



SERVICE NOTES

Issued by RJA

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SPECIFICATIONS

RVE-800: VOCAL ECHO

Signal Processing

AD Conversion: 24 bits

DA Conversion: 24 bits

Sampling Rate

48 kHz

Frequency Response

10 Hz to 40 kHz -2.0/+1.0 dB (Direct)

20 Hz to 20 kHz -2.0/+1.0 dB (Effect)

Nominal Input Level

-40 dBu (MIC 1, 2)

+4 dBu (INPUT)

Input Impedance

10 k ohms (MIC 1, 2)

40 k ohms (INPUT)

Non Clip Max Input Level (Effect: MAX)

+ 6.0 dBu (MIC1, 2)

+10.0 dBu (INPUT)

Input Sensitivity

-42 dBu (MIC)

+4 dBu (LINE)

Nominal Output Level

-40 / -10 / +4 dBu (selectable with Output Level Switch)

Output Impedance

500 ohms (Output Level Switch: -40 dB (MIC))

1.5 k ohms (Output Level Switch: -10 dB)

5.5 k ohms (Output Level Switch: +4 dB)

Recommended Load Impedance

3 k ohms or more

Total Harmonic Distortion

0.05 % or less (1kHz at nominal output level)

Residual Noise Level (Input: 150 ohms Terminated, MIC GAIN Volume: min, IHF-A, typ)

-100.0 dBu or less (Direct)

-83.0 dBu or less (Effect)

Dynamic Range

118 dB or greater (Direct)

93 dB or greater (Effect)

Controllers

Mic Gain Knobs (1, 2)

Balance Knob

Delay Time Knob

Repeat Knob,

Effect Mode Select Knob

Power Switch

Output Level Switch

Effects Type

STADIUM, SHORT ECHO, LONG ECHO, WARM SHORT ECHO, WARM LONG ECHO,

VOCAL ECHO, DELAY+ROOM1, DELAY+ROOM2, DELAY+HALL1, DELAY+HALL2,

DELAY+PLATE (Total: 11types)

Indicators

Power Indicator

Effect Indicator

Signal Indicator

Connectors

Mic Jacks (1, 2, phone type, unbalanced)

Input Jacks (L (MONO), R, phone type, unbalanced)

Output Jacks (L (MONO), R, phone type, unbalanced)

Effect Remote Jack

Power Supply Inlet Connector

Power Supply

AC 117 V, AC 230 V or AC 240 V

Power Consumption

8 W

Dimensions

482 (W) x 210 (D) x 44 (H) mm

19 (W) x 8-5/16 (D) x 1-3/4 (H) inches

* EIA-1U rack mount type

Weight

2.5 kg

5 lbs 9 oz

Accessories

Power Supply Cable 100V:(#02670401)

120V:(#00894378)

230V:(#00894389)

240VE:(#00907001)

240VA:(#23495124)

EURO CONVERTER PLUG (#00905234)

Rubber feet (#22350313)

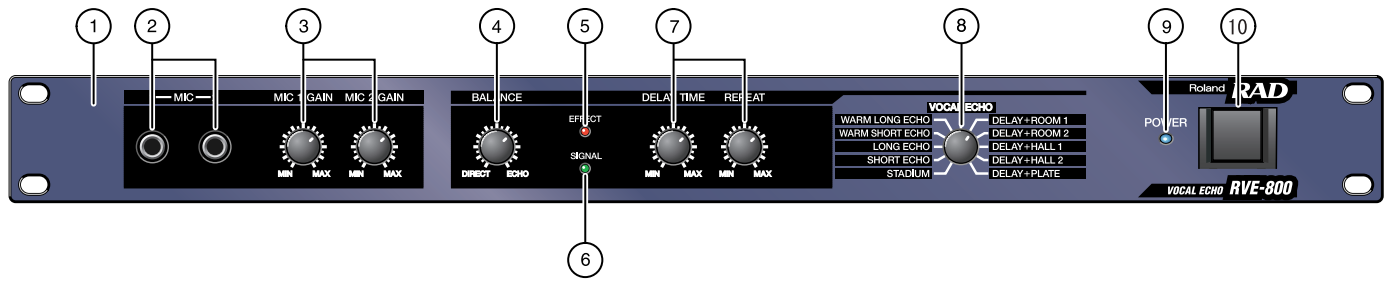
Owner's Manual English(#72122112)

Japanese(#72121989)

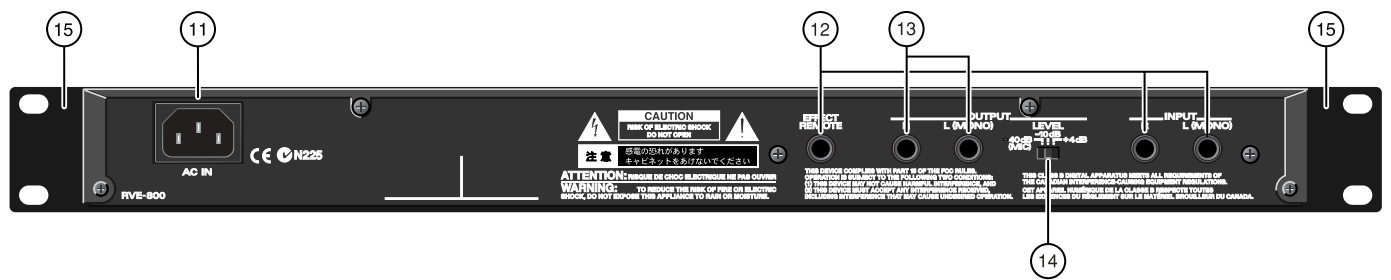
* 0 dBu = 0.775 Vrms

LOCATION OF CONTROLS

[Front]



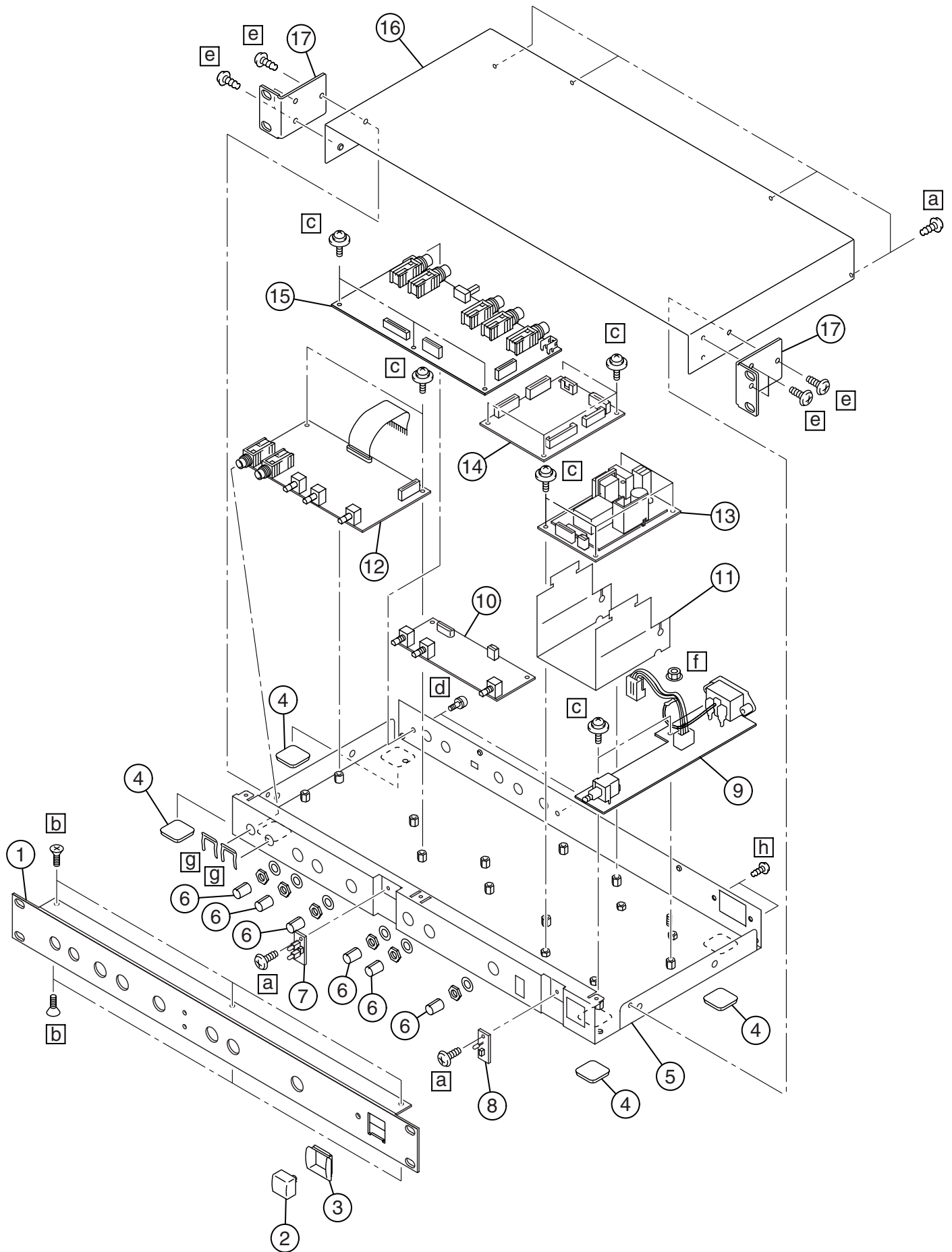
[Rear]



LOCATION OF CONTROLS PARTS LIST

No	PART CODE	Part name	Description	Q'TY
1	02906390	FRONT PANEL		1
2	00675256	HLJ7100-01-3010	6.5MM JACK	2
3	02781667	VR RK09L1120(50KA) KAI	9M/M ROTARY POTENTIOMETER	2
	22485188	M R-KNOB	248-188 MF BLK	2
4	02906567	RK09L12B0 50KW CC	9M/M ROTARY POTENTIOMETER	1
	22485188	M R-KNOB	248-188 MF BLK	1
5	00785856	LED(RED)SLR-342VR3F		1
	00453223	LED SPACER	LDS-70G	1
6	02015623	LED(GREEN)SLR-342MG3F		1
	00453223	LED SPACER	LDS-70G	1
7	13289229	RK09L1120 10KB	9MM ROTARY POTENTIOMETER	2
	22485188	M R-KNOB	248-188 MF BLK	2
8	02906590	RK0971110 10KB	9M/M ROTARY POTENTIOMETER	1
	22485188	M R-KNOB	248-188 MF BLK	1
9	02905990	LED(BLUE)LNW9A8BYBZ		1
10	01459789	BUTTON ESCUTCHEON	F B-ESCT MX1H-A BLK	1
	22495565	F S-BUTTON	MX BLK	1
11	02675701	WIRING ASSY	WIRING W3(AC INLET+GND)	1
12	13449283	HLJ7101-01-3010	6.5MM JACK	3
13	13449284	HLJ7001-01-3010	6.5MM JACK	2
14	13159362	SSSF123-S09N-1	SLIDE SWITCH	1
15	22123568	RACK MOUNT ANGLE 1U	212-568	2

EXPLODED VIEW



EXPLODED VIEW PARTS LIST

[Parts]

No	PART CODE	Part name	Description	QTY
1	02906390	FRONT PANEL		1
2	22495565	F S-BUTTON	MX BLK	1
3	01459789	BUTTON ESCUTCHEON	F B-ESCT MX1H-A BLK	1
4	22350313	FOOT MKS		4
5	02906401	BOTTOM CHASSIS		1
6	22485188	M R-KNOB	248-188 MF BLK	6
7	72122089	LED BOARD ASSY		1
8	72122090	POWER LED BOARD ASSY		1
9	72122078	INLET BOARD ASSY		1
10	72122056	VR BOARD ASSY		1
11	02894367	INSULATING COVER	DA-2496 SW-PS	1
12	72122045	MIC BOARD ASSY		1
13	72122067	POWER SUPPLY BOARD ASSY		1
14	72122001	EFFECT BOARD ASSY		1
15	72122034	JACK BOARD ASSY		1
16	02906445	TOP COVER		1
17	22123568	RACK MOUNT ANGLE 1U	212-568	2

[SCREWS]

No	PART CODE	Part name	Description	QTY
a	40011090	SCREW 3X6	BINDING TAPTITE B BZC	6
b	40011145	SCREW 3X6	FLAT TAPTITE B BZC	6
c	40017934	SCREW M3X6	PAN MACHINE W/SW+PW FE ZC	15
d	40011490	SCREW M3X6	PAN MACHINE W/SW BZC	2
e	40012345	SCREW 4X10	BINDING TAPTITE B BZC	6
f	40011745	HEX NUT M4	SPRING NUT FE ZC	1
g	40016434	SNAP PLATE	HLJ-480	2
h	40012490	SCREW 4X10	BINDING TAPTITE P BZC	2

PARTS LIST

SAFETY PRECAUTIONS:

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

CONSIDERATION ON PARTS ORDRING

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

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

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

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

CASING					
	22123568	RACK MOUNT ANGLE 1U	212-568		2
#	02906445	TOP COVER			1
#	02906390	FRONT PANEL			1
CHASSIS					
#	02906401	BOTTOM CHASSIS			1
KNOB, BUTTON					
	22495565	F S-BUTTON	MX BLK		1
	22485188	M R-KNOB	248-188 MF BLK		6
	01459789	BUTTON ESCUTCHEON	F B-ESCT MX1H-A BLK		1
SWITCH					
	13159362	SSSF123-S09N-1	SLIDE SWITCH	SW1 on JACK BOARD	1
	01676512	SDKLA1-B	PUSH SWITCH	SW2 on Inlet Board	1
JACK, EXT TERMINAL					
	13449283	HLJ7101-01-3010	6.5MM JACK	JK3,JK4,JK5 on JACK BOARD	3
	13449284	HLJ7001-01-3010	6.5MM JACK	JK1,JK2 on JACK BOARD	2
	00675256	HLJ7100-01-3010	6.5MM JACK	JK6,JK7 on MIC BOARD	2
POWER SUPPLY UNIT					
	02457745	A1DU2L3B104 VER.3	SWITCHING REGULATOR	BOARD1 on POWER SUPPLY BOARD	1
	NOTE: Replacement A1DU2L3B104 VER.3 should be made on a unit base.				
PCB ASSY					
#	72122001	EFFECT BOARD ASSY			1
#	72122034	JACK BOARD ASSY			1
#	72122045	MIC BOARD ASSY			1
#	72122056	VR BOARD ASSY			1
#	72122067	POWER SUPPLY BOARD			1
#	72122078	INLET BOARD ASSY			1
#	72122089	LED BOARD ASSY			1
#	72122090	POWER LED BOARD ASSY			1
IC					
#	03010745	HD6413006VF	IC (16BIT CPU)	IC1 on Effect Board	1
	02565501	TC220CCA0AF-B01(MR3)	IC (DSP)	IC3 on Effect Board	1
	02453389	LC32V4265T-25	IC (DRAM)	IC16 on Effect Board	1
	01783123	LH28F400BVE-BL85	IC (FLASH MEMORY /BLANK)	IC2 on Effect Board	1
	02451434	AK4552VT	IC (AD/DA)	IC8 on Effect Board	1
	01348912	TC7SH08FU(TE85L)	IC (CMOS)	IC15 on Effect Board	1
	01898023	TC7WH241FU(TE12L)	IC (CMOS)	IC4 on Effect Board	1
	00346445	NJM2100M(TE3)	IC (BIPOLAR OP AMP)	IC7 on Effect Board	1
	15289105	UPC4570G2-E2	IC (BIPOLAR OP AMP)	IC10,IC9 on Effect Board	2
	01458445	UPC29M33T-T1	IC (REGULATOR)	IC12 on Effect Board	1
	02897778	S-80130ALMC-JAP-T2	RESET IC	IC6 on Effect Board	1
	15189250	M5218AL	IC (BIPOLAR OP AMP)	IC2,IC1 on JACK BOARD	2
	02123612	UPC2933HF	IC (REGULATOR)		1
	15189189	UPC4570HA	IC (BIPOLAR OP AMP)	IC7,IC6,IC5,IC4 on MIC BOARD	4
TRANSISTOR					
	15309101	2SA1037AKT146R	TRANSISTOR	Q9 on Effect Board	1
	15319101	2SC2412KR T146	TRANSISTOR	Q10,Q12 on Effect Board	2

TRANSISTOR					
	15329512	DTB123TKT146	DIGITAL TRANSISTOR	Q1 on Effect Board	1
	15329516	DTC114EKT146	TRANSISTOR	Q2,Q11 on Effect Board	2
	15129152	2SC2878-A(TPE2)	TRANSISTOR	Q1,Q2 on JACK BOARD	2
	15129184	RN1207-TPE4	DIGITAL TRANSISTOR	Q4,Q3 on EFFECT VR BOARD	2
DIODE					
	01897189	MA147-(TX)	ARRAY DIODE	DA1 on Effect Board	1
	01340012	UDZS TE-17 9.1B	ZENER DIODE	D1 on Effect Board	1
	15019126	1SS133 T-77	SWITCHING DIODE	D2,D3,D1,D4,D5,D7,D8,D6 on JACK BOARD ,D12,D10,D9,D11 on MIC BOARD	8 +4
	15019443	RD20ES-T1 AB2	ZENER DIODE	D13,D14,D15,D16 on JACK BOARD	4
	02239567	SLR-342VRT32	LED	LED3 on LED BOARD,LED5,LED4 on MIC BOARD	2
	00785856	SLR-342VR3F	LED		1
#	02015623	SLR-342MG3F	LED	LED2 on LED BOARD	1
#	02905990	LNW9A8BYBZ BLUE	LED	LED1 on POWER LED BOARD	1
RESISTOR					
	00566867	RPC05T 100 J	MTL.FILM RESISTOR	R29 on Effect Board	1
	00567023	RPC05T 101 J	MTL.FILM RESISTOR	R12,R11,R119,R121 on Effect Board	4
	00567112	RPC05T 471 J	MTL.FILM RESISTOR	R91 on Effect Board	1
	00567156	RPC05T 102 J	MTL.FILM RESISTOR	R89 on Effect Board	1
	00567412	RPC05T 104 J	MTL.FILM RESISTOR	R1,R116,R115,R114,R4,R2,R3 on Effect Board	7
	00566967	RPC05T 470 J	MTL.FILM RESISTOR	R118,R107,R105,R98,R97,R96,R95 on Effect Board	7
	00567067	RPC05T 221 J	MTL.FILM RESISTOR	R103,R104 on Effect Board	2
	00567189	RPC05T 182 J	MTL.FILM RESISTOR	R40,R48 on Effect Board	2
	00567201	RPC05T 272 J	MTL.FILM RESISTOR	R38,R31 on Effect Board	2
	00567212	RPC05T 332 J	MTL.FILM RESISTOR	R41,R42,R49,R50 on Effect Board	4
	00567245	RPC05T 472 J	MTL.FILM RESISTOR	R117,R17,R20 on Effect Board	3
	00567289	RPC05T 103 J	MTL.FILM RESISTOR	R88,R71,R87,R68 on Effect Board	4
	00567312	RPC05T 183 J	MTL.FILM RESISTOR	R39,R47 on Effect Board	2
	00567323	RPC05T 223 J	MTL.FILM RESISTOR	R64,R33,R27 on Effect Board	3
	00567334	RPC05T 273 J	MTL.FILM RESISTOR	R30,R37 on Effect Board	2
	00567378	RPC05T 473 J	MTL.FILM RESISTOR	R8,R9,R86,R10,R13,R15,R16,R113,R26,R109,R110,R111,R112,R21,R99 on Effect Board	15
	00567456	RPC05T 224 J	MTL.FILM RESISTOR	R35,R45,R53 on Effect Board	3
	00567556	RPC05T 105 J	MTL.FILM RESISTOR	R18 on Effect Board	1
	02675512	RPC05T 203 J	MTL.FILM RESISTOR	R14 on Effect Board	1
	01011856	RPC05T 0R0 J	MTL.FILM RESISTOR	R28,R94,R32,R34,R43,R44,R51,R52,R93,R19,R5 on Effect Board	11
	00126101	EXBV8V221JV	RESISTOR ARRAY	RA7,RA6 on Effect Board	2
	01566190	EXBE10C473J	R-ARRAY	RA5,RA3,RA2 on Effect Board	3
	01566267	EXBV8V473JV	R-ARRAY	RA4 on Effect Board	1
	13749759T0	SR25TRE 270 J	CARBON RESISTOR		2
	13749789T0	SR25TRE 471 J	CARBON RESISTOR		2
	13749797T0	SR25TRE 102 J	CARBON RESISTOR		2
	13749799T0	SR25TR 122J	CARBON RESISTOR		2
	13749813T0	SR25TRE 472 J	CARBON RESISTOR		4
	13749817T0	SR25TRE 682 J	CARBON RESISTOR		2 +8
	13749821T0	SR25TRE 103 J	CARBON RESISTOR		2 +6
	13749837T0	SR25TRE 473 J	CARBON RESISTOR		2 +2
	13749845T0	SR25TRE 104 J 1/4W	CARBON RESISTOR		4
	13749853T0	SR25TRE 224 J 1/3W 1/4W	CARBON RESISTOR		3 +2
	13749781T0	SR25TRE 221 J	CARBON RESISTOR		12 +4 +3
	13749835T0	SR25TRE 393 J	CARBON RESISTOR		2
	13749773T0	SR25TRE 101 J	CARBON RESISTOR		2
	13749809T0	SR25TRE 332 J 1/6W	CARBON RESISTOR		4
	13749815T0	SR25TRE 562 J	CARBON RESISTOR		1
	13749823T0	SR25TRE 123 J	CARBON RESISTOR		4
	13749833T0	SR25TRE 333 J	CARBON RESISTOR		1
	13749783T0	SR25TRE 271 J	CARBON RESISTOR		2
POTENTIOMETER					
#	02781667	VR RK09L1120(50KA) KAI	9M/M ROTARY POTENTIOMETER	VR1,VR3 on MIC BOARD	2
#	02906567	RK09L12B0 50KW CC	9M/M ROTARY POTENTIOMETER	VR2 on MIC BOARD	1
#	02906590	RK0971110 10KB	9M/M ROTARY POTENTIOMETER	VR6 on EFFECT VR BOARD	1
	13289229	RK09L1120 10KB	9MM ROTARY POTENTIOMETER	VR4,VR5 on EFFECT VR BOARD	2
CAPACITOR					
	01674423	ECUV1H471JCV	CERAMIC CAPACITOR	C118 on Effect Board	1

CAPACITOR					
#	01674545	ECJ1VB1H392K	CERAMIC CAPACITOR	C22 on Effect Board	1
	01674712	ECJ1VF1A105Z	CERAMIC CAPACITOR	C104,C103,C102 on Effect Board	3
	01674190	ECUV1H150JCV	CERAMIC CAPACITOR	C43,C36 on Effect Board	2
	01674612	ECJ1VB1H103K	CERAMIC CAPACITOR	C106,C127,C126,C125,C123,C107,C124,C105,C121,C122 on Effect Board	10
	01674701	ECJ1VF1E104Z 0.1UF/16VK	CERAMIC CAPACITOR(CHIP)	C96,C64,C45,C18,C19,C20,C14,C23,C95,C38,C98,C100,C9,C8,C7,C25,C31,C32,C21,C11,C70,C15,C1,C16,C108,C66,C17,C12,C65,C2,C3,C37,C10,C72,C79,C93,C6,C13 on Effect Board	38
	02129534	ECJ1VB1H102K	CERAMIC CAPACITOR	C101 on Effect Board	1
	01674212	ECUV1H220JCV	CERAMIC CAPACITOR	C27 on Effect Board	1
	01674223	ECUV1H270JCV	CERAMIC CAPACITOR	C26 on Effect Board	1
	01015845	ECHU1H181JB5	FILM CAPACITOR	C52,C47 on Effect Board	2
	15359779	ECHU1H272JB5	POLYEST CAPASITOR	C55,C50 on Effect Board	2
#	02014378	ECEV0JA331P	CHEMICAL CAPACITOR	C73 on Effect Board	1
	02345134	RV2-16V470M-R	CHEMICAL CAPACITOR	C90 on Effect Board	1
	02345145	RV2-16V101M-R	CHEMICAL CAPACITOR	C67,C71 on Effect Board	2
	02345234	RV2-6V101M-R	CHEMICAL CAPACITOR	C63 on Effect Board	1
	02345101	RV2-16V100M-R	CHEMICAL CAPACITOR	C44,C49,C119,C117,C92,C80,C53,C40,C48,C46,C41,C4,C39,C35,C34,C24,C5,C54 on Effect Board	18
	13519625	DD104-989B221K50 220PF 50V	CERAMIC CAPACITOR	C22,C16,C17,C7 on JACK BOARD ,C64,C78 on MIC BOARD	4 +2
	13519667	DD104-989SL470J50	CERAMIC CAPACITOR	C11,C20 on JACK BOARD ,C68,C57,C60,C70,C73,C79,C83,C58 on MIC BOARD	2 +8
	13519671	DD104-989SL101J50 100PF 50VK	CERAMIC CAPACITOR	C1,C9 on JACK BOARD	2
	13529509	DD106-999F103Z50	CERAMIC CAPACITOR	C71,C74,C75 on EFFECT VR BOARD ,C30,C26 on JACK BOARD	2 +3
	13519452	DD306-959F104Z25(100NF/25V Z)	CERAMIC CAPACITOR	C66 on EFFECT VR BOARD ,C105,C46,C48,C50,C51,C32,C104,C45,C19,C106,C18,C10,C8,C6,C5,C53,C24,C31,C29,C28,C27,C47,C25,C44,C23,C33,C34,C35,C39,C40,C42 on JACK BOARD ,C102,C81,C95,C99,C98,C97,C100,C94,C91,C86,C92,C80,C67,C61,C88,C89 on MIC BOARD	31 +1 6 +1
	01900823	RA2-16V100M-T2	CHEMICAL CAPACITOR		4 +8
	01909678	RA2-16V330M-T2	CHEMICAL CAPACITOR	C65 on EFFECT VR BOARD ,C2,C14,C21,C15,C13,C12,C3,C4 on JACK BOARD ,C59,C76,C72,C63,C56,C69 on MIC BOARD	8 +6 +1
	02014890	RA2-16V221MT2	CERAMIC CAPACITOR		4 +2
INDUCTOR, COIL, FILTER					
	01909645	EXCML16A270U	FERRITE-BEAD	L1,L2,L3,L5,L6,L8,L9 on Effect Board	7
	12449347	EXC ELDR35V	FERRITE-BEAD	L6,L1,L2,L3,L4,L5 on JACK BOARD	6
CRYSTAL, RESONATOR					
	01455201	MA-406 12.288MHZ	CRYSTAL	X1 on Effect Board	1
CONNECTOR					
#	02906534	CONNECTOR B5B-PH-SM3-TB	CONNECTOR	CN3 on Effect Board	1
#	02906545	CONNECTOR B7B-PH-SM3-TB	CONNECTOR	CN8 on Effect Board	1
#	02906556	B10B-PH-SM3-TB	CONNECTOR	CN7,CN6 on Effect Board	2
	13369541	B10B-PH-K-S JST	CONNECTOR	CN2 on JACK BOARD ,CN7 on MIC BOARD	1 +1
	13369592	B7B-XH-A(7P) JST	CONNECTOR	CN3 on JACK BOARD ,CN13 on POWER SUPPLY BOARD	1 +1
	13369606	52147-1110(11P)	WIRE TRAP		1
	13429300	51048-1100(11P)	CABLE HOLDER	CN6 on MIC BOARD	1
	13369568	JST B3B-PH-K-S JST	CONNECTOR	CN9 on EFFECT VR BOARD ,CN4 on POWER SUPPLY BOARD	1 +1
	13369898	B2P3-VH 7A /250V	CONNECTOR	CN12 on POWER SUPPLY BOARD	1
WIRING, CABLE					
#	02343790	WIRING	10X50-P2.0-PHR-PHR-F		1
	02343801	WIRING	10X100-P2.0-PHR-PHR-F		1
#	02906456	WIRING3	7X230-P2.5-XHP-XHP		1
#	02906578	RIBBON CABLE	JWV 11 X 50-P2.0		1
#	02906601	WIRING2	7X220-P2.0-KR-DA	CN8 on EFFECT VR BOARD	1
	02675701	WIRING ASSY	WIRING W3(AC INLET+GND)	JK8 on Inlet Board	1
#	02906612	WIRING4	2X80-P3.96-SDN-VHR	CN11 on Inlet Board	1
#	02906623	WIRING1	3X110-P2.0-KR-KR	CN10 on LED BOARD ,CN5 on POWER LED BOARD	1

SCREW				
	40012345	SCREW 4X10	BINDING TAPTITE B BZC	6
	40011090	SCREW 3X6	BINDING TAPTITE B BZC	6
	40011145	SCREW 3X6	FLAT TAPTITE B BZC	6
	40011490	SCREW M3X6	PAN MACHINE W/SW BZC	2
	40017934	SCREW M3X6	PAN MACHINE W/SW+PW FE ZC	15
	40016434	SNAP PLATE	HLJ-480	2
	40011745	HEX NUT M4	SPRING NUT FE ZC	1
	40012490	SCREW 4X10	BINDING TAPTITE P BZC	2
PACKING				
	02238323	PAD		1
#	02906367	PACKING CASE		1
	02456045	OUTER PACKING CASE	AR SRQ	1
MISCELLANEOUS				
	02894367	INSULATING COVER	DA-2496 SW-PS	1
	12199584	GROUNDING TERMINAL	M1698	2
	01347923	GROUNDING TERMINAL	MEP1866-A	1
	00453223	LED SPACER	LDS-70G	2
ACCESSORIES (STANDARD)				
△	02670401	AC CORD SET	100V YA-101/YP-3N/YC-13	1
△	00894378	AC CORD SET	120V SP301+IS14 SJT18/3	1
△	00894389	AC CORD SET	230V SP22+IS14 H05VV-F3G1.0	1
△	00907001	AC CORD SET	240VE KP-610 GTTBS-3 KS-31A	1
△	23495124	AC CORD SET	240VA SC-144-JO1 ES303-10HMA	1
△	00905234	EURO CONVERTER PLUG	ECP01-5A (PLUG FOR BRC-230T)	1
#	72121989	OWNER'S MANUAL SET	JAPANESE	1
#	72122112	OWNER'S MANUAL SET	ENGLISH	1
	22350313	FOOT MKS		235-313
	40232334	WARRANTY CARD	MOCHIKOMI JAPAN ONLY	1

TEST MODE (HOW TO CHECK OPERATION)

What is required

1. • Amplifier
 2. • Speaker (or headphones)
 3. • Transmitting device (such as a CD player)
 4. • Microphone
 5. • Foot switch (such as FS-5L)
- * Can be substituted with mono standard plug with signal and ground lines short-circuited.
6. • Standard plug audio cable

-40dB(MIC) Min.

Input jack check

1. Set each knob as follows.

Knob	Setting
MIC 1 GAIN	Min. (left)
MIC 2 GAIN	Min. (left)
BALANCE	DIRECT (left)
others	any setting

2. POWER and EFFECT LED check

Turn on the power and check the following.

- POWER LED (blue) comes on
- EFFECT LED (red) comes on

3. MIC 1 input check

Connect a microphone to MIC 1 and input a sound signal. Check the following.

- SIGNAL LED (green) comes on
- Sound is output from OUTPUT L/R on the rear panel.
- Turn the [MIC 1 GAIN] knob and confirm that the sound volume changes.

4. MIC 2 input check

Connect a microphone to MIC 2 and input a sound signal. Check the following.

- SIGNAL LED (green) comes on
- Sound is output from OUTPUT L/R on the rear panel.
- Turn the [MIC 2 GAIN] knob and confirm that the sound volume changes.

5. INPUT L input check

Connect a line only to INPUT L on the rear panel and input a sound signal. Check the following.

- SIGNAL LED (green) comes on
- Sound is output from OUTPUT L/R on the rear panel.

6. Rear panel INPUT L/R input check

Connect a line to INPUT L/R on the rear panel and input a sound signal. Check the following.

- SIGNAL LED (green) comes on
- Sound of INPUT L is output from OUTPUT L.
- Sound of INPUT R is output from OUTPUT R.

[OUTPUT LEVEL] switch check

1. Input a sound signal from any input jack.
2. Switch the [OUTPUT LEVEL] switch on the rear panel. Check the following.
Switch setting Output level
+4dB Max.
-10dB Mid.

[BALANCE] knob check

1. Set each knob as follows.
BALANCE Center
DELAY TIME Center
REPEAT Center
Effect mode selection Any setting
2. Input a sound signal from any input jack.
3. Turn the [BALANCE] knob to change it, and check that the sound output is as follows.
Knob position Sound output
DIRECT (left) Only the sound that was input
Center Sound inputted and sound with ECHO effect
ECHO (right) Only the sound with ECHO effect

[DELAY TIME] knob check

1. Set each knob as follows.
BALANCE ECHO (right)
DELAY TIME Center
REPEAT Center
Effect mode selection SHORT ECHO (second from the left)
2. Input a sound signal from any input jack.
3. Turn the [DELAY TIME] knob from Min. to center to Max. and check that the delay time that is output changes.

[REPEAT] knob check

1. Set each knob as follows.
BALANCE ECHO (right)
DELAY TIME Center
REPEAT Center
Effect mode selection SHORT ECHO (second from the left)
2. Input a sound signal from any input jack.
3. Turn the [REPEAT] knob from Min. to center to Max. and check that the output number of sound repeated changes.

Effect mode selection knob check

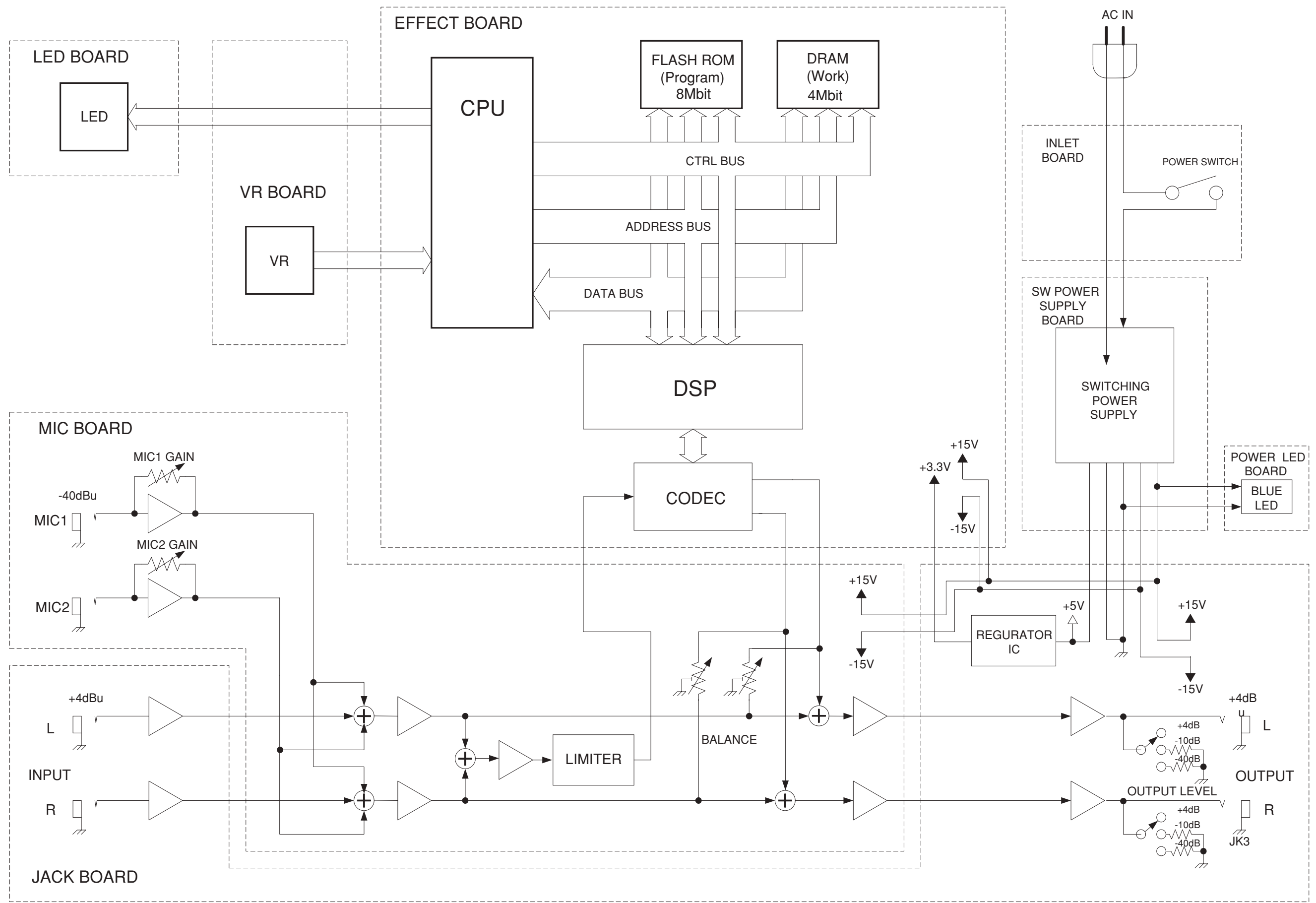
1. Set each knob as follows.
BALANCE ECHO (right)
DELAY TIME Center
REPEAT Center
Effect mode selection STADIUM (the far left)
2. Input a sound signal from any input jack.
3. Set the effect mode selection knob from [STADIUM] to [DELAY+PLATE] sequentially, and check that the effect that is output changes.

EFFECT REMOTE jack check

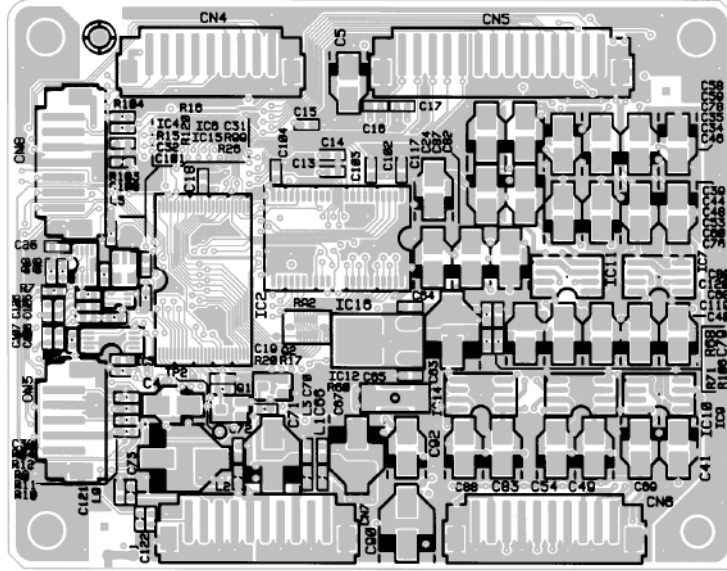
1. Set each knob as follows.
BALANCE Center
DELAY TIME Center
REPEAT Center
Effect mode selection VOCAL ECHO (center)
2. Connect a foot switch (such as FS-5L) to the EFFECT REMOTE jack on the rear panel.

3. Input a sound signal from any input jack.
4. Switch the foot switch on and off, and check the following.
Foot switch EFFECT LED (red) Sound that is output
OFF Comes on Only the sound that is input
ON Does not come on Sound that was input and sound with
ECHO effect
(On and off check of the foot switch can also be performed by inserting
and pulling out a standard plug with signal and ground short-circuited).

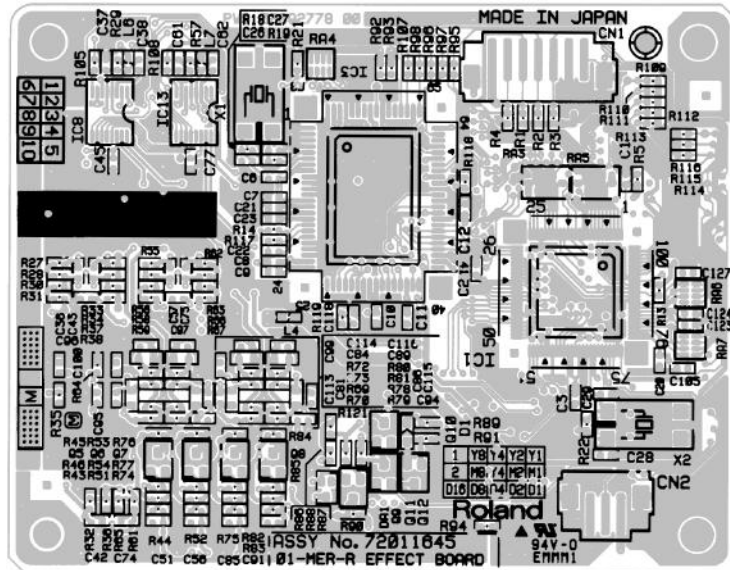
BLOCK DIAGRAM



CIRCUIT BOARD(EFFECT BOARD)

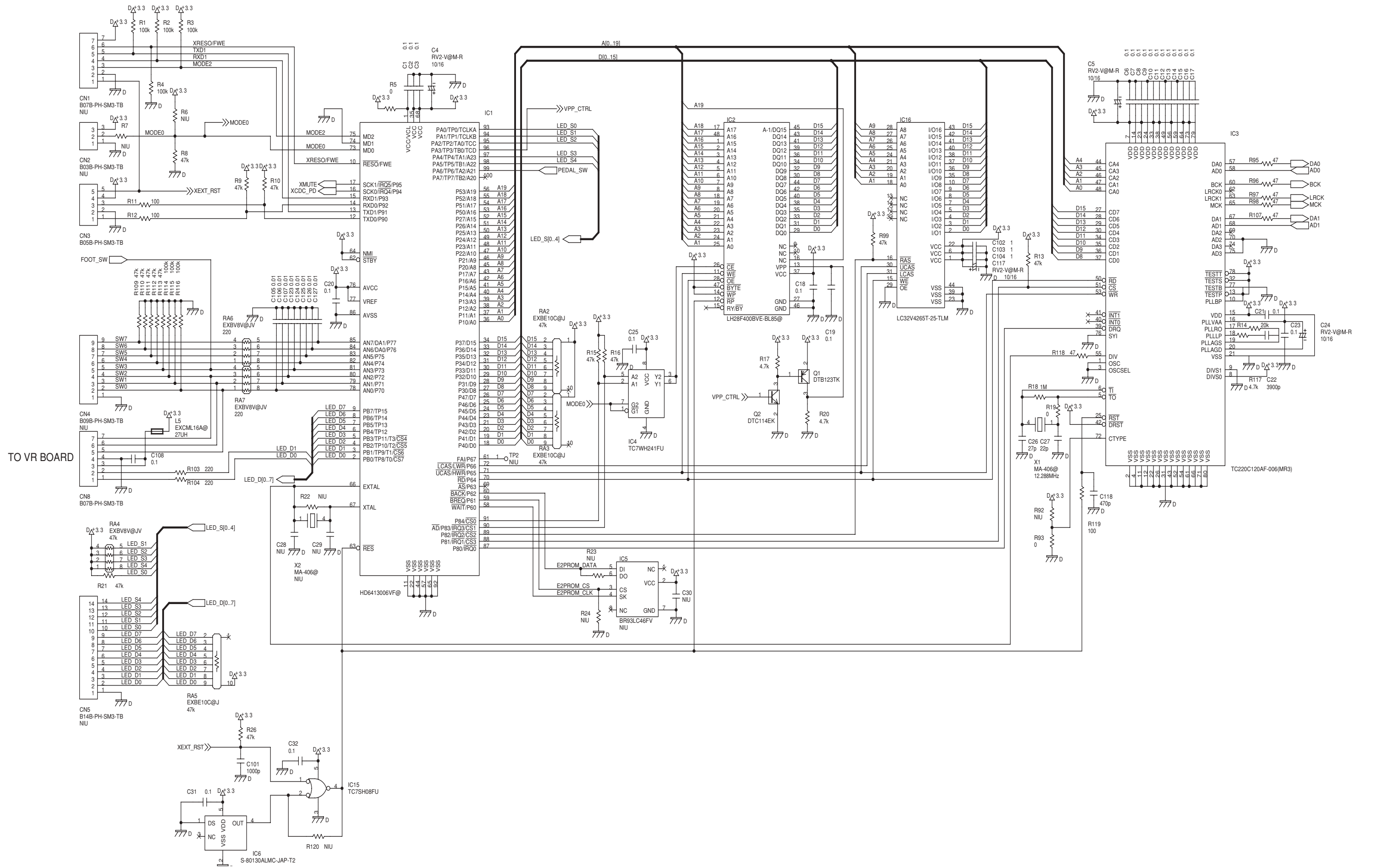


View from component side.

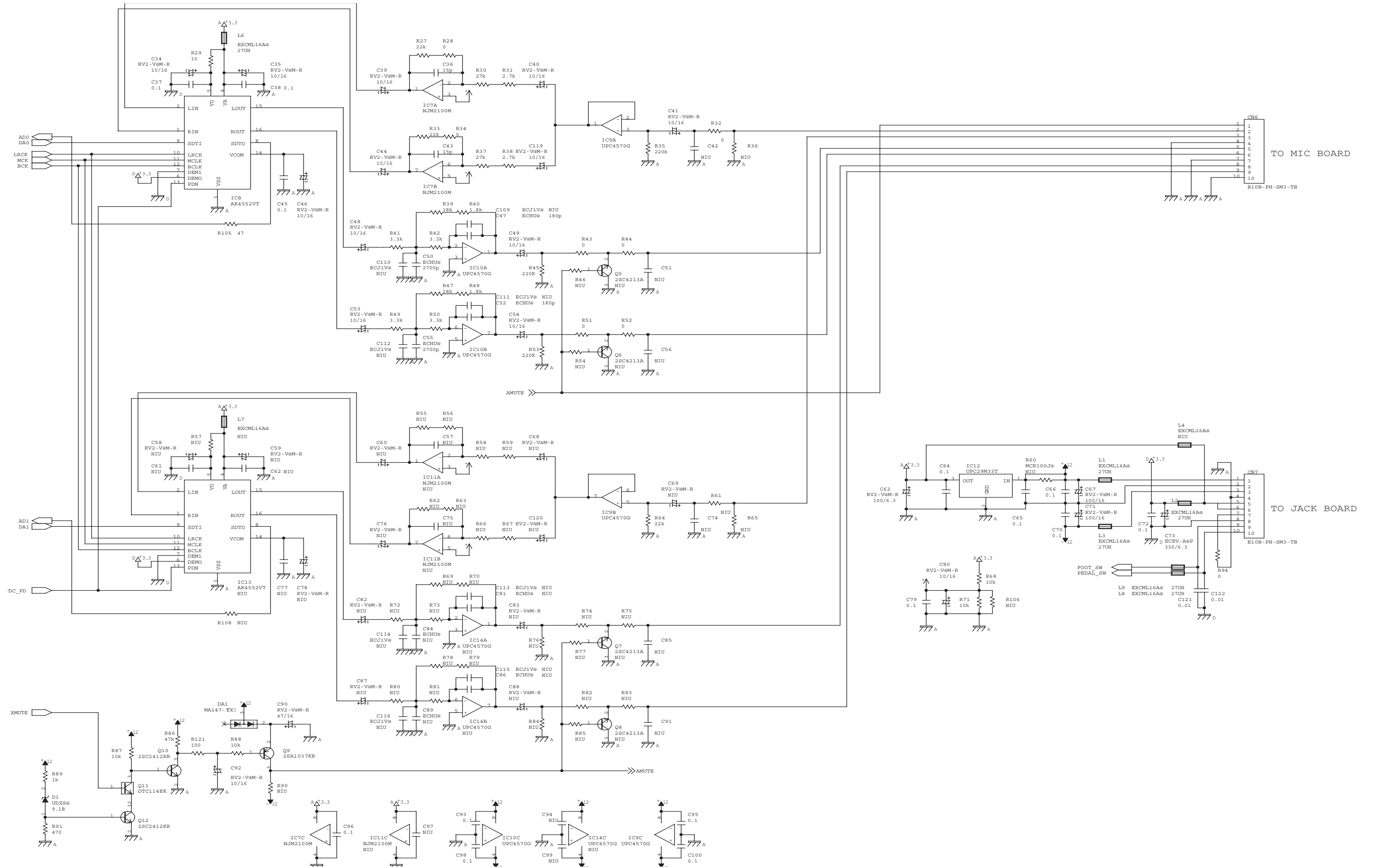


View from foil side.

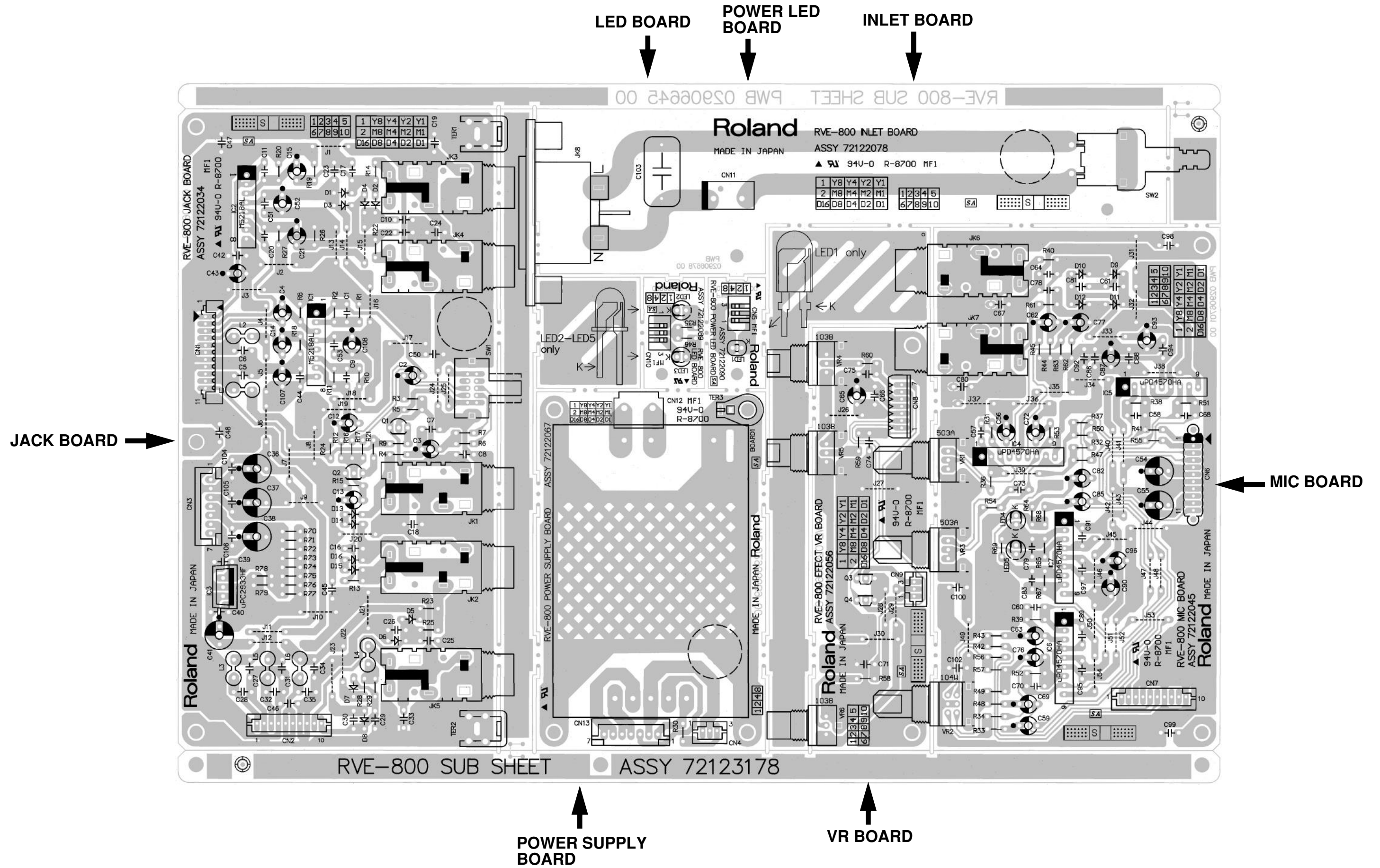
CIRCUIT DIAGRAM(EFFECT BOARD 1)



CIRCUIT DIAGRAM(EFFECT BOARD2)

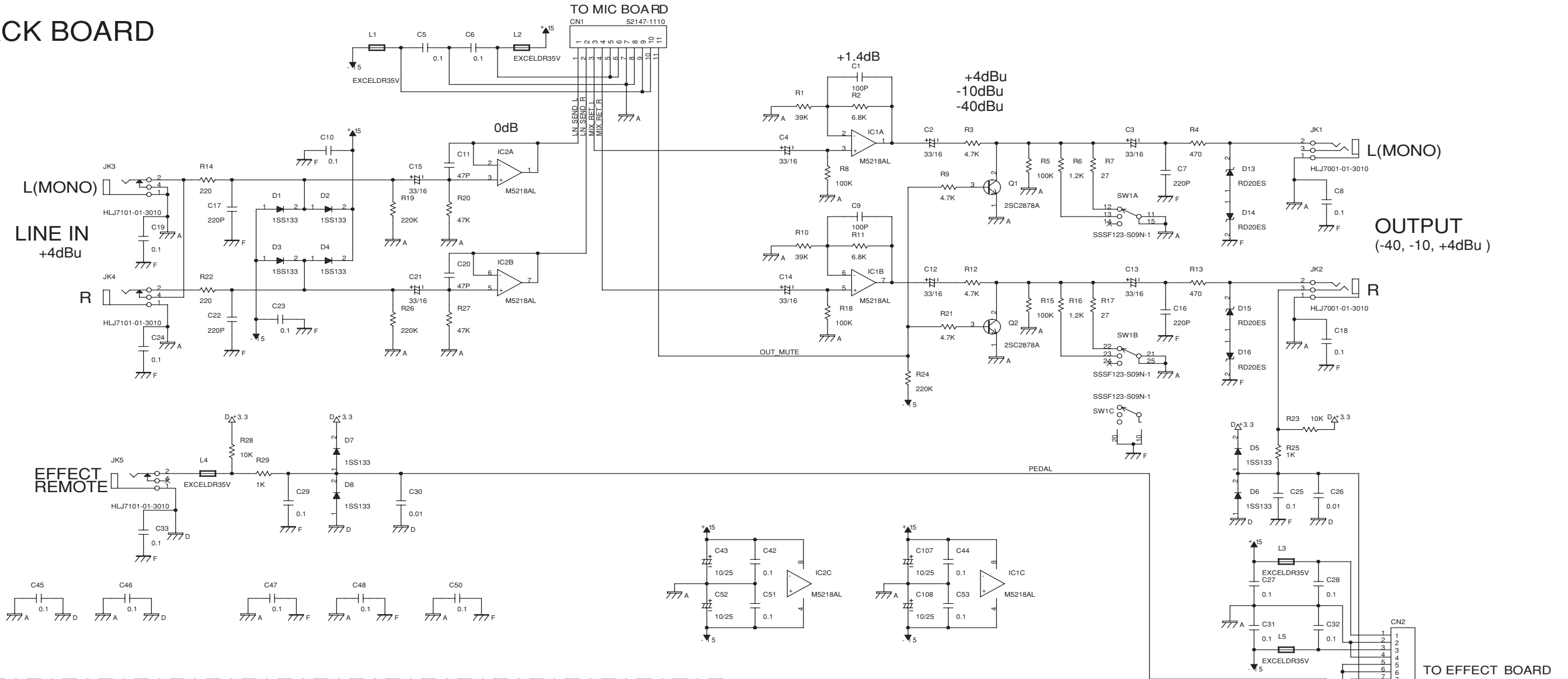


CIRCUIT BOARD(JACK,INLET,POWER SUPPLY,POWER LED, MIC,VR,LED BOARD)

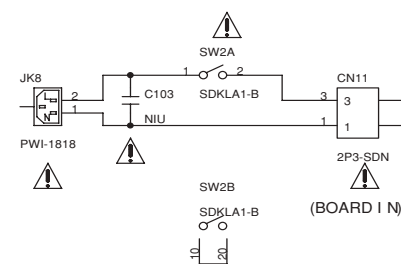


CIRCUIT DIAGRAM(JACK,INLET,POWER SUPPLY,POWER LED BOARD)

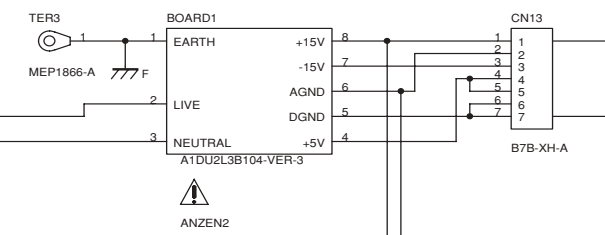
JACK BOARD



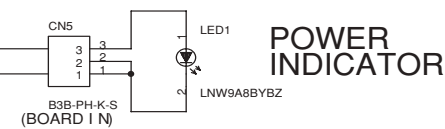
INLET BOARD



POWER SUPPLY BOARD

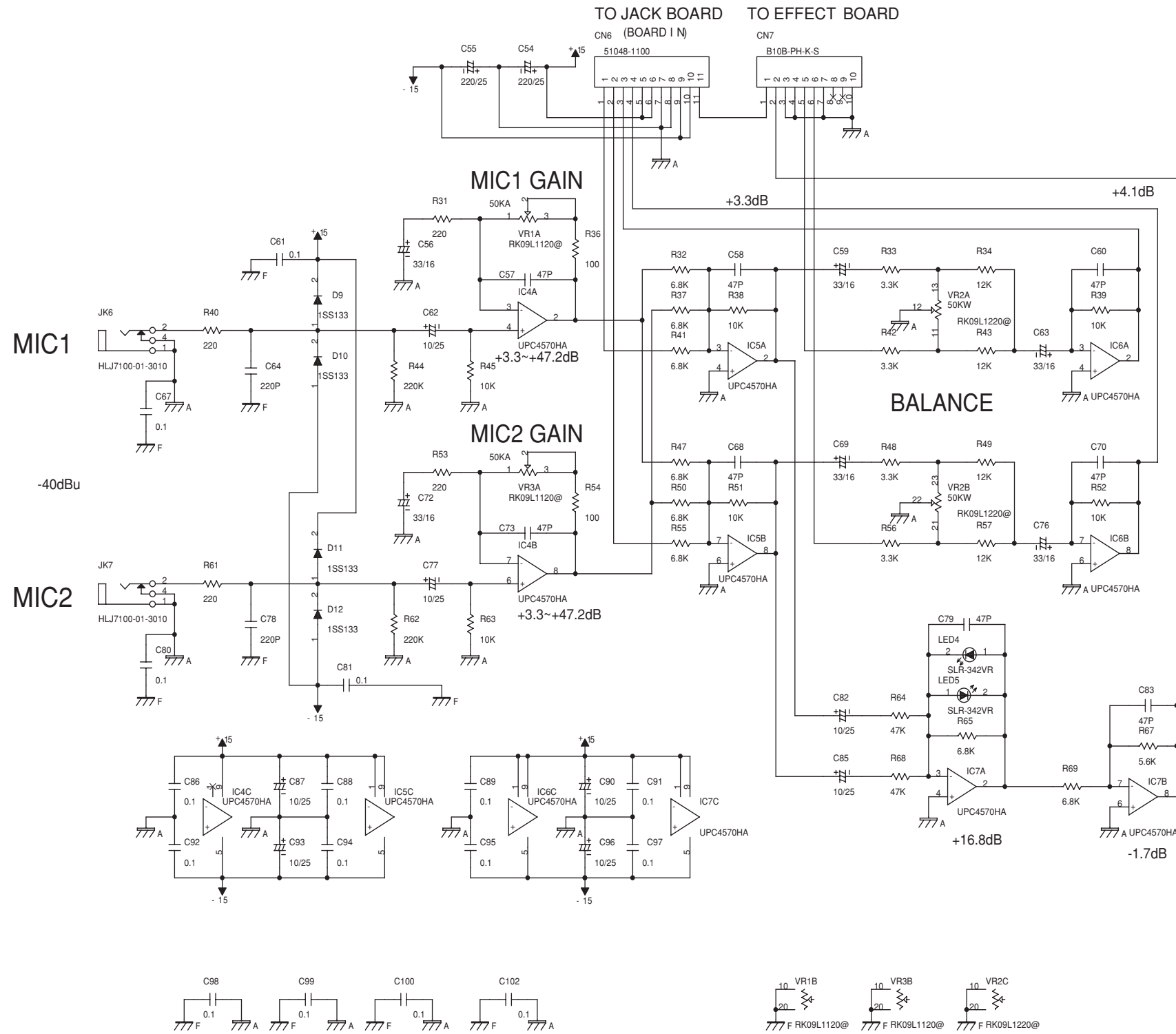


POWER LED BOARD

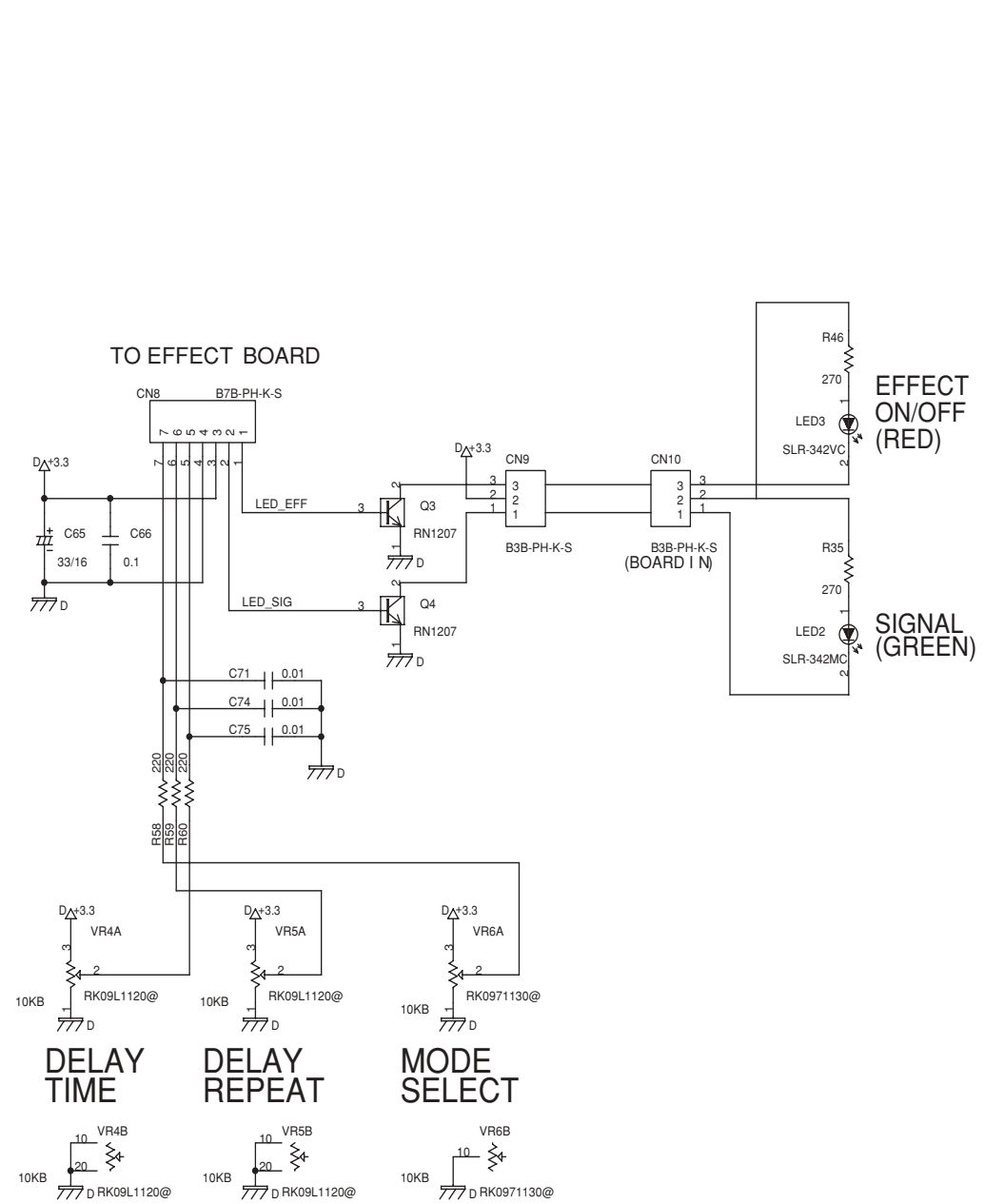


CIRCUIT DIAGRAM(MIC,VR,LED BOARD)

MIC BOARD



VR BOARD



LED BOARD