SAMPLING UNIT

SU700

SERVICE MANUAL



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IMPOR TANT NOTICE

This manual has been provided for the use of authorized Yamaha Retailers and their service personnel. It has been assumed that basic service procedures inherent to the industry, and more specifically Yamaha Products, are already known and understood by the users, and have therefore not been restated.

WARNING : Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components and failure of the product to perform as specified. For these reasons, we advise all Yamaha product owners that all service required should be performed by an authorized Yamaha Retailer or the appointed service representative.

IMPORTANT : This presentation or sale of this manual to any individual or firm does not constitute authorization certification, recognition of any applicable technical capabilities, or establish a principal-agent relationship of any form.

The data provided is belived to be accurate and applicable to the unit(s) indicated on the cover. The research engineering, and service departments of Yamaha are continually striving to improve Yamaha products. Modifications are, therefore, inevitable and changes in specification are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

WARNING : Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground buss in the unit (heavy gauge black wires connect to this buss.)

IMPORTANT : Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

LITHIUM BA TTER Y HANDLING

This product uses a lithium battery for memory back-up.

WARNING : Lithium batteries are dangerous because they can be exploded by improper handling. Observe the following precautions when handling or replacing lithium batteries.

- Leave lithium battery replacement to qualified service personnel.
- Always replace with batteries of the same type.
- When installing on the PC board by soldering, solder using the connection terminals provided on the battery cells.
- Never solder directly to the cells. Perform the soldering as quickly as possible.
- Never reverse the battery polarities when installing.
- Do not short the batteries.
- Do not attempt to recharge these batteries.
- Do not disasemble the batteries.
- Never heat batteries or throw them into fire.

ADVARSEL!
Lithiumbatteri-Eksplosionsfare ved fejlagtig handtering. Udskiftning ma kun ske med batteri af samme fabrikat og type. lever det brugte batteri tilbage til leverandren.

VARNING
Explosionsfara vid felaktigt batteribyte.
Anvand samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren.
Kassera anvant batteri enligt fabrikantens instruktion.

VAROITUS
Paristo voi rajahtaa, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin.
Havita kaytetty paristo valmistajan ohjeiden mukaisesti.

The following information complies with Dutch official Gazette 1995. 45; ESSENTIALS OF ORDER ON THE COLLECTION OF BATTERIES.

- Please refer to the diassembly procedure for the removal of Back-up Battery.
- Leest u voor het verwijderen van de backup batterij deze beschrijving.

WARNING: CHEMICAL CONTENT NOTICE!

The solder used in the production of this product contains LEAD. In addition, other electrical/electronic and/or plastic (Where applicable) components may also contain traces of chemicals found by the California Health and Welfare Agency (and possibly other entities) to cause cancer and/or birth defects or other reproductive harm.

DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHAT SO EVER!

Avoid prolonged, unprotected contact between solder and your skin! When soldering, do not inhale solder fumes or expose eyes to solder/flux vapor!

If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

WARNING

Components having special characteristics are marked ⚠ and must be replaced with parts having specification equal to those originally installed.

■ SPECIFICATIONS

1. Sequencer

Memory	Approx. 32,000 notes (no backup)
Tempo (BPM)	40.0 to 299.9 (Accurate to 1 decimal place)
Recording Method	Realtime
Synchronization	Internal, MIDI sync, MTC slave
Tracks	42 tracks (10 sample tracks/bank x 4 banks; plus one AUDIO IN track and one MASTER track)
Songs	Holds up to 20 songs.

2. Tone Generator Section

Tone generation method	AWM2
Maximum polyphony	64
Data formats	16-bit linear, 8-bit linear
Signal processing	Stereo sampling supported. A/D 18-bit D/A 18-bit
Sampling frequencies	If analog input: 44.1, 22.05, or 11.025 kHz (Results can be monitored at any frequency prior to recording.) If digital or optical input: 48.0 or 32.0 kHz
Sampling wave memory:	4MB RAM (standard)
Sampling time (with standard 4MB RAM)	At 44.1 kHz, stereo, 16-bit res.: 22.3 sec. At 22.05 kHz, mono, 16-bit res.: 89.3 sec. At 11.025 kHz, mono, 8-bit res.: 357.2 sec.
Effect types	43
Multi-effector	Can apply up to three effects at once. Can be applied directly to analog input.

3. Data Storage

Internal drive	Floppy drive (accepts 2HD [1.44MB] and 2DD [720KB] disks)

4. User Interface

Display	Custom 4-color flourescent (FL) display 16-alphanumeric display area; segment display area; custom display area
Pads	12 pads (8 pads are touch [velocity] sensitive)
Knobs	12 rotary-encoder knobs (non-click type)
Ribbon controller	1

5. Connection Terminals

Line Out	L/MONO and R (standard jacks)
Line/Mic In	L and R (standard jacks)
Headphones	Stereo jack (High output level)
MIDI	MIDI IN and MIDI OUT
AC inlet	

6. Power Ratings

US: 120V, 30W
Europe: 220V to 240V, 30W
UK 220V to 240V, 30W

7. Dimensions

363(w) x 310 (d) x 115 (h) [mm]
14.3(w) x 12.2 (d) x 4.5 (h) [inches]

8. Weight

6.0 kg [13.2 lb]

9. Included Accessories

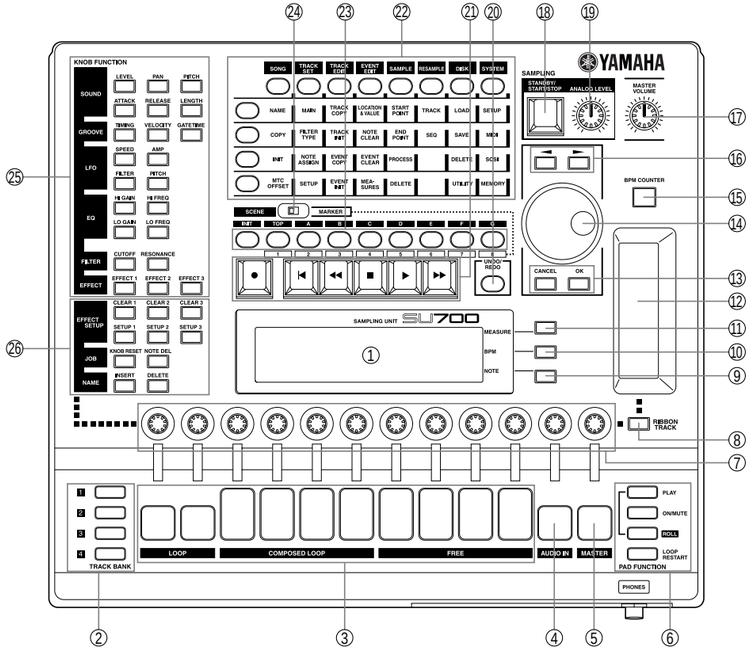
User's manual, power cord, CD (SU700 Sampling Audio), floppy disk (with demo song); 40-pin flat cable and 3-wire cable for use with optional AIEB1 board (I/O expansion board)

10. Options

Wave memory	Maximum 68MB, installed as paired modules of 4MB, 8MB, 16MB, or 32MB capacity. [FAST PAGE/EDO; with or without parity. ECC is not supported.]
SCSI	Accepts SCSI interface board. Board enables connection to Yamaha-approved external SCSI drives.
Expansion I/O	Option board includes SPDIF digital IN/OUT, optical IN/OUT, six "assignable" analog output jacks

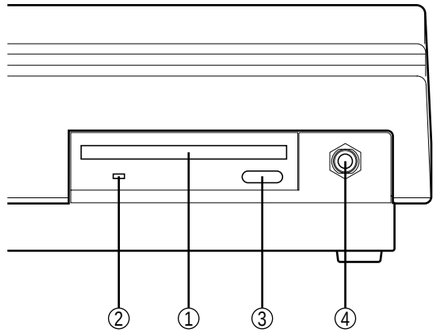
■ PANEL LAYOUT

• Main Panel



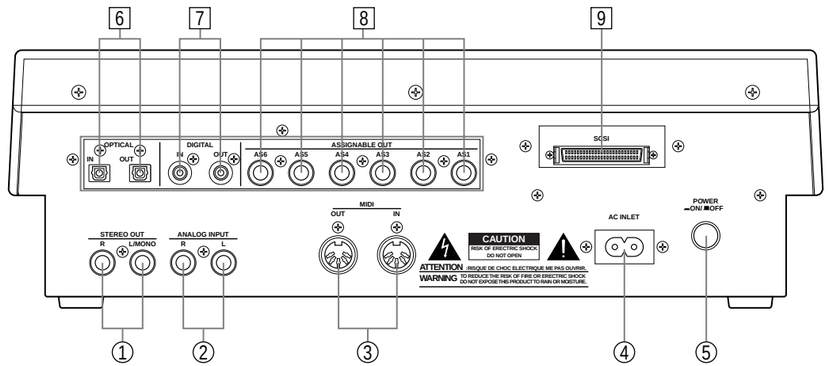
① Display
② TRACK BANK Selectors
③ Sample Track Pads
④ AUDIO IN Track Pad
⑤ MASTER Track Pad
⑥ PAD FUNCTION Selectors
⑦ Knobs
⑧ [RIBBON TRACK] Button
⑨ NOTE Display and Button
⑩ BPM Display and Button
⑪ MEASURE Display and Button
⑫ Ribbon Controller
⑬ [CANCEL] and [OK] Buttons
⑭ Dial
⑮ [BPM COUNTER] button
⑯ Cursor Buttons (◁ and ▷)
⑰ MASTER VOLUME Knob
⑱ SAMPLING: STANDBY/START/STOP Button ([SAMPLING] button)
⑲ SAMPLING: ANALOG LEVEL Knob
⑳ [UNDO/REDO] Button
㉑ Sequencer Controls
㉒ Job Grid
㉓ [SCENE/MARKER] Buttons
㉔ SCENE/MARKER Switch
㉕ KNOB FUNCTION Panel
㉖ Edit Function Panel

• Front Panel



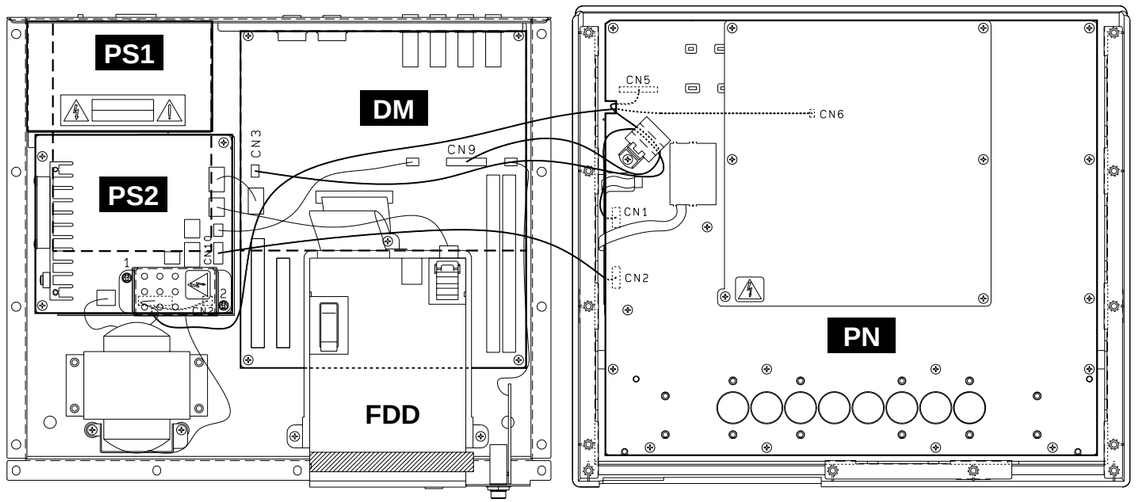
① Floppy-Drive Slot
② Floppy Eject Button
③ Floppy Access Lamp
④ Headphone Jack

• Rear Panel



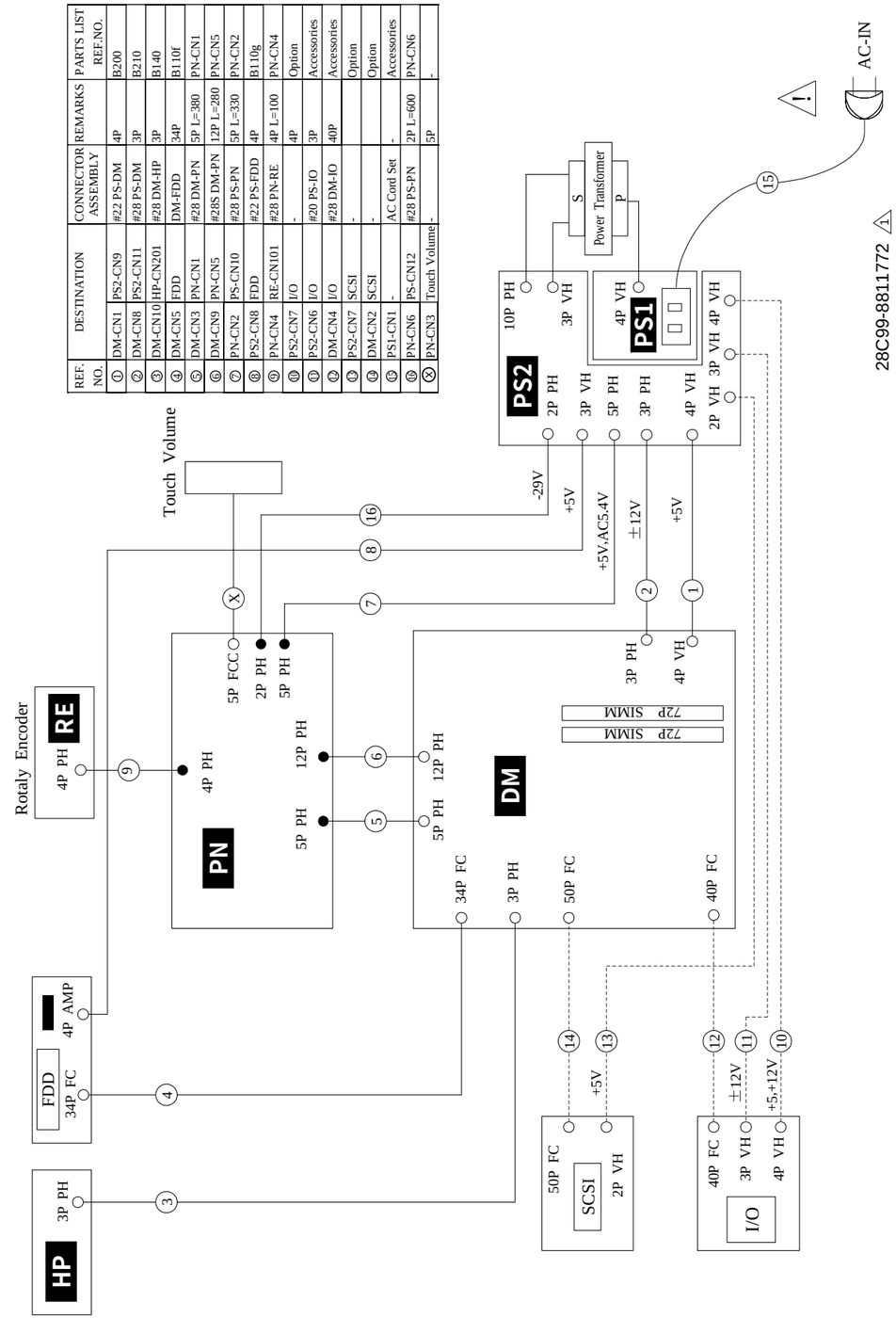
① STEREO OUT Jacks
② ANALOG INPUT Jacks
③ MIDI Connectors
④ AC Inlet
⑤ POWER Switch
<If AEIB1 option board is installed>
6 OPTICAL IN/OUT connectors
7 DIGITAL IN/OUT connectors
8 ASSIGNABLE analog output jacks
<If ASIB1 option board is installed>
9 SCSI connector

■ CIRCUIT BOARD LAYOUT

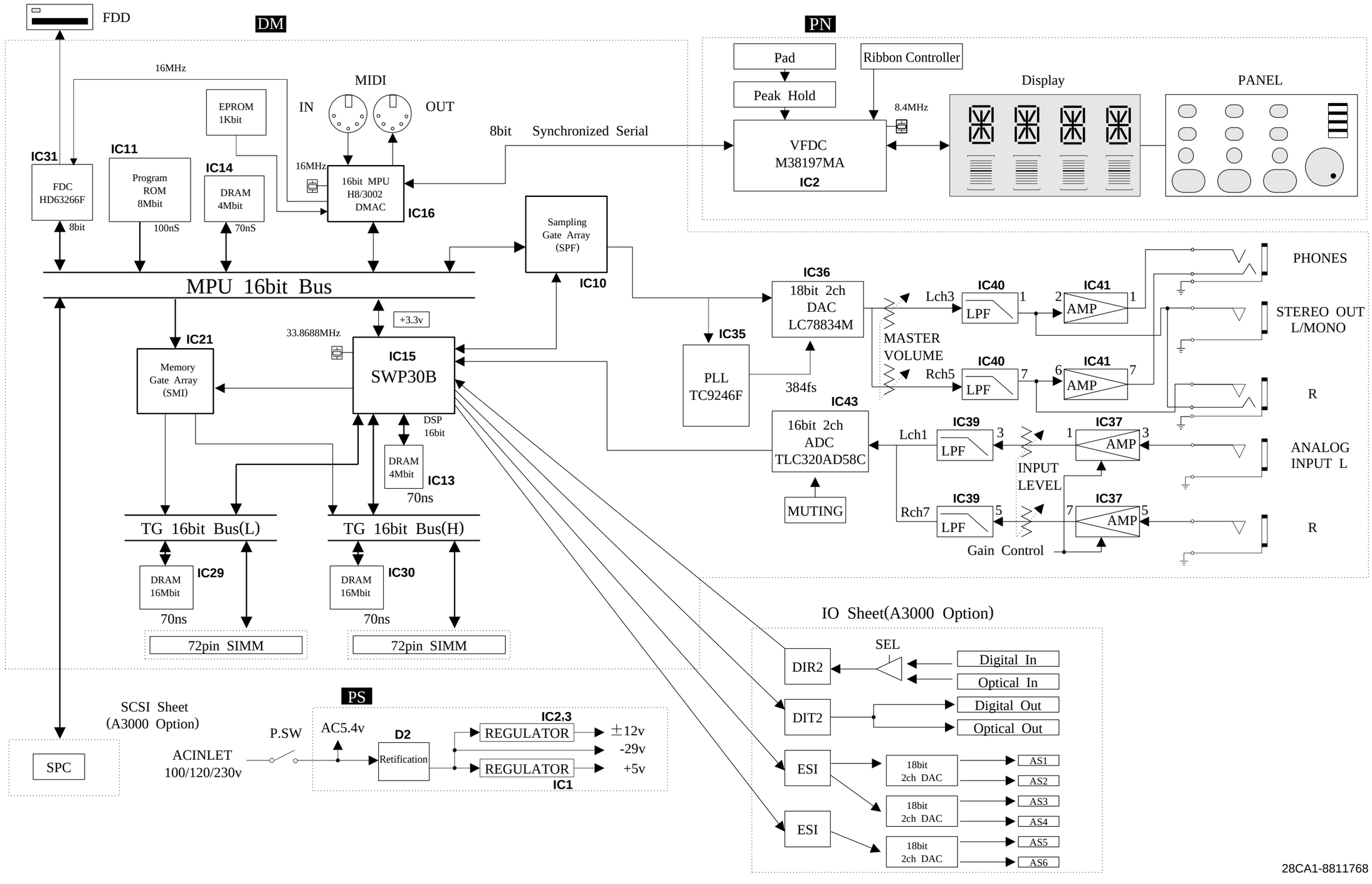


■ WIRING

REF. NO.	DESTINATION	CONNECTOR ASSEMBLY	REMARKS	PARTS LIST REF.NO.
①	DM-CN1	PS2-CN9	#22 PS-DM	4P	B200
②	DM-CN8	PS2-CN11	#28 PS-DM	3P	B210
③	DM-CN10	HP-CN201	#28 DM-HP	3P	B140
④	DM-CN5	FDD	DM-FDD	34P	B110f
⑤	DM-CN3	PN-CN1	#28 DM-PN	5P L=380	PN-CN1
⑥	DM-CN9	PN-CN5	#28S DM-PN	12P L=280	PN-CN5
⑦	PN-CN2	PS-CN10	#28 PS-PN	5P L=330	PN-CN2
⑧	PS2-CN8	FDD	#22 PS-FDD	4P	B110g
⑨	PN-CN4	RE-CN101	#28 PN-RE	4P L=100	PN-CN4
⑩	PS2-CN7	I/O	-	4P	Option
⑪	PS2-CN6	I/O	#20 PS-IO	3P	Accessories
⑫	DM-CN4	I/O	#28 DM-IO	40P	Accessories
⑬	PS2-CN7	SCSI	-		Option
⑭	DM-CN2	SCSI	-		Option
⑮	PS1-CN1	-	AC Cord Set	-	Accessories
⑯	PN-CN6	PS-CN12	#28 PS-PN	2P L=600	PN-CN6
Ⓧ	PN-CN3	Touch Volume	-	5P	-



BLOCK DIAGRAM



■ DISASSEMBLY PROCEDURE

1. Top Cover

1-1 Pull out the twelve (12) FUNCTION knobs marked [50], [60], [70], [80], the ANALOG LEVEL knob marked [90], the MASTER VOLUME knob marked [100] and the encoder knob marked [110]. (Fig. 1)

1-2 Remove the three (3) screws marked [30] (▲). (Fig. 2)

1-3 Place the main unit upside down and remove the twelve (12) screws marked [40] (▲). (Fig. 3)

1-4 Replace the main unit and open the left side of the panel, leaving the right side as fulcrum.

✻ The cables are located together in the main unit on the right side.

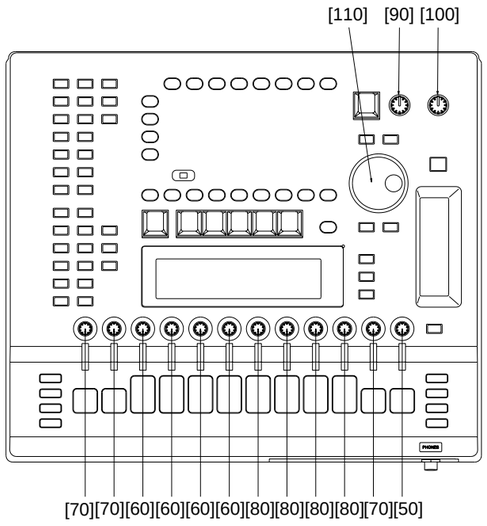
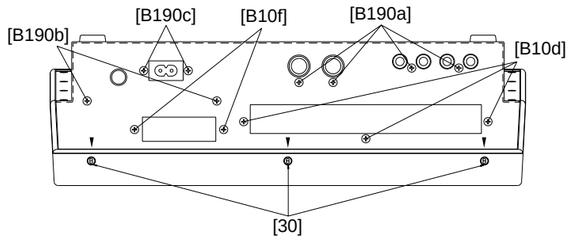
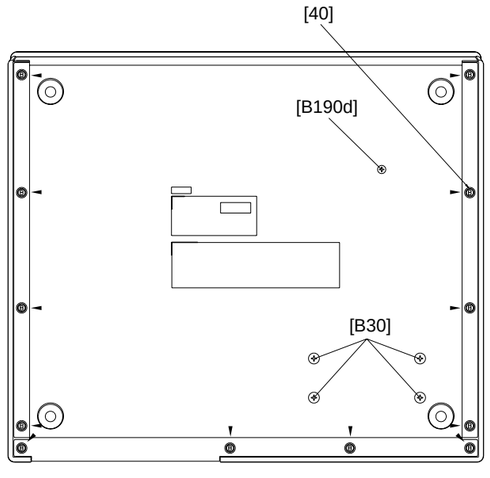


Fig.1



[30]: Bind Head Tapping Screw-B 3.0X8 MFZN2BL (EP600190)
[B10]: Bind Head Screw 3.0X6 MFNI33 (EG330370)
[B190]: Bind Head Tapping Screw-B 3.0X8 MFZN2BL (EP600190)

Fig.2**(図2)**



[40]: Bind Head Tapping Screw-B 4.0X8 MFZN2BL (EG340190)
[B30]: Bind Head Tapping Screw-B 4.0X8 MFZN2BL (EG340190)
[B190]: Bind Head Tapping Screw-B 3.0X8 MFZN2BL (EP600190)

Fig.3

2. PN Circuit Board

2-1 Remove the top cover (See Procedure 1.)

2-2 Remove the six (6) screws marked [110A], remove the sixteen (16) screws marked [110B] and the screw marked [125]. (Fig. 4)

2-3 Remove the ribbon film cable of the PN circuit board.

✻ When installing the PN circuit board, tighten in the order of 1 to 17.

✻ When installing the PN cover marked [105], tighten the screws in the order of A1 to A6.

3. IO Circuit Board

3-1 Remove the top cover. (See Procedure 1.)

3-2 Remove the three (3) screws marked [B10d]. The IO circuit board can then be removed with the angle. (Fig. 2)

4. SCSI Circuit Board

4-1 Remove the top cover. (See Procedure 1.)

4-2 Remove the two (2) screws marked [B10f]. The SCSI circuit board can then be removed with the angle. (Fig. 2)

5. FDD Assembly

5-1 Remove the top cover. (See Procedure 1.)

5-2 Remove the IO circuit board. (See Procedure 3.)

5-3 Remove the three (3) screws marked [B120]. The FDD assembly can then be removed. (Fig. 5)

6 DM Circuit Board

6-1 Remove the top cover. (See Procedure 1.)

6-2 Remove the IO circuit board. (See Procedure 3.)

6-3 Remove the FDD assembly. (See Procedure 5.)

6-4 Remove the four (4) screws marked [B190a] and the five (5) screws marked [B100]. The DM circuit board can then be removed. (Fig. 2, Fig. 5)

7. PS2 Circuit Board

7-1 Remove the top cover. (See Procedure 1.)

7-2 Remove the IO circuit board. (See Procedure 3.)

7-3 Remove the SCSI circuit board. (See Procedure 4.)

7-4 Remove the three (3) screws marked [B80] and the two (2) screws marked [26]. The PS2 circuit board can then be removed. (Fig. 5)

8. PS1 Circuit Board

8-1 Remove the top cover. (See Procedure 1.)

8-2 Remove the SCSI circuit board. (See Procedure 4.)

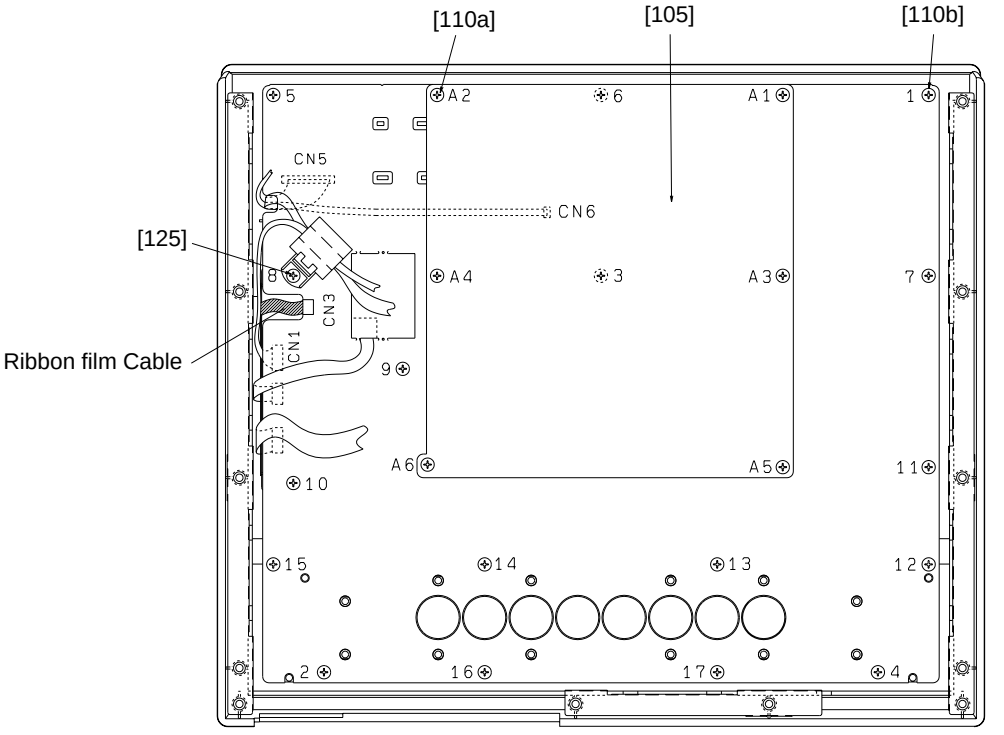
8-3 Remove the screw marked [B190d] and the two (2) screws marked [B190b]. The cover for the PS1 circuit board can then be removed. (Fig. 2, Fig. 3)

8-4 Remove the two (2) screws marked [B190c] and the four (4) screws marked [B50]. The PSI circuit board can then be removed. (Fig. 2, Fig. 5)

9. Power transformer

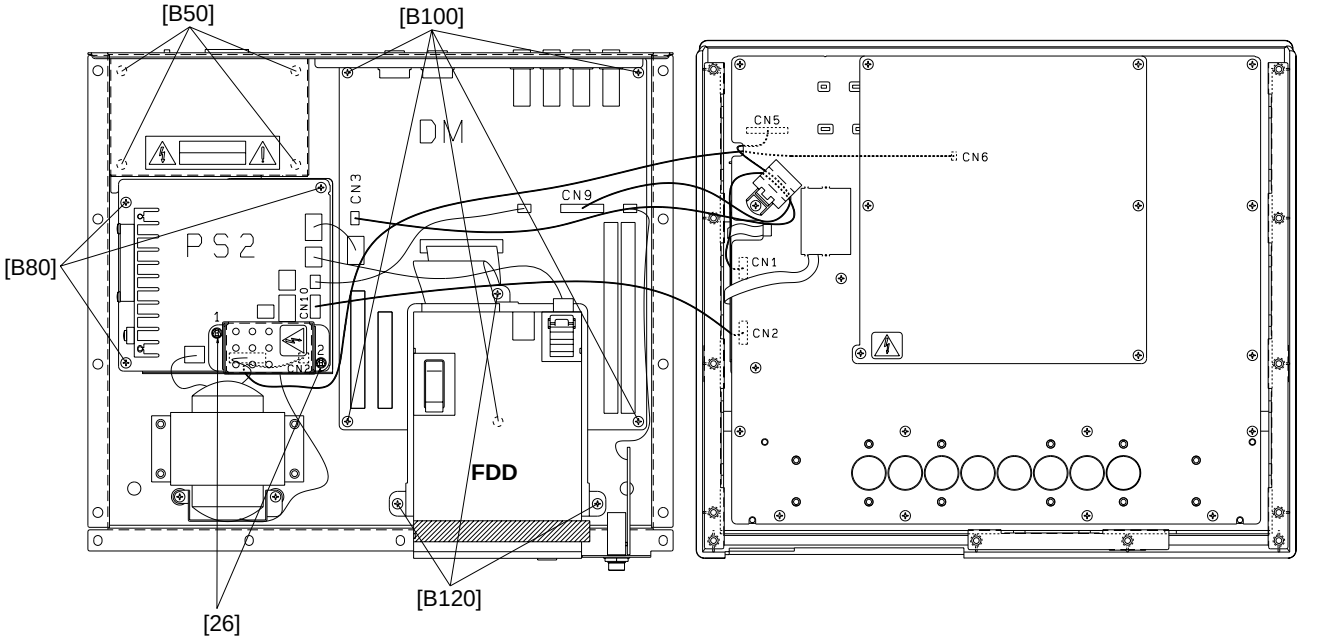
9-1 Remove the top cover. (See Procedure 1.)

9-2 Remove the four (4) screws marked [B30]. The power transformer can then be removed. (Fig. 3)



[110]: Bind Head Tapping Screw-B 3.0X8 MFZN2BL (EP600190)
[125]: Bind Head Tapping Screw-B 3.0X10 MFZN2BL (EP600220)

Fig.4



[26]: Bind Head Tapping Screw-B 3.0X6 MFZN2BL (EP600230)
[B50]: Bind Head Tapping Screw-B 3.0X6 MFZN2BL (EP600230)
[B80]: Bind Head Tapping Screw-B 3.0X6 MFZN2BL (EP600230)
[B100]: Bind Head Tapping Screw-B 3.0X6 MFZN2BL (EP600230)
[B120]: Bind Head Tapping Screw-B 3.0X6 MFZN2BL (EP600230)
[B190]: Bind Head Tapping Screw-B 3.0X8 MFZN2BL (EP600190)

Fig.5

■ LSI PIN DESCRIPTION

● **HD6413002FP16** (XQ375A00) **CPU** <H8/3002>

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	PA6	I/O	Port A	51	A12	O	
2	PA7	I/O		52	A13	O	
3	VCC		Power supply	53	A14	O	
4	PB0	I/O		54	A15	O	Address bus
5	PB1	/O		55	A16	O	
6	PB2	/O		56	A17	O	
7	PB3	/O	Port B	57	A18	O	
8	PB4	/O		58	A19	O	
9	PB5	/O		59	VSS		Ground
10	PB6/DERQ0	/O	Port B/DMA request	60	P60//WAIT	I	Bus cycle wait
11	PB7/DERQ1	/O	Port B/DMA request	61	P61//BREQ	I/O	Port 6
12	/RESO	O	Reset output	62	P62//BACK	I/O	
13	VSS		Ground	63	ϕ		Not connected
14	P90/TXD0	I/O	Port 9/Transmit data (MIDI OUT)	64	/STBY	I	Stand-by mode signal
15	P91/TXD1	I/O	Port 9/Transmission data	65	/RES	I	Reset
16	P92/RXD0	I	Port 9/Receive data (MIDI IN)	66	NMI	I	Non-maskable interrupt
17	P93/RXD1	I	Port 9/Receive data (Keyboard)	67	VSS		Ground
18	P94/SCK0	I/O	Port 9/Sync. signal	68	EXTAL	I	Clock
19	P95/SCK1	I/O	Port 9/Sync. signal	69	XTAL	O	
20	P40/D0	I/O		70	VCC		Power supply
21	P41/D1	I/O		71	/AS	O	Address strobe
22	P42/D2	I/O	Port 4/Data bus	72	/RD	O	Read strobe
23	P43/D3	I/O		73	/HWR	O	Write strobe (High)
24	VSS		(Ground)	74	/LWR	O	Write strobe (Low)
25	P44/D4	I/O		75	MD0	I	
26	P45/D5	I/O		76	MD1	I	Mode select
27	P46/D6	I/O		77	MD2	I	
28	P47/D7	I/O		78	AVCC		Analog power supply(ADC)
29	D8	I/O		79	VREF	I	Reference voltage(ADC)
30	D9	I/O		80	P70/AN0	I/O	Port 7/Analog data input (Power)
31	D10	I/O		81	P71/AN1	I/O	Port 7/Analog data input (SUSTAIN)
32	D11	I/O	Data bus	82	P72/AN2	I/O	
33	D12	I/O		83	P73/AN3	I/O	
34	D13	I/O		84	P74/AN4	I/O	Port 7/Analog data input
35	D14	I/O		85	P75/AN5	I/O	
36	D15	I/O		86	P76/AN6	I/O	
37	VCC		Power supply	87	P77/AN7	I/O	
38	A00	O		88	AVSS		Analog ground
39	A01	O		89	P80	I/O	Port 8
40	A02	O		90	P81/CS3	I	
41	A03	O		91	P82/CS2	I	Port 8/Chip select
42	A04	O		92	P83/CS1	I	
43	A05	O		93	P84/CS0	I	
44	A06	O	Address bus	94	VSS		Ground
45	A07	O		95	PA0	I/O	
46	VSS		(Ground)	96	PA1	I/O	
47	A08	O		97	PA2	I/O	Port A
48	A09	O		98	PA3	I/O	
49	A10	O		99	PA4	I/O	
50	A11	O		100	PA5	I/O	

● **LC78834M** (XS695A00) DA CONVERTER

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	INITB	I	Initialize signal input terminal (signal = L)	15	MODE	I	digital audio data format select
2	BCLK	I	Bit clock input terminal	16	TEST	O	Test terminal
3	DATA	I	Digital audio data input terminal	17	REFL	O	Reference voltage L terminal
4	LRCK	I	LR clock input (H = 1ch, L = 2ch)	18	OP2O	O	OP Amp 2 output terminal
5	FS1	I	De-emphasis filter mode select	19	OP2N	I	OP Amp 2 negative input terminal
6	FS2	I	FS1 L H H L / FS2 L L H H / fs 44.1kHz 32kHz 48kHz	20	OP2P	I	OP Amp 2 positive input terminal
7	EMP	I	De-emphasis filter select (H = on, L = off)	21	CH2OUT	O	CH2 analog output terminal
8	MUTE	I	Mute signal input (H = soft mute on)	22	AGND	-	Ground for analog circuit
9	CKSL	I	System clock select (L = 384Fs, H = 512Fs)	23	CH1OUT	O	CH1 analog output terminal
10	DVDD	-	Power supply for digital circuit	24	OP1P	I	OP Amp 1 positive input terminal
11	CKOUT	O	Clock output terminal	25	OP1N	I	OP Amp 1 negative input terminal
12	XOUT	O	Quartz cristal output terminal	26	OP1O	O	OP Amp 1 output terminal
13	XIN	I	Quartz cristal input terminal	27	REFH	O	Reference voltage H terminal
14	DGND	-	Ground for digital circuit	28	AVDD	-	Power supply for analogl circuit

● **65636GF-104-3B9** (XS369A00) SPF

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	ICN	I	Initial Clear	41	SYNIO	I	Serial Input0 Sync Clock(48kHz)
2	VDD	-		42	VDD	-	
3	GND	-		43	GND	-	
4	D0	I/O	Data Bus	44	DIN0	I	Serial Input0 Data Input(1.6MHz)
5	D1	I/O	Data Bus	45	CK256I1	I	Serial Input1 256fs Clock(12.8MHz)
6	GND	-		46	BCKI1	I	Serial Input1 Bit Clock(3.2MHz)
7	D2	I/O	Data Bus	47	SYNI1	I	Serial Input1 Sync Clock(48kHz)
8	D3	I/O	Data Bus	48	DIN1	I	Serial Input1 Data Input(1.6MHz)
9	GND	-		49	DAC256O	O	256fs Clock for DAC(12.8MHz)
10	VDD	-		50	DAC64O	O	256fs Clock for DAC(3.2MHz)
11	D4	I/O	Data Bus	51	DACWCKO	O	Word Clock for DAC(48kHz)
12	D5	I/O	Data Bus	52	DACDTI	I	DAC Data Input(1.6MHz)
13	GND	-		53	DACDTO	O	DAC Data Output(1.6MHz)
14	D6	I/O	Data Bus	54	VDD	-	
15	D7	I/O	Data Bus	55	GND	-	
16	A4	I	Address	56	MONMELO	O	Monitor MEL Output(1.6MHz)
17	CSN	I	Chip Select	57	DIT128O	O	128fs Clock for DIT(6.4MHz)
18	WRN	I	Write	58	DITWCKO	O	Word Clock for DIT(48kHz)
19	RDN	I	Read	59	MUTEI	I	Mute Request Input(from CPU)
20	DREQN	O	DMA Request	60	MUTENO	O	Mute Request Output(to DAC&DIT)
21	DACKN	I	DMA Acknowledge	61	ERRI	I	PLL Error Input(from DIR)
22	GND	-		62	GND	-	
23	VDD	-		63	VDD	-	
24	D8	I/O	Data Bus	64	ERRIRQN	O	PLL Error IRQ
25	D9	I/O	Data Bus	65	TGRESN	O	TG Reset Signal
26	GND	-	66	P7	I/O		I/O Port
27	D10	I/O	Data Bus	67	P6	I/O	I/O Port
28	D11	I/O	Data Bus	68	P5	I/O	I/O Port
29	GND	-	69	P4	I/O		I/O Port
30	VDD	-	70	P3	I/O		I/O Port
31	D12	I/O	Data Bus	71	P2	I/O	I/O Port
32	D13	I/O	Data Bus	72	P1	I/O	I/O Port
33	GND	-	73	P0	I/O		I/O Port
34	D14	I/O	Data Bus	74	OCSN	I	Option Chip Select0
35	D15	I/O	Data Bus	75	ODACKN	I	Option DMA Acknowledge
36	A1	I	Address	76	ODDIR	I	Option DMA Direction
37	A2	I	Address	77	OBOEN	O	
38	A3	I	Address	78	OBDIR	O	
39	CK256IO	I	Serial Input0 256fs Clock(12.8MHz)	79	CSOUTN	O	
40	BCKIO	I	Serial Input0 Bit Clock(3.2MHz)	80	ASSIGN	O	Write Pulse Out at A4=1, A3=0, WR=0

● **HD63266F** (XI939A00) **FDC** (Floppy Disk Controller)

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	8"//5"	I	Data transmission speed	33	/TRKO	I	Track 00 signal
2	XTALSET	I	Clock select	34	/INDEX	I	Index signal
3	/RESET	I	Rest	35	/RDATA	I	Read data input from FDD
4	E//RD	I	Enable/Read	36	XTAL2		Clock
5	RW//WR	I	Read/write/Write	37	EXTAL2		
6	/CS	I	Chip select	38	NC		
7	/DACK	I	DMA acknowledge	39	XTAL1		Clock
8	RS0	I	Register select	40	EXTAL1		
9	RS1	I		41	VSS4		Ground
10	VSS1		Ground	42	VSS5		
11	VSS2			43	NC		
12	D0	I/O	Data bus	44	VCC2		Power supply
13	D1	I/O		45	VCC3		
14	D2	I/O		46	VCC4		
15	D3	I/O		47	/WGATE	O	Write control
16	D4	I/O		48	/WDATA	O	Writ data to FDD
17	D5	I/O		49	VSS6		Ground
18	D6	I/O		50	/STEP	O	Step signal to control head of FDD
19	D7	I/O		51	/HDIR	O	Direction
20	/DREQ	O	DMA request	52	/HLOAD	O	Head load
21	/IRQ	O	Interrupt request	53	/HSEL	O	Head select
22	/DEND	I	Data end	54	VSS7		Ground
23	VSS3		Ground	55	/DS0	O	Drive select
24	1/2 EX1			56	/DS1	O	
25	VCC1		Power supply	57	/DS2	O	
26	NUM1	I		58	/DS3	O	
27	NUM3	I		59	VSS8		Ground
28	IFS	I	Host interface select	60	/MON0	O	Motor on
29	SFORM	I	Format data	61	/MON1	O	
30	/INP	I	Index pulse	62	/MON2	O	
31	/READY	I	Ready from FDD	63	/MON3	O	
32	/WPRT	I	Write control signal	64	VSS9		Ground

● **TC203C760HF-002** (XS725A00) **SWP30B** (AWM Tone Generator coped with MEG) Standard Wave Processor)

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	Vss		(Ground)	121	VSS		(Ground)
2	CA0	I	Address bus of internal register	122	HMD0	I/O	Wave memory data bus (Upper data memory)
3	CA1	I		123	HMD1	I/O	
4	CA2	I		124	HMD2	I/O	
5	CA3	I		125	HMD3	I/O	
6	CA4	I		126	HMD4	I/O	
7	CA5	I		127	HMD5	I/O	
8	CA6	I		128	HMD6	I/O	
9	CA7	I		129	HMD7	I/O	
10	CA8	I		130	HMD8	I/O	
11	CA9	I		131	HMD9	I/O	
12	CA10	I		132	HMD10	I/O	
13	CA11	I		133	HMD11	I/O	
14	VSS		(Ground)	134	HMD12	I/O	
15	CD0	I/O	Data bus of internal register	135	HMD13	I/O	
16	CD1	I/O		136	HMD14	I/O	
17	CD2	I/O		137	HMD15	I/O	
18	CD3	I/O		138	VSS		(Ground)
19	CD4	I/O		139	HMA0	O	Wave memory address bus (Upper 16 bits)
20	CD5	I/O		140	HMA1	O	
21	CD6	I/O		141	HMA2	O	
22	CD7	I/O		142	HMA3	O	
23	CD8	I/O		143	HMA4	O	
24	CD9	I/O		144	HMA5	O	
25	CD10	I/O		145	HMA6	O	
26	CD11	I/O		146	HMA7	O	
27	CD12	I/O		147	HMA8	O	
28	CD13	I/O		148	HMA9	O	
29	CD14	I/O		149	HMA10	O	
30	VDD		(Power supply)	150	VSS		(Ground)
31	VSS		(Ground)	151	VDD		(Power supply)
32	CD15	I/O	Data bus of internal register	152	HMA11	O	Wave memory address bus (Upper 16 bits)
33	/CS	I	Chip select	153	HMA12	O	
34	/WR	I	Write strobe	154	HMA13	O	
35	/RD	I	Read strobe	155	HMA14	O	
36	VDDS		(Power supply)	156	HMA15	O	
37	SYSH0	O	NSYS/LNSYS upper 16 bits	157	HMA16	O	
38	SYSH1	O		158	HMA17	O	
39	SYSH2	O		159	HMA18	O	
40	SYSH3	O		160	HMA19	O	
41	SYSH4	O		161	HMA20	O	
42	SYSH5	O		162	HMA21	O	
43	SYSH6	O		163	HMA22	O	
44	SYSH7	O		164	HMA23	O	
45	KONO0	O	Key on data	165	HMA24	O	
46	KONO1	O		166	VSS		(Ground)
47	KONO2	O		167	/MRAS	O	RAS when DRAM(s) is connected to wave memory
48	KONO3	O		168	/MCAS	O	CAS when DRAM(s) is connected to wave memory
49	VSS		(Ground)	169	/MOE	O	Wave memory output enable
50	SYSL0	I/O	NSYS input/LNSYS output lower 8 bits	170	/MWE	O	Wave memory write enable
51	SYSL1	I/O		171	VSS		(Ground)
52	SYSL2	I/O		172	LMD0	I/O	Wave memory data bus (Lower data memory)
53	SYSL3	I/O		173	LMD1	I/O	
54	SYSL4	I/O		174	LMD2	I/O	
55	SYSL5	I/O		175	LMD3	I/O	
56	SYSL6	I/O		176	LMD4	I/O	
57	SYSL7	I/O		177	LMD5	I/O	
58	KONI0	I	Key on data	178	LMD6	I/O	
59	KONI1	I		179	LMD7	I/O	
60	VDDS	I	(Power supply)	180	VDDS		(Power supply)

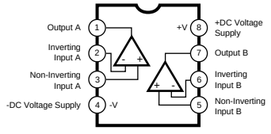
PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
61	VSS		(Ground)	181	VSS		(Ground)
62	KONI2	I		182	LMD8	I/O	
63	KONI3	I		183	LMD9	I/O	
64	DAC0	O	DAC output	184	LMD10	I/O	
65	DAC1	O		185	LMD11	I/O	
66	WCLK	O	DAC0/DAC1 word clock	186	LMD12	I/O	
67	MELO0	O		187	LMD13	I/O	
68	MELO1	O		188	LMD14	I/O	
69	MELO2	O		189	LMD15	I/O	
70	MELO3	O	MEL wave data output	190	VSS		(Ground)
71	MELO4	O		191	LMA0	O	
72	MELO5	O		192	LMA1	O	
73	MELO6	O		193	LMA2	O	
74	MELO7	O		194	LMA3	O	
75	VDDS		(Power supply)	195	LMA4	O	
76	ADLR	O	ADC word clock	196	LMA5	O	
77	MELI0	I		197	LMA6	O	
78	MELI1	I		198	LMA7	O	
79	MELI2	I		199	LMA8	O	
80	MELI3	I	MEL wave data input	200	LMA9	O	
81	MELI4	I		201	LMA10	O	
82	MELI5	I		202	LMA11	O	
83	MELI6	I		203	VSS		(Ground)
84	MELI7	I		204	LMA12	O	
85	VSS		(Ground)	205	LMA13	O	Wave memory address bus (Lower data memory)
86	/RCAS	O	DRAM column address strobe	206	LMA14	O	
87	RA8	O		207	LMA15	O	
88	RA7	O		208	LMA16	O	
89	RA6	O		209	LMA17	O	
90	VDD		(Power supply)	210	VDD		(Power supply)
91	VSS		(Ground)	211	VSS		(Ground)
92	RA5	O	DRAM address bus	212	LMA18	O	
93	RA4	O		213	LMA19	O	
94	RA3	O		214	LMA20	O	
95	RA2	O		215	LMA21	O	
96	RA1	O		216	LMA22	O	
97	RA0	O		217	LMA23	O	
98	/RRAS	O	DRAM row address strobe	218	LMA24	O	
99	/RWE	O	DARM write enable	219	VSS		(Ground)
100	VSS		(Ground)	220	SYO	O	Sync. signal for master clock
101	RD7	I/O		221	SYOD	O	Sync. signal for HCLK/QCLK
102	RD6	I/O		222	QCLK	O	1/12 master clock (64Fs)
103	RD5	I/O		223	HCLK	O	1/6 master clock (128Fs)
104	RD4	I/O		224	CK256	O	1/3 master clock (256Fs)
105	RD3	I/O		225	SYSCLK	O	1/2 master clock (384Fs)
106	RD2	I/O		226	VDDS		(Power supply)
107	RD1	I/O		227	SYI	I	Sync. clock
108	RD0	I/O		228	MCLKI	I	Master clock input
109	VSS		(Ground)	229	MCLKO	O	Master clock output
110	RD17	I/O		230	VDD		(Power supply)
111	RD16	I/O	DRAM data bus	231	XIN	I	Crystal osc. input
112	RD15	I/O		232	XOUT	O	Crystal osc. output
113	RD14	I/O		233	VSS		(Ground)
114	RD13	I/O		234	/IC	I	Initial clear
115	RD12	I/O		235	CHIP2	I	2 chips mode enable
116	RD11	I/O		236	SLAVE	I	Master/Slave select when 2 chips mode
117	RD10	I/O		237	/TESTO	I	
118	RD9	I/O		238	/ACI	I	Test pin
119	RD8	I/O		239	DCTEST	I	
120	VDDS		(Power supply)	240	\VDDS		(Power supply)

● **D65621GF-028-3B9** (XS370A00) SMI

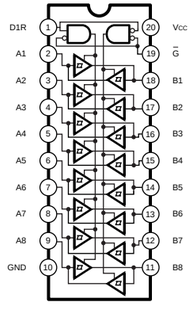
PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	LMA24	I	Low Memory Address	41	VDD	-	
2	LMA23	I	Low Memory Address	42	L1RAS2	O	RAS2 for LoMem SIMM 1
3	LMA22	I	Low Memory Address	43	L1RAS3	O	RAS3 for LoMem SIMM 1
4	LMA21	I	Low Memory Address	44	GND	-	
5	LMA20	I	Low Memory Address	45	HDRAS0	O	RAS for HiMem DRAM 0
6	LMA19	I	Low Memory Address	46	HDRAS1	O	RAS for HiMem DRAM 1
7	LMA18	I	Low Memory Address	47	GND	-	
8	HMA24	I	High Memory Address	48	VDD	-	
9	HMA23	I	High Memory Address	49	LDRAS0	O	RAS for LoMem DRAM 0
10	HMA22	I	High Memory Address	50	LDRAS1	O	RAS for LoMem DRAM 1
11	HMA21	I	High Memory Address	51	LMA1	I	Low Memory Address
12	GND	-	No.12	52	LMA0	I	Low Memory Address
13	HMA20	I	High Memory Address	53	GND	-	No.53
14	HMA19	I	High Memory Address	54	LMA1X	O	Low Memory Address Exchanged
15	HMA18	I	High Memory Address	55	LMA0X	O	Low Memory Address Exchanged
16	RASN	I	Row Address Strobe	56	GND	-	
17	H0RAS0	O	RAS0 for HiMem SIMM 0	57	VDD	-	
18	H0RAS1	O	RAS1 for HiMem SIMM 0	58	HMA1	I	High Memory Address
19	GND	-		59	HMA0	I	High Memory Address
20	H0RAS2	O	RAS2 for HiMem SIMM 0	60	HMA1X	O	High Memory Address Exchanged
21	H0RAS3	O	RAS3 for HiMem SIMM 0	61	HMA0X	O	High Memory Address Exchanged
22	GND	-		62	D0	I	Data Input
23	VDD	-		63	D1	I	Data Input
24	L0RAS0	O	RAS0 for LoMem SIMM 0	64	GND	-	
25	L0RAS1	O	RAS1 for LoMem SIMM 0	65	D2	I	Data Input
26	GND	-		66	D3	I	Data Input
27	L0RAS2	O	RAS2 for LoMem SIMM 0	67	D4	I	Data Input
28	L0RAS3	O	RAS3 for LoMem SIMM 0	68	D5	I	Data Input
29	GND	-		69	A2	I	Address
30	VDD	-		70	WRN	I	Write
31	H1RAS0	O	RAS0 for HiMem SIMM 1	71	GND	-	No.71
32	H1RAS1	O	RAS1 for HiMem SIMM 1	72	VDD	-	No.72
33	GND	-		73	CSN	I	Chip Select
34	VDD	-		74	A0	I	Address
35	H1RAS2	O	RAS2 for HiMem SIMM 1	75	A1	I	Address
36	H1RAS3	O	RAS3 for HiMem SIMM 1	76	MCLK	I	Clock (37MHz)
37	GND	-		77	SYI	I	Sync Clock (48kHz)
38	L1RAS0	O	RAS0 for LoMem SIMM 1	78	HBANK	O	HiMem Bank Select 01/23
39	L1RAS1	O	RAS1 for LoMem SIMM 1	79	LBANK	O	LoMem Bank Select 01/23
40	GND	-		80	REFRN	O	Refresh Timing

■ IC BLOCK DIAGRAM

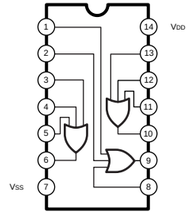
- **NJM2904D**(IG093700)
- **M5218AFP**(XP251A00)
- **NJM2114M** (XS537A00)
- **NJM4556AMT1** (XQ138A00)
- **OP275GSR** (XV763A00)
  Dual Operational Amplifier



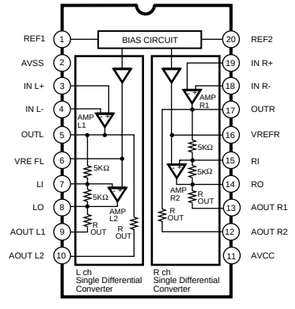
- **SN74HC245N** (IRO24550)
- **TC74HC245FS** (XT175A00)
- **TC74VHCT245AFT** (XT744A00)
- **TC74VHC245FT** (XU797A00)
- Octal 3-State Bus Transceiver



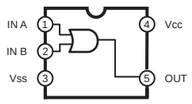
- **TC74HC4075AP**(IR407500)
  Triple 3-Input OR Gate



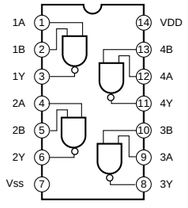
- **TL32088CNST-EL** (XS893A00)
  AD Front End



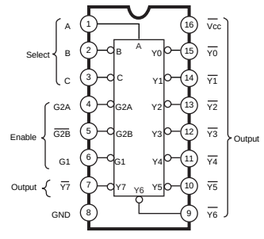
- **TC7S32F**(XM588A00)
  OR



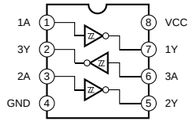
- **TC74VHC00AF-TP1**(XD655A00)
  Octa1 2 Input NAND Gate



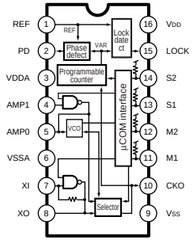
- **SN74HC 138NSR** (XD835A00)
  3 to 8 Demultiplexer



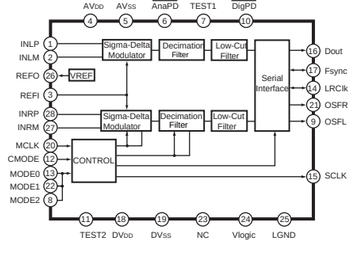
- **TC7W14F** (XR336A00)
  Triple Inverter



- **TC9246F -TEL**(XR339A00)
  Phase Locked Loop

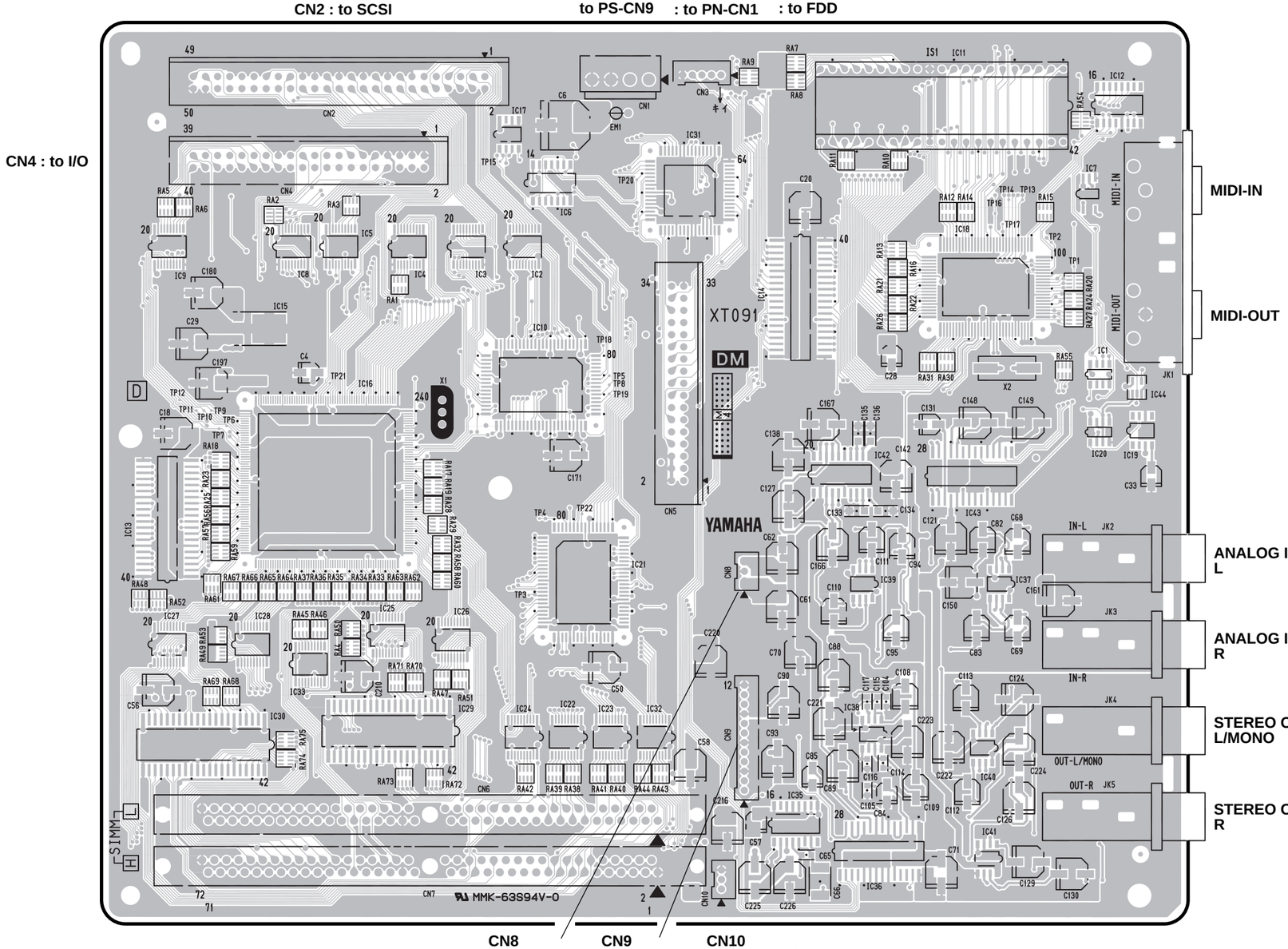


- **TLC320AD58CDWT-EL** (XS892A00)
  AD Converter



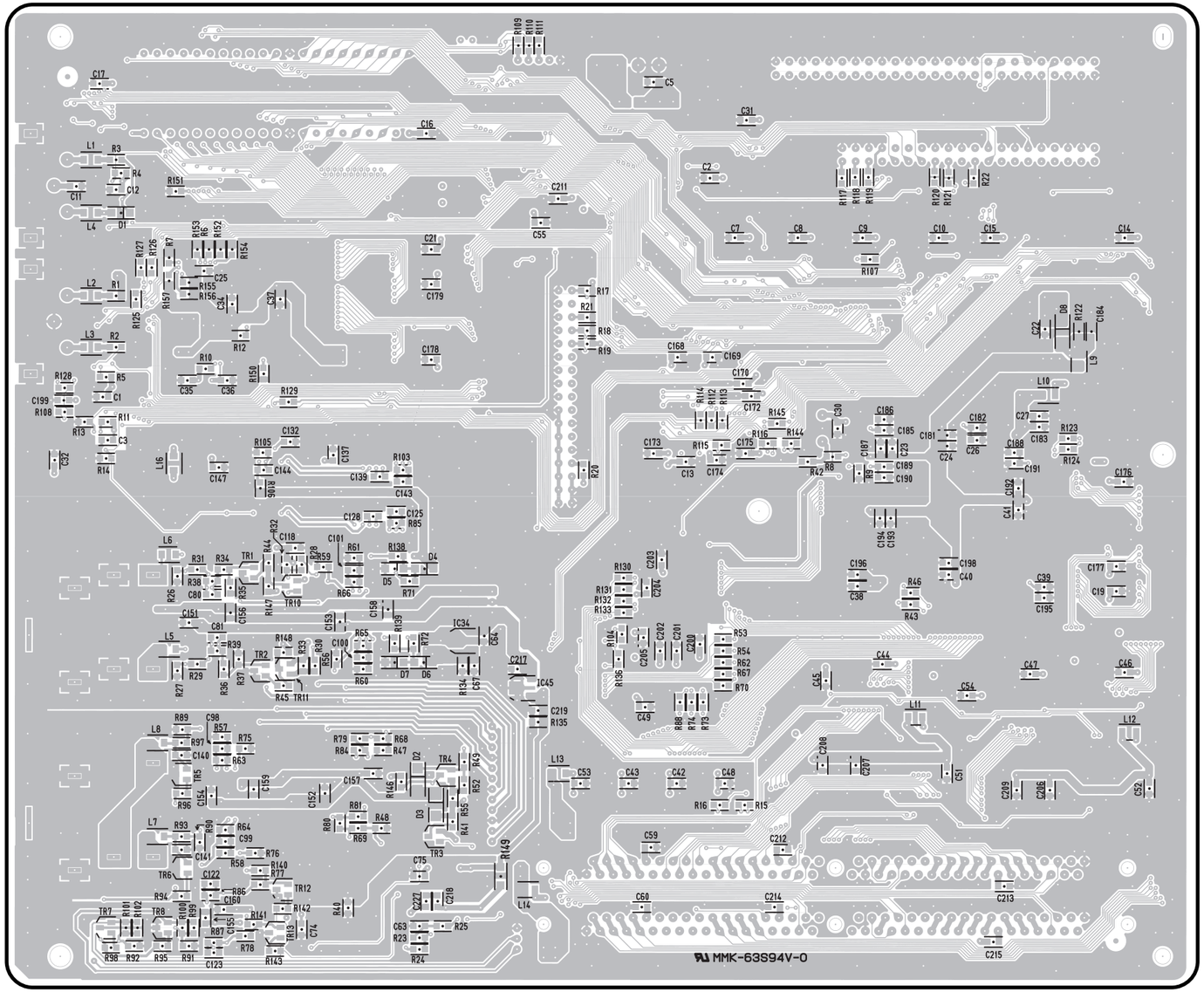
■ CIRCUIT BOARDS

• DM Circuit Board



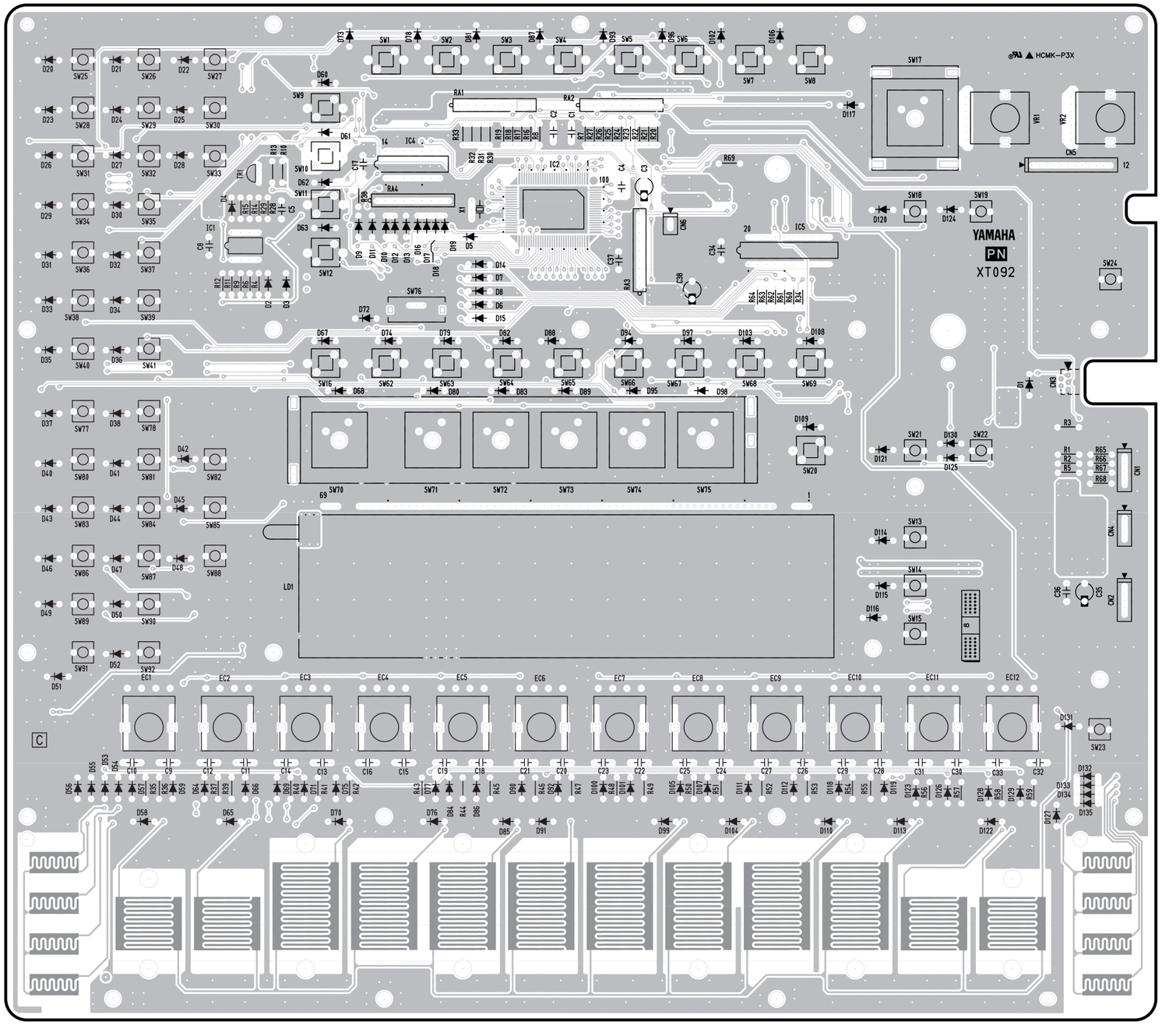
Component side

Note : See parts list for details of circuit board component parts.



Pattern side

• PN Circuit Board



Component side

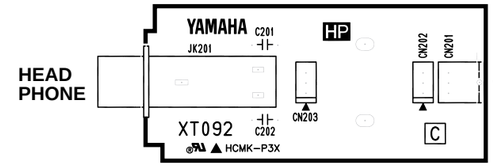
to DM-CN9

to DM-CN3

to HE-CN101

to PS-CN10

• HP Circuit Board

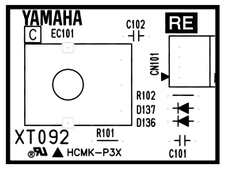


HEAD PHONE

to DM-CN10

Component side

• RE Circuit Board

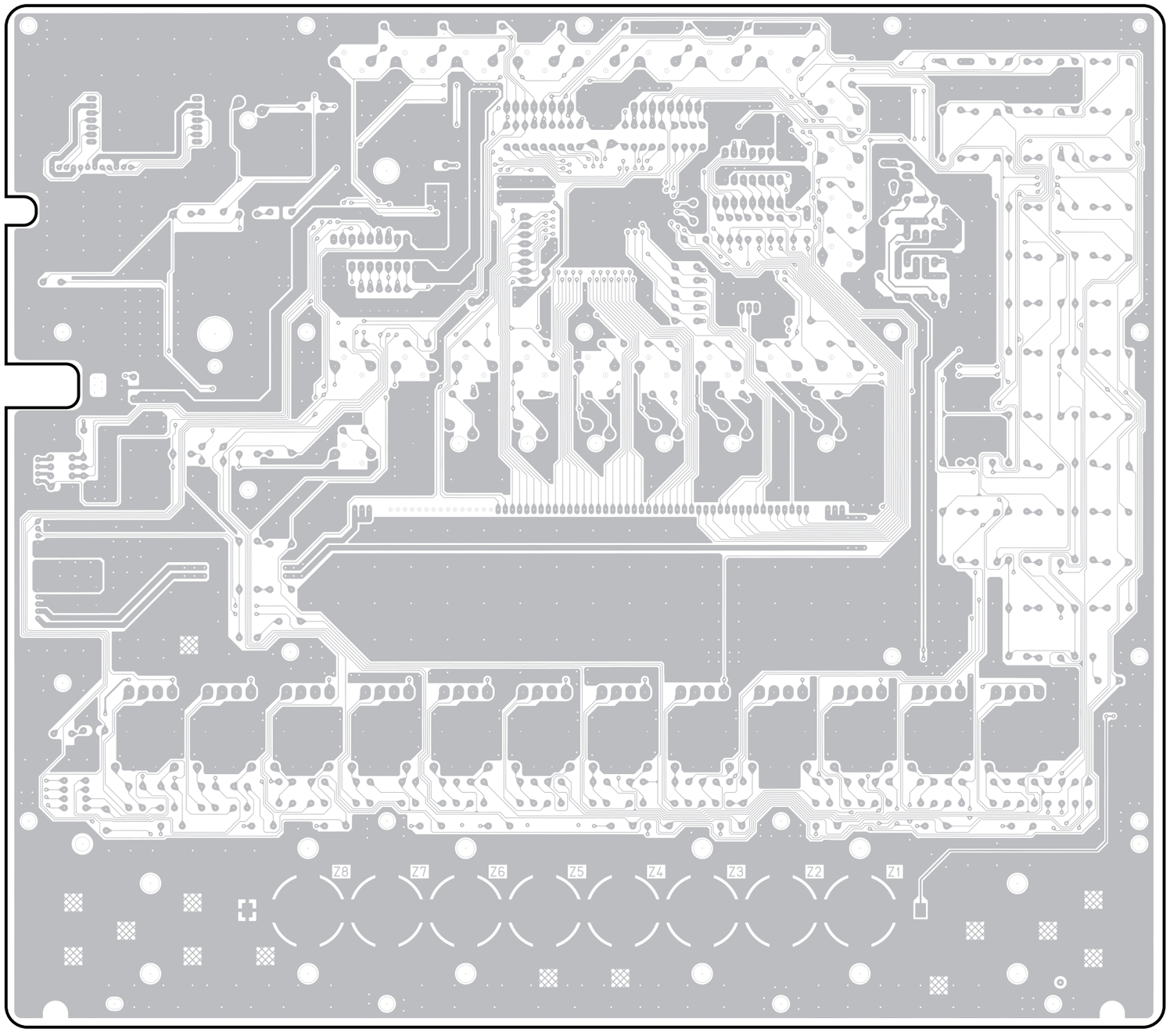


to PN-CN4

Component side

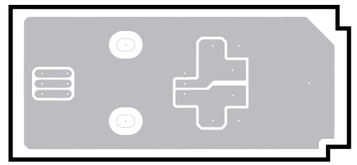
PN, HP, RE : 2NA-VV88890 1

• PN Circuit Board



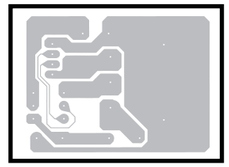
Pattern side

• HP Circuit Board



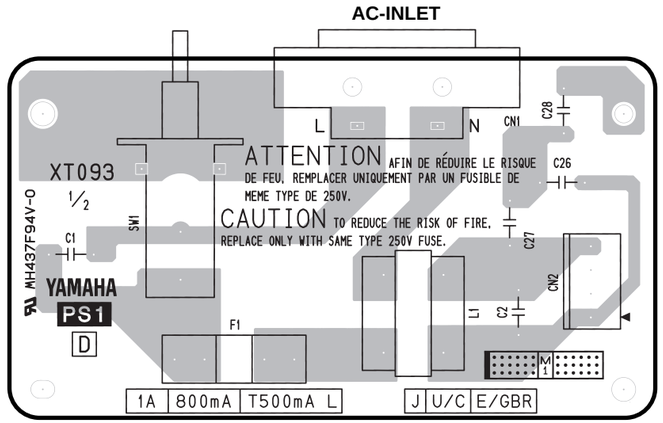
Pattern side

• RE Circuit Board



Pattern side

• **PS1 Circuit Board**

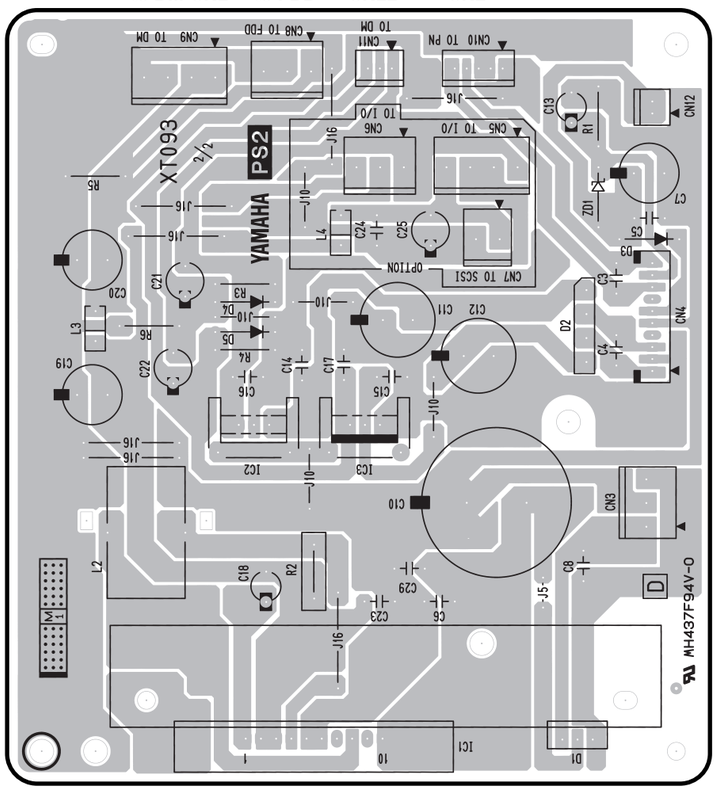


to Transformer

Component side

• **PS2 Circuit Board**

to DM-CN1 **to FDD** **to DM-CN11** **to PN-CN2**



CN12: to PN-CN6

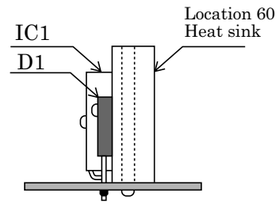
CN7 : to I/O

CN4: to Transformer

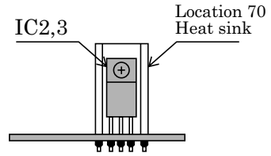
CN3: to Transformer

Pattern side

• **Heat sink, D1 and IC1 installation**



• **Heat sink, IC2 and IC3 installation**



PS1, PS2 : 2NA-V248320 ⚠1

TEST PROGRAM

TEST NO.	TEST	TEST RESULTS
A.	TEST ENTRY	
B.	PROCEEDING THROUGH THE TESTS	
C.	TEST PROGRAM	
C-0	CPU DRAM EEPROM	OK/NG
C-1	MIDI	OK/NG
C-2	FLUORESCENT DISPLAY TUBE	All segments of the fluorescent display tube blink
C-3	SWITCH	OK/NG
C-4	SLIDE SWITCH	OK/NG
C-5	PAD SENSE	OK/NG
C-6	ENCODER	OK/NG
C-7	RIBBON CONTROLLER	Check for continuous change
C-8	FD INSERT	OK/NG
C-9	FD READ/ WRITE	OK/NG
C-10	1k Hz STEREO OUT & PHONE-L	1k Hz +/- 0.1 Hz, distortion: less than 0.15%, +6 +/- 3 dBm
C-11	1k Hz STEREO OUT & PHONE-R	1k Hz +/- 0.1 Hz, distortion: less than 0.15%, +6 +/- 3 dBm
C-12	REC IN LINE-L	1k Hz +/- 1 Hz, distortion: less than 0.15%, +6 +/- 4 dBm
C-13	REC IN MIC-L	1k Hz +/- 1 Hz, distortion: less than 0.15%, +6 +/- 4 dBm
C-14	REC IN LINE-R	1k Hz +/- 1 Hz, distortion: less than 0.15%, +6 +/- 4 dBm
C-15	REC IN MIC-R	1k Hz +/- 1 Hz, distortion: less than 0.15%, +6 +/- 4 dBm
C-16	WAVE ROM INTERNAL	Displays the NG IC number
C-17	64 SOUNDS OUT (not used the DSP IC)	Listening
C-18	DSP RAM	1k Hz +/- 0.1 Hz, distortion: less than 0.15%, +6 +/- 3 dBm
C-19	WAVE RAM SIMM	Capacity display /Displays the NG CN number (SIMM)
C-20	DRIVE (1 SECTOR)	OK/NG
C-21	DIGITAL I/O	OK/NG
C-22	OPTICAL I/O	OK/NG
C-23	ASSIGN OUT 1	1k Hz +/- 0.1 Hz, distortion: less than 0.15%, +6 +/- 3 dBm
C-24	ASSIGN OUT 2	1k Hz +/- 0.1 Hz, distortion: less than 0.15%, +6 +/- 3 dBm
C-25	ASSIGN OUT 3	1k Hz +/- 0.1 Hz, distortion: less than 0.15%, +6 +/- 3 dBm
C-26	ASSIGN OUT 4	1k Hz +/- 0.1 Hz, distortion: less than 0.15%, +6 +/- 3 dBm
C-27	ASSIGN OUT 5	1k Hz +/- 0.1 Hz, distortion: less than 0.15%, +6 +/- 3 dBm
C-28	ASSIGN OUT 6	1k Hz +/- 0.1 Hz, distortion: less than 0.15%, +6 +/- 3 dBm
C-29	FACTORY SET	
C-30	EXIT	
C-31	CPU DRAM EEPROM ALL	Displays the NG IC number
C-32	WAVE RAM INTERNAL ALL	Displays the NG IC number
C-33	64 SOUNDS OUT (used the DSP IC)	Listening
C-34	WAVE RAM SIMM ALL	Capacity display / Displays the NG CN number (SIMM)
C-35	DRIVE (ALL SECTOR)	OK/NG
C-36	DIGITAL IN	
C-37	OPTICAL IN	
C-38	RESIDUL NOISE	less than -73 dBm

A. TEST ENTRY

MANUAL MODE, AUTO MODE

1) HOW TO ENTER THE TEST PROGRAM

Turn on the SU700 power switch while pressing the [SONG] and [SYSTEM] switches simultaneously.
(The display does not immadiately shift to the following message, because it takes several seconds to initialize the SU700.)

After an initialization message is indicated, the display will be indicated as follows.

```
01 SONG01      0011
               1200
```

At this point, press the [SONG], [SYSTEM] and [NOTE] switches simultaneously.
The following display appears.

```
SU700 TEST  VER  xxx
             yyy
```

xxx: test version
yyy: this model version

After the three seconds indicated the above display, the following test menu message will appear, and the SU700 will wait for the test execution.

```
MAN=STOP AU=PLAY
```

When the [PLAYBACK] switch is pressed, an auto test will be executed.
When the [■] (STOP) switch is pressed, a manual test is selected.
When exiting the test mode is required, execute the EXIT test, or turn the power switch off and then on again.

2) WHEN THE TEST PROGRAM CANNOT BE STARTED.

Check the following points when the test program stops.
1) nothing is displayed on the display.
 a) The signal is not output to the bus line.
  DM Circuit Board IC18 (CPU)
 b) A periodic signal is output to the bus line.
  DM Circuit Board IC14 (DRAM) or IC11 (ROM)
 c) Non-periodic signal is output to the bus line.
  DM Circuit Board CN3
  PN Circuit Board CN1, IC2 (CPU)
2) Error message " NV-MEMORY BROKEN"
  DM Circuit Board IC17 (EEPROM)
3) Error message " SWP30B BROKEN"
  DM Circuit Board IC16 (SWP30B)
4) Error message " SWP30B MOUNT ERR"
  The incorrect IC16 may be installed on the DM circuit board.
5) Error message " FDC BROKEN"
  DM Circuit Board IC31 (FDC)

B. PROCEEDING THOUGH THE TESTS

MANUAL MODE TEST:
When entering the manual mode test program, the following display will appear.

The test is executed from the C-0 (CPU).

```
CPU DRAM EEP    xx
```

xx: test number

Use the [OK], [CANCEL], [TOP], [RWD] and [FWD] switches to proceed with the test program.
The [TOP] switch will select the test C-0.
The [REW] switch will select the test which precedes the current test.
The [FWD] switch will select the test which follows the current test.
(The test program can be selected with the DATA ENTRY DIAL.)
The [OK] switch will execute the currently selected test.
The [OK] switch should be pressed for all tests.

For tests whose execution time is long, the following message will be displayed.

```
NOW TESTING     34
```

AUTO MODE TEST:
When an auto test program is executed, the tests are executed automatically and sequentially from the C-0 (CPU).
When the [CANCEL] switch is pressed during the test execution, the test will be stopped.

The error message is displayed when an error occurs.
The test will then stop.
Press the [OK] switch; only the test that has been stopped can be executed. (same in the manual mode)
When exiting the test mode is required, execute the EXIT test, or turn the power switch off and then on again.

An auto test execution range is from C-0 to C-30.

TEST SELECTION WHEN AN ERROR IS DETECTED

In each test, if a NG (No Good) error is detected, the test is advanced as follows.

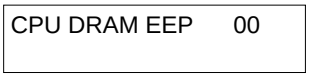
MANUAL MODE TEST:
The [OK] switch will execute the currently selected test.
The [REW] switch will select the test which precedes the current test.
The [REW] switch will select the test which follows the current test.

AUTO MODE TEST:
When the [PLAYBACK] switch is pressed, the test is automatically re-executed from the point where the error occurred.

C. TEST PROGRAM

C-0 CPU DRAM EEPROM TEST

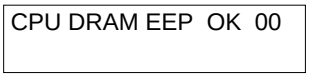
OK



Perform a read/write test of the DRAM (IC14) and EEPROM (IC17).
After writing to the DRAM, the DRAM is inspected with the immediate read check and then after four seconds read check.
It checks and confirms that the data is maintained.
But, this test is not executed all inspection areas.

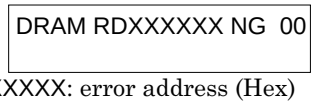
DISPLAY OF THE RESULTS

OK



NG

DRAM read error

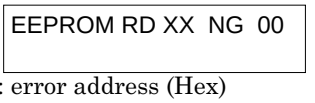


XXXXXX: error address (Hex)

DRAM refresh error



EEPROM read error

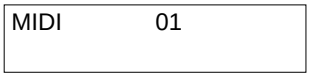


XX: error address (Hex)

TEST END
This test ends after displaying the results.

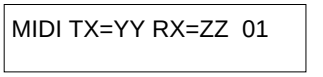
OTHERS
The data stored before the tests is preserved when testing the EEPROM.
The data of the DRAM is not preserved.

C-1 MIDI TEST



After connecting the MIDI IN to the MIDI OUT via a MIDI cable, execute the test.

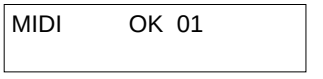
While executing, the display will indicate the following message.



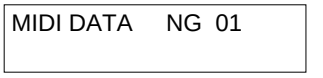
YY: transmitted pattern number
ZZ: received pattern number

DISPLAY OF THE RESULTS

OK



NG

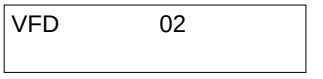


Time out error



TEST END
This test ends after displaying the results.

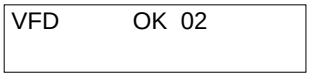
C-2 FLUORESCENT DISPLAY TUBE TEST



Confirm that all segments of the fluorescent display tube blink because of both the automatic display RAM write test and the display test.

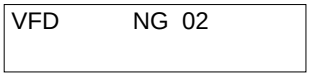
DISPLAY OF THE RESULTS

OK



NG

does not display



TEST END
Press the [OK] switch when the test is OK.
The test will then end.
Press the [NG] switch when the test is NG.
The test will then end. (You can retrun this test.)

C-3 SWITCH TEST

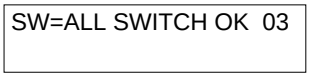


Press the panel switches consecutively, according to the order indicated on the display.
When the next check is ready, the display indicates the next check switch.
When the check switch is pressed and the result of the check is good, a beep will sound.
If the next check is ready, the display will then indicate the switch.
When the switch cannot be detected, press the [CANCEL] switch five times to end this test.
The test switches are checked in the order below.

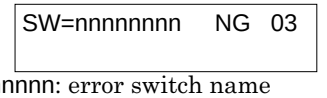
LEVEL, PAN, PITCH, ATTACK, RELEASE, LENGTH, GROOVE TIMING, VELOCITY, GATE TIME, LFO SPEED, AMP, LFO FILTER, PITCH, EQ HI GAIN, HI FREQ, EQ LO GAIN, LO FREQ, CUTOFF, RESONANCE, EFFECT1, EFFECT2, EFFECT3, EFFECT CLEAR1, CLEAR2, CLEAR3, EFFECT SETTING1, SETTING2, SETTING3, DEFAULT, NOTE DEL, NAME INSERT, DELETE SONG, TRACK SETTING, TRACK EDIT, EVENT EDIT, SAMPLE, RESAMPLE, DISK, SYSTEM, SUB1, SUB2, SUB3, SUB4, INITIAL, TOP, A, B, C, D, E, F, G, REC, TOP, RWD, STOP, PLAYBACK, FWD, UNDO/REDO, SAMPLING, ←, →, BPM COUNTER, CANCEL, OK, MEASURE, BPM, NOTE, RIBBON TRACK, TRACK BANK1, 2, 3, 4, LOOP1, LOOP2, AUDIO IN, MASTER, PLAY, ON/MUTE, ROLL, LOOP RESTART

DISPLAY OF THE RESULTS

OK



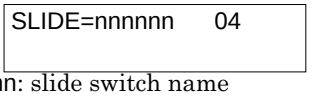
NG



nnnnnnnn: error switch name

TEST END
This test ends after displaying the results.
Pushing the “CANCEL” switch five times ends this test.

C-4 SLIDE SWITCH



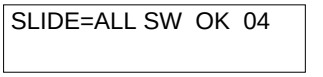
nnnnnn: slide switch name

When the switch position is displayed, move the switch in the direction of the display.
If the switch is OK, the display will indicate the next switch position.

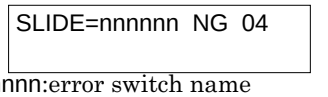
If the present switch position is SCENE, it is displayed as MARKER→SCENE, and if the switch position is MARKER it is displayed as SCENE→MARKER.

DISPLAY OF THE RESULTS

OK



NG



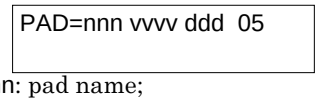
nnnnnnnn:error switch name

TEST END
This test ends after displaying the results.
Press the [CANCEL] switch to finish this test.

C-5 PAD SENSE



The pad name and the beat strength (SOFT/HARD) are indicated on the display. Beat the pad according to the display.
When the check pad is beaten and the result of the check is good, a beep will sound and the next pad name and beat strength will be displayed.



nnn: pad name;
vvv: beaten strength instruction;
ddd: detection value

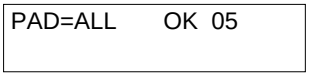
The test pads and beat strengths are as follows.

CL1 SOFT →CL2 SOFT →CL3 SOFT →CL4 SOFT →FR1 SOFT →FR2 SOFT →FR3 SOFT →FR4 SOFT →again, CL1 HARD →CL2 HARD →CL3 HARD →CL4 HARD →FR1 HARD →FR2 HARD →FR3 HARD →FR4 HARD

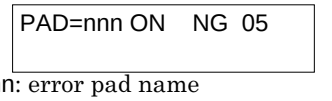
When the beat strength of SOFT is between 000-020, the display will indicate "OK".
When the beaten strength of HARD is between 100-255, the display will indicate "OK".

DISPLAY OF THE RESULTS

OK



SW NG



nnn: error pad name

Strength can not be detected



nnn: pad name; vvv: Beaten strength

TEST END
This test ends after displaying the results.
Press the [CANCEL] switch to finish this test.

C-6 ENCODER

```
ENC=DATA  R=0    06
```

The display shows the required encoder name and the direction to be rotated.
According to the display, rotate the encoder counterclockwise from "R=0" to "R=10".
The display will then change to "L=0".
After that, rotate the encoder clockwise from "L=0" to "L=10".
When the result of this test is "OK", at this time the display will show the next test encoder.
When the rotation detection of the encoder cannot be detected, rotate analternate encoder and the test win enter the detection standby status.

The test encoders are checked in the order below.

DATA ENTRY (DATA), LP1, LP2, CL1, CL2, CL3, CL4, FR1, FR2, FR3, FR4, AUDIO IN (AUDIO), MASTER (MASTR)

DISPLAY OF THE RESULTS

OK
```
ENC=ALL ENC   OK  06
```

NG
```
ENC=nnnnn r=d NG  06
```

nnnnn: error encoder name;
r: direction of rotation;
d: counter number

TEST END
This test ends after displaying the results.
Press the [CANCEL] switch to finish this test.

C-7 RIBBON CONTROLLER TEST

```
RIBBON vvv       07
```

vvv: value

Rub both side of the ribbon controller with a finger several times.
Confirm that the value changes continuously between 30-200, and that the high value (top) is between 200-220 and the low value (bottom) is between 20-30 on the display.

DISPLAY OF THE RESULTS

OK
```
RIBBON  vvv   OK  07
```

NG
```
RIBBON  vvv   NG  07
```

TEST END
Press the [OK] switch when the test is OK.
This test will then end.
Press the [NG] switch when the test is NG.
This test will then end. (You can retry this test.)

C-8 FD INSERT TEST

```
FD INSERT          08
```

When the FD is inserted, the test automatically begins.

DISPLAY OF THE RESULTS

OK
```
FD INSERT       OK  08
```

NG
```
FD INSERT       NG  08
```

TEST END
This test ends after displaying the results.

C-9 FD READ/WRITE

```
FD R/W                  09
```

Insert a floppy disk whitch has been set to the "protect off" position.
When the test is executed, the disk format and the read/write test, by using the two test patterns, are executed.
Confirm that "OK" is displayed.

```
FD R/W S=XXXX     09
```

XXXX: R/W sector

DISPLAY OF THE RESULTS
(only the warning parts mentioned as follows.)

OK
```
FD R/W       OK  09
```

NG

FDC access error
```
FD R/W S=XXXX NG  09
```

TEST END
This test ends after displaying the results.

OTHERS
The 2DD and the 2HD disk formatted with the SU700, and the pre-formatted 2HD (1.44MB) and the 2DD (720KB) disks for MS-DOS can also be used.
When the disk is not formatted, the disk format will be executed first.
When a disk is used that is incompletely formatted, damaged or old, an error may occur.
When this test is executed, the floppy disk data may be destroyed.

C-10 1 kHz STEREO OUT & PHONE-L TEST

```
1KHZ ST PHONE L   10
```

Confirm that the correct signal is output from the STEREO OUT L and the PHONES OUT L jacks.
Insert the appropriate phone plug into each output jack: OUTPUT L, OUTPUT R and PHONES (L/R).
If necessary, verify the output waveform and the output level of each output by using the distortion meter, oscilloscope and AC voltmeter (with a JIS-C filter).
The VOLUME control must be set at maximum for these checks.
This test can also be used to parfom the wavy memory operation test.

STEREO OUT-L:	1 kHz +/- 0.1 Hz, sine wave, distortion less than 0.15%, +6 +/- 3 dBm (10 k ohm load)
STEREO OUT-R:	less than -70 dBm (10 k ohm load)
PHONES (L):	1 kHz +/- 0.1 Hz, sine wave, distortion less than 0.15%, -1 +/- 3 dBm (33 ohm load)
PHONES (R):	less than -70 dBm (33 ohm load)

DISPLAY OF THE RESULTS
Not appearing

TEST END
Press the [CANCEL] switch to finish this test.

OTHERS
When checking the separation, keep the PHONES terminal open.

C-11 1 kHz STEREO OUT-R & PHONS-R TEST

```
1KHZ ST PHONE R   11
```

Confirm that the correct signal is output from the STEREO OUTPUT-R and PHONES OUT-R jacks.
Insert the appropriate phone plug into each output jack: OUTPUT L, OUTPUT R, and PHONES (L/R).
If necessary, verify the output waveform and the output level of each output by using the distortion meter, oscilloscope and AC voltmeter (with a JIS-C filter).
The VOLUME control must be set at maximum for these checks.

STEREO OUT-R:	1 kHz +/- 0.1 Hz, sine wave, distortion less than 0.15%, +6 +/- 3 dBm (10k ohm load)
STEREO OUT-L :	less than -70 dBm (10k ohm load)
PHONES (R) :	1 kHz +/- 0.1 Hz, sine wave, distortion less than 0.15%, -1 +/- 3 dBm (33 ohm load)
PHONES (L) :	less than -70 dBm (33 ohm load)

DISPLAY OF THE RESULTS
Not appearing

TEST END
Press the [CANCEL] switch to finish this test.

OTHERS
When checking the separation, keep the PHONES terminal open.

C-12 REC IN LINE-L TEST

```
REC IN LINE-L   12
```

Input the LINE LEVEL signal to the REC IN-L terminal and confirm that the correct signal is output from the STEREO OUT-L terminal.
Insert the appropriate phone plug into each output jack: STEREO OUT L and STEREO OUT R.
If necessary, verify the output waveform and the output level of each output by using the distortion meter, oscilloscope and AC voltmeter (with a JIS-C filter).
The REC GAIN and the VOLUME control must be set at maximum for these checks.

input signal: -9.0 dBm, 1 kHz +/- 0.1 Hz, distortion less than 0.005 %, impedance 600 ohm
* The SU700 uses the LINE/MIC GAIN switch method with software.

Sound signal route:
DM: REC IN-L → ADC (IC 43) → SWP30B (IC 16) → SPF (IC 10) → SWP30B (IC 16) → DAC (IC 36) → STEREO OUT-L

STEREO OUT-L:	1 kHz +/- 1 Hz, sine wave, distortion less than 0.15%, +6 +/- 4 dBm (10 k ohm load)
STEREO OUT-R:	less than -70 dBm

DISPLAY OF THE RESULTS
Not appearing

TEST END
Press the [CANCEL] switch to finish this test.

C-13 REC IN MIC-L TEST

REC IN MIC-L	13

Input the MIC LEVEL signal to the REC IN-L terminal and confirm that the correct signal is output from the STEREO OUT-L terminal.
Insert the appropriate phone plug into each output jack: STEREO OUT L and STEREO OUT R.
If necessary, verify the output waveform and the output level of each output by using the distortion meter, oscilloscope and AC voltmeter (with a JIS-C filter).
The REC GAIN and the VOLUME control must be set at maximum for these checks.
input signal: -36.0 dBm, 1 kHz +/- 0.1 Hz, distortion less than 0.005%, impedance 600 ohm
*The SU700 uses the LINE/MIC GAIN switch method with software.

Sound signal route:
DM: REC IN-L →ADC (IC 43) →SWP30B (IC 16) →SPF (IC 10) →SWP30B (IC 16) → DAC (IC 36) →STEREO OUT-L

STEREO OUT-L: 1 kHz +/- 1 Hz, sine wave, distortion less than 0.15%, +6 +/- 4 dBm (10 k ohm load)
STEREO OUT-R: less than -70 dBm

DISPLAY OF THE RESULTS
Not appearing

TEST END
Press the [CANCEL] switch to finish this test.

C-14 REC IN LINE-R TEST

REC IN LINE-R	14

Input the LINE LEVEL signal to the REC IN-R terminal and check that the correct signal is output from the STEREO OUT-R terminal.
Insert the appropriate phone plug into each output jack: STEREO OUT L and STEREO OUT R.
If necessary, verify the output waveform and the output level of each output by using the distortion meter, oscilloscope and AC voltmeter (with a JIS-C filter).
The REC GAIN and the VOLUME control must be set at maximum for these checks.

input signal : -9.0 dBm, 1 kHz +/- 0.1 Hz, distortion less than 0.005 %, impedance 600 ohm
* The SU700 uses the LINE/MIC GAIN switch method with software.

Sound signal route:
DM: REC IN-R →ADC (IC 43) →SWP30B (IC 16) →SPF (IC 10) →SWP30B (IC 16) → DAC (IC 36) STEREO OUT-R

STEREO OUT-L: less than -70 dBm
STEREO OUT-R: 1 kHz +/- 1 Hz, sine wave, distortion less than 0.15%, +6 +/- 4 dBm (10 k ohm load)

DISPLAY OF THE RESULTS
Not appearing

TEST END
Press the [CANCEL] switch to finish this test.

C-15 REC IN MIC-R TEST

REC IN MIC-R	15

Input the MIC LEVEL signal to the REC IN-R terminal and check that the correct signal is output from the STEREO OUT-R terminal.
Insert the appropriate phone plug into each output jack: STEREO OUT L and STEREO OUT R.
If necessary, verify the output waveform and the output level of each output by using the distortion meter, oscilloscope and AC voltmeter (with a JIS-C filter).
The REC GAIN and the VOLUME control must be set at maximum for these checks.
input : -36.0 dBm, 1 kHz +/- 0.1 Hz, distortion less than 0.005%, impedance 600 ohm
* The SU700 uses the LINE/MIC GAIN switch method with software.

Sound signal route:
DM: REC IN-R →ADC (IC 43) →SWP30B (IC 16) → SPF (IC 10) →SWP30B (IC 16) → DAC (IC 36) →STEREO OUT-R

STEREO OUT-L: less than -70 dBm
STEREO OUT-R: 1 kHz +/- 1 Hz, sine wave, distortion less than 0.15%, + 6 +/- 4 dBm (10 k ohm load)

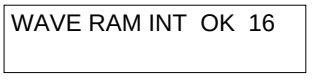
DISPLAY OF THE RESULTS
Not appearing

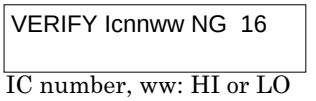
TEST END
Press the [CANCEL] switch to finish this test.

C-16 INTERNAL WAVE MEMORY TEST



Read/write tests of the SWP30B register and the two WAVE DRAMs on the circuit board can be parformed.

DISPLAY OF THE RESULTS
OK 

NG
WAVE RAM verify error 

nn: IC number, ww: HI or LO

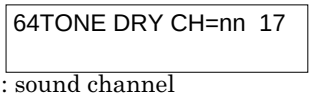
TEST END
This test ends after displaying the result.

C-17 64 CHANNEL OUTPUT TEST (NOT BY WAY OF THE DSP RAM)

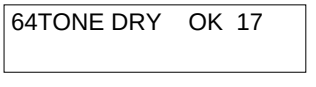


Confirm that the sound generator LSI operates correctly. Confirm by listening that the correct signals of the 64 sounds are output.
The 0.2 seconds sign wave notes from C3 to C4 output with 0.1 seconds intervals repeatedly.
The C4 sound of the 64th note is held for 2 seconds and this test ends.
This test does not end by way of the DSP RAM.

While sounding, the display will indicates the sound channel.

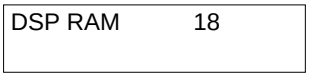


nn : sound channel

DISPLAY OF THE RESULTS
OK 

TEST END
This test ends after displaying the result.

C-18 DSP RAM



Confirm that the correct signal is output from the STEREO OUT-R terminal through the DSP.
The effects type of the DSP are as follows:
STEREO OUT-L : Direct
STEREO OUT-R : by way of the DSP RAM (IC13) and 500 msec Delay

Insert on appropriate phone plugs into the STEREO OUT R output.
If necessary, verify the output waveform and the output level of each output by using the distortion meter, oscilloscope and AC voltmeter (with a JIS-C filter).
The VOLUME control must be set at maximum for these checks.

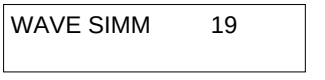
STEREO OUT-R : 1 kHz +/- 0.1 Hz, sine wave, distortion less than 0.15%, + 6 +/- 3 dBm (10 kohm load)

DISPLAY OF THE RESULTS
Not appearing

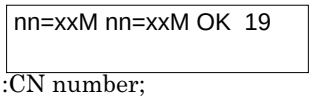
TEST END
Press the [CANCEL] switch to finish this test.

OTHERS
When checking the separation, keep the PHONES terminal open.

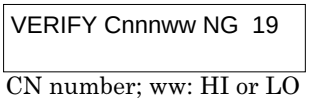
C-19 WAVE RAM SIMM TEST



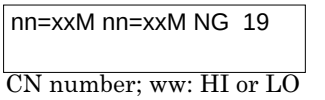
This test is the read/write check for the SWP30B register and the WAVE MEMORY of the Expansion board (72 pin SIMM).

DISPLAY OF THE RESULTS
OK 

nn :CN number;
xx: recognized DRAM capacity (M byte)

NG
WAVE RAM verify error 

nn: CN number; ww: HI or LO

SIMM size error 

nn: CN number; ww: HI or LO

TEST END
This test ends after displaying the results.
Press the [CANCEL] switch to cancel this test.

C-20 DRIVE (1 SECTOR) TEST

```
DRV 1SECTOR      20
SCS.5
```

(SCS: SCSI ID)

The read/write tests from one sector of the SCSI drive are executed.
(If necessary, save the data because the data might be erased when this test is executed.)
This test corresponds only to a drivehaving a cluster size of 512 bytes (HD and MO, etc.).
This test cannot be performed for other cluster size drivers.
If the ID number of the HDD is set, select the ID number by using the [←] and the [→] switches.

DISPLAY OF THE RESULTS

OK

```
*******/+++++ OK  20
                SCS.n
```

n: SCSI ID(0-7); *******: maker name;
+++++++: model

NG

Access error

```
BAD CONDITION NG  20
                SCS.n
```

Read error

```
DEVICE READ   NG  20
                SCS.n
```

Write error

```
DEVICE WRITE  NG  20
                SCS.n
```

Verify error

```
DATA COMPARE  NG  20
                SCS.n
```

TEST END
This test ends after displaying the results.
Press the [CANCEL] switch to cancel this test.

OTHERS
When the test is executed, the disk data will be changed.

C-21 DIGITAL I/O TEST

```
DIGITAL I/O      21
```

After connecting the DIGITAL IN to the DIGITAL OUT via a DIGITAL coaxial cable, execute the test.

DISPLAY OF THE RESULTS

OK

```
DIGITAL I/O   OK  21
```

NG

Data error

```
DIGITAL I/O   NG  21
```

TEST END
This test ends after displaying the results.

C-22 OPTICAL I/O TEST

```
OPICAL I/O       22
```

After connecting the OPTICAL IN to the OPTICAL OUT via a DIGITAL optical cable, execute the test.

DISPLAY OF THE RESULTS

OK

```
OPICAL I/O    OK  22
```

NG

Data error

```
OPICAL I/O    NG  22
```

TEST END
This test ends after displaying the results.

C-23 ASSIGN OUT 1 TEST

```
ASSIGN OUT 1     23
```

Confirm that the correct signal is output from the ASSIGN OUT 1.
Insert the appropriate phone plug into each output jack: ASSIGN OUT 1 to 6.
If necessary, verify the output waveform and the output level of each output by using the distortion meter, oscilloscope and AC voltmeter (with a JIS-C filter).

ASSIGN OUT 1: 1 kHz +/- 0.1 Hz sine wave, distortion less than 0.15%, + 6 +/- 3 dBm (10 kohm load)
ASSIGN OUT 2-6 : less than -78 dBm (10 kohm load)

DISPLAY OF THE RESULTS
Not appearing

TEST END
Press the [CANCEL] switch to finish this test.

C-24 ASSIGN OUT 2
C-25 ASSIGN OUT 3
C-26 ASSIGN OUT 4
C-27 ASSIGN OUT 5
C-28 ASSIGN OUT 6 TEST

These tests can be performed in the same manner as test C-23, ASSIGN OUT 1 TEST.

C-29 FACTORY SETTINGS

FACTORY SET 29

The factory setting dates are written in EEPROM.
Press the [OK] switch, the factory preset data will be restored.

DISPLAY OF THE RESULTS

OK

FACTORY SET OK 29

TEST END
This test ends after displaying the results.

C-30 EXIT

EXIT (RE-BOOT 30

Press the [OK] switch, the test will end and the program will be reactivated.
The residual noise test can be measured after executing this test.

C-31 CPU DRAM & EEPROM ALL TEST

DRAM EEP ALL 31

Perform a read/write tests of the DRAM (IC 14) and the EEPROM (IC 17).
After writing to the DRAM, the DRAM is inspected with the immediate read check and then after four seconds read check.
It checks and confirms that the data is maintained.
The required inspection time is approximately ten seconds, because all areas are checked.

DISPLAY OF THE RESULTS

OK

DRAM EEP ALL OK 31

NG

DRAM read error

DRAM RDXXXXXX NG 31

XXXXXX: error address (Hex)

DRAM refresh error

DRAM REFRESH NG 31

EEPROM read error

EEPROM RD XX NG 31

XX: error address (Hex)

TEST END
This test ends after displaying the result.

OTHERS
The data stored before the tests is preserved when testing the EEPROM.
The data of the DRAM is not preserved.

C-32 ALL INTERNAL WAVE MEMORY TEST

OK

WAVERAM INTALL 32

Read/write tests for all addresses of the SWP30B register and the two WAVE ROMs on the circuit board can be performed.

DISPLAY OF THE RESULTS

OK

WAVERAM INTALL OK 32

NG

WAVE RAM verify error

VERIFY ICnnww NG 32

nn: IC number, ww: HI or LO

TEST END
This test ends after displaying the result.

C-33 64 SOUND OUTPUT TEST (BY WAY OF THE DSP RAM)

64TONE DSP 33

Confirm by listening that the correct signals of the 64 sounds are output.
The 0.2 seconds sign wave notes from C3 to C4 are output with 0.1 seconds intervals repeatedly.
The C4 sound of the 64th note is held for 2 seconds and then this test ends.
This test can also the operation test of the DSP RAM.
the effect types of the DSP are L: DIRECT; and R: 500 msec Delay.

While sounding, the display will indicate the sound channel being used.

64TONE DSP CH=nn 33

nn : sound channel

DISPLAY OF THE RESULTS

OK

```
64TONE DSP    OK  33
```

TEST END

This test ends after displaying the results.

C-34 WAVE RAM SIMM ALL

```
WAVE SIMM ALL     34
```

This test is the read/write check of all addresses for the SWP30B register and the WAVE MEMORY of the Expansion board (72 pin SIMM).
The size error of the opened SIMM is not perceived.

DISPLAY OF THE RESULTS

OK

```
WAVE SIMM ALL OK  34
```

NG

WAVE RAM verify error

```
VERYFY CN nn ww NG 34
```

nn: CN number, ww: HI or LO

TEST END

This test ends after displaying the result.
Press the [CANCEL] switch to cancel this test.

C-35 DRIVE(ALL SECTOR)

```
DRV ALLSECTOR     35
                SCS.5
```

(SCS: SCSI ID)

The read/write tests are executed for one sector of the SCSI drive.
(Save the necessary data, because the data might be changed when this test is executed.)
This test corresponds only to a drive having a cluster size of 512 bytes (HD and MO, etc.).
This test cannot be parformed for a driver that has a different cluster size.
If the ID number of the HDD is set, select the ID number by using the [←] and the [→] switches.

DISPLAY OF THE RESULTS

OK

```
*******/+++++ OK  35
                SCS.n
```

n: SCSI ID(0-7); ********: maker name;
+++++++: model

NG

Access error

```
BAD CONDITOIN NG  35
                SCS.n
```

Read error

```
DEVICE READ   NG  35
                SCS.n
```

Write error

```
DEVICE WRITE  NG  35
                SCS.n
```

Verify error

```
DATA COMPARE  NG  35
                SCS.n
```

TEST END

This test ends after displaying the results.
Press the [CANCEL] switch to cancel this test.

OTHERS

When the test is executed, the data may be changed.
It takes along time to execute this test, and the test cannot be canceled along the way.

C-36 DIGITAL IN TEST

```
DIGITAL IN        36
```

Input the only Lch signal from the DIGITAL IN (coaxial), and confirm that a correct signal is output from the STEREO OUT-L terminal.
Insert the appropriate phone plug into each output jack: STEREO OUT L and STEREO OUT R.
If necessary, verify the output waveform and the output level of each output by using the distortion meter, oscilloscope and AC voltmeter (with a JIS-C filter).
The VOLUME control must be set at maximum for these checks.
Input signal :0 dB, 1 kHz +/- 0.1 Hz, distortion less than 0.005%

Sound signal route:

IO : DIGITAL IN → DIR2
DM : SPF (IC 10) → DAC (IC 36) →STEREO OUT

STEREO OUT-L: 1 kHz +/- 1 Hz, sine wave, distortion less than 0.15%, +18 +/- 4 dBm (10 k ohm load)
STEREO OUT-R: less than -70 dBm

DISPLAY OF THE RESULTS

NG

Digital line error

```
DIGITAL IN    NG  36
```

TEST END

Press the [CANCEL] switch to finish this test.

C-37 OPTICAL IN

OPTICAL IN 37

Inputs the only Lch signal from the OPTICAL IN, and confirms that a correct signal is output from the STEREO OUT-L terminal.
Insert the appropriate phone plug into each output jack: STEREO OUT L and STEREO OUT R.
If necessary, verify the output waveform and the output level of each output by using the distortion meter, oscilloscope and AC voltmeter (with a JIS-C filter).
The VOLUME control must be set at maximum for these checks.
Input signal :0 dB, 1kHz +/- 0.1 Hz, distortion less than 0.005%

Sound signal route:

IO: OPTICAL IN → DIR2
DM: SPF (IC 10) → DAC (IC 36) →STEREO OUT

STEREO OUT-L: 1 kHz +/- 1 Hz, sine wave, distortion less than 0.15 %, +18 +/- 4 dBm (10 k ohm load)
STEREO OUT-R: less than -70 dBm

DISPLAY OF THE RESULTS

NG
Digital line error

OPTICAL IN NG 37

TEST END
Press the [CANCEL] switch to finish this test.

C-38 RESIDUAL NOISE

Confirm that the residual noise level of each analog terminal is sufficiently low.
Wait for several seconds or more after turning the power switch on. (Or, the EXIT test will be executed and the SU700 reactivated.)
(After FACTORY SETTINGS or the AUDIO IN is set to the LINE.)

Insert the appropriate phone plugs into each output jack: OUTPUT L, OUTPUT R, and PHONES (L/R).
If necessary, verify the output waveform and output level of each output by using the distortion meter, oscilloscope and AC voltmeter (with a JIS-C filter).
The VOLUME control must be set at maximum for these checks.
Confirm that the residual noise levels of each analog output terminal are as follows.

STEREO OUT-L: less than -73 dBm (10 k ohm load)
STEREO OUT-R: less than -73 dBm (10 k ohm load)
PHONES (L): less than -73 dBm (33 ohm load)
PHONES (R): less than -73 dBm (33 ohm load)

YAMAHA [Sampling Unit] Date :23-OCT-1998
Model SU700 MIDI Implementation Chart Version : 1.0

Function...	Transmitted	Recognized	Remarks
Basic Default Channel Changed	x 1 - 16	x 1 - 16	
Default Mode Messages Altered	x x **********	3 x x	
Note Number : True voice	0 - 127 **********	0 - 127 0 - 127	
Velocity Note ON Note OFF	o 9nH,v=1-127 *1 x 9nH,v=0	o 9nH,v=1-127 *1 x	
After Key's Touch Ch's	x x	x x	
Pitch Bend	x	x	
1 7 10 71-74 Control 0-95 Change	o *1 o *1 o *1 o *1 o *1	o *1 o *1 o *1 o *1 o *1	Moduration Volume Pan Sound Controller *4
Prog Change : True #	x **********	x	
System Exclusive	x	x	
: Song Pos. Common : Song Sel. : Tune	o x x	o x x	
System : Clock Real Time: Commands	o *2 o *2	o *3 o *3	
: All Sound Off Aux : Reset All Cntrls : Local ON/OFF Mes- : All Notes OFF sages : Active Sense : Reset	X X X X X X	X X X X O X	
Notes: *1 transmit/receive if switch is on. *2 transmit if sync mode is INTERNAL, MTC SLAVE *3 receive if sync mode is EXTERNAL. *4 Assignable Controller Recive MTC quarter frame message if sync mode is MTC SLAVE.			

Mode 1 : OMNI ON , POLY Mode 2 : OMNI ON ,MONO o : Yes
Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF,MONO x : No

SAMPLING UNIT

SU700

PARTS LIST

CONTENTS

OVERALL ASSEMBLY 2
TOP ASSEMBLY 4
ELECTRICAL PARTS ..... 4~12

Notes : DESTINATION ABBREVIATIONS

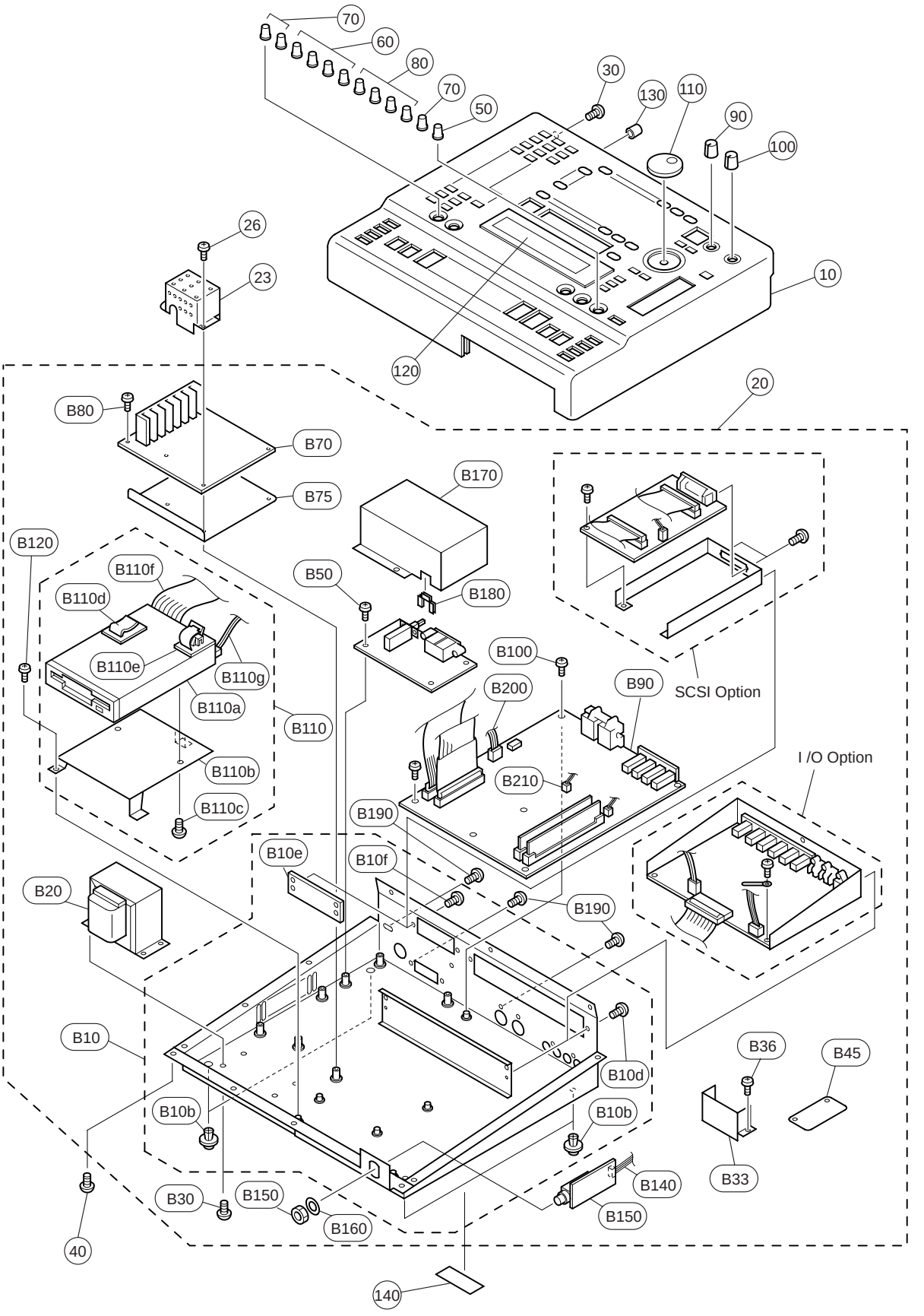
J	: Japanese model	A	: Australian model
U	: U.S.A. model	E	: European model
C	: Canadian model	D	: German model
X	: General export model	B	: British model
M	: South African model	I	: Indonesian model
H	: North European model	O	: Chinese model

■ WARNING

Components having special characteristics are marked ⚠ and must be replaced with parts having specification equal to those originally installed.

- The numbers “QTY” show quantities for each unit.
- The parts with “--” in “PART NO.” are not available as spare parts.
- This mark “ } ” in the REMARKS column means these parts are interchangeable.

OVERALL ASSEMBLY



REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
		OVERALL ASSEMBLY			SU700 J,U,E,B		
10	--	Top Assembly			(VZ09750)		
20	--	Bottom Assembly	J		J (VZ14780)		
20	--	Bottom Assembly	U		U (VZ14790)		
20	--	Bottom Assembly	E		EB (VZ14800)		
23	--	SP Cover			(V247130)		
26	**EP600230**	Bind Head Tapping Screw-B	3.0X6 MFZN2BL			2	01
30	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			3	01
40	**EG340190**	Bind Head Tapping Screw-B	4.0X8 MFZN2BL			12	01
50	**VQ921300**	Knob	S RE		MASTER		03
60	**VK092500**	Knob	S GY		COMPOSED LOOP	4	02
70	**VZ158200**	Knob	S OR		LOOP,AUDIO IN	3	03
80	**VZ158300**	Knob	S BE		FREE	4	03
90	**VP827000**	Knob	L BL-RE		ANAROG LEVEL SAMPLING		03
100	**VP826900**	Knob	L BL-GY		MASTER VOLUME		03
110	**VQ664100**	Encoder Knob			dial		02
120	**VY929500**	Protection Board					08
130	**CB825380**	Push Button			POWER		03
140	--	Name Plate			J (V314780)		
140	--	Name Plate			U (VZ23630)		
140	--	Name Plate			EB (VZ23640)		
	--	Bottom Assembly			J (VZ14780)		
	--	Bottom Assembly			U (VZ14790)		
	--	Bottom Assembly			EB (VZ14800)		
B10	--	Bottom Cover Assembly			(VZ09720)		
B10a	**VZ096700**	Bottom Cover					
B10b	**VU678800**	Foot	3D45			4	03
B10c	**VU931300**	IO Cover					06
B10d	**EG330370**	Bind Head Screw	3.0X6 MFNI33			3	01
B10e	**VU931200**	SCSI Cover					05
B10f	**EG330370**	Bind Head Screw	3.0X6 MFNI33			2	01
B20	**XT174A00**	Power Transformer			J		12
B20	**XT192A00**	Power Transformer			U		12
B20	**XT193A00**	Power Transformer			EB		12
B30	**EG340190**	Bind Head Tapping Screw-B	4.0X8 MFZN2BL			4	01
B33	--	TR cover			(V275120)		
B36	**EP600230**	Bind Head Tapping Screw-B	3.0X6 MFZN2BL			2	01
B40	**VZ157400**	Circuit Board	PS1		J		
B40	**VZ157600**	Circuit Board	PS1		U		
B40	**VZ166100**	Circuit Board	PS1		EB		
B45	--	Shield Sheet			(V269310)		
B50	**EP600230**	Bind Head Tapping Screw-B	3.0X6 MFZN2BL			4	01
B70	**VZ157500**	Circuit Board	PS2		J		
B70	**VZ158100**	Circuit Board	PS2		U		
B70	**VZ166200**	Circuit Board	PS2		EB		
B75	--	Shield Sheet			(V255730)		
B80	**EP600230**	Bind Head Tapping Screw-B	3.0X6 MFZN2BL			3	01
B90	**V2483000**	Circuit Board	DM				
B100	**EP600230**	Bind Head Tapping Screw-B	3.0X6 MFZN2BL			5	01
B110	--	Floppy Disk Drive Assembly			(VZ09690)		
B110a	**VY859300**	Floppy Disk Drive	D359T7				16
B110a	**VZ046700**	Floppy Disk Drive	MF355F-3252MG				16
B110a	**V3075300**	Floppy Disk Drive	MF355F-3252MG F				16
B110b	**VY856400**	Holder, FDD					07
B110c	**EG330360**	Bind Head Screw	3.0X6 MFZN2BL			4	01
B110d	**CB830110**	Cord Binder	MFC-3000				02
B110e	**CB830310**	Clamper	CKN-13				02
B110f	**VV970800**	Connector Assembly	#28FC DM-FDD				08
* B110g	**VV971400**	Connector Assembly	#22 PS-FDD				
B120	**EP600230**	Bind Head Tapping Screw-B	3.0X6 MFZN2BL			3	01
B130	**VZ157200**	Circuit Board	HP				
B140	--	Connector Assembly	#28 DM-HP		(VV97060)		
B150	**ES200210**	Hexagonal Nut	12.0 14X2 MFNI33				01
B160	**ET500230**	Washer	12.0X16X0.5 MFNI33				01
B170	**VY857100**	PS Cover					06
B180	**VY954000**	Edge Cover					04
B190	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			9	01
B200	--	Connector Assembly	#22 PS-DM		(VV97040)		
B210	--	Connector Assembly	#28 PS-DM		(VV97050)		

✻: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
B220	--	Conductive Tape			(V275680)		
		ACCESSORIES					
	XT588A00	Magneto Optical Disk	12CM				05
*	**XV744A0O**	Floppy Disk					
	VT015700	AC Cord Set	J 2 2.5M 7A		J		05
	VT015800	AC Cord Set	U2 2.44M 7A		U		06
	VT015900	AC Cord Set	E 2 2.5M		E		05
	VT016000	AC Cord Set	B 2 2.5M		B		08
*	**V2513800**	Connector Assembly	DM-IO 40P				11
*	**V3116100**	Connector Assembly	PS-IO 3P				

✻: New Parts

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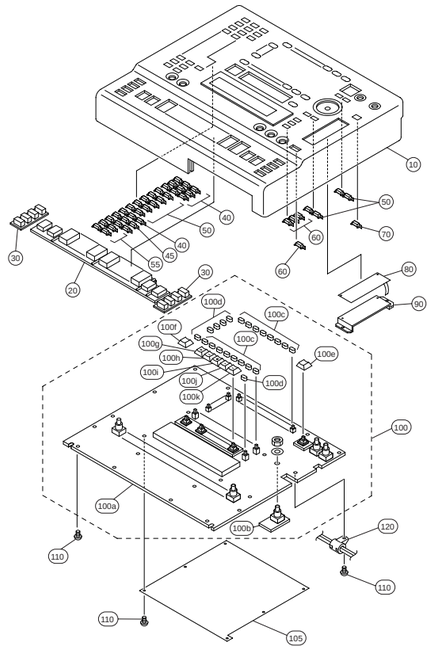
TOP ASSEMBLY



REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	--	Top Assembly			SU700 (VZ09750)		
10	**VZ095800**	Top Cover Assembly					
20	**VY857300**	Rubber Contact L					08
30	**VY857200**	Rubber Contact S				2	06
40	**VM953300**	Button M3	SW M3 BL		SOUND,GROVE,EFFECT	4	03
* 45	**V2822400**	Button M3	SW M3 GY		EFFECT SETUP	2	
50	**VQ578800**	Button M2	SW M2 BL		LFO,EQ,FILTER,<- ->,	7	03
					CANCEL OK	7	
* 55	**V2822000**	Button M2	SW M2 GY		JOB,NAME	2	
60	**VM953400**	Button M1	SW M1 BL		MEASURE,BPM,NOTE,	4	03
					RIBON TRACK	4	
70	**VZ097700**	Button V1	SW V1 BL		BPM COUNTER		03
80	**VU033000**	Touch Volume	SMD01 (10KB)				07
90	**VY856800**	Angle Bracket					04
100	--	PN Circuit Board Assembly			(VZ09790)		
100a	**VZ157100**	Circuit Board	PN				
100b	**VZ157300**	Circuit Board	RE				
100c	**VK406800**	Switch Knob L			SONG,TRACK SET,TRACK EDIT	16	02
					EVENT EDIT,SAMPLE,	16	
					RESAMPLE,DISK,SYSTEM,	16	
					INIT,TOP,A to G	16	
100d	**VK661500**	Switch Knob G			NAME,COPY,INIT,MRT OFFSET	6	02
100e	**VY951100**	Knob 1			STANDBY/START/STOP	03	
100f	**VY951200**	Knob 2			rec	05	
100g	**VY951300**	Knob 3			top	04	
100h	**VY951400**	Knob 4			rew	04	
100i	**VY951500**	Knob 5			stop	04	
100j	**VY951600**	Knob 6			play		04
100k	**VY951700**	Knob 7			ff		04
105	--	PN Cover			(V247150)		
110	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			22	01
* 120	**V2513700**	Ferrite Core	TFCK-16813				
125	**EP600220**	Bind Head Tapping Screw-B	3.0X10 MFZN2Y				01
130	--	Shield Frame	L		(V246030)		
140	--	Shield Frame	R		(V246040)		
150	--	Shield Frame	F		(V246050)		

*: New Parts

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ELECTRICAL PARTS

REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
		ELECTRICAL PARTS			SU700		
*	**V2483000**	Circuit Board	DM		(XT091C0)		
	VZ157200	Circuit Board	HP		(XT092C0)		
	VZ157100	Circuit Board	PN		(XT092C0)		
	VZ157300	Circuit Board	RE		(XT092C0)		
	VZ157400	Circuit Board	PS1		J (XT093D0)		
	VZ157600	Circuit Board	PS1		U (XT093D0)		
	VZ166100	Circuit Board	PS1		EB (XT093D0)		
	VZ157500	Circuit Board	PS2		J (XT093D0)		
	VZ158100	Circuit Board	PS2		U (XT093D0)		
	VZ166200	Circuit Board	PS2		EB (XT093D0)		
*	**V2483000**	Circuit Board	DM		(XT091D0)		
20	**VU931500**	Holder, Jack					03
30	--	Shield	JK		(V269320)		
100	--	Connector Assembly	DM		(V357830)		
C1	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
-3	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
C4	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C5	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
C6	**UF138470**	Electrolytic Cap. (chip)	470 16V UUR1C4				02
C7	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
-17	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
C18	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
C19	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
C20	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
C21	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
-27	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
C28	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C29	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
C30	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
-32	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
C33	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
C34	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
C35	**UB051100**	Monolithic Ceramic Cap.	SL 10P 50V D				01
C36	**UB051100**	Monolithic Ceramic Cap.	SL 10P 50V D				01
C37	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
-49	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
C50	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
C51	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
-55	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
C56	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
C57	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C58	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
C59	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
C60	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
C61	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
C62	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
C63	**UB051150**	Monolithic Ceramic Cap.	SL 15P 50V J				01
C64	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
C65	**VS027400**	Mylar Capacitor (chip)	0.01 16V G				01
C66	**VY846100**	Mylar Capacitor (chip)	0.47 16V J				02
C67	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
C68	**VY670900**	Electrolytic Cap. (chip)	22.00 16.0V				01
C69	**VY670900**	Electrolytic Cap. (chip)	22.00 16.0V				01
C70	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
C71	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
C74	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
C75	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
C80	**UB052100**	Monolithic Ceramic Cap.	SL 100P 50V J				01
C81	**UB052100**	Monolithic Ceramic Cap.	SL 100P 50V J				01
C82	**VY670900**	Electrolytic Cap. (chip)	22.00 16.0V				01
C83	**VY670900**	Electrolytic Cap. (chip)	22.00 16.0V				01
C84	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C85	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C88	**VY671200**	Electrolytic Cap. (chip)	47.00 16.0V				01
C89	**VY671200**	Electrolytic Cap. (chip)	47.00 16.0V				01
C90	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
C93	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
C94	**VY670900**	Electrolytic Cap. (chip)	22.00 16.0V				01

*: New Parts

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	C95	**VY670900**	Electrolytic Cap. (chip)	22.00 16.0V				01
	C98	**UB012330**	Monolithic Ceramic Cap.	B 330P 50V K				01
	C99	**UB012330**	Monolithic Ceramic Cap.	B 330P 50V K				01
	C100	**UB012220**	Monolithic Ceramic Cap.	B 220P 50V K				01
	C101	**UB012220**	Monolithic Ceramic Cap.	B 220P 50V K				01
	C104	**VR329100**	Mylar Capacitor (chip)	0.001 50V J				01
	C105	**VR329100**	Mylar Capacitor (chip)	0.001 50V J				01
	C108	**VY670900**	Electrolytic Cap. (chip)	22.00 16.0V				01
	-113	**VY670900**	Electrolytic Cap. (chip)	22.00 16.0V				01
	C114	**VR329600**	Mylar Capacitor (chip)	0.0027 50V J				01
	C115	**VR329600**	Mylar Capacitor (chip)	0.0027 50V J				01
	C116	**VR327800**	Mylar Capacitor (chip)	.00015 50V J				01
	C117	**VR327800**	Mylar Capacitor (chip)	.00015 50V J				01
	C118	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
	C121	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
	C122	**UB052100**	Monolithic Ceramic Cap.	SL 100P 50V J				01
	C123	**UB052100**	Monolithic Ceramic Cap.	SL 100P 50V J				01
	C124	**VY671200**	Electrolytic Cap. (chip)	47.00 16.0V				01
	C125	**UB012220**	Monolithic Ceramic Cap.	B 220P 50V K				01
	C126	**VY671200**	Electrolytic Cap. (chip)	47.00 16.0V				01
	C127	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
	C128	**UB012220**	Monolithic Ceramic Cap.	B 220P 50V K				01
	C129	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
	C130	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
	C131	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C132	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
*	C133	**VR329900**	Mylar Capacitor (chip)	0.0047 50V J				
*	-136	**VR329900**	Mylar Capacitor (chip)	0.0047 50V J				
	C137	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
	C138	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
	C139	**UB012220**	Monolithic Ceramic Cap.	B 220P 50V K				01
	C140	**UB012470**	Monolithic Ceramic Cap.	B 470P 50V K				01
	C141	**UB012470**	Monolithic Ceramic Cap.	B 470P 50V K				01
	C142	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
	C143	**UB012220**	Monolithic Ceramic Cap.	B 220P 50V K				01
	C144	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
	C147	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
	C148	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
	C149	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
	C150	**VY671200**	Electrolytic Cap. (chip)	47.00 16.0V				01
	C151	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
	-160	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
	C161	**VY671200**	Electrolytic Cap. (chip)	47.00 16.0V				01
	C166	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
	C167	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
	C168	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
	-170	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
	C171	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
	C172	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
	-179	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
	C180	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
	C181	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
	-196	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
	C197	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
	C198	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
	-209	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
	C210	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
	C211	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
	-215	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
	C216	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
	C217	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
	-219	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
	C220	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
	C221	**VY671200**	Electrolytic Cap. (chip)	47.00 16.0V				01
	-224	**VY671200**	Electrolytic Cap. (chip)	47.00 16.0V				01
	C225	**UG038100**	Electrolytic Cap. (chip)	100UF 16V				01
	C226	**UG038100**	Electrolytic Cap. (chip)	100UF 16V				01
	C227	**UB245100**	Monolithic Ceramic Cap.	F 0.1 25V Z				01
	CN1	**LB932040**	Base Post Connector	VH- 4P TE				01
	CN2	**VL536600**	Connector Header	HIF3FC-50PA2.54DSA				03

✻: New Parts

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	CN3	**VB390100**	Connector Base Post	PH- 5P TE				01
	CN4	**VK270300**	Straight Header	HIF3FC40PA-2.54DSA				05
	CN5	**VH343800**	Connector Header	HIF3FC-34PA2.54DSA				03
	CN6	**VV345900**	SIMM Socket	SX3LB-72S-1.27DSA				04
	CN7	**VV345900**	SIMM Socket	SX3LB-72S-1.27DSA				04
	CN8	**VB389900**	Connector Base Post	PH- 3P TE				01
	CN9	**VB390800**	Connector Base Post	PH-12P TE				01
	CN10	**VB389900**	Connector Base Post	PH- 3P TE				01
	D1	**VV925900**	Diode	RLS-73 TE-11				01
	D2	**VQ282500**	Diode	MA737				02
	D3	**VQ282500**	Diode	MA737				02
	D4	**VV925900**	Diode	RLS-73 TE-11				01
	-7	**VV925900**	Diode	RLS-73 TE-11				01
	D8	**VS201100**	Diode	D1F60				01
	EM1	**VL409500**	Coil	BL03RN2-R62T4				01
	IC1	**XR336A00**	IC	TC7W14F		TE12L INVERTER		02
	IC2	**XT175A00**	IC	TC74VHC245FS		BUS TRANSCEIVER		03
	-5	**XT175A00**	IC	TC74VHC245FS		BUS TRANSCEIVER		03
	IC2	**XU797A00**	IC	TC74VHC245FT		BUS TRANSCEIVER		03
	-5	**XU797A00**	IC	TC74VHC245FT		BUS TRANSCEIVER		03
	IC6	**XD655A00**	IC	TC74HC00AF		NAND		01
	IC7	**VR903700**	Photo Coupler	HCPL-M600				04
	IC8	**XT175A00**	IC	TC74VHC245FS		BUS TRANSCEIVER		03
	IC8	**XU797A00**	IC	TC74VHC245FT				03
	IC9	**XT175A00**	IC	TC74VHC245FS		BUS TRANSCEIVER		03
	IC9	**XU797A00**	IC	TC74VHC245FT				03
	IC10	**XS369A00**	IC	D65636GF-104-3B9		SPF		07
*	IC11	**XT628E00**	IC	M27C800-100F1		EPROM 16M		
	IC12	**XD835A00**	IC	SN74HC138NSR		DECODER		02
	IC13	**XR977A00**	IC	HM514260CJ-7				
	IC13	**XT165A00**	IC	NN514260J-60		DRAM 4M		16
	IC13	**XV077A00**	IC	MSM514260C-60JS				07
*	IC13	**XV839A00**	IC	SDM4260CLU-6S				
	IC14	**XR977A00**	IC	HM514260CJ-7				
	IC14	**XT165A00**	IC	NN514260J-60		DRAM 4M		16
	IC14	**XV077A00**	IC	MSM514260C-60JS				07
*	IC14	**XV839A00**	IC	SDM4260CLU-6S				
	IC15	**XS516A00**	IC	UPC2933T-E1		REGULATOR +3.3V		03
	IC16	**XS725A00**	IC	TC203C760HF-002		SWP30		19
	IC17	**XS204A00**	IC	ST93C46CM1		EEPROM 1K		03
	IC18	**XQ375A00**	IC	HD6413002FP16		CPU		09
	IC19	**XI686A00**	IC	M62021FP		SYSTEM RESET		04
	IC20	**XR336A00**	IC	TC7W14F		INVERTER		02
	IC21	**XS370A00**	IC	D65621GF-028-3B9		SMI		06
	IC22	**XT175A00**	IC	TC74VHC245FS		BUS TRANSCEIVER		03
	-24	**XT175A00**	IC	TC74VHC245FS		BUS TRANSCEIVER		03
	IC22	**XU797A00**	IC	TC74VHC245FT		BUS TRANSCEIVER		03
	-24	**XU797A00**	IC	TC74VHC245FT		BUS TRANSCEIVER		03
	IC25	**XT744A00**	IC	TC74VHCT245AFT		BUFFER		07
	-28	**XT744A00**	IC	TC74VHCT245AFT		BUFFER		07
	IC29	**XP981A00**	IC	UPD4218160LE-60		DRAM 16M		27
	IC29	**XT166A00**	IC	M5M418160CJ-6				27
	IC30	**XP981A00**	IC	UPD4218160LE-60		DRAM 16M		27
	IC30	**XT166A00**	IC	M5M418160CJ-6				27
	IC31	**XI939A00**	IC	HD63266F		FDC		09
	IC32	**XT175A00**	IC	TC74VHC245FS		BUS TRANSCEIVER		03
	IC32	**XU797A00**	IC	TC74VHC245FT				03
	IC33	**XT175A00**	IC	TC74VHC245FS		BUS TRANSCEIVER		03
	IC33	**XU797A00**	IC	TC74VHC245FT				03
	IC34	**XS534A00**	IC	NJM78M05DLA		REGULATOR +5V		02
	IC35	**XR339A00**	IC	TC9246F-TEL		PLL		04
	IC36	**XS695A00**	IC	LC78834M		DA CONVERTER		06
*	IC37	**XV763A00**	IC	OP275GSR		OP AMP		03
	IC38	**XS537A00**	IC	NJM2114M		OP AMP		03
	IC39	**XP251A00**	IC	M5218AFP		OP AMP		01
*	IC40	**XV763A00**	IC	OP275GSR		OP AMP		03
	IC41	**XQ138A00**	IC	NJM4556AMT1		OP AMP		03
	IC42	**XS893A00**	IC	TL32088CNST-EL		AD FRONTEND		03
	IC43	**XS892A00**	IC	TLC320AD58CDWT-EL		AD CONVERTER		09
	IC44	**XM588A00**	IC	TC7S32F		OR		01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
IC45	**XJ598A00**	IC	NJM78L05UA		REGULATOR +5V		02
IS1	**VK863100**	IC Socket	DICF-42CS-E				03
JK1	**VJ249300**	DIN Connector	5P3 YKF51-50		MIDI(IN,OUT)		03
JK2	**VB312600**	Phone Jack	YKB21-5012		ANALOG INPUT(L)		02
JK3	**VB312600**	Phone Jack	YKB21-5012		ANALOG INPUT(R)		02
JK4	**VC687500**	Phone Jack	YKB21-5014		STEREO OUT(L/MONO)		01
JK5	**VB312600**	Phone Jack	YKB21-5012		STEREO OUT (R)		02
L1	**VS740100**	Chip Inductance	BLM21B751S 2125				03
L2	**VS740100**	Chip Inductance	BLM21B751S 2125				03
-8	**VS740100**	Chip Inductance	BLM21B751S 2125				03
L9	**VU954000**	Chip Inductance	BLM21P300SPT				01
L10	**VU954000**	Chip Solid Inductance	BLM21P300SPT				01
-14	**VU954000**	Chip Solid Inductance	BLM21P300SPT				01
L16	**VU954000**	Chip Solid Inductance	BLM21P300SPT				01
R1	**RD255220**	Carbon Resistor (chip)	220.0 0.1 J				01
-3	**RD255220**	Carbon Resistor (chip)	220.0 0.1 J				01
R4	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R5	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
-7	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R8	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R9	**RD256470**	Carbon Resistor (chip)	4.7K 0.1 J				01
R10	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R11	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R12	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R13	**RD256470**	Carbon Resistor (chip)	4.7K 0.1 J				01
R14	**RD256470**	Carbon Resistor (chip)	4.7K 0.1 J				01
R15	**RD254270**	Carbon Resistor (chip)	27.0 0.1 J				01
R16	**RD254270**	Carbon Resistor (chip)	27.0 0.1 J				01
R17	**RD256220**	Carbon Resistor (chip)	2.2K 0.1 J				01
-21	**RD256220**	Carbon Resistor (chip)	2.2K 0.1 J				01
R22	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R23	**RD258220**	Carbon Resistor (chip)	220.0K 0.1 J				01
R24	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R25	**RD256150**	Carbon Resistor (chip)	1.5K 0.1 J				01
R26	**RD257220**	Carbon Resistor (chip)	22.0K 0.1 J				01
R27	**RD257220**	Carbon Resistor (chip)	22.0K 0.1 J				01
R28	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R29	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R30	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R31	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R32	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
R33	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
R34	**RD255470**	Carbon Resistor (chip)	470.0 0.1 J				01
R35	**RD257220**	Carbon Resistor (chip)	22.0K 0.1 J				01
R36	**RD255470**	Carbon Resistor (chip)	470.0 0.1 J				01
R37	**RD257220**	Carbon Resistor (chip)	22.0K 0.1 J				01
-39	**RD257220**	Carbon Resistor (chip)	22.0K 0.1 J				01
R40	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
R41	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-43	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R44	**RD256470**	Carbon Resistor (chip)	4.7K 0.1 J				01
R45	**RD256470**	Carbon Resistor (chip)	4.7K 0.1 J				01
R46	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R47	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R48	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R49	**RD255150**	Carbon Resistor (chip)	150.0 0.1 J				01
R52	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R53	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R54	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R55	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R56	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
R57	**RD256150**	Carbon Resistor (chip)	1.5K 0.1 J				01
R58	**RD256150**	Carbon Resistor (chip)	1.5K 0.1 J				01
R59	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
R60	**RD256470**	Carbon Resistor (chip)	4.7K 0.1 J				01
R61	**RD256470**	Carbon Resistor (chip)	4.7K 0.1 J				01
R62	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R63	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R64	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R65	**RD256470**	Carbon Resistor (chip)	4.7K 0.1 J				01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
R66	**RD256470**	Carbon Resistor (chip)	4.7K 0.1 J				01
R67	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R68	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R69	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R70	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R71	**RD256820**	Carbon Resistor (chip)	8.2K 0.1 J				01
R72	**RD256820**	Carbon Resistor (chip)	8.2K 0.1 J				01
R73	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R74	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R75	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
R76	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
R77	**RD256820**	Carbon Resistor (chip)	8.2K 0.1 J				01
R78	**RD256820**	Carbon Resistor (chip)	8.2K 0.1 J				01
R79	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
-81	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R84	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R85	**RD256470**	Carbon Resistor (chip)	4.7K 0.1 J				01
R86	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R87	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R88	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R89	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
R90	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
R91	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R92	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R93	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R94	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
-96	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R97	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R98	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R99	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-102	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R103	**RD256470**	Carbon Resistor (chip)	4.7K 0.1 J				01
R104	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R105	**RD254470**	Carbon Resistor (chip)	47.0 0.1 J				01
R106	**RD254470**	Carbon Resistor (chip)	47.0 0.1 J				01
R107	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R109	**RD255220**	Carbon Resistor (chip)	220.0 0.1 J				01
-111	**RD255220**	Carbon Resistor (chip)	220.0 0.1 J				01
R112	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-121	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R122	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R123	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-133	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R134	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R135	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R136	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R137	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R138	**RD256120**	Carbon Resistor (chip)	1.2K 0.1 J				01
R139	**RD256120**	Carbon Resistor (chip)	1.2K 0.1 J				01
R140	**RD256180**	Carbon Resistor (chip)	1.8K 0.1 J				01
R141	**RD256180**	Carbon Resistor (chip)	1.8K 0.1 J				01
R142	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R143	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R144	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R145	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R146	**RD259100**	Carbon Resistor (chip)	1.0M 0.1 J				01
R147	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R148	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R149	**RD154100**	Carbon Resistor (chip)	10.0 0.1 J				01
R150	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R151	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R152	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
R153	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
R154	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
R155	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R156	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R157	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
RA1	**RE045100**	Resistor Array	100X4				01
RA2	**RE047100**	Resistor Array	10KX4				01
RA3	**RE045100**	Resistor Array	100X4				01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
RA4	**RE047100**	Resistor Array	10KX4				01
RA5	**RE045100**	Resistor Array	100X4				01
RA6	**RE045100**	Resistor Array	100X4				01
RA7	**RE047100**	Resistor Array	10KX4				01
-11	**RE047100**	Resistor Array	10KX4				01
RA12	**RE045100**	Resistor Array	100X4				01
-19	**RE045100**	Resistor Array	100X4				01
RA20	**RE047100**	Resistor Array	10KX4				01
RA21	**RE045100**	Resistor Array	100X4				01
-23	**RE045100**	Resistor Array	100X4				01
RA24	**RE047100**	Resistor Array	10KX4				01
RA25	**RE045100**	Resistor Array	100X4				01
RA26	**RE045100**	Resistor Array	100X4				01
RA27	**RE047100**	Resistor Array	10KX4				01
RA28	**RE045100**	Resistor Array	100X4				01
-37	**RE045100**	Resistor Array	100X4				01
RA38	**RE044270**	Resistor Array	27X4				01
-46	**RE044270**	Resistor Array	27X4				01
RA47	**RE047100**	Resistor Array	10KX4				01
-53	**RE047100**	Resistor Array	10KX4				01
RA54	**RE047470**	Resistor Array	47KX4				01
RA55	**RE045100**	Resistor Array	100X4				01
-75	**RE045100**	Resistor Array	100X4				01
TR1	**VD303700**	Transistor	2SC3326 A,B TE85R				01
TR2	**VD303700**	Transistor	2SC3326 A,B TE85R				01
TR3	**VR998500**	Digital Transistor	DTC124EUAT106				01
TR4	**VJ927200**	Transistor	2SA1162 O,Y				01
-8	**VD303700**	Transistor	2SC3326 A,B TE85R				01
TR10	**VJ927200**	Transistor	2SA1162 O,Y				01
TR11	**VJ927200**	Transistor	2SA1162 O,Y				01
TR12	**VD303700**	Transistor	2SC3326 A,B TE85R				01
TR13	**VD303700**	Transistor	2SC3326 A,B TE85R				01
X1	**VV345500**	Quartz Crystal Unit	DOC-49S5				05
X2	**VP864900**	Quartz Crystal Unit	16M SMD-49				04
	VZ157200	Circuit Board	HP		(XT093C0)		
	VZ157100	Circuit Board	PN		(XT093C0)		
	VZ157300	Circuit Board	RE		(XT093C0)		
20	**VY856600**	Key Frame S					04
30	**VY856700**	Key Frame L					05
40	**CB069250**	Cord Holder	BK-1				01
50	**VP839100**	Adhesive Tape	12X25				01
80	**VY881500**	Cable Kit					03
90	**VE363000**	Adhesive Tape	W=10				07
C1	**FG644100**	Ceramic Capacitor-F	0.01 50V Z				01
C2	**FG644100**	Ceramic Capacitor-F	0.01 50V Z				01
C3	**UM397470**	Electrolytic Cap.	47.00 16.0V				01
C4	**VC694800**	Semiconductive Cera. Cap.	0.1 25V Z				01
C5	**VC694800**	Semiconductive Cera. Cap.	0.1 25V Z				01
C8	**VC694800**	Semiconductive Cera. Cap.	0.1 25V Z				01
C9	**FG613100**	Ceramic Capacitor-B	1000P 50V K				01
-16	**FG613100**	Ceramic Capacitor-B	1000P 50V K				01
C17	**VC694800**	Semiconductive Cera. Cap.	0.1 25V Z				01
-33	**FG613100**	Ceramic Capacitor-B	1000P 50V K				01
C34	**VC694800**	Semiconductive Cera. Cap.	0.1 25V Z				01
C35	**UM397470**	Electrolytic Cap.	47.00 16.0V				01
C36	**VC694800**	Semiconductive Cera. Cap.	0.1 25V Z				01
C37	**FG644100**	Ceramic Capacitor-F	0.01 50V Z				01
C38	**UM417100**	Electrolytic Cap.	10.00 50.0V				01
C101	**FG613100**	Ceramic Capacitor-B	1000P 50V K				01
C102	**FG613100**	Ceramic Capacitor-B	1000P 50V K				01
CN1	**VV970900**	Connector Assembly	#28 DM-PN				05
CN2	**VV971200**	Connector Assembly	#28 PS-PN				06
CN3	**VU033600**	Connector	FM 5P SE				01
CN4	**VV971600**	Connector Assembly	#28 PN-RE				05
CN5	**VV971100**	Connector Assembly	#28S DM-PN				09
CN6	**--**	Connector Assembly	#28 PS-PN		(V250890)		
CN101	**VB858300**	Connector Base Post	PH- 4P SE				01
CN201	**VB858200**	Connector Base Post	PH- 3P SE				01
CN202	**--**	Connector Assembly	5295&5295		(VK26370)		

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
D1	**VB941200**	Diode	1SS133,1SS176				01
-38	**VB941200**	Diode	1SS133,1SS176				01
D40	**VB941200**	Diode	1SS133,1SS176				01
-137	**VB941200**	Diode	1SS133,1SS176				01
EC1	**VU594400**	Rotary Encoder	EVQ-VBK-F01-24B		LOOP,COMPOSED LOOP,FREE		04
-12	**VU594400**	Rotary Encoder	EVQ-VBK-F01-24B		AUDIO IN,MASTER		04
EC101	**VU481300**	Encoder	REB161 PVB 15F		dial		03
IC1	**IG093700**	IC	NJM2904D		OP AMP		04
* IC2	**XT630100**	IC	M38197MA-XXXFP		CPU		
IC4	**IR407500**	IC	TC74HC4075AP		OR		02
IC5	**IR024550**	IC	SN74HC245N		TRANSCEIVER		06
JK201	**VS194700**	Phone Jack	HLJ0546		PHONES		04
LD1	**VV910100**	Fluorescent Display Tube	BJ537GK				11
R1	**HF757100**	Carbon Resistor	10.0K 1/4 J				01
R2	**HF757100**	Carbon Resistor	10.0K 1/4 J				01
R3	**HF758100**	Carbon Resistor	100.0K 1/4 J				01
R4	**HF756100**	Carbon Resistor	1.0K 1/4 J				01
R5	**HF757100**	Carbon Resistor	10.0K 1/4 J				01
R6	**HF758470**	Carbon Resistor	470.0K 1/4 J				01
R7	**HF756100**	Carbon Resistor	1.0K 1/4 J				01
R8	**HF756100**	Carbon Resistor	1.0K 1/4 J				01
R9	**HF757330**	Carbon Resistor	33.0K 1/4 J				01
R10	**HF757100**	Carbon Resistor	10.0K 1/4 J				01
R11	**HF758100**	Carbon Resistor	100.0K 1/4 J				01
R12	**HF758100**	Carbon Resistor	100.0K 1/4 J				01
R13	**HF757100**	Carbon Resistor	10.0K 1/4 J				01
R14	**HF755100**	Carbon Resistor	100.0 1/4 J				01
R15	**HF755100**	Carbon Resistor	100.0 1/4 J				01
-27	**HF756100**	Carbon Resistor	1.0K 1/4 J				01
R28	**HF759470**	Carbon Resistor	4.7M 1/4 J				01
R29	**HF755100**	Carbon Resistor	100.0 1/4 J				01
R30	**HF756100**	Carbon Resistor	1.0K 1/4 J				01
-33	**HF756100**	Carbon Resistor	1.0K 1/4 J				01
R34	**HF757470**	Carbon Resistor	47.0K 1/4 J				01
R35	**HF756100**	Carbon Resistor	1.0K 1/4 J				01
-37	**HF756100**	Carbon Resistor	1.0K 1/4 J				01
R38	**HF757470**	Carbon Resistor	47.0K 1/4 J				01
R39	**HF756100**	Carbon Resistor	1.0K 1/4 J				01
-59	**HF756100**	Carbon Resistor	1.0K 1/4 J				01
R60	**HF757470**	Carbon Resistor	47.0K 1/4 J				01
-64	**HF757470**	Carbon Resistor	47.0K 1/4 J				01
R65	**HF755220**	Carbon Resistor	220.0 1/4 J				01
-67	**HF755220**	Carbon Resistor	220.0 1/4 J				01
R68	**HF757100**	Carbon Resistor	10.0K 1/4 J				01
R69	**HF757100**	Carbon Resistor	10.0K 1/4 J				01
R101	**HF756100**	Carbon Resistor	1.0K 1/4 J				01
R102	**HF756100**	Carbon Resistor	1.0K 1/4 J				01
RA1	**VE445600**	Resistor Array	RGLD8X473J				01
-4	**VE445600**	Resistor Array	RGLD8X473J				01
SW1	**KA906550**	Push Switch	KEC10901		SONG,TRACK(SET,EDIT),		02
-12	**KA906550**	Push Switch	KEC10901		EVENT EDIT,SAMPLE,DISK, RESAMPLE,SYSTEM,NAME, COPY,INIT,MTR OFFSET		02
SW13	**VV041700**	Light Touch Switch	EVQ 215 04M		MEASURE,BPM,NOTE		01
-15	**VV041700**	Light Touch Switch	EVQ 215 04M				01
SW16	**KA906550**	Push Switch	KEC10901		INIT		02
SW17	**VC893200**	Push Switch	KEY.SW MX1A-0NNN		STANDBY/START/STOP		02
SW18	**VV041700**	Light Touch Switch	EVQ 215 04M		<-		01
SW19	**VV041700**	Light Touch Switch	EVQ 215 04M		->		01
SW20	**KA906550**	Push Switch	KEC10901		UNDO/REDO		02
SW21	**VV041700**	Light Touch Switch	EVQ 215 04M		CANCEL,OK,RIBBON TRACK,		01
-41	**VV041700**	Light Touch Switch	EVQ 215 04M		BPM COUNTER,all SOUND SW, all(GROVE,LFP,EQ) SW,		01
SW62	**KA906550**	Push Switch	KEC10901		TOP,A to G		02
-69	**KA906550**	Push Switch	KEC10901				02
SW70	**VC893200**	Push Switch	KEY.SW MX1A-0NNN		rec,top,rew,stop,play,ff		02
-75	**VC893200**	Push Switch	KEY.SW MX1A-0NNN				02
SW76	**VY669400**	Slide Switch	SSSF01		SCENE		01
SW77	**VV041700**	Light Touch Switch	EVQ 215 04M		FILTER CUTOFF		01
SW78	**VV041700**	Light Touch Switch	EVQ 215 04M		FILTOR RESONANCE		01

✻: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
SW80	**VV041700**	Light Touch Switch	EVQ 215 04M		all(EFFECT,EFFECT SETUP,		01
-92	**VV041700**	Light Touch Switch	EVQ 215 04M		JOB,NAME) SW		01
TR1	**IC174070**	Transistor	2SC1740S R,S				01
VR1	**VY691300**	Rotary Variable Resistor	A 10.0K RK14K12D		ANALOG LEVEL		03
VR2	**VY691300**	Rotary Variable Resistor	A 10.0K RK14K12D		MASTER VOLUME		03
X1	**VV910200**	Ceramic Resonator	8.40M CST8.40MTW				01
Z1	**VL472400**	Piezoelectric Element	7BB-20-3A7				01
-8	**VL472400**	Piezoelectric Element	7BB-20-3A7				01
	VZ157400	Circuit Board			J (XT093D0)		
	VZ157600	Circuit Board			U (XT093D0)		
	VZ166100	Circuit Board			EB (XT093D0)		
	VZ157500	Circuit Board			J (XT093D0)		
	VZ158100	Circuit Board			U (XT093D0)		
	VZ166200	Circuit Board			EB (XT093D0)		
	--	Jumper Wire			(VA07890)		
20	**VP206500**	Fuse Holder	EYF-52BC				01
30	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL				01
40	**VQ074600**	Bind Head Tapping Screw-B	3.0X12 MFZN2BL				01
60	**VY857400**	Heat Sink					03
70	**--**	Heat Sink			(VF33610)		
C1	**VV961900**	Capacitor	0.01 250V J.U.C.S				01
C2	**VV961900**	Capacitor	0.01 250V J.U.C.S				01
C3	**UA654100**	Mylar Capacitor	0.01 50V J				01
C4	**UA654100**	Mylar Capacitor	0.01 50V J				01
C5	**UA654100**	Mylar Capacitor	0.01 50V J				01
C6	**VR168300**	Monolithic Mylar Capacitor	ECQ-V1H104JL3				01
* C7	**UR868220**	Electrolytic Cap.	220.00 50.0V				
C8	**UA654100**	Mylar Capacitor	0.01 50V J				01
C10	**VV960800**	Electrolytic Cap.	10000 25.0V				05
C11	**UR849100**	Electrolytic Cap.	1000 25.0V				01
C12	**UR849100**	Electrolytic Cap.	1000 25.0V				01
C13	**UR857100**	Electrolytic Cap.	10.00 35.0V				01
C14	**VR168300**	Monolithic Mylar Capacitor	ECQ-V1H104JL3				01
-17	**VR168300**	Monolithic Mylar Capacitor	ECQ-V1H104JL3				01
C18	**UR866100**	Electrolytic Cap.	1.00 50.0V				01
C19	**UR838470**	Electrolytic Cap.	470.00 16.0V				01
C20	**UR838470**	Electrolytic Cap.	470.00 16.0V				01
C21	**UR838100**	Electrolytic Cap.	100.00 16.0V				01
C22	**UR838100**	Electrolytic Cap.	100.00 16.0V				01
C23	**VR168300**	Monolithic Mylar Capacitor	ECQ-V1H104JL3				01
C24	**VR168300**	Monolithic Mylar Capacitor	ECQ-V1H104JL3				01
C25	**UR838100**	Electrolytic Cap.	100.00 16.0V				01
C26	**VV962500**	Capacitor	2200P 250V J,U,C,S				01
C27	**VV962500**	Capacitor	2200P 250V J,U,C,S				01
C28	**VV961900**	Capacitor	0.01 250V J.U.C.S				01
C29	**VR168300**	Monolithic Mylar Capacitor	ECQ-V1H104JL3				01
CN1	**VZ070900**	AC Inlet	CCT2302-0381		J,E,B AC INLET		02
CN1	**VZ071000**	AC Inlet	CCT2302-0382		U,C AC INLET		02
CN2	**LB932040**	Base Post Connector	VH- 4P TE				01
CN3	**LB932030**	Base Post Connector	VH- 3P TE				01
CN4	**VB390600**	Connector Base Post	PH-10P TE				01
CN5	**LB932040**	Base Post Connector	VH- 4P TE				01
CN6	**LB932030**	Base Post Connector	VH- 3P TE				01
CN7	**LB932020**	Base Post Connector	VH- 2P TE				01
CN8	**LB932030**	Base Post Connector	VH- 3P TE				01
CN9	**LB932040**	Base Post Connector	VH- 4P TE				01
CN10	**VB390100**	Connector Base Post	PH- 5P TE				01
CN11	**VB389900**	Connector Base Post	PH- 3P TE				01
CN12	**VB389800**	Connector Base Post	PH- 2P TE				01
D1	**VE412900**	Diode	D10SC4M 10.0A 40V				05
D2	**VQ379300**	Diode	S1VB20 1.0A 200V				03
D3	**VU652800**	Diode	1SR139-400 T-31				01
D4	**VB481900**	Diode	11ES4				01
D5	**VB481900**	Diode	11ES4				01
F1	**KB003530**	Fuse	1.00A JU		J		01
F1	**KB003520**	Fuse	800mA JU		U,C		01
F1	**KB003010**	Fuse	500mA S		E,B		01
IC1	**XT099A00**	IC	STK730C		SW.REGULATOR		07
IC2	**XJ608A00**	IC	NJM7812FA		REGULATOR +12V		02

✻ : New Parts

RANK : Japan only

REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
IC3	**XD343A00**	IC	NJM79M12FA		REGULATOR -12V		03
L1	**GD900760**	Coil	PLAA3021R0R01B1				06
L2	**VV962000**	Coil	HP032Z				06
L3	**GE300670**	Ferrite Bead	BL02RN2-R62T4				02
L4	**GE300670**	Ferrite Bead	BL02RN2-R62T4				02
R1	**HF756470**	Carbon Resistor	4.7K 1/4 J				01
R2	**HZ002970**	Wire Wound Resistor	0.10 2W K				01
R3	**HF757100**	Carbon Resistor	10.0K 1/4 J				01
R4	**HF757100**	Carbon Resistor	10.0K 1/4 J				01
R5	**HF755470**	Carbon Resistor	470.0 1/4 J				01
R6	**HF753330**	Carbon Resistor	3.3 1/4 J				01
SW1	**VT661800**	Power Switch	SDDLB1-B-E-2 U.C.S		POWER ON/OFF		03
ZD1	**VQ272500**	Zener Diode	MTZJ5.6C 5.6V				01
	XT174A00	Power Transformer			J		12
	XT192A00	Power Transformer			U		12
	XT193A00	Power Transformer			EB		12
	VT015700	AC Cord Set	J 2 2.5M 7A		J		05
	VT015800	AC Cord Set	U2 2.44M 7A		U		06
	VT015900	AC Cord Set	E 2 2.5M		E		05
	VT016000	AC Cord Set	B 2 2.5M		B		08
	VU033000	Touch Volume	SMD01 (10KB)				07
	VY859300	Floppy Disk Drive	D359T7				16
	VZ046700	Floppy Disk Drive	MF355F-3252MG				16
	V3075300	Floppy Disk Drive	MF355F-3252MG F				16

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✻: New Parts

RANK : Japan only

■SU700 CIRCUIT DIAGRAM 1/2(DM1/2)

SU700

to PS2-CN9

to PN1/2-CN1

to FDD

to SCSI

to I/O

to DM2/2 I3

to DM2/2 B5

SIMM SLOT L

SIMM SLOT H

28CC1-881769-2

（マ）：Mylar Capacitor
（セ）：Ceramic Capacitor
（半セ）：Semiconductive Cera. Cap.

SU700

■SU700 CIRCUIT DIAGRAM 2/2(DM2/2,PN1/2,PN2/2,PS1,PS2,RE,HP)

SU700

DM 2/2

ANALOG INPUT L

ANALOG INPUT R

OPAMP

OPAMP

OPAMP

OPAMP

AD FRONT END

AD CONVERTER

to PN2/2-CN5

From DM1/2 I11

PLL

DA CONVERTER

From DM1/2 I11

REGULATOR +5V

REGULATOR +5V

OPAMP

OPAMP

OPAMP

OPAMP

OPAMP

OPAMP

STEREO OUT L/MONO

STEREO OUT R

28CC1-881769/3

HP

フェライトコア

28CC1-8811770/0

to POWER TRANSFORMER

PS2

SW REGULATOR

REGULATOR +12V

REGULATOR -12V

to I/O

to I/O

to SCSI

to FDD

to DM1/2-CN1

28CC1-8811771/2

PN 1/2

CPU

PLL

TRANCEIVER

OP AMP

OR

from DM1/2-CN3

to TOUCH VOLUME

28CC1-881770/0

PS1

AC-INLET

to POWER TRANSFORMER

28CC1-8811771/2

RE

28CC1-881770/0

PN 2/2

from DM2/2-CN9

28CC1-881170/0

- NJM78L05UA (XJ598A00) REGULATOR +5V — 1: OUTPUT 2: COMMON 3: INPUT
- NJM79M12FA (XD343A00) REGULATOR -12V — 1: OUTPUT 2: INPUT 3: COMMON
- NJM7812FA (XJ608A00) REGULATOR +12V — 1: INPUT 2: GND 3: OUTPUT
- μPC2933T-E1 (XS516A00) REGULATOR +3.3V — 1: V IN 2: GND 3: OUTPUT
- NJM78M05DLA (XS534A00) REGULATOR +5V — 1: INPUT 2: GND 3: OUTPUT
- STK730C (XT099A00) SW REGULATOR

（マ）：Mylar Capacitor
（セ）：Ceramic Capacitor
（半セ）：Semiconductive Cera. Cap.

SU700