

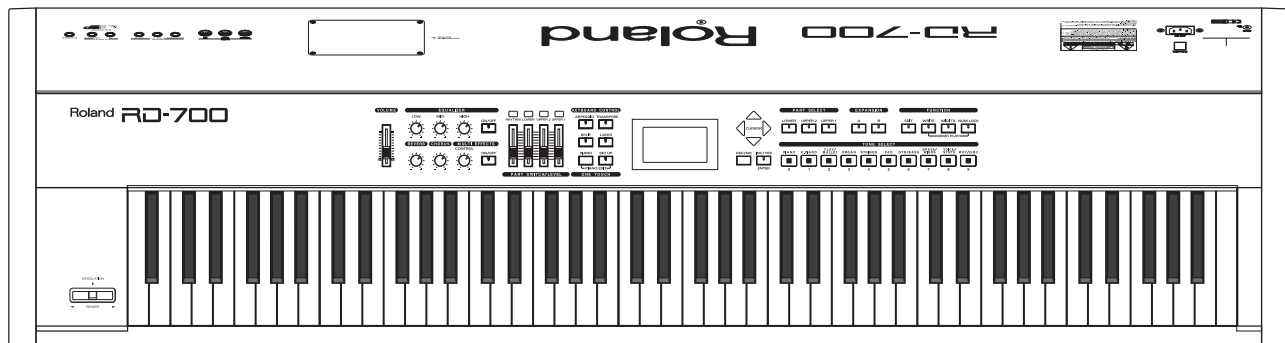
# RD-700

DIGITAL PIANO

## SERVICE NOTES *Issued by RJA*

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# SPECIFICATIONS

## RD-700 : Digital Piano (Conforms to General MIDI 2 System)

- Keyboard  
88 keys (Progressive Hammer Action Keyboard)
  - Part  
16
  - Maximum Polyphony  
128 voices
  - Wave Memory  
64 M bytes (16-bit linear equivalent)
  - Expansion Slot  
Wave Expansion Board SRX Series: 2 slots (\*1)
  - Tones
 

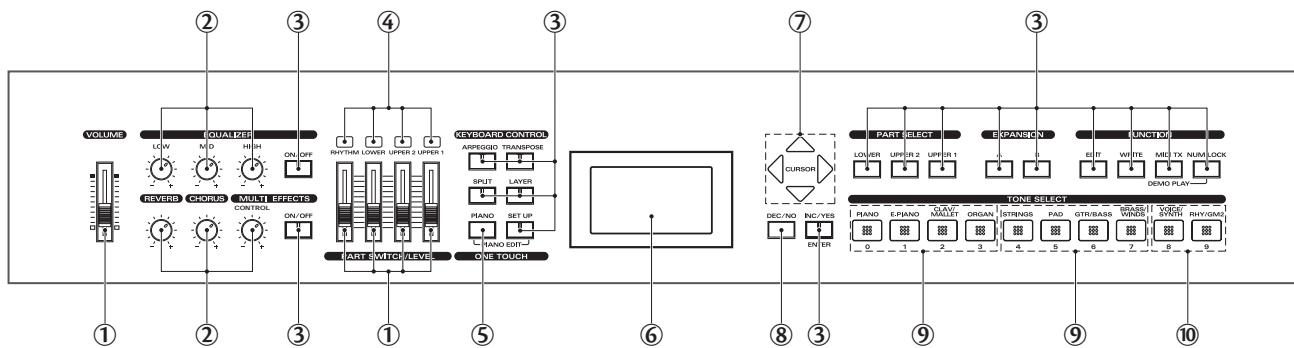
Normal Tones	: 189
Tone Wheel Organ	: 10
General MIDI 2 Tones	: 256
Rhythm Sets	: 4
General MIDI 2 Rhythm Sets	: 9
  - Setups  
100
  - Effects
 

Multi-Effects	: 65 types
Reverb	: 4 types
Chorus	: 2 types
Equalizer	: Digital 3 Band
  - Arpeggiator  
45 styles
  - Rhythm Pattern  
80 styles
  - Controllers  
PART VOLUME slider (x 4),  
EQUALIZER knobs,  
REVERB knob, CHORUS knob,  
MULTI EFFECTS CONTROL knob,  
Pitch Bend/Modulation lever
  - Display  
128 x 64 dots, Full Graphic LCD (backlit LCD)
  - Connectors  
Output Jacks (L/MONO, R)  
Pedal Jacks (Damper, FC 1, FC 2)  
MIDI Connectors (IN, OUT, THRU)  
Headphones Jack
  - Power Supply  
AC 117V, AC 230V, AC 240V
- Power Consumption  
12W
  - Dimensions  
1414 (W) x 374 (D) x 143 (H) mm  
55-11/16 (W) x 14-3/4 (D) x 5-11/16 (H) inches
  - Weight  
24.1 kg / 53 lbs 3 oz
  - Accessories  
Owner's Manual English (#71894023)  
AC Cord 120V (#02129289)  
AC Cord 230V (#02129290)  
AC Cord 240V (#02129301)  
EURO CONVERTER PLUG ECP01-5A (#00905234)  
Pedal Switch DP-6 (#\*\*\*\*\*)
  - Options  
Wave Expansion Board SRX Series (\*1)  
Keyboard Stand (KS-17)  
Pedal Switch (DP-2/ 6)  
Expression Pedal (EV-5)
- \* 1 : Tones may sound differently, and the number of them that can be selected may differ compared with synthesizers in the Roland XV series.
- \* In the interest of product improvement, the specifications and/or appearance of this unit are subject to change without prior notice.

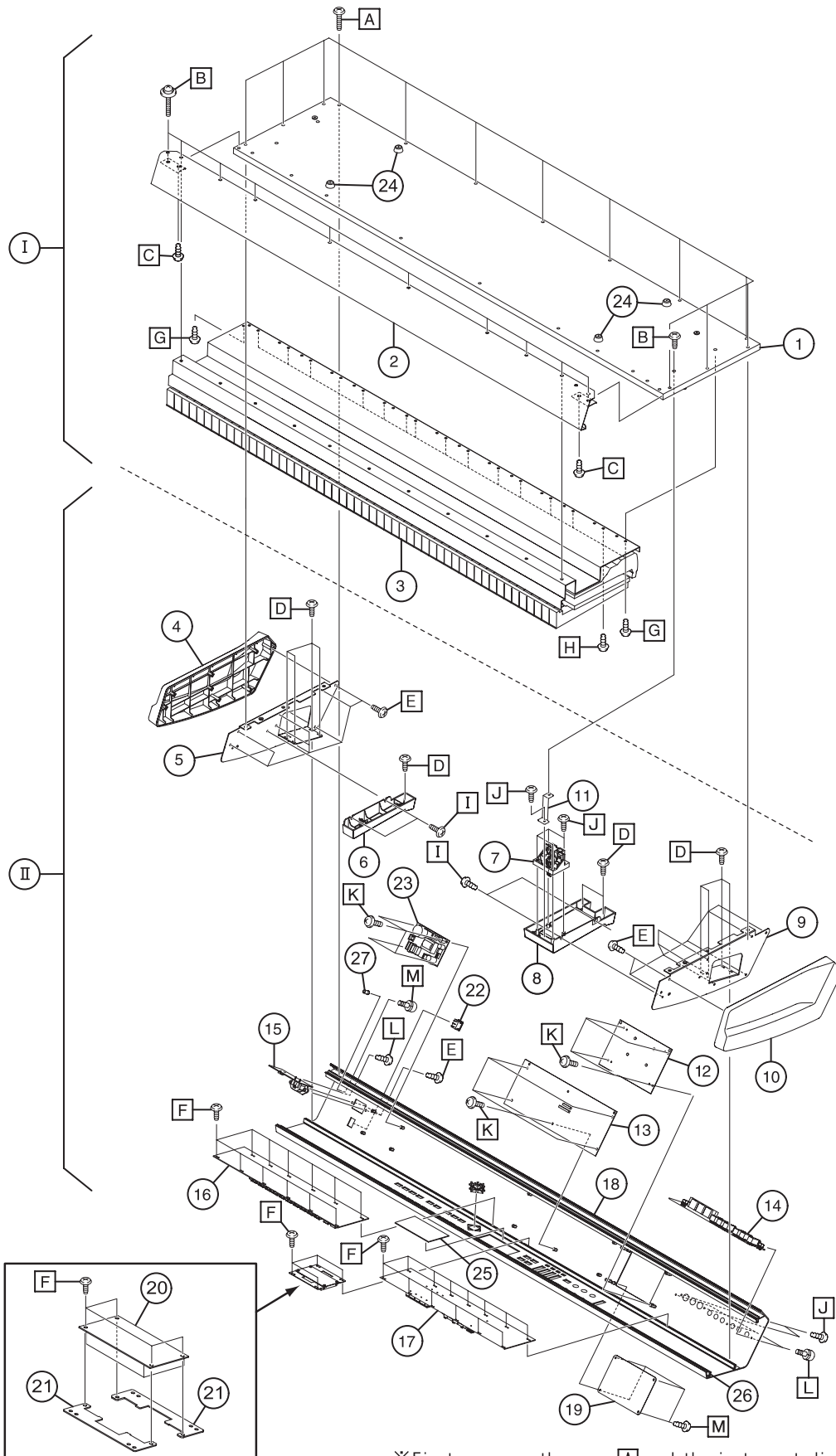
# LOCATION OF CONTROLS PARTS LIST

No.	Part Code	Part Name	Q'ty
1	22485295	D S-KNOB S BLK/ LCG	5
2	22480260	P R-KNOB MF BLK/ LCG	6
3	02011412	Y S-KEYTOP SD 1H BLK	17
4	01125890	D S-KEYTOP SD 1H-A CLR	4
5	02670234	Y S-KEYTOP SX1H LCG	1
6	02564912	DISPLAY COVER	1
7	01234090	D T-KEYTOP MX4B BLK	1
8	02011456	Y S-KEYTOP SX1H BLK	1
9	01783956	N S-KEYTOP MD4H	2
10	01783934	N S-KEYTOP MD2H	1

# LOCATION OF CONTROLS



# EXPLODED VIEW



※First, unscrew the screw **A**, and the instrument divide into **I** and **II**.

## EXPLODED VIEW PARTS LIST

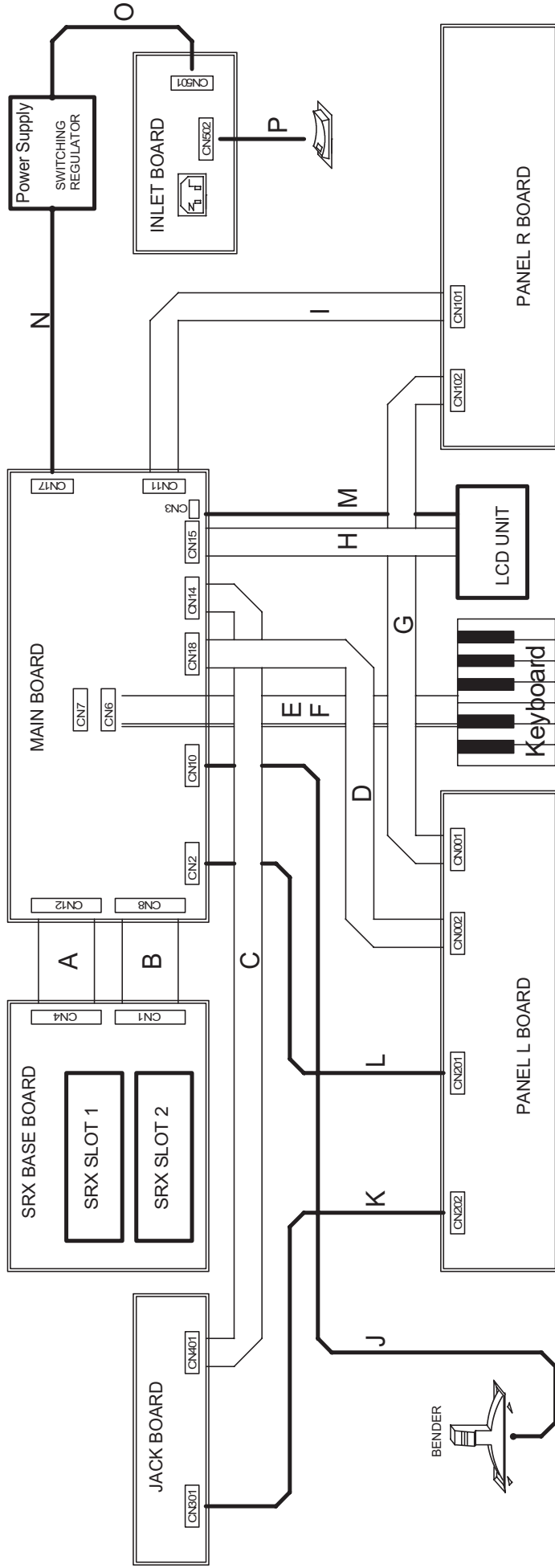
### [parts]

No.	Part Code	Part Name	Q'ty
1	02564945	BOTTOM BOARD	1
2	02564890	BLIND	1
3	71677345	PA-588-C KEYBOARD-ST ASSY	1
4	02560690	SIDE PANEL R	1
5	02564889	SIDE HOLDER R1	1
6	02560701	END BLOCK	1
7	70905189	BENDER UNIT PB-A0112	1
8	02560712	BENDER PANEL	1
9	02564878	SIDE HOLDER L	1
10	02560689	SIDE PANEL L	1
11	00128089	END BLOCK HOLDER	1
12	71788156	SRX BASE BOARD ASSY	1
13	71788067	MAIN BOARD ASSY	1
14	71788367	JACK BOARD ASSY	1
15	71788378	INLET BOARD ASSY	1
16	71788356	PANEL R BOARD ASSY	1
17	71788345	PANEL L BOARD ASSY	1
18	02455467	TOP PANEL	1
19	02564923	EXP COVER	1
20	02565034	LCD UNIT F-51320GNY-LY-AA	1
21	02564901	LCD HOLDER	2
22	01784401	SEESA W SWITCH SDDJE1-A-2 10A/ 250VAC	1
23	01785823	SWITCHING REGULATOR A1DU2L3B034	1
24	12359105	FOOT W 235-105	4
25	02564912	DISPLAY COVER	1
26	22265286	KEY FELT	1
27	02239834	GROUNDING TERMINAL MT-903CS	1

### [Screws]

No.	Part Code	Part Name	Q'ty
A	40128512	SCREW 4x25x20 PAN WASHER HEAD TAPTITE B BZC	13
B	40013023	SCREW M4x25 PAN HEAD DOUBLE SEMS FE BZC	11
C	40012145	SCREW 4x14 TRUSS TAPPING A BZC	2
D	40011101	SCREW 3x8 BINDING TAPTITE B BZC	11
E	40238501	SCREW 4x8 BINDING TAPTITE P BZC	18
F	40011056	SCREW 3x6 BINDING TAPTITE B ZC	29
G	40012912	SCREW M4x20 PAN MACHINE W/ PW+SW FE ZC	2
H	40346201	SCREW 4x20 TRUSS TAPPING TWIN BZC	15
I	40012301	SCREW 4x8 BINDING TAPTITE B FE ZC	4
J	40011312	SCREW 3x8 BINDING TAPTITE P BZC	7
K	40017934	SCREW M3x6 PAN MACHINE W/ SW+PW FE ZC	13
L	40011501	SCREW M3x8 PAN MACHINE W/ SW+PW BZC	4
M	40230590	SCREW M3x10 BINDING MACHINE NI	5

**WIRING DIAGRAM**



A	02564345	BNCD-P=1.25-K-34-70
B	02564334	BNCD-P=1.25-K-32-70
C	02564323	BNCD-P=1.25-K-16-650
D	02564312	BNCD-P=1.25-K-12-280
E	02565078	BNCD-P=1.25-K-16-700
F	02565089	BNCD-P=1.25-K-22-650
G	02018767	BNCD-P=1.25-K-20-300
H	02565034	LCD F-51320GNY-LY-AA (UNIT)
I	02010690	BNCD-P=1.25-K-16-260
J	70905189	BENDER UNIT PB-A0112 (UNIT)
K	02344178	WIRING 14X350-P2.0-PHR-PHR-F
L	02343534	WIRING 8X100-P2.0-PHR-PHR-F
M	02565489	RD-700 WIRING LCD-MAIN
N	02564356	WIRING 7X470-P2.5-XHP-XHP-F
O	02564612	RD-700 WIRING INL-PS
P	02564634	RD-700 WIRING INL-SSSW

# PARTS LIST

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

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

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

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

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

MB -> MAIN BAORD ASSY, SRX -> SRX BASE BOARD ASSY, PLB -> PANEL L BOARD ASSY, PRB -> PANEL R BOARD ASSY, JB -> JACK BOARD ASSY, IB -> INLET BOARD ASSY

CASING					Q'ty
$\Delta$	#	02560712	BENDER PANEL		1
	#	02564890	BLIND		1
	#	02564945	BOTTOM BOARD		1
	#	02564912	DISPLAY COVER		1
$\Delta$	#	02560701	END BLOCK		1
		22225371	ESCUTCHEON 2P	D S-ESCT SX2H BLK L=30	2
	#	02564923	EXP COVER		1
		01236834	POT. DUST COVER A		1
$\Delta$	#	02560689	SIDE PANEL L		1
$\Delta$	#	02560690	SIDE PANEL R		1
		22225373	SVR COVER	D S-ESCT SX1H BLK L=30 222-373	1
	#	02455467	TOP PANEL		1
CHASSIS					
		00128089	END BLOCK HOLDER		1
	#	02564878	SIDE HOLDER L		1
	#	02564889	SIDE HOLDER R		1
KNOB, BUTTON					
		01125890	D S-KEYTOP	SD 1H-A CLR	4
		22485295	D S-KNOB	S BLK/LCG	5
		01234090	D T-KEYTOP	MX4B BLK	1
		01783934	N S-KEYTOP	MD2H	1
		01783956	N S-KEYTOP	MD4H	2
		22480260	P R-KNOB	MF BLK/LCG	6
		02011412	Y S-KEYTOP	SD 1H BLK	17
		02011456	Y S-KEYTOP	SX1H BLK	1
	#	02670234	Y S-KEYTOP SX1H LCG		1
SWITCH					
$\Delta$		01784401	SDDJE1-A-2 10A/250VAC	SEESAW SWITCH	1
		01783801	SKHJFF WITH LED AMBER	TACT SWITCH	1
		01343478	SKQNAE	TACT SWITCH	8+25
				SW005 on PLB	
				SW013,SW002,SW001,SW008,SW010,SW012,SW014,SW011 on PLB,SW116,SW105,SW106,SW107,SW108,SW109,SW111,SW127,SW112,SW104,SW115,SW121,SW117,SW118,SW119,SW120,SW103,SW122,SW124,SW125,SW126,SW113,SW102,SW101,SW123 on PRB	
		01232212	SKHJGR (GREEN)	TACT SWITCH WITH LED	1
		01232201	SKHJGS (ORANGE)	TACT SWITCH WITH LED	2
				SW004 on PLB	
				SW003,SW006 on PLB	
JACK, EXT TERMINAL					
		13449261	HLJ4306-01-3070	6.5MM JACK	3
		13449284	HLJ7001-01-3010	6.5MM JACK	2
		13449169	YKB21-5078	6.5MM JACK	1
		13429274	YKF51-5041	MIDI CONNECTOR	1
				JK 403,JK 404,JK 405 on JB	
				JK 303,JK 302 on JB	
				JK 301 on JB	
				JK 401 on JB	
DISPLAY UNIT					
	#	02565034	F-51320GNY-LY-AA	LCD UNIT	1
				NOTE: Replacement F-51320GNY-LY-AA should be made on a unit base.	
POWER SUPPLY UNIT					
$\Delta$		01785823	A1DU2L3B034	SWITCHING REGULATOR	1
				NOTE: Replacement A1DU2L3B034 should be made on a unit base.	

**BENDER UNIT**

70905189	BENDER UNIT PB-A012			1
	NOTE: Replacement BENDER UNIT PB-A012 should be made on a unit base.			

**KEYBOARD ASSY**

71677345	KEYBOARD ASSY	PA-588-ST for SERVICE		1
	NOTE: See 'KEYBOARD PARTS LIST' for details.			

**PCB ASSY**

#	71788067	MAIN BOARD ASSY			1
#	71897523	LCD ASSY			1
	NOTE: 'LCD ASSY' includes the following parts.				
#	02565489	WIRING	LCD-MAIN	LCD to CN3 on MB	1
	40232123	ACETATE TAPE	NITTO #5BLACK W20MM 30M 20P		3
#	02564901	LCD HOLDER			2
	40011056	SCREW 3x6	BINDING TAPTITE B ZC		4
#	71788156	SRX BASE BOARD ASSY			1
	NOTE: 'SRX BASE BOARD ASSY' includes the following parts.				
	02019034	PWB SPACER	RSPLS-12L		2
	01902756	PWB SPACER	RSPS-12L		2
#	71788345	PANEL L BOARD ASSY			1
#	71788356	PANEL R BOARD ASSY			1
#	71788367	JACK BOARD ASSY			1
	NOTE: 'JACK BOARD ASSY' includes the following parts.				
	12199584	GROUNDING TERMINAL	M1698	TER402,TER401,TER403 on JB. TER501 on IB	3
△ #	71788378	INLET BOARD ASSY			1

**IC**

#	02230101	HD6417709A 100MHZ	IC (32BIT CPU)	IC 2 on MB	1
	01679978	RA 09-002XP6TC 203C 180A F002	IC (CUSTOM)	IC 24,IC 25 on MB	2
#	02455212	SLA C 02A F 2H (KSM)	IC (CUSTOM)	IC 39 on MB	1
#	*****	MBM29LV160BE 70TN-K	IC (FLASH MEMORY/BLANK)	IC 3 on MB	1
#	02561723	23C 128040LGY-515-MJH	IC (MASK ROM)	IC 34 on MB	1
#	02561734	23C 128040LGY-516-MJH	IC (MASK ROM)	IC 30 on MB	1
	02234167	AK 4393-VF-E2	IC (DAC)	IC 36 on MB	1
	02453389	LC 32V 4265T-25	IC (DRAM)	IC 31,IC 32 on MB	2
#	02562556	M2V 64S 40D TP-7	IC (DRAM)	IC 5 on MB	1
	15189190	M5216L-600Y	IC (BIPOLAR OP AMP)	IC 205 on PLB	1
	15189250	M5218AL	IC (BIPOLAR OP AMP)	IC 204,IC 203,IC 202 on PLB	3
	15289105	UPC 4570G 2-E2	IC (BIPOLAR OP AMP)	IC 40,IC 54,IC 47,IC 37,IC 43,IC 38 on MB	6
#	01677745	HD 74HC 08P	IC (CMOS)	IC 102,IC 103 on PRB	2
	01677756	HD 74HC 138P	IC (CMOS)	IC 101 on PRB	1
#	02565212	SN 74LV245A-PW	IC (CMOS)	IC 1,IC 59,IC 58,IC 14,IC 13,IC 7,IC 6 on MB	7
	15259864T0	TC 74HC 4052A F(EL)	IC (CMOS)	IC 42,IC 44 on MB	2
	00901456	TC 74VHC 02F(EL)	IC (CMOS)	IC 33 on MB	1
	00236834	TC 74VHC 21F(EL)	IC (CMOS)	IC 17 on MB	1
	01679090	TC 74VHC 08FT(EL)	IC (CMOS)	IC 57 on MB	1
	01675023	TC 74VHC 139FT(EL)	IC (CMOS)	IC 18 on MB	1
	00231889	TC 74VHC 32F(EL)	IC (CMOS)	IC 2 on SRX	1
#	02230123	TC 74VHCT00A F(EL)	IC (CMOS)	IC 45 on MB	1
	00456301	TC 7S14S(TE85L)	IC (CMOS)	IC 12 on MB	1
	01786690	TC 7SET08F(TE85L)	IC (CMOS)	IC 61 on MB	1
	00564701	TC 7SH08F(TE85L)	IC (CMOS)	IC 60,IC 27,IC 16 on MB	3
	01455301	TC 7WH04FU(TE12L)	IC (CMOS)	IC 10 on MB	1
#	02340756	TC 7WH 32FU(TE12L)	IC (CMOS)	IC 26 on MB	1
	01349590	TC 7WU04FU(TE12L)	IC (CMOS)	IC 29,IC 21 on MB	2
	15229706S0	PC 910XK	IC (PHOTO CUPLER)	IC 401 on JB	1
	15199286	AN 78L05M-(E1)	IC (REGULATOR)	IC 35 on MB	1
#	02671545	PQ 070XZ 01ZP	IC (REGULATOR)	IC 23 on MB	1
	02230056	PQ 07V Z 5M Z2P	IC (REGULATOR)	IC 20 on MB	1
	01458445	UPC 29M33T-T1	IC (REGULATOR)	IC 41 on MB. IC 7 on SRX	1+1
	01678512	UPC 2933T-T2	IC (REGULATOR)	IC 19 on MB	1
	15199937	M51953BFP-600C	IC (RESET)	IC 11 on MB	1

**TRANSISTOR**

	15119132	2SA 1015G R(TPE2)	TRANSISTOR	Q 207 on PLB. Q 605,Q 603 on JB	1+2
	15119615	2SB647C TZ	TRANSISTOR	Q 209 on PLB	1
	15129151	2SC 1815G R(TPE2)	TRANSISTOR	Q 208 on PLB. Q 601,Q 602,Q 604 on JB	1+3
	15319101	2SC 2412KR T146	TRANSISTOR	Q 4 on MB	1
	15129152	2SC 2878A (TPE2)	TRANSISTOR	Q 205,Q 204,Q 203,Q 202,Q 201,Q 206 on PLB	6
	15129623	2SD 667C TZ	TRANSISTOR	Q 210 on PLB	1



TRANSISTOR

#	15329507	DTA 114EKT 146	DIGITAL TRANSISTOR	Q2 Q1 on SRX	2
	02671067	DTA 114YSA TP	DIGITAL TRANSISTOR		3
	15329503	DTA 124EK T146	DIGITAL TRANSISTOR	Q3 on MB	1
	15129197	DTC 144WSTP	DIGITAL TRANSISTOR	Q 403,Q 406,Q 409 on JB	3
	15119170	RN 2226(TPE-4)	DIGITAL TRANSISTOR	Q001,Q002 on PLB. Q 101,Q 106,Q 105,Q 104,Q 103	2+6
				Q 102 on PRB. Q 401 on JB	+1
	00456856	TD 62593A P	TRANSISTOR ARRAY	IC 104 on PRB	1

DIODE

	00019356	ISR139-400T-32	RECTIFIER DIODE	D 603 on JB	1
	15019126	ISS133T-77	SWITCHING DIODE	D 011,D 006,D 005,D 004,D 003,D 002,D 010,D 012,D 013, D 014,D 008,D 001 on PLB. D 102,D 111,D 112,D 108, D 107,D 109,D 106,D 105,D 103,D 101,D 113,D 124,D 104, D 126,D 122,D 127,D 115,D 125,D 123,D 121,D 120,D 119, D 118,D 117,D 116 on PRB. D 402,D 401 on JB	12 +25 +2
	15019416	MTZJT-77 6.2B	ZENER DIODE	D 604,D 602 on JB	2
	15039253	GL-3HY8 (YELLOW)	LED	LED 108 on PRB	1
	15029253	GL3KG 8	LED	LED 107 on PRB	1
	15039275	SML-010MT T87	LED (GREEN)	LED 3,LED 1 on SRX	2
	00348490	SLR-325VCT31	LED (RED)	LED001,LED014,LED013,LED012,LED010,LED008, LED002 on PLB. LED 116,LED 115,LED 114,LED 113, LED 112,LED 111,LED 109,LED 106,LED 105,LED 117 on PRB	7+8
	01121689	SPR-325MVWT31	LED (RED/GREEN)	LED 120,LED 127,LED 119,LED 121,LED 122,LED 123, LED 124,LED 125,LED 126,LED 118 on PRB	10
	01121323	DA 204U T106	DIODE ARRAY	DA 2,DA 7,DA 6,DA 5,DA 4,DA 3,DA 8 on MB	7

RESISTOR

	15399926	MCR50 101J	CHIP RESISTOR	R150 on MB	1
	00674223	RR1220P-911D	RESISTOR	R295 on MB	1
	13749831T0	SR25TR 273 J	CARBON RESISTOR	R223,R201 on PLB	2
	13749773T0	SR25TRE 101 J	CARBON RESISTOR	R 429,R 433,R 425,R 614,R 402 on JB	5
	13749797T0	SR25TRE 102 J	CARBON RESISTOR	R279,R278,R277,R276,R275,R274 on PLB. R107,R105, R106,R108,R109,R111,R112 on PRB. R 407 on JB	6+7 +1
#	13749845T0	SR25TRE 104 J	CARBON RESISTOR	R271,R272 on PLB. R606,R432,R428,R424 on JB	2+4
	13749751T0	SR25TRE 120 J	CARBON RESISTOR	R002,R001 on PLB	2
	13749775T0	SR25TRE 121 J	CARBON RESISTOR	R 401 on JB	1
	13749825T0	SR25TRE 153 J	CARBON RESISTOR	R251,R235,R258,R270,R273,R213 on PLB	6
	13749779T0	SR25TRE 181 J	CARBON RESISTOR	R206,R243,R228,R221 on PLB	4
	13749803T0	SR25TRE 182 J	CARBON RESISTOR	R226,R204 on PLB	2
	13749757T0	SR25TRE 220 J	CARBON RESISTOR	R004,R003 on PLB. R117,R115,R118,R116,R119 on PRB	2+5
	13749781T0	SR25TRE 221 J	CARBON RESISTOR	R 405,R 602,R 403,R 409,R 601,R 404,R 406 on JB	7
	13749829T0	SR25TRE 223 J	CARBON RESISTOR	R224,R202 on PLB	2
	13749759T0	SR25TRE 270 J	CARBON RESISTOR	R113,R114 on PRB	2
	13749761T0	SR25TRE 330 J	CARBON RESISTOR	R304,R303,R302,R301 on JB	4
	13749809T0	SR25TRE 332 J	CARBON RESISTOR	R260,R269,R218,R222,R232,R234,R240,R244,R264, R268,R267,R266,R210,R265,R212,R261,R262,R263, R241,R219 on PLB. R603,R612 on JB	20+2
	13749833T0	SR25TRE 333 J	CARBON RESISTOR	R256,R249 on PLB. R613 on JB	2+1
	13749813T0	SR25TRE 472 J	CARBON RESISTOR	R 434,R 426,R 408,R 430 on JB	4
	13749837T0	SR25TRE 473 J	CARBON RESISTOR	R211,R233 on PLB	2
	13749817T0	SR25TRE 682 J	CARBON RESISTOR	R238,R209,R231,R216 on PLB. R608,R604,R609, R607,R611 on JB	4+5
	13749841T0	SR25TRE 683 J	CARBON RESISTOR	R236,R214,R239,R217 on PLB	4
	13749819T0	SR25TRE 822 J	CARBON RESISTOR	R215,R237 on PLB	2
	13749189	SR50TR 101 J 1/ 2W	CARBON RESISTOR	R220,R205,R227,R242,R250,R253,R259,R257 on PLB	8
	01011856	RPC05T 0R0 J	MTL.FILM RESISTOR		115
	15399713	MCR25 JZH J 101	MTL.FILM RESISTOR	R276,R275 on MB	2
	02014945	MCR50 JZH J 0R0	MTL.FILM RESISTOR	R3 on SRX	1
	00566867	RPC05T 100 J	MTL.FILM RESISTOR	R302 on MB	1
	00567023	RPC05T 101 J	MTL.FILM RESISTOR	R136,R123,R125,R126,R127,R128,R135,R121,R137, R139,R140,R72,R129,R120,R119,R118,R116,R115, R114,R113,R104,R94,R91,R75,R141,R73,R124,R74, R309,R308,R122 on MB. R5,R8,R9 on SRX	3+31
	00567156	RPC05T 102 J	MTL.FILM RESISTOR	R69,R257,R255,R238,R237,R233,R229,R230,R211, R207,R301,R219,R221,R210,R214,R232,R213 on MB	17
	00567289	RPC05T 103 J	MTL.FILM RESISTOR	R143,R98,R99,R100,R101,R142,R65,R145,R291,R102, R90,R67,R63,R52,R51,R50,R30,R2,R292,R289,R89, R144 on MB. R1,R2 on SRX	2+22
	00567412	RPC05T 104 J	MTL.FILM RESISTOR	R225,R215,R231,R306,R212,R305 on MB	6
	00567556	RPC05T 105 J	MTL.FILM RESISTOR	R109,R103 on MB	2
	00567167	RPC05T 122 J	MTL.FILM RESISTOR	R288 on MB	1
	00567290	RPC05T 123 J	MTL.FILM RESISTOR	R157,R170,R179,R196 on MB	4
	00566912	RPC05T 220 J	MTL.FILM RESISTOR	R76 on MB	1
	00567067	RPC05T 221 J	MTL.FILM RESISTOR	R133,R300,R138,R134,R132 on MB	5
	00567190	RPC05T 222 J	MTL.FILM RESISTOR	R62,R61,R60,R59,R58,R56,R283,R55,R54,R43,R42, R41,R1,R290,R57 on MB	15
	00567201	RPC05T 272 J	MTL.FILM RESISTOR	R286 on MB	1
	00566934	RPC05T 330 J	MTL.FILM RESISTOR	R14,R23,R110,R29,R28,R27,R20,R11,R10,R9,R22 on MB	11
	00567345	RPC05T 333 J	MTL.FILM RESISTOR	R188,R166 on MB	2
	00566967	RPC05T 470 J	MTL.FILM RESISTOR	R7,R6 on SRX	2

**RESISTOR**

00567112	RPC05T 471 J	MTL.FILM RESISTOR	R111,R105 on MB	2
00567378	RPC05T 473 J	MTL.FILM RESISTOR	R287,R209 on MB	2
00567256	RPC05T 562 J	MTL.FILM RESISTOR	R158,R159,R181,R180 on MB	4
00567267	RPC05T 682 J	MTL.FILM RESISTOR	R189,R187,R191,R172,R168,R167,R165,R185,R164, R197 on MB	10
15399301	RPC10T 0R0 J	MTL.FILM RESISTOR	R151 on MB	1
15419702	RR1220P-102-D 1K OHM 1/ 10W	MTL.FILM RESISTOR	R294,R106,R293 on MB	3
01013890	RR1220P-221-D 220OHM 1/ 10W	MTL.FILM RESISTOR	R107,R108 on MB	2
01670245	SR73K 2ETD 5.6OHMJ	MTL.FILM RESISTOR	R307 on MB	1
01457145	EXBE10C 103J	RESISTOR ARRAY	RA 23,RA 43,RA 1,RA 85,RA 78,RA 77,RA 74,RA 73, RA 68,RA 65,RA 64,RA 86,RA 44,RA 42,RA 30,RA 29, RA 15,RA 8,RA 5,RA 11,RA 59 on MB	21
01011845	EXBV 8V 0R000V	RESISTOR ARRAY	RA 27,RA 7,RA 4,RA 6,RA 79,RA 9,RA 80,RA 75,RA 72, RA 71,RA 63,RA 62,RA 61,RA 60,RA 14,RA 34,RA 31, RA 25,RA 26,RA 17,RA 16,RA 45,RA 10 on MB. RA 5, RA 7,RA 17,RA 16,RA 15,RA 14,RA 12,RA 2,RA 9,RA 1, RA 4,RA 11 on SRX	12 +23
00126112	EXBV 8V 101JV	RESISTOR ARRAY	RA 81,RA 90,RA 89,RA 88,RA 87,RA 84,RA 82,RA 83 on MB. RA 24,RA 19,RA 20,RA 21,RA 23,RA 18,RA 25,RA 26,RA 27, RA 28,RA 30,RA 31,RA 32,RA 29,RA 22 on SRX	15+8
15409113	EXBV 8V 103JV	RESISTOR ARRAY	RA 55,RA 33,RA 2,RA 3,RA 12,RA 13,RA 18,RA 32,RA 35, RA 36,RA 38,RA 39,RA 40,RA 41,RA 56,RA 28 on MB	16
00909590	EXBV 8V 330JV	RESISTOR ARRAY	RA 24,RA 19,RA 22,RA 20 on MB	4
01013990	EXBV 8V 560JV	RESISTOR-ARRAY	RA 96,RA 91,RA 92,RA 93,RA 95,RA 97,RA 98,RA 94 on MB	8

**POTENTIOMETER**

01561689	RK09D 113C 50KB W/ CLICK	9M/ M ROTARY POTENTIOMETER	VR202,VR203,VR204 on PLB	3
01561690	RK09D 113C 50KB W/ O CLICK	9M/ M ROTARY POTENTIOMETER	VR205,VR206,VR207 on PLB	3
00671556	EWAN KX10B14(10KBX2)	30M/ M SLIDE POTENTIOMETER	VR201 on PLB	1
00671589	EWAN FXX10B14	30M/ M SLIDE POTENTIOMETER	VR208,VR211,VR209,VR210 on PLB	4

**CAPACITOR**

13519671	DD104-989SL101J50 100PF 50VK	CERAMIC CAPACITOR	C 304,C 303,C 302,C 301 on JB	4
13519665	DD104-989SL330J50	CERAMIC CAPACITOR	C 201,C 246,C 245,C 215,C 210,C 206 on PLB	6
13519641	DD308-959F104Z 50	CERAMIC CAPACITOR	C 235,C 223,C 234,C 233,C 229,C 236,C 238,C 237,C 242, C 241,C 240,C 239 on PLB. C 102,C 104,C 103 on PRB. C 410,C 602,C 420,C 419,C 418,C 417,C 416,C 414,C 411, C 408,C 404,C 401,C 309,C 307,C 308,C 413 on JB	12+3 +16
! 01453278	DE1307E 472M-KH	CERAMIC CAPACITOR	C 501 on IB	1
01674612	ECJ1VB1H 103K	CERAMIC CAPACITOR	C 313,C 236,C 242,C 247,C 30 on MB	5
02231323	ECJ2VF1C 105Z	CERAMIC CAPACITOR	C 320,C 319,C 318,C 317,C 316 on MB	5
02010967	ECJ2VF1C 225Z	CERAMIC CAPACITOR	C 314,C 322,C 321,C 315 on MB	4
01674334	ECUV1H 101JCV	CERAMIC CAPACITOR	C 192 on MB	1
01674190	ECUV1H 150JCV	CERAMIC CAPACITOR	C 68,C 69,C 122,C 123 on MB	4
01674234	ECUV1H 330JCV	CERAMIC CAPACITOR	C 221,C 244,C 217,C 305,C 252,C 251,C 250,C 218,C 245, C 219,C 231,C 230,C 229,C 228,C 227,C 226,C 223,C 222, C 246,C 211,C 216,C 215,C 214,C 224,C 212,C 210,C 209, C 208,C 189,C 124,C 47,C 20,C 213 on MB	33
01674423	ECUV1H 471JCV	CERAMIC CAPACITOR	C 21,C 19 on MB	2
00567978	GRM39F104Z 25PT	CERAMIC CAPACITOR	C 60,C 59,C 78,C 52,C 74,C 66,C 65,C 63,C 98,C 97,C 93, C 72,C 73,C 99,C 81,C 89,C 88,C 87,C 86,C 85,C 76,C 82, C 75,C 312,C 48,C 91,C 51,C 90,C 77,C 79,C 84,C 25,C 34, C 10,C 32,C 31,C 29,C 50,C 27,C 35,C 24,C 23,C 22,C 18, C 14,C 13,C 12,C 28,C 7,C 49,C 11,C 100,C 9,C 94,C 33, C 8,C 36,C 45,C 44,C 43,C 42,C 41,C 38,C 37,C 46,C 186, C 234,C 167,C 203,C 200,C 197,C 196,C 194,C 173,C 187, C 239,C 185,C 184,C 183,C 182,C 92,C 176,C 101,C 171, C 170,C 4,C 116,C 1,C 105,C 6,C 191,C 299,C 311,C 310, C 309,C 308,C 307,C 306,C 303,C 220,C 300,C 253,C 297, C 295,C 293,C 292,C 291,C 289,C 288,C 277,C 255,C 301, C 113,C 166,C 102,C 177,C 103,C 112,C 111,C 110,C 109, C 108,C 107,C 106,C 104,C 117,C 137,C 165,C 156,C 150, C 149,C 148,C 147,C 142,C 119,C 136,C 135,C 133,C 132, C 131,C 129,C 128,C 126,C 146 on MB. C 1,C 15,C 17, C 19,C 21,C 14,C 18,C 13,C 12,C 11,C 10,C 9,C 8,C 7,C 22, C 5,C 4,C 6 on SRX	9 +143
00560212	ECA1CM4471B	CHEMICAL CAPACITOR	C 603 on JB	1
13639512M0	ECEA0JKA 101B	CHEMICAL CAPACITOR	C 228,C 001 on PLB. C 101 on PRB. C 402,C 409,C 405 on JB	2+1 +3
13639546M0	ECEA1CKA 100B 10UF/ 16V	CHEMICAL CAPACITOR	C 231,C 202,C 211,C 243,C 204,C 225,C 226,C 230,C 213, C 232,C 244,C 249,C 250,C 227 on PLB. C 607,C 606 on JB	14+2
13639550M0	ECEA1CKA 101B 100UF/ 16V	CHEMICAL CAPACITOR	C 205,C 208,C 248,C 214,C 216,C 247 on PLB. C 601 on JB	6+1
02014356	ECEV1CA 101WP	CHEMICAL CAPACITOR	C 296 on MB	1
15369154	ECEV1CA 330WR	CHEMICAL CAPACITOR	C 190,C 180,C 287,C 172,C 163,C 161,C 181,C 193,C 198, C 199,C 235,C 238,C 157,C 256,C 162,C 294,C 302,C 304, C 249,C 55,C 168,C 80,C 155,C 71,C 70,C 67,C 64,C 61,C 58, C 56,C 54,C 53,C 144,C 154,C 152,C 57,C 145,C 15,C 143, C 96,C 95,C 83,C 5,C 151 on MB. C 2,C 3,C 16,C 20 on SRX	4+44
15369262	ECEV1HA 010SR	CHEMICAL CAPACITOR	C 26 on MB	1
01784145	ECHU1H 152JX5	POLYEST. CAPACITOR	C 179,C 164 on MB	2
02126423	ECHU1H 331JX5	POLYEST. CAPACITOR		4
01784123	ECHU1H 471JX5	POLYEST. CAPACITOR	C 158,C 174,C 175,C 159 on MB	4
13549267M0	ECQ-M1H103JF3 0.01UF/ 50V	POLYEST. CAPACITOR		2

**CAPACITOR**

	13549255M0	ECQ-B1H102JF3	POLYEST.CAPACITOR	C306,C305 on JB	2
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**INDUCTOR, COIL, FILTER**

	01346089	SBC3-331-551	CHOKO COIL	L6L7 on MB	
	12449347	EXC ELDR35V	FERRITE-BEAD	L305,L416,L415,L414,L413,L412,L405,L417,L306 L406,L304,L303,L302,L301,L403,L404 on JB	16
	01787056	N1608Z10ZT01	FERRITE-BEAD	L6L5,L11,L8L4L7L12L10L3L1L2L9 on MB	12

**CRYSTAL, RESONATOR**

#	02561712	MA-406 12.500MHZ TE24	CRYSTAL	X1 on MB	1
	00901912	MA-406 24.576MHZ TE24	CRYSTAL	X2 on MB	1

**CONNECTOR**

	01909601	12FE-BT-VK-N	CONNECTOR	CN18 on MB	1
#	02564678	12FE-ST-VK-N	CONNECTOR	CN002 on PLB	
	01908645	16FE-BT-VK-N	CONNECTOR	CN11,CN6,CN14 on MB	3
	02010867	16FE-ST-VK-N FOR WIRING	CONNECTOR	CN101 on PRB. CN401 on JB	1+1
	02018712	20FE-ST-VK-N FOR WIRING	CONNECTOR	CN001 on PLB. CN102 on PRB	1+1
	01908667	22FE-BT-VK-N	CONNECTOR	CN9,CN7 on MB	1
#	02671745	30FLT-SM1-TB	CONNECTOR	CN15 on MB	1
	02019001	32FE-BT-VK-N FOR WIRING	CONNECTOR	CN8 on MB. CN1 on SRX	1+1
	02018990	34FE-BT-VK-N	CONNECTOR	CN12 on MB. CN4 on SRX	1+1
	13369570	B2B-PH-K-S (2P)	CONNECTOR	CN3 on MB	1
	13369592	B7B-XH-A (7P) JST	CONNECTOR	CN17 on MB	1
	13369504	B8B-PH-K-S JST	CONNECTOR	CN2 on MB	1
	13439335	IL-S-6P-S2T2-EF 6P	CONNECTOR	CN10 on MB	1
	13369674	S14B PH-K-S	CONNECTOR	CN202 on PLB. CN301 on JB	1+1
	13369668	S8B-PH-K-S JST (8P)	CONNECTOR	CN201 on PLB	1
	02010078	TX25-80P-6ST-E1	CONNECTOR	CN3,CN2 on SRX	2

**WIRING, CABLE**

#	02564356	7x470-P2.5-XHP-XHP-F	WIRING	CN2 on SW.REG to CN17 on MB	1
#	02343534	8x100-P2.0-PHR-PHR-F	WIRING	CN2 on MB to CN201 on PLB	1
#	02344178	14x350-P2.0-PHR-PHR-F	WIRING	CN202 on PLB to CN301 on JB	1
#	02564334	BNCD-P=1.25-K-32-70	BAN CARD	CN8 on MB to CN1 on SRX	1
#	02564345	BNCD-P=1.25-K-34-70	BAN CARD	CN12 on MB to CN4 on SRX	1
#	02010690	BNCD-P=1.25-K-16-260	BAN CARD	CN11 on MB to CN101 on PRB	1
#	02564312	BNCD-P=1.25-K-12-280	BAN CARD	CN18 on MB to CN002 on PLB	1
#	02018767	BNCD-P=1.25-K-20-300	BAN CARD	CN102 on PRB to CN001 on PLB	1
#	02564323	BNCD-P=1.25-K-16-650	BAN CARD	CN14 on MB to CN401 on JB	1

**AC INLET, OUTLET**

△	02129389	M1818A (PWI1818) 2P	AC INLET	JK501 on IB	1
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**SCREWS**

	40011056	SCREW 3x6	BINDING TAPTITE B ZC		29
	40017934	SCREW M3x6	PAN MACHINE W/SW+PW FE ZC		13
	40011101	SCREW 3x8	BINDING TAPTITE B BZC		11
	40011312	SCREW 3x8	BINDING TAPTITE P BZC		7
	40011501	SCREW M3x8	PAN MACHINE W/SW+PW BZC		4
	40230590	SCREW 3x10	BINDING MACHINE NI		5
	40010745	SCREW 3x16	BINDING TAPTITE A1 FEZC		4
	40012301	SCREW 4x8	BINDING TAPTITE B FE ZC		4
	40238501	SCREW 4x8	BINDING TAPTITE P BZC		18
	40012145	SCREW 4x14	TRUSS TAPTITE A BZC		2
	40346201	SCREW 4x20	TRUSS TAPPING TWIN BZC		15
	40012912	SCREW M4x20	PAN HEAD W/SW+PW FE ZC		2
	40128512	SCREW 4x25x20	PAN WASHER HEAD TAPTITE B BZC		13
	40013023	SCREW M4x25	PAN HEAD W/SW+PW FE BZC		11
	40011712	NUT M4x11.5	WOOD ANCHOR B ZC		2
	40011723	NUT M5x12	WOOD ANCHOR B ZC		4

**PACKING**

#	02564956	PACKING CASE			1
	22675516	PACKING SHEET			1

**MISCELLANEOUS**

	40122812	ACETATE TAPE	NITTO NO.5 BLK W15MM 30M		1
	40122434	DOUBLE-FACED TAPE	#500 W7MM 20M 30P		1
	40122923	DOUBLE FACED ADHESHIVE TAPE	NITTO NO.501F W20MM 20M		1
#	02672678	FLAT CABLE CLIP NKF-3264	CORD		2
	22265286	KEY FELT	226-286		1

**MISCELLANEOUS**

	02239834	GROUNDING TERMINAL	MT-903CS	1
	40017378	COATING CLIP	CS-7	1
	40016512	INSULOK TIE	80M/M T-18S	6
	12359105	RUBBER FOOT W	RS-09 235-105	4
	40231845	STRAIGHT PIN 6x20	FOR WOOD	2

**ACCESSORIES (STANDARD)**

	#	71788090	OWNER'S MANUAL	JAPANESE	1
	#	71894023	OWNER'S MANUAL	ENGLISH	1
△		02129278	AC CORD SET	100V 2P 2.5M	1
△		02129289	AC CORD SET	120V 2P 2.5M	1
△		02129290	AC CORD SET	230V EU 2P 2.5M	1
△		02129301	AC CORD SET	240V A 2P 2.5M	1
△		00905234	EURO CONVERTER PLUG	ECP01-5A (PLUG for 230VE)	1
		*****	PEDAL DP-6BK		1
		40232334	WARRANTY CARD	(JAPAN ONLY)	1

# KEYBOARD ASSY (PA-588-ST) PARTS LIST

## ST-SERVICE ASSY PARTS LIST

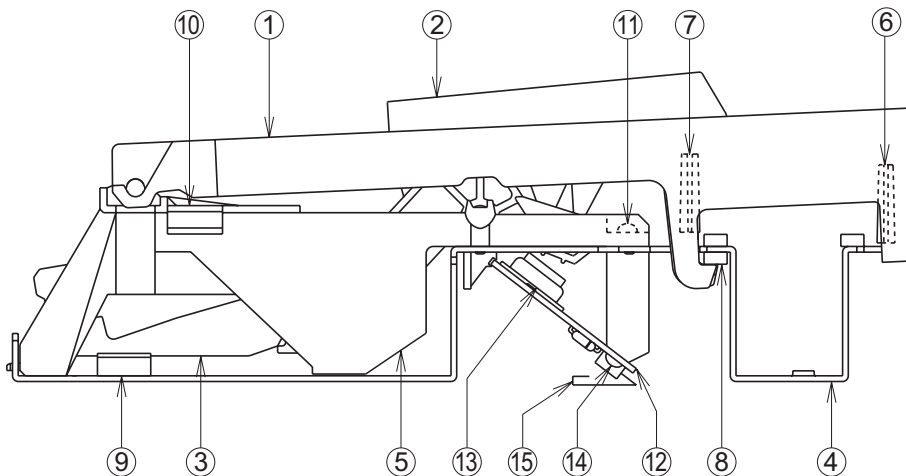
71677345

No.	PART CODE	PART NAME	Qty.
1	01894234	PA-5 N-KEY A	7
	01894245	PA-5 N-KEY B	8
	01894256	PA-5 N-KEY C	7
	01894267	PA-5 N-KEY D	7
	01894278	PA-5 N-KEY E	7
	01894289	PA-5 N-KEY F	7
	01894290	PA-5 N-KEY G	7
	01894312	PA-5 N-KEY A'	1
	01894323	PA-5 N-KEY C'	1
2	01894334	PA-5 SHARP-KEY	36
3	01906756	PA-5 HAMMER-1	22
	01906767	PA-5 HAMMER-2	22
	01906778	PA-5 HAMMER-3	22
	01906789	PA-5 HAMMER-4	22
	71564645	PA-5 CHASSIS 88P-A ASSY	1
4	01894412	PA-5 CHASSIS 88P	1
5	01894434	PA-5 SUB CHASSIS 12P	7
	01894445	PA-5 SUB CHASSIS 4P	1
6	01894923	PA-4A GUIDE BUSHING C	52
7	00019912	PA-4 GUIDE BUSHING S-KEY	36
8	02016901	PA-5 KEY CUSHION A	3
9	02233878	PA-5 HAMMER CUSHION C	1
10	02016945	PA-5 HAMMER CUSHION B	1
11	40012256	SCREW 3 x 10 BINDING B-TITE FEZC	37
12	71564612	PA-5 PWB LOW ASSY	1
	71564623	PA-5 PWB MID ASSY	1
	71564634	PA-5 PWB HI ASSY	1
	13 01898956	PA-5 RUBBER SWITCH 12P	8
14	40011267	SCREW 3 x 6 BINDING TAPTITE P FEZC	22
15	02016989	BNCD-P=1.25-K-16-80	1

Item 13 marked is included in each unit of 12.

The following parts do not include the keyboard Assy.

No.	PART CODE	PART NAME	Qty.
	02565078	BNCD-P=1.25-K-16-700	1
	02565089	BNCD-P=1.25-K-22-650	1



## IDENTIFYING VERSION NUMBER

1. Turn on the power.
2. Press the [EDIT] button while pressing both the CURSOR [▶] and PART SELECT [LOWER] buttons to enter the Test mode.  
The following screen is displayed:

```

Product Information ▶
-----
Product Name: RD-700
PRG Version No: 1.00
PRG Build No : 4
Booter Version: 1

2001/02/02 00:12
  
```

Display	Description
Product Name :	Model Name
PRG Version No :	Program's Version Number
PRG Build No :	Program's Build Number
Booter Version :	Booter's Version Number

Turn the power off then on again, and the machine returns to normal mode.

## SAVE USER DATA & RELOADING SAVED DATA

### SAVING DATA

Transferring the RD-700's Settings to an External MIDI Device. (Bulk Dump)  
You can transfer the contents of Setups and the RD-700's system settings to an external MIDI device.

This operation is called 'bulk dump.'

Use this procedure to save the data to an external MIDI device in situations such as when you want to prevent your Setups and system settings from corruption.

1. Use a MIDI cable (optional) to connect the RD-700's MIDI OUT connector to the MIDI IN connector on an external sequencer.
2. Press [EDIT] button to turn it on.  
The Edit Menu screen appears.

```

=== EDIT MENU ===
      ▲
5.Rhythm Pattern
6.Arpeggio
7.Local Part Param
8.Internal Part Prm
9.Utility ▶
  
```

3. Press CURSOR [▼] button to select '9Utility.'
4. Press CURSOR [▶] button to display the Edit screen.

```

EDIT [Utility] ◀▶
-----
Rec Setting
Bulk Dump Temporary ▶
Bulk Dump SETUP
Factory Reset Current
Factory Reset All
  
```

5. Press CURSOR [▲] or [▼] button to select 'Bulk Dump Temporary' or 'Bulk Dump SETUP.'

### Parameter Value

Bulk Dump Temporary :The contents of the currently selected Setup are transmitted.

Bulk Dump SETUP :The contents of Setups in the specified range are transmitted.

- \* While the Bulk Dump is in progress, no sounds are produced even when the keys are pressed. In addition, Rhythms and arpeggios being played are also stopped.

### Bulk Dump Temporary

6. Press CURSOR [▶] button.  
A screen like the one shown below appears.

```

Bulk DUMP Temporary
-----
Temporary SETUP is
Piano&Strngs

Send OK?

[NO] / [YES]
  
```

7. Put the external sequencer in record mode.
8. Press [INC/YES] button to transmit the settings.  
To cancel the Bulk Dump, press [DEC/NO] button.  
The message "Now, Executing..." appears in the display during transmission of the data.
9. After the transmitting is finished, the display will indicate "COMPLETED." You are returned to the Edit screen.
10. Stop the external sequencer.

### Bulk Dump SETUP

11. Press CURSOR [▶] button.  
A screen like the one shown below appears.

```

Bulk DUMP SETUP
-----
From:          SETUP 1
To:            SETUP 100
Send System:   YES

To send, Press[▶],
To cancel, Press[◀].
  
```

### Parameter Value

From: Setup number for the first Setup to be transmitted.

To: Setup number for the last Setup to be transmitted.

Send System: Determines whether the system settings are to be transmitted (YES), or not (NO).

12. Press CURSOR [▲] / [▼] and [INC/YES]/[DEC/NO] buttons to set the transmitted SETUPS.
13. Press CURSOR [▶] button.  
A screen like the one shown below appears.

```

Bulk DUMP SETUP
-----
From:          SETUP 1
To:            SETUP 100
Send System:   YES

Send OK?

[NO] / [YES]
  
```

14. Put the external sequencer in record mode.

- Press [INC/YES] button to transmit the settings.  
To cancel the Bulk Dump, press [DEC/NO].  
A screen like the one shown below appears.

```

Bulk DUMP SETUP
-----
Now Executing..

      1 / 100

To cancel, Press [NO]
    
```

- After the transmitting is finished, the display will indicate "COMPLETED."  
You are returned to the Edit screen.
- Stop the external sequencer.

## RESTORING SAVED SETTINGS TO THE RD-700

When returning settings saved to an external sequencer back to the RD-700, an Exclusive message is transmitted from the external sequencer, then the data is received by the RD-700.

- \* Be aware that when you restore SETUPs data to the RD-700, the data in the RD-700 will be overwritten and lost.
- Use a MIDI cable to connect the MIDI OUT connector of the external sequencer to the MIDI IN connector of the RD-700.
  - Set the device ID number to the same setting as when you performed the bulk dump.  
-> Setting the Device ID Number ` ` Setting the Device ID Number (Device ID)"
  - Make sure that [EDIT] indicator is extinguished.  
If the [EDIT] indicator is lit, press [EDIT] to turn the indicator light off and put the RD-700 in normal performance mode.
  - Transmit (play back) the data from the external sequencer.
  - After the transmitting is finished, the display will indicate "COMPLETED."  
-> For details on transmitting exclusive data, refer to the owner's manual for your sequencer.
- \* Play back the external sequencer at the same tempo you used when performing the bulk dump.  
If you use a faster tempo, the data may not be restored correctly.
  - \* Data cannot be received if the Device ID of the receiving device differs from the Device ID used when Bulk Dump was carried out.
  - \* Exclusive messages cannot be received when set to GM Mode.  
Carry out the operation after first exiting GM Mode.

## TEST MODE

### Items required

- EV-5
- MIDI cable
- Oscilloscope
- Monitor speaker
- Headphones
- Cable for mono standard plug (TS type)
- Cable for stereo standard plug (TRS type)

### Some Cautions Before Starting the Tests

Entering the Test mode may erase the user data, be sure to back it up first. Install the wave expansion board before turning on the power. If you install it after turning on the power, it may be destroyed.

### How to Enter the Test Mode

- Turn on the power.
- Press the [EDIT] button while pressing both the CURSOR [▶] and PART SELECT [LOWER] buttons to enter the Test mode.

### How to Exit the Test Mode

Turn the power off then on again, and the machine returns to normal mode.

### Test Items and How to Select Them in the Test Mode

The Test mode has the following test items.

You can select any of them by pressing the [EDIT] button and the corresponding [TONE SELECT] button.

You can move to another item by pressing both the [EDIT] and CURSOR [◀]/CURSOR [▶] buttons.

Function	Operation	Test items
0.Product Information	[EDIT]+[0]	Version display
1.Device Check	[EDIT]+[1]	Device check
2.SW/LED Check	[EDIT]+[2]	SW/LED check
3.LCD Contrast	[EDIT]+[3]	Adjustment of LCD contrast
4.LCD Check	[EDIT]+[4]	LCD check
5.Bender/Pedal Check	[EDIT]+[5]	Bender/Pedal check
6.Volume Check	[EDIT]+[6]	Volume check
7.MIDI Check	[EDIT]+[7]	MIDI check
8.Sound Check	[EDIT]+[8]	Sound check
9.Factory Reset	[EDIT]+[9]	Factory Reset

### 0. Product Information

The following screen appears when you enter the Test mode:

```
Product Information ▶
Product Name: RD-700
PRG Version No: 1.00
PRG Build No : 4
Booter Version: 1

2001/02/02 00:12
```

Display	Description
Product Name :	Model Name
PRG Version No :	Program's Version Number
PRG Build No :	Program's Build Number
Booter Version :	Booter's Version Number

Note: "PRG Build No" and "Booter Version" are for factory testing.  
Press both the [EDIT] and CURSOR [ ▶ ] buttons to start the next test.

### 1. Device Check

Device checking starts automatically.

```
Device Check ◀▶
PROGRAM ROM : —
DSP 1:—     DSP 2:—
EXP A:—     EXP B:—
WROM1:—    WROM2:—

Display      Description
-----+-----
PROGRAM ROM  Check the contents of the program ROM
DSP 1/2      Check's the DSP and the effect RAM
             built into the Master/Slave's sound chip
EXP A/B      Checks the wave expansion's A/B slot
WROM1/2     Checks wave ROM 1/2
```

The above seven items are checked.  
If a fault is found in a device, the following screen appears and checking stops.

```
Device Check ◀▶
PROGRAM ROM : OK
DSP 1:OK     DSP 2:OK
EXP A:NG     EXP B:
WROM1:      WROM2:

Error: Can not Read
```

When checking of all the devices is completed, checking of sound source operation starts automatically.

```
Device Check ◀▶

Now, Testing
Sound Generator.

Finished
```

During checking, the mute circuit is activated to prevent sound output. Make sure that no sound is being output after "Finished" appears on the screen.  
After the test is completed, the next test starts automatically.

### 2. SW/LED Check

The following screen appears.

```
SW/LED Check ◀▶
[PIANO]      [UP]
             [L]  [R]
[DEC]        [DOWN]

Remain = 47
```

Make sure that all the LEDs are lit.  
For a switch button without an LED, make sure that its name is displayed.  
Press the buttons one by one to switch their LEDs off (a sound is output corresponding to each switch).  
Press the switches in the correct order.  
If not, you will not get any response. (The correct order is as shown below.)  
If a button without an LED is pressed, its name disappears from the screen.  
A button originally lit up in orange changes to green if pressed, and is turned off if pressed again.  
To exit from the SW/LED check halfway to go to another test, press the CURSOR [ ▶ ] button while pressing the [EDIT] button.

#### The order in which to press the switches

```
[EQ_ON/OFF] -> [MFX_ON/OFF] -> [RHYHM] -> [LOWER] ->
[UPPER2] -> [UPPER1] -> [ARPEGGIO] -> [TRANPOSE] ->
[SPLIT] -> [LAYER] -> [PIANO] -> [SET UP] -> [UP] ->
[LEFT] -> [RIGHT] -> [DOWN] -> [DEC] -> [INC] -> [LOWER] ->
[UPPER 2] -> [UPPER 1] -> [EXP_A] -> [EXP_B] -> [EDIT] ->
[WRITE] -> [MIDI] -> [NUM LOCK] -> [0]~[9] (LED Orange ->
Green) -> [0]~[9](LED Green -> OFF)
```

After the test is completed, the next test starts automatically.

### 3. LCD Contrast

```
LCD Contrast ◀▶
Contrast : 5
```

Check to see that the contrast value changes from " 1 " to " 10 " and the contrast of the display changes accordingly as you press the [INC] and [DEC] buttons.  
Also check to see that you can read letters displayed even when the value is " 1 ".  
Next, adjust the LCD's contrast.  
Set the contrast value which produces the most easy-to-read display by using the [INC] and [DEC] buttons.  
You can put into memory such value as the reference value of Factory Reset.  
Press both the [EDIT] and [WRITE] buttons, and the current value is saved in memory for reference.  
Be sure to execute Factory Reset before you exit from the Test mode.  
Press both the [EDIT] and CURSOR [ ▶ ] buttons to go to the next test.



## 4. LCD Check

Check for any LCD dot abnormalities.

```
LCD Check ◀▶
0: All Pixels On
1: All Pixels Off
2: Stripe
3: LCD Off
4: LCD On
```

Press the [0] button, and check to see that the full screen is lit.

Press the [1] button, and check to see that the full screen is turned off.

Press the [2] button, and check to see that the screen is lit with a vertical stripe pattern.

Press the [3] button, and check to see that the stripes on the screen disappear.

Press the [4] button, and check to see that the vertical stripes are displayed again.

Press both the [EDIT] and CURSOR [▶] buttons to go to the next test.

## 5. Bender/Pedal Check

Check the bender, modulation and the operation of the pedal.

```
Bender/Pedal Check ◀▶
Bender : 64
Modulation : 0
Damper : —
FC1 : —
FC2 : —
```

Check to see that the displayed value changes from "0" to "127" as you push the bender lever all the way to the left and right.

(If it changes, the operator name is displayed in reverse video.)

Also make sure that "64" appears when the lever is in the center.

Check to see that the displayed value changes from "0" to "127" as you push the bender lever all the way over to the modulation side.

Make sure that no pedal is connected to the three [PEDAL] jacks on the rear panel.

At the same time, make sure that all the "Damper", "FC1" and "FC2" boxes on the display show "\*\*\*".

Insert an EV-5 (expression pedal) into the DAMPER jack on the rear panel.

Check to see that the displayed value changes from "0" to "127" as you step on the pedal.

(If it changes, the operator name is displayed in reverse video.)

Also check the FC1 and FC2 jacks in the same way.

After the test is completed, the next test starts automatically.

## 6. Volume Check

Check the operation of the sliding and round VRs.

```
Volume Check ◀▶
(Sldr)RHY LOW UP1 UP2
127 127 127 127
(EQ) LOW MID HIGH
64 64 64
REV CHO MFX
0 0 0
```

Check to see that the displayed value changes from "0" to "127" as you move the RHYTHM slider all the way up and down.

(If it changes, the operator name is displayed in reverse video.)

Also check the LOWER, UPPER2 and UPPER1 sliders in the same way.

Check to see that the displayed value changes from "0" to "127" as you move the round VR of EQ LOW all the way to the left and right.

Make sure that "64" is shown when the VR is in the central click position.

Also check the round VRs of EQ MID and EQ HIGH in the same way.

Check to see that the displayed value changes from "0" to "127" as you move the round VR of REVERB all the way to the left and right.

Also check the round VRs of CHORUS and MULTI EFX in the same way.

After the test is completed, the next test starts automatically.

## 7. MIDI Check

Check the MIDI operation.

```
MIDI Check ◀▶
Step 1
Please Connect
MIDI IN/OUT.
```

Connect MIDI IN and MIDI OUT with a MIDI cable.

When you have connected them, "Connection OK." is momentarily displayed then changes to the following screen:

```
MIDI Check ◀▶
Step 2
Please Disconnect.
```

Remove the plug from MIDI OUT while leaving MIDI IN connected.

As you do this, "Disconnection OK." is displayed, then "Check Finished." momentarily appears.

After the test is completed, the next test starts automatically.

## 8. Sound Check

Check the output from the sound source.

Set the volume on the RD-700 at the maximum level.

```
Sound Check ◀▶
0:Direct 1:Chorus
2:Reverb 3:Resonance
4:Lch Sin Wave
5:Rch Square Wave
6:L+Rch Sin Wave
```

The following sound is output corresponding to the Tone Select button pressed:

### Tone Select : Sound

[0] : Direct tone

[1] : The tone effected by Chorus

[2] : The tone effected by Reverb

[3] : The tone effected by Resonance

[4] : Sine wave from the left channel only

[5] : Square wave from the right channel only

[6] : Sine wave from both channels

Press each button twice to check the sound. Also, follow the order listed above when pressing the buttons.

(If not, you will not get any response.)

The tone display changes to reverse video as its sound is output successfully.

Connect an oscilloscope to the OUTPUT L and R jacks on the rear panel so that you can observe the outputs.

Also, connect a set of headphones to the PHONES jack.

As you press each button displayed, the corresponding sound is output. Be sure to confirm that no abnormal sound is output.

Connect an oscilloscope to the stereo-type standard jacks (TRS type) so that you can observe the outputs.

### Connections

**Tip** <- Ch1

**Ring** <- Ch2

**Sleeve** <- Ground

Connect an oscilloscope to the OUTPUT L/ MONO and R jacks on the rear panel in the order listed above.

Check the oscilloscope to see that the waveforms from Ch1 and Ch2 are in reverse phase to each other.

Press both the [EDIT] and CURSOR [▶] buttons to go to the next test.

## 9. Factory Reset

Factory Reset returns the data recorded in the internal memory to the factory settings.

```

Factory Reset  ◀▶
-----
Are you sure?
Go : [INC/ENTER]
Skip: [DEC]
  
```

Press the [INC/ENTER] button to execute Factory Reset.

After Factory Reset is completed "Finished" is displayed and the Test mode ends.

Or, you can exit the Test mode without executing the Factory Reset by pressing the [DEC] button.

# PROCEDURE FOR UPDATING THE SOFTWARE

## Items required

- Update disk Set (#17041058)
- A sequencer which can replay continuously
- MIDI cable x1

## Procedure

Connect MIDI IN of the RD-700 and MIDI OUT of the sequencer with a MIDI cable.

Insert Disk 1 into the sequencer, and turn on its power.

Check to see that the sequencer is ready for data transmission.

Turn on the power of the RD-700 while pressing the PART SELECT [LOWER], PART SELECT [UPPER1] and TONE SELECT [CLAV/MALLET(2)] buttons at the same time.

The LCD shows the following screen:

```

=Load from MIDI=
Please start
sequencer.
  
```

Let the sequencer start replaying continuously.

When the sequencer starts to replay the second song (udata002.mid) after completing the first (udata001.mid) in the Disk 1, the screen changes as shown below:

```

[01/16]
>0      <
Receiving...
00020000 to 00030000
  
```

Wait until the sequencer completes replaying the 17th song (udata017.mid).

After it finishes replaying the 17th song, the following message is displayed:

```

Please insert
next update disk,
then start sequencer.
  
```

Remove Disk 1, and insert Disk 2

After the sequencer is ready for data transmission, let it start replaying the data continuously.

RD-700 resumes receiving data.

After the 14th song (udata114.mid) Disk 2 was replayed, the following screen is displayed and the machine

begins writing the received data into the internal memory.

Writing...

After all the data has been written and the checksum calculated successfully, the following screen appears to indicate completion of the updating procedure.

```

Writing...
Check Sum...OK
Finished.
  
```

Caution: Don't turn off the power while changing Disk 1 with Disk 2

## Error messages:

### "The disk is wrong. Please change disk."

The wrong disk is inserted.

Insert the correct disk, and start continuous replay again.

This message also appears when the sequencer tries to replay songs in the wrong order.

Set the sequencer so that it can replay the songs in the order of their file names.

### "Error"

Wrong data was received.

Check if a wrong MIDI device is connected or if the sequencer has a setting which causes unnecessary data to be sent.

After solving the problem, turn the power off and on again to restart updating from the beginning.

## RESTORING THE FACTORY SETTINGS (Factory Reset)

The settings stored in the RD-700 can be returned to their factory settings.

\* Executing "Factory Reset All" results in deletion of the Setups.

If you want to keep any data you have stored, use the "Bulk Dump SETUP" operation to save the data to an external sequencer.

1. Press [EDIT] button, getting the indicator to light.  
The Edit Menu screen appears.

```

=== EDIT MENU ===
      ▲
5.Rhythm Pattern
6.Arpeggio
7.Local Part Param
8.Internal Part Prm
9.Utility

```

2. Press CURSOR [▼] button to select "9Utility."
3. Press CURSOR [▶] button to display the Edit screen.

```

EDIT [Utility]  ◀▶
-----
Rec Setting
Bulk DUMP Temporary
Bulk DUMP SETUP
Factory Reset Current
Factory Reset All

```

4. Press CURSOR [▲] or [▼] button to select "Factory Reset Current" or "Factory Reset All."

### Parameter Value

Factory Reset Current The currently selected Setup returned to their factory settings.

Factory Reset All The settings stored in the RD-700 can be returned to their factory settings.

\* While the Factory Reset is in progress, no sounds are produced even when the keys are pressed.

In addition, Rhythms and arpeggios being played are also stopped.

### Factory Reset Current

5. Press CURSOR [▶] button.  
A screen like the one shown below appears.

```

Factory Reset Current
-----
Current SETUP is
001:Piano&Strngs

Load Preset OK?

[NO] / [YES]

```

6. Press [INC/YES] button.  
The confirmation message appears.

```

Factory Reset Current
-----

Are You Sure?

[NO] / [YES]

```

To cancel the Factory Reset, press [DEC/NO] button.

7. Press [INC/YES] button once again to start the Factory Reset operation.  
\* Never turn off the power during Factory Reset (while "Now, Executing" appears in the display).
8. After the Factory Reset operation is finished, the display will indicate "COMPLETED."  
The Tone screen returns to the display.

### Factory Reset All

9. Press CURSOR [▶] button.  
A screen like the one shown below appears.

```

Factory Reset All
-----
Erases entire memory
content and restores
factory Presets.

```

[NO] / [YES]

10. Press [INC/YES] button.  
The confirmation message appears.

```

Factory Reset All
-----

Are You Sure?

[NO] / [YES]

```

To cancel the Factory Reset, press [DEC/NO] button.

11. Press [INC/YES] button once again to start the Factory Reset operation.  
\* Never turn off the power during Factory Reset (while "Now, Executing" appears in the display).
12. After the Factory Reset operation is finished, the display will indicate "COMPLETED."  
The Tone screen returns to the display.

---

## ERROR MESSAGE

---

### Error messages

Indication : MIDI Buffer Full

Situation : Due to an inordinate volume of MIDI messages received, the RD-700 has failed to process them properly.

Action : Reduce the amount of MIDI messages to be transmitted.

Indication : MIDI Communication Error

Situation : A problem has occurred with the MIDI cable connections.

Action : Check that MIDI cables are not broken or pulled out.

Indication : BULK DUMP: Receive Data Error

Situation : A MIDI message was received incorrectly.

Action : If the same error message is displayed repeatedly, there is a problem with the MIDI messages that are being transmitted to the RD-700.

Indication : BULK DUMP: Check Sum Error

Situation : There is a problem with the System Exclusive message's Check Sum.

Action : Check the value of the Check Sum.

### Other Messages

Indication : Now, Transmitting System Exclusive.

Situation : Indicated when a Data Request message (RQ1) is received.

Action : The RD-700 outputs the requested data while this message continues to be displayed.

Indication : Now, writing Bulk Dump Data. Keep on POWER!!

Situation : Indicated when Bulk Dump data is being received.

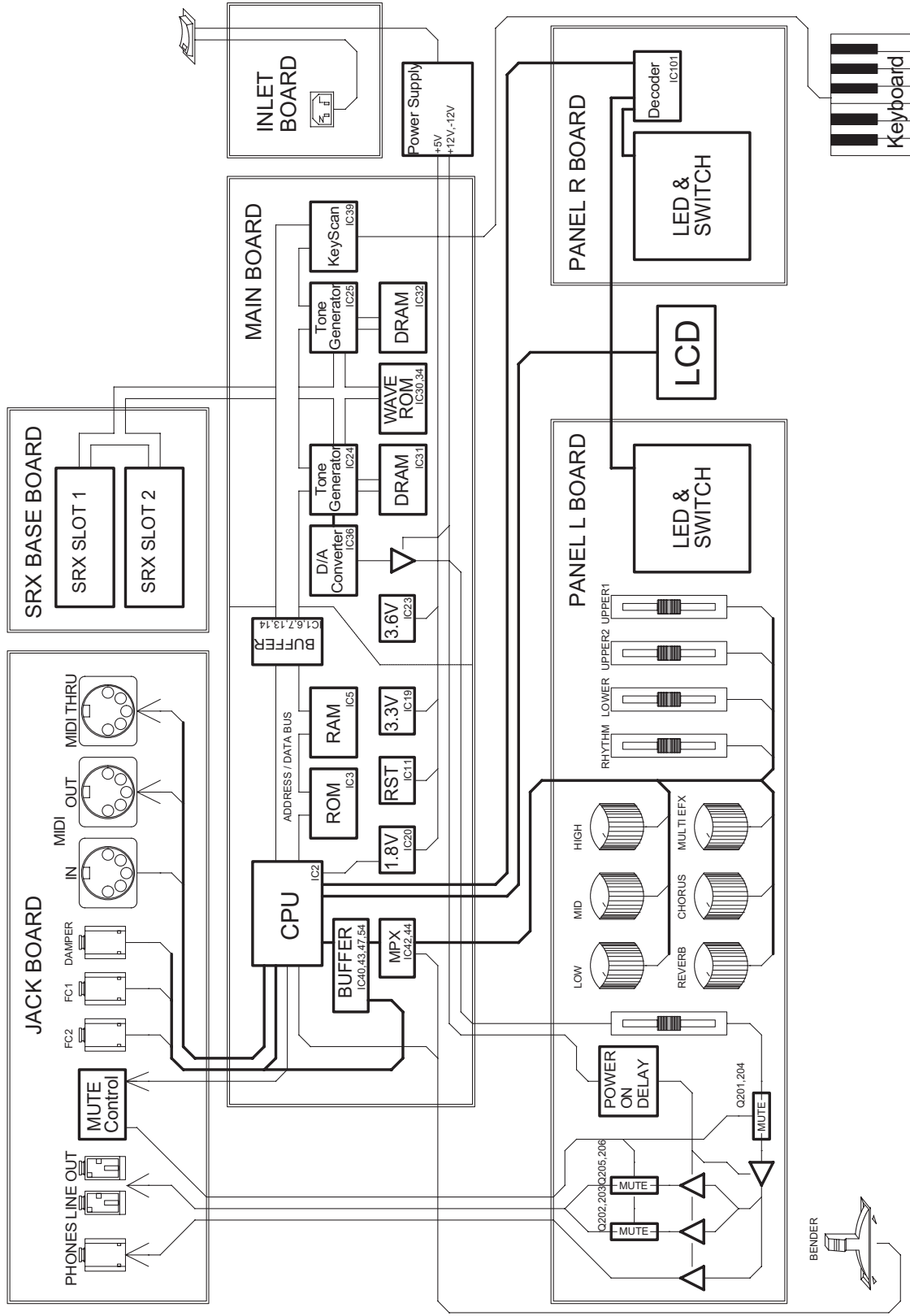
Action : Once received, the data is written to the RD-700's internal memory; be absolutely sure not to turn off the power until "COMPLETED" appears in the display.

Indication : Unavailable while in Rec Mode

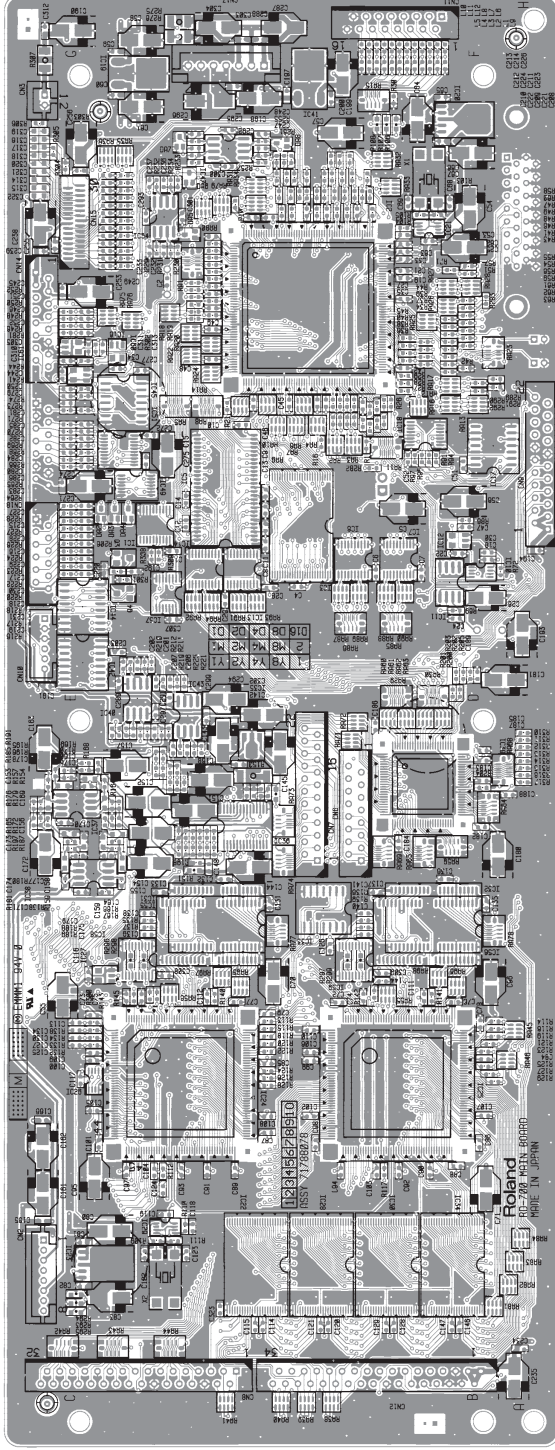
Situation : This is displayed when the [MIDI TX] button is pressed with Rec Mode 'ON.'

Action : When Rec Mode is 'ON,' you cannot change the MIDI TX settings. To make changes to the MIDI TX settings, set Rec Mode to "OFF."

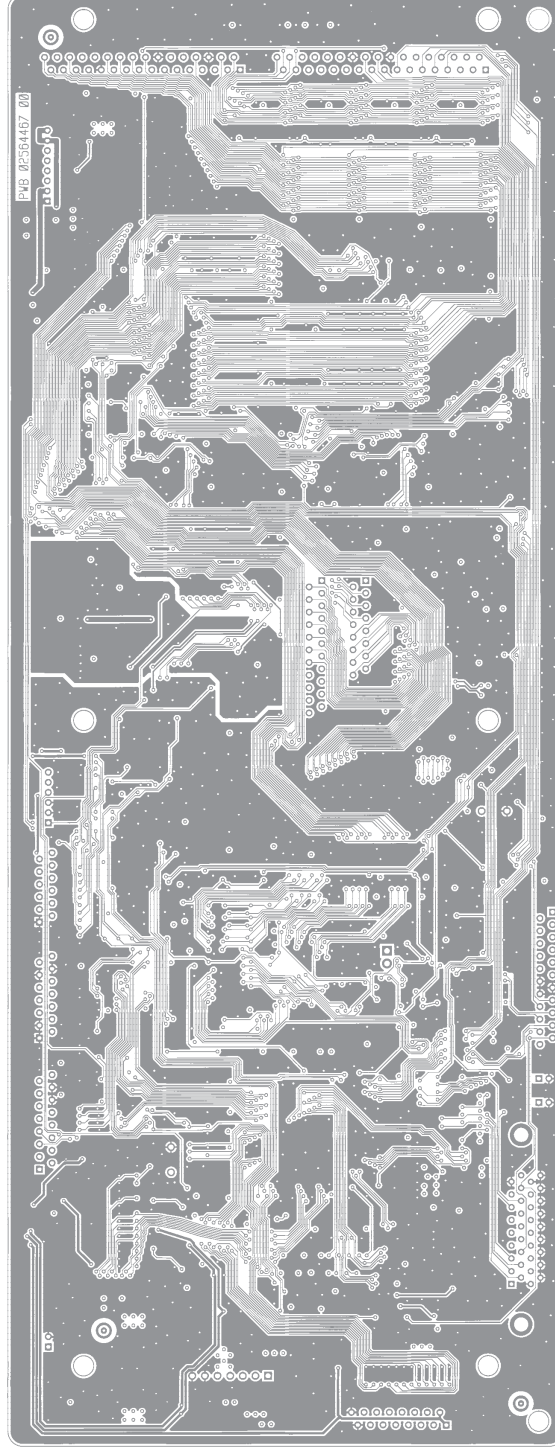
# BLOCK DIAGRAM



**CIRCUIT BOARD (MAIN BOARD)**

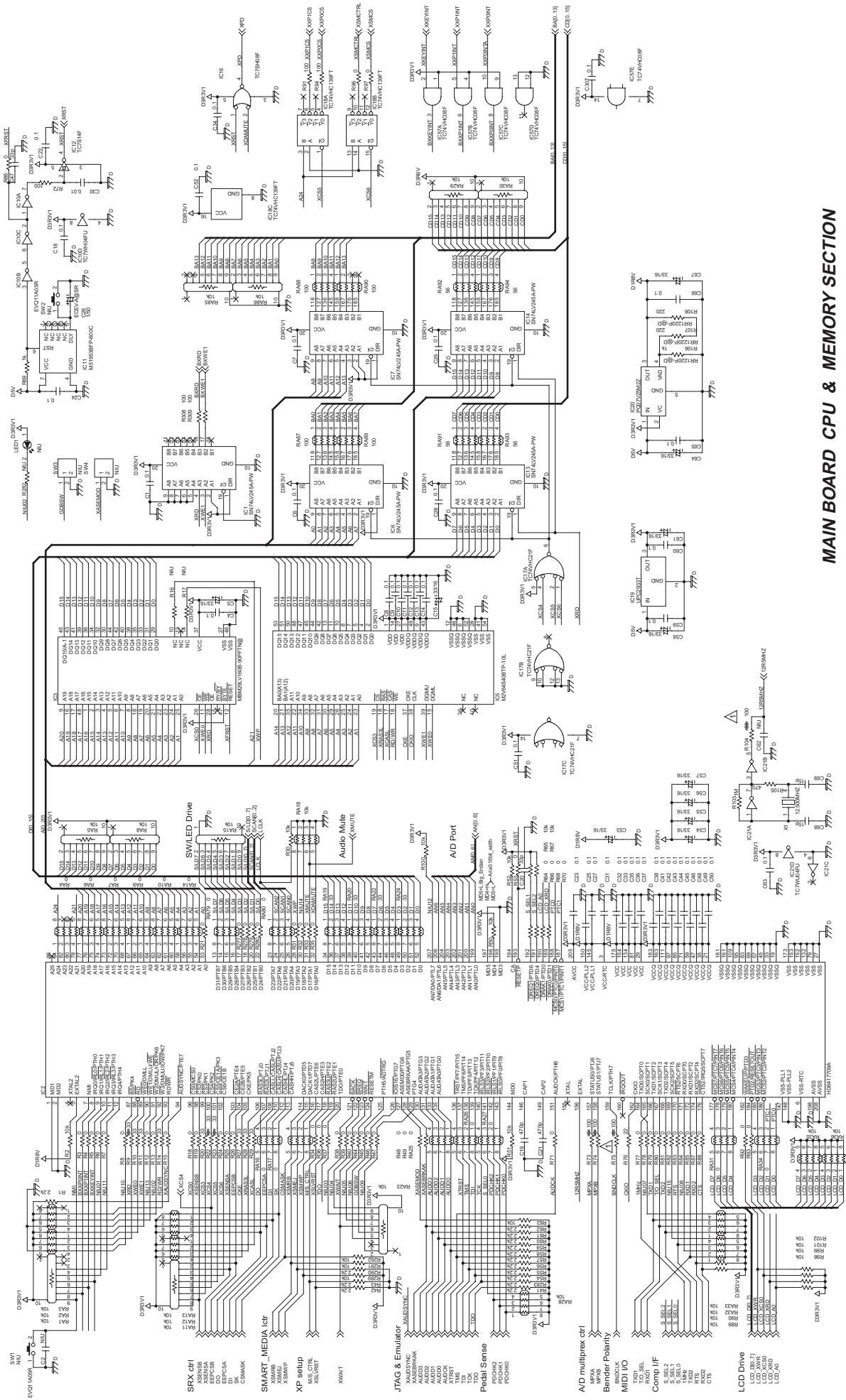


View from components side



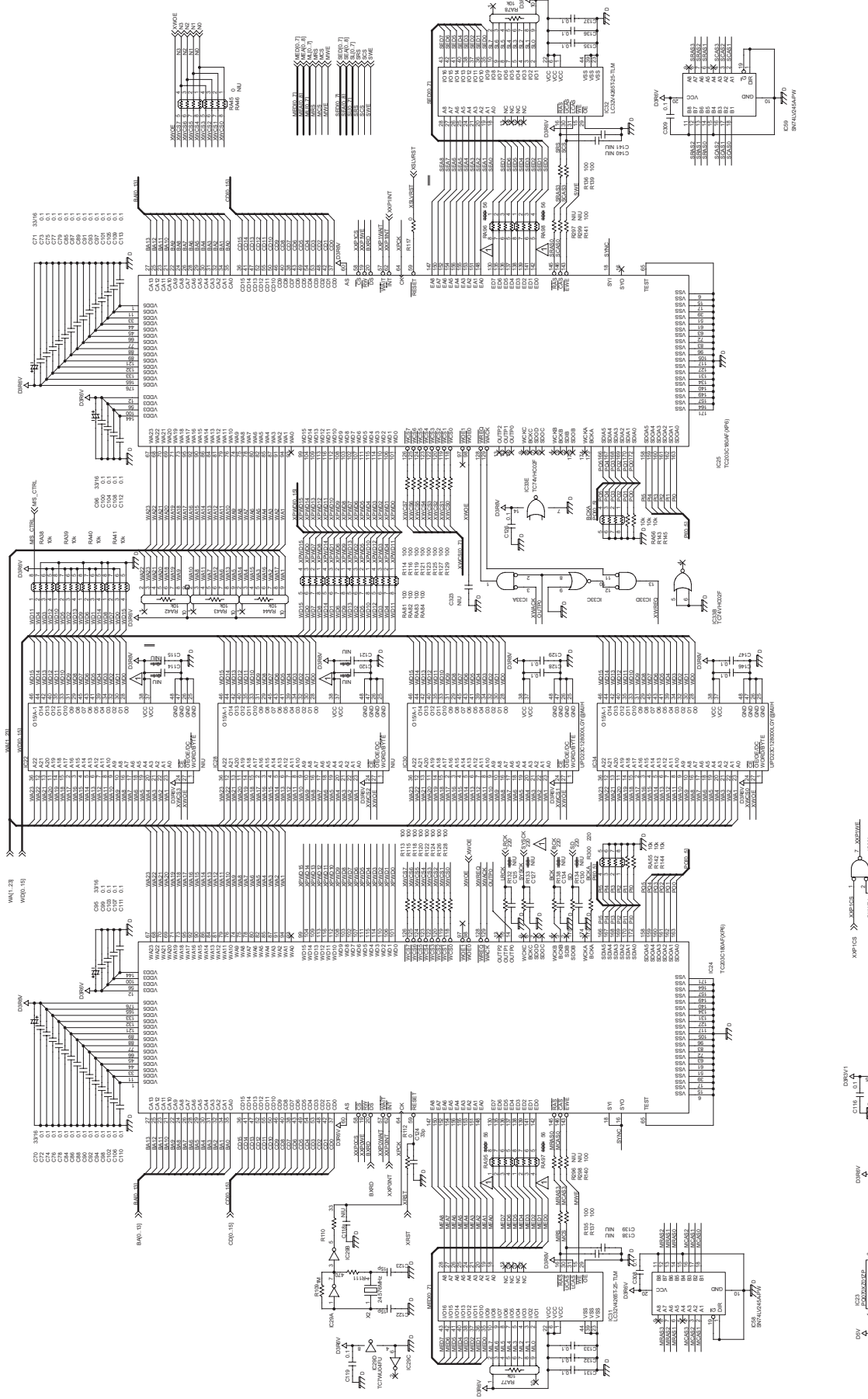
View from foil side

# CIRCUIT DIAGRAM (MAIN BOARD 1/4)

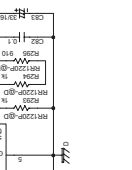


## MAIN BOARD CPU & MEMORY SECTION

# CIRCUIT DIAGRAM (MAIN BOARD 2/4)

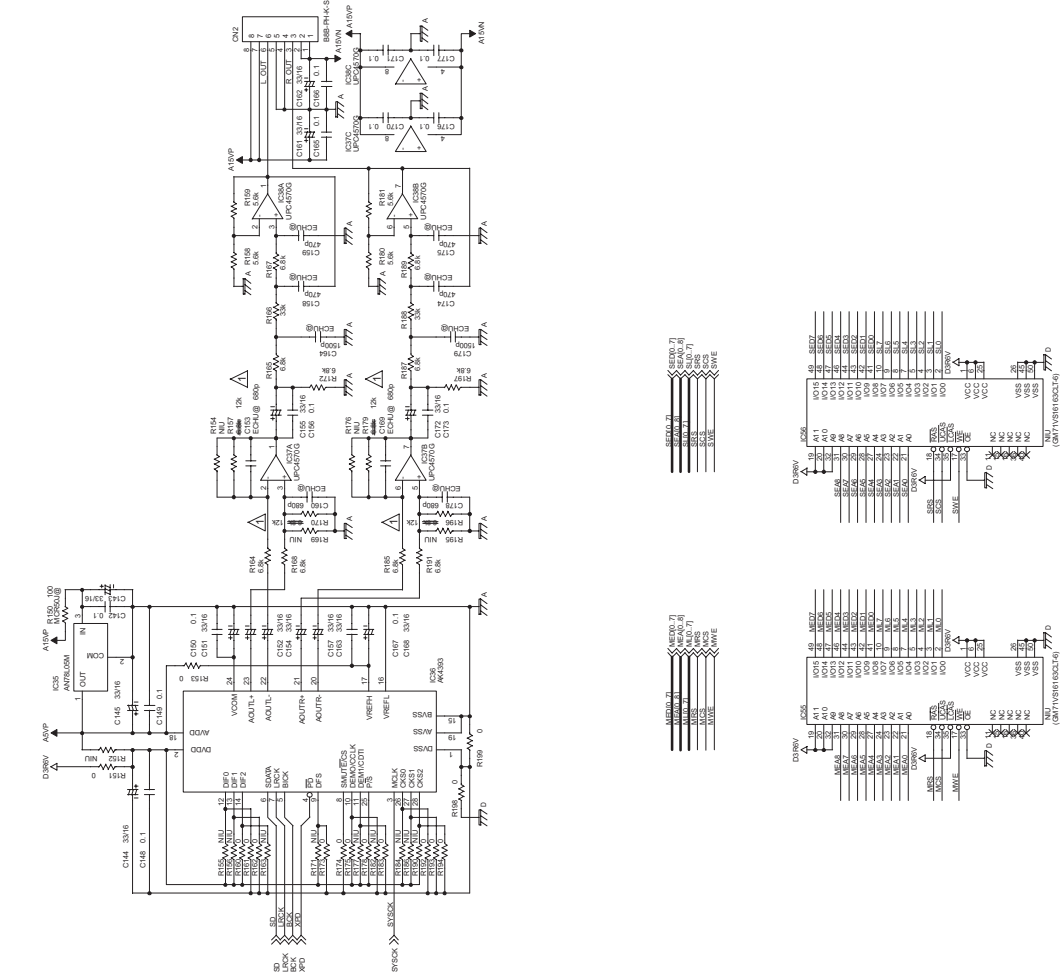


## MAIN BOARD TONE GENERATOR & MEMORY SECTION



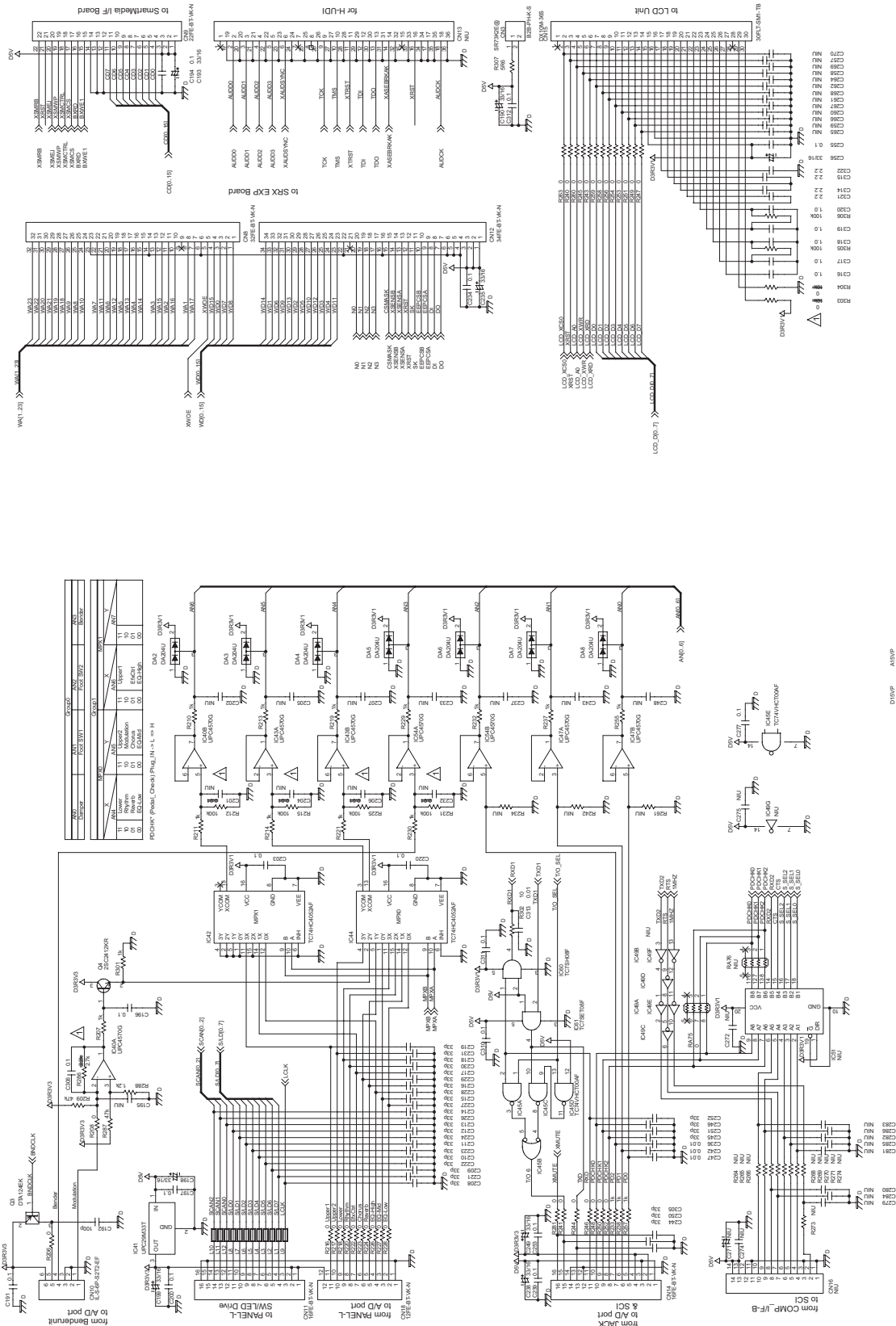


CIRCUIT DIAGRAM (MAIN BOARD 3/4)

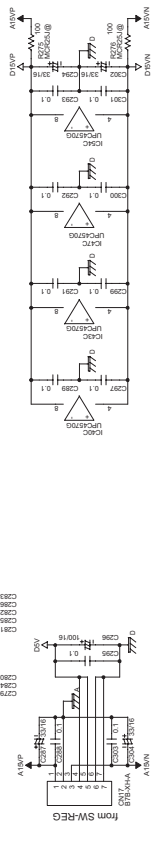


MAIN BOARD D/A CONVERTER & KEY SCAN & 2nd ERAM SECTION

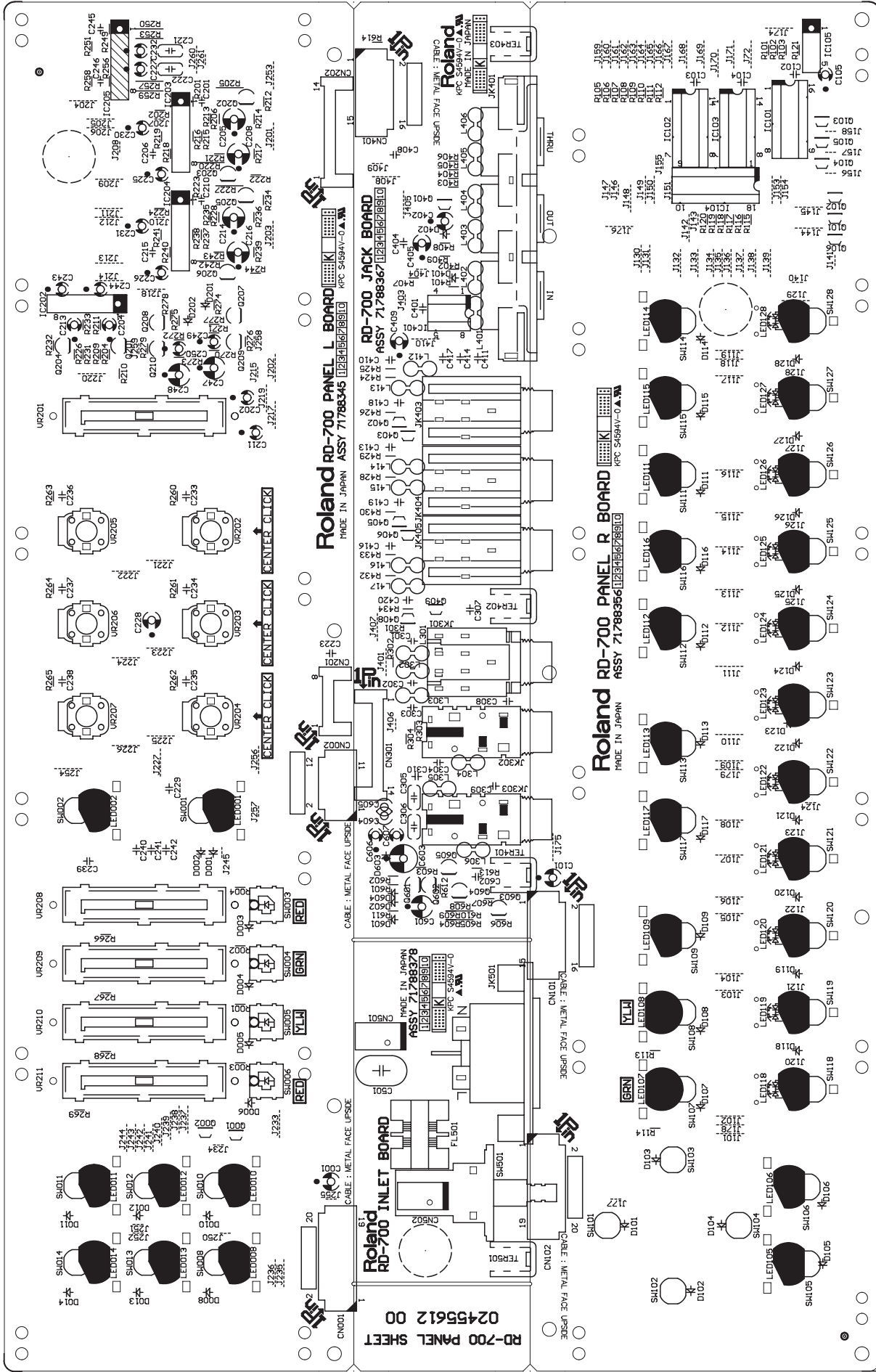
# CIRCUIT DIAGRAM (MAIN BOARD 4/4)



## MAIN BOARD CONNECTORS & I/F SECTION

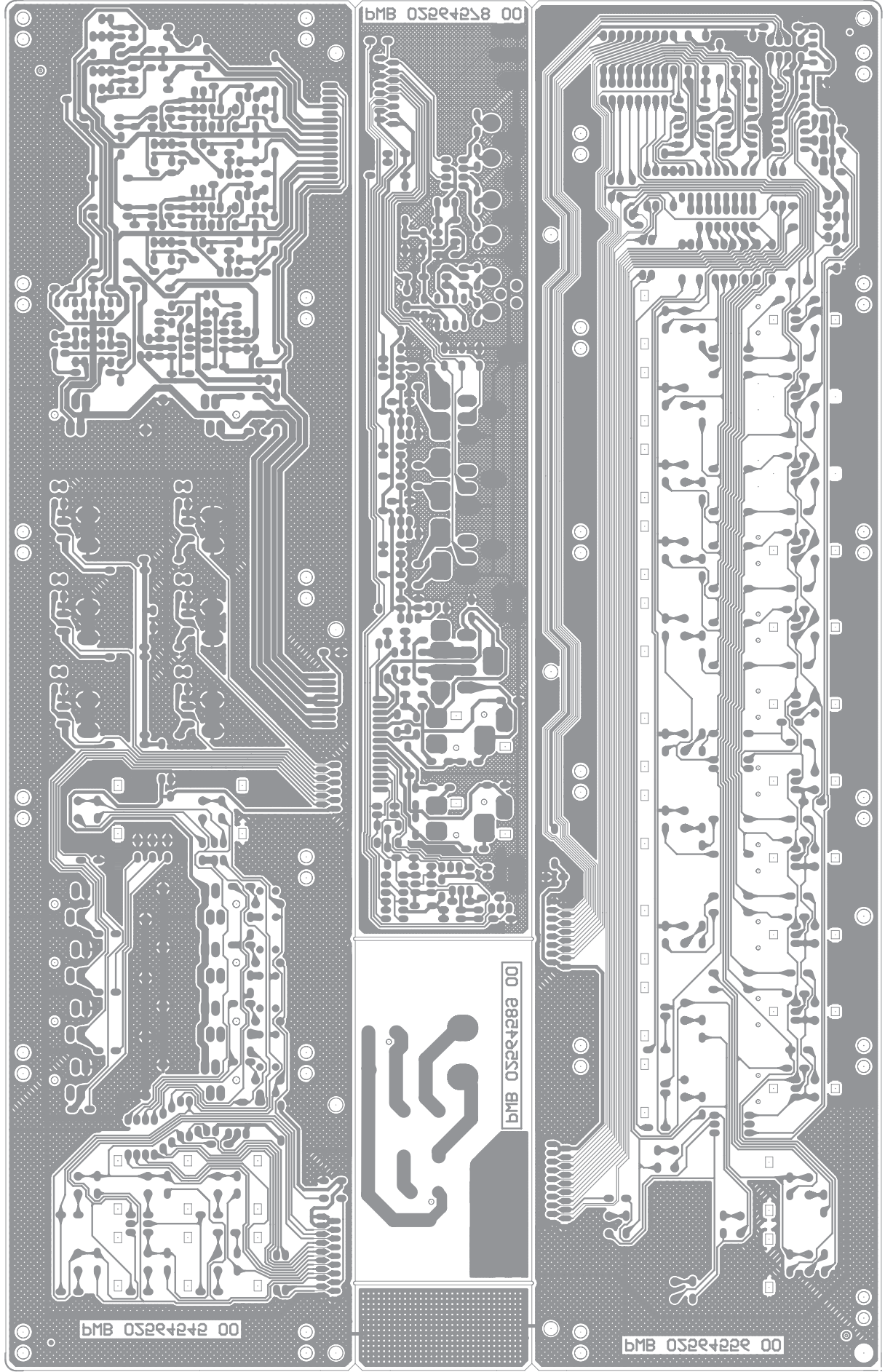


CIRCUIT BOARD (PANEL/JACK/INLET BOARD)



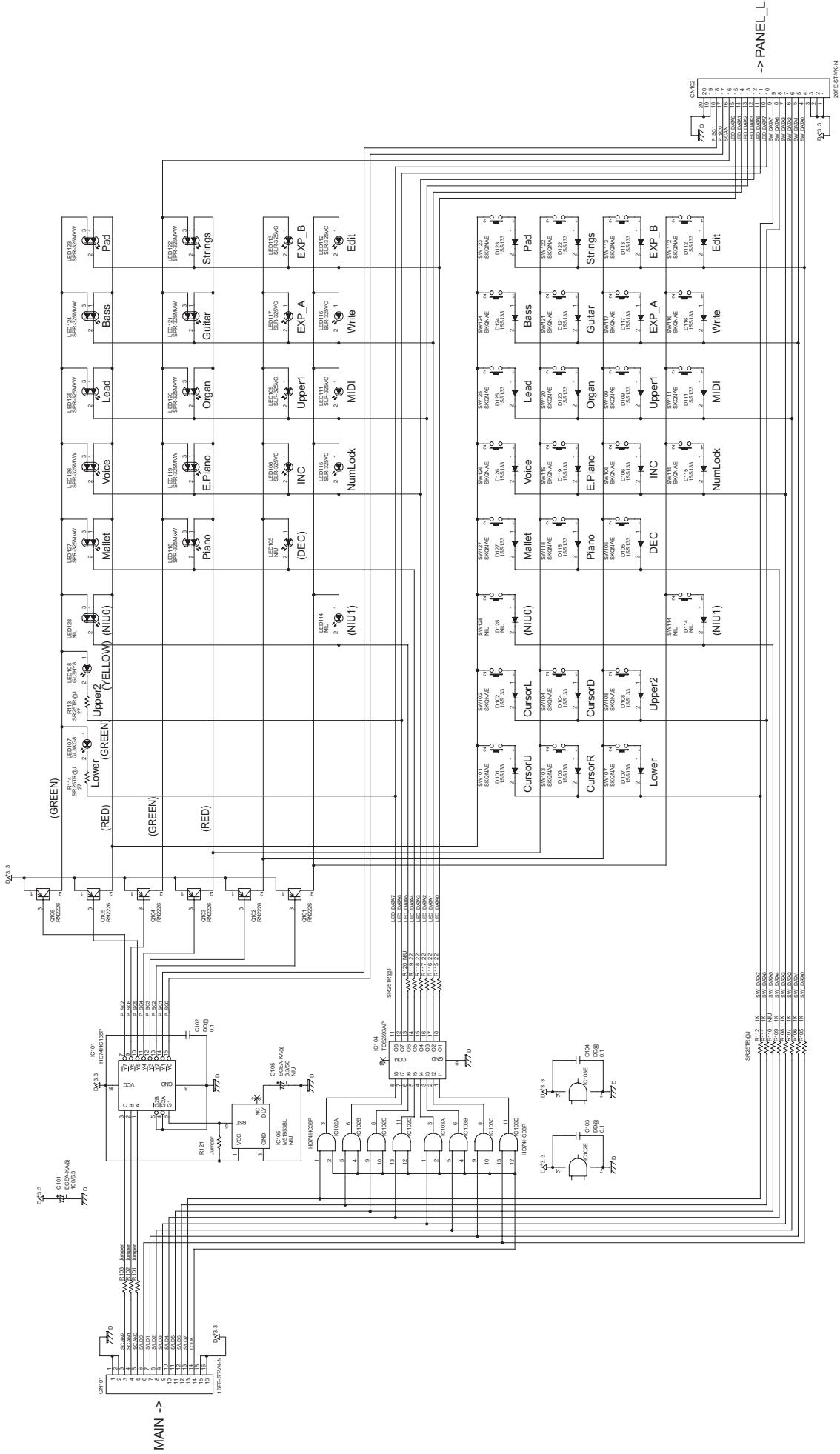
View from components side

**CIRCUIT BOARD (PANEL/JACK/INLET BOARD)**



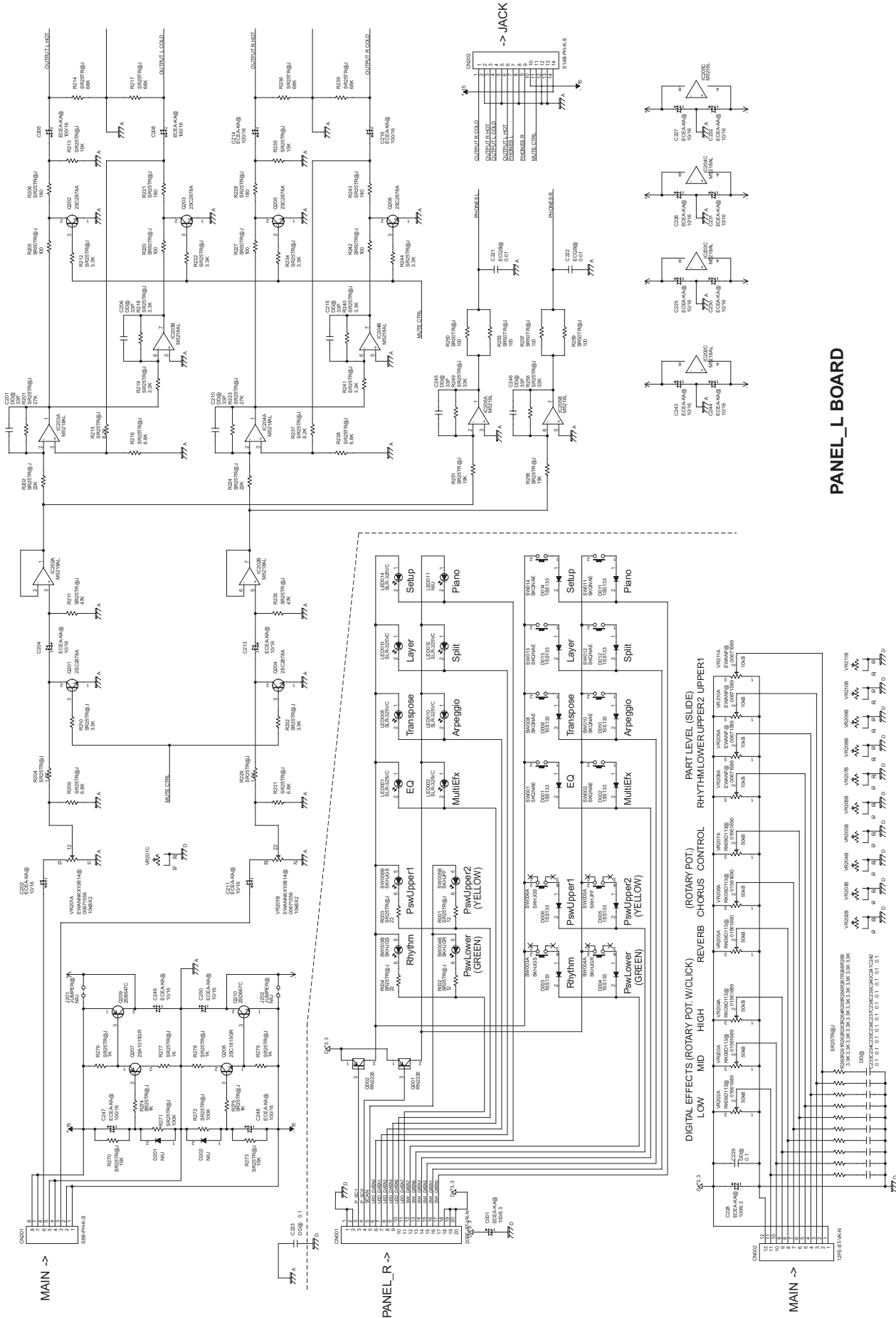
View from foil side

# CIRCUIT DIAGRAM (PANEL R BOARD)



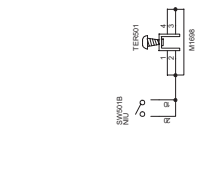
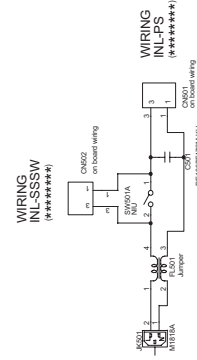
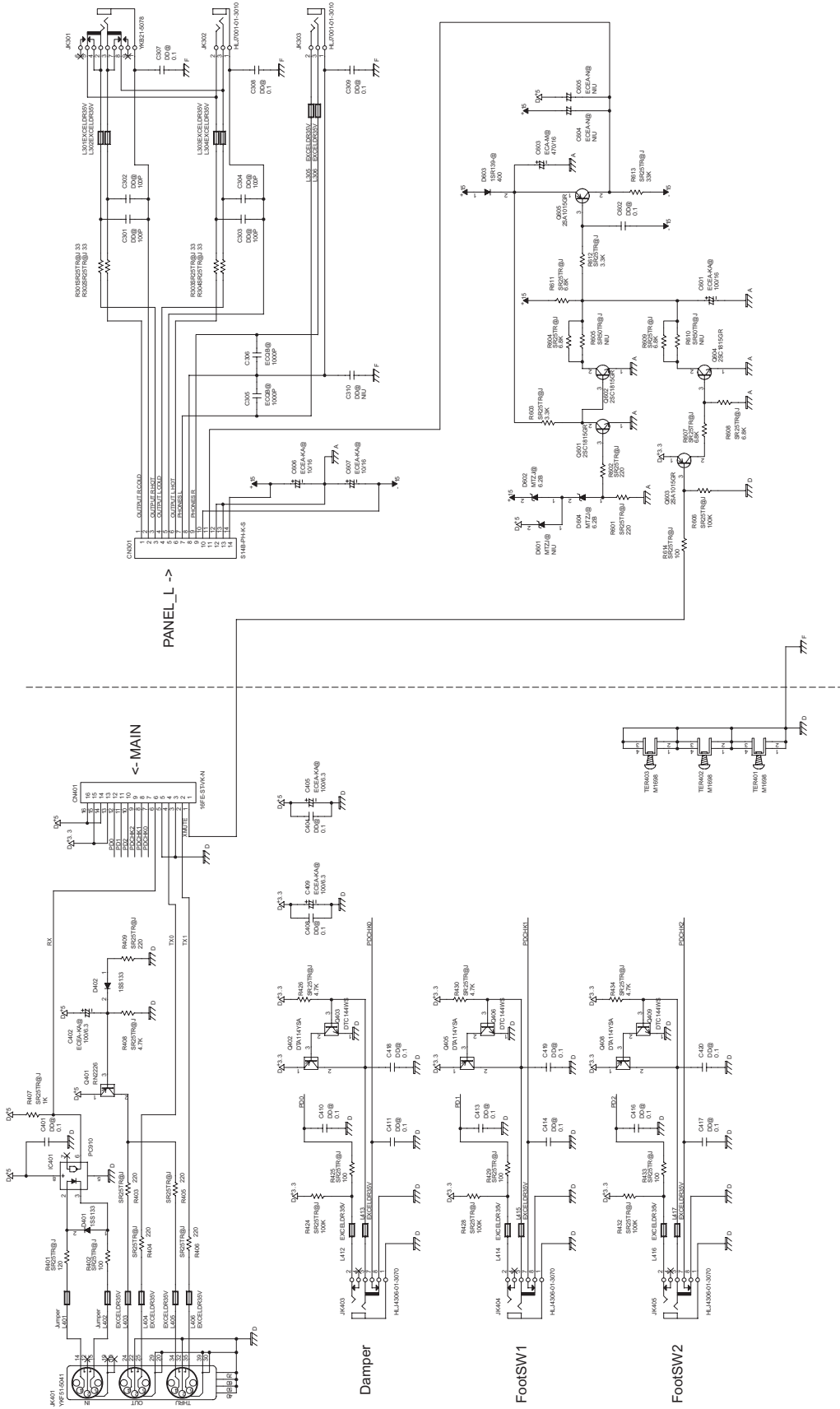
### PANEL\_R BOARD

# CIRCUIT DIAGRAM (PANEL L BOARD)



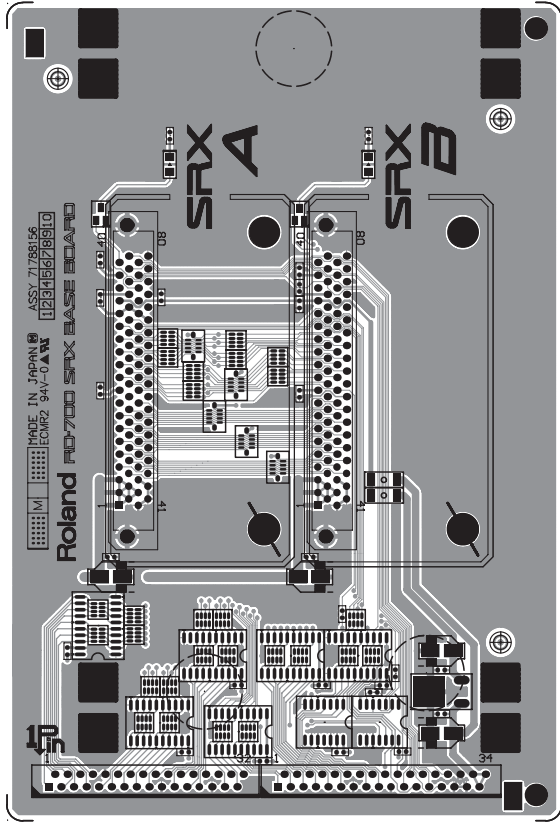
# PANEL\_L BOARD

# CIRCUIT DIAGRAM (JACK/INLET BOARD)

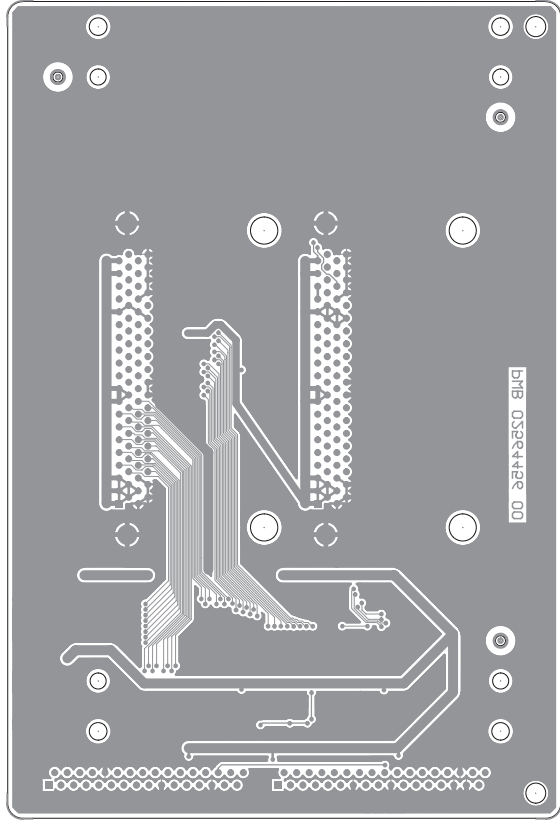


## JACK BOARD / INLET BOARD

### CIRCUIT DIAGRAM (SRX BASE BOARD)



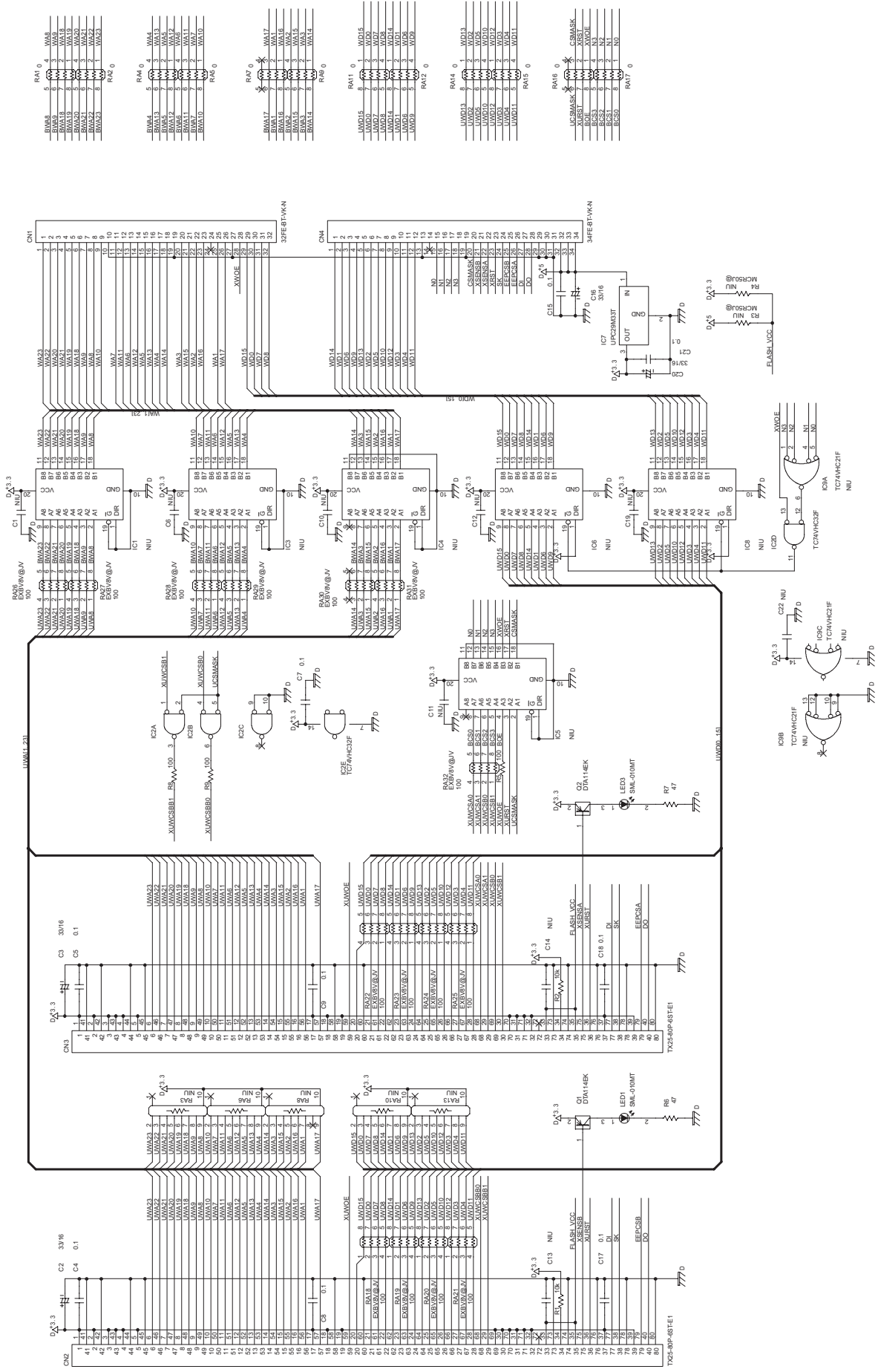
View from components side



View from foil side



# CIRCUIT DIAGRAM (SRX BASE BOARD)



## SRX BASE BOARD

