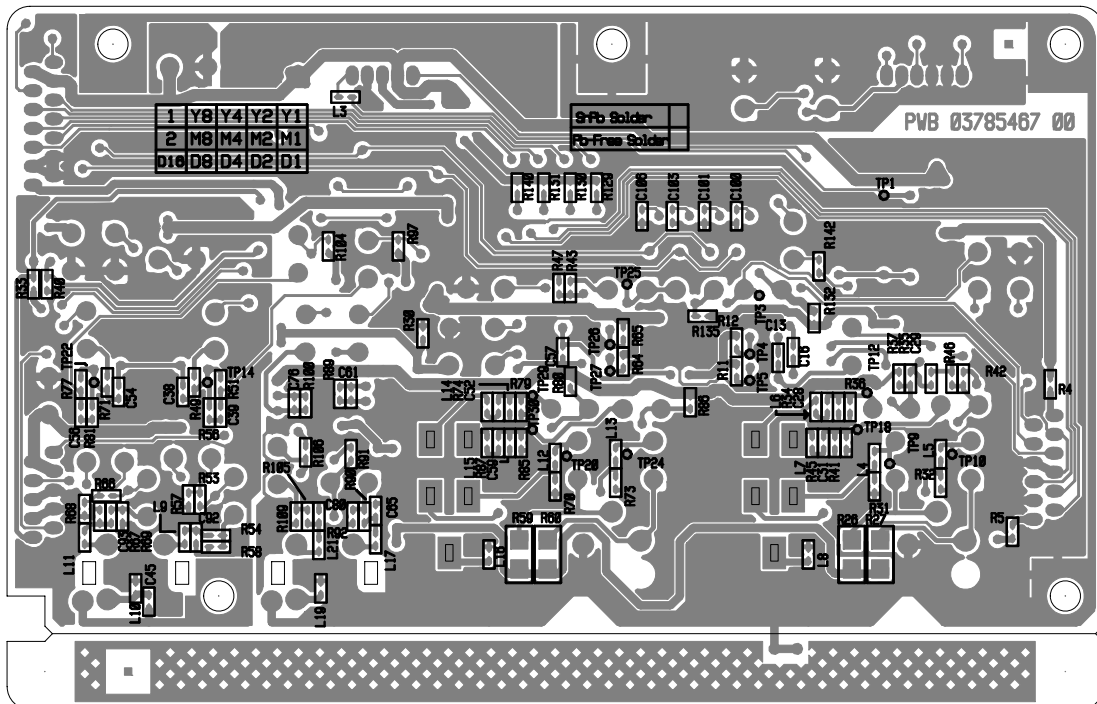
CIRCUIT DIAGRAM (MAIN BOARD USB)



CIRCUIT BOARD (ANALOG BOARD)

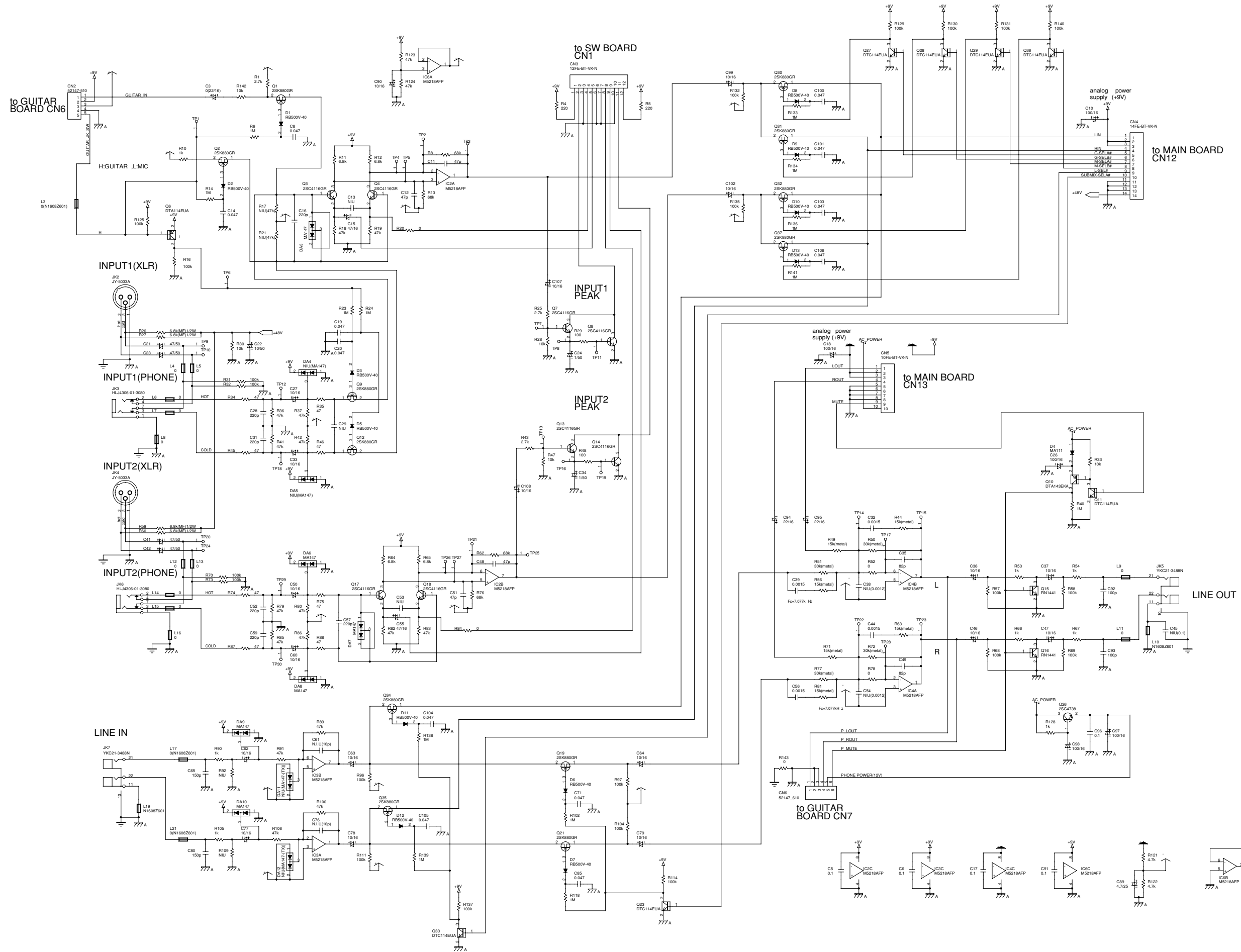


View from components side

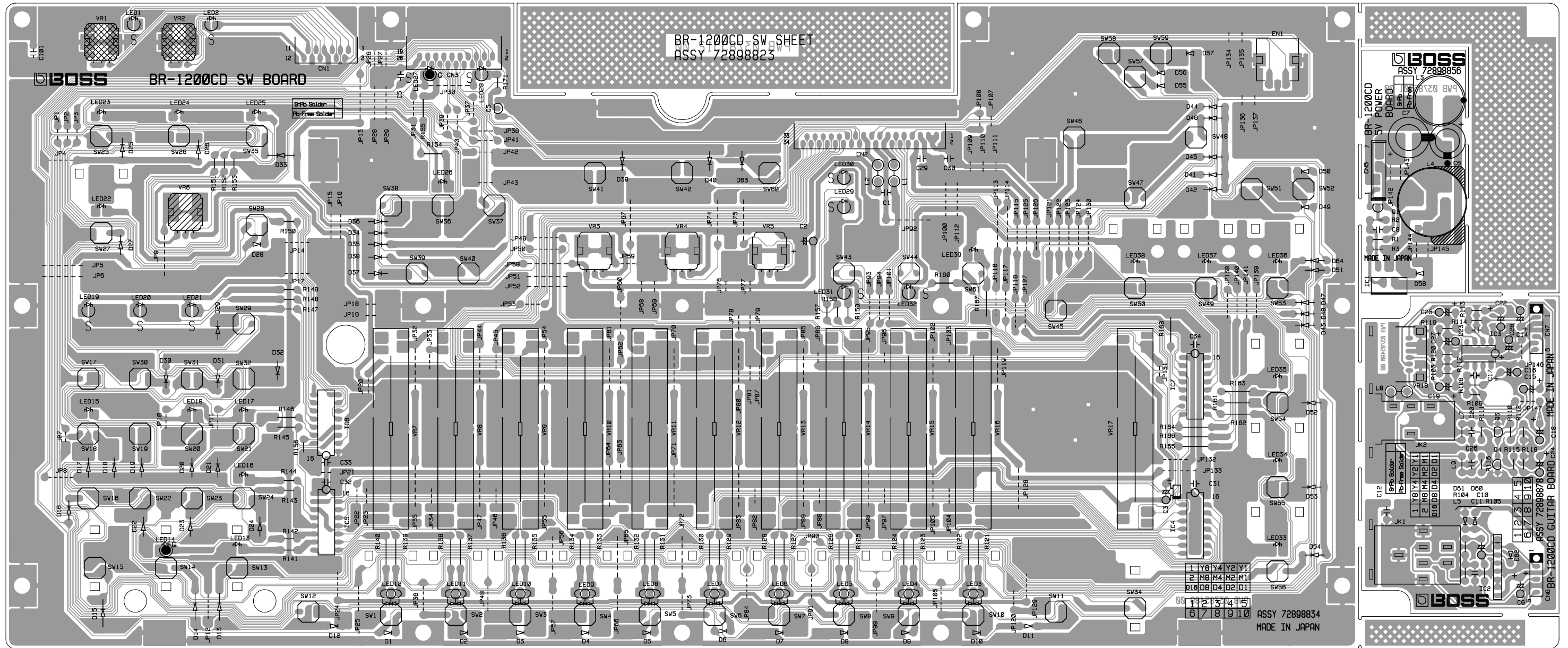


View from foil side

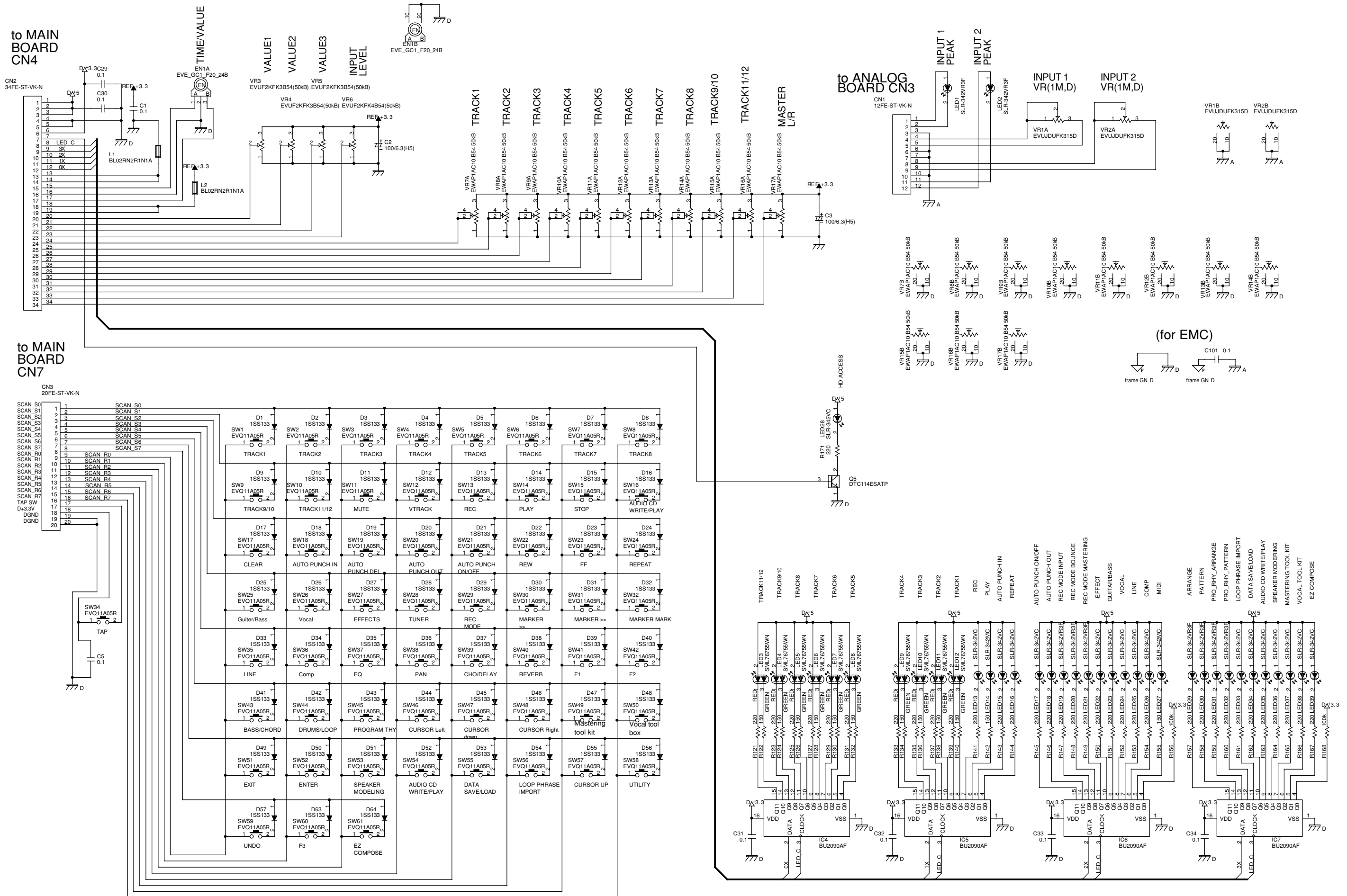
CIRCUIT DIAGRAM (ANALOG BOARD)



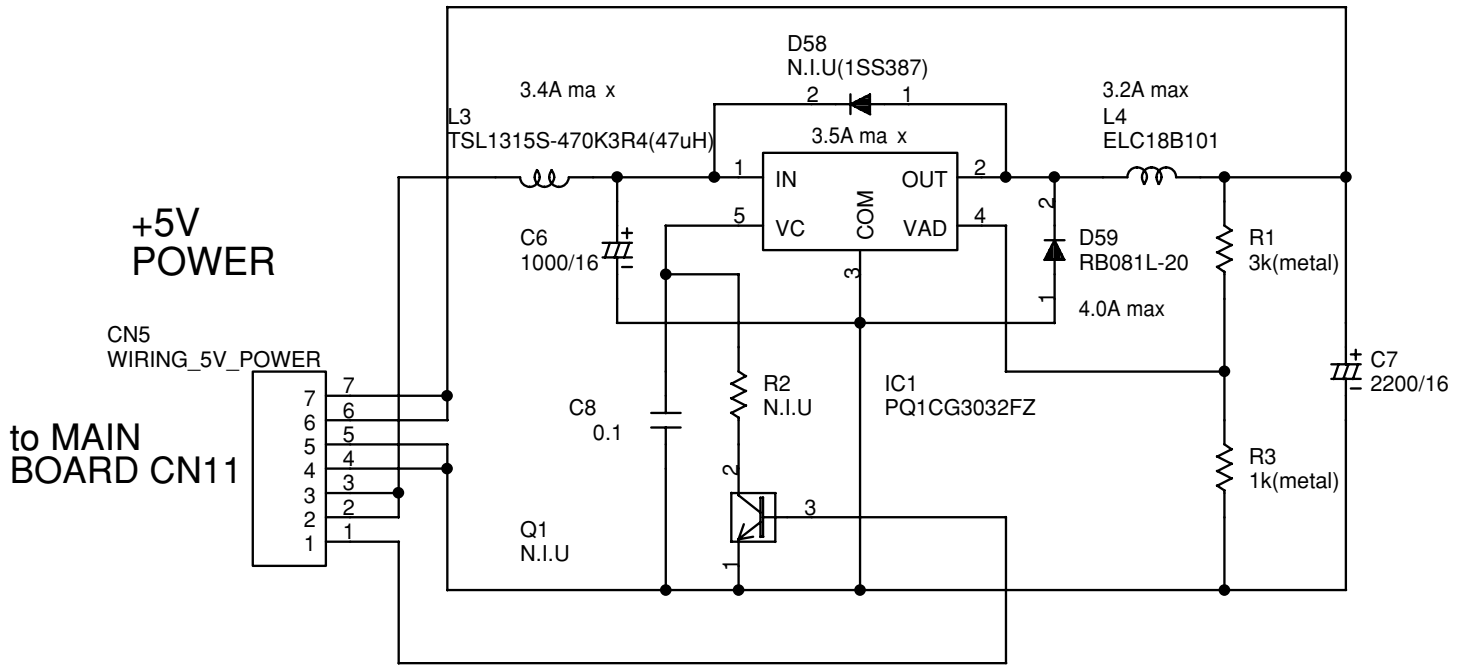
CIRCUIT BOARD (SW SHEET)



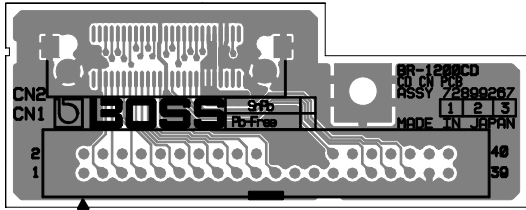
CIRCUIT DIAGRAM (SW SHEET, SW BOARD)



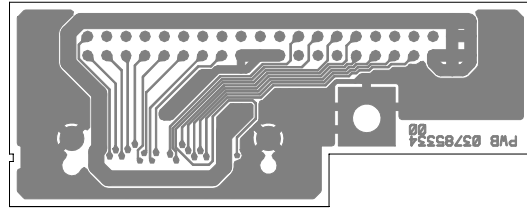
CIRCUIT DIAGRAM (SW SHEET,+5V POWER BOARD)



CIRCUIT BOARD (CD CN BOARD)

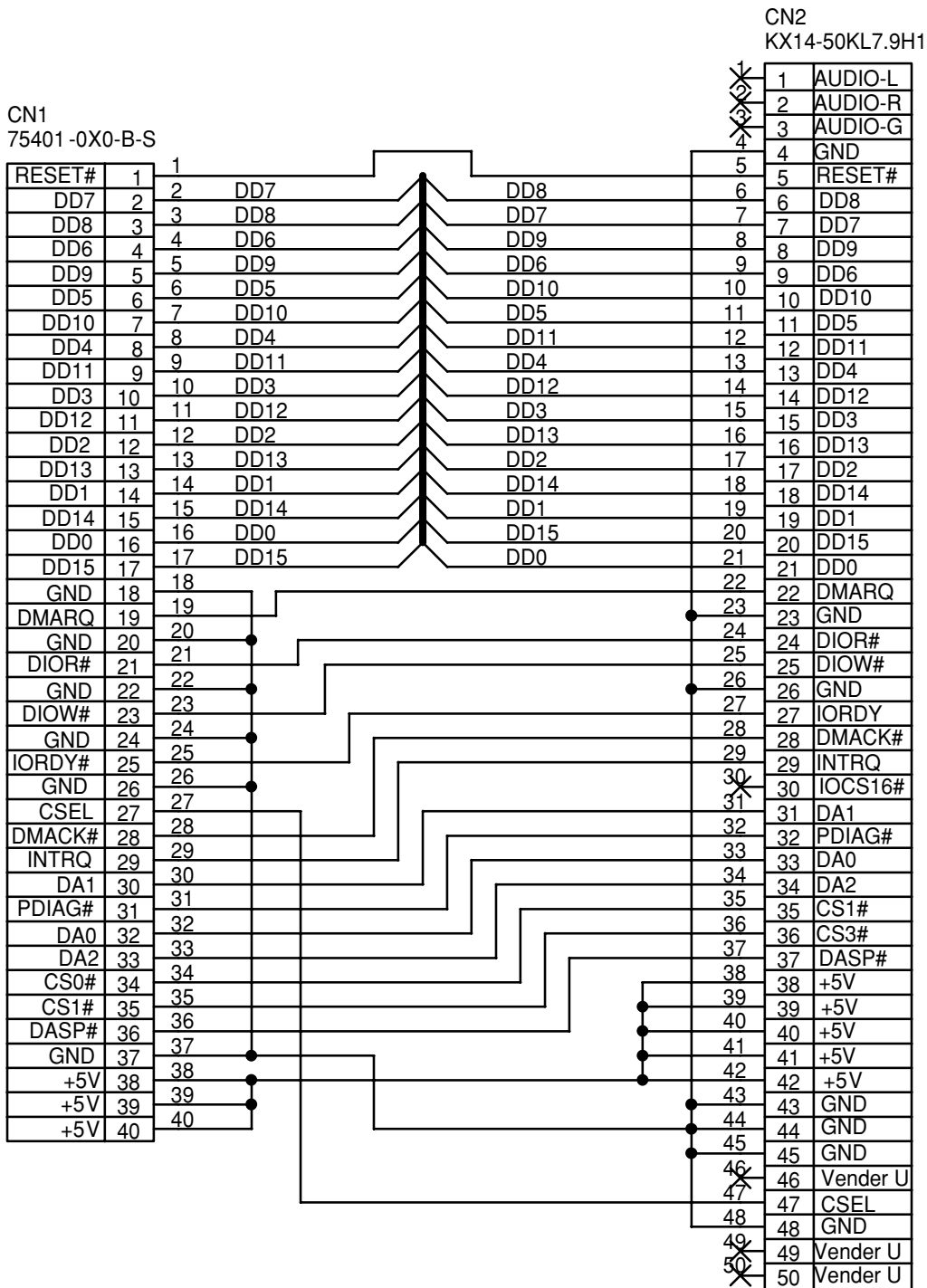


View from components side



View from foil side

CIRCUIT DIAGRAM (CD CN BOAR)



ERROR MESSAGES

Blank Disc!

Cause: Disc in the CD-R/RW drive contains no data.
Action: Load a CD-R/RW disc that has data written on it.

Cannot Punch In for CD-R/RW!

Cause: You attempted to press [REC] after you had already pressed [PLAY] when directly bouncing tracks to a CD-R/RW disc.
Action: To bounce tracks directly to a CD-R/RW disc, first press [REC] and then [PLAY].

Cannot Select Same Track!

Cause: You attempted to select the same track more than once during Track Edit, WAV/AIFF Export, or another procedure.
Action: Select a different track.

CD Full!

Cause 1: The CD-R/RW disc is full, and no more data can be written to it.
Action 1: Reduce the amount of data to be written, then try again.
Cause 2: When creating an audio CD, the total time of the tracks exceeds the capacity of the CD-R/RW disc.
Action 2: Reduce the number of songs to be written, then try again.

CD Read Error!

Cause: An error occurred while reading data from the CD-R/RW disc.
Action 1: This may be due to a low-quality or dated disc. Try using a new CD-R/RW disc.
Action 2: The CD-R/RW drive's pickup may be dirty. Try cleaning the pickup (p. 8).

CD Write Error!

Cause: An error occurred while writing data to the CD-R/RW disc.
Action 1: This may be due to a low-quality or dated disc. Try using a new CD-R/RW disc.
Action 2: The CD-R/RW drive's pickup may be dirty. Try cleaning the pickup (p. 8).

Clock Error!

Cause: Reception of the MIDI timing clock was interrupted during recording of the Sync Track.
Action: Make sure that the MIDI cable is connected correctly and check whether the external MIDI device was turned off during the recording process.

Data Too Large!

Cause 1: You attempted to import an SMF exceeding 250 KB.
Action 1: Prepare the SMF to be loaded so that it is no more than 250 KB.
Cause 2: You attempted to create a loop phrase using waveform data thirty minutes or longer.
Action 2: Use waveform data less than thirty minutes long.

Data Too Short!

Cause 1: You attempted to load a waveform file lasting 0.5 seconds or less.
Action 1: Prepare the waveform file so that it is longer than 0.5 seconds.
Cause 2: You attempted to write an audio CD with a track that is less than four seconds in length.
Action 2: Prepare tracks being written to audio CDs so that they are at least four seconds long.
Cause 3: You attempted to create a loop phrase using waveform data less than 0.5 seconds in length.
Action 3: Use waveform data that is at least 0.5 seconds long.

Data Type Not Supported!

Cause: You are attempting to load a file or disc in an incompatible format.
Action: Use a file in a compatible format.

Disc Not Ready!

Cause: There is no CD-R/RW disc in the drive.
Action: Place a CD-R/RW disc in the drive.

Drive Busy!

Cause: The data on the hard disk has become fragmented, causing delays in reading and writing data.
Action 1: Reduce the number of tracks that are played back simultaneously. Use track bouncing (or other means) to combine tracks, or erase or cut data from tracks which you do not need to play back, and then try the playback again.
Action 2: Reduce the number of tracks that are being recorded simultaneously.
Action 3: If using the drum and bass patterns or loop phrases, press the Track button, causing the button's indicator to go out.
Action 4: First, back up the data on the hard disk to a CD-R/RW disc, then after initializing the hard disk (p. 285), recover the data from the CD-R/RW disc.
In cases of unfavorable disk access conditions, such as when track editing, punch-in recording, etc. is used to connect phrases (musical data) of several seconds.

Event Memory Full!

Cause: The BR-1200CD has used up all the events that can be handled by one song.
Action: Perform the Song Optimize operation.

Finalized Disc!

Cause: Data has already been written to the CD-R/RW disc, and the data has been finalized.
Action: Place a CD-R/RW disc that has not been finalized in the drive.

HDD Damaged! Can't Access HDD.

Cause: Data could not be read from or written to the hard disk.
Action: There is a possibility that the hard disk has been damaged. Shut down the BR-1200CD as instructed and send it for repair.

HDD Full!

Cause: There is insufficient free space on the hard disk.
Action 1: Erase unneeded data.
Action 2: Perform the Song Optimize operation.

HDD Read Error!

Cause: An error occurred while reading data from the hard disk.
Action: The hard disk must be initialized.

HDD Write Error!

Cause: An error occurred while writing data to the hard disk.
Action: The hard disk must be initialized. Also, the song data you had been attempting to save will be lost.

Insert Disc #***!

Cause: During recovery of backup data located on multiple CD-R/RW discs, the disc of the requested number was not placed in the drive.
Action: Place the disc with the requested number in the drive.

Lack of Events!

Cause: It is not possible to execute Undo or Redo if fewer than 200 events remain.

Action: Perform the Song Optimize operation. (p. 112)

Marker Memory Full!

Cause: The BR-1200CD has used up all the marker memory (100 markers) that can be handled by one song.

Action: Delete unneeded markers.

Medium Error!

Cause: There is a problem with the CD-R/RW disc or hard disk. Alternatively, the disc on the CD-R/RW drive is unreadable.

Action 1: Confirm that the correct type of disc is placed in the CD-R/RW drive.

Action 2: Use a new CD-R/RW disc.

Action 3: Use the following procedure to initialize the hard disk.

MIDI Error!

Cause 1: Active Sensing is on, and it has detected that no MIDI message transmissions have taken place for more than approximately 400 ms.

Action 1: Check the external MIDI device connected to MIDI IN to make sure it is turned on, and that the settings are correct. Also, confirm that the MIDI cable has not been disconnected.

Cause 2: Processing has been overloaded due to high volumes of MIDI messages received from the external MIDI device.

Action 2: Reduce the amount of MIDI messages transmitted by the external MIDI device.

No Data!

Cause 1: You attempted to modify marker or scene data when none existed.

Cause 2: You attempted to UNDO an action on a track that does not contain any data.

Cause 3: You attempted to create an audio CD with no data in the tracks or songs, or you attempted to export a WAV or AIFF file.

Action: First create data.

No File!

Cause 1: During a USB import operation, no file was copied from the PC to the USB folder.

Action 1: Copy the file from the PC to the USB folder.

Cause 2: The copied file is not of WAV or AIFF format.

Action 2: Copy a file of WAV or AIFF format.

Not Blank Disc!

Cause: The CD-R/RW disc already has data written to it.

Action: Place a CD-R/RW disc with no data written to it (a blank disc) in the CD-R/RW drive.

If using a CD-RW disc, you can erase the data on the disc in order to create a blank disc (p. 237).

Not CD-RW Disc!

Cause: The disc is not a CD-R/RW disc, so the data cannot be erased.

Action: Use a CD-R/RW disc.

Pattern Memory Full!

Cause: The total number of sounds in the drum and bass patterns has exceeded 10,000.

Action: Delete unneeded patterns (p. 169, p. 182).

Protected Song!

Cause: Since Song Protect is ON, the operation cannot be executed.

Action: Turn Song Protect Off. (p. 113)

Select Track!

Cause: You attempted to execute a track editing operation without specifying the track to which the operation will apply.

Action: Specify the track, and then execute the editing operation.

Select Data!

Cause: The data or files upon which the operation is to be performed have not yet been specified.

Action: Select data or files and repeat the operation.

Set Location!

Cause: No target data or file has been selected yet.

Action: Select the data before continuing.

Stop Recorder!

Cause: The operation you attempted cannot be done while the recorder is running (playing or recording).

Action: Press [STOP] to stop playback or recording.

Sync Track Full!

Cause: All of the remaining memory was used up during the Sync Track recording process.

Action: No further recording will be possible. Reduce the recording time and repeat the recording process.

Too Many Songs!

Cause 1: The song creation operation would result in the number of songs exceeding 999.

Action 1: Erase unneeded songs (p. 111) and repeat the song creation process.

Cause 2: The import operation would result in the number of songs exceeding 999.

Action 2: Erase unneeded songs (p. 111) and repeat the song import operation.

Too Long Name!

Cause: The names of files and folders on the current CD-R/RW disc are too long.

Action: Add up the lengths of all file names and folder names, and then modify these names to reduce the total number of characters to 236 or less.

Too Many Tracks!

Cause: You attempted to write more than 99 tracks to the audio CD being created.

Action: Reduce the number of tracks you are writing to 99 or fewer tracks.

Wrong Disc!

Cause: A disc other than the required CD-R/RW disc is placed in the drive.

Action: Place a CD-R/RW disc in the drive.