HPD-15
HANDSONIC

SERVICE NOTES

First Edition

Issued by RJA

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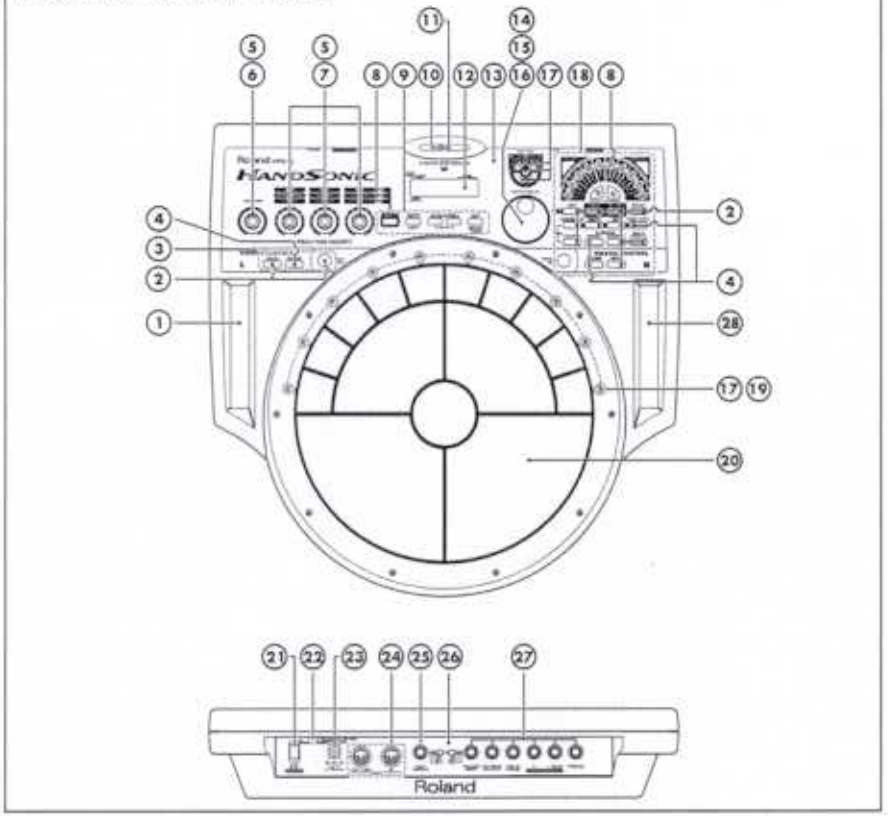
LOCATION OF CONTROLS



SPECIFICATIONS

HPD-15: HandSonic

- **Maximum Polyphony**
  64 Voices
- **Instruments**
  Pad Instruments: 600
  Backing Instruments: 54
- **User Patches**
  80
- **Preset Patches**
  160
- **Patch Chains**
  10 chains (32 steps per chain)
- **Effect Type**
  Reverb, Multi-Effects
- **Sequencer**
  User Patterns: 99 (Maximum)
  Preset Patterns: 99
  Tracks: 4
  Play Functions: OneShot, Loop, Tap
  Resolution: 96 ticks per quarter note
  Recording Method: Real-time
- **Tempo**
  20-240
- **Display**
  16 characters, 2 lines (backlit LCD)
- **Controls**
  Volume Knob
  Realtime Modify Knob 1/2/3
  Ribbon L/R
  D Beam
- **Pad**
  10 inches, 15 sections, Pressure-Sensitive
- **Connectors**
  Output Jacks (L (MONO), R)
  Phones Jack (stereo)
  Mix In Jack (stereo)
  Expression Pedal / Hi-Hat Control Jack
  Trigger Input Jack (dual)
  Foot Switch Jack (dual)
  MIDI Connectors (IN, OUT/THRU)
- **Output Impedance**
  1 k ohms
- **Power Supply**
  AC Adaptor (DC 9V)
- **Current Draw**
  1000 mA
- **Dimensions**
  406 (W) x 405 (D) x 98 (H) mm
  16 (W) x 16 (D) x 3-7/8 (H) inches
- **Weight**
  2.9 kg / 6 lbs 7 oz (Excluding AC Adaptor)
- **Accessories**
  Owner's Manual — English: 71459701; Japanese: 71452023
  AC Adaptor (ACI/ACB Series): 230V 230VE: 01458278; 240V: 12445549; 110V: 03905758; 120V: 03905767; 230V: 01018312
  Scale Label (02239423)
- **Options**
  Pad (PD-5, PD-7, PD-9, PD-80, PD-80R, PD-100, PD-120)
  Kick Trigger Unit (KD-7, KD-80, KD-120)
  Hi-Hat Control Pedal (FD-7)
  Expression Pedal (EV-5)
  Foot Switch (BOSS: FS-5U)
  Pad Stand (PDS-15)

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

LOCATION OF CONTROLS (PARTS LIST)

(PARTS LIST)

NO.	PART CODE	PART NAME	DESCRIPTION	Q'TY
1	71786923	RIBBON CONTROLLER	RIBBON L ASSY	1
2	01907100	LED	TLOU1002 (ORANGE)	13
3	01900356	RUBBER SWITCH	RUBBER SWITCH C	1
4	01891890	LED	TLGU1002 (GREEN)	4
5	01343112	J R-KNOB	J R-KNOB MF BLK/LCG	4
6	01900634	20M/M ROTARY POT.	EVJY10FA2A14	1
7	01900656	20M/M ROTARY POT.	EVJ08PFA2B24	3
8	01563312	LED	SML-210LTT86 (RED)	13
9	01900334	RUBBER SWITCH	RUBBER SWITCH B	1
10	01900612	DIODE	DIODE TP5611	1
11	01900623	LED	LED TLN205	1
12	01904269	LCD	MC1602AP1-TGLA	1
13	01900290	PANEL	HPD-15 TOP PANEL	1
14	22465303	D R-KNOB	D R-KNOB L BLK	1
15	01013223	ROTARY ENCODER	EVQ VEM F01 24B	1
16	40235189	RING	SE-9 RING	1
17	01560334	LED	SML-020MVT(RED GREEN)	15
18	01900301	RUBBER SWITCH	RUBBER SWITCH A	1
19	01900367	LED LENS		10
20	01900212	PAD	PLAYING PLATE	1
21	13499175	BUTTON	G S-BUTTON S1H BLK	1
22	22365714	HOOK	CORD HOOK	1
23	13449720	DC JACK	HEC2305-01-250	1
24	13429825	MIDI CONNECTOR	YKF51-5054	1
25	13449252	PHONE JACK	6.5MM YKB21-5006	1
26	01900567	PANEL	REAR PANEL	1
27	00569278	PHONE JACK	6.5MM JACK LGR4609-7100	6
28	71786934	RIBBON CONTROLLER	RIBBON R ASSY	1

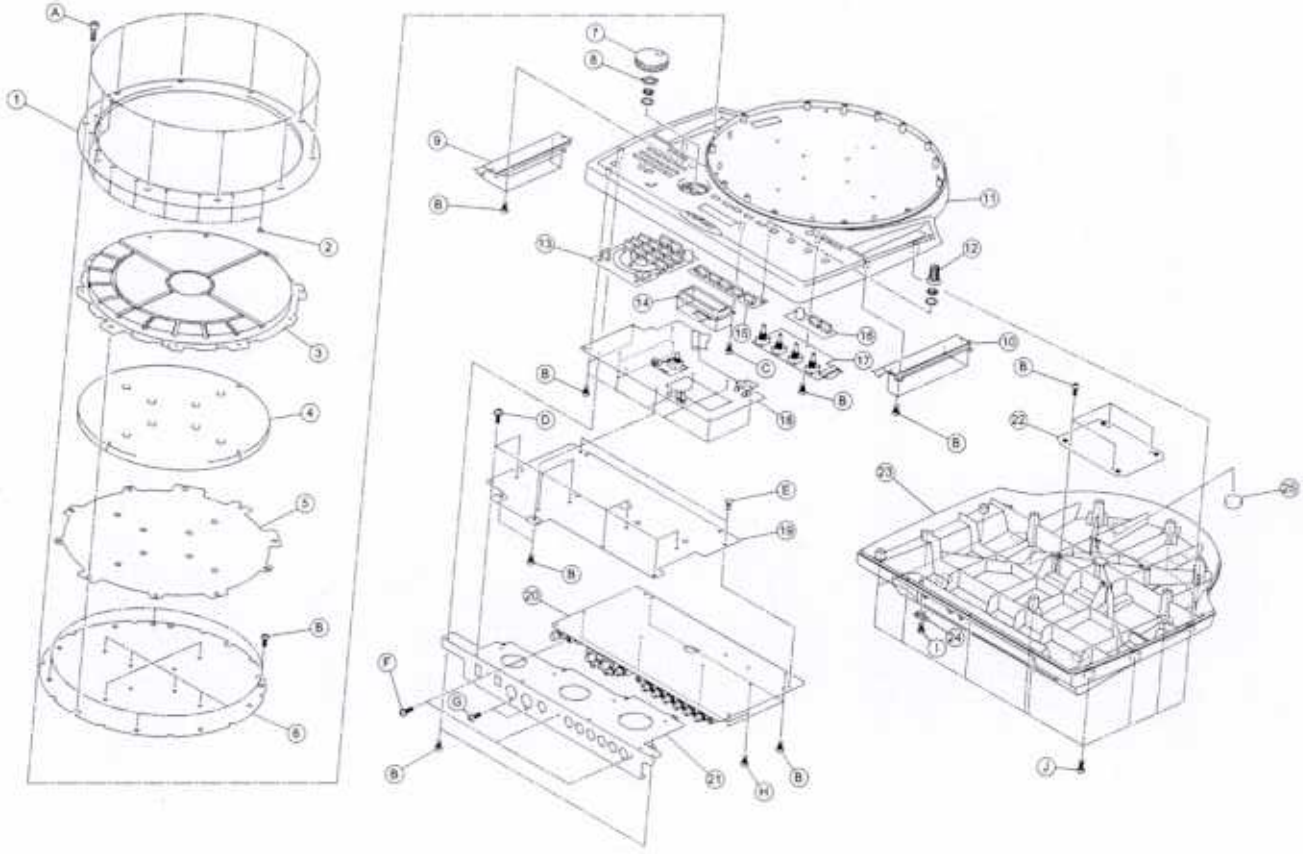
EXPLODED VIEW

[PARTS]

No.	Part Code	Part Name	
1	01900267	PAD HOOP	
2	01900367	LED LENS	
3	01900212	PLAYING PLATE	
4	01900234	CUSHION	
5	01900245	PRESSURE SHEET SENSOR	
6	71451934	SENSOR BOARD ASSY	
7	22485303	D R-KNOB	L BLK 248-303
8	40235189	RING	SE-9
9	71786934	RIBBON CONTROLLER	RIBBON R ASSY
10	71786923	RIBBON CONTROLLER	RIBBON L ASSY
11	01900289	TOP CASE	
12	01343112	J R-KNOB	J R-KNOB MF BLK/LCG
13	01900301	RUBBER SWITCH A	
14	01904289	LCD	MC1602AP1-TGLA
	NOTE:Replacement LCD should be made on a unit base.		
	: LCD		
15	01900334	RUBBER SWITCH B	
16	01900356	RUBBER SWITCH C	
17	71451956	VR BOARD ASSY	
18	71451945	PANEL BOARD ASSY	
	NOTE:'PANEL BOARD ASSY' includes the following parts.		
	: PANEL BOARD ASSY		
	01016478	RIBBON CABLE	3X50-P2.0
	00785812	LED SPACER	LH-5S-3 (3MM HIGHT)
19	01900423	SHIELD SHEET	
20	71451978	MAIN BOARD ASSY(EXG)	
	NOTE:'MAIN BOARD ASSY' includes the following parts.		
	: MAIN BOARD ASSY		
	12199584	GROUNDING TERMINAL	
	40342856	COATING CLIP	
21	01900401	REAR HOLDER	
22	01900390	PLATE	
23	01900378	BOTTOM CASE	
24	22365714	CORD HOOK	236-714
25	01344967	FOOT	

[SCREWS]

No.	Part Code	Part Name	
A	02126156	SCREW M3x10	HEX SOCKET HEAD CAP TAPTITE P
B	40011278	SCREW 3x8	BINDING TAPTITE P ZC
C	40011256	SCREW 2x6	BINDING TAPTITE P ZC
D	40239734	SCREW 3x6	VWH B-TIGHT ZC
E	40016589	NYLON RIVET	NRP-335
F	40011490	SCREW M3x6	PAN MACHINE W/SW BZC
G	40011312	SCREW 3x8	BINDING TAPTITE P BZC
H	40011067	SCREW 3x8	BINDING TAPTITE B FE ZC
I	40011323	SCREW 3x10	BINDING TAPTITE P BZC
J	40011234	SCREW 3x10	BINDING TAPTITE P NI



PARTS LIST

SAFETY PRECAUTIONS:
The parts marked ⚠ have safety-related characteristics. Use only listed parts for replacement.

⚠

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

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

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

オーダーシートには、必ず下記の４項目は正確に記入して下さい。

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

もし記入漏れ、誤記等が有る場合、必要部品が発送出来なかったり、大幅な遅れの原因になります。

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

CASING /

#	01900290	TOP PANEL		1
#	01900289	TOP CASE		1
#	01900287	PAD HOOP		1
#	01900367	LED LENS		10
#	01900378	BOTTOM CASE		1
#	01900567	REAR PANEL		1
#	01900212	PLAYING PLATE		1

CHASSIS /

#	01900491	REAR HOLDER		1
#	01900390	PLATE		1

KNOB, BUTTON /

	12499175	G S-BUTTON	S1H BLK 249-175	1
	01343112	J R-KNOB	J R-KNOB MF BLK/LCG	4
	22485303	D R-KNOB	L BLK 248-303	1
#	01900301	RUBBER SWITCH A		1
#	01900334	RUBBER SWITCH B		1
#	01900356	RUBBER SWITCH C		1

SWITCH /

⚠	01676512	SDKLA1-B	PUSH SWITCH	SW2 on Main Board	1

JACK, EXP TERMINAL /

	13429825	YKF51-5054 2PZ	MIDI CONNECTOR	JK8 on Main Board	1
	00589278	LGR4609-7100	6.5MM JACK	JK3_JK1_JK2_JK6_JK5_JK4 on Main Board	6
	13449252	YKS21-5006 (STEREO W/SW)	6.5MM JACK	JK7 on Main Board	1
	13449720	HEC2305-01-250	DC JACK	JK9 on Main Board	1

DISPLAY UNIT /

#	01904289	MC1602AP1-TGLA	LCD		1
	NOTE:	Replacement MC1602AP1-TGLA should be made on a unit base.			
		MC1602AP1-TGLA の交換は、ユニット単位で行って下さい。補修品は、ユニット単位。			

PCB ASSY /

#	71451934	SENSOR BOARD ASSY			1
#	71451945	PANEL BOARD ASSY			1
	NOTE: 'PANEL BOARD ASSY' includes the following parts.				
		PANEL BOARD ASSY			
	01016478	RIBBON CABLE	30S0-P2.0	on Panel	1
	00789812	LED SPACER	LH-5S-3 (3MM HIGHT)	on Panel	2
#	71451956	VR BOARD ASSY			1
Ex#	71451978	MAIN BOARD ASSY	(EXG)		1
	NOTE: 'MAIN BOARD ASSY' includes the following parts.				
		MAIN BOARD ASSY			
	12199584	GROUNDING TERMINAL	M1S9B	on Main	3
	40342856	COATING CLIP	CP-1S	on Main	4

IC /

	15289105	UPC4570G2-E2	IC (BIPOLAR OP AMP)	IC9,IC4,IC43,IC41,IC38,IC3,IC8,IC14,IC37 on Main Board, IC2,IC1 on Panel Board 2 +9
#	02237488	HD6437016E15F VER1.00	IC (32BIT CPU)	IC30 on Main Board 1
	01679078	RA09-9222KPHTC203C180AF002	IC (CUSTOM)	IC11 on Main Board 1
	01342978	TC180G22AF-1253	IC (CUSTOM)	IC23 on Main Board 1
	01670701	DRAM MSM5142600C-50JS-TDR1	IC (DRAM)	IC24,IC5 on Main Board 2
#	01900678	BR93LC46FV-WE2	IC (EEPROM)	IC34 on Main Board 1
#	01900801	UPD23C64040ALGY-883-MJH WAVE	IC (MASK ROM)	IC12 on Main Board 1
#		LH28F800SGN-L70	IC (FLASH MEMORY)	IC22 on Main Board 1
		LH28F400SUF-BLB5	IC (FLASH MEMORY)	IC21 on Main Board 1
	15289714	UPD63200GS-E2	IC (D/A CONVERTER)	IC7 on Main Board 1
	15289104	HD14052BFPEL	IC (CMOS)	IC40,IC38,IC31,IC35 on Main Board 4
	15249111	TC7WU04F(TE12L)	IC (CMOS)	IC15 on Main Board 1
	15259823T0	TC74HC574AF(EL)	IC (CMOS)	IC18 on Main Board 1
	15259884	TC7S08F(TE85L)	IC (CMOS)	IC29,IC26 on Main Board 2
	15259885	TC7S32F(TE85L)	IC (CMOS)	IC10 on Main Board 1
	15249121	TC7W04F(TE12L)	IC (CMOS)	IC28 on Main Board 1
	15259736T0	TC74HC138AF(EL)	IC (CMOS)	IC20 on Main Board 1
	00232845	TC7W14F(TE12L)	IC (CMOS)	IC19 on Main Board 1
	15289109	M5218FP-600D	IC (BIPOLAR OP AMP)	IC1 on Main Board 1
	15189281	M5218AFP-800E	IC (BIPOLAR OP AMP)	IC17,IC2,IC42 on Main Board 3
A	02010156	AN7L05M	IC (REGULATOR)	IC8 on Main 1
	01670890	PQ3DZ53U	IC (REGULATOR)	IC16 on Main Board 1
	01344056	SI-8501L	IC (REGULATOR)	IC39 on Main Board 1
	15289404	R3M03N2-T2	IC (DC-DC CONVERTER)	IC33 on Main Board 1
	15199937	M51953BFP-600C	IC (RESET)	IC32 on Main Board 1
A	15289125	PC-410KT 178FAY	IC (PHOTO COUPLER)	IC25 on Main Board 1

TRANSISTOR /

	01121278	2SA1576A T106 QRS	TRANSISTOR	Q7 on Main Board,Q1 on Panel Board	1 +1
	00562012	2SC3265-Y(TE85R)	TRANSISTOR	Q34 on Main Board,Q2 on Panel Board	1 +1
	15319105	2SC3326-A	TRANSISTOR	Q4,Q5,Q6,Q2 on Main Board	4
	01121289	2SC4081 T106 QRS	TRANSISTOR	Q9,Q36,Q8,Q1 on Main Board	4
	00239801	DTA114EU T-106	TRANSISTOR	Q3,Q15,Q14,Q13,Q10,Q32,Q12 on Main Board	7
	00239812	DTC114EUT106	TRANSISTOR	Q38,Q39,Q37,Q11,Q33 on Main Board	5
	1532951000	DTC144EKT146	TRANSISTOR	Q35 on Main Board	1
	01451245	RN1414(TE85L)	TRANSISTOR	Q29,Q30,Q23,Q25,Q24,Q27,Q26,Q28 on Main Board	8
	01783612	RN2426(TE85L)	TRANSISTOR	Q22,Q21,Q20,Q16,Q17,Q19,Q18,Q31 on Main Board	8

DIODE /

	01897178	MA142WA-(TX)	ARRAY DIODE	DA19,DA16,DA21,DA23,DA25 on Main Board 5
	15339130	MA142WK-(TX)	ARRAY DIODE	DA22,DA20,DA17,DA18,DA15,DA24 on Main Board, DA5,DA1,DA2,DA4,DA8,DA7,DA6,DA9,DA10,DA12, DA13,DA16,DA17,DA3 on Panel Board ,DA101, DA102 on VR Board 14 +2 +6
	01897189	MA147-(TX)	ARRAY DIODE	DA8,DA13,DA28,DA27,DA26,DA14,DA29,DA12,DA10,DA8, DA7,DA6,DA5,DA4,DA3,DA2,DA1,DA11 on Main Board, DA14,DA18 on Panel Board 2 +18
	01900612	TPS611	DIODE	D1 on Panel Board 1
	01560334	SML-G20MVT	LED	LED26,LED27,LED28,LED25,LED29 on Panel Board,LED10, LED9,LED8,LED7,LED6,LED5,LED4,LED3,LED2,LED1 on Sensor Board 10 +5
	01563312	SML-210LTT86 RANK L,M,N	LED	LED19,LED36,LED13,LED12,LED6,LED1,LED23,LED7,LED34, LED35,LED38,LED2,LED24 on Panel Board 13
	01891690	TLGU1002(KL TPX1)	LED	LED17,LED18,LED4 on Panel Board,LED102 on VR Board 3 +1
	01900623	TLN205	LED	LED31 on Panel Board 1
	01897190	TLOU1002 (ORANGE)	LED	LED20,LED15,LED9,LED3,LED5,LED21,LED8,LED22, LED10,LED11,LED14 on Panel Board ,LED103,LED101 on VR Board 11 +2
	01561301	1GWJ42 TP62	SCHOTTKY DIODE	D2 on Main Board 1
	00873789	SB20-03P-TD	SCHOTTKY DIODE	D1 on Main Board 1

RESISTOR /

	01783623	MCR50 JZH-J 100	MTL_FILM RESISTOR	R4,R5 on Panel Board 2
	01011656	RPC05T 0R0 J	MTL_FILM RESISTOR	L25,R71,R64,L51,L50,L30,R62, L26,R129,L28,R63,R66,L24, R120,R67,R134,R137,R138,R144,R133,R181,R111,L1,L7, R17,L2 on Main Board ,R20,R29 on Panel Board 2 +26
	00566867	RPC05T 100 J	MTL_FILM RESISTOR	R52 on Main Board 1
	00567023	RPC05T 101 J	MTL_FILM RESISTOR	R160,R132,R196,R194,R188,R155,R76,R177,R172,R170,R69, R167,R2,R192,R161,R160,R184,R199,R200, R3,R3,R182, R183,R187,R1,R26 on Main Board 28
	00567156	RPC05T 102 J	MTL_FILM RESISTOR	R117,R186,R175,R151,R147,R123,R24,R15,R16,R22,R110, R32,R53,R102,R18,R98,R76,R79,R90 on Main Board 19
	00567289	RPC05T 103 J	MTL_FILM RESISTOR	R70,R105,R173,R168,R153,R150,R149, R145, R141,R131,R49,R108,R65,R48,R81,R118,R75,R74,R72, R68,R84 on Main Board,R1 on Panel Board 1 +21
	00567412	RPC05T 104 J	MTL_FILM RESISTOR	R5,R13,R48,R58,R56,R51,R63,R73,R92,R38,R101,R102,R203, R205,R89,R11 on Main Board 16
	00567556	RPC05T 105 J	MTL_FILM RESISTOR	R23,R178,R87 on Main Board 3
	00567034	RPC05T 121 J	MTL_FILM RESISTOR	R130 on Main Board 1
	00567167	RPC05T 122 J	MTL_FILM RESISTOR	R3 on Panel Board 1
	00567290	RPC05T 123 J	MTL_FILM RESISTOR	R21 on Panel Board 1
	00567423	RPC05T 124 J	MTL_FILM RESISTOR	R12,R19,R103,R107,R202,R94,R204 on Main Board 7
	00567434	RPC05T 154 J	MTL_FILM RESISTOR	R33,R193,R190,R31 on Main Board,R15 on Panel Board 1 +4
	00567312	RPC05T 180 J	MTL_FILM RESISTOR	R47 on Main Board 1
#	00567445	RPC05T 184 J	MTL_FILM RESISTOR	R44 on Main Board 1
	00567067	RPC05T 221 J	MTL_FILM RESISTOR	R148,R136,R140 on Main Board,R11 on Panel Board 1 +3
	00567190	RPC05T 222 J	MTL_FILM RESISTOR	R12 on Panel Board 1
	00567323	RPC05T 223 J	MTL_FILM RESISTOR	R68,R108 on Main Board 2
	00567078	RPC05T 271 J	MTL_FILM RESISTOR	R139 on Main Board 1
	00567467	RPC05T 274 J	MTL_FILM RESISTOR	R10 on Panel Board 1
	00567212	RPC05T 332 J	MTL_FILM RESISTOR	R112,R135,R179,R60,R21,R81 on Main Board,R13 on Panel Board 1 +6
	00567345	RPC05T 333 J	MTL_FILM RESISTOR	R40,R9,R20,R42 on Main Board,R28 on Panel Board 1 +4
	00567478	RPC05T 394 J	MTL_FILM RESISTOR	R17,R25,R14 on Panel Board 3
	00567490	RPC05T 394 J	MTL_FILM RESISTOR	R102,R89 on Main Board 2
	00567112	RPC05T 471 J	MTL_FILM RESISTOR	R51 on Main Board 1
	00567245	RPC05T 472 J	MTL_FILM RESISTOR	R80 on Main Board,R9,R7 on Panel Board 2 +1
	00567378	RPC05T 473 J	MTL_FILM RESISTOR	R119,R37,R152,R77,R118,R36 on Main Board,R2,R27 on Panel Board 2 +6
	00567501	RPC05T 474 J	MTL_FILM RESISTOR	R160,R184,R171,R146,R145,R176,R183,R201,R197,R189 on Main Board 10
	00567123	RPC05T 561 J	MTL_FILM RESISTOR	R8 on Panel Board 1
	00567256	RPC05T 562 J	MTL_FILM RESISTOR	R59,R57,R93,R58,R50,R25,R6,R45,R39 on Main Board 9
	00567389	RPC05T 563 J	MTL_FILM RESISTOR	R27,R198,R26,R195 on Main Board 4
	00567267	RPC05T 682 J	MTL_FILM RESISTOR	R166,R43,R41 on Main Board 3
	00567390	RPC05T 683 J	MTL_FILM RESISTOR	R104,R95 on Main Board,R16 on Panel Board 1 +2
	00567278	RPC05T 822 J	MTL_FILM RESISTOR	R150 on Main Board 1
#	00567545	RPC05T 824 J	MTL_FILM RESISTOR	R192,R34,R30,R151 on Main Board 4
	15399373	RPC10T 101 J 1/10W	MTL_FILM RESISTOR	R128,R127,R124,R123 on Main Board 4
	15399377	RPC10T 151 J 1/10W	MTL_FILM RESISTOR	R121,R122 on Main Board 2
	15399379	RPC10T 180J	MTL_FILM RESISTOR	R115,R114,R113,R4 on Main Board 4
	15399487	RPC10T 2R2 J 1/10W	MTL_FILM RESISTOR	R157,R154,R156,R158,R155 on Main Board 5
	15399383	RPC10T 331 J 1/10W	MTL_FILM RESISTOR	R54,R56 on Main Board 2
	15399389	RPC10T 680 J 1/10W	MTL_FILM RESISTOR	R126,R125 on Main Board 2
	15399393	RPC10T 681 J 1/10W	MTL_FILM RESISTOR	R67,R55 on Main Board 2
	00126112	EXBV8V101JV	RESISTOR ARRAY	RA9,RA9,RA6 on Main Board 3
	01457145	EXBE10C163J	RESISTOR ARRAY	RA14,RA5,RA13,RA22,RA21,RA19 on Main Board 6
	01013623	EXBV8V100JV	RESISTOR ARRAY	RA10,RA12,RA11 on Main Board 3
	1840B113	EXBV8V103JV	RESISTOR ARRAY	RA3,RA20,RA2,RA4 on Main Board 5
	01126201	EXBV8V332JV	RESISTOR ARRAY	RA28 on Main Board 1
	01013578	EXBV8V470JV	RESISTOR ARRAY	RA16,RA17,RA15,RA18 on Main Board 4
	01011645	EXBV8V0R000V	RESISTOR ARRAY	RA25,RA26,RA24,RA23,RA7,RA27 on Main Board 6
	15399818	1/2W MCR50- 181J	CHIP RESISTOR	R8 on Panel Board 1
	15399852	MCR50JZH470 1/2W	CHIP RESISTOR	R7,R35,R29,R14 on Main Board 4

POTENTIOMETER /

#	01900834	ROTARY POTENTIOMETER	EVJV10FA2A14	VR101 on VR Board 1
#	01900858	ROTARY POTENTIOMETER	EVJ08PFA2B24	VR104,VR103,VR102 on VR Board 3

CAPACITOR /

#	01900578	ECJ2VF1H224Z	CERAMIC CAPACITOR	C144,C264,C16,C13,C281,C33,C124,C121,C267,C137, C278,C30 on Main Board 12
	01674190	ECUV1H150JCV	CERAMIC CAPACITOR	C83,C120 on Main Board,C10,C6 on Panel Board 2 +2
	01674201	ECUV1H180JCV	CERAMIC CAPACITOR	C122,C202 on Main Board 2
	01674223	ECUV1H270JCV	CERAMIC CAPACITOR	C193,C198 on Main Board 2
	00567945	GRM39B103K50PT	CERAMIC CAPACITOR	C136,C129,C145,C275,C145,C48,C17,C15,C280 on Main Board 9
	00567889	GRM39B332K50PT	CERAMIC CAPACITOR	C8 on Panel Board 1
	00567901	GRM39B472K50PT	CERAMIC CAPACITOR	C143 on Main Board,C19 on Panel Board 1 +1
	01675278	GRM39CH101J50PT	CERAMIC CAPACITOR	C62,C72,C60,C71,C75,C74,C67,C66,C148,C150,C155,C158, C171,C194,C208,C206,C207,C193,C68,C19,C8,C3,C259, C56 on Main Board 24
	01675190	GRM39CH220J50PT	CERAMIC CAPACITOR	C27,C125,C141,C274,C38,C277,C39,C29 on Main Board 8
	01675312	GRM39CH221J50PT	CERAMIC CAPACITOR	C241,C223,C226,C228,C228,C229,C230,C231,C218, C235,C243,C244,C216,C246,C217,C234 on Main Board 16
	01675367	GRM39CH471J50PT	CERAMIC CAPACITOR	C195 on Main Board 1

	00567978	GRM39F104Z25PT	CERAMIC CAPACITOR	C249,C62,C242,C81,C70,C88,C266,C118,C248,C99,C73,C77, C112,C78,C79,C86,C49,C90, C92,C94,C95, C123,C97,C266, C102,C106,C107,C108,C113,C114,C220,C119,C126,C275, C271,C270,C269,C268,C96,C9,C239,C166,C222,C167,C184, C161,C160,C159,C151,C149,C257,C240,C258,C262,C256, C255,C253,C252,C250,C147,C142,C7,C135,C45,C35,C31,C28, C26,C138,C43,C172,C46,C49,C23,C22,C21,C20,C16,C111,C221, C8,C201,C188,C210,C197,C215,C199,C224,C232,C233,C236, C238,C132,C130,C211,C198,C1,C177,C183, C200,C194,C196, C192,C52,C53,C54,C57, C58,C60,C134, C183 on Main Board, C14,C15,C3,C20,C13,C5,C11,C7 on Panel Board , C101 on VR Board	8 +1 +111
	01349312	GRM39F105Z10PT	CERAMIC CAPACITOR	C213,C178,C179,C173 on Main Board,C4 on Panel Board	1 +4
#	02230290	MCH185C102KK	CERAMIC CAPACITOR	C303,C11,C191,C14,C156,C302,C93,C76,C40,C4,C10, C203, C300,C301,C84,C180,C187, C182,C183,C185,C186,C174,C12, C179,C181,C188,C189,C199,C190,C184,C153,C152,C94,C175 on Main Board	34
	00674423	ECA0JM102B 1000UI6.3V	CHEMICAL CAPACITOR	C237 on Main Board	1
	01127078	ECA0JM471B	CHEMICAL CAPACITOR	C140 on Main Board	1
	13649289	ECA1CM100B 10UF/16V	CHEMICAL CAPACITOR	C87,C103,C85,C261,C251,C219,C220,C5,C115,C100,C91, C88,C89,C51,C47,C36,C116 on Main Board	17
	13639550	ECEA1CU101B 100UF/16V	CHEMICAL CAPACITOR	C44,C83,C227,C187,C170,C139,C131,C128,C34,C101, C84,C58, C50,C37,C32,C26,C24,C2,C127 on Main Board	19
	13639567M0	ECA1CM102B	CHEMICAL CAPACITOR	C272 on Main Board	1
	00560212	ECA1CM471B	CHEMICAL CAPACITOR	C214,C212 on Main Board	2
	01783467	RV2-16V101MZ7-R	CHEMICAL CAPACITOR	C17,C9,C18 on Panel Board	4
	00239390	AMZV005U561 0200	POLYEST. CAPACITOR	C68,C41 on Main Board	2
	00239489	AMZV005U682 0200	POLYEST. CAPACITOR	C61,C42 on Main Board	2

INDUCTOR, COIL, FILTER /

	01676023	SBCP-873331H	CHOKE COIL	L29 on Main Board	1
	12449357	PLT1R53C	LINE-FILTER COIL	FL1 on Main Board	1
	01585578	N160AZ601T01	FERRITE-BEAD	L13,L14,L15,L12,L16,L17,L18,L19,L22,L21,L3,L23, L27,L10,L8,L6,L5,L4,L20,L11 on Main Board	20

CRYSTAL, RESONATOR /

	00901912	MA-406 24.576MHZ TE24	CRYSTAL	X1 on Main Board	1
	01126267	MA-406 7.056MHZ	CRYSTAL	X2 on Main Board	1

ENCODER /

	01013223	EVQ VEM F01 24B	ROTARY ENCODER	EN1 on Panel Board	1

CONNECTOR /

	13429292	51048-0300 3PIN	CABLE HOLDER	CN2,CN3 on Panel Board	2
	01904789	52045-2545	CONNECTOR	CN9 on Main Board ,CN1 on Sensor Board	1 +1
#	01907258	52044-1445	CONNECTOR	CN5 on Panel Board	1
	01456556	52044-3045	CONNECTOR	CN1 on Panel Board	1
#	01907278	52044-2045	CONNECTOR	CN101 on VR Board	1
#	02014556	52045-1645	CONNECTOR	CN4 on Main Board	1
	01906490	52045-2045	CONNECTOR	on Main	1
	01454988	52045-3045	FFC/FPC CONNECTOR	CN7 on Main Board	1
	13439320	IL-S-4P-S2T2-EF	CONNECTOR	CN11,CN1 on Main Board	2
#	01907290	52045-1445	CONNECTOR	CN6 on Main Board	1
	13379107	SLP6R-5	CONNECTOR	CN10,CN3 on Main Board	2

WIRING, CABLE /

#	01900545	FUJI CARD	25X100-A6.0BB-P1.25-HBL10	1
#	02231801	SAN CARD	BNCD-P+1.25-K-30-120	1
#	02231790	SAN CARD	BNCD-P+1.25-K-20-80	1
#	02231789	SAN CARD	BNCD-P+1.25-K-14-120	1
	02010701	SAN CARD	BNCD-P+1.25-K-16-280	1

PICKUP, SENSOR /

#	71451923	PIEZO ASSY		2
#	71786923	RIBBON L ASSY	RIBBON CONTROLLER	1
#	71786934	RIBBON R ASSY	RIBBON CONTROLLER	1

SCREW /

	40011067	SCREW 3x8	BINDING TAPTITE B FE ZC	4
	40239734	SCREW 3x8	VWH B-TIGHT ZC	8
	40011234	SCREW 3x10	BINDING TAPTITE P NI	15
	40011256	SCREW 2x8	BINDING TAPTITE P FE ZC	4
	40011312	SCREW 3x8	BINDING TAPTITE P FE BZC	2
	40011278	SCREW 3x8	BINDING TAPTITE P FE ZC	29 +10
	40011323	SCREW 3x10	BINDING TAPTITE-P FE BZC	1
	40011490	SCREW M3x8	PAN MACHINE W/SW BZC	3
	40235189	RING	SE-9	10
#	02126156	SCREW M3x10	HEX SOCKET HEAD CAP TAPTITE P NI	

PACKING /

#	02238578	FRONT PAD	1
#	02238601	ADAPTOR PAD	1
#	01900456	LOWER PAD	1
#	01900467	UPPER PAD	1
#	01900445	PACKING CASE	1
#	02238590	ADAPTOR BOX	1

MISCELLANEOUS /

	40122812	ACETATE TAPE	NITTO NO.5 BLK W15MM 30M	23
	40122556	DOUBLE FACED ADHESHIVE TAPE	NITTO NO.575x W30MM 30M	1
	40122923	DOUBLE FACED ADHESHIVE TAPE	NITTO NO.501F W20MM 20M 10P	48
	22385714	CORD HOOK	236-714	1
	01344967	FOOT		8
	40016569	NYLON RIVET	NRP-335	2
#	01900234	CUSHION		1
#	01900245	PRESSURE SHEET SENSOR		1
#	01900423	SHIELD SHEET		1
#	02237178	INSULATING SHEET		1

ACCESSORIES (STANDARD) /

⚠	01468278	AC ADAPTOR	ACB-230E 230VE(DC9V,1200MA)	1
⚠	12449549	AC ADAPTOR	ACB-240(A) *EXP ONLY*	1
⚠	00905758	AC ADAPTOR	ACI-100C	1
⚠	00905767	AC ADAPTOR	ACI-120C	1
⚠	01018312	AC ADAPTOR	ACI-230C	1
#	71452023	OWNER'S MANUAL	JAPANESE	1
#	71459701	OWNER'S MANUAL	ENGLISH	1
	02239423	SCALE LABEL		1
	40232334		JAPAN ONLY	1

CHECKING THE VERSION NUMBER

1. Connect the AC adapter.

1. AC

2. Power on while pressing [PATCH SEL] and [USER]. Keep pressing them until the LCDs are all lit. Then release both fingers and press [PRESET]. Take the above steps without an interval, within one second for each step.

2. [PATCH SEL] [USER] ON
LCD
[PRESET]
1

(1) Confirm that the displayed version is the latest version.

The following information will be displayed on the screen.

- CPU (CPU Internal ROM) version
- PROG (Flash/Mask ROM) version

CPU CPU Internal ROM
PROG Flash/Mask ROM

```
[1] VERSION
 CPU1.00 ROM1.00
```

SAVING DATA TO AN EXTERNAL MIDI INSTRUMENT

The data in the HPD-15 can be transmitted either singly or collectively to a sequencer (or another HPD-15). The operation of transmitting this data is called a "Bulk Dump"; receiving this data is called a "Bulk Load."

HPD-15

HPD-15 HPD-
15に送信したり、外部シーケンサーに送信してデータを保存す

0) Setting the Device ID

The setting described here is necessary only when you wish to transmit separate data to two or more HPD-15 units at the same time. Do not change this setting in any other case.

0) ID

ID 17

At the factory settings, the Device ID is set to "17."

0.1) Press [SYSTEM] and make it light.
0.2) Press [< PARAMETER] or [PARAMETER >] to display the following screen.

0.1) [SYSTEM]
0.2) [< PARAMETER] [PARAMETER >]

```
MIDI
Device ID    17
```

0.3) Turn [PATCH/VALUE] to change the Device ID.
0.4) When you are finished modifying, press [SYSTEM] or [EXIT].

0.3) [PATCH/VALUE] ID
0.4) [SYSTEM] [EXIT]

DEVICE ID 1 32

DEVICE ID: 1-32

Example:
Suppose that when data was saved via bulk dump, the HPD-15's Device ID was set to "17." When re-transmitting this data back to the HPD-15, it won't receive if the Device ID is set to something other than "17."

HPD-15
ID 17 HPD-15
ID 17 HPD-15
1 HPD-15
ID 17

* If you lose track of the Device ID setting that was used when saving data via a bulk dump, it will no longer be possible to reload the bulk data that was saved.

ID

1)

1)Transmitting (Bulk Dump)

The HPD-15 transmits stored data to a sequencer.

HPD-15
MIDI
HPD-15 MIDI OUT HPD-
15 MIDI IN MIDI

Use a MIDI cable to connect the HPD-15's MIDI OUT connector to the MIDI IN connector of the external sequencer or the other HPD-15.

1.1) [SYSTEM]

1.1) Press [SYSTEM] to make it light.

1.2) [< PARAMETER] [PARAMETER >]

1.2) Press [< PARAMETER] or [PARAMETER >] to display the following screen.

```
MIDI      [WRITE]
BlkDmp       ALL
```

1.3) Turn [PATCH/VALUE] to select the contents that you wish to transmit.

1.3) [PATCH/VALUE]

BlkDmp: ALL, SYS, SEQ ALL, PATCH ALL, GROUP01-10, U0101-1008,TEMPORARY, U0101-1008-U0101-1008

BlkDmp ALL SYS SEQ ALL PATCH ALL GROUP01 10 U0101 1008 TEMPORARY U0101 1008-U0101 1008

ALL:
Transmit all settings.

ALL
TEMPORARY

SYS:
Transmit system settings.

SYS

SEQ ALL:
Transmit all data for the user patterns of the sequencer.

SEQ ALL

PATCH ALL:
Transmit all user patch settings.

PATCH ALL

GROUP01-10:
Transmit the settings of all patches in the selected patch group.

GROUP01 10

U0101-1008:
Transmit the settings of the selected user patch.

U0101 1008

TEMPORARY:
Transmit the settings of the current patch. This allows you to transmit the state of the settings before pressing [WRITE] to write them into memory.

TEMPORARY
[WRITE]

U0101-1008-U0101-1008:
Transmit the settings of the specified area of user patches.

U0101 1008-U0101 1008
指定した範囲のユーザー・パッチの設定を送信します。

1.4) Put the reciving sequencer in record mode. When you wish to transmit to another HPD-15, put the receiving HPD-15 in play mode.

1.4) HPD-15 HPD-15

* Refer to the owner's manual of the receiving device.

1.5) Press [WRITE] to begin data transmitting.

1.5) [WRITE]

* If you wish to stop transmission, press [EXIT].

[EXIT]

2) Receiving (Bulk Load)

2)

The HPD-15 receives data that was stored in a sequencer.

Use a MIDI cable to connect the HPD-15's MIDI IN connector to the MIDI OUT connector of the external sequencer or the other HPD-15.
Set the HPD-15 play mode.

HPD-15 MIDI IN MIDI OUT MIDI MIDI HPD-15

Send the data from the external sequencer to the HPD-15. The transmitted settings are reproduced.

MIDI

* When data is received, the data that was previously in the HPD-15's memory will be lost.
* Set Seq Sync to "Int" in [SYSTEM].

※データの受信中、および受信したデータの書き込み中は絶対

Seq Sync Int

Seq Sync Int

RESTORING THE FACTORY SETTINGS

You can restore patch and pad settings as well as pattern data stored in the HPD-15 to the settings in effect when the unit was shipped from the factory.

HPD-15

* All data and settings in the restored part are lost. Follow the procedures described in "Bulk Dump" to save any data and settings you need to keep to an external MIDI device.

※初期化を行った部分のデータはすべて失われます。必要な MIDI

Procedure for Factory Reset

1. Press [SYSTEM].
2. Press [PARAMETER >] to display the following screen.

1. [SYSTEM]
2. [PARAMETER >]

```
FACTORY RESET
SYSTEM    [WRITE]
```

3. Turn [PATCH/VALUE] to select the part that you wish to restore.

3. [PATCH/VALUE]

```
FACTORY RESET
ALL       [WRITE]
```

FACTORY RESET: SYSTEM, CHAIN ALL, PATCH ALL, PTN ALL, ALL

FACTORY RESET SYSTEM CHAIN ALL PATCH ALL PTN ALL ALL

SYSTEM:
Restores all system settings to their factory presets.

SYSTEM

CHAIN ALL:
Erases all patch chain settings.

CHAIN ALL

PATCH ALL:
Restores all patch settings to their factory presets.

PATCH ALL

PTN ALL:
Erases all user pattern data settings.

PTN ALL

ALL:
Restores all settings to their factory presets.

ALL

* While executing factory reset, do not turn the power off. Data in the HPD-15's memory will be corrupted.

4. Press [WRITE] to execute factory reset.

4. [WRITE]

* If you decide not to execute, press [EXIT].

[EXIT]

UPDATING PROCEDURE

Necessary Items

- HPD-15 Update Disk Set (17048558)
- SMF-compatible sequencer (XP-50/60/80, MC-80, or other models that can send exclusive data)

HPD-15 Update Disk Set(17048558)
SMF (XP-50/60/80 MC-80)

* The contents of the user memory must be deleted when updating completes. Before starting the updating procedure, take a backup of the user memory by doing bulk dump.

※バージョンアップ後にユーザー・メモリの内容を消去する必

Procedure

1. Using a MIDI cable, connect the MIDI OUT terminal on the sequencer with the MIDI IN terminal on the HDP-15.

1. MIDI OUT HPD-15 MIDI IN MIDI

* If you take the following steps in a wrong way, the unit will start up in the normal mode.
* The figure below gives rough positions of the keys (on the right side of the panel) you should press in each step.

( )

2. While pressing the [EDIT] and [CHAIN] keys, turn on the unit.

2. [EDIT] [CHAIN]

```
[***] [   ] [   ] [***]
[   ] [   ] [   ] [   ]
[   ] [   ] [   ] [   ]
(   )   [   ] [   ]
```

3. Keep pressing the [CHAIN] key, release the [EDIT] key. Then press the [PATCH SEL] key.

3. [CHAIN] [EDIT] [PATCH SEL]

```
[   ] [   ] [   ] [***]
[   ] [   ] [   ] [   ]
[   ] [   ] [   ] [   ]
(***)   [   ] [   ]
```

4. Keep pressing the [PATCH SEL] key, release the [CHAIN] key. Then press the [EDIT] key.

4. [PATCH SEL] [CHAIN] [EDIT]

```
[***] [   ] [   ] [   ]
[   ] [   ] [   ] [   ]
[   ] [   ] [   ] [   ]
(***)   [   ] [   ]
```

Take the above steps without an interval, within one second for each step. When it takes longer, the unit will start up in the normal mode.

1

5. The version of the ROM in the CPU appears at first, then the version of the program ROM appears on the screen as shown below.

5 CPU ROM
ROM

```
Flash   ver 1.03
WRITE: Update
```

* To abort updating, turn off the power now. Doing anything further will delete the program ROM data, the unit will never start up.

※バージョンアップを中止したい場合には、この時点で電源を OFF

6. Pressing the [WRITE] key deletes the program ROM contents. An "Input data for PGM ROM" message will appear. Start up the sequencer and play the update disks.

6. [WRITE] ROM
"Input data for PGM ROM"
Update Disk

```
Input data
    for PGM ROM
```

During updating process, lamps on the unit operate in the following manner.
6_1 During updating process, the [MULTI-EFFECTS] lamp lights up.
6_2 During data reception, the top LED of [SELECT] of REALTIME MODIFY flashes.
6_3 During data writing, the Group Number 5 LED lights up.

Update
6_1 Update [MULTI-EFFECTS]
6_2 REALTIME MODIFY [SELECT] LED
6_3 Group Number 5 LED

7. When the updating process completes, a "Complete!" message will appear. Turn off the power. Turn on the power and you will see a factory reset confirmation screen. Press the [WRITE] key to reset the unit to the factory setting.

7. Update "Complete!"
[WRITE]

TEST MODE

♦ Test Mode

1. Necessary Equipments

- MIDI cable
- FS-5U(foot switch) x2
- PCS-31
- PD-7 x2
- FD-7 (HI-HAT control pedal)
- EV-5 (expression pedal)
- External sound source(TD-8, etc.)
- Oscillator or audio equipments(synthesizer, etc.)
- Headphone
- Monitoring speakers x2
- Mallet
- Stereo cable

MIDI
FS-5U( ) 2
PCS-31
PD-7 2
FD-7( )
EV-5( )
(TD-8)
( )
2

Note) When you hit the pad with the stick, the surface might be damaged. So use the mallet.

)

♦ Test Items

HPD-15 will be tested for the following items.
For details of each test, please refer to each item.

[1] Version Check
[2] Device TEST
[3] MIDI TEST
[4] SWITCH/LED TEST
[5] Foot Switch TEST
[6] ENCODER/LCD TEST
[7] RIBBON TEST
[8] A/D (VOLUME) TEST
[9] EXPRESSION PEDAL TEST
[10] HI-HAT PEDAL
[11] D-BEAM TEST
[12] EXTERNAL TRIGGER IN TEST
[13] PAD PRESSURE TEST
[14] PAD VELOCITY TEST
[15] SOUND TEST
[16] SOUND TEST 2
[17] MIX IN TEST
[18] FACTORY RESET

HPD-15

[1] Version Check
[2] Device TEST
[3] MIDI TEST
[4] SWITCH/LED TEST
[5] Foot Switch TEST
[6] ENCODER/LCD TEST
[7] RIBBON TEST
[8] A/D VOLUME) TEST
[9] EXPRESSION PEDAL TEST
[10] HI-HAT PEDAL
[11] D-BEAM TEST
[12] EXTERNAL TRIGGER IN TEST
[13] PAD PRESSURE TEST
[14] PAD VELOCITY TEST
[15] SOUND TEST
[16] SOUND TEST 2
[17] MIX IN TEST
[18] FACTORY RESET

♦ Entering the test mode

1. Connect the AC adapter.

1. AC

2. Power on while pressing [PATCH SEL] and [USER]. Keep pressing them until the LCDs are all lit. Then release both fingers and press [PRESET]. Take the above steps without an interval, within one second for each step.

2. [PATCH SEL] [USER] ON
LCD
[PRESET]
↑

* If you press a wrong switch, or you press the switches in a wrong order, you cannot enter the test mode. In such cases, you must perform the operation again.

※違うスイッチを押したり，スイッチを押す順番を間違える

* When leaving the test mode, the content of user memory will be deleted. Backup the user memory by specifying "ALL" in the bulk dump before entering the test mode.

"ALL"

♦ Basic operations in the test mode

- If the test result is OK, and you proceed to the next test item, press [PARAMETER >](for some tests, if the test result is OK, you proceed to the next item automatically)

OK
[PARAMETER >]
OK

- If the test result is NG, or if you want to move to the previous or next item while performing a test, you can move to the next page by pressing [PARAMETER >], and to the previous page by pressing [< PARAMETER] while pressing [PATCH SEL].
  * Such operations will be denoted like "[PATCH SEL] + [PARAMETER >]".

NG
[PATCH SEL]
[< PARAMETER] [PATCH SEL]
[PARAMETER >]

"[PATCH SEL] + [PARAMETER >]"

- Basically, changing subitems in a test item is performed with [SELECT].

一つのテスト項目の中での小項目の切り替えは、基本的に[SELECT]

• Operations in the test mode

[1] Version Check

(1) Confirm that the displayed version is the latest version. The following information will be displayed on the screen.

- CPU (CPU Internal ROM) version
- PROG (Flash/Mask ROM) version

```
[1] VERSION
 CPU1.00 ROM1.00
```

(2) Press [PARAMETER >] to proceed to the next test item.

[2] Device TEST

(1) When you press [SELECT], the test starts automatically.

```
[2]DEVICE
 Press [SELECT]
```

The following items are checked.

(1) Checksum check of the CPU's internal ROM
(2) READ/WRITE check of the CPU's internal ROM
(3) Checksum check of the Program ROM
(4) READ/WRITE check of the DRAM
(5) READ/WRITE check of the FLASH ROM for the user
(6) READ/WRITE check of the EEPROM
(7) READ/WRITE check of the XP6-DSP's internal ROM
(8) Check of the external DRAM for XP6
(9) Checksum check of the Wave ROM

If each item is OK, you proceed to the next test item automatically.

```
123456789
ooooooooo   OK
```

If there are NGs for some items, "x" is displayed for the corresponding items.

```
123456789
xoxoooooo   NG→
```

When you press [PARAMETER >], the items which are NG are displayed.
An arrow indicates that the previous page and the next page exist.

```
CPU Internal ROM
←Checksum NG!→
```

If there are multiple NGs, you can move to the next page by pressing [PARAMETER >], and to the previous page by pressing [< PARAMETER].

[1] Version Check

(1) Version

CPU CPU Internal ROM
PROG Flash/Mask ROM

(2) [PARAMETER >]

[2] Device TEST

(1) [SELECT]

(1) CPU ROM
(2) CPU RAM READ/WRITE
(3) Program ROM
(4) DRAM READ/WRITE
(5) User FLASH ROM READ/WRITE
(6) EEPROM READ/WRITE
(7) XP6-DSP RAM READ/WRITE
(8) XP6 DRAM
(9) Wave ROM

OK

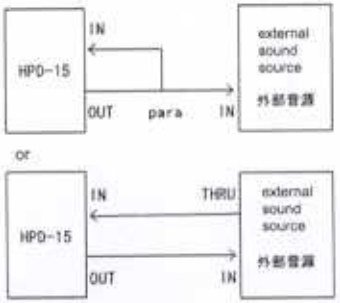
NG x

[PARAMETER >] NG

NG [PARAMETER >] [< PARAMETER]

[3] MIDI TEST

(1) Connect the HPD-15's MIDI IN/OUT with the MIDI terminals of the external sound source.



(2) Send the Note On/Off alternately from the HPD-15 and confirm that the loop is correct and the external sound source produces sound. There is no need to produce sound from the internal sound source. (CH.10's Note No.60 and No.64's Note On are sent alternately from the HPD-15's MIDI OUT.)

(3) If the loop is correct, OK is displayed.

```
[3]MIDI
  -- OK --
```

(4) When you pull out the MIDI cable, you move to the next test item automatically.

[4] SWITCH/LED TEST

(1) LEDs are all lit. LEDs with two colours (5 on the [PATCH/VALUE] dial and 10 around PadB and PadC) are lit in orange. Other LEDs are lit in red, orange or green.

(2) When you press the switches on the panel one by one, the name of the switch being just pressed is displayed on the LCD. For the switches with LED, confirm that the LED is turned off. Confirm the sound corresponding to the switch.

- The LEDs with two colours [EXIT], [< PARAMETER] and [PARAMETER >] correspond to the LEDs of PadSetA, PadSetB and PadSetC, respectively. When you press them for the first time, all LEDs of the corresponding PadSet are turned to red. Pressing again, they are turned to green and then turned off.
- Pressing the [GROUP -] ([GROUP +]) switch turns the LEDs with the group numbers 1 - 5 (6 - 10) off sequentially.
- Pressing the [SELECT] switch first turns all LEDs on, then turns the LEDs on the upper line off. Pressing it again turns the LEDs on the lower line off, and then turns all LEDs off.

The number of the remaining switches is displayed on the right top corner of the LCD.

* Make sure to press the switches one by one. If you press two switches simultaneously, no action will be taken.

```
[4]SW/LED   (27)
RIBBON L HOLD
```

[3] MIDI TEST

(1) HPD-15 MIDI IN/OUT MIDI

(2) HPD-15 Note On/Off

OUT CH.10 Note No.60 (HPD-15 MIDI No.64 Note On)

(3) OK

(4) MIDI ケーブルを抜くと，次のテスト項目へ自動的に進み

[4] SWITCH/LED TEST

(1) LED 2 LED [PATCH/VALUE] 5 LED PadB PadC 10 LED)

(2) 1 LCD LED

2 LED [EXIT] PadSetA [< PARAMETER] PadSetB [PARAMETER >] PadSetC LED PadSel → LED

[GROUP -] GROUP NUMBER 1 5
[GROUP +] GROUP NUMBER 6 10 LED

[SELECT] → → →

LCD 1 2

(3) When the number of the remaining switches displayed on the LCD becomes 0, you proceed to the next test item automatically.

(3) LCD 0

[5] Foot Switch TEST

(1) Connect the foot switches (FS-5U x2) with PCS-31.

(2) If you put your foot on each of the foot switches, ON/OFF is displayed. If you tread both foot switches simultaneously, it will be not detected. Make sure that you tread the switches one by one.

[5] Foot Switch TEST

(1) FS-5U 2 PCS-31

(2) 1 ON/OFF
れます。同時に押しても検出されませんので、必ず一つ

```
[5]FOOT SWITCH
F1=ON  F2=OFF
```

(3) If both foot switches are OK, "OK" is displayed on the right bottom, and you proceed to the next test item automatically.

(3) OK OK

[6] ENCODER/LCD TEST

(1) Turn the encoder clockwise and confirm that the contrast of the LCD varies continuously. Confirm that the Group LEDs are all turned on when turned clockwise by about 360 degrees, and that they are all turned off when turned counterclockwise by about 360 degrees.

[6] ENCODER/LCD TEST

(1) LCD

1 Group LED

```
[6]ENCODER/LCD
Rotate to Right→
```

```
Check CONTRAST
■■■■_____
```

Contrast minimum: the lower line of the LCD contains only underscores.
Contrast maximum: the lower line of the LCD contains only lack squares.

LCD
LCD

(2) Press [SELECT] and confirm that all LCDs are lit.

(2) [SELECT] LCD

(3) Press [SELECT] and confirm that all LCDs are turned off.

(3) [SELECT] LCD

* By pressing [SELECT], you can select any check item (contrast check, LCD dots all turned on, LCD dots all turned off, contrast check, etc.).

[SELECT] → LCD
→ LCD → →

(4) If OK, press [PARAMETER >] to proceed to the next test item (you can do this only after completing the above test).

(4) OK [PARAMETER >]

[7] RIBBON TEST

Adjust the ribbon sensor.

(1) First, the contact of the ribbon in the initial state is checked automatically. Then press [SELECT]. When values are displayed in the initial state, they show the status (OK/NG) and the voltage of each ribbon.

[7] RIBBON TEST

(1)
[SELECT]
OK/NG

```
xL1 2.3V oR1 0.0V
oL2 ----- oR2 -----
```

L(Left)1, R(Right)1: Voltage when the ribbons are in contact in the initial state
L(Left)2, R(Right)2: Status of the ribbons
"o": OK, "x": NG

L(Left)1 R(Right)1:
L(Left)2 R(Right)2:
"o" OK "x" NG

OK NG

If OK, you proceed to the next subitem automatically. If NG, you cannot proceed to the next subitem.

(2) Start from the left ribbon. Press [SELECT] while pressing the bottom of the left ribbon.

(2) 左側のリボンから開始します。左側のリボンの下端を押
[SELECT]

```
[7]RIBBON
PressL ↓ [SELECT]
```

(3) Press [SELECT] while pressing the top of the left ribbon. The range in which the ribbon sensor reacts is adjusted.

(3) [SELECT]

```
[7]RIBBON
PressL ↑ [SELECT]
```

(4) Trace the ribbon from the bottom to the top, and check that the value varies from 0 to 127. Confirm the sound at the bottom, top and in between.

(4) 0
127

```
[7]RIBBON
L LEVEL = ↑000
```

(5) When the value has reached 127, the following is displayed. Touch the ribbon sensor up and down to check the glo sound is correct. If correct, press [SELECT] to proceed to the check of the right ribbon sensor.

(5) 0 127
音が正常に鳴るかを確認します。正常に発音されたら、
[SELECT]

```
[7]RIBBON
L LEVEL = (127)
```

Subsequently, perform the same check on the right side.

(6) If all iems are OK, press [PARAMETER >] to proceed to the next test item.

(6) OK [PARAMETER >]

[8] A/D (VOLUME) TEST

Perform the following steps to the three knobs of "REALTIME MODIFY".

(1) Turn the knob counterclockwise, and confirm that when you cannnot turn anymore, the value is 0. Also confirm that corresponding sound is produced while turning the knob.

[8] A/D VOLUME) TEST
REALTIME MODIFY 3

(1) 0
とを確認します。また、回し切った時とその途中で対応

```
[8]VOLUME
↓037 ↑068 ↑062
```

(2) When you cannnot turn anymore, the following screen is displayed. Then turn the knob clockwise. Confirm that corresponding sound is produced while turning the knob.

(2) 一番左まで回し切ると下の画面になるので、今度は一番右まで回し切ります。回し切った時とその途中で対応し

```
[8]VOLUME
↑000 ↑000 ↑000
```

(3) When you cannnot turn anymore, the following screen is displayed.

(3)

```
[8]VOLUME
 (127) (127) (127)
```

(4) Put all the knos to the central position (do this by adjusting the center of the knob to the scale around the knob, and not by checking the number on the LCD) and press [PARAMETER >]. When a value near 64 is displayed, it is OK, and you proceed to the next test item automatically. If not, "NG" is displayed Readjust the knobs and press [PARAMETER >].

(4) [PARAMETER >] LCD 3 64 OK NG [PARAMETER >]

```
[8]VOLUME      OK
 (065) (063) (063)
```

[9] EXPRESSION PEDAL TEST

(1) Connect the EV-5 (expression pedal) to the EXP PEADL/HH CTRL terminal.

[9] EXPRESSION PEDAL TEST

(1) EXP PEADL/HH CTRL EV-5

```
[9]EXP PEDAL
LEVEL = ↓82
```

(2) Release the pedal. The following is displayed at the top position. Then tread the pedal. Confirm the sound at the bottom, top and in between.

(2) 0 127

```
[9]EXP PEDAL
LEVEL = ↑000
```

(3) If the value at the bottom position is normal, the following is displayed.

(3) 最後まで踏み込んだ時、値が正常であれば以下の表示に

```
[9]EXP PEDAL
LEVEL = (127)OK
```

(4) If OK, press [PARAMETER >] to proceed to the next test item.

(4) OK [PARAMETER >]

[10] HI-HAT PEDAL

(1) Connect the FD-7 (HI-HAT control pedal) to the EXP PEDAL/HH CTRL terminal with the cable.

[10] HI-HAT PEDAL

(1) EXP PEDAL/HH CTRL FD-7

(2) Confirm that the value at the bottom position of the pedal is 0.

(2) 0

```
[10]HI-HAT PEDAL
LEVEL = ↑000
```

(3) Then tread the pedal. Confirm that the value at the bottom position is 127. Also confirm the sound at the bottom, top and in between.

(3) 127 0 127

```
[10]HI-HAT PEDAL
LEVEL = (127)OK
```

(4) If OK, press [PARAMETER >] to proceed to the next test item.

(4) OK [PARAMETER >]

[11] D-BEAM TEST

(1) Press [SELECT] to perform the OFF checking of D-BEAM.

[11] D-BEAM TEST

(1) [SELECT] D-BEAM OFF Checking

```
[11]D-BEAM
OFF Checking..OK
```

If OK, you move to the next test item.

OK NG

```
[11]D-BEAM
OFF Checking..NG
```

In the case of NG, you cannot proceed to the next subitem.

NG

(2) Place your hand above the D-BEAM and confirm that the value will change up to 127. Confirm the sound at the values of 0, 127 and in between. There is no problem when the minimum value is not 0.

(2) D-BEAM 127 0 127 0

```
[11]D BEAM CTRL
 LEVEL =↑000
```

```
[11]D BEAM CTRL
 LEVEL =(127)OK
```

(3) If OK, press [PARAMETER >] to proceed to the next test item.

(3) OK [PARAMETER >]

[12] EXTERNAL TRIGGER IN TEST

#Mode 1: (TRIGx2 mode)

(1) Connect the two PD-7s to the TRIGGER INPUT using PCS-31 (the white plug of PCS-31 corresponds to the head, the red one to the rim).

(2) Hit each PD-7 with the mallet. Confirm that the LCD display will change according to the strength of the hitting. Also confirm the difference in sound due to the weak/medium/strong hitting and head/rim.

[12] EXTERNAL TRIGGER IN TEST

1:(TRIGx2)

(1) 2 PD-7 TRIGGER INPUT PCS-31 PCS-31 PD-7

(2) PD-7 LCD / / /

```
[12]TRIGGER IN
[M1] H:o  R:
```

"o" will be displayed next to H(Head) and R(Rim) according to the weak/medium/strong hitting.

H(Head) R(Rim) / / o

(3) If OK, press [SELECT] to proceed to the next subitem.

(3) OK [SELECT]

#Mode 2: (HEAD/RIM mode)

2:(HEAD/RIM)

The rim switch will be checked.

(4) Connect the PD-7 to the TRIGGER INPUT using the stereo cable.

(4) PD-7 TRIGGER INPUT

(5) Choke the rim part of the PD-7 (take it between your fingers).If the rim switch is turned on, "o" will be displayed on the screen. Confirm this. Also confirm the sound which is produced while the switch is on.

(5) PD-7 ON "o" ON

```
[12]TRIGGER IN
[M2] CHOKE:o
```

(6) If OK, press [PARAMETER >] to proceed to the next test item. You can proceed to the next test item with [PARAMETER >] only after detecting all triggers.

(6) OK [PARAMETER >]
[PARAMETER >]

[13] PAD PRESSURE TEST

(1) The contact of the pads in the initial state is checked automatically. Then press [SELECT] without pressing any pad. If there is no problem, OK will be displayed and you proceed to the next subitem automatically. If NG, the following is displayed.
- Display in case of NG

[13] PAD PRESSURE TEST
(1) [SELECT]
OK
NG
NG

```
[13]PAD PRESSURE
OOOXXOOOOOOOOOO→
```

Shows the pads A1 - A5, B1 - B5, and C1 - C5 from left to right. If there is NG, a list will be displayed. Press [PARAMETER >] to display the list of NG pads and voltage.

A1 - A5, B1 - B5, C1 - C5 Pad
NG [PARAMETER >]
NG

```
← NG:A4  3.24V →
```

If there are multiple NGs, you can move to the next page by pressing [PARAMETER >], and to the previous page by pressing [< PARAMETER].

NG [PARAMETER >]
[< PARAMETER]

(2) If "OFF Check" is OK, proceed to the pressure value test.

(2) OFF Check OK

```
(A)2 -8   4 -8
1 -8  3 -7  5 -8
```

```
 2 -8 3 -8 4 -8
1 -8  (B )  5 -7
```

```
 2 -8 3 -8 4 -8
1 -8  ( C)  5 -8
```

You can switch between PadSetA/B/C/ of the test target by pressing [SELECT]. When a negative value is displayed while PAD is not pressed, it is normal. It is displayed at a location corresponding to the location of the pad.

PadSetA/B/C/ [SELECT]
パッドを押していない状態でマイナスの値が出ているのが正常
Pad

Push each of the pads of PadSet displayed on the LCD slowly one by one. The value displayed on the screen will vary according to how firmly you push them. Confirm the corresponding continuous sound and the colour of the LED.

LCD PadSet Pad
ゆっくり押し込んでいきます。押し込む強さにより画面の値表
LED

[Pad A]
Pressure value 35 - 45: confirm sound (sine wave) and pad LED (green).
Pressure value 70 - 80: confirm sound (square wave) and pad LED (orange).
Pressure value 85 - 95: confirm sound (triangular wave) and pad LED (red).

[Pad A]
35 45 ( ) Pad LED
70 80 ( ) Pad LED
85 95 ( ) Pad LED

[Pad B, C]
Pressure value 25 - 35: confirm sound (sine wave) and pad LED (green).
Pressure value 60 - 70: confirm sound (square wave) and pad LED (orange).
Pressure value 75 - 85: confirm sound (triangular wave) and pad LED (red).

[Pad B C]
25 35 ( ) Pad LED
60 70 ( ) Pad LED
75 85 ( ) Pad LED

*The 15 pads differ in pitch by half tone each.

15 Pad

The cross talk are always monitored by the software. When multiple pressure sensors react simultaneously, NG is displayed.

2
NG

```
Cross Talk NG!
oxooooxoooooooo
```

Shows the pads A1 - A5, B1 - B5, and C1 - C5 from left to right. "x" is displayed corresponding to the pad which has reacted. When you accidentally touch multiple pads during the test, they will react. In the case of "Cross Talk NG", you can go back to the previous screen by pressing [EXIT].

A1 - A5, B1 - B5, C1 - C5 Pad
Pad x
2 Pad
Cross Talk NG [EXIT]

(3) If OK for all pads, press [PARAMETER >] to proceed to the next test item.
If there are some untested pads, they are displayed on the screen.

(3) Pad OK [PARAMETER >]
Pad

```
          [EXIT]
Unchecked (A2)
```

(Showing that at least the A2 pad is not checked yet)

(A2)

If there are several untested pads, only the one with the smallest number is displayed here. Perform the test for the displayed pad, and then press [PARAMETER >]. When there are some more untested pads, one of them is displayed.

番号の若いパッド一つだけです。表示された一つのパッドにつ
[PARAMETER >]

You can proceed to the next test item only after detecting all ranges for weak/medium/strong hitting for all pads.

/ /

[14] PAD VELOCITY TEST

(1) If you press [SELECT], the following LCD screen will be displayed.

[14] PAD VELOCITY TEST
(1) [SELECT] LCD

```
 2 000  4 000
1 000(A-PZ)5 000
```

* "(A-PZ)" denotes Piezo (piezo sensor) of the "A Pad".
* The pads are A-1/A-2/A-4/A-5 from the left bottom in the clockwise direction.

"(A-PZ)" A Pad Piezo( )
A-1 A-2 A-4 A-5 Pad

(2) Hit the pads A-1/A-2/A-4/A-5 (the four pads containing a piezo sensor) with the mallet. Confirm that weak/medium/strong hitting produce different sound, and the colours of the corresponding pads change.

Weak: drum, LED is green.
Medium: tambourine, LED is orange.
Strong: cowbell, LED is red.

(2) A-1 A-2 A-4 A-5 Pad 4
つの内部パッド）を、それぞれマレットで打撃します。また
この時に弱打・中打・強打をそれぞれ異なる音色で発音
Pad

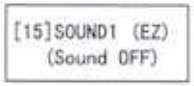
LED
LED
LED

(3) If OK for all four pads, press [PARAMETER >] to proceed to the next test item. You can proceed to the next test item only after detecting all ranges for weak/medium/strong hitting for the four pads.

(3) 4 Pad OK [PARAMETER >]
4
弱／中／強を全て検出しないと、次項目へは進めません。

[15] SOUND TEST
(1) Confirm that there is no sound produced.

[15] SOUND TEST
(1)

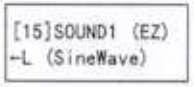


(2) If you press [SELECT], sine wave is output from OUTPUT's LEFT, RIGHT and PHONES. Check the sound and confirm that there is no strange sound, etc. Also confirm that the output sound volume varies when turning MASTER VOLUME.

(2) [SELECT] OUTPUT LEFT, RIGHT PHONES MASTER VOLUME

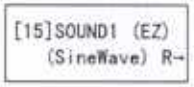
(3) When you press [SELECT], the sine wave is output only from the L side. Confirm the sound.

(3) [SELECT] L



(4) When you press [SELECT] again, the sine wave is output only from the R side. Confirm the sound.

(4) [SELECT] R



*By pressing [SELECT], you can change the mode (sound off, sound on both sides, sound only on the L side, sound only on the R side, sound off, etc).

[SELECT] Sound OFF → L/R → L → R → Sound OFF →

(5) If OK for all items, press [PARAMETER >] to proceed to the next test item. You can proceed to the next test item only after completing all checks.

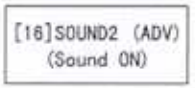
(5) OK [PARAMETER >]
次のテスト項目へ進みます。すべてのチェックを終えな
[PARAMETER >]

[16] SOUND TEST 2
(1) Confirm that there is no sound produced.

[16] SOUND TEST 2
(1)

(2) If you press [SELECT], some sound is produced. Confirm that there are no strange sound. While the sound continues, press [SELECT] again to turn "SOUND" off and confirm the echo sound.

(2) [SELECT]
等を確認します。また、音が鳴っている間にもう一度
[SELECT] SOUND OFF



(3) If OK, press [PARAMETER >] to proceed to the next test item.

(3) OK [PARAMETER >]

[17] MIX IN TEST
(1) Input the melody sound to the MIX IN terminal with the stereo cable. Confirm that the input melody sound comes out from OUTPUT unchanged.

[17] MIX IN TEST
(1) MIX IN OUTPUT

(2) If OK, press [PARAMETER >] to proceed to the next test item.

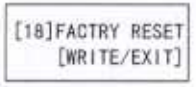
(2) OK [PARAMETER >]

[18] FACTORY RESET
(1) To perform the factory reset, press [WRITE].

When "Reset Aborted!" is displayed, turn the power off.

[18] FACTORY RESET
(1) FACTORY RESET [WRITE]

FACTORY RESET
"Reset Aborted!" [EXIT]

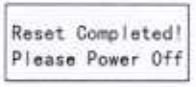


(2) The reconfirming screen will be displayed. Press [WRITE]. If you press [EXIT], you go back to the subitem (1).

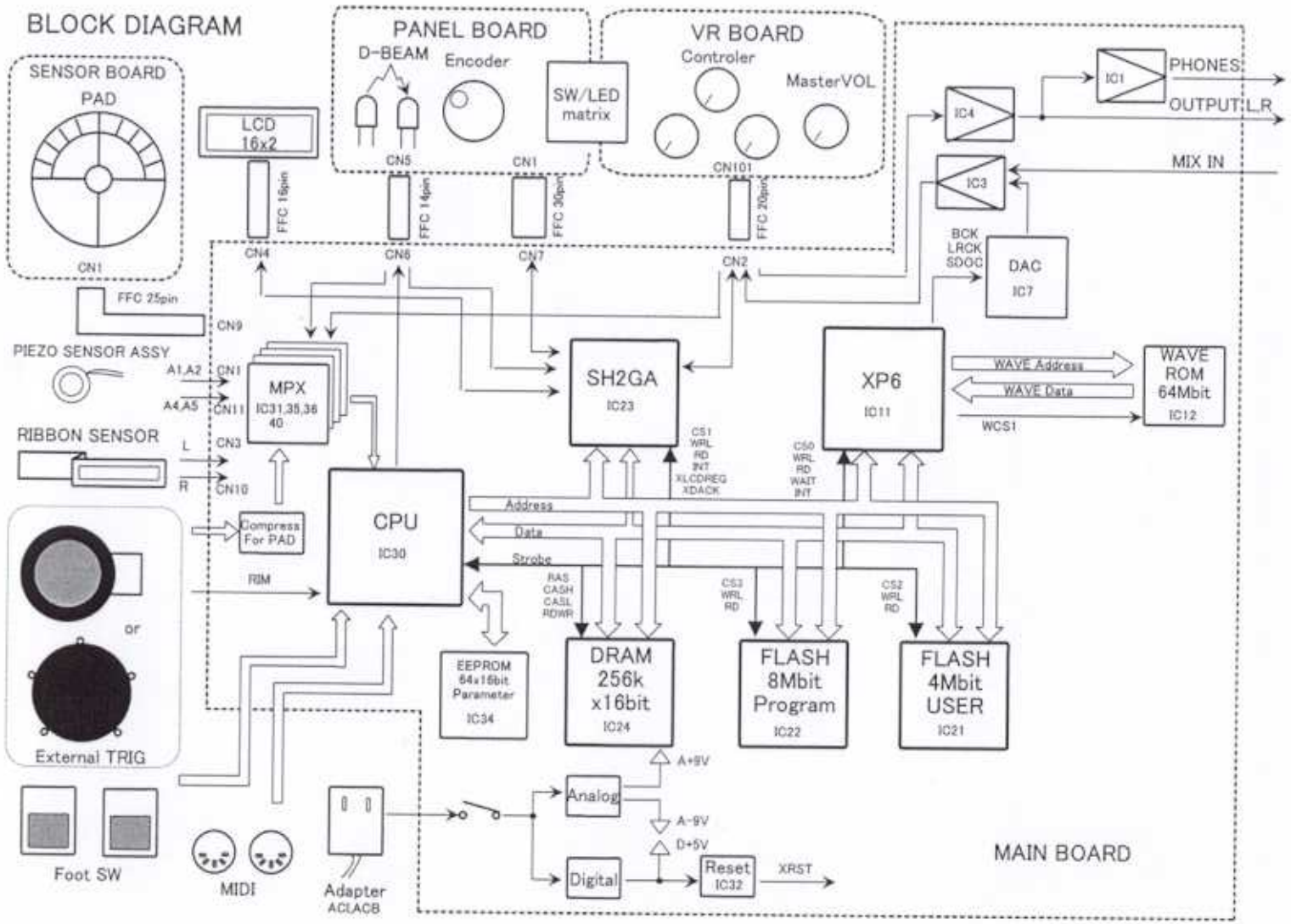
(2) [EXIT] (1) [WRITE]

(3) Power off after confirming the display on the LCD screen.

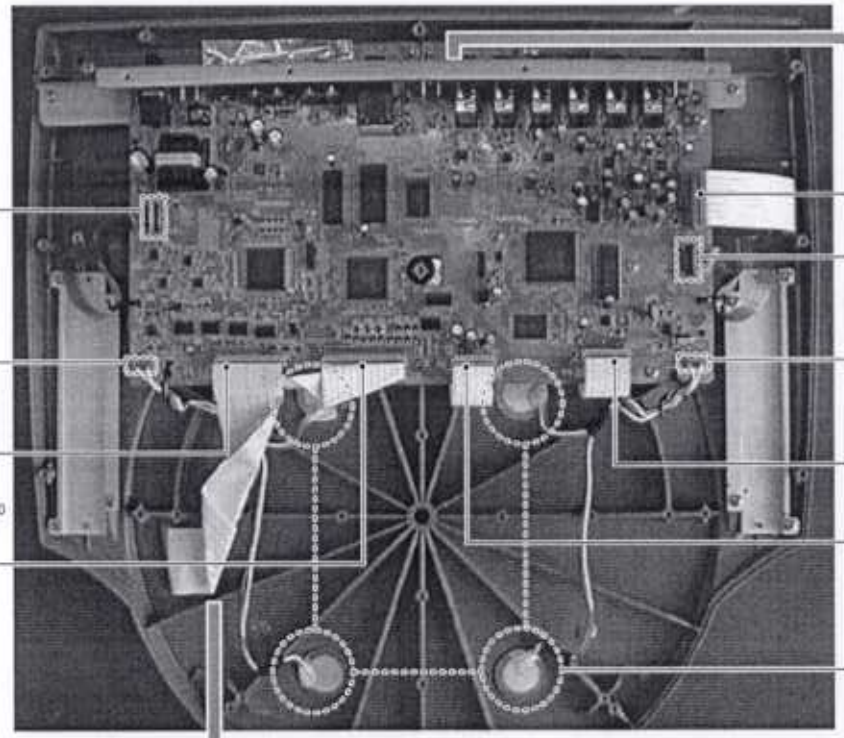
(3) LCD



BLOCK DIAGRAM



WIRING DIAGRAM



CN10 on Main
to RIBBON R ASSY
(71786934)

CN11 on Main
to PIEZO SENSOR
HPD-15 PIEZO ASSY
(71451923)

CN9 on Main
to CN1 on Sensor
FUJI CARD
25X160-A6.0BB-P1.25-HBL10
(01900545)

CN7 on Main
to CN1 on Panel
BNCD-P=1.25-K-30-120
(02231801)

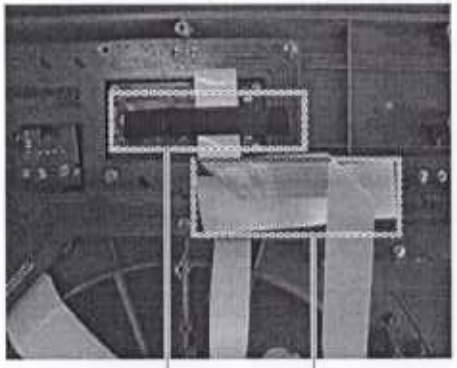
CN2 on Main
to CN101 on VR
BNCD-P=1.25-K-20-80
(02231790)

CN3 on Main
to RIBBON L ASSY
(71786923)

CN1 on Main
to PIEZO SENSOR
HPD-15 PIEZO ASSY
(71451923)

CN4 on Main to LCD Unit
BNCD-P=1.25-K-16-280
(02010701)

CN6 on Main
to CN5 on PANEL
BNCD-P=1.25-K-14-120
(02231789)



アセテートテープで固定する。
ニットー アセテートテープ #5 クロ W15MM
(40122812)
Use the acetate tape to fix the FUJI CARD.
NITTO No. 5 BLK W15MM
(40122812)

絶縁用の両面テープを貼る。
その際、バンカード側の面面
テープの紙を剥がさないこと。
ニットー リョウメンテープ #575X W30MM
(40122556)
Stick the double faced adhesive tape to insulate.
Do not unglue the paper on the side faced to the BAN CARD.
NITTO No. 575X W30MM (40122556)

・TOP CASEに示されている
丸印印に合わせて貼る。
・Attach the Piezo Sensors in the chop marks.
・ワイヤリングをTOP CASEに
アセテートテープを用いて固定する。
ニットー アセテートテープ #5 クロ W15MM
(40122812)
・Use the acetate tape to fix the wiring to the TOP CASE.
NITTO No. 5 BLK W15MM (40122812)

1.

内側に折り曲げる。
Double in the FUJI CARD.

ここで1回折る。
Fold the FUJI CARD once.

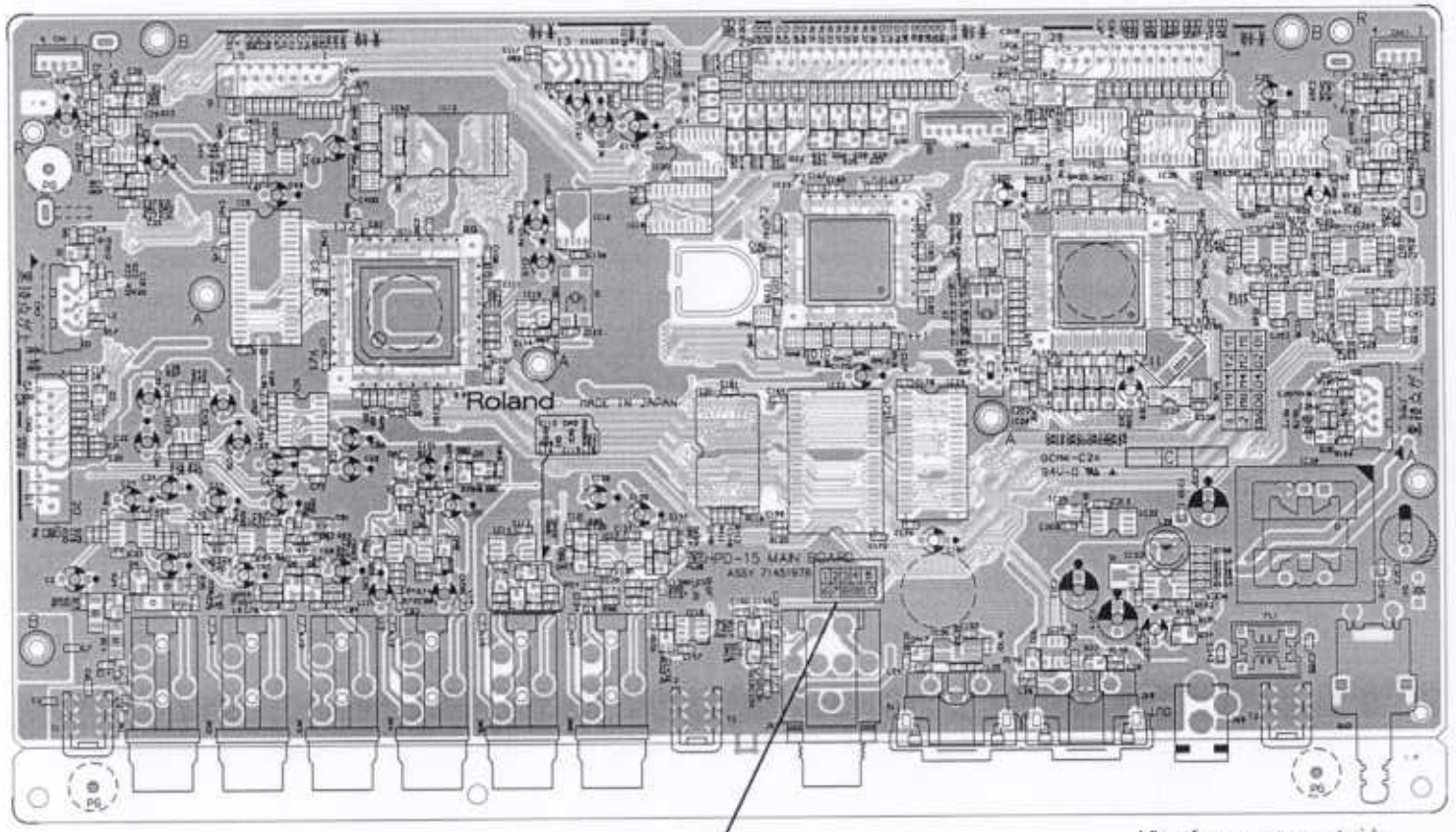
2.

もう1回折り曲げる。
その際、折り曲げたFUJI CARDが
ネジ穴を塞がないようにすること。
Fold once again.
Keep the FUJI CARD away from the screw hole.

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

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

CIRCUIT BOARD
MAIN BOARD ASSY (71451978)



View from component side.

Please Exchange the Main Board Assy when you repair the Main Board without marking on this table.
基板の修理の際、この部分にマーキングが無いものは、基板交換してください。

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

A **MAIN BOARD ASSY (71451978)**

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

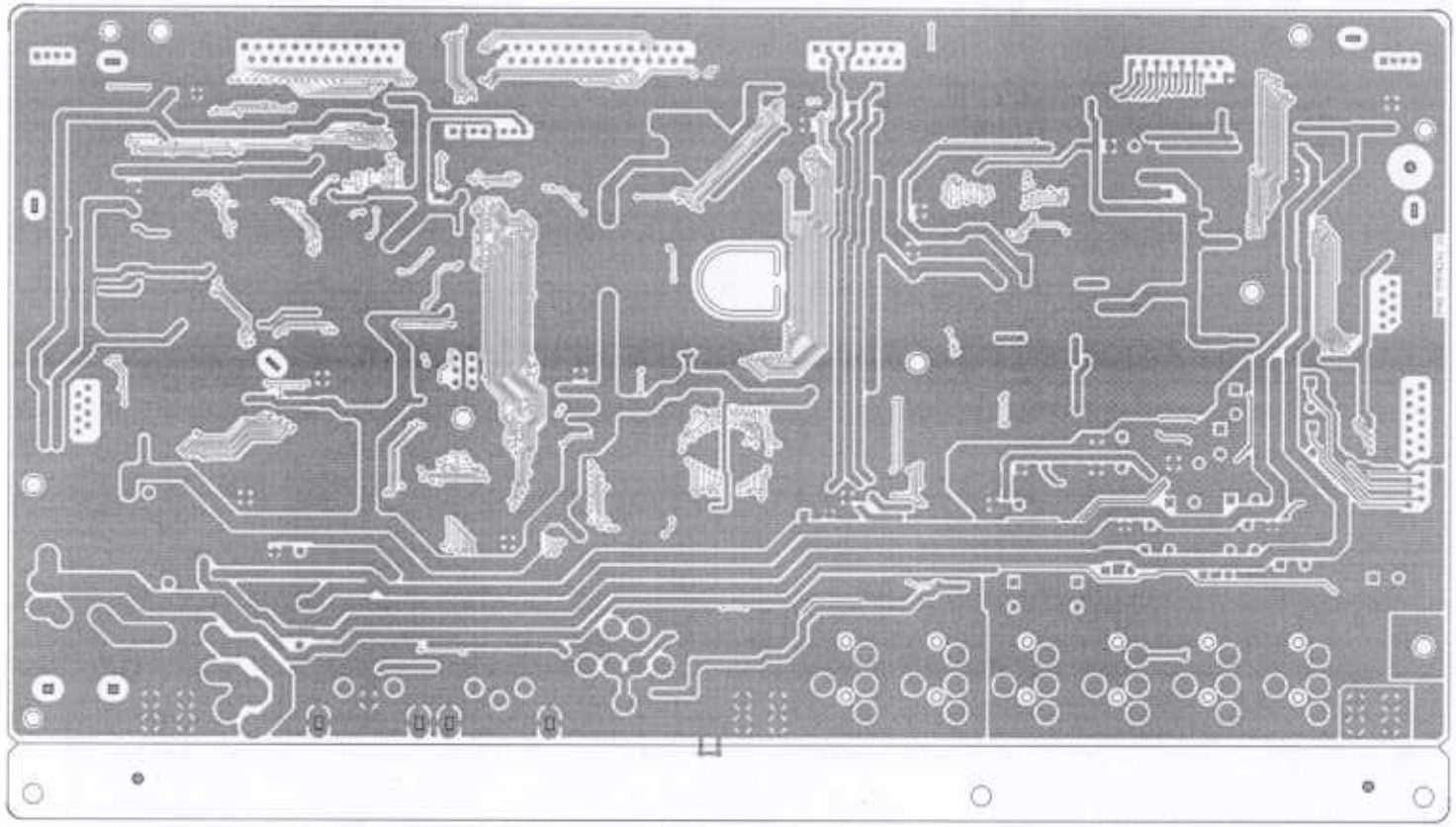
Q

R

S

T

U

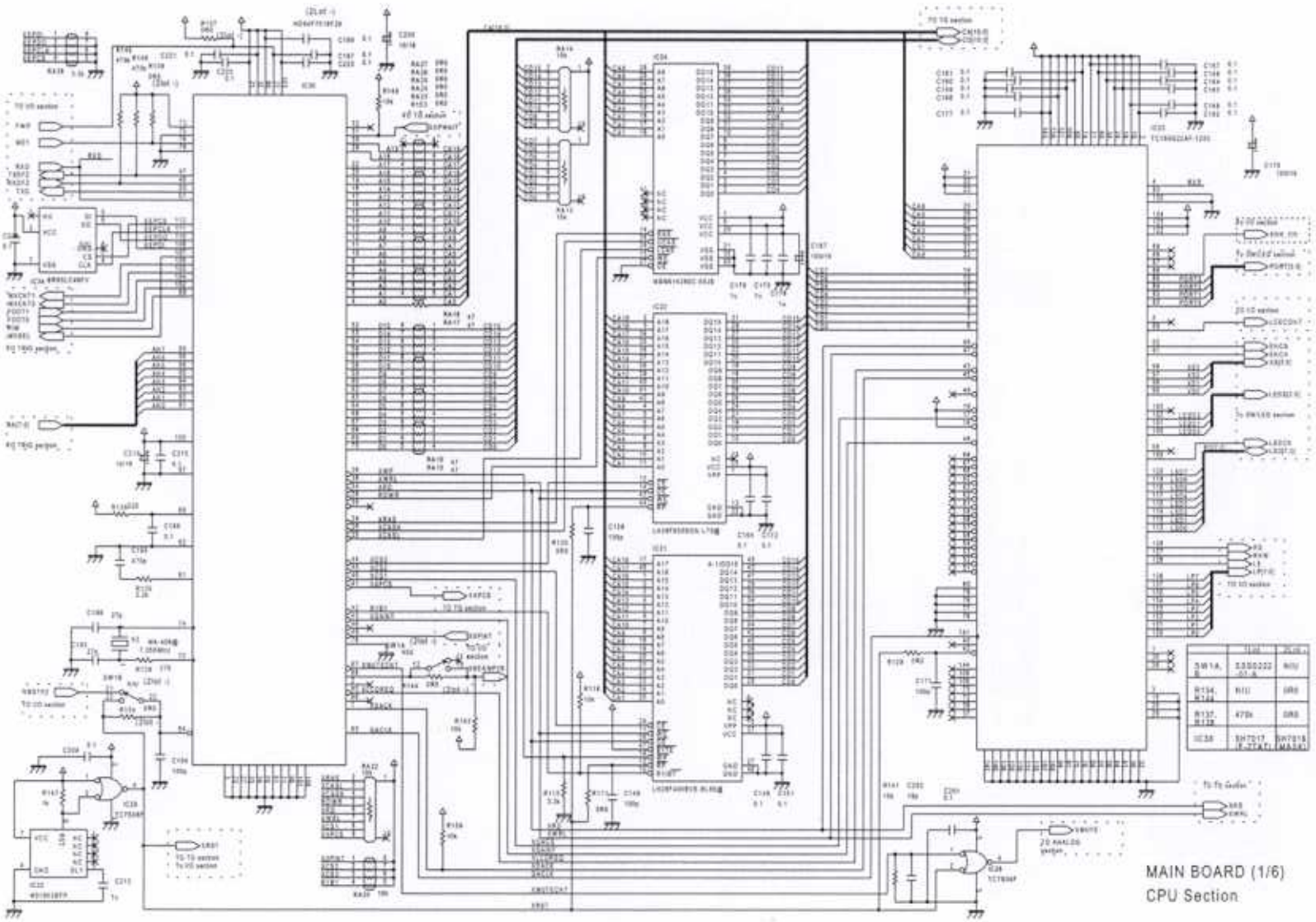


View from foil side.

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

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

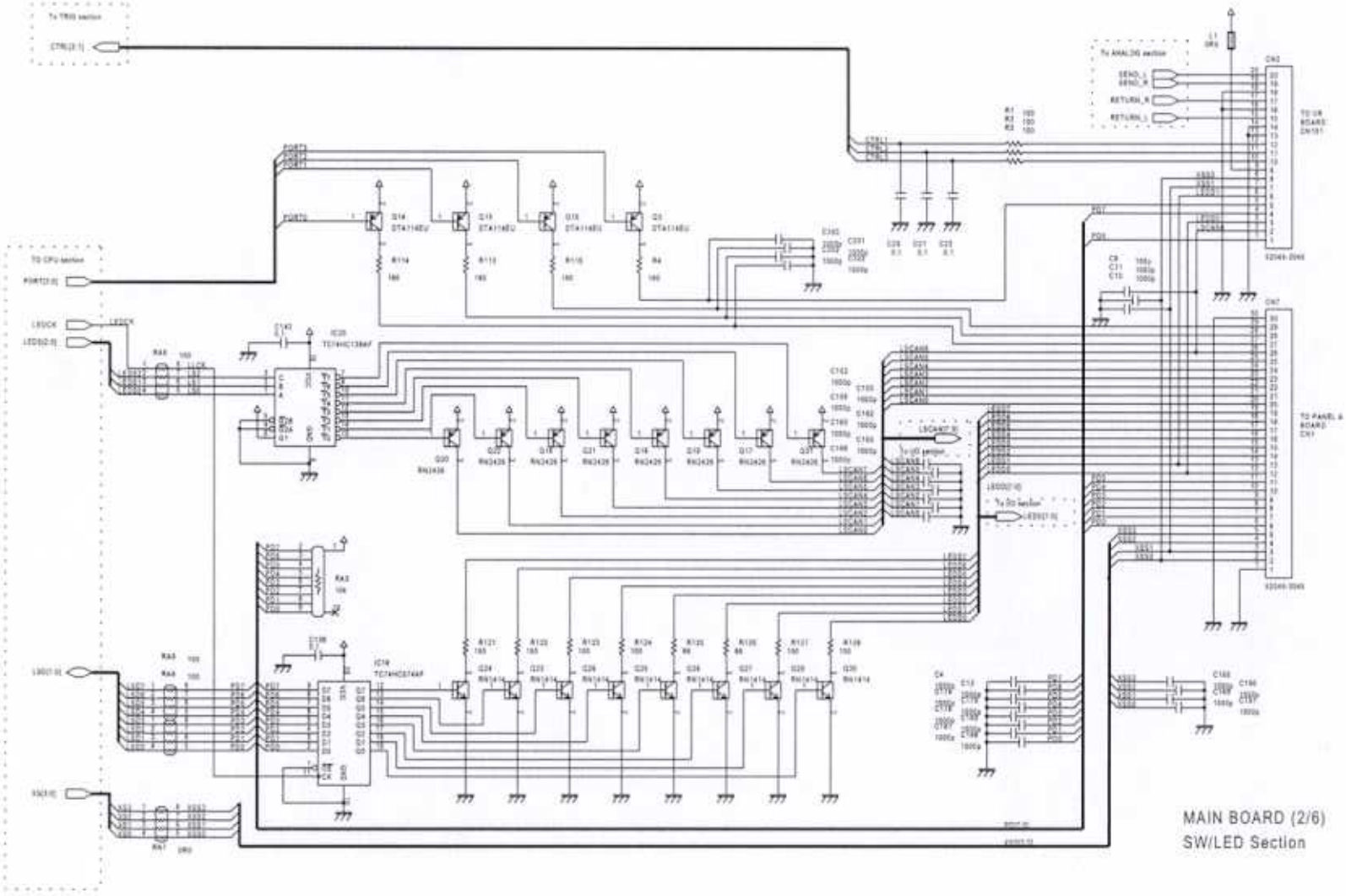
CIRCUIT DIAGRAM
MAIN BOARD ASSY (71451978) 1/6 (CPU Section)



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

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

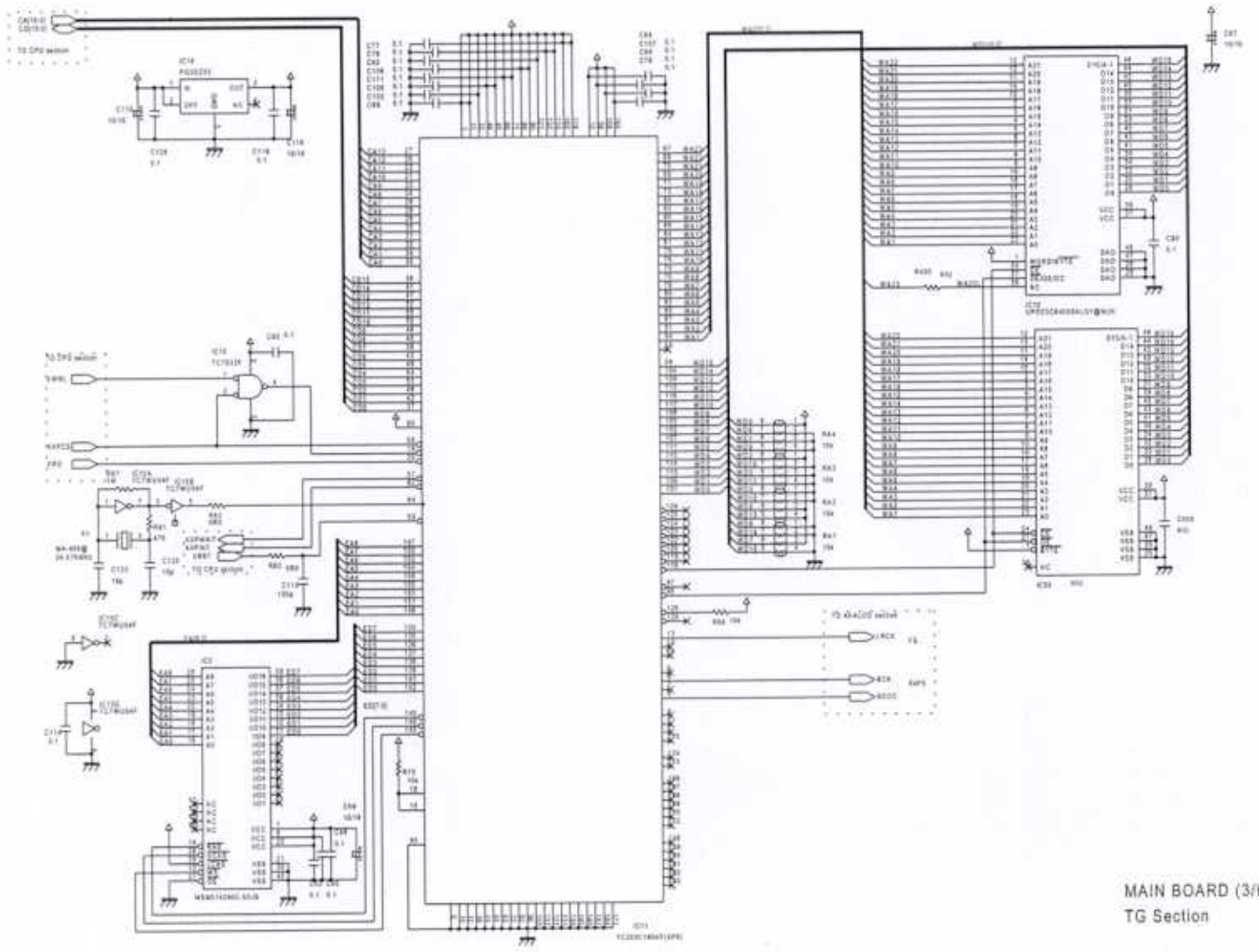
MAIN BOARD ASSY (71451978) 2/6 (SW/LED Section)



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

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

MAIN BOARD ASSY (71451978) 3/6 (TG Section)

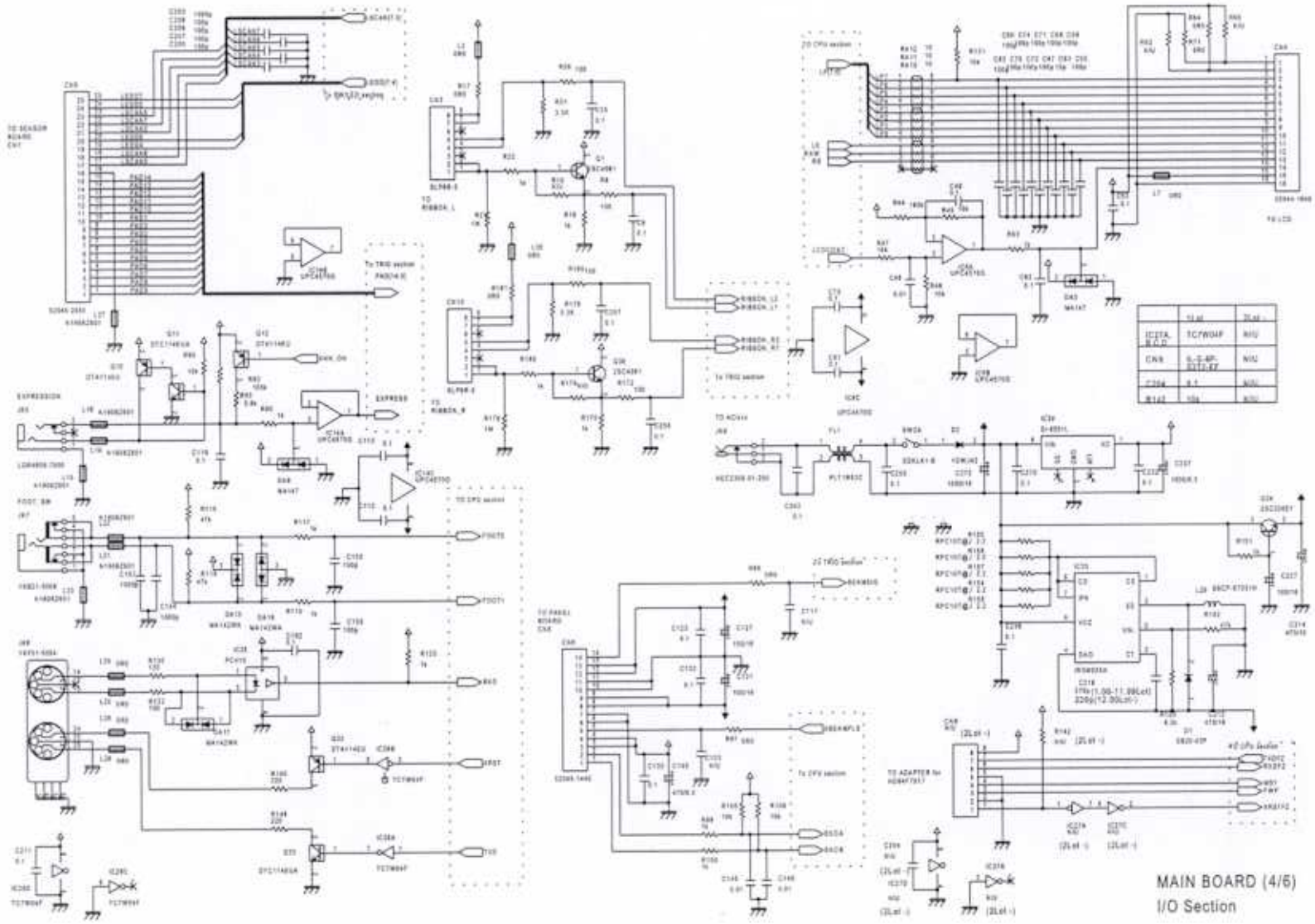


MAIN BOARD (3/6)
TG Section

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

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

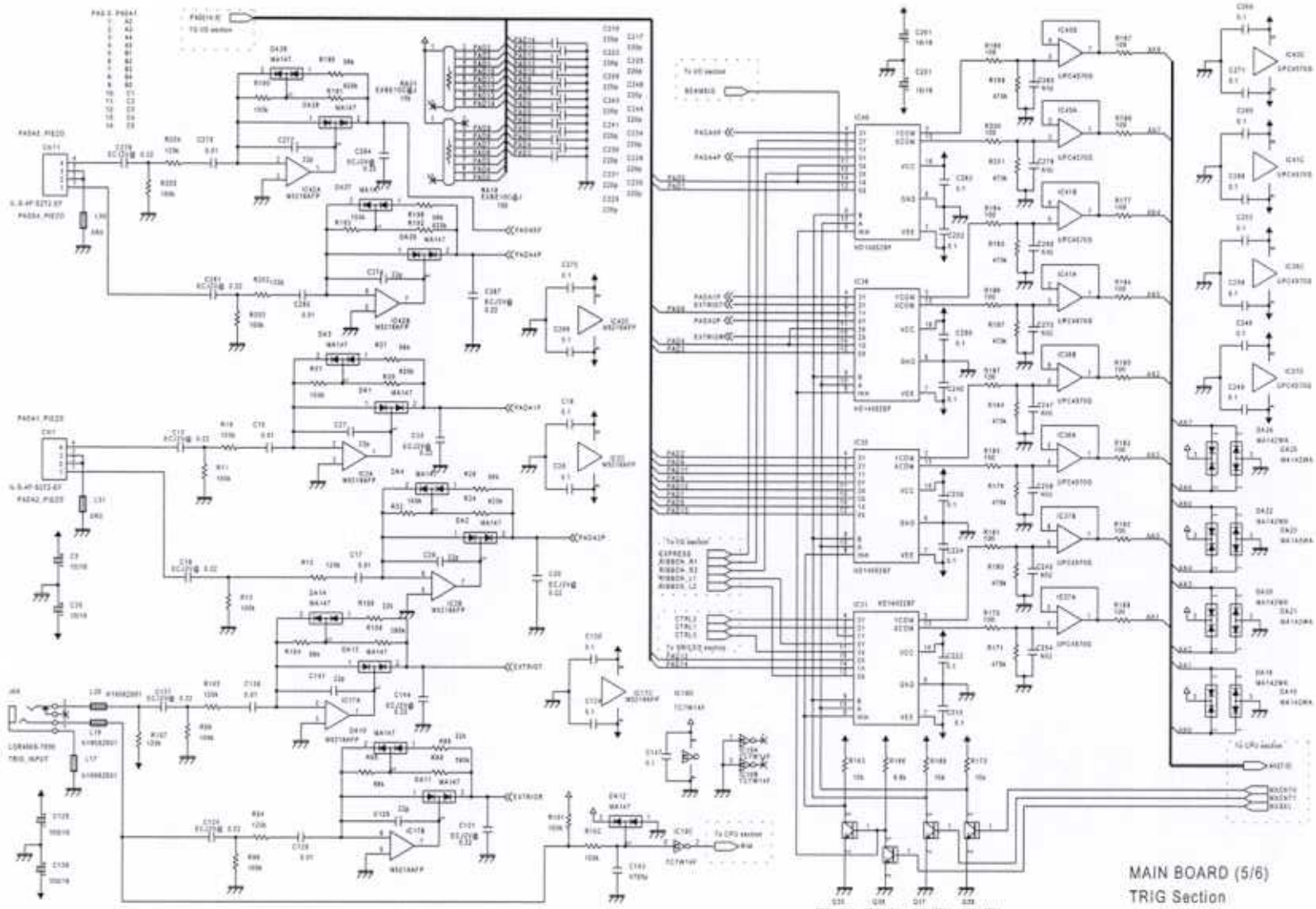
MAIN BOARD ASSY (71451978) 4/6 (I/O Section)



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

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

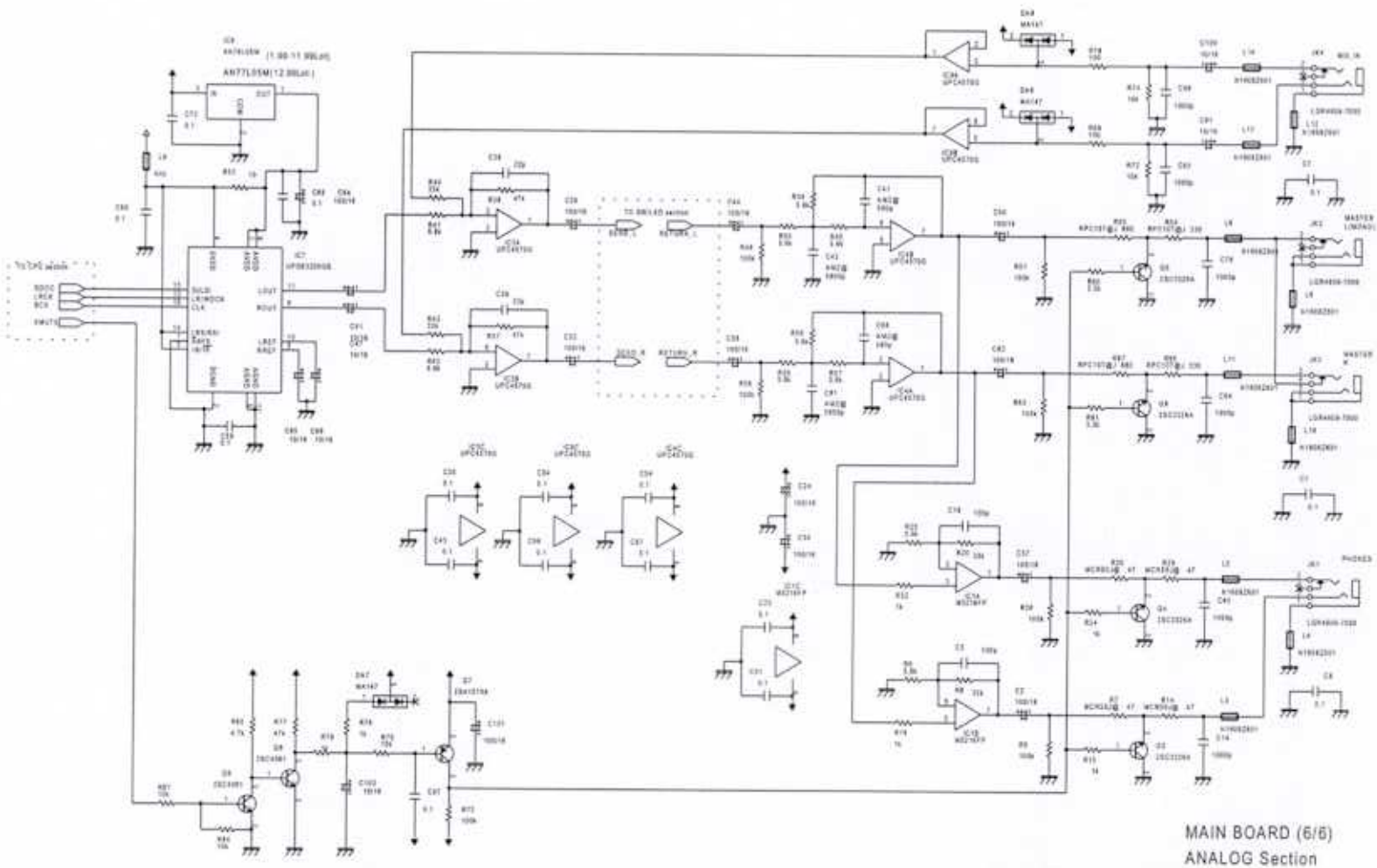
MAIN BOARD ASSY (71451978) 5/6 (TRIG Section)



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

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

MAIN BOARD ASSY (71451978) 6/6 (ANALOG Section)



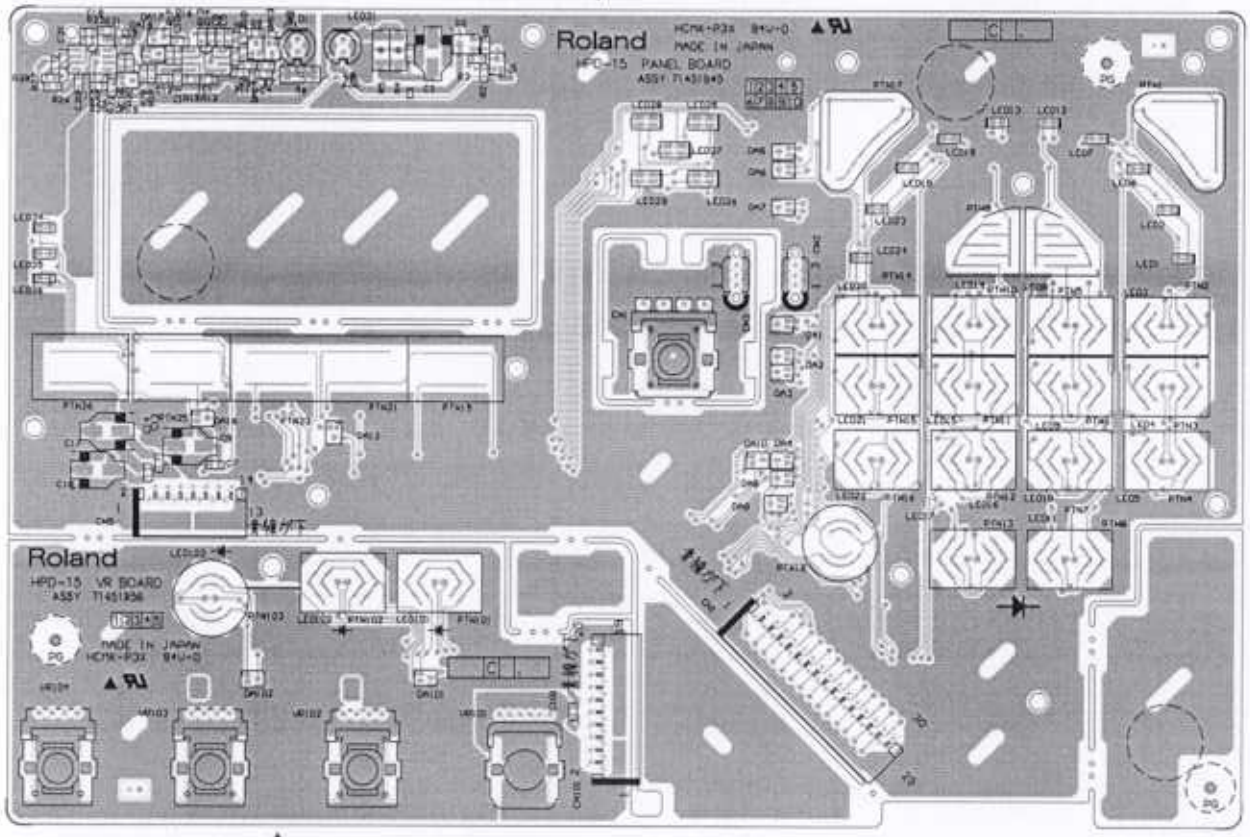
MAIN BOARD (6/6)
ANALOG Section

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

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

CIRCUIT BOARD
PANEL BOARD ASSY (71451945) / VR BOARD ASSY (71451956)

PANEL BOARD ASSY (71451945)



VR BOARD ASSY (71451956)

View from component side.

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

A **PANEL BOARD ASSY (71451945) / VR BOARD ASSY (71451956)**

B

C

D

E

F

G

H

I

J

K

L

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N

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P

Q

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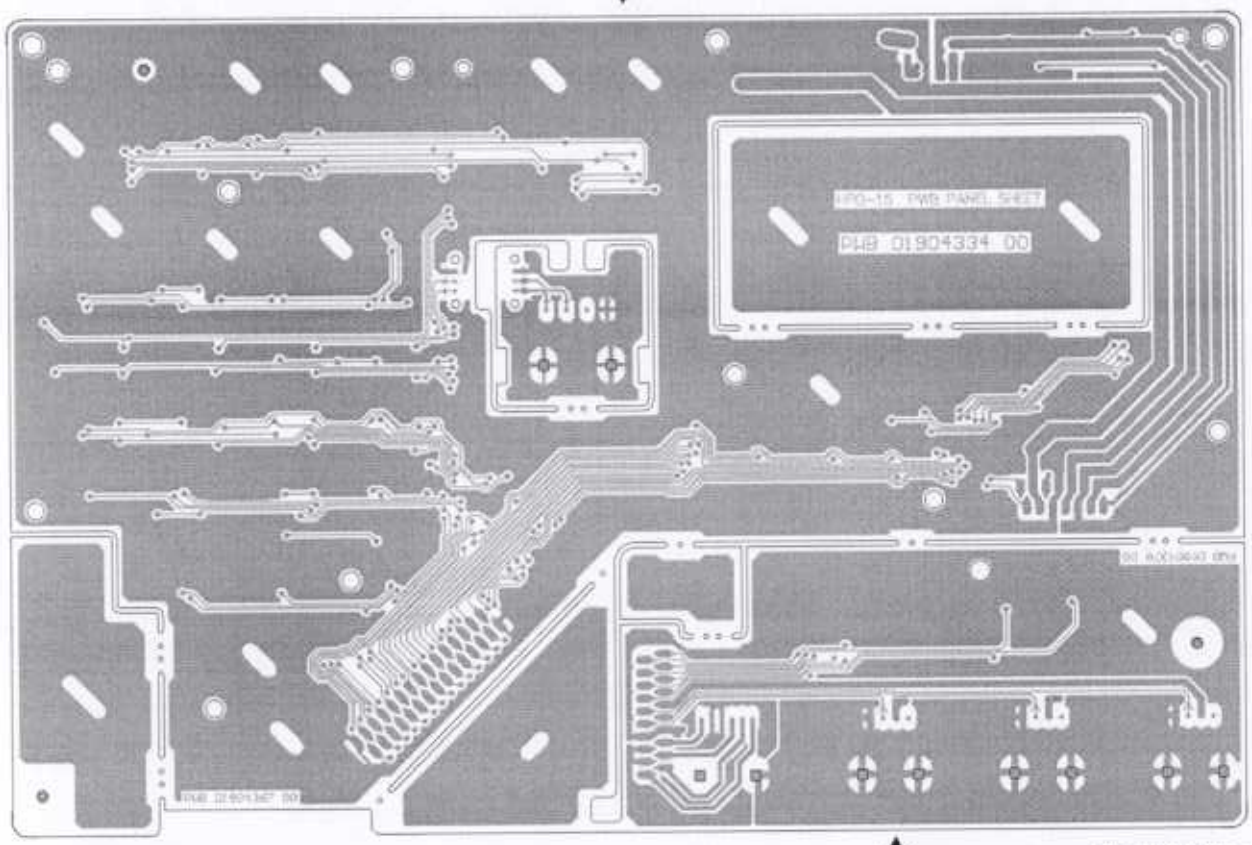
U

PANEL BOARD ASSY (71451945)



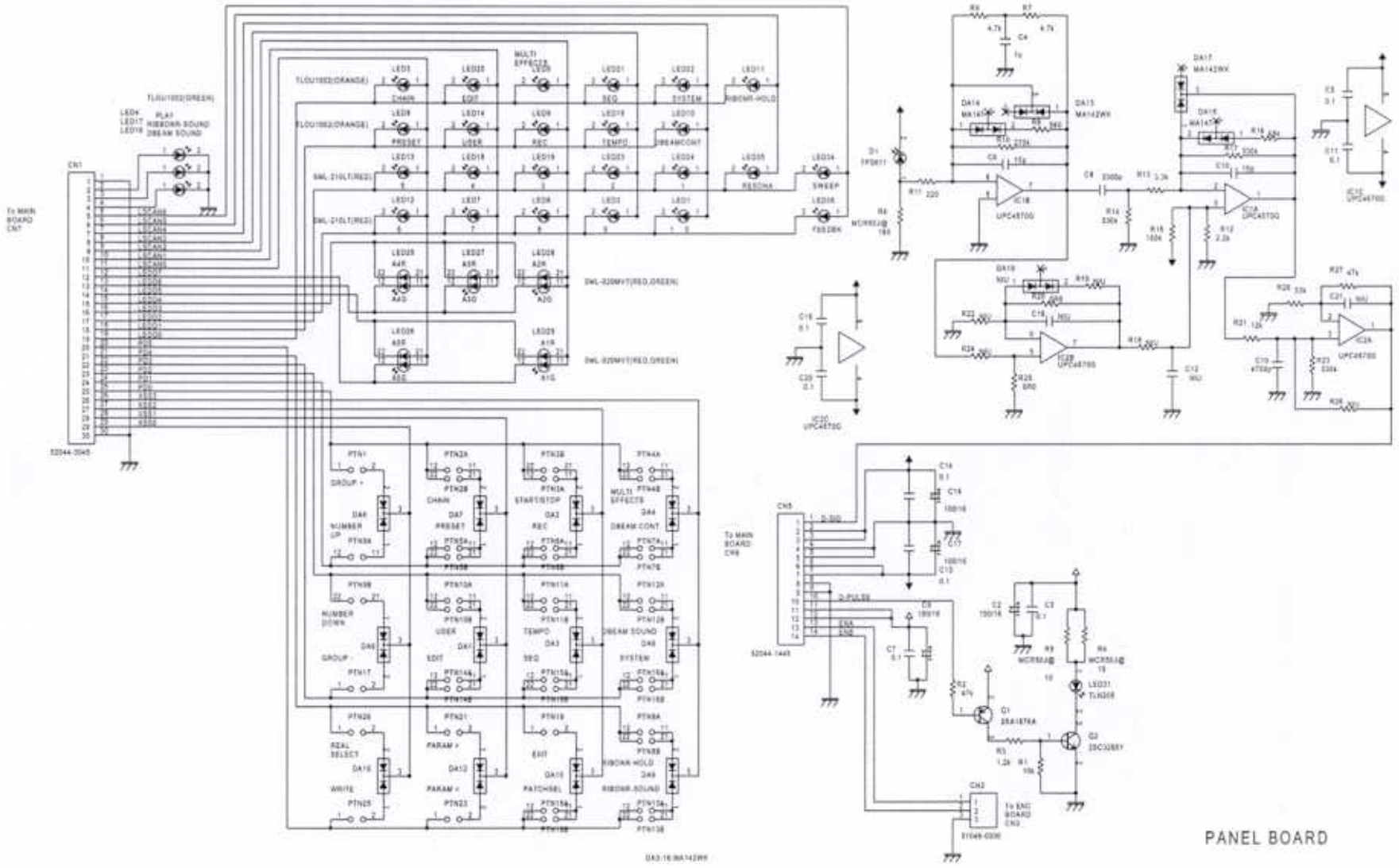
View from foil side.

VR BOARD ASSY (71451956)

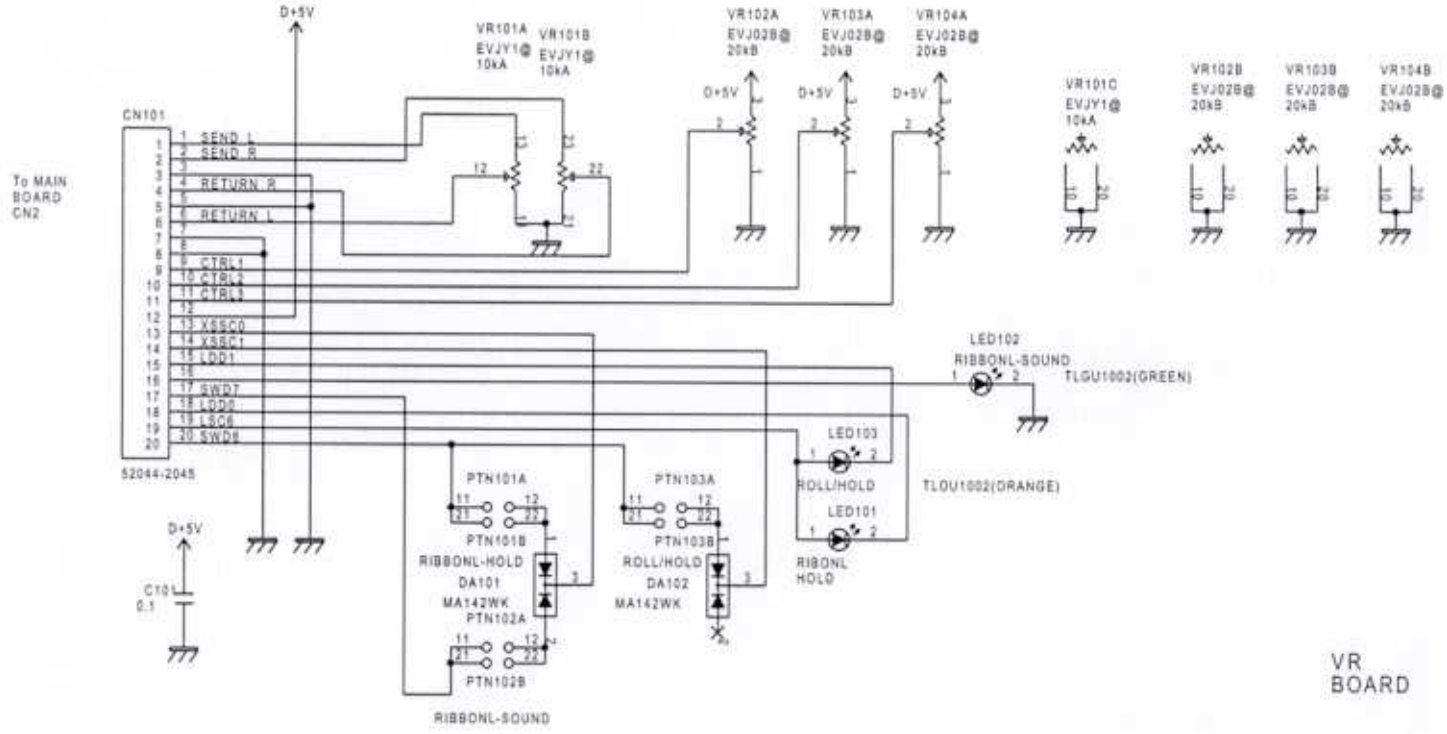
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

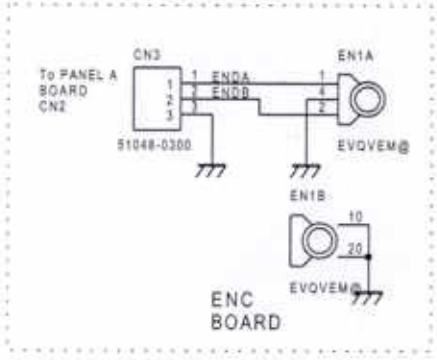
A B C D E F G H I J K L M N O P Q R S T U

CIRCUIT DIAGRAM
PANEL BOARD ASSY (71451945)



VR BOARD ASSY (71451956)





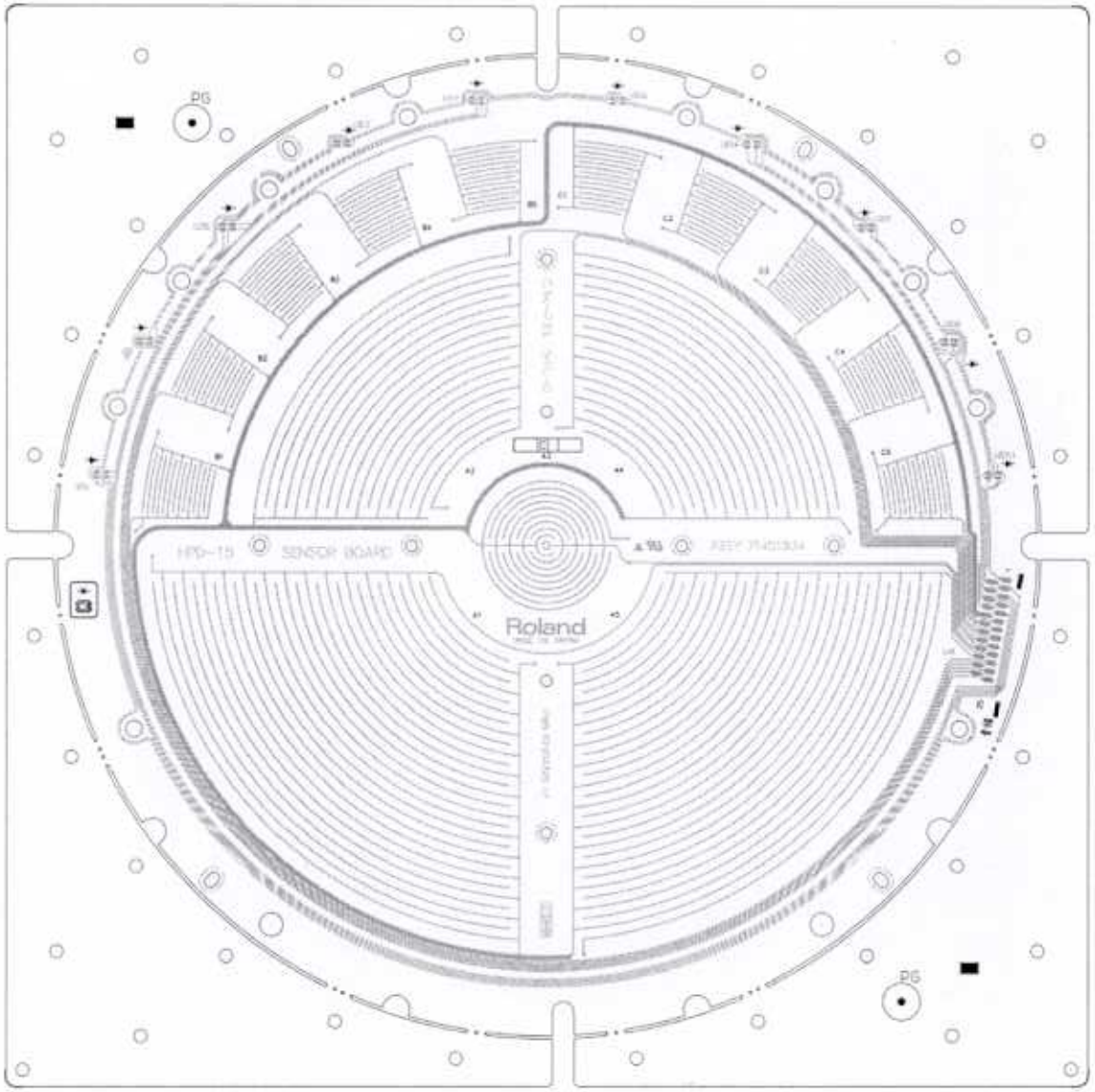
VR BOARD

ENC BOARD

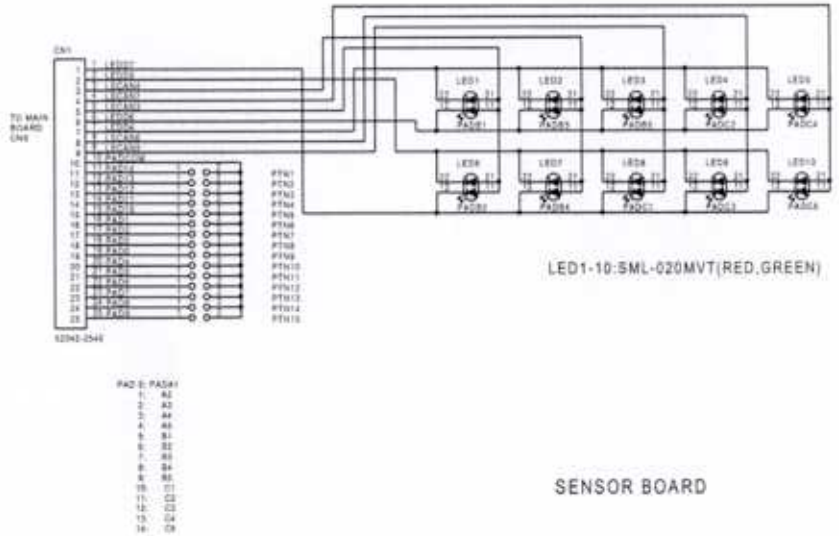
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

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

CIRCUIT BOARD
SENSOR BOARD ASSY (71451934)



CIRCUIT DIAGRAM
SENSOR BOARD ASSY (71451934)



LED1-10:SML-020MVT(RED,GREEN)

SENSOR BOARD

MESSAGES AND ERROR MESSAGES

This section lists the messages (error messages) that the HPD-15 produces and explains the meaning of each message, giving you to appropriate action to take.

HPD-15

Error Messages

```
System Error!
```

A problem has occured with the internal system.
Redo the update of the program.

```
Memory Damaged!!
[WRITE]
```

Data in the HPD-15's memory is corrupted. Press [WRITE] to execute factory reset
* If you turned the power off when the HPD-15 is writing data into memory, the data will be damaged. Never turn the power off while the HPD-15 is executing a writing process.

[WRITE]
※メモリーへの書き込み中に電源をオフにするとメモリーの内容が壊れることがあります。書き込み動作中は絶対に電源を

```
No Enough Memory
Aborted!  [EXIT]
```

Pattern recording or editing could not be carried out because there was not enough internal memory. Press [EXIT].
* Try deleting patterns that are no longer needed.

[EXIT]

```
Empty Pattern!
Aborted!
```

This pattern contains no performance data; it cannot be edited.

空のパターンに対して、何らかのエディットを行おうとしまし

```
PTN Write Error!
```

Writing a pattern data failed.

```
Max 999 Measures
Aborted!  [EXIT]
```

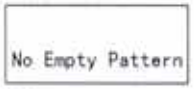
The maximum number of measures that can be recorded to one pattern has been exceeded; no further recording or editing that adds measures can be carried out. Press exit.

999

[EXIT]

```
PRESET PATTERN!!
Select User PTN
```

This is a Preset pattern; it cannot be edited or recorded.Select a User pattern.

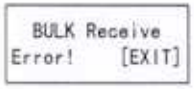


There are no empty patterns for recording.Delete unneeded pattern or select a recorded pattern that can be used for recording.

※不要なユーザー・パターンを削除するか、録音済みのユー

Pattern contained an excessive amount of data, and as a result could not be played back. Press [EXIT].
* Try eliminating a part that has too much data.

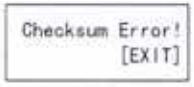
パターンの中のデータが多すぎて、パターン・プレイが追い付
[EXIT]



Reception of bulk dump failed. Press [EXIT]. Make sure that all MIDI cables are firmly connected.

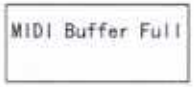
[EXIT]

MIDI MIDI



The checksum value of a system exclusive message was incorrect. Press [EXIT].
* Correct the checksum value.

[EXIT]

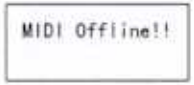


A large amount of MIDI messages were received in a short time.and could not be processed completely.

MIDI

* Confirm that the external MIDI device is properly connected.If the problem persists, reduce the amount of MIDI messages sent to the HPD-15.

MIDI

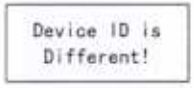


A MIDI cable was disconnected. (Or communication with the external MIDI device stopped for some reason.)

MIDI MIDI

* Make sure that MIDI cables have not been pulled out or broken.

MIDI



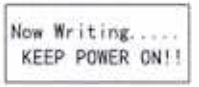
Due to an incorrect Device ID, the system exclusive message could not be received.

ID

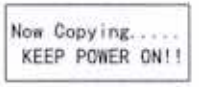
* Set the correct Device ID. (p. 82)

ID

Messages



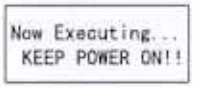
The HPD-15 is writing data into memory. Do not turn the power off.



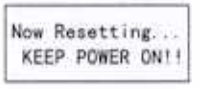
The HPD-15 is copying data. Do not turn the power off.

パッチ・データをコピー中です。電源を切らないでください。

The HPD-15 is executing an exchange function. Do not turn the power off.



The HPD-15 is executing a process. Do not turn the power off.



The HPD-15 is restoring the factory settings. Do not turn the power off.

Bulk data is now being transmitted.

Bulk data is now being received. Do not turn the power off.