EMX66M
POWERED MIXER

SERVICE MANUAL

EMX66M

• OPTION
RK-88 RACK MOUNT KIT

■ **CONTENTS**

PA 011626

EMX66M 20020325-75000
RK88 20020325-2500

YAMAHA
HAMAMATSU, JAPAN
1,387K-2101FT Ⓘ Printed in Japan 2002.03

IMPORTANT NOTICE

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

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

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

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

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

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

WARNING: CHEMICAL CONTENT NOTICE!

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

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

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

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

IMPORTANT NOTICE FOR THE UNITED KINGDOM

Connecting the Plug and Cord

WARNING: THIS APPARATUS MUST BE EARTHED

IMPORTANT: The wires in this main lead are coloured in accordance with the following code:

GREEN-AND-YELLOW: EARTH

BLUE: NEUTRAL

BROWN: LIVE

As the colours of the wires in the main lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The GREEN-and-YELLOW wire must be connected to the terminal in the plug that is marked with the letter E or the safety earth symbol (or coloured GREEN or GREEN-and-YELLOW).

The BLUE wire must be connected to the terminal that is marked with the letter N (or coloured BLACK).

The BROWN wire must be connected to the terminal that is marked with the letter L (or coloured RED).

This applies only to products distributed by Yamaha Kemble Music (U. K.) Ltd.

■ WARNING

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

SPECIFICATIONS

● General specifications

Maximum output power	300 W + 300 W/4Ω @0.5% THD at 1 kHz (SPEAKERS OUT A, B) 205 W + 205 W/8Ω @0.5% THD at 1 kHz (SPEAKERS OUT A, B) 600 W/8Ω @0.5% THD at 1 kHz (BRIDGE)	
Frequency response	20 Hz–20 kHz +1 dB, –3 dB @1 W output into 8Ω (SPEAKERS OUT) 20 Hz–20 kHz +1 dB, –3 dB @+4 dB output into 10 kΩ (MAIN OUT, MONITOR OUT, EFFECT SEND)	
Total harmonic distortion	Less than 0.5% @20 Hz–20 kHz, 150 W output into 4Ω (SPEAKERS OUT A, B) Less than 0.3% @20 Hz–20 kHz, +14 dB output into 10 kΩ (MAIN OUT, MONITOR OUT, EFFECT OUT)	
Hum & noise (Average, Rs=150Ω) (with 20 Hz–20 kHz BPF)	–124 dB equivalent input noise, –65 dB residual output noise (SPEAKERS OUT)	
	–88 dB residual output noise (MAIN OUT, MONITOR OUT)	
	–79 dB (83 dB S/N) MAIN OUT, MONITOR OUT	Master level control at nominal level and all channel level controls at minimum.
	–69 dB (73 dB S/N) MAIN OUT, MONITOR OUT	Master level control at nominal level and 1 channel level control at nominal level.
	–75 dB (79 dB S/N) EFFECT SEND	All channel level controls at minimum.
	–69 dB (73 dB S/N) EFFECT SEND	1 channel level control at nominal level.
Maximum voltage gain	88 dB CH IN (Low-Z) to SPEAKERS OUT (CH1–4) 66 dB CH IN (Low-Z) to MAIN OUT, MONITOR OUT (CH1–4) 72 dB CH IN (Low-Z) to EFFECT OUT (CH1–4) 48 dB CH IN (Low-Z) to REC OUT (CH1–4) 56 dB CH IN (Hi-Z) to MAIN OUT, MONITOR OUT (CH1–4) 26 dB AUX IN to MAIN OUT 24 dB 2TR IN to MAIN OUT 66 dB MIC IN to MAIN OUT, MONITOR OUT (CH5•6) 26 dB LINE IN to MAIN OUT, MONITOR OUT (CH5) 46 dB Super Hi-Z IN to MAIN OUT, MONITOR OUT (CH6)	
Crosstalk at 1 kHz	65 dB adjacent input, 65 dB input to output	
Input channel equalization	±15 dB Maximum HIGH 10 kHz shelving* MID 2.5 kHz peaking LOW 100 Hz shelving* *Turn over/roll-off frequency of shelving: 3 dB below maximum variable level.	
Meters	5 POINTS LED METER (–10, –5, 0, +3, +6 dB) (MAIN OUT, MONITOR OUT)	
Graphic equalizer	7 bands (125, 250, 500, 1 k, 2 k, 4 k, 8 kHz), ±12 dB Maximum (MAIN OUT, MONITOR OUT)	
Internal digital effect	8 programs (VO.ECHO 1, VO.ECHO 2, VO.REVERB 1, VO.REVERB 2, HALL 1, HALL 2, ROOM, PLATE)	
Phantom power	+15 V is supplied to electrically balanced inputs for powering condenser microphones via 2.4 kΩ current limiting/isolation resisters.	
Limiter	Comp. : THD≥0.5% (SPEAKERS OUT)	
LIMIT indicators	Turns on. : THD≥0.5% (SPEAKERS OUT)	
Protection Circuit (Power Amp.)	POWER Switch on/off Mute, DC Detection, Temp (Heatsink Temp≥90˚C)	
Foot switch (FC5)	DIGITAL EFFECT MUTE : on/off	
Optional accessories	RK-88, FC5	
Power requirement/Power consumption	USA and Canada 120 V AC 60 Hz/250 W Europe 230 V AC 50 Hz/300 W Other 240 V AC 50 Hz/300 W	
Dimensions (WxHxD)	482 x 305 x 328 mm	
Weight	15 kg	
Supplied accessories	AC power cord, Owner's Manual	

- 0 dB=0.775 Vrms

● Input specificaitons

Input connectors	PAD	Actual load impedance	Nominal impedance	Input level			Connector type
				Sensitivity[1]	Nominal level	Max. before cliping	
CH INPUT (Low-Z) (CH1–4)	OFF	3 kΩ	50–600Ω Mics	–62 dB (0.616 mV)	–50 dB (2.45 mV)	–20 dB (77.5 mV)	XLR-3-31 type[2]
	ON		600Ω Lines	–32 dB (19.5 mV)	–20 dB (77.5 mV)	+10 dB (2.45 V)	
CH INPUT (Hi-Z) (CH1–4)	OFF	10 kΩ	50–600Ω Mics	–52 dB (1.95 mV)	–40 dB (7.75 mV)	–10 dB (245 mV)	Phone jack (TRS)[2]
	ON		600Ω Lines	–22 dB (61.6 mV)	–10 dB (245 mV)	+20 dB (7.75 V)	
MIC INPUT (CH5•6)		3 kΩ	50–600Ω Mics	–62 dB (0.616 mV)	–50 dB (2.45 mV)	–20 dB (77.5 mV)	XLR-3-31 type[2]
LINE INPUT (CH5) (1, 2)		10 kΩ	600Ω Lines	–22 dB (61.6 mV)	–10 dB (245 mV)	+20 dB (7.75 V)	Phone jack[3]
Super Hi-Z (CH6) (1, 2)		470 kΩ	1 kΩ	–42 dB (6.16 mV)	–30 dB (24.5 mV)	0 dB (0.775 V)	Phone jack[3]
AUX IN		10 kΩ	600Ω Lines	–22 dB (61.6 mV)	–10 dB (245 mV)	+20 dB (7.75 V)	Phone jack[3]
2TR IN (1, 2)		10 kΩ	600Ω Lines	–22 dBV (79.4 mV)	–10 dBV (316 mV)	+17.8 dBV (7.76 V)	RCA phono jack[3]

1. Sensitivity is the lowest level that can produce an output of +4 dB (1.23 V) or the nominal output level when the unit is set at maximum gain. (All level controls are at maximum position.)
2. Balanced
3. Unbalanced

• 0 dB=0.775 Vrms, 0 dBV=1 Vrms.

● Output specificaitons

Output connectors	Actual source impedance	Nominal impedance	Output level		Connector type
			Nominal	Max. before cliping	
POWER AMP OUT (1•2) (A, B)	0.1Ω	4/8Ω Speaker	60 W/4Ω	(300 W/4Ω)	Phone jack
BRIDGE OUT	0.1Ω	8Ω Speaker	120 W/8Ω	(600 W/8Ω)	Phone jack
MAIN OUT	600Ω	10 kΩ Lines	+4 dB (1.23 V)	+20 dB (7.75 V)	Phone jack
MONITOR OUT	600Ω	10 kΩ Lines	+4 dB (1.23 V)	+20 dB (7.75 V)	Phone jack
EFFECT OUT	600Ω	10 kΩ Lines	+4 dB (1.23 V)	+20 dB (7.75 V)	Phone jack
REC OUT (1, 2)	600Ω	10 kΩ Lines	–10 dBV (316 mV)	+10 dBV (3.16 V)	RCA phono jack

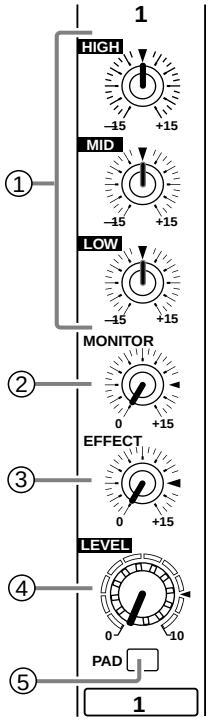
• All output jacks are unbalanced.
• 0 dB=0.775 Vrms, 0 dBV=1 Vrms.

■ PANEL LAYOUT

● CONTROL PANEL

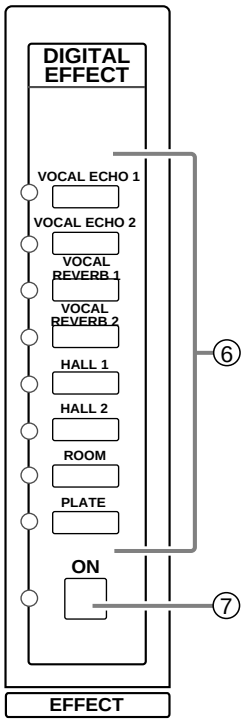
1. CONTROL SECTION

• Channel Control



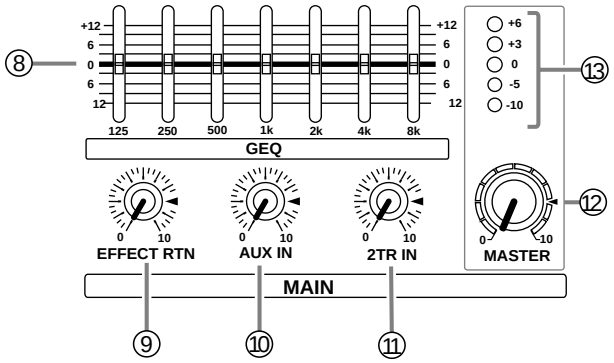
① Equalizer (HIGH, MID, LOW)
② MONITOR control
③ EFFECT control
④ LEVEL control
⑤ PAD switch (CH1-4)

• Digital Effect



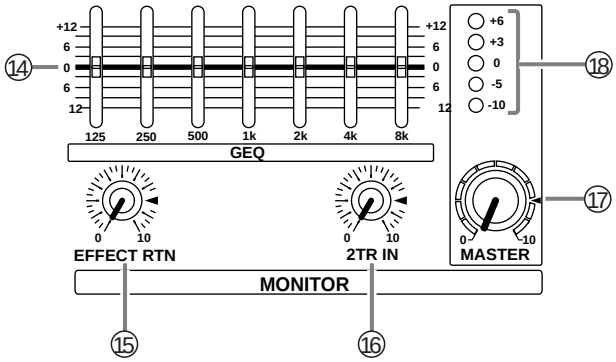
⑥ EFFECT select switch
⑦ ON switch, indicator

• MAIN



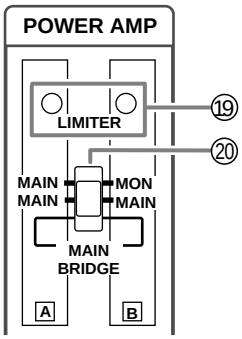
⑧ Graphic Equalizer
⑨ EFFECT RTN control
⑩ AUX IN control
⑪ 2TR IN control
⑫ MASTER control
⑬ Peak Level Indicator

• MONITOR



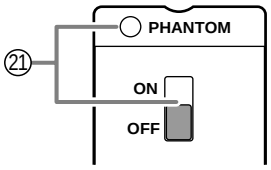
⑭ Graphic Equalizer
⑮ EFFECT RTN control
⑯ 2TR IN control
⑰ MASTER control
⑱ Peak Level Indicator

• POWER AMP



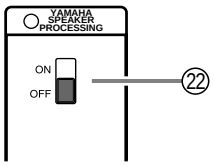
⑲ LIMITER indicator
⑳ POWER AMP select switch

• PHANTOM switch, indicator



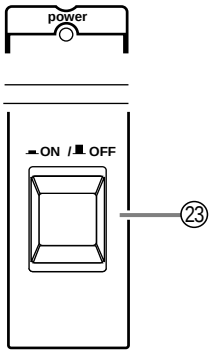
㉑ PHANTOM ON/OFF switch, indicator

• YAMAHA SPEAKER PROCESSING



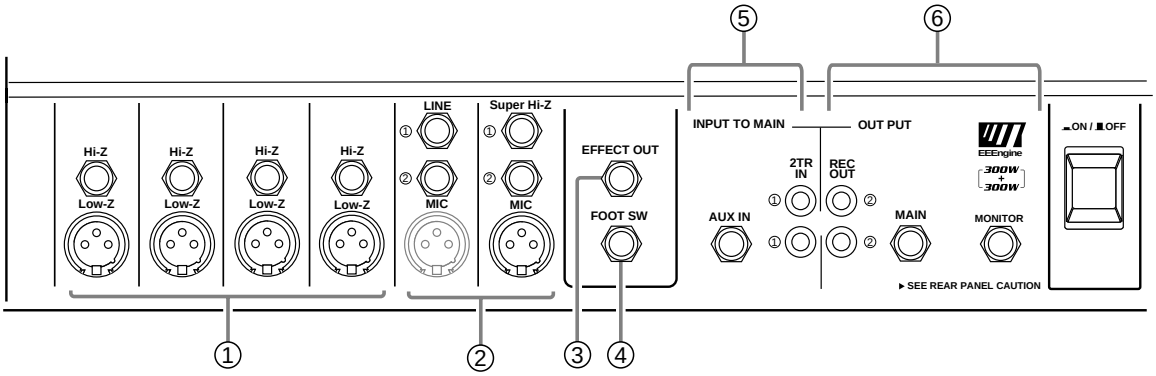
㉒ ON/OFF switchÅ@

• POWER switch, indicator



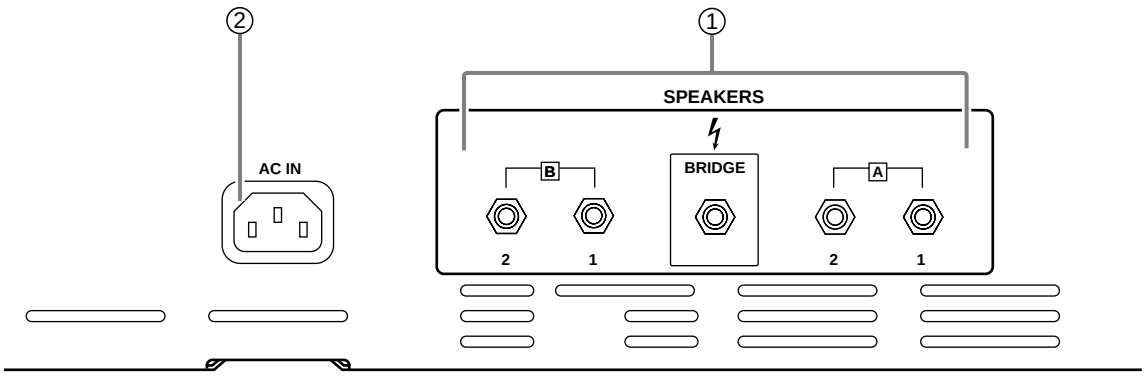
㉓ POWER ON/OFF switch, indicator

2. INPUT/OUTPUT SECTION



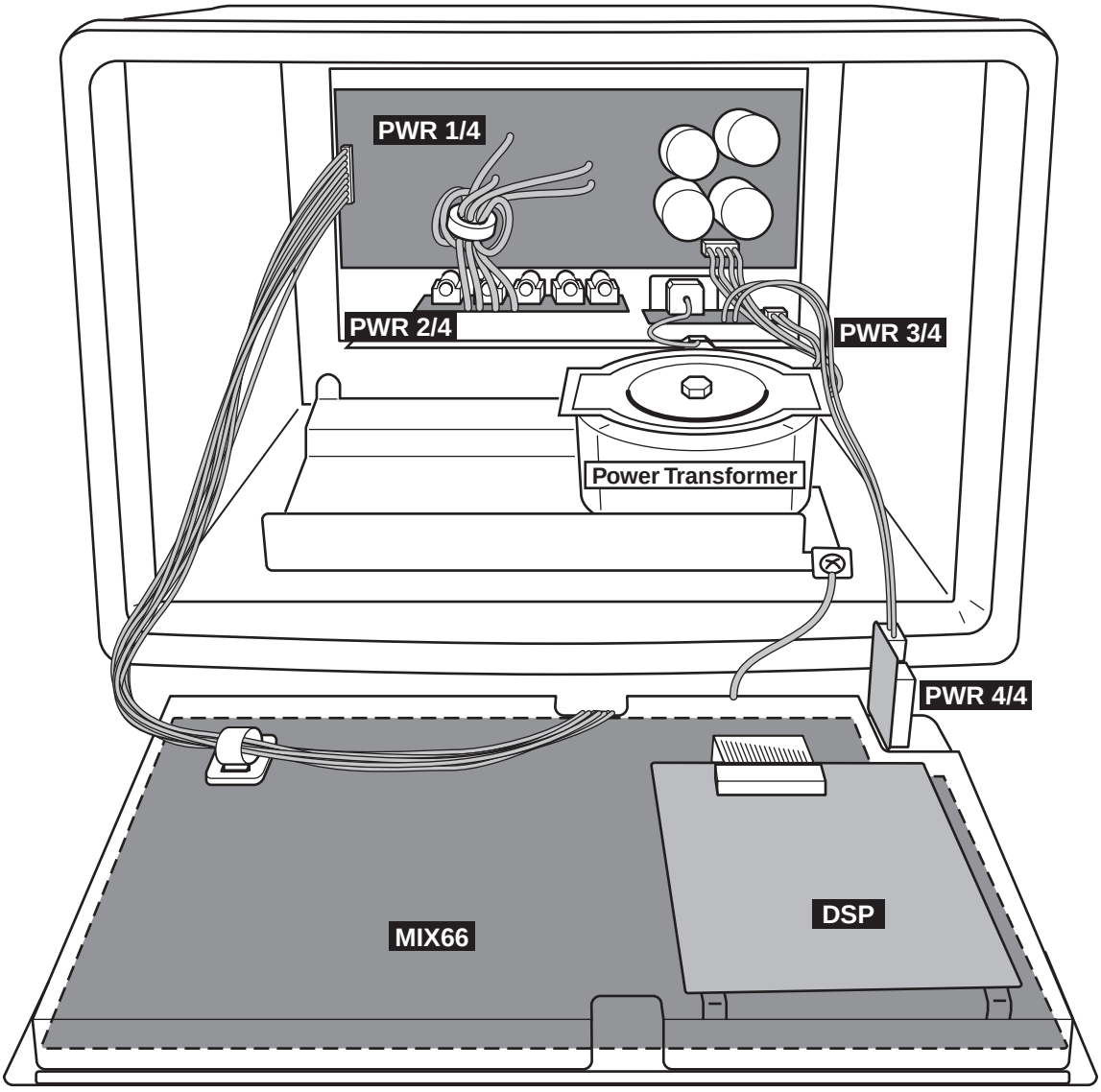
① INPUT terminal (Hi-Z, Low-Z) (CH1-4)
② INPUT terminal (LINE, MIC, Super Hi-Z) (CH5-6)
③ EFFECT OUT terminal
④ FOOT SW terminal
⑤ INPUT TO MAIN terminal (AUX IN, 2TR IN)
⑥ OUTPUT terminal (REC OUT, MAIN, MONITOR)

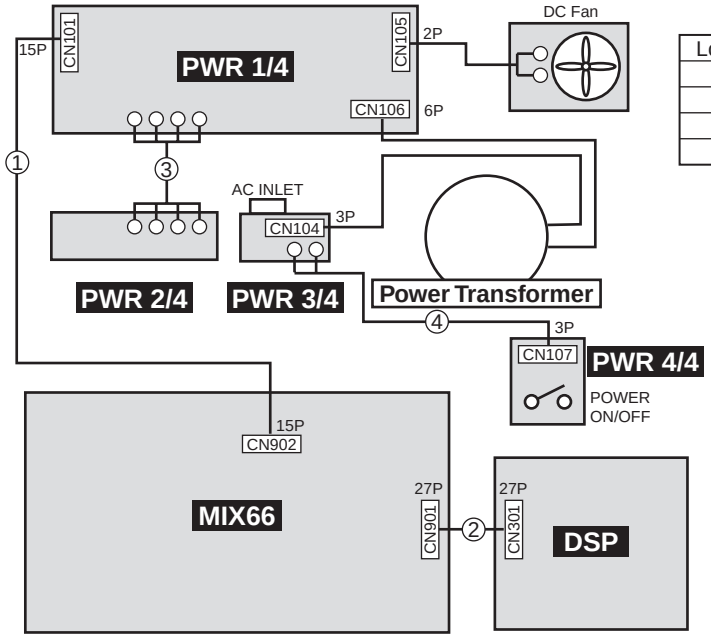
● REAR PANEL



① SPEAKERS terminal
② AC IN socket

■ CIRCUIT BOARD LAYOUT & WIRING



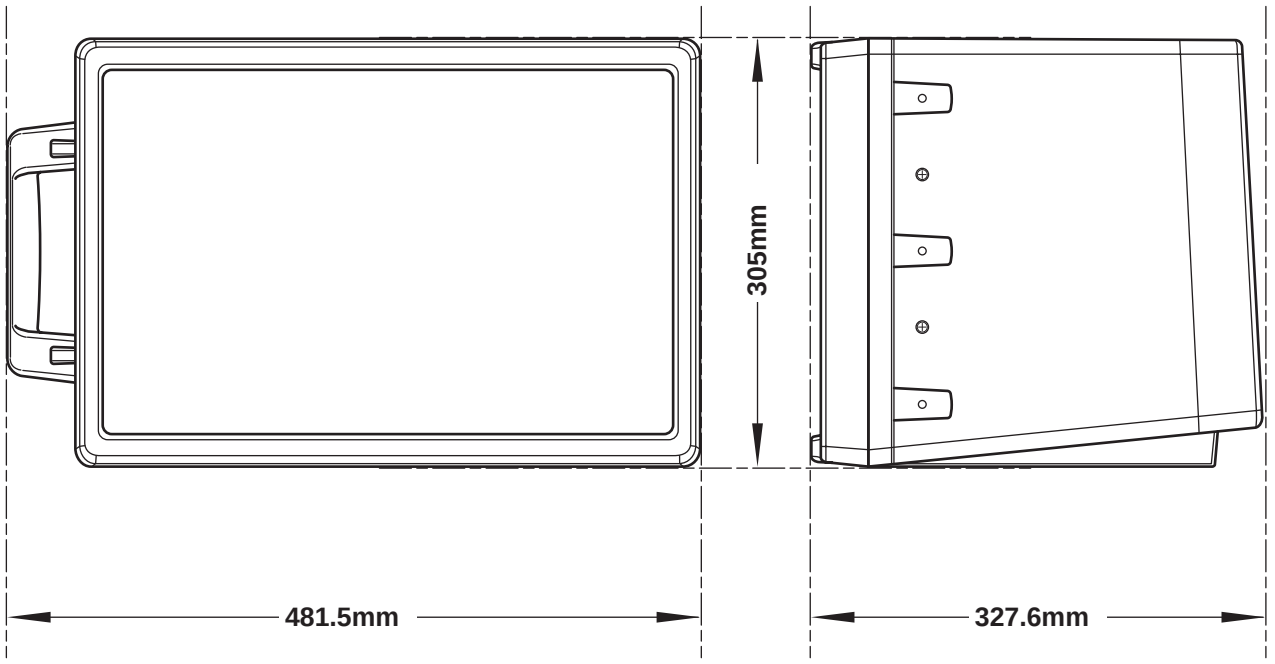


Location	Connector Assembly	Remarks	Parts No.
1	MIX66-PWR1/4	24185&2426 15P L=700	V842620
2	MIX66-DSP	100mm P=1.25	MF12710
3	PWR1/4-PWR2/4	B&B4P	(V827270)
4	PWR3/4-PWR4/4	PSW	V827290

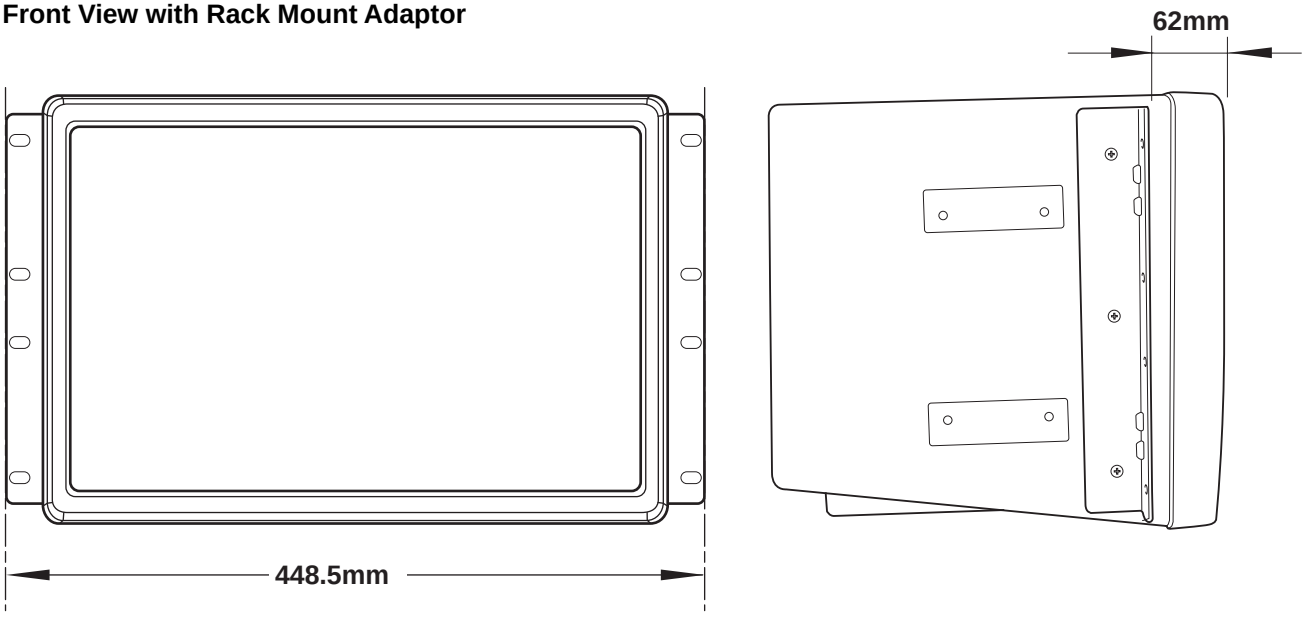
DIMENSIONS

● **Front View**

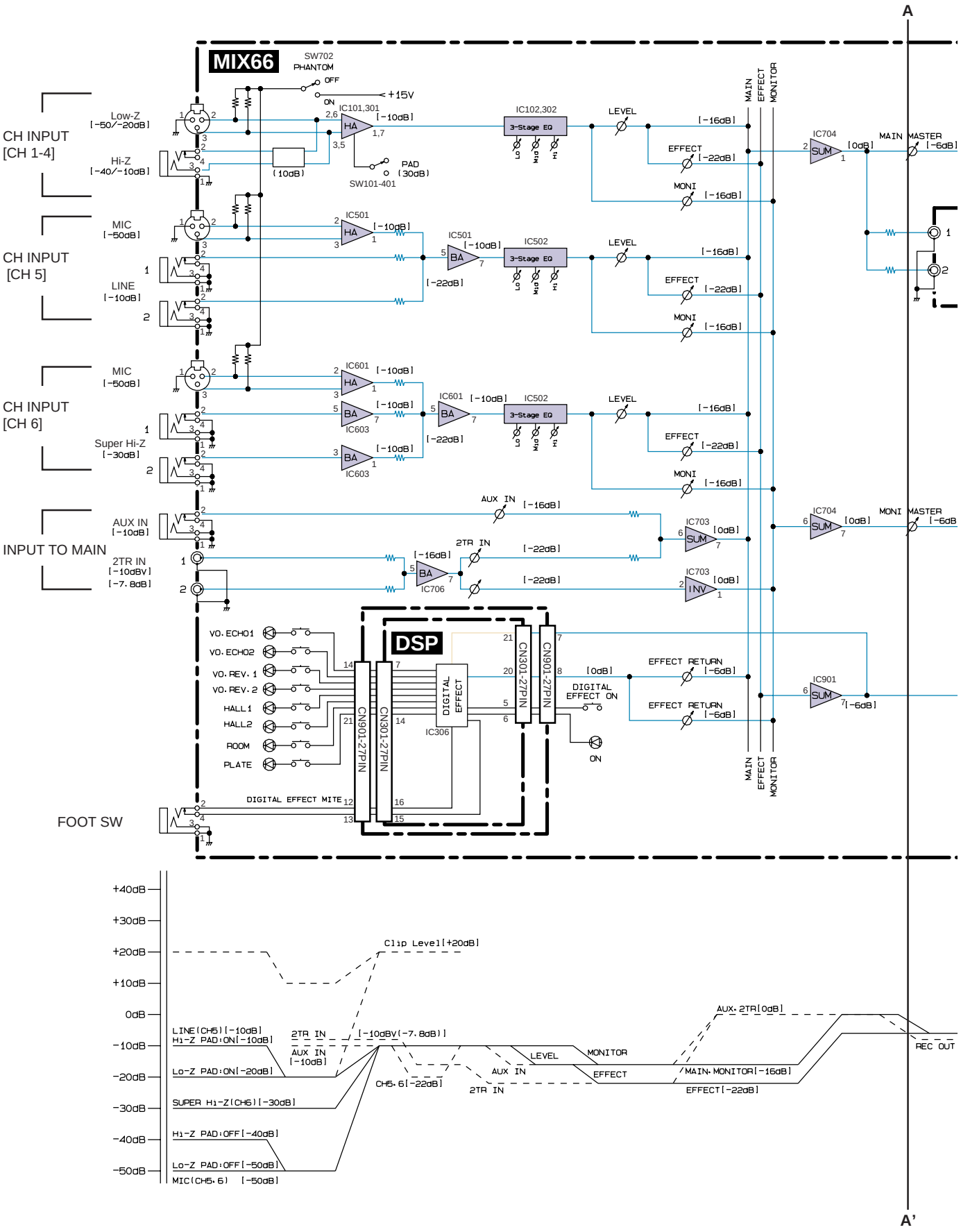
● **Side View**

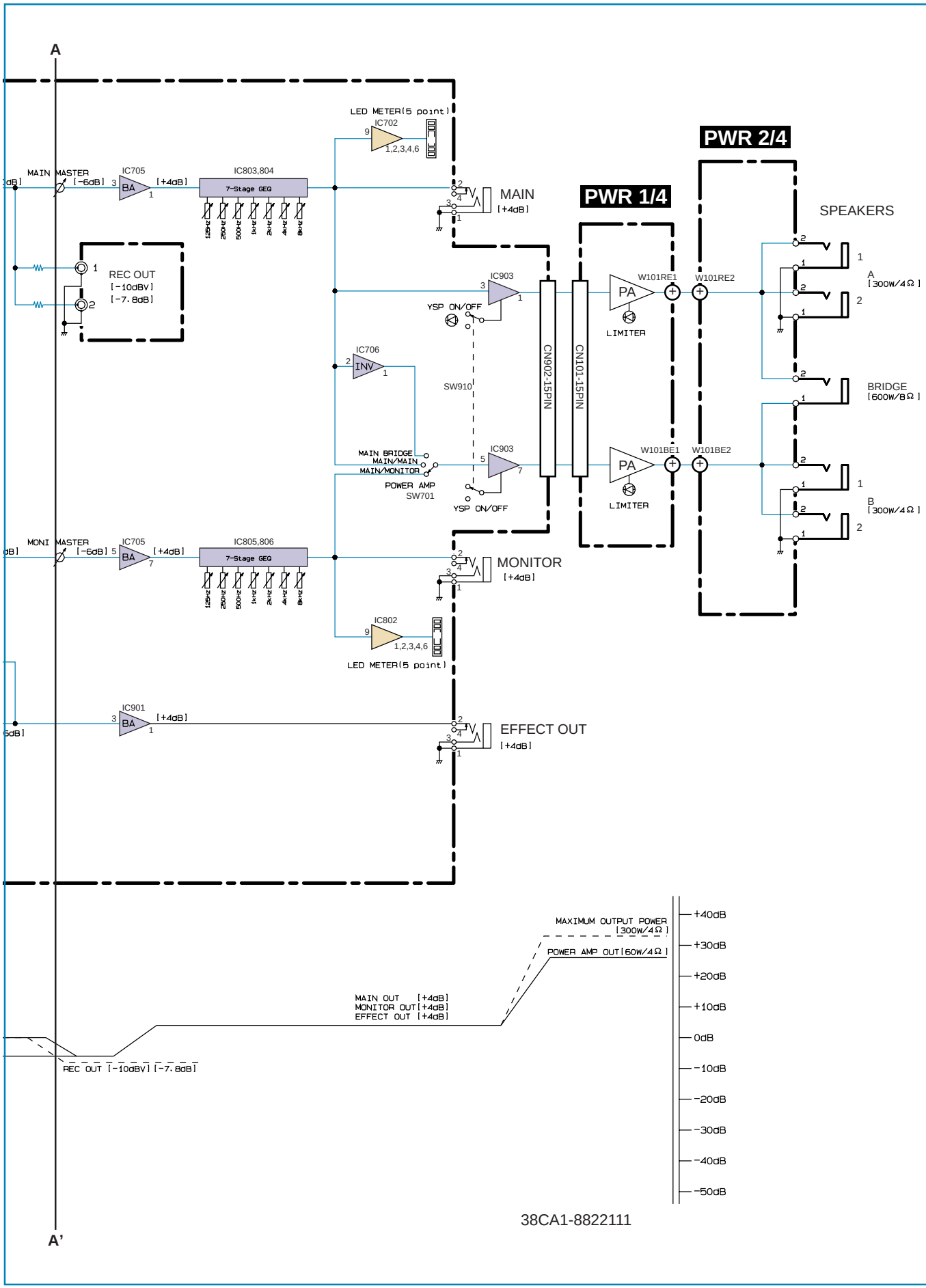


● **Front View with Rack Mount Adaptor**



■ BLOCK & LEVEL DIAGRAM





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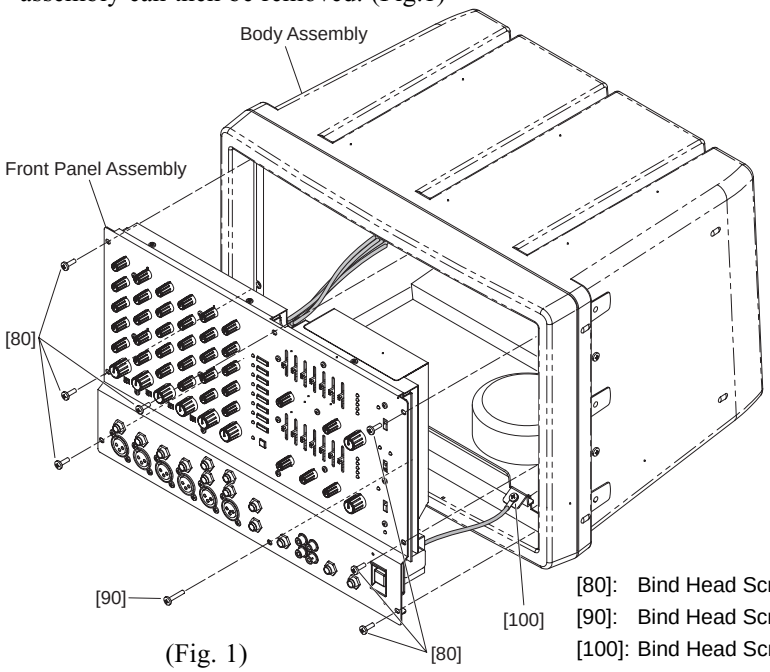
■ DISASSEMBLY PROCEDURE

1. Front Panel Assembly
(Time required: about 3 min)

1-1. Remove the seven (7) screws marked [80] and the screw marked [90]. (Fig.1)
1-2. Hold volume knobs and pull the panel to the front. (Fig.1)
1-3. Remove the screw marked [100]. The front panel assembly can then be removed. (Fig.1)

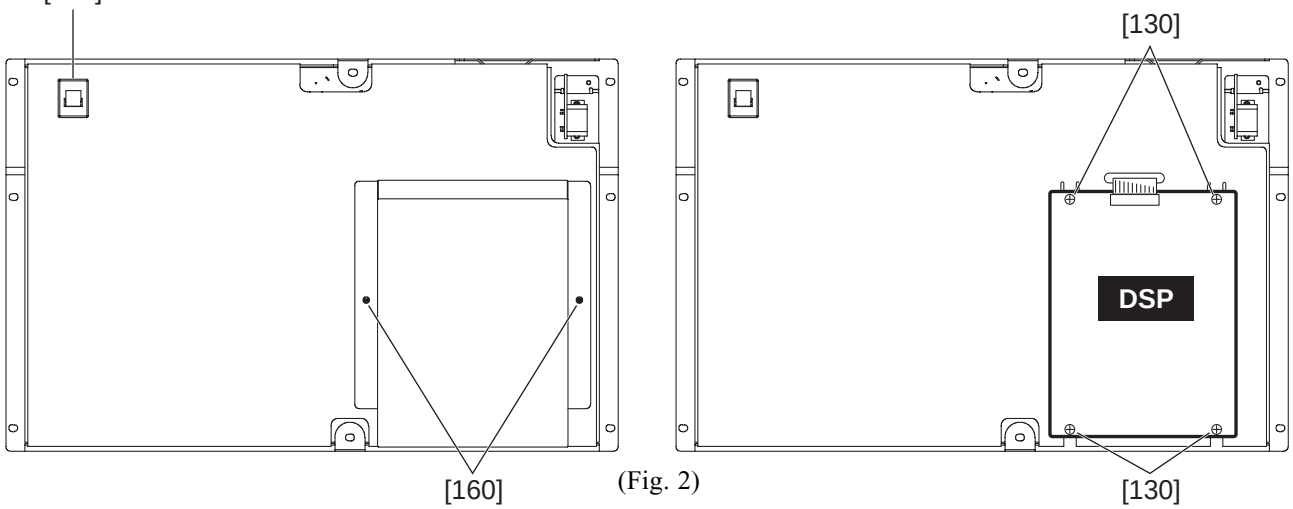


(Fig. 1)

[80]: Bind Head Screw 4.0X12 MFZN2BL (VB132700)
[90]: Bind Head Screw 4.0X20 MFZN2BL (VB403600)
[100]: Bind Head Screw A4.0X8 MFZN2BL (VP156800)

2. DSP-ZFX Circuit Board
(Time required: about 4 min)

2-1. Remove the front panel assembly. (See Procedure 1)
2-2. Remove the two (2) screws marked [160] to remove the shield case. (Fig.2)
2-3. Remove the four (4) screws marked [130]. The DSP-ZFX circuit board can then be removed. (Fig.2)



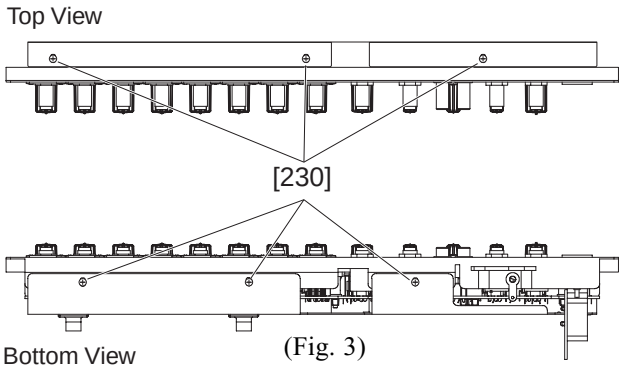
(Fig. 2)

[130]: Bind Head Tapping Screw-B 3.0X6 MFZN2BL (EP600230)
[160]: Bind Head Tapping Screw-B 3.0X6 MFZN2BL (EP600230)
[240]: Cord Binder TS-0708 KSS (VZ765100)

3. MIX66 Circuit Board
(Time required: about 18 min)

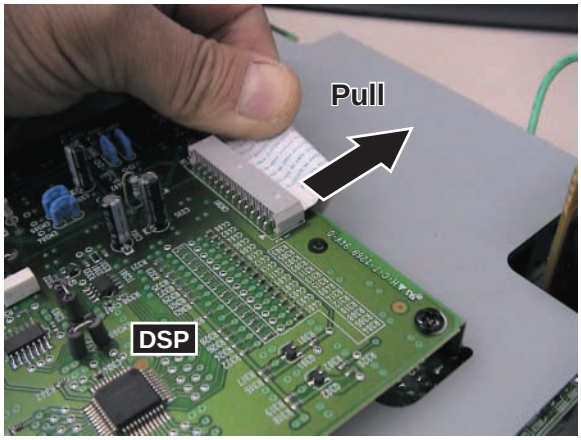
3-1. Remove the front panel assembly. (See Procedure 1)
3-2. Remove the cable from the cord binder marked [240]. (Fig.2)
3-3. Remove the shield case. (See Procedure 2-2)
3-4. Pull out the connector assembly from CN301 on the DSP-ZFX circuit board. (Fig.4)
3-5. Remove the six (6) screws marked [230] to remove the shield plate. (Fig.3)
3-6. Remove the fifteen (15) screws marked [40], the thirteen (13) screws marked [41], and the thirteen (13) hexagonal nuts marked [A]. (Fig.5)
3-7. Remove the eighteen (18) knobs marked [50], eight (8) knobs marked [60], the nine (9) knobs marked [70], and the eight (8) knobs marked [80]. The mix66 circuit board can then be removed. (Fig.5)

Note: When placing the front panel assembly on the table, take care not to weight the PWR circuit board 4/4. (Fig.6)

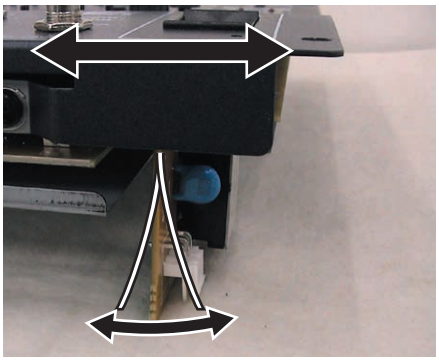


(Fig. 3)

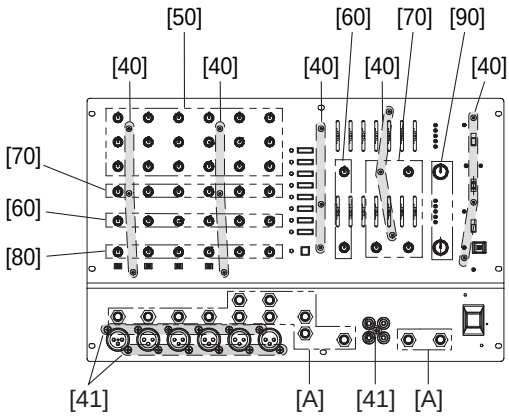
[230] Head Tapping Screw-B 3.0X6 MFZN2BL (EP600230)



(Fig. 4)



(Fig. 6)

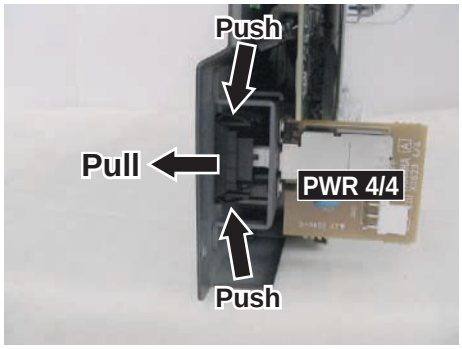


(Fig. 5)

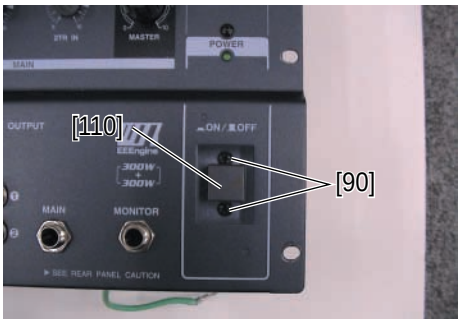
[40]: Screw 3X25 MFZNBL (V3289800)
[41]: Bonding Tapping Screw-B 3.0X8 MFZN2BL (VN413300)
[50]: Knob GREEN/M-GRAY (V6225300)
[60]: Knob L-GRAY/M-GRAY (V6225600)
[70]: Knob BLUE/M-GRAY (V6225400)
[80]: Knob L-GRAY/D-GRAY (V6225700)
[90]: Bind Head Screw 3.0X8 MFZN2BL (VB659000)

4. PWR Circuit Board 4/4
(Time required: about 4 min)

4-1. Remove the front panel assembly. (See Procedure 1)
4-2. Pinch slightly the stopper of the power switch escutcheon with a plyer, and pull it to the front to remove. (Fig.7-1)
4-3. Remove the two (2) screws marked [90]. (Fig.7-2)
4-4. Remove the power switch knob marked [110]. The PWR circuit board 4/4 can then be removed. (Fig.7-2)



(Fig. 7-1)



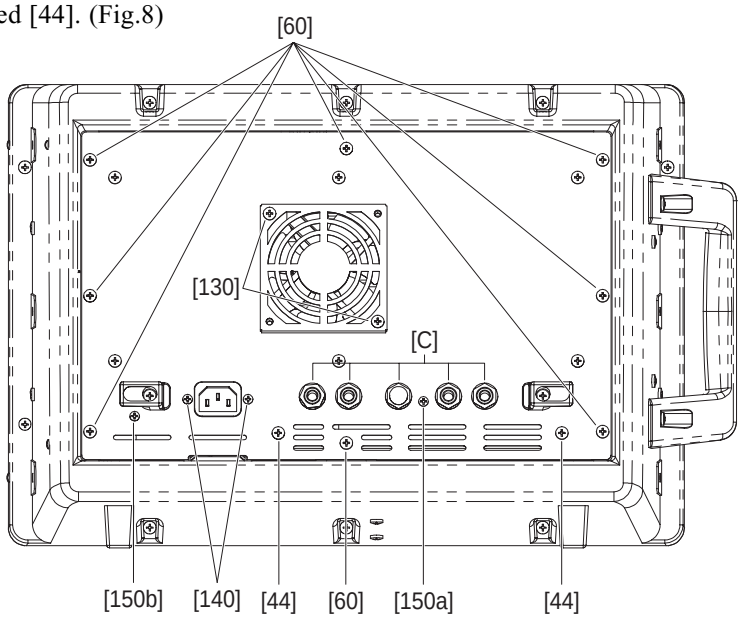
(Fig. 7-2)

[90]: Bind Head Screw 3.0X8 MFZN2BL (VB659000)

[110]: Power Switch Knob MX12/4 (VU859000)

5. Rear Panel Assembly
(Time required: about 2 min)

5-1. Remove the front panel assembly. (See Procedure 1)
5-2. Remove the eight (8) screws marked [60] and the two (2) screws marked [44]. (Fig.8)

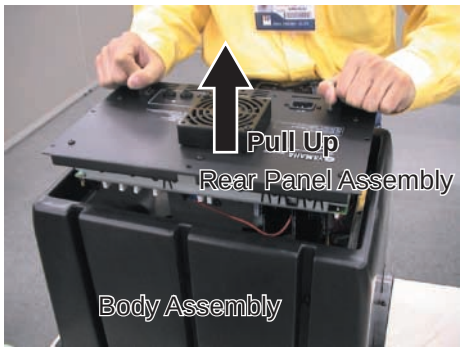


(Fig. 8)

[44]: Bind Head Tapping Screw-B 4.0X8 MFZN2BL (EG340190)
[60]: Bind Head Screw 4.0X12 MFZN2BL (VB132700)
[130]: Bind Head Screw 4.0X30 MFZN2BL (VT229100)
[140]: Bind Head Tapping Screw-B 3.0X12 MFZN2BL (VQ074600)
[150]: Bonding Head Tapping Screw-B 3.0X8 MFZN2BL (VN413300)

5-3. Hold the cord holder and pull the rear panel to the front to remove. (Fig.9)

Note: When reinstalling, install the rear panel assembly and the front panel assembly in that order to connect the power supply connector easily.



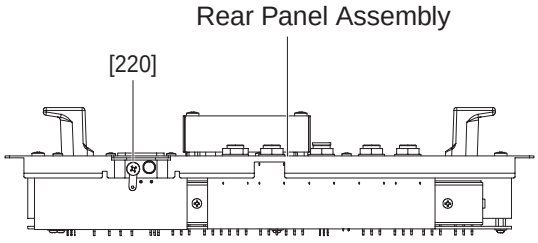
(Fig. 9)

6. PWR Circuit Board 2/4
(Time required: about 4 min)

6-1. Remove the rear panel assembly. (See Procedure 5)
6-2. Remove the screw marked [150a] and the five (5) hexagonal nuts marked [C]. The PWR circuit board 2/4 can then be removed. (Fig.8)

7. PWR Circuit Board 3/4
(Time required: about 3 min)

7-1. Remove the rear panel assembly. (See Procedure 5)
7-2. Remove the two (2) screws marked [140] and the screw marked [150b]. (Fig.8)
7-3. Remove the screw marked [220]. The PWR circuit board 3/4 can then be removed. (Fig.10)

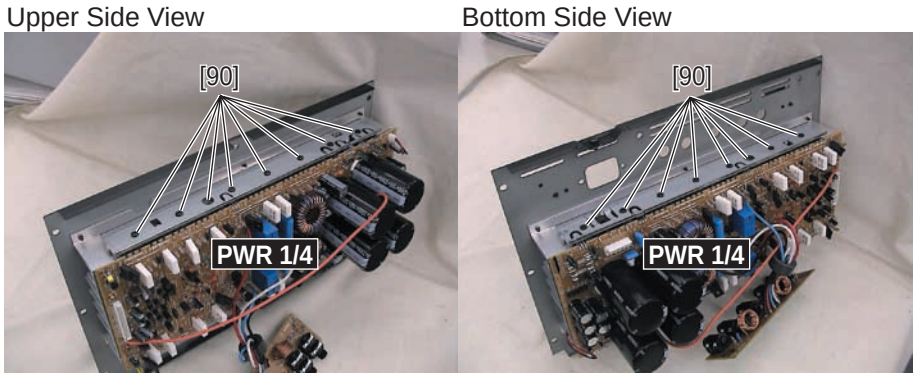


(Fig. 10)

[220]: Bind Head Screw A4.0X6 MFZN2BL (VP156800)

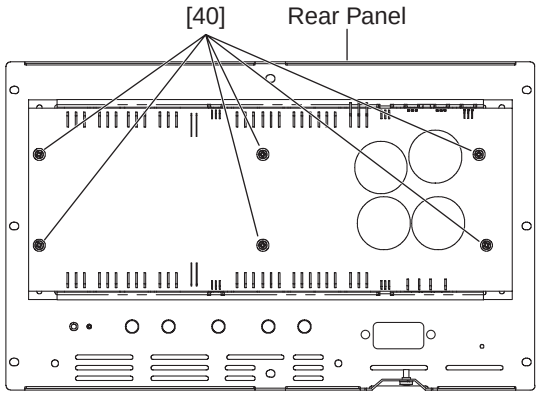
8. PWR Circuit Board 1/4 (Time required: about 10 min)

8-1. Remove the rear panel assembly. (See Procedure 5)
8-2. Remove the PWR circuit board 2/4. (See Procedure 6)
8-3. Remove the PWR circuit board 3/4. (See Procedure 7)
8-4. Remove the sixteen screws marked [90] to remove the TR holder A and the TR holder B. (Fig.11)
8-5. Remove the six (6) screws marked [40]. The PWR circuit board 1/4 can then be removed. (Fig.12)



(Fig. 11)

[90]: Bind Head Tapping Screw-B 3.0X12 MFZN2BL (VQ0746000)



(Fig. 12)

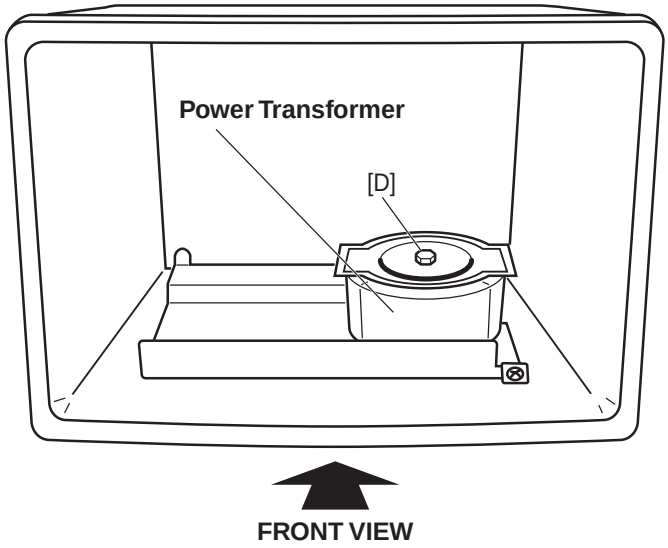
[40]: Bind Head Screw SP 3.0X8 MFZN2Y (EG330290)

9. Fan (Time required: about 3 min)

9-1. Remove the rear panel assembly. (See Procedure 5)
9-2. Remove the two (2) screws marked [130]. The fan can then be removed. (Fig.8)

10. Power Transformer (Time required: about 4 min)

10-1. Remove the front panel assembly. (See Procedure 1)
10-2. Remove the bolt marked [D]. The power transformer can then be removed. (Fig.13)

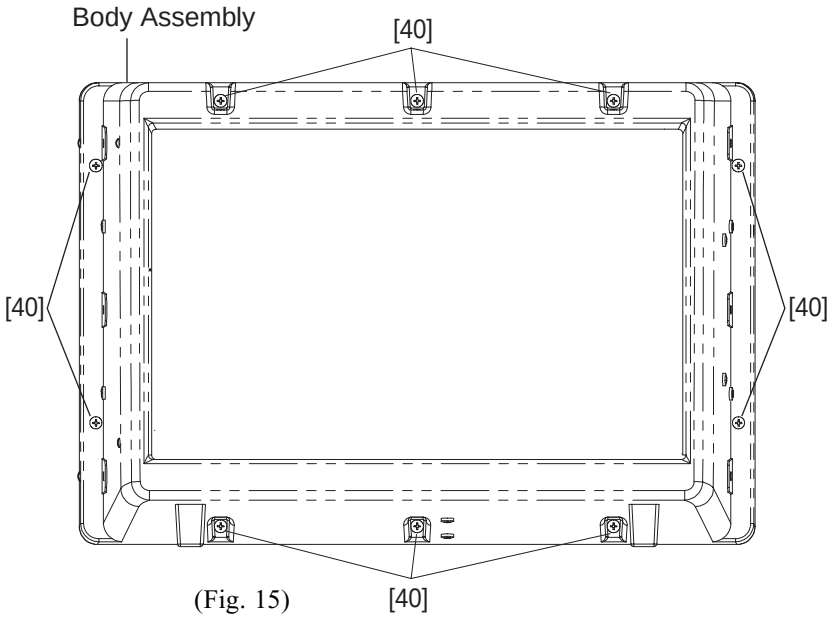


11. Front Frame (Time required: about 6 min)

11-1. Remove the front panel assembly. (See Procedure 1)
11-2. Remove the four (4) screws marked [50] to remove the handle assembly. (Fig.14)
11-3. Remove the ten (10) screws marked [40]. The front frame can then be removed. (Fig.15)

(Fig. 14)

[50]: Bind Head Screw 4.0X16 MFZN2BL (EG340110)



(Fig. 15)

[40]: Bind Head Tapping Screw-P 4.0X30 MFZN2BL (V8322700)

■ LSI PIN DESCRIPTION

• ZFX-2 (XY297A00) CPU

DSP-ZFX: IC306

PIN No.	NAME	I/O	FUNCTION	PIN No.	NAME	I/O	FUNCTION
1	ED2	I/O	External Memory and I/O Data Bus	53	AXLR2	I	Audio Data Transmitt Unit 2/3 Left and Right Channel Frame Frequency Signal
2	ED3	I/O					
3	ED4	I/O		54	AR1	I	Audio Data Receive Unit 1 Data Input
4	ED5	I/O		55	AR2	I	Audio Data Receive Unit 2 Data Input
5	ED6	I/O		56	HRBCK/SA0	I	Host Interface Receive Clock / I2C Bus Address 0
6	ED7	I/O		57	HR/SA1	I	Host Interface Data Input/ I2C Bus Address 1
7	VSS	S	Ground	58	HRS/SA2	I	Host Interface Receive Data Frame Frequency Signal/ I2C Bus Address 2
8	VDD	S	Power Supply				
9	CLKM0	I	Clock Mode	59	VSS	S	Ground
10	CLKM1	I		60	VDD	S	Power Supply
				61	HXBCK/SCL	I	Host Interface Transmitt Clock/ I2C Bus Clock
				62	HXS/SA3	I	Host Interface Transmitt Data Frame Frequency Signal/ I2C Bus Address 3
11	TMS	I	TAP(Test Access Port) Mode Select	63	/CS/SA4	I	Host Interface Chip Select/ I2C Bus Address 4
12	TDI	I	TAP Data Input	64	HBCKS/SA5	I	HRBCK/HXBCK Active Edge Select/ I2C Bus Address 5
13	TCK	I	TAP Clock	65	I2CSEL	I	Host Interface Mode Select
14	CLKIN	I	Master Clock	66	VSS	S	Ground
15	VSS	S	Ground	67	VDD	S	Power Supply
16	VDD	S	Power Supply	68	AXBC1	I	Audio Data Transmitt Unit 1 bit Clock
17	CLKO	O	Machine Clock Output	69	AXBC2	I	Audio Data Transmitt Unit 2/3 bit Click
18	EA12/ED8	I/O	External SRAM and ROM Address Bus/ External DRAM and I/O Data Bus	70	AXLR1	I	Audio Data Transmitt Unit 1 Left and Right Channel Frame Frequency Signal
19	EA13/ED9	I/O					
20	EA14/ED10	I/O		71	DIVS	O	Machine Clock Output then 8 min.
21	EA15/ED11	I/O		72	/LAV	O	Ruch ALU Overflow Frag Output
22	VSS	S	Ground	73	/LMV	O	Ruch MAC Overflow Frag Output
23	VDD	S	Power Supply	74	/DRDY	O/Z	Host Interface Transmitt Data Ready Frag Output
24	EA16/ED12	I/O	External SRAM and ROM Address Bus/ External DRAM and I/O Data Bus	75	EMU0	I/O/Z	Emurator Interrupt 0
25	EA17/ED13	I/O		76	EMU1	I/O/Z	Emurator Interrupt 1
26	EA18/ES14	I/O		77	TDO	O/Z	TAP(Test Access Port) Data Output
27	EA19/ED15	I/O		78	DIV512	O	Machine Clock then512 min.
28	EA4/ED16	I/O	External Memory Address Bus/ External I/O Data Bus	79	ARLR1	I	Audio Data Receive Unit 1 Left and Right Channel Frame Frequency Signal
29	EA5/ED17	I/O					
30	EA6/ED18	I/O		80	ARLR2	I	Audio Data Receive Unit 2 Left and Right Channel Frame Frequency Signal
31	EA7/ED19	I/O					
32	VSS	S	Ground	81	HDIR/SA6	I	Host Interface Data Format Select/ I2C Bus Address 6
33	VDD	S	Power Supply	82	SEL5V3V	I	Input Level Control
34	EA8/ED20	I/O	External Memory Address Bus/ External I/O Data Bus	83	/MUTE	I	Mute Control
35	EA9/ED21	I/O		84	/TRST	I	TAP(Test Access Port) Reset
36	EA10/ED22	I/O		85	/RS	I	Hardware Reset
37	EA11/ED23	I/O		86	VSS	S	Ground
38	TEST0	I	Test Mode Control	87	VDD	S	Power Supply
39	TEST1	I		88	/IOE	O	External I/O Enable
40	TEST2	I		89	/RAS/SRCS	O	External DRAM Low Address Strove/External SRAM Chip Select
41	TEST3	I					
42	/BIO	I	Separate Control Input	90	/CAS/SROE	O	External DRAM Culumn Address Strove/External SRAM Output Enable
43	/INT1	I	Interrupt 1				
44	ARBC1	I	Audio Data Receive Unit 1 bit Clock	91	/ROME	O	External ROM Enable
45	ARBC2	I	Audio Data Receive Unit 2 bit Clock	92	/WE	O	External Memory and I/O Wright Enable
46	AX1	O	Audio Data Transmitt Unit 1 Data Output	93	EA0	O	External Memory and I/O Address Bus
47	AX2	O	Audio Data Transmitt Unit 2 Data Output	94	EA1	O	
48	AX3	O	Audio Data Transmitt Unit 3 Data Output	95	EA2	O	
49	VSS	S	Ground	96	EA3	O	
50	VDD	S	Power Supply	97	VSS	S	Ground
51	HX/SDA	I/O/Z	Host Interface Data Output/I2C Bus Data	98	VDD	S	Power Supply
52	/EMPTY	O/Z	CMEM Update Buffer and HR Resistor Empty Flag Output	99	ED0	I/O	External Memory and I/O Data Bus
				100	ED1	I/O	

	1	3	6	PLL BYPASS
CLKM0	0	1	0	1
CLKM1	0	0	1	1

● **UPD78082GB-XXX** (XY296A00) **MCU**

DSP-ZFX: IC303

PIN No.	NAME	I/O	FUNCTION	PIN No.	NAME	I/O	FUNCTION
1	P12/ANI2	I/O	8 bits input/output port./A/D converter analog input.	23	NC	-	Not connect.
2	P13/ANI3	I/O	8 bits input/output port./A/D converter analog input.	24	P32	I/O	Port 3. 8 bits input/output port.
3	P14/ANI4	I/O	8 bits input/output port./A/D converter analog input.	25	P33	I/O	Port 3. 8 bits input/output port.
4	P15/ANI5	I/O	8 bits input/output port./A/D converter analog input.	26	P34	I/O	Port 3. 8 bits input/output port.
5	P16/ANI6	I/O	8 bits input/output port./A/D converter analog input.	27	P35/PCL	I/O	Port 3. 8 bits input/output port./Clock output.
6	P17/ANI7	I/O	8 bits input/output port./A/D converter analog input.	28	P36/BUZ	I/O	Port 3. 8 bits input/output port./Buzzer output.
7	P72/SCK2/ASCK	I/O	Port 7. 3 bits input/output port./Serial clock input/output of serial interface./Serial clock input for asynchronus serial interface.	29	P37	I/O	Port 3. 8 bits input/output port.
				30	P00	I	Input only
				31	P01/INTP1	I/O	4 bits input/output port./Effective edge (Rising edge, falling edge, both rising and falling edges) specifiable external interrupt input.
8	P71/SO2/TXD	I/O	Port 7. 3 bits input/output port./Serial data output for serial interface./Serial data output for asynchronus serial interface.				
9	P70/SI2/RXD	I/O	Port 7. 3 bits input/output port./Serial data input of serial interface./Serial data input for asynchronus serial interface	32	P02/INTP2	I/O	4 bits input/output port./Effective edge (Rising edge, falling edge, both rising and falling edges) specifiable external interrupt input.
10	P101/T16/T06	I/O	Port 10. 2 bits input/output port./External count clock input to 8 bits timer(TM6)./8 bits timer output.	33	P03/INTP3	I/O	4 bits input/output port./Effective edge (Rising edge, falling edge, both rising and falling edges) specifiable external interrupt input.
11	P100/T15/T05	I/O	Port 10. 2 bits input/output port./External count clock input to 8 bits timer(TM5)./8 bits timer output.				
12	P50	I/O	Port 5. 8 bits input/output port.	34	NC	-	Not connect
13	P51	I/O	Port 5. 8 bits input/output port.	35	RESET	I	System reset input
14	P52	I/O	Port 5. 8 bits input/output port.	36	IC(VPP)	-	Internal connect
15	P53	I/O	Port 5. 8 bits input/output port.	37	X2	-	Main system clock oscillator X'tal
16	P54	I/O	Port 5. 8 bits input/output port.	38	X1	I	Main system clock oscillator X'tal
17	VSS	I/O	Port 5. 8 bits input/output port.	39	VDD	-	Power Supply
18	P55	I/O	Port 5. 8 bits input/output port.	40	AVDD	-	A/D Converter Analog Power Supply
19	P56	I/O	Port 5. 8 bits input/output port.	41	AVREF	I	A/D Converter Power Supply Input
20	P57	I/O	Port 5. 8 bits input/output port.	42	AVSS	-	A/D Converter ground
21	P30	I/O	Port 3. 8 bits input/output port.	43	P10/ANI0	I/O	8 bits input/output port./A/D converter analog input.
22	P31	I/O	Port 3. 8 bits input/output port.	44	P11/ANI1	I/O	8 bits input/output port./A/D converter analog input.

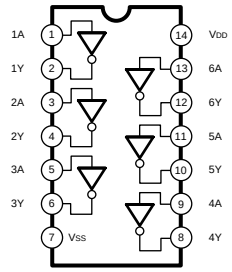
● **PCM3001E/2K** (X0053A00) **ADA**

DSP-ZFX: IC305

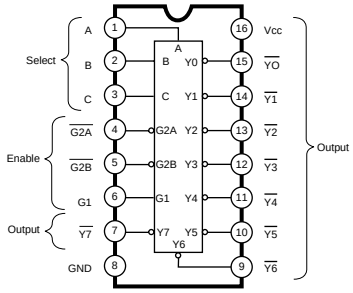
PIN No.	NAME	I/O	FUNCTION	PIN No.	NAME	I/O	FUNCTION
1	VINL	I	ADC Analog Input, Lch	15	VOUTL	O	DAC Analog Output, Lch
2	Vcc1		ADC Analog Power Supply	16	LRCIN	I	Sampling Clock Input (fs)
3	AGND1		ADC Analog GND	17	BCKIN	I	Bit Clock Input
4	VREFL		ADC Reference decouple, Lch	18	DIN	I	Audio Data Input
5	VREFR		ADC Reference Decouple, Rch	19	DOUT	O	Audio Data Output
6	VINR	I	ADC Analog Input, Rch	20	XTI	I	Crystal Oscillator Input, External System Clock Input
7	CINPR		ADC Anti-areasing Filter Capacitor (+), Rch	21	XTO	O	Crystal Oscillator Output
8	CINNR		ADC Anti-areasing Filter Capacitor (-), Rch	22	CLKIO	I/O	Crystal Oscillator Buffer Output, External System Clock Input
9	CINNL		ADC Anti-areasing Filter Capacitior (-), Lch	23	VDD		Digital Power Supply
10	CINPL		ADC Anti-areasing Filter Capacitor (+), Rch	24	DGND		Digital GND
11	VCOM		DAC Center Voltage Decouple	25	FMT2	I	Audio Data Format 2 (Pull up to 70k ohm typical)
12	VOUTR	O	DAC Analog Output, Rch	26	FMT1	I	Audio Data Format 1 (Pull up to 70k ohm typical)
13	AGND2		DAC Analog GND	27	FMT0	I	Audio Data Format 0 (Pull up to 70k ohm typical)
14	Vcc2		DAC Analog Power Supply	28	RSTB	I	Reset Input, Active "L" (Pull up to 70k ohm typical)

IC BLOCK DIAGRAM

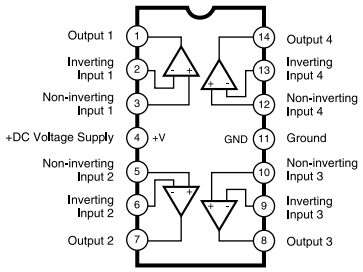
- **74HCU04DT** (XZ110A00)
  INVERTER
  DSP-ZFX: IC302



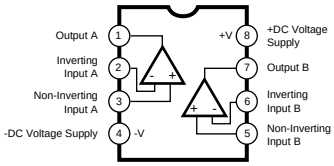
- **TC74HC138AFEL** (XW762A00)
  3 to 8 Demultiplexer
  MIX66: IC902



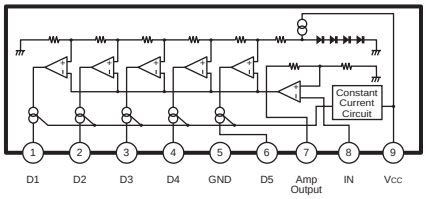
- **NJM2060M(TE2)OP** (XM560A00)
  Quad Operational Amplifier
  MIX66: IC803, IC804, IC805, IC806



- **TL072CPSR**(XV423A00)
- **NJM2068MD-T1**(XJ553A00)
- **NJM4558MT-1**(IG103520)
  Dual Operational Amplifier
  MIX66: IC101, IC102, IC301, IC302
  IC501, IC601, IC603, IC703
  IC704, IC705, IC706, IC707
  IC807, IC901, IC903
  DSP-ZFX: IC304



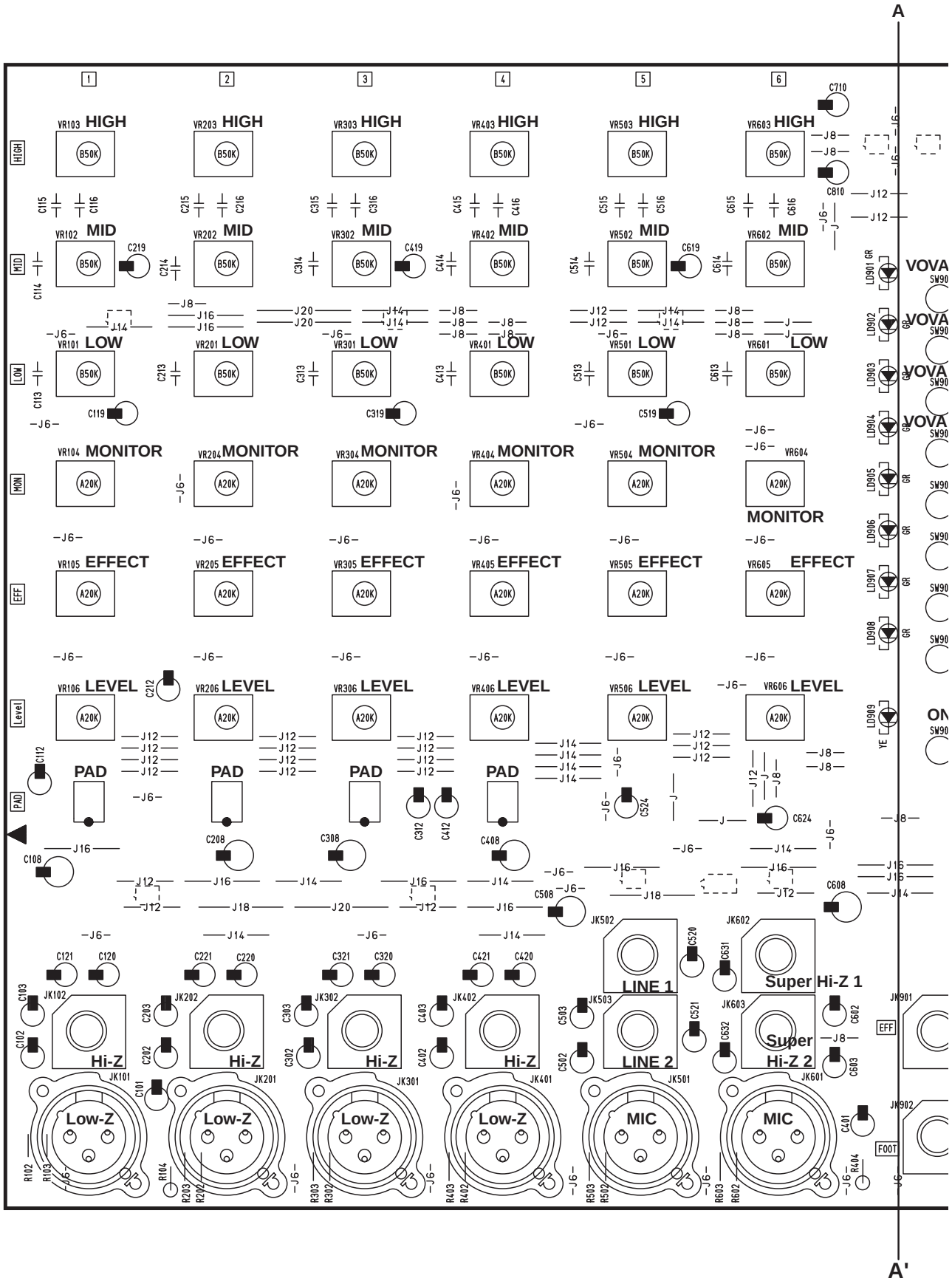
- **LB1403N** (XZ348A00)
  LED Driver
  MIX66: IC702, IC802

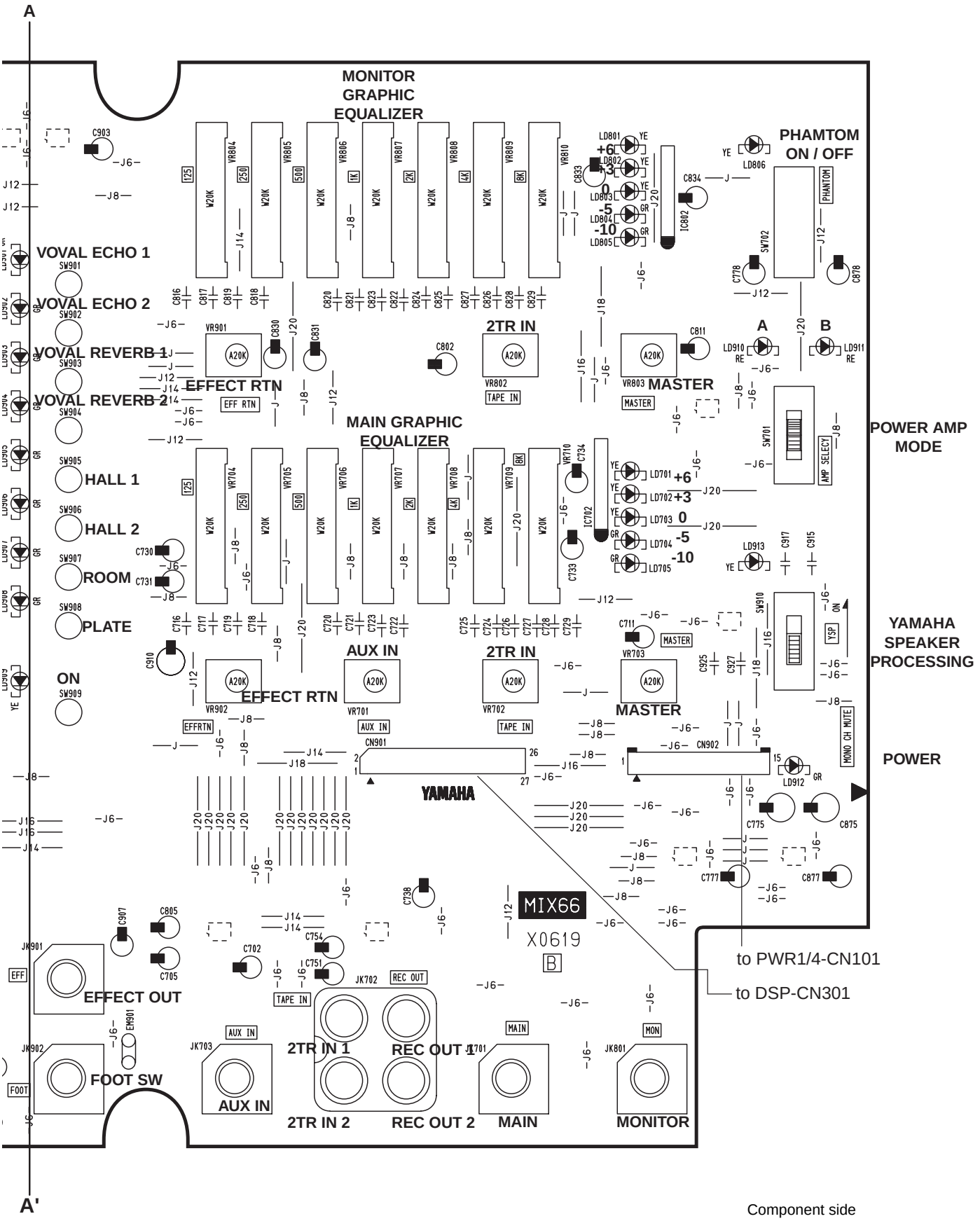


CIRCUIT BOARDS

CONTENTS

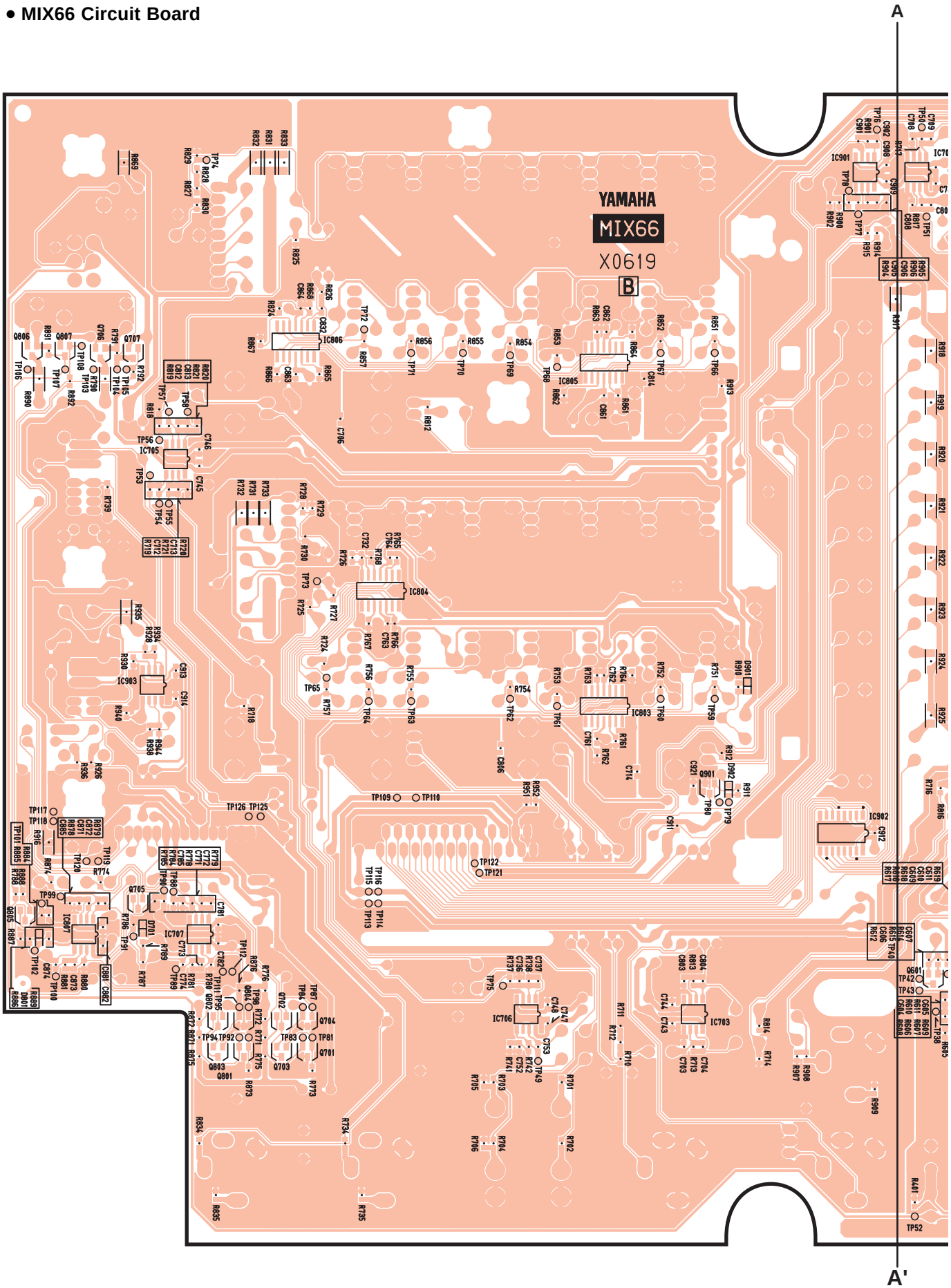
- **MIX66 Circuit Board**

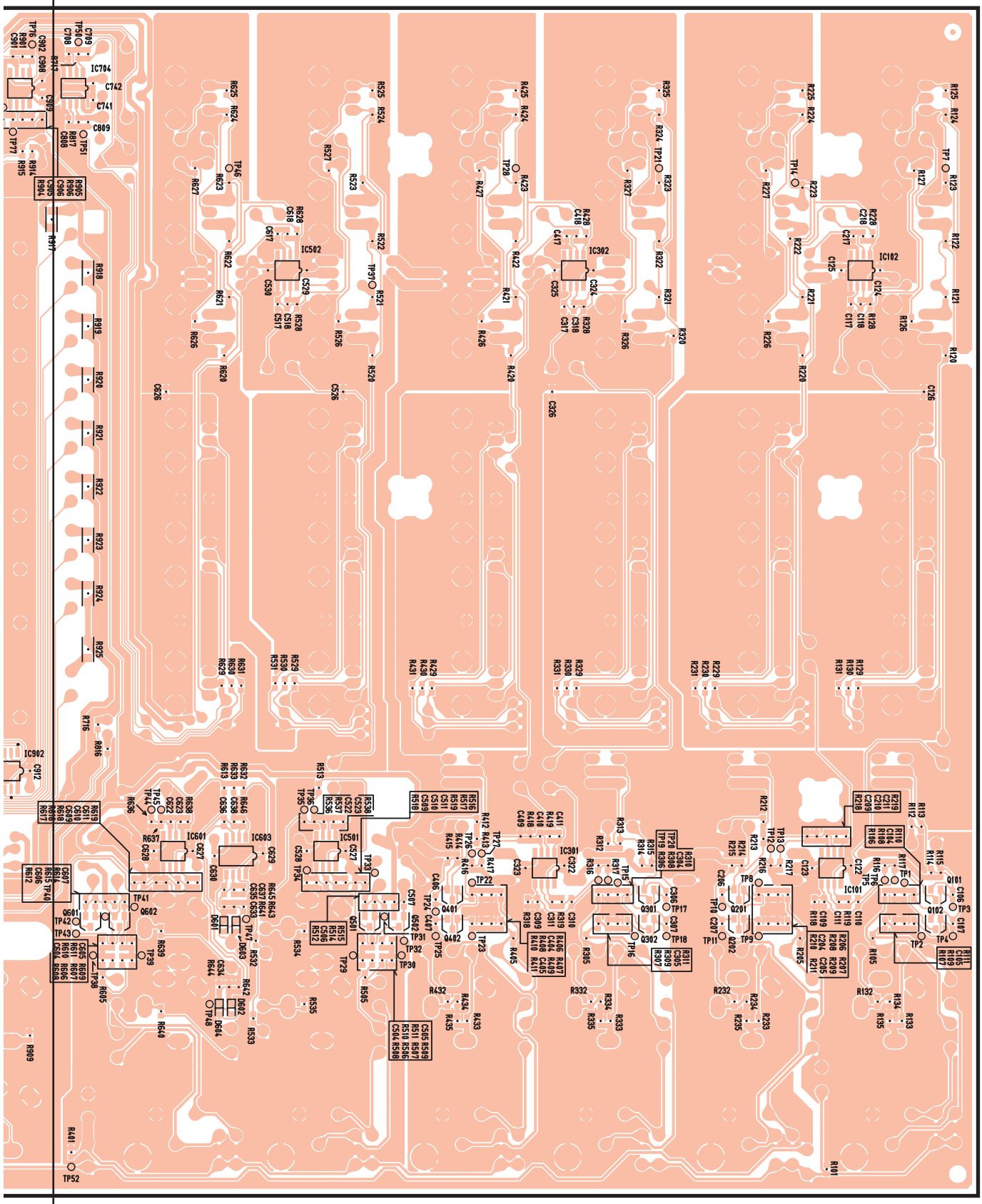




3NA-V826690 ⚠1

- **MIX66 Circuit Board**

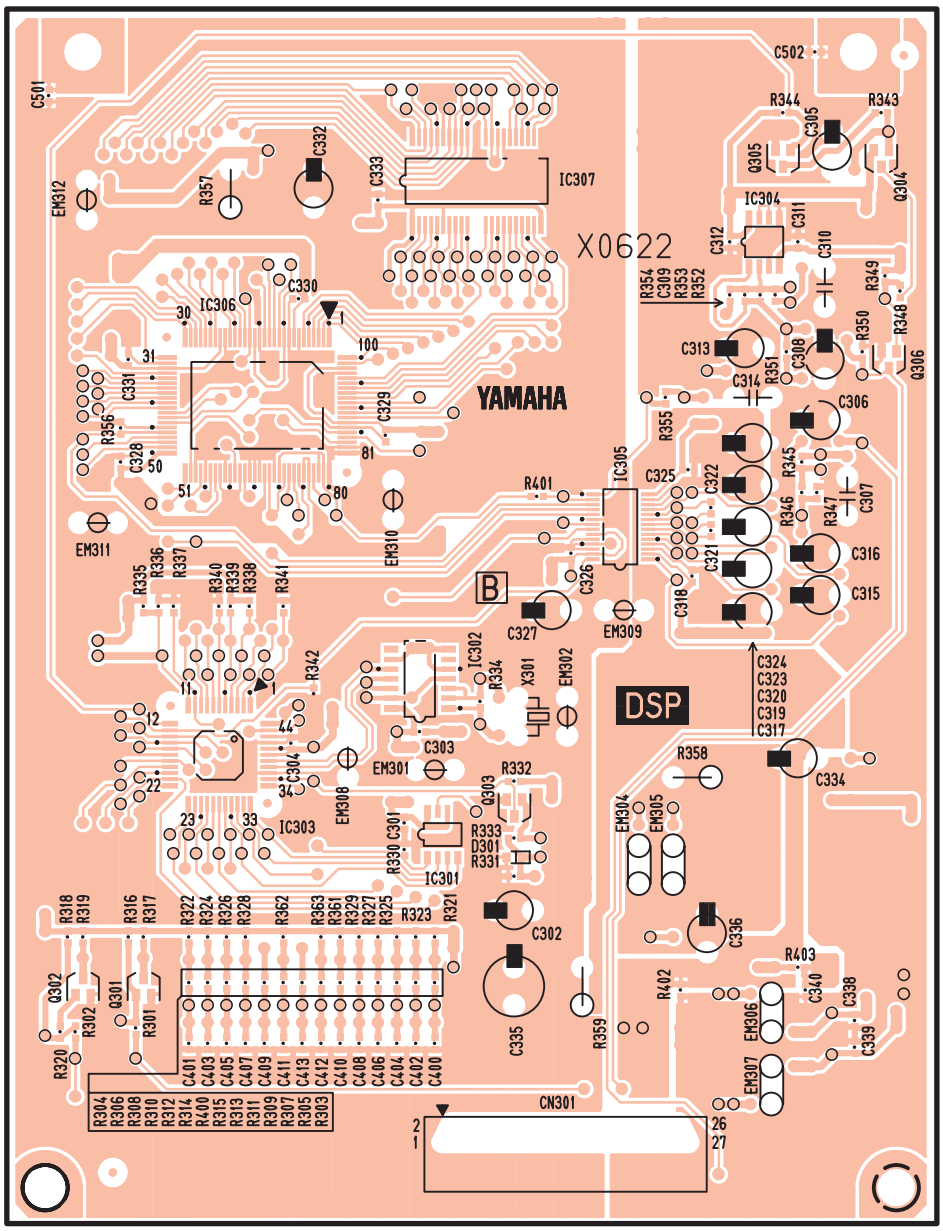




3NA-V826690 1

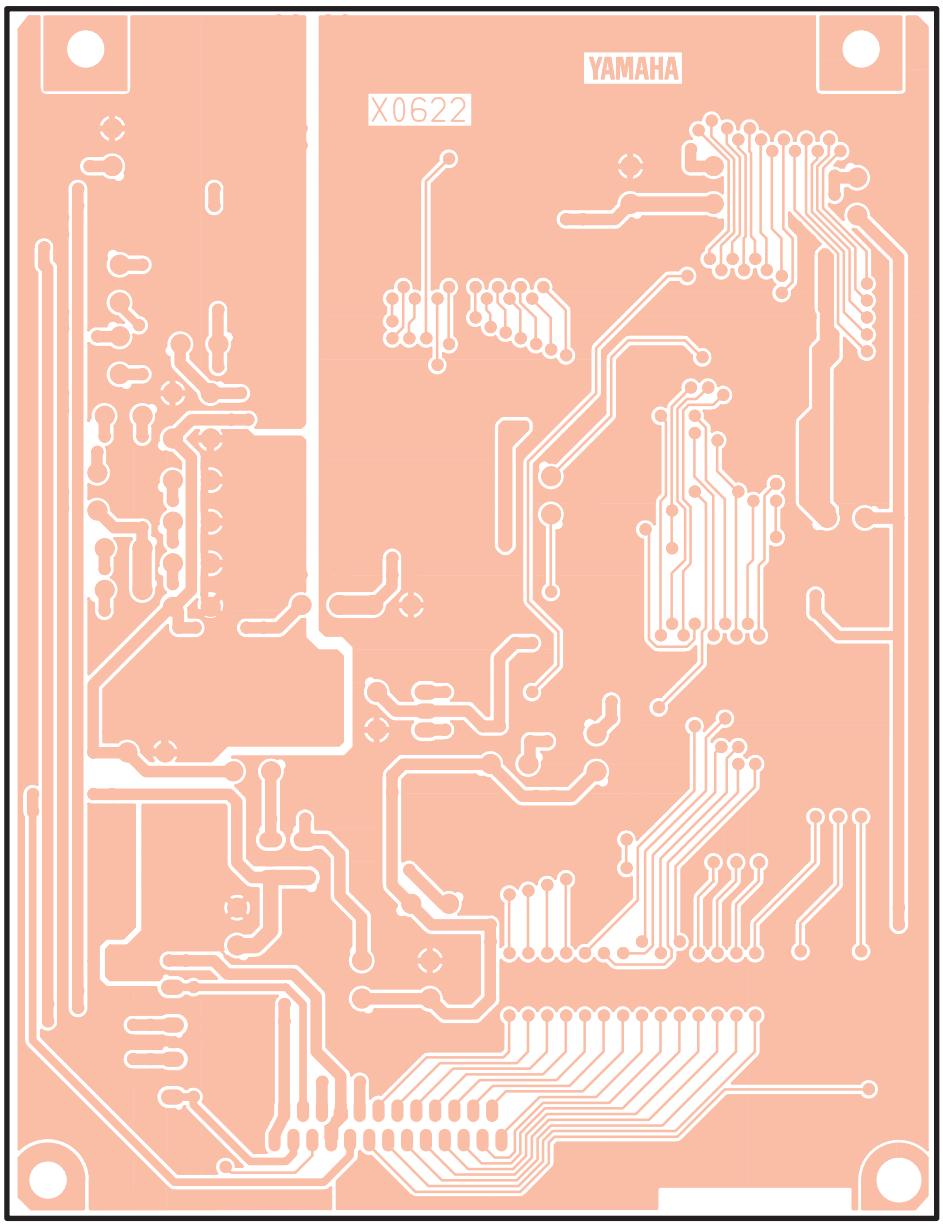
Pattern side

• DSP Circuit Board



to MIX66-CN901

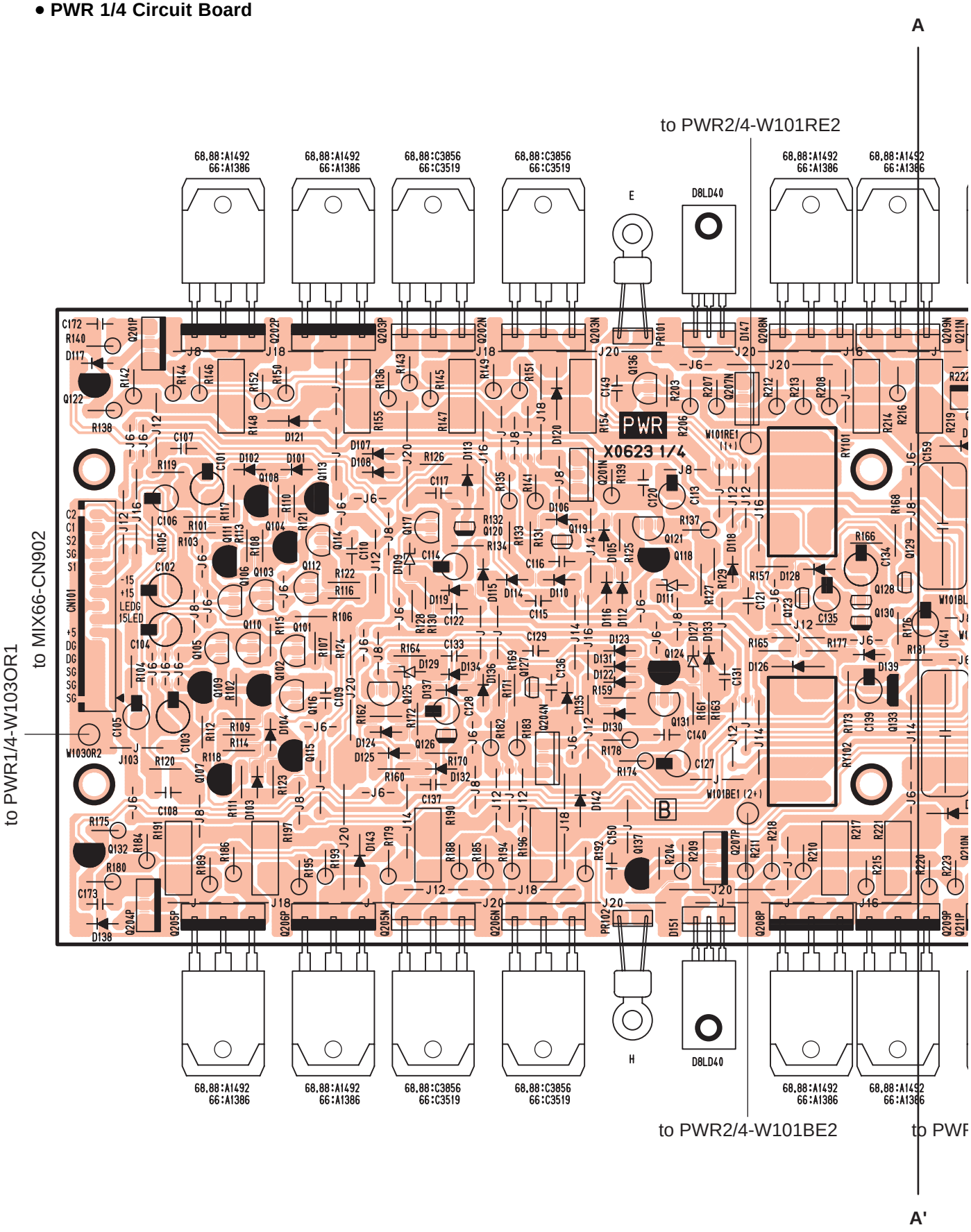
Component side

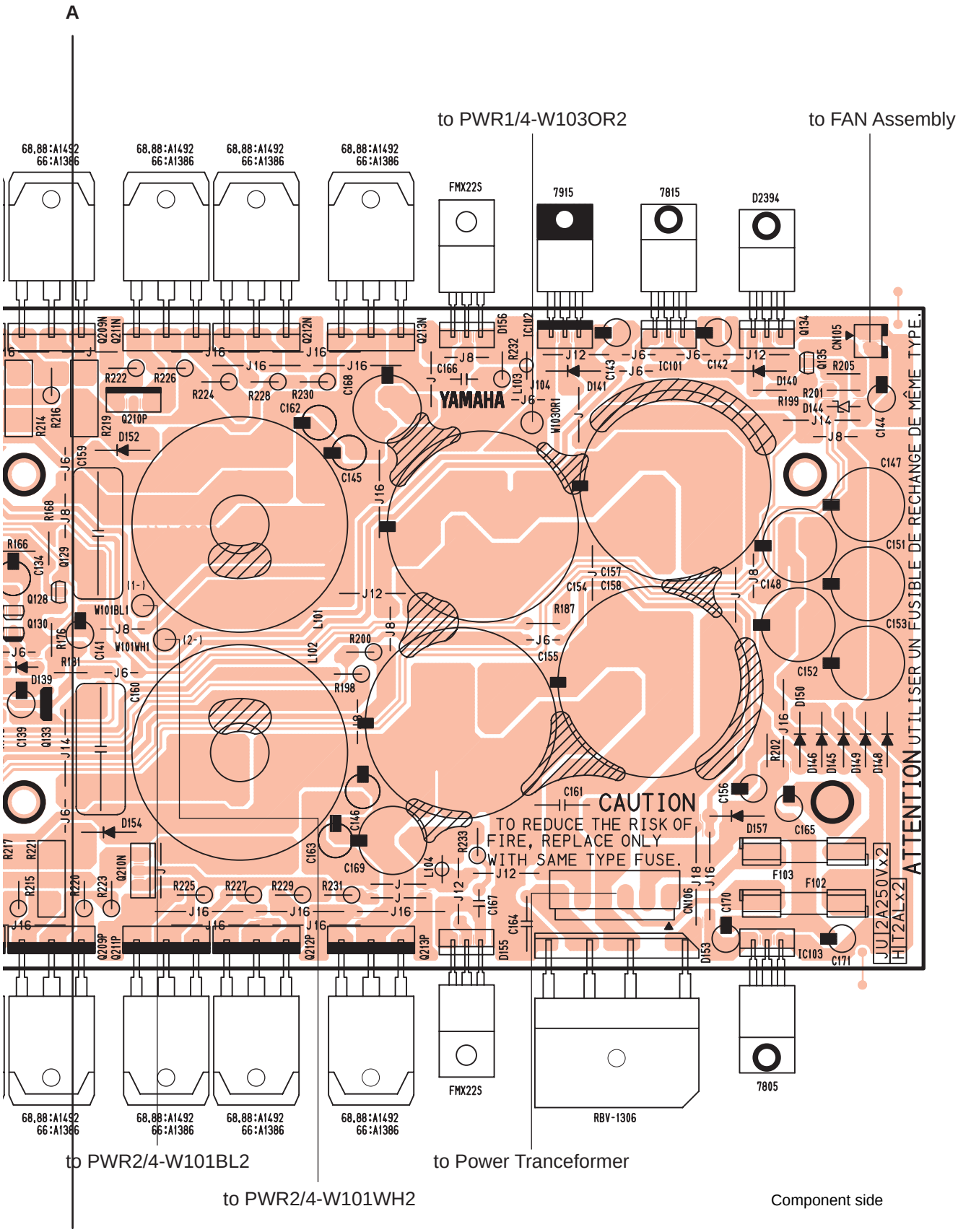


Pattern side

3NA-V826710 ⚠1

- **PWR 1/4 Circuit Board**

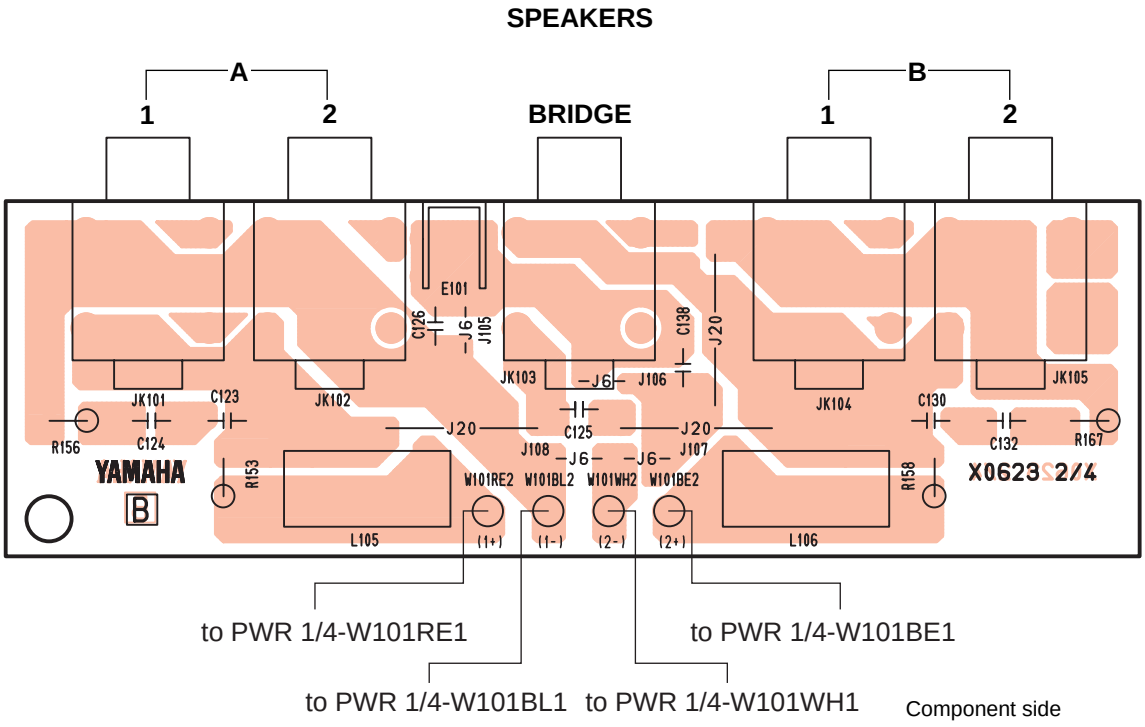




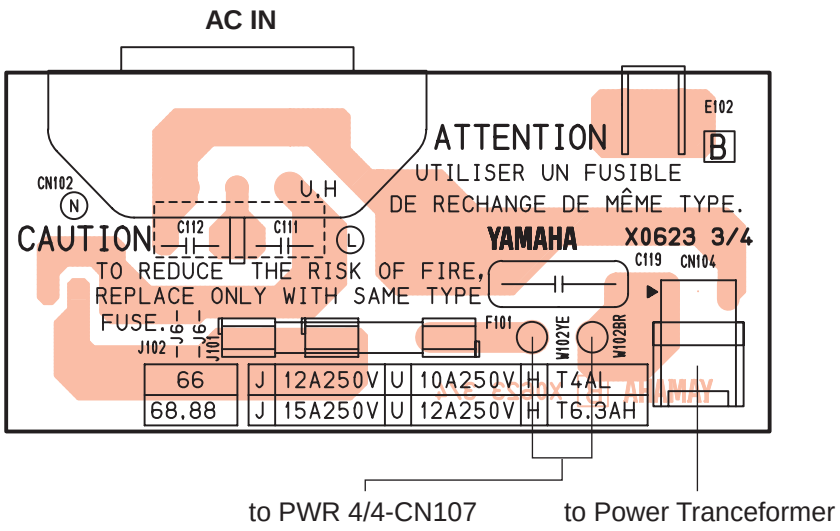
Component side

3NA-V826900 1

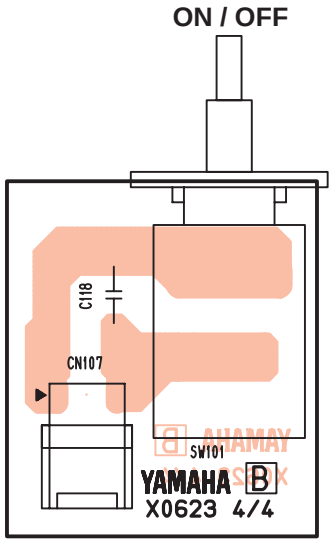
• PWR 2/4 Circuit Board



• PWR 3/4 Circuit Board



• PWR 4/4 Circuit Board



PWR 2/4: 3NA-V826900 1
PWR 3/4: 3NA-V826900 1
PWR 4/4: 3NA-V826900 1

INSPECTIONS

0. PREPARATION

(1) Mesuring instruments

- Oscillator (Ballance output type, Output impedance 150Ω)
- Oscilloscope (Input impedance 100kΩ)
- Level meter (Input impedance 100kΩ)
- Distortion Meter

(2) Notes for mesuring

- Noise level must be mesured by using DIN AUDIO FILTER.
- 0dB is equal to 0.775V.

1. Power Indicator Check

Confirm that the power indicator LED lights up while the power is ON.

2. Mixer Check

2.1 Preparation

- Except otherwise indicated, input signal should be 1kHz sine curve and output impedance of signal source should be 150Ω.
- Connect the load of 10kΩ to MAIN OUT, MONITOR OUT, EFFECT OUT and REC OUT terminal.
- Set each control as follows.

CH INPUT 1-4

EQ (HIGH, MID, LOW) level control:	CENTER
MONITOR level control:	MAX
EFFECT level control:	MAX
LEVEL control:	MAX
PAD switch:	OFF

CH INPUT 5-6

EQ (HIGH, MID, LOW) level control:	CENTER
MONITOR level control:	MAX
EFFECT level control:	MAX
LEVEL control:	MAX

EFFECT

DIGITAL EFFECT ON switch:	OFF

MAIN

GRAPHIC EQUALIZER (7 band) fader:	CENTER
EFFECT RTN level control:	MAX
AUX IN level control:	MAX
2TR IN level control:	MAX
MASTER (MAIN) level control:	MAX

MONITOR

GRAPHIC EQUALIZER (7 band) fader:	CENTER
EFFECT RTN level control:	MAX
2TR IN:	MAX
MASTER (MAIN) level control:	MAX

PHANTOM switch:	OFF
YAMAHA SPEAKER PROCESSING switch:	OFF
POWER AMP switch:	MAIN-MONITOR

2.2 Gain Check

On condition of 2.1, confirm that the output level of each terminal meets the table 2.2-1.

Table 2.2-1 [unit: dBs]

INPUT	INPUT LEVEL	MAIN OUT(L,R)	MONITOR OUT	EFFECT OUT	REC OUT
Low-Z	-62	+4±2	+4±2	+4±2	-13.8±2
MIC	-32 (PAD ON)				
Hi-Z	-52	+4±2	-	-	-
LINE	-22	+4±2	-	-	-
Super Hi-Z	-42	+4±2	-	-	-
AUX	-22	+4±2	-	-	-
2TR	-22	+4±2	-	-	-

2.3 Frequency Characteristic Check

At each terminal of the Table 2.2-1, confirm that the output level for 20Hz, 20kHz signal are within +1, -3dB from the level for 1kHz signal.

2.4 EQ Response Characteristic Check

On condition of 2.1, set the LOW, MID, HIGH controls according to the table 2.4-1, and mesure the output level of MAIN OUT and MONITOR OUT.

Then confirm that output level variations from center click position meet the table 2.4-1.

When output level does not meet the table, change the input frequency until the output level meets the table.

If the frequency variation is within ±20% of the rated value, the rusult can be regarded as OK.

Table 2.4-1 [unit: dB]

EQ	VR Setting	INPUT FREQUENCY	RANGE OF VARIATION
HIGH	MAX	10kHz	+12±2
	MIN		-12±2
MID	MAX	2.5kHz	+14±2
	MIN		-14±2
LOW	MAX	100Hz	+12±2
	MIN		-12±2

2.5 GEQ Response Characteristic Check

On condition of 2.1, set the GEQ faders to MIN or MAX, and mesure the output levels of MAIN OUT and MONITOR OUT.

Then confirm that output level variations from center click position meet the table 2.5-1.

When the output level does not meet the table, change the input frequency until the output level meets the table.

If the frequency variation is within ±20% from the rated value, the result can be regarded as OK.

Table 2.5-1 [unit: dB]

		125	250	500	1k	2k	4k	8k
INPUT FREQUENCY		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
Variations	(for fader MAX)	+12±2						
	(for fader MIN)	-12±2						

2.6 LED Meter Check

When the output level of MAIN OUT and MONITOR OUT meets the Table 2.6-1, confirm that the corresponding LED meter starts to light up.

Table 2.6-1 [unit: dBs]

LED	+6	+3	0	-5	-10
OUTPUT LEVEL	+10±2	+7±2	+4±2	-1±2	-6±2.5

2.7 Distortion Rate Check

On condition of 2.1, set the INPUT and MASTER volume for each terminal to nominal position.
Then, confirm that the distortion rate is within 0.3% when the output level is +14dBs. (except REC OUT)

2.8 Maximum Output Level Check

At MAIN OUT, MONITOR OUT, EFFECT OUT terminals on condition of 2.7, confirm that the output level of +20dBs can be gained with the distortion rate less than 1%.

2.9 EIN Check

Note: This mesurement should be performed by using DIN AUDIO FILTER.

On condition of 2.1, set the LEVEL control for mesuring channel to maximum and set the LEVEL control for other channels to minimum.
Connect the 150Ω load between the Low-Z and the MIC of input channel, and confirm that the noise level of MAIN OUT is less than -58dB.
However, less than -56dB as for CH6.
If noise level is more than the rated value, find the noise level converted from the input level for each channel.
Then confirm that the noise level is less than -124dB as for CH1-5, and less than -122dB as for CH6.

2.10 Remaining Noise Check

On condition of 2.1, set the LEVEL control of all input channels to minimum.
Set the MASTER control of MAIN and MONITOR to maximum or minimum, and mesure the noise level of MAIN OUT, MONITOR OUT, and EFFECT OUT.
Then, confirm that the noise levels are less than the values shown in the table 2.10-1.

Table 2.10-1 [unit: dB]

MASTER VR	MAIN OUTPUT(L,R)	MONITOR OUTPUT	EFFECT OUT
MAX	-71	-71	-73
MIN	-88	-88	-

2.11 PHANTOM Check

Connect the 2.7kΩ load between the pin1 and pin2 of Low-Z or MIC, and short-circuit the pin2 and pin3 of them.
Then, confirm that the load voltage is 10±1.5V when the PHANTOM switch is ON.

2.12 DIGITAL EFFECT Check

- Turn on the power with VOCAL ECHO1 and ON switch pressed and held, and confirm that the ON LED blinks.
- Set EFFECT level control, LEVEL control, MASTER of MONITOR, and EFFECT of MONITOR to maximum. Apply -48dBs / 1kHz signal into CH6 Super Hi-Z and mesure the output level of MONITOR OUT.
- Select the PROGRAM switch according to the Table 2.12-1 and confirm that the output level meets the table.

Table 2.12-1

EFFECT	OPERATION	OUTPUT level (MONITOR OUTPUT)
VOCAL ECHO 1	Press the ON switch	No output [DIN AUDIO] -48dBs
VOCAL ECHO 2	Set the LEVEL to minimum	No output [DIN AUDIO] -48dBs
VOCAL REVERB 1	-	Recognizable
VOCAL REVERB 2	-	No output [DIN AUDIO] -48dBs
HALL 1	Switch the FOOT SW	Less than -30 dBs [DIN AUDIO] or full output
HALL 2	-	No output [DIN AUDIO] -48dBs
ROOM	-	Decays 4.2±1 dBs from the full output
PLATE	-	Full output; 10±3 dBs

- When each PROGRAM switch is pressed, confirm that the corresponding LED lights up.
- Apply the music source (vocal etc), and confirm the effect aurally.

2.13 Stability Check

Note: This mesurement should be performed with a load resistance connected to power amplifier output. (See 3.1.1)

- At each input terminal, connect 10pF~0.1μF capacitor in parallel to the load resistance, and confirm that the system works normally without oscillation etc.
- Set all VR and EQ faders to maximum, and confirm that the system works normally. (Especially, does not oscillate when the EQ HIGH is set to maximum)

3. Power Amplifier Check

3.1 For the case that the POWER AMP switch is 'MAIN-MONITOR' or 'MAIN-MAIN'

3.1.1 Preparation

- INPUT terminal: CH 5 LINE 1
- POWER AMP switch: MAIN-MAIN
- OUTPUT terminal: SPEAKERS A1, SPEAKERS B1
- Load Resistance: 4Ω (more than 300W)
  Except otherwise indicated, the load resistance should be connected only for the power amplifier check.
- Set the LEVEL control of CH1-4, 6 to minimum.
- Except the above, same as the setting of 2.1.

3.1.2 Power ON Mute Check

Turn on the power and confirm that the mute system is released and the relay is switched on after 2.5±1 seconds.

3.1.3 Output Terminal D.C. Voltage Check

Ground input terminal and confirm that the D.C. voltage of output terminal is 0±100mV.

3.1.4 Gain Check

- Apply -26dBs signal into the input terminal and confirm that the output level of 20.0±2.0dBs can be gained.
- Set the POWER AMP switch to ’MAIN-MON’ and confirm that the same output level can be gained at SPEAKERSA2, B2 output.

3.1.5 Frequency Response Check

- YAMAHA SPEAKERS PROCESSING Switch OFF
  Apply -26dBs signal info input terminal, and confirm that the output level for 20Hz, 20kHz signal are within +1, -3dB from the level for 1kHz signal.
- YAMAHA SPEAKERS PROCESSING Switch ON
  Apply 70Hz / -26dB signal into input terminal, and confirm that the output level is within 6.5±2dB from the level for 1kHz input with YAMAHA SPEAKERS PROCESSING switch OFF.
  Besides, confirm that the LED lights up when YAMAHA SPEAKERS PROCESSING switch is ON and that LED goes out when the switch is OFF.

3.1.6 Harmonic Distortion Rate Check

Note: This mesurement should be finished in 30 seconds.

- Apply 1kHz signal into input terminal, and confirm that output level of 300W/4Ω (33.0dBs) can be gained with harmonic distortion rate less than 0.5%.
- Apply 20Hz, 1kHz and 20kHz signal into input terminal, and confirm that harmonic distortion rate is less than 0.5% as for 20Hz and 1kMz, less than 0.7% as for 20kHz when output level of 150W/4Ω (30.0dBs) can be gained.

3.1.7 Remaining Noise Check

Set the MASTER (MAIN) and the MASTER (MONITOR) to minimum, and confirm that the noise level of output terminal is less than -65dB.

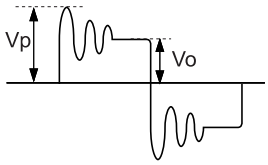
Note: Take care not to be affected by inductive noise.
This mesurement should be performed by using DIN AUDIO FILTER.

3.1.8 Stability Check

(1) Connect 10pF~0.47μF capacitor in parallel to the 4Ω load resistance and apply rectangle signal of 10kHz/-26dBs.
Then, confirm that overshoot and ringing are as follows.
Overshoot: Vp/Vo ≦ 1.8
Ringing: within 5 waves

(2) Connect 10μH~0.47H inductor in series to the 4Ω load resistance and apply rectangle signal of 10kHz/-26dBs.
Then, confirm that overshoot and ringing meet the same condition as (1).

(3) Remove the 4Ω load resistance and connect only 10pF~0.47μF capacitor as load, and apply rectangle signal of 10kHz/-26dBs.
Then confirm that the system does not oscillate.
Besides, confirm that overshoot and ringing are as follows.
Overshoot: Vp/Vo ≦ 2.5
Ringing: within 7 waves



3.1.9 Protection Circuit Check

(1) Apply 10Hz signal until output level is saturated, and confirm that the protection circuit works and the relay does not open.
(2) Apply 1Hz, Vp-p = 6V(8.7dBs) signal, and confirm that the protection circuit starts to work in 2 seconds to cut off the signal.
(3) Stop applying the input signal, and confirm that the system automatically resumes in 5 seconds.

3.1.10 PC LIMITER Circuit and LIMITER Circuit Check

(1) Connect 1Ω (±5%, 100W) load and apply -20dBs signal into input terminal.
(2) Confirm that the protection circuit starts to work and indicator LED lights up.
(3) Stop applying the input signal, and confirm that the system automatically resumes in 5 seconds.

3.1.11 LIMITER Indicator Check

Apply 1kHz/-10.8dBs signal, and confirm that LIMITER indicator lights up.

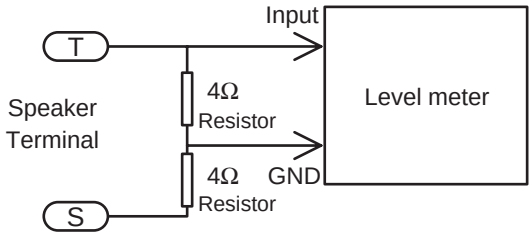
3.1.12 Efficiency Check

Apply 1kHz/-24dB signal into input terminal, and confirm that the primary power is 180±50W.
If the primary power does not meet the rated value, adjust the input level until the output level of SPEAKERS becomes 12.2V(24.0dBs).

3.2 For the case that the POWER AMP switch is 'MAIN BRIDGE'

3.2.1 Preparation

- POWER AMP switch: MAIN BRIDGE
- INPUT terminal: CH 5 LINE 1
- MASTER (MAIN): MAX
- OUTPUT terminal: BRIDGE
- Load Resistance: 8Ω(more than 600W)
  Except otherwise indicated, the load resistance of SPEAKER should be connected only for the amplifier check.
- LEVEL control of CH1-4, 6: MIN
- Except the above, same as the setting of 2.1



3.2.2 Gain Check

Apply -26.0dB signal into input terminal, and confirm that the output level of 22.0±2 dBs can be gained.

3.2.3 Frequency Response Check

Apply -26.0dBs signal into input terminal, and confirm that the output level for 20Hz, 20kHz signal are within +1, -3dB from the level for 1kHz signal.

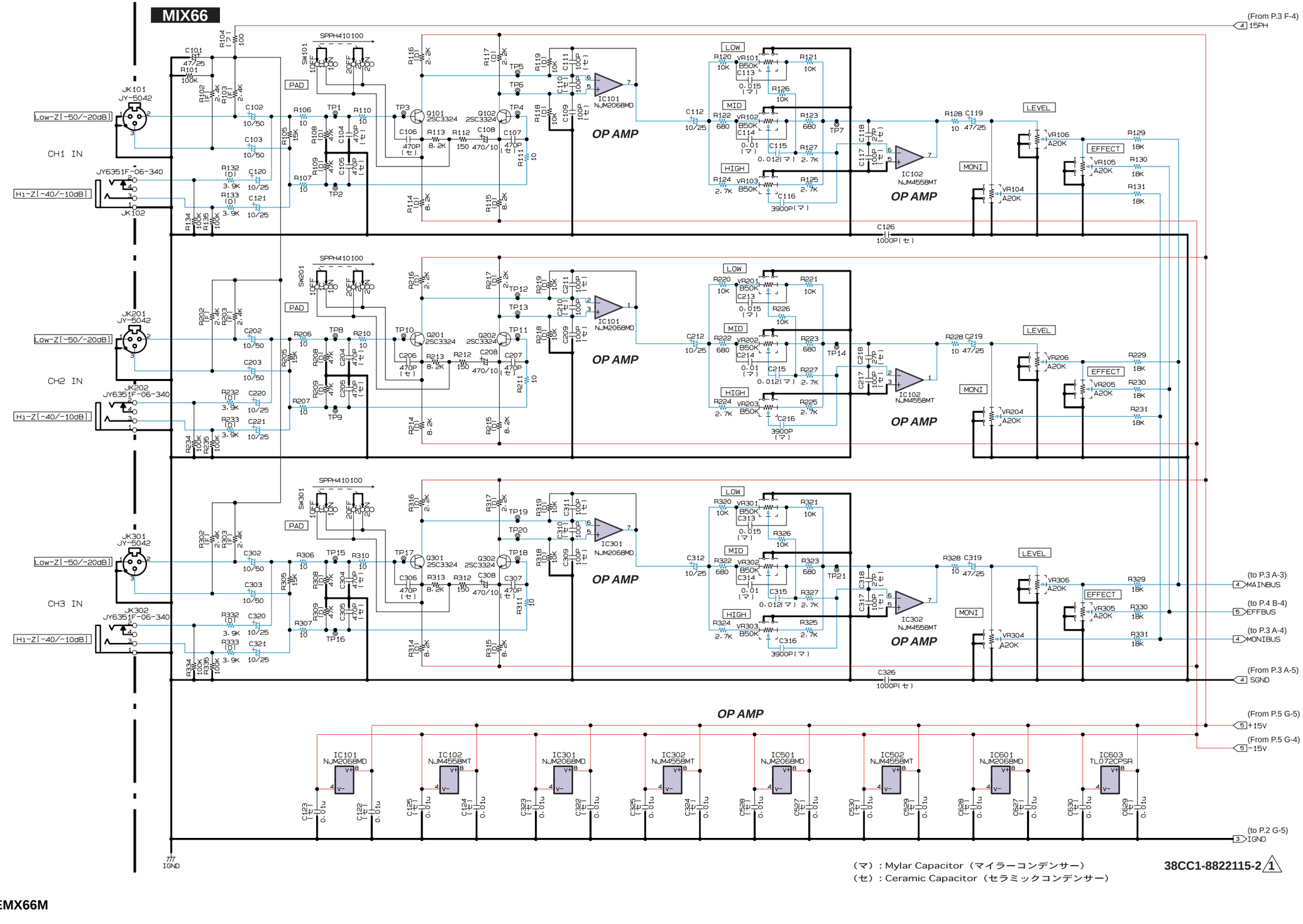
4. Miscellaneous

4.1 Power Supply Voltage Variation

Change the voltage of power supply in the range of ±10%, and confirm that the system works normally.

EMX66M

EMX66M OVERALL CIRCUIT DIAGRAM 1/7 (MIX66 1/5)



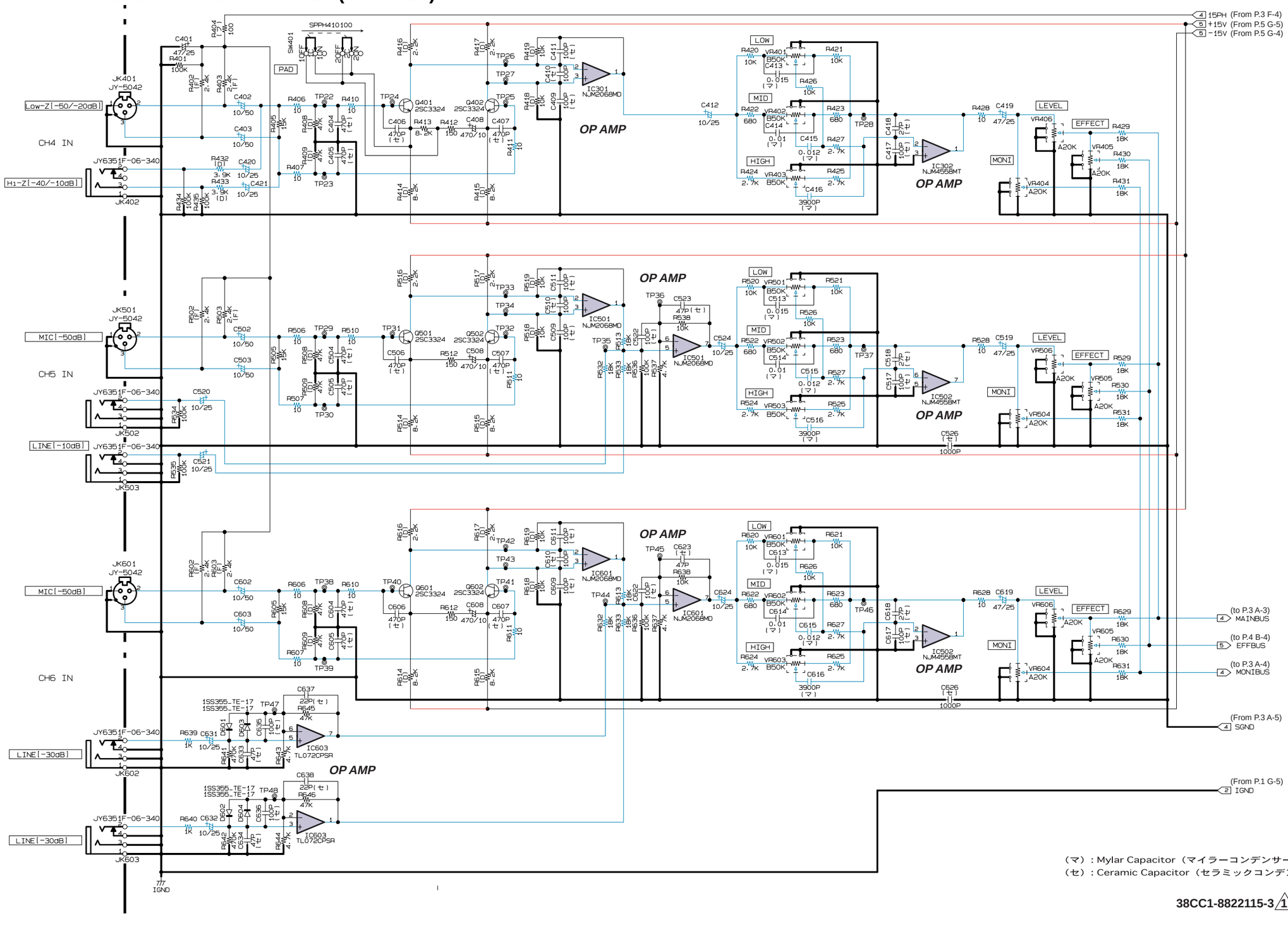
（マ）：Mylar Capacitor（マイラーコンデンサー）
（セ）：Ceramic Capacitor（セラミックコンデンサー）

38CC1-8822115-2 1

EMX66M

■ EMX66M OVERALL CIRCUIT DIAGRAM 2/7 (MIX66 2/5)

EMX66M



（マ）：Mylar Capacitor（マイラーコンデンサー）
（セ）：Ceramic Capacitor（セラミックコンデンサー）

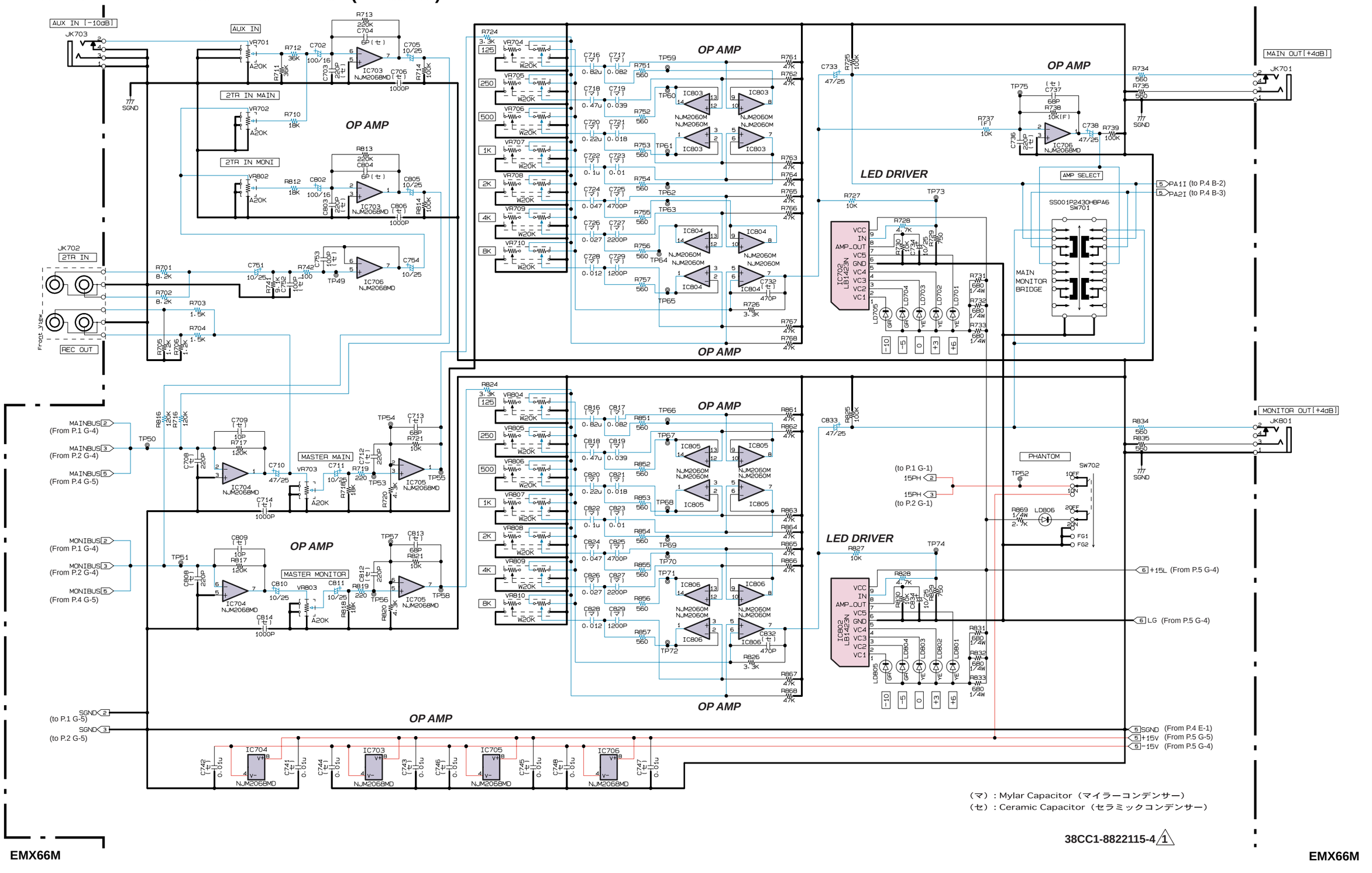
38CC1-8822115-3 1

EMX66M

EMX66M

EMX66M

■ EMX66M OVERALL CIRCUIT DIAGRAM 3/7 (MIX66 3/5)



（マ）：Mylar Capacitor（マイラーコンデンサー）
（セ）：Ceramic Capacitor（セラミックコンデンサー）

38CC1-8822115-4/1

EMX66M

EMX66M OVERALL CIRCUIT DIAGRAM 4/7 (MIX66 4/5)

EMX66M

JK902
FOOT SW
EM901 ZJSR5101
SGND
YSP
SS001P242BPJA6
SW910
(to P.5 C-1) AMP1
(to P.5 G-4) LG
(to P.5 C-3) AMP2
PA1I (From P.3 G-2)
PA2I (From P.3 G-2)
OP AMP
IC903 NJM2068MD
LD913 YE
R935 330 1/4W
(to P.3 G-5) SGND
−15V (From P.5 G-4)
SGND (From P.5 G-5)
+15V (From P.5 G-5)
+5V (From P.5 G-4)
DGND (From P.5 G-4)
AGND (From P.5 G-3)
DGND
CN901 52045-2745
to DSP-CN301
SGND
SGND
AGND
AGND
−15
+15
DSPI
DSPO
DGND
DGND
+5VD
FSW2
FSW3
SW0
SW1
SW2
SW3
SW4
SW5
SW6
SW7
SW8
LED8
LA2
LA1
LA0
ENABLE
(From P.1 G-4) EFFBUS
(From P.2 G-4) EFFBUS
TP76
TP77
TP78
OP AMP
IC901 NJM2068MD
EFFECT OUT [+4dB]
JK901
SW901 ECHO 1
SW902 ECHO 2
SW903 REVERB 1
SW904 REVERB 2
SW905 HALL 1
SW906 HALL 2
SW907 ROOM
SW908 PLATE
SW909 EFFECT ON/OFF
SKQNAE025A
IC902 74HC138
DEMULTIPLEXER
+5D
LD901 GR ECHO 1
LD902 GR ECHO 2
LD903 GR REVERB 1
LD904 GR REVERB 2
LD905 GR HALL 1
LD906 GR HALL 2
LD907 GR ROOM
LD908 GR PLATE
LD909 YE EFFECT ON/OFF
EFFECT RTN MONI
EFFECT RTN MAIN
VR902 A20K
VR901 A20K
Q901 2SA1312
D902 1SS355-TE-17
NJM2068MD
IC901
IC903
OP AMP
MONIBUS (to P.3 A-4)
MAINBUS (to P.3 A-4)

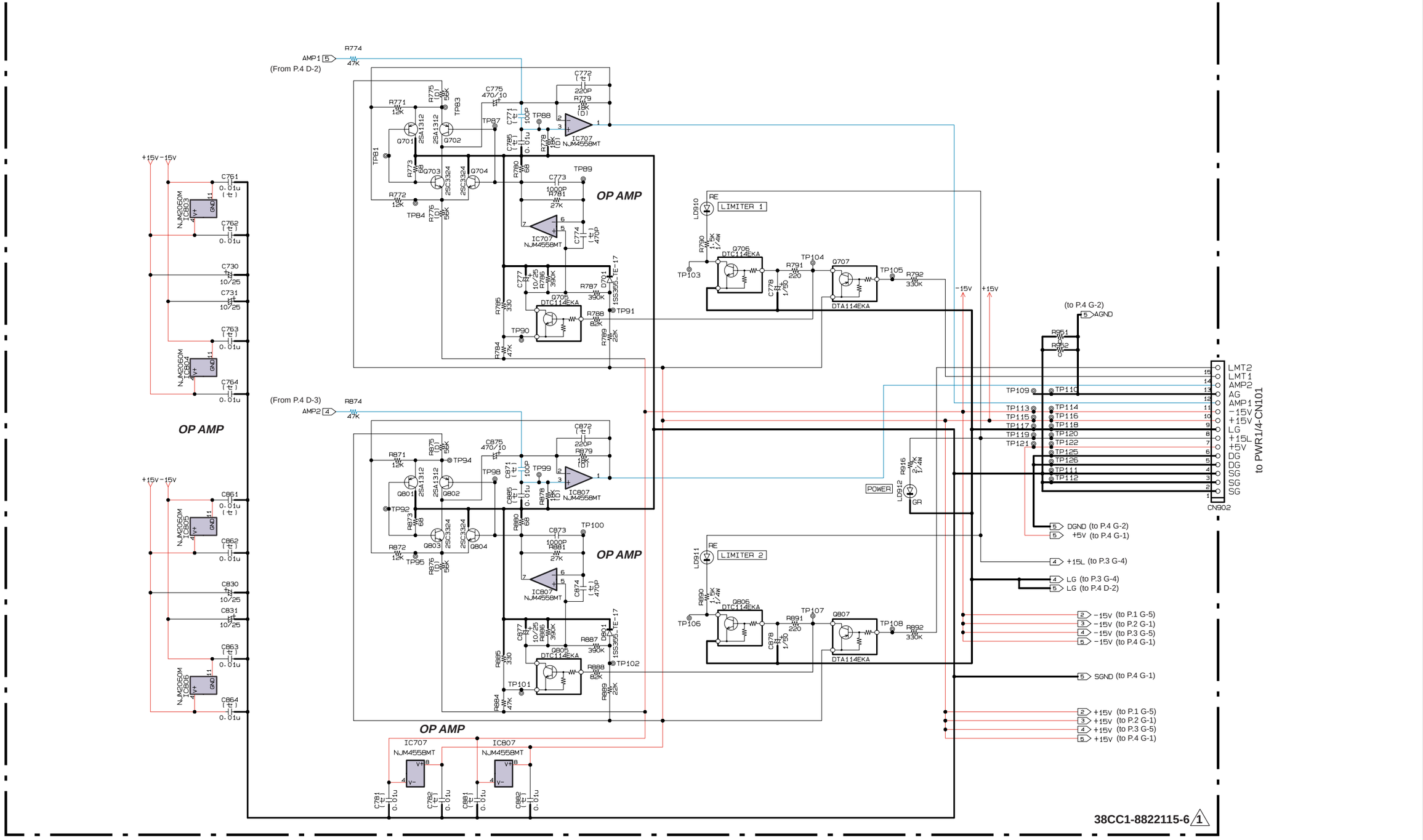
（マ）：Mylar Capacitor（マイラーコンデンサー）
（セ）：Ceramic Capacitor（セラミックコンデンサー）

38CC1-8822115-5 1

EMX66M

EMX66M

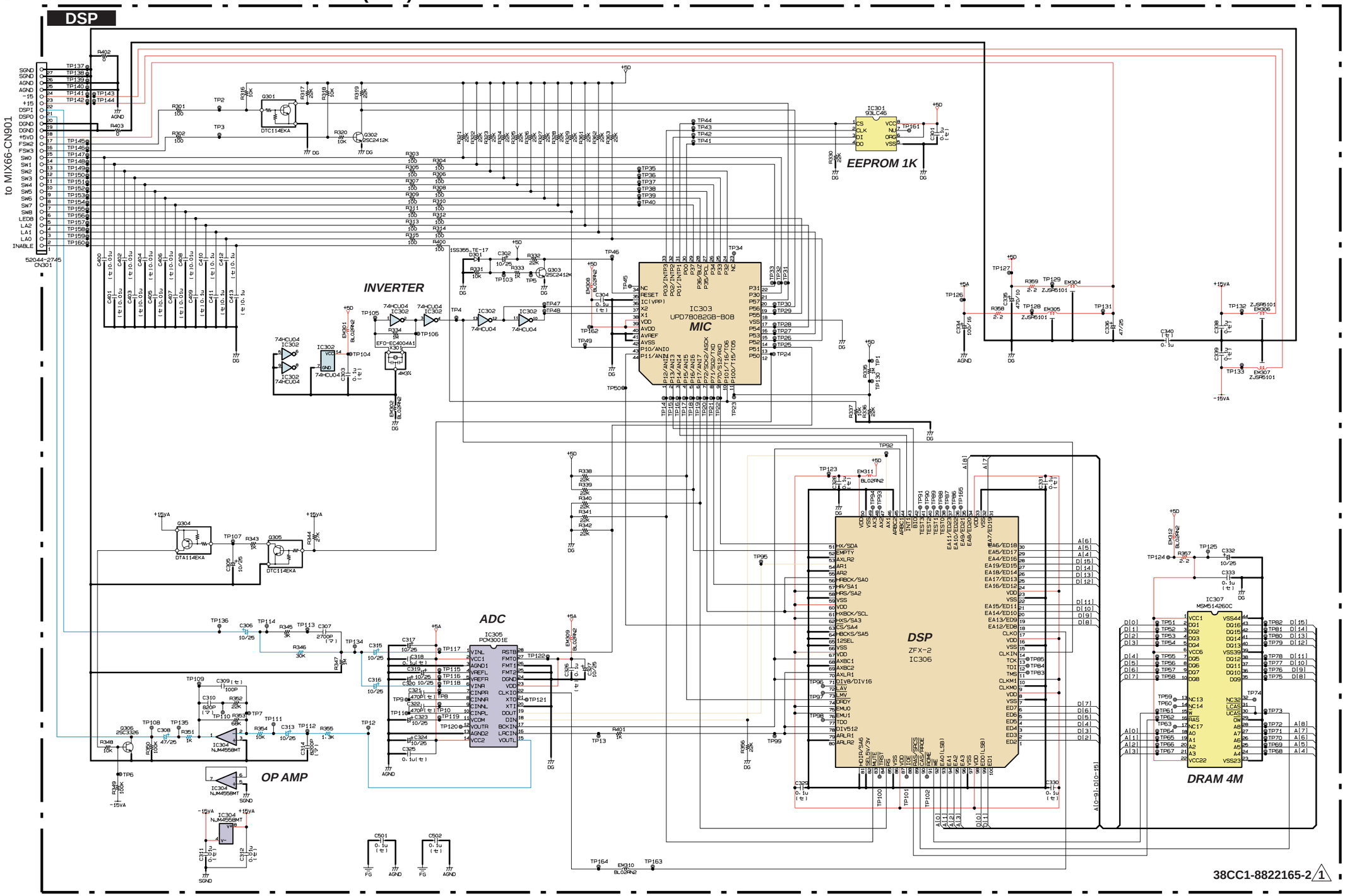
■ EMX66M OVERALL CIRCUIT DIAGRAM 5/7 (MIX66 5/5)



（セ）：Ceramic Capacitor（セラミックコンデンサー）

EMX66M OVERALL CIRCUIT DIAGRAM 6/7 (DSP)

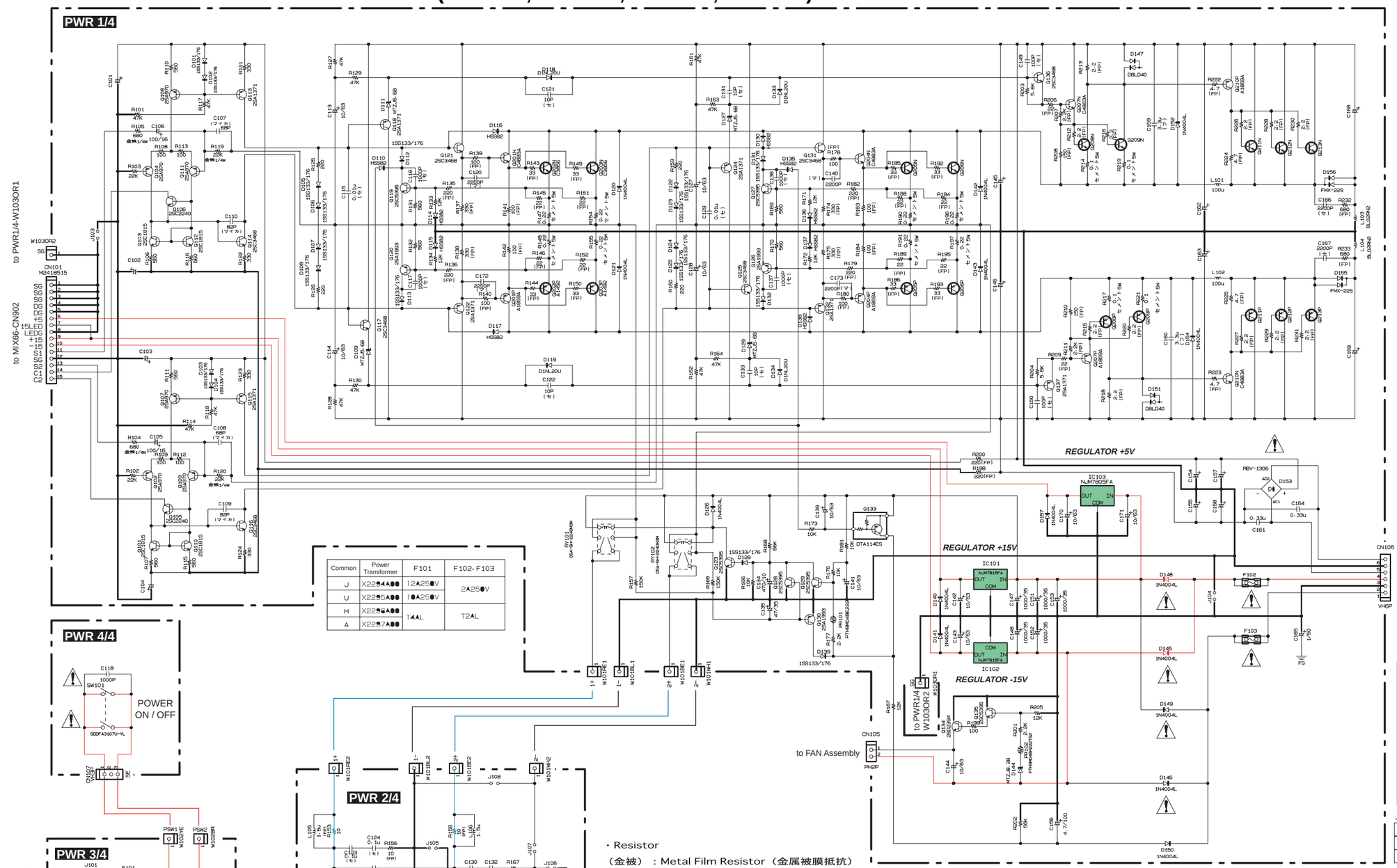
DSP



（マ）：Mylar Capacitor（マイラーコンデンサー）
（セ）：Ceramic Capacitor（セラミックコンデンサー）

EMX66M

■ EMX66M OVERALL CIRCUIT DIAGRAM 7/7 (PWR 1/4, PWR 2/4, PWR 3/4, PWR 4/4)



Common	Power Transformer	F101	F102・F103
J	X2254A00	12A250V	2A250V
U	X2255A00	10A250V	
H	X2256A00	T4AL	T2AL
A	X2257A00		

・Resistor
（金被）：Metal Film Resistor（金属被膜抵抗）
（フ）：Flame Proof Carbon Resistor（不燃化カーボン抵抗）
（セメント）：Wire Wound Resistor（セメント抵抗）
・Capacitor
（マイカ）：Mica Capacitor（マイカコンデンサー）
（マ）：Mylar Capacitor（マイラーコンデンサー）
（セ）：Ceramic Capacitor（セラミックコンデンサー）
（フ）：Polyester Film Capasitor（フィルムコンデンサー）
規格認定コン：Capacitor（規格認定コンデンサー）

PWR1/4:	38CC1-8822388-2	⚠1
PWR2/4:	38CC1-8822388-2	⚠1
PWR3/4:	38CC1-8822388-2	⚠1
PWR4/4:	38CC1-8822388-2	⚠1

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

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

- **•NJM7815FA** (XD853A00) REGULATOR +15V — PWR1/4: IC101 — 1: OUTPUT 2: COMMON 3: INPUT
- **•D8LD40** (VR149700) DIODE STACK 8.0A 400V — PWR1/4: D147,151
- **•NJM7915FA** (XD854A00) REGULATOR -15V — PWR1/4: IC102 — 1: OUTPUT 2: INPUT 3: COMMON
- **•FMX-22S** (VS135800) DIODE STACK 10.0A 200V — PWR1/4: D155,156
- **•NJM7805FA** (XJ607A00) REGULATOR +5V — PWR1/4: IC103 — 1: OUTPUT 2: COMMON 3: INPUT
- **•1N4004L** (VU801600) DIODE — PWR1/4: 120-121,126, 140-143,145-146, 148-150,152,154,157 — 1: ANODE 2: CATHODE
- **•RBV-1306** (V2261600) DIODE STACK 13.0A 600V — PWR1/4: D153
- **•MTZ J 8.2B 8.2V** (VG438900) ZENER DIODE — PWR1/4: D144 — 1: ANODE 2: CATHODE
- **•1SS133, 1SS176, HSS104** (VD631600) DIODE — PWR1/4: D101-108,112-113, 122-125,128,131-132,139 — 1: ANODE 2: CATHODE

LOCATION	
C111・C112	U, H only
C154・C155	6800/100
C157・C158	Not Install
C168・C169	100/100
C101・C102・C103・C104・C145・C146・C162・C163	2.2/100
Q202N・Q203N・Q205N・Q206N・Q208N・Q209N・Q211N・Q212N・Q213N	C3519
Q202P・Q203P・Q205P・Q206P・Q208P・Q209P・Q211P・Q212P・Q213P	A1386

J101～J108

LOCATION	
J101～J104・J107	Install
J105・J106・J108	Not Install

EMX 66M
POWERED MIXER

PARTS LIST

RACK MOUNT KIT
RK-88

■ CONTENTS

Note) DESTINATION ABBREVIATIONS

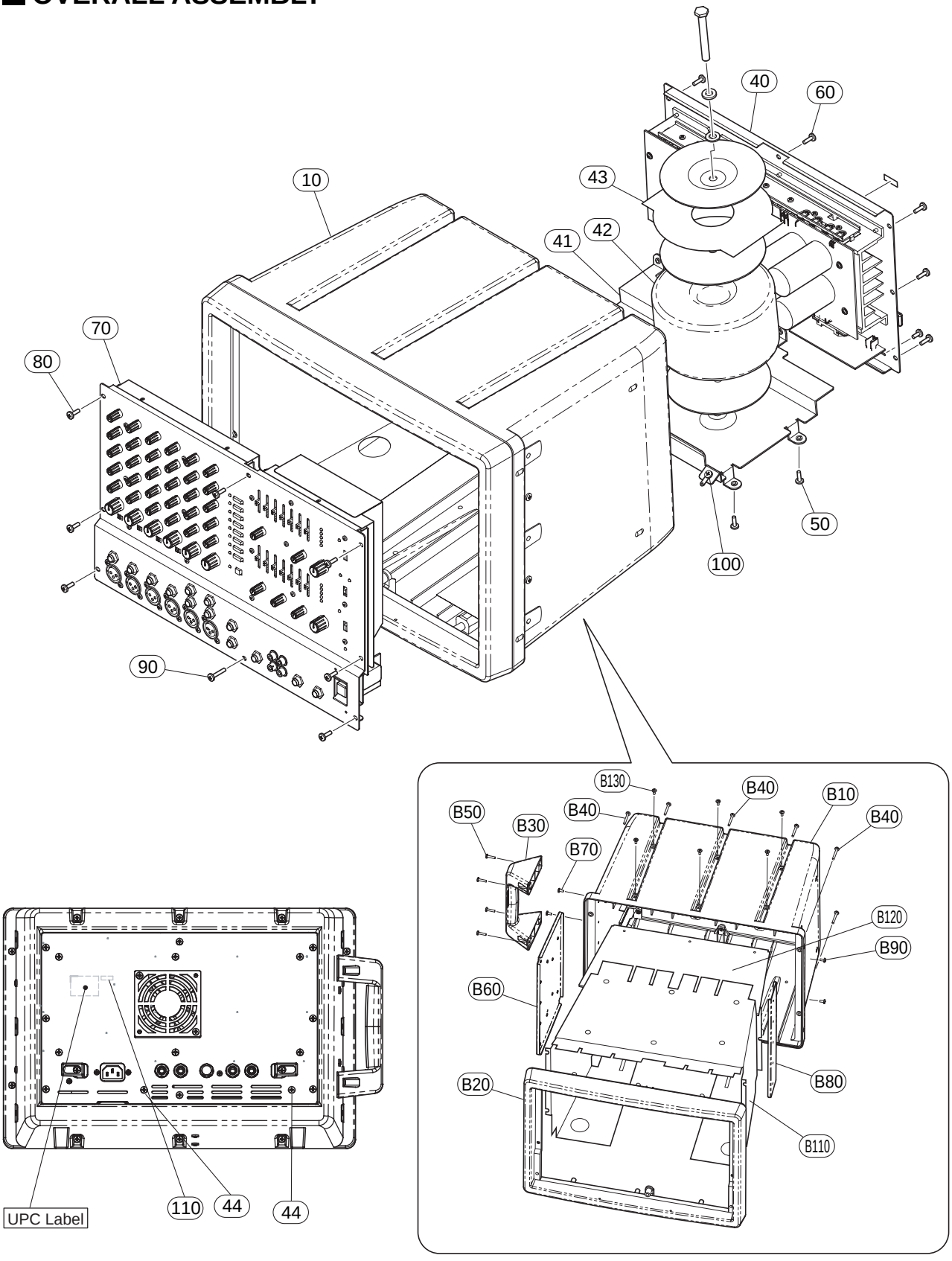
A:	Australian model	M:	South African model
B:	British model	O:	Chinese model
C:	Canadian model	Q:	South-east Asia model
D:	German model	T:	Taiwan model
E:	European model	U:	U.S.A. model
F:	French model	V:	General export model (110V)
H:	North European model	W:	General export model (220V)
I:	Indonesian model	N,X:	General export model
J:	Japanese model	Y:	Export model

■ WARNING

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

- The numbers in " QTY " show quantities for each unit.
- The parts with " - - " in " PART NO. " are not available as spare parts.
- The mark " } " in the remarks column indicates that these parts are interchangeable.
- The second letter of the shaded ( ) part number is O, not zero.
- The second letter of the shaded ( ) part number is I, not one.

OVERALL ASSEMBLY

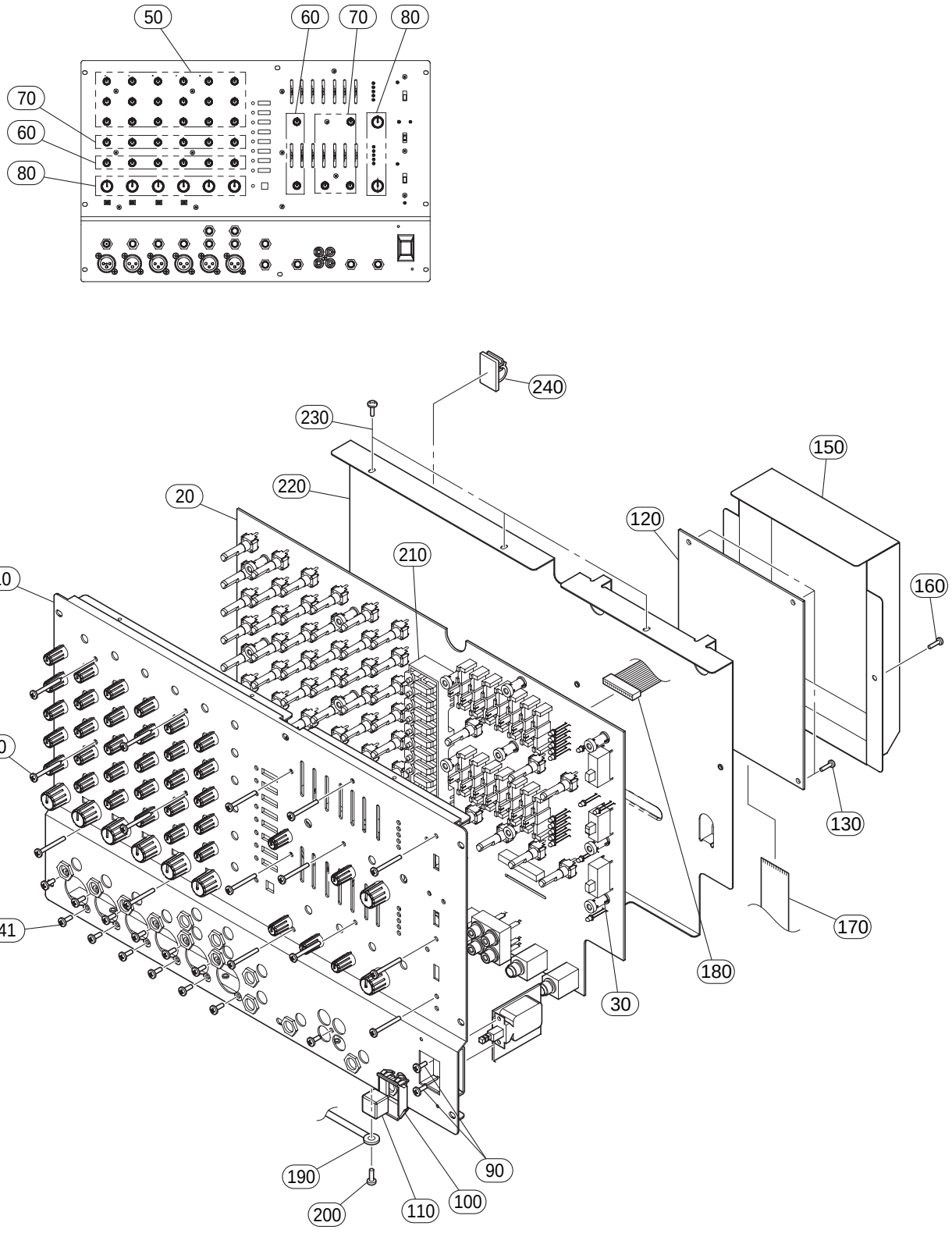


	REF NO.	PART NO.	DESCRIPTION			REMARKS		QTY	RANK
			OVERALL ASSEMBLY						
		--	Overall Assembly	J		J	(V832670)		
		--	Overall Assembly	U		U,V	(V832680)		
		--	Overall Assembly	H		H,B,W	(V832690)		
		--	Overall Assembly	A		A	(V832700)		
	10	--	Body Assembly	J COM			(V832150)		
	40	--	Rear Panel Assembly	J		J	(V832780)		
	40	--	Rear Panel Assembly	U		U	(V832790)		
	40	--	Rear Panel Assembly	H		H	(V832800)		
	40	--	Rear Panel Assembly	A		A	(V832810)		
*	41	V7871800	Holder, Transformer						
⚠ *	42	X2294A00	Power Transformer			J			
⚠ *	42	X2295A00	Power Transformer	UL		U, V			
⚠ *	42	X2296A00	Power Transformer	CE A		H, B, W			
⚠ *	42	X2297A00	Power Transformer	AS A		A			
*	43	V7019800	Shield Plate	CP2000					
	44	EG340190	Bind Head Tapping Screw-B	4.0X8 MFZN2BL				2	01
	50	VR138400	Bind Head Tapping Screw-B	4.0X12 MFZN2BL				6	01
	60	VB132700	Bind Head Screw	4.0X12 MFZN2BL				8	01
	70	--	Front Panel Assembly	J COM			(V832820)		
	80	VB132700	Bind Head Screw	4.0X12 MFZN2BL				7	01
	90	VB403600	Bind Head Screw	4.0X20 MFZN2BL					01
	100	VP156800	Bind Head Screw	A4.0X8 MFZN2BL					01
	110	VA039300	Label, Date Code			U			03
			BODY ASSEMBLY						
		--	Body Assembly	J COM			(V832150)		
*	B10	V8322500	Body Assembly, Sub	J COM					
*	B20	V8322600	Front Frame, Sub	J COM					
*	B30	V8419500	Handle Assembly	J COM					
*	B40	V8322700	Bind Head Tapping Screw-P	4.0X30 MFZN2BL				10	
	B50	EG340110	Bind Head Screw	4.0X16 MFZN2BL				4	01
	B60	--	Side Plate	LEFT			(V839690)		
	B70	EG340360	Bind Head Screw	4.0X8 MFZN2BL				4	01
	B80	--	Side Plate	RIGHT			(V839700)		
	B90	EG340360	Bind Head Screw	4.0X8 MFZN2BL				2	01
*	B110	V8183300	Shield Sheet						
	B120	--	Reinforcement Plate				(V850510)		
	B130	EG340360	Bind Head Screw	4.0X8 MFZN2BL				6	01
			ACCESSORIES						
		V6283900	AC Cord	BS H05VV-F3X0.75		B			
		V6284300	AC Cord	UC SJT		U, V			
		V6284400	AC Cord	E H05VV-FX3 0.75		H, W, A			
		V7240300	AC Cord	J VCTF 0.75X3		J			

*: New Parts

RANK: Japan only

■ FRONT PANEL ASSEMBLY



	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
			FRONT PANEL ASSEMBLY					
		--	Front Panel Assembly	J COM		(V832820)		
*	10	V8329300	Front Panel					
*	20	V8266900	Circuit Board	MIX66				
	30	V3291600	PCB Support	NEW NIFCO BL			15	01
	40	V3289800	Screw	3X25 MFZNBL			15	01
	41	VN413300	Bonding Tapping Screw-B	3.0X8 MFZN2BL			13	01
	50	V6225300	Knob	GREEN/M-GRAY		HIGH (CH1-6), MID(CH1-6), LOW (CH1-6)	18	01
	60	V6225600	Knob	L-GRAY/M-GRAY		EFFECT (CH1-6),	8	01
	70	V6225400	Knob	BLUE/M-GRAY		EFFECT RTN (MONITOR,MAIN)	9	01
	80	V6225700	Knob	L-GRAY/D-GRAY		MONITOR (CH1-6), 2TR IN (MONITOR, MAIN) LEVEL (CH1-6), MASTER (MONITOR, MAIN)	8	01
	90	VB659000	Bind Head Screw	3.0X8 MFZN2BL			2	01
	100	VU859100	Escutcheon, Power Switch	MX12/4				02
	110	VU859000	Power Switch Knob	MX12/4		POWER ON/OFF		01
*	120	AAX33040	Circuit Board	DSP-ZFX		(V826710)		
	130	EP600230	Bind Head Tapping Screw-B	3.0X6 MFZN2BL			4	01
	150	--	Shield Case			(V787200)		
	160	EP600230	Bind Head Tapping Screw-B	3.0X6 MFZN2BL			2	01
*	170	MF127100	Connector Assembly	27 100mm P=1.25				
*	180	V8426200	Connector Assembly	24185&2426 15P700L				
	190	--	Connector Assembly	GND		(V827280)		
	200	VP156800	Bind Head Screw	A4.0X8 MFZN2BL				01
*	210	V8422000	Button					
	220	--	Shield Plate			(V841270)		
	230	EP600230	Bind Head Tapping Screw-B	3.0X6 MFZN2BL			6	01
	240	VZ765100	Cord Binder	TS-0708 KSS				02

*: New Parts

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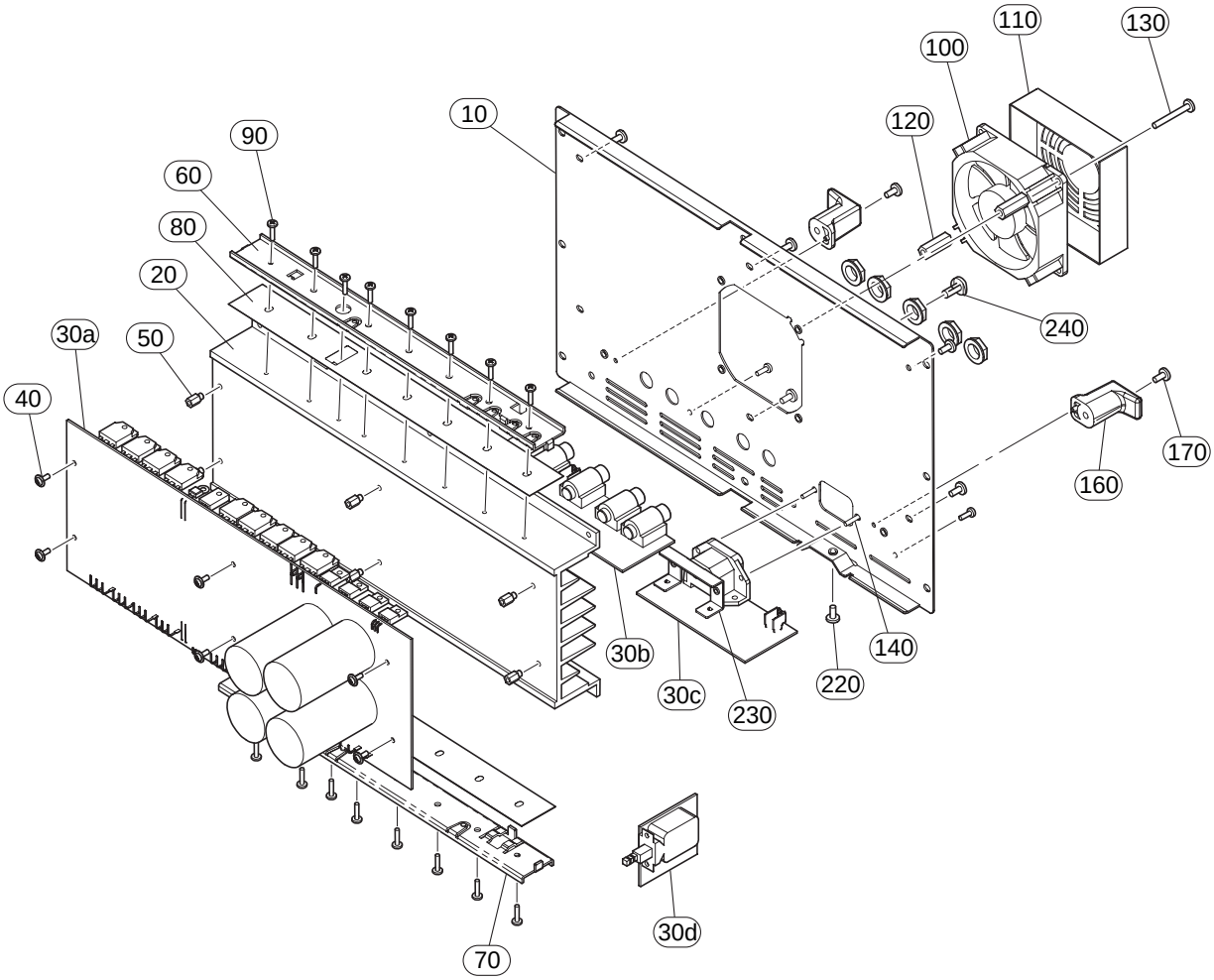
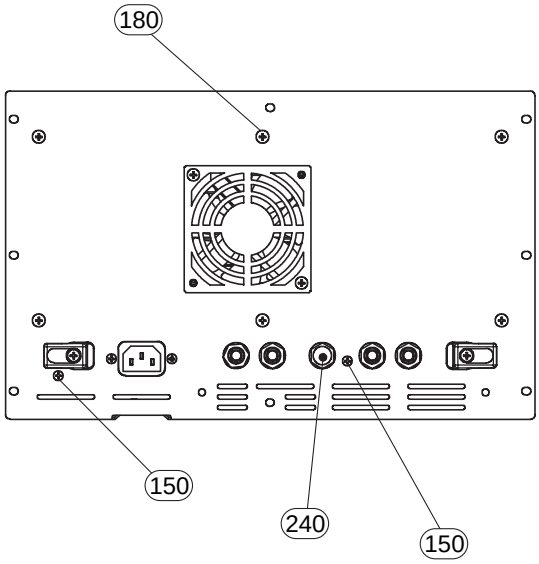
■ REAR PANEL ASSEMBLY





	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
			REAR PANEL ASSEMBLY					
		--	Rear Panel Assembly	J	J	(V832780)		
		--	Rear Panel Assembly	U	U	(V832790)		
		--	Rear Panel Assembly	H	H	(V832800)		
		--	Rear Panel Assembly	A	A	(V832810)		
*	10	V8328800	Rear Panel	J	J			
*	10	V8328900	Rear Panel	U	U			
*	10	V8329000	Rear Panel	H	H			
*	10	V8329100	Rear Panel	A	A			
	20	--	Heat Sink			(V787110)		
*	30a	AAX32870	Circuit Board	PWR B66 1/4	J, U	(V826870, V826880)		
*	30a	AAX32880	Circuit Board	PWR B66 1/4	H, A	(V826890)		
*	30b	AAX32890	Circuit Board	PWR B66 2/4		(V826870)		
*	30c	AAX32900	Circuit Board	PWR B66 3/4	J	(V826870)		
*	30c	AAX32910	Circuit Board	PWR B66 3/4	U	(V826880)		
*	30c	AAX32920	Circuit Board	PWR B66 3/4	H, A	(V826890)		
*	30d	AAX32930	Circuit Board	PWR B66 4/4		(V826870)		
	40	EG330290	Bind Head Screw	SP 3.0X8 MFZN2Y			6	01
	50	VV086500	Support	H=7.4 B=5.5			6	01
	60	--	TR Holder A			(V521320)		
	70	--	TR Holder B			(V521330)		
	80	V5214900	Insulation Sheet				2	03
	90	VQ074600	Bind Head Tapping Screw-B	3.0X12 MFZN2BL			16	01
	100	V6147300	Fan	3110GLB5WB50H02				08
	110	V2951400	Angle Bracket, Fan					03
	120	--	Support			(V813390)	2	
	130	VT229100	Bind Head Screw	4.0X30 MFZN2BL			2	01
	140	VQ074600	Bind Head Tapping Screw-B	3.0X12 MFZN2BL			2	01
	150	VN413300	Bonding Tapping Screw-B	3.0X8 MFZN2BL			2	01
	160	V4773400	Holder, Cord				2	
	170	EG340190	Bind Head Tapping Screw-B	4.0X8 MFZN2BL			2	01
	180	EG340190	Bind Head Tapping Screw-B	4.0X8 MFZN2BL			6	01
	220	VP156800	Bind Head Screw	A4.0X8 MFZN2BL				01
*	230	V8098800	Angle Bracket, AC Inlet					
	240	V7646900	Clip	F1B84 TIFCO				01

*: New Parts

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■ ELECTRICAL PARTS

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
			ELECTRICAL PARTS					
*		**AAX33040**	Circuit Board	DSP-ZFX		(V826710) (X0622B0)		
*		**V8266900**	Circuit Board	MIX66		(X0619B0)		
*		**AAX32870**	Circuit Board	PWR B66 1/4	J, U	(V826870) (X0623B0)		
*		**AAX32880**	Circuit Board	PWR B66 1/4	H, A	(V826890) (X0623B0)		
*		**AAX32890**	Circuit Board	PWR B66 2/4		(V826870) (X0623B0)		
*		**AAX32900**	Circuit Board	PWR B66 3/4	J	(V826870) (X0623B0)		
*		**AAX32910**	Circuit Board	PWR B66 3/4	U	(V826880) (X0623B0)		
*		**AAX32920**	Circuit Board	PWR B66 3/4	H, A	(V826890) (X0623B0)		
*		**AAX32930**	Circuit Board	PWR B66 4/4		(V826870) (X0623B0)		
*		**AAX33040**	Circuit Board	DSP-ZFX		(V826710) (X0622B0)		
	C301	**UX145100**	Ceramic Capacitor (chip)	0.1000 25V Z				01
	C302	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C303	**UX145100**	Ceramic Capacitor (chip)	0.1000 25V Z				01
	C304	**UX145100**	Ceramic Capacitor (chip)	0.1000 25V Z				01
	C305	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C306	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C307	**UA953270**	Mylar Capacitor	2700P 50V J				01
	C308	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
	C309	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
	C310	**VV190000**	Mylar Capacitor	820P 50V J				01
	C311	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	C312	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	C313	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C314	**UA953820**	Mylar Capacitor	8200P 50V J				
	C315	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	-317	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C318	**UX145100**	Ceramic Capacitor (chip)	0.1000 25V Z				01
	C319	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C320	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C321	**UX062470**	Ceramic Capacitor (chip)	470P 50V J				
	C322	**UX062470**	Ceramic Capacitor (chip)	470P 50V J				
	C323	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C324	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C325	**UX145100**	Ceramic Capacitor (chip)	0.1000 25V Z				01
	C326	**UX145100**	Ceramic Capacitor (chip)	0.1000 25V Z				01
	C327	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C328	**UX145100**	Ceramic Capacitor (chip)	0.1000 25V Z				01
	-331	**UX145100**	Ceramic Capacitor (chip)	0.1000 25V Z				01
	C332	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C333	**UX145100**	Ceramic Capacitor (chip)	0.1000 25V Z				01
	C334	**UR838100**	Electrolytic Cap.	100.00 16.0V				01
	C335	**UR828470**	Electrolytic Cap.	470.00 10.0V				01
	C336	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
	C338	**UX145100**	Ceramic Capacitor (chip)	0.1000 25V Z				01
	-340	**UX145100**	Ceramic Capacitor (chip)	0.1000 25V Z				01
	C400	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	-408	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	C409	**UX145100**	Ceramic Capacitor (chip)	0.1000 25V Z				01
	-413	**UX145100**	Ceramic Capacitor (chip)	0.1000 25V Z				01
	C501	**UX145100**	Ceramic Capacitor (chip)	0.1000 25V Z				01
	C502	**UX145100**	Ceramic Capacitor (chip)	0.1000 25V Z				01
	CN301	**VQ045600**	Connector , FFC	52044 27P SE				03
	D301	**VT332900**	Diode	1SS355 TE-17				01
	EM301	**GE300670**	Ferrite Bead	BL02RN2-R62T4				02
	EM302	**GE300670**	Ferrite Bead	BL02RN2-R62T4				02
	EM304	**VV056900**	Noise Filter	ZJSR5101-223TA				01
	-307	**VV056900**	Noise Filter	ZJSR5101-223TA				01
	EM308	**GE300670**	Ferrite Bead	BL02RN2-R62T4				02
	-312	**GE300670**	Ferrite Bead	BL02RN2-R62T4				02
*	IC301	**X2124A00**	IC	93LC46B-I/SN-N		EEPROM 2K		
	IC302	**XZ110A00**	IC	74HCU04DT		INVERTER		01
	IC303	**XY296A00**	IC	UPD78082GB-XXX		MCU		05
	IC304	**IG103520**	IC	NJM4558M(T1)		OP AMP		03
	IC305	**X0053A00**	IC	PCM3001E/2K		ADA		07
	IC306	**XY297A00**	IC	ZFX-2		CPU		13
	IC307	**XT810B00**	IC	MSM514260E-60TS-K		DRAM 4M		07
	Q301	**VV655400**	Digital Transistor	DTC114EKA TP				01

*: New Parts

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	Q302	**VV556400**	Transistor	2SC2412K Q,R,S				01
	Q303	**VV556400**	Transistor	2SC2412K Q,R,S				01
	Q304	**VV655000**	Digital Transistor	DTA114EKA TP				01
	Q305	**VV655400**	Digital Transistor	DTC114EKA TP				01
	Q306	**VD303700**	Transistor	2SC3326 A,B TE85R				01
	R301	**RG005100**	Carbon Resistor (chip)	100 0.1 J				
	-315	**RG005100**	Carbon Resistor (chip)	100 0.1 J				
	R316	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R317	**RG007220**	Carbon Resistor (chip)	22K 0.1 J				
	R318	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R319	**RG007220**	Carbon Resistor (chip)	22K 0.1 J				
	R320	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R321	**RG007220**	Carbon Resistor (chip)	22K 0.1 J				
	-330	**RG007220**	Carbon Resistor (chip)	22K 0.1 J				
	R331	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R332	**RG007220**	Carbon Resistor (chip)	22K 0.1 J				
	R333	**RG006100**	Carbon Resistor (chip)	1.0K 0.1 J				
	R334	**RG009100**	Carbon Resistor (chip)	1.0M 0.1 J				
	R335	**RG009100**	Carbon Resistor (chip)	1.0M 0.1 J				
	R336	**RG007220**	Carbon Resistor (chip)	22K 0.1 J				
	R337	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R338	**RG007220**	Carbon Resistor (chip)	22K 0.1 J				
	-342	**RG007220**	Carbon Resistor (chip)	22K 0.1 J				
	R343	**RG006100**	Carbon Resistor (chip)	1.0K 0.1 J				
	R344	**RG007270**	Carbon Resistor (chip)	27K 0.1 J				
	R345	**RG006300**	Carbon Resistor (chip)	3.0K 0.1 J				
	R346	**RG007300**	Carbon Resistor (chip)	30K 0.1 J				
	R347	**RG009100**	Carbon Resistor (chip)	1.0M 0.1 J				
	R348	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R349	**RG008100**	Carbon Resistor (chip)	100K 0.1 J				
	R350	**RG008100**	Carbon Resistor (chip)	100K 0.1 J				
	R351	**RG006100**	Carbon Resistor (chip)	1.0K 0.1 J				
	R352	**RG007220**	Carbon Resistor (chip)	22K 0.1 J				
	R353	**RG007680**	Carbon Resistor (chip)	68K 0.1 J				
*	R354	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R355	**RG006130**	Carbon Resistor (chip)	1.3K 0.1 J				
	R356	**RG007220**	Carbon Resistor (chip)	22K 0.1 J				
	R357	**VV313600**	Flame Proof C. Resistor	2.2 1/4 J				01
	-359	**VV313600**	Flame Proof C. Resistor	2.2 1/4 J				01
	R361	**RG007220**	Carbon Resistor (chip)	22K 0.1 J				
	-363	**RG007220**	Carbon Resistor (chip)	22K 0.1 J				
	R400	**RG005100**	Carbon Resistor (chip)	100 0.1 J				
	R401	**RG006100**	Carbon Resistor (chip)	1.0K 0.1 J				
	R402	**RG000000**	Carbon Resistor (chip)	0 0.1 J				
	R403	**RG000000**	Carbon Resistor (chip)	0 0.1 J				
*	X301	**V8288200**	Ceramic Resonator	0.3% 4.0MHZ				
*		**V8266900**	Circuit Board	MIX66		(X0619B0)		
		V4467500	Button	CD-GRAY/WHITE		PAD (CH1-4)	4	01
		VV307300	LED Spacer				24	01
	20	**--**	Jumper Wire	0.60		(VV29140)		
	30	**--**	Jumper Wire	0.60 TP		(V829020)		
	C101	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
	C102	**VV488800**	Electrolytic Cap. LLM	10.00 50.0V				01
	C103	**VV488800**	Electrolytic Cap. LLM	10.00 50.0V				01
	C104	**UX062470**	Ceramic Capacitor (chip)	470P 50V J				
	-107	**UX062470**	Ceramic Capacitor (chip)	470P 50V J				
	C108	**UR828470**	Electrolytic Cap.	470.00 10.0V				01
	C109	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
	-111	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
	C112	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C113	**UA954150**	Mylar Capacitor	0.0150 50V J				01
	C114	**UA954100**	Mylar Capacitor	0.0100 50V J				01
	C115	**UA954120**	Mylar Capacitor	0.0120 50V J				
	C116	**UA953390**	Mylar Capacitor	3900P 50V J				01
	C117	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
*	C118	**UX061270**	Ceramic Capacitor (chip)	27P 50V J				
	C119	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
	C120	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C121	**UR847100**	Electrolytic Cap.	10.00 25.0V				01

*: New Parts

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	C122	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	-125	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	C126	**UX063100**	Ceramic Capacitor (chip)	1000P 50V K				01
	C202	**VV488800**	Electrolytic Cap. LLM	10.00 50.0V				01
	C203	**VV488800**	Electrolytic Cap. LLM	10.00 50.0V				01
	C204	**UX062470**	Ceramic Capacitor (chip)	470P 50V J				
	-207	**UX062470**	Ceramic Capacitor (chip)	470P 50V J				
	C208	**UR828470**	Electrolytic Cap.	470.00 10.0V				01
	C209	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
	-211	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
	C212	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C213	**UA954150**	Mylar Capacitor	0.0150 50V J				01
	C214	**UA954100**	Mylar Capacitor	0.0100 50V J				01
	C215	**UA954120**	Mylar Capacitor	0.0120 50V J				
	C216	**UA953390**	Mylar Capacitor	3900P 50V J				01
	C217	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
*	C218	**UX061270**	Ceramic Capacitor (chip)	27P 50V J				
	C219	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
	C220	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C221	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C302	**VV488800**	Electrolytic Cap. LLM	10.00 50.0V				01
	C303	**VV488800**	Electrolytic Cap. LLM	10.00 50.0V				01
	C304	**UX062470**	Ceramic Capacitor (chip)	470P 50V J				
	-307	**UX062470**	Ceramic Capacitor (chip)	470P 50V J				
	C308	**UR828470**	Electrolytic Cap.	470.00 10.0V				01
	C309	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
	-311	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
	C312	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C313	**UA954150**	Mylar Capacitor	0.0150 50V J				01
	C314	**UA954100**	Mylar Capacitor	0.0100 50V J				01
	C315	**UA954120**	Mylar Capacitor	0.0120 50V J				
	C316	**UA953390**	Mylar Capacitor	3900P 50V J				01
	C317	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
*	C318	**UX061270**	Ceramic Capacitor (chip)	27P 50V J				
	C319	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
	C320	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C321	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C322	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	-325	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	C326	**UX063100**	Ceramic Capacitor (chip)	1000P 50V K				01
	C401	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
	C402	**VV488800**	Electrolytic Cap. LLM	10.00 50.0V				01
	C403	**VV488800**	Electrolytic Cap. LLM	10.00 50.0V				01
	C404	**UX062470**	Ceramic Capacitor (chip)	470P 50V J				
	-407	**UX062470**	Ceramic Capacitor (chip)	470P 50V J				
	C408	**UR828470**	Electrolytic Cap.	470.00 10.0V				01
	C409	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
	-411	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
	C412	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C413	**UA954150**	Mylar Capacitor	0.0150 50V J				01
	C414	**UA954100**	Mylar Capacitor	0.0100 50V J				01
	C415	**UA954120**	Mylar Capacitor	0.0120 50V J				
	C416	**UA953390**	Mylar Capacitor	3900P 50V J				01
	C417	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
*	C418	**UX061270**	Ceramic Capacitor (chip)	27P 50V J				
	C419	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
	C420	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C421	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C502	**VV488800**	Electrolytic Cap. LLM	10.00 50.0V				01
	C503	**VV488800**	Electrolytic Cap. LLM	10.00 50.0V				01
	C504	**UX062470**	Ceramic Capacitor (chip)	470P 50V J				
	-507	**UX062470**	Ceramic Capacitor (chip)	470P 50V J				
	C508	**UR828470**	Electrolytic Cap.	470.00 10.0V				01
	C509	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
	-511	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
	C513	**UA954150**	Mylar Capacitor	0.0150 50V J				01
	C514	**UA954100**	Mylar Capacitor	0.0100 50V J				01
	C515	**UA954120**	Mylar Capacitor	0.0120 50V J				
	C516	**UA953390**	Mylar Capacitor	3900P 50V J				01
	C517	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01

*: New Parts

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
*	C518	**UX061270**	Ceramic Capacitor (chip)	27P 50V J				
	C519	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
	C520	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C521	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C522	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
	C523	**UX061470**	Ceramic Capacitor (chip)	47P 50V J				
	C524	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C526	**UX063100**	Ceramic Capacitor (chip)	1000P 50V K				01
	C527	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	-530	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	C602	**VV488800**	Electrolytic Cap. LLM	10.00 50.0V				01
	C603	**VV488800**	Electrolytic Cap. LLM	10.00 50.0V				01
	C604	**UX062470**	Ceramic Capacitor (chip)	470P 50V J				
	-607	**UX062470**	Ceramic Capacitor (chip)	470P 50V J				
	C608	**UR828470**	Electrolytic Cap.	470.00 10.0V				01
	C609	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
	-611	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
	C613	**UA954150**	Mylar Capacitor	0.0150 50V J				01
	C614	**UA954100**	Mylar Capacitor	0.0100 50V J				01
	C615	**UA954120**	Mylar Capacitor	0.0120 50V J				
	C616	**UA953390**	Mylar Capacitor	3900P 50V J				01
	C617	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
*	C618	**UX061270**	Ceramic Capacitor (chip)	27P 50V J				
	C619	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
	C622	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
	C623	**UX061470**	Ceramic Capacitor (chip)	47P 50V J				
	C624	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C626	**UX063100**	Ceramic Capacitor (chip)	1000P 50V K				01
	C627	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	-630	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	C631	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C632	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C633	**UX061470**	Ceramic Capacitor (chip)	47P 50V J				
	C634	**UX061470**	Ceramic Capacitor (chip)	47P 50V J				
	C635	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
	C636	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
	C637	**UX061220**	Ceramic Capacitor (chip)	22P 50V J				01
	C638	**UX061220**	Ceramic Capacitor (chip)	22P 50V J				01
	C702	**UR838100**	Electrolytic Cap.	100.00 16.0V				01
	C703	**UX062220**	Ceramic Capacitor (chip)	220P 50V J				01
*	C704	**UX060600**	Ceramic Capacitor (chip)	6P 50V C				
	C705	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C706	**UX063100**	Ceramic Capacitor (chip)	1000P 50V K				01
	C708	**UX062220**	Ceramic Capacitor (chip)	220P 50V J				01
	C709	**UX061100**	Ceramic Capacitor (chip)	10P 50V D				01
	C710	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
	C711	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C712	**UX062220**	Ceramic Capacitor (chip)	220P 50V J				01
	C713	**UX061680**	Ceramic Capacitor (chip)	68P 50V J				01
	C714	**UX063100**	Ceramic Capacitor (chip)	1000P 50V K				01
	C716	**UA655820**	Mylar Capacitor	0.8200 50V J				01
	C717	**UA954820**	Mylar Capacitor	0.0820 50V J				01
	C718	**UA655470**	Mylar Capacitor	0.4700 50V J				01
	C719	**UA954390**	Mylar Capacitor	0.0390 50V J				01
	C720	**UA655220**	Mylar Capacitor	0.2200 50V J				01
	C721	**UA954180**	Mylar Capacitor	0.0180 50V J				01
	C722	**V5868900**	Mylar Capacitor	0.1 50V J				
	C723	**UA954100**	Mylar Capacitor	0.0100 50V J				01
	C724	**UA954470**	Mylar Capacitor	0.0470 50V J				01
	C725	**UA953470**	Mylar Capacitor	4700P 50V J				01
	C726	**UA954270**	Mylar Capacitor	0.0270 50V J				01
	C727	**UA953220**	Mylar Capacitor	2200P 50V J				01
	C728	**UA954120**	Mylar Capacitor	0.0120 50V J				
	C729	**UA953120**	Mylar Capacitor	1200P 50V J				01
	C730	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C731	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C732	**UX062470**	Ceramic Capacitor (chip)	470P 50V J				
	C733	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
	C734	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C736	**UX062220**	Ceramic Capacitor (chip)	220P 50V J				01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	C737	**UX061680**	Ceramic Capacitor (chip)	68P 50V J				01
	C738	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
	C741	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	-748	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	C751	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C752	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
	C753	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
	C754	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C761	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	-764	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	C771	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
	C772	**UX062220**	Ceramic Capacitor (chip)	220P 50V J				01
	C773	**UX063100**	Ceramic Capacitor (chip)	1000P 50V K				01
	C774	**UX062470**	Ceramic Capacitor (chip)	470P 50V J				
	C775	**UR828470**	Electrolytic Cap.	470.00 10.0V				01
	C777	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C778	**UR866100**	Electrolytic Cap.	1.00 50.0V				01
	C781	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	C782	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	C785	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	C802	**UR838100**	Electrolytic Cap.	100.00 16.0V				01
	C803	**UX062220**	Ceramic Capacitor (chip)	220P 50V J				01
*	C804	**UX060600**	Ceramic Capacitor (chip)	6P 50V C				
	C805	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C806	**UX063100**	Ceramic Capacitor (chip)	1000P 50V K				01
	C808	**UX062220**	Ceramic Capacitor (chip)	220P 50V J				01
	C809	**UX061100**	Ceramic Capacitor (chip)	10P 50V D				01
	C810	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C811	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C812	**UX062220**	Ceramic Capacitor (chip)	220P 50V J				01
	C813	**UX061680**	Ceramic Capacitor (chip)	68P 50V J				01
	C814	**UX063100**	Ceramic Capacitor (chip)	1000P 50V K				01
	C816	**UA655820**	Mylar Capacitor	0.8200 50V J				01
	C817	**UA954820**	Mylar Capacitor	0.0820 50V J				01
	C818	**UA655470**	Mylar Capacitor	0.4700 50V J				01
	C819	**UA954390**	Mylar Capacitor	0.0390 50V J				01
	C820	**UA655220**	Mylar Capacitor	0.2200 50V J				01
	C821	**UA954180**	Mylar Capacitor	0.0180 50V J				01
	C822	**V5868900**	Mylar Capacitor	0.1 50V J				
	C823	**UA954100**	Mylar Capacitor	0.0100 50V J				01
	C824	**UA954470**	Mylar Capacitor	0.0470 50V J				01
	C825	**UA953470**	Mylar Capacitor	4700P 50V J				01
	C826	**UA954270**	Mylar Capacitor	0.0270 50V J				01
	C827	**UA953220**	Mylar Capacitor	2200P 50V J				01
	C828	**UA954120**	Mylar Capacitor	0.0120 50V J				
	C829	**UA953120**	Mylar Capacitor	1200P 50V J				01
	C830	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C831	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C832	**UX062470**	Ceramic Capacitor (chip)	470P 50V J				
	C833	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
	C834	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C861	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	-864	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	C871	**UX062100**	Ceramic Capacitor (chip)	100P 50V J				01
	C872	**UX062220**	Ceramic Capacitor (chip)	220P 50V J				01
	C873	**UX063100**	Ceramic Capacitor (chip)	1000P 50V K				01
	C874	**UX062470**	Ceramic Capacitor (chip)	470P 50V J				
	C875	**UR828470**	Electrolytic Cap.	470.00 10.0V				01
	C877	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C878	**UR866100**	Electrolytic Cap.	1.00 50.0V				01
	C881	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	C882	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	C885	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01
	C901	**UX062220**	Ceramic Capacitor (chip)	220P 50V J				01
*	C902	**UX060600**	Ceramic Capacitor (chip)	6P 50V C				
	C903	**UR847100**	Electrolytic Cap.	10.00 25.0V				01
	C905	**UX062220**	Ceramic Capacitor (chip)	220P 50V J				01
*	C906	**UX061270**	Ceramic Capacitor (chip)	27P 50V J				
	C907	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
	C908	**UX064100**	Ceramic Capacitor (chip)	0.0100 50V K				01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	C909	UX064100	Ceramic Capacitor (chip)	0.0100 50V K				01
	C910	UR858100	Electrolytic Cap.	100.00 35.0V				01
	C911	UX145100	Ceramic Capacitor (chip)	0.1000 25V Z				01
	C912	UX145100	Ceramic Capacitor (chip)	0.1000 25V Z				01
	C913	UX064100	Ceramic Capacitor (chip)	0.0100 50V K				01
	C914	UX064100	Ceramic Capacitor (chip)	0.0100 50V K				01
	C915	UA655120	Mylar Capacitor	0.1200 50V J				01
	C917	UA655120	Mylar Capacitor	0.1200 50V J				01
	C921	UX145100	Ceramic Capacitor (chip)	0.1000 25V Z				01
	C925	UA655120	Mylar Capacitor	0.1200 50V J				01
	C927	UA655120	Mylar Capacitor	0.1200 50V J				01
	CN901	VQ047800	Connector, FFC	52045 27P TE				02
	CN902	VV067500	Connector Base Post	M2426XX 15P TE				01
	D601	VT332900	Diode	1SS355 TE-17				01
	-604	VT332900	Diode	1SS355 TE-17				01
	D701	VT332900	Diode	1SS355 TE-17				01
	D801	VT332900	Diode	1SS355 TE-17				01
	D901	VT332900	Diode	1SS355 TE-17				01
	D902	VT332900	Diode	1SS355 TE-17				01
	EM901	VV056900	Noise Filter	ZJSR5101-223TA				01
	IC101	XJ553A00	IC	NJM2068MD-T1		OP AMP		02
	IC102	IG103520	IC	NJM4558M(T1)		OP AMP		03
	IC301	XJ553A00	IC	NJM2068MD-T1		OP AMP		02
	IC302	IG103520	IC	NJM4558M(T1)		OP AMP		03
	IC501	XJ553A00	IC	NJM2068MD-T1		OP AMP		02
	IC502	IG103520	IC	NJM4558M(T1)		OP AMP		03
	IC601	XJ553A00	IC	NJM2068MD-T1		OP AMP		02
*	IC603	XV423A00	IC	TL072CPSR		OP AMP		
	IC702	XZ348A00	IC	LB1423N		LED DRIVER		02
	IC703	XJ553A00	IC	NJM2068MD-T1		OP AMP		02
	-706	XJ553A00	IC	NJM2068MD-T1		OP AMP		02
	IC707	IG103520	IC	NJM4558M(T1)		OP AMP		03
	IC802	XZ348A00	IC	LB1423N		LED DRIVER		02
*	IC803	XM560A00	IC	NJM2060M(TE2)OP		OP AMP		
*	-806	XM560A00	IC	NJM2060M(TE2)OP		OP AMP		
	IC807	IG103520	IC	NJM4558M(T1)		OP AMP		03
	IC901	XJ553A00	IC	NJM2068MD-T1		OP AMP		02
	IC902	XW762A00	IC	TC74HC138AFEL		DEMULTIPLEXER		02
	IC903	XJ553A00	IC	NJM2068MD-T1		OP AMP		02
	JK101	V6127200	XLM Connector	JY-5042		Low-Z (CH1)		03
	JK102	V2886000	Phone Jack	JY-6351J-06-340		Hi-Z (CH1)		02
	JK201	V6127200	XLM Connector	JY-5042		Low-Z (CH2)		03
	JK202	V2886000	Phone Jack	JY-6351J-06-340		Hi-Z (CH2)		02
	JK301	V6127200	XLM Connector	JY-5042		Low-Z (CH3)		03
	JK302	V2886000	Phone Jack	JY-6351J-06-340		Hi-Z (CH3)		02
	JK401	V6127200	XLM Connector	JY-5042		Low-Z (CH4)		03
	JK402	V2886000	Phone Jack	JY-6351J-06-340		Hi-Z (CH4)		02
	JK501	V6127200	XLM Connector	JY-5042		MIC (CH5)		03
	JK502	V2886000	Phone Jack	JY-6351J-06-340		LINE 1 (CH5)		02
	JK503	V2886000	Phone Jack	JY-6351J-06-340		LINE 2 (CH5)		02
	JK601	V6127200	XLM Connector	JY-5042		MIC (CH6)		03
	JK602	V2886000	Phone Jack	JY-6351J-06-340		Super Hi-Z 1 (CH6)		02
	JK603	V2886000	Phone Jack	JY-6351J-06-340		Super Hi-Z 2 (CH6)		02
	JK701	V2886000	Phone Jack	JY-6351J-06-340		OUTPUT MAIN		02
	JK702	V4807600	Pin Jack	RJ-1130A-01-0320A		2TR IN 1, 2		03
						REC OUT 1, 2		
	JK703	V2886000	Phone Jack	JY-6351J-06-340		AUX IN		02
	JK801	V2886000	Phone Jack	JY-6351J-06-340		OUTPUT MONITOR		02
	JK901	V2886000	Phone Jack	JY-6351J-06-340		EFFECT OUT		02
	JK902	V2886000	Phone Jack	JY-6351J-06-340		FOOT SW		02
*	LD701	V8840400	LED	L34YD-TNB5/13.6 YE		+6 (MAIN)		
*	LD702	V8840400	LED	L34YD-TNB5/13.6 YE		+3 (MAIN)		
*	LD703	V8840400	LED	L34YD-TNB5/13.6 YE		0 (MAIN)		
*	LD704	V8840200	LED	L34GD-TNB5/13.6 GR		-5 (MAIN)		
*	LD705	V8840200	LED	L34GD-TNB5/13.6 GR		-10 (MAIN)		
*	LD801	V8840400	LED	L34YD-TNB5/13.6 YE		+6 (MONITOR)		
*	LD802	V8840400	LED	L34YD-TNB5/13.6 YE		+3 (MONITOR)		
*	LD803	V8840400	LED	L34YD-TNB5/13.6 YE		0 (MONITOR)		
*	LD804	V8840200	LED	L34GD-TNB5/13.6 GR		-5 (MONITOR)		
*	LD805	V8840200	LED	L34GD-TNB5/13.6 GR		-10 (MONITOR)		

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
*	LD806	**V8840400**	LED	L34YD-TNB5/13.6 YE		PHANTOM		
*	LD901	**V8840200**	LED	L34GD-TNB5/13.6 GR		VOCAL ECHO 1		
*	LD902	**V8840200**	LED	L34GD-TNB5/13.6 GR		VOCAL ECHO 2		
*	LD903	**V8840200**	LED	L34GD-TNB5/13.6 GR		VOCAL REVERB 1		
*	LD904	**V8840200**	LED	L34GD-TNB5/13.6 GR		VOCAL REVERB 2		
*	LD905	**V8840200**	LED	L34GD-TNB5/13.6 GR		HALL 1		
*	LD906	**V8840200**	LED	L34GD-TNB5/13.6 GR		HALL 2		
*	LD907	**V8840200**	LED	L34GD-TNB5/13.6 GR		ROOM		
*	LD908	**V8840200**	LED	L34GD-TNB5/13.6 GR		PLATE		
*	LD909	**V8840400**	LED	L34YD-TNB5/13.6 YE		EFFECT ON		
*	LD910	**V8840100**	LED	L34HD-TNB5/13.6 RE		LIMITER		
*	LD911	**V8840100**	LED	L34HD-TNB5/13.6 RE		LIMITER		
*	LD912	**V8840200**	LED	L34GD-TNB5/13.6 GR		POWER		
*	LD913	**V8840400**	LED	L34YD-TNB5/13.6 YE		YSP		
*	Q101	**V7421700**	Transistor (chip)	2SC2SC3324 GR,BL				
*	Q102	**V7421700**	Transistor (chip)	2SC2SC3324 GR,BL				
*	Q201	**V7421700**	Transistor (chip)	2SC2SC3324 GR,BL				
*	Q202	**V7421700**	Transistor (chip)	2SC2SC3324 GR,BL				
*	Q301	**V7421700**	Transistor (chip)	2SC2SC3324 GR,BL				
*	Q302	**V7421700**	Transistor (chip)	2SC2SC3324 GR,BL				
*	Q401	**V7421700**	Transistor (chip)	2SC2SC3324 GR,BL				
*	Q402	**V7421700**	Transistor (chip)	2SC2SC3324 GR,BL				
*	Q501	**V7421700**	Transistor (chip)	2SC2SC3324 GR,BL				
*	Q502	**V7421700**	Transistor (chip)	2SC2SC3324 GR,BL				
*	Q601	**V7421700**	Transistor (chip)	2SC2SC3324 GR,BL				
*	Q602	**V7421700**	Transistor (chip)	2SC2SC3324 GR,BL				
*	Q701	**V7421800**	Transistor	2SA2SA1312 GR,BL				
*	Q702	**V7421800**	Transistor	2SA2SA1312 GR,BL				
*	Q703	**V7421700**	Transistor (chip)	2SC2SC3324 GR,BL				
*	Q704	**V7421700**	Transistor (chip)	2SC2SC3324 GR,BL				
	Q705	**VV655400**	Digital Transistor	DTC114EKA TP				01
	Q706	**VV655400**	Digital Transistor	DTC114EKA TP				01
	Q707	**VV655000**	Digital Transistor	DTA114EKA TP				01
*	Q801	**V7421800**	Transistor	2SA2SA1312 GR,BL				
*	Q802	**V7421800**	Transistor	2SA2SA1312 GR,BL				
*	Q803	**V7421700**	Transistor (chip)	2SC2SC3324 GR,BL				
*	Q804	**V7421700**	Transistor (chip)	2SC2SC3324 GR,BL				
	Q805	**VV655400**	Digital Transistor	DTC114EKA TP				01
	Q806	**VV655400**	Digital Transistor	DTC114EKA TP				01
	Q807	**VV655000**	Digital Transistor	DTA114EKA TP				01
*	Q901	**V7421800**	Transistor	2SA2SA1312 GR,BL				
	R101	**RG008100**	Carbon Resistor (chip)	100K 0.1 J				
	R102	**V2440200**	Metal Film Resistor	2.4K 1/4 F				01
	R103	**V2440200**	Metal Film Resistor	2.4K 1/4 F				01
	R104	**VV276800**	Flame Proof C. Resistor	100 1/4 J				01
*	R105	**RG007150**	Carbon Resistor (chip)	15K 0.1 J				
	R106	**RG004100**	Carbon Resistor (chip)	10 0.1 J				
	R107	**RG004100**	Carbon Resistor (chip)	10 0.1 J				
*	R108	**RF357470**	Carbon Resistor (chip)	47.0K D 1608				
*	R109	**RF357470**	Carbon Resistor (chip)	47.0K D 1608				
	R110	**RG004100**	Carbon Resistor (chip)	10 0.1 J				
	R111	**RG004100**	Carbon Resistor (chip)	10 0.1 J				
*	R112	**RG005150**	Carbon Resistor (chip)	150 0.1 J				
	R113	**RG006820**	Carbon Resistor (chip)	8.2K 0.1 J				
*	R114	**RF356820**	Carbon Resistor (chip)	8.2K D 1608				
*	R115	**RF356820**	Carbon Resistor (chip)	8.2K D 1608				
*	R116	**RF356220**	Carbon Resistor (chip)	2.2K D 1608				
*	R117	**RF356220**	Carbon Resistor (chip)	2.2K D 1608				
	R118	**RF357100**	Carbon Resistor (chip)	10.0K D 1608				01
	R119	**RF357100**	Carbon Resistor (chip)	10.0K D 1608				01
	R120	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R121	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R122	**RG005680**	Carbon Resistor (chip)	680				
	R123	**RG005680**	Carbon Resistor (chip)	680				
	R124	**RG006270**	Carbon Resistor (chip)	2.7K				
	R125	**RG006270**	Carbon Resistor (chip)	2.7K				
	R126	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R127	**RG006270**	Carbon Resistor (chip)	2.7K				
	R128	**RG004100**	Carbon Resistor (chip)	10 0.1 J				
	R129	**RG007180**	Carbon Resistor (chip)	18K 0.1 J				

*: New Parts

RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	-131	**RG007180**	Carbon Resistor (chip)	18K 0.1 J				
*	R132	**RF356390**	Carbon Resistor (chip)	3.9K D 1608				
*	R133	**RF356390**	Carbon Resistor (chip)	3.9K D 1608				
	R134	**RG008100**	Carbon Resistor (chip)	100K 0.1 J				
	R135	**RG008100**	Carbon Resistor (chip)	100K 0.1 J				
	R202	**V2440200**	Metal Film Resistor	2.4K 1/4 F				01
	R203	**V2440200**	Metal Film Resistor	2.4K 1/4 F				01
*	R205	**RG007150**	Carbon Resistor (chip)	15K 0.1 J				
	R206	**RG004100**	Carbon Resistor (chip)	10 0.1 J				
	R207	**RG004100**	Carbon Resistor (chip)	10 0.1 J				
*	R208	**RF357470**	Carbon Resistor (chip)	47.0K D 1608				
*	R209	**RF357470**	Carbon Resistor (chip)	47.0K D 1608				
	R210	**RG004100**	Carbon Resistor (chip)	10 0.1 J				
	R211	**RG004100**	Carbon Resistor (chip)	10 0.1 J				
*	R212	**RG005150**	Carbon Resistor (chip)	150 0.1 J				
	R213	**RG006820**	Carbon Resistor (chip)	8.2K 0.1 J				
*	R214	**RF356820**	Carbon Resistor (chip)	8.2K D 1608				
*	R215	**RF356820**	Carbon Resistor (chip)	8.2K D 1608				
*	R216	**RF356220**	Carbon Resistor (chip)	2.2K D 1608				
*	R217	**RF356220**	Carbon Resistor (chip)	2.2K D 1608				
	R218	**RF357100**	Carbon Resistor (chip)	10.0K D 1608				01
	R219	**RF357100**	Carbon Resistor (chip)	10.0K D 1608				01
	R220	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R221	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R222	**RG005680**	Carbon Resistor (chip)	680				
	R223	**RG005680**	Carbon Resistor (chip)	680				
	R224	**RG006270**	Carbon Resistor (chip)	2.7K				
	R225	**RG006270**	Carbon Resistor (chip)	2.7K				
	R226	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R227	**RG006270**	Carbon Resistor (chip)	2.7K				
	R228	**RG004100**	Carbon Resistor (chip)	10 0.1 J				
	R229	**RG007180**	Carbon Resistor (chip)	18K 0.1 J				
	-231	**RG007180**	Carbon Resistor (chip)	18K 0.1 J				
*	R232	**RF356390**	Carbon Resistor (chip)	3.9K D 1608				
*	R233	**RF356390**	Carbon Resistor (chip)	3.9K D 1608				
	R234	**RG008100**	Carbon Resistor (chip)	100K 0.1 J				
	R235	**RG008100**	Carbon Resistor (chip)	100K 0.1 J				
	R302	**V2440200**	Metal Film Resistor	2.4K 1/4 F				01
	R303	**V2440200**	Metal Film Resistor	2.4K 1/4 F				01
*	R305	**RG007150**	Carbon Resistor (chip)	15K 0.1 J				
	R306	**RG004100**	Carbon Resistor (chip)	10 0.1 J				
	R307	**RG004100**	Carbon Resistor (chip)	10 0.1 J				
*	R308	**RF357470**	Carbon Resistor (chip)	47.0K D 1608				
*	R309	**RF357470**	Carbon Resistor (chip)	47.0K D 1608				
	R310	**RG004100**	Carbon Resistor (chip)	10 0.1 J				
	R311	**RG004100**	Carbon Resistor (chip)	10 0.1 J				
*	R312	**RG005150**	Carbon Resistor (chip)	150 0.1 J				
	R313	**RG006820**	Carbon Resistor (chip)	8.2K 0.1 J				
*	R314	**RF356820**	Carbon Resistor (chip)	8.2K D 1608				
*	R315	**RF356820**	Carbon Resistor (chip)	8.2K D 1608				
*	R316	**RF356220**	Carbon Resistor (chip)	2.2K D 1608				
*	R317	**RF356220**	Carbon Resistor (chip)	2.2K D 1608				
	R318	**RF357100**	Carbon Resistor (chip)	10.0K D 1608				01
	R319	**RF357100**	Carbon Resistor (chip)	10.0K D 1608				01
	R320	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R321	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R322	**RG005680**	Carbon Resistor (chip)	680				
	R323	**RG005680**	Carbon Resistor (chip)	680				
	R324	**RG006270**	Carbon Resistor (chip)	2.7K				
	R325	**RG006270**	Carbon Resistor (chip)	2.7K				
	R326	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R327	**RG006270**	Carbon Resistor (chip)	2.7K				
	R328	**RG004100**	Carbon Resistor (chip)	10 0.1 J				
	R329	**RG007180**	Carbon Resistor (chip)	18K 0.1 J				
	-331	**RG007180**	Carbon Resistor (chip)	18K 0.1 J				
*	R332	**RF356390**	Carbon Resistor (chip)	3.9K D 1608				
*	R333	**RF356390**	Carbon Resistor (chip)	3.9K D 1608				
	R334	**RG008100**	Carbon Resistor (chip)	100K 0.1 J				
	R335	**RG008100**	Carbon Resistor (chip)	100K 0.1 J				
	R401	**RG008100**	Carbon Resistor (chip)	100K 0.1 J				

*: New Parts

RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	R402	V2440200	Metal Film Resistor	2.4K 1/4 F				01
	R403	V2440200	Metal Film Resistor	2.4K 1/4 F				01
*	R404	VV276800	Flame Proof C. Resistor	100 1/4 J				01
*	R405	RG007150	Carbon Resistor (chip)	15K 0.1 J				
	R406	RG004100	Carbon Resistor (chip)	10 0.1 J				
	R407	RG004100	Carbon Resistor (chip)	10 0.1 J				
*	R408	RF357470	Carbon Resistor (chip)	47.0K	D 1608			
*	R409	RF357470	Carbon Resistor (chip)	47.0K	D 1608			
	R410	RG004100	Carbon Resistor (chip)	10 0.1 J				
	R411	RG004100	Carbon Resistor (chip)	10 0.1 J				
*	R412	RG005150	Carbon Resistor (chip)	150 0.1 J				
	R413	RG006820	Carbon Resistor (chip)	8.2K 0.1 J				
*	R414	RF356820	Carbon Resistor (chip)	8.2K	D 1608			
*	R415	RF356820	Carbon Resistor (chip)	8.2K	D 1608			
*	R416	RF356220	Carbon Resistor (chip)	2.2K	D 1608			
*	R417	RF356220	Carbon Resistor (chip)	2.2K	D 1608			
	R418	RF357100	Carbon Resistor (chip)	10.0K	D 1608			01
	R419	RF357100	Carbon Resistor (chip)	10.0K	D 1608			01
	R420	RG007100	Carbon Resistor (chip)	10K 0.1 J				
	R421	RG007100	Carbon Resistor (chip)	10K 0.1 J				
	R422	RG005680	Carbon Resistor (chip)	680				
	R423	RG005680	Carbon Resistor (chip)	680				
	R424	RG006270	Carbon Resistor (chip)	2.7K				
	R425	RG006270	Carbon Resistor (chip)	2.7K				
	R426	RG007100	Carbon Resistor (chip)	10K 0.1 J				
	R427	RG006270	Carbon Resistor (chip)	2.7K				
	R428	RG004100	Carbon Resistor (chip)	10 0.1 J				
	R429	RG007180	Carbon Resistor (chip)	18K 0.1 J				
	-431	RG007180	Carbon Resistor (chip)	18K 0.1 J				
*	R432	RF356390	Carbon Resistor (chip)	3.9K	D 1608			
*	R433	RF356390	Carbon Resistor (chip)	3.9K	D 1608			
	R434	RG008100	Carbon Resistor (chip)	100K 0.1 J				
	R435	RG008100	Carbon Resistor (chip)	100K 0.1 J				
	R502	V2440200	Metal Film Resistor	2.4K 1/4 F				01
	R503	V2440200	Metal Film Resistor	2.4K 1/4 F				01
*	R505	RG007150	Carbon Resistor (chip)	15K 0.1 J				
	R506	RG004100	Carbon Resistor (chip)	10 0.1 J				
	R507	RG004100	Carbon Resistor (chip)	10 0.1 J				
*	R508	RF357470	Carbon Resistor (chip)	47.0K	D 1608			
*	R509	RF357470	Carbon Resistor (chip)	47.0K	D 1608			
	R510	RG004100	Carbon Resistor (chip)	10 0.1 J				
	R511	RG004100	Carbon Resistor (chip)	10 0.1 J				
*	R512	RG005150	Carbon Resistor (chip)	150 0.1 J				
	R513	RG007180	Carbon Resistor (chip)	18K 0.1 J				
*	R514	RF356820	Carbon Resistor (chip)	8.2K	D 1608			
*	R515	RF356820	Carbon Resistor (chip)	8.2K	D 1608			
*	R516	RF356220	Carbon Resistor (chip)	2.2K	D 1608			
*	R517	RF356220	Carbon Resistor (chip)	2.2K	D 1608			
	R518	RF357100	Carbon Resistor (chip)	10.0K	D 1608			01
	R519	RF357100	Carbon Resistor (chip)	10.0K	D 1608			01
	R520	RG007100	Carbon Resistor (chip)	10K 0.1 J				
	R521	RG007100	Carbon Resistor (chip)	10K 0.1 J				
	R522	RG005680	Carbon Resistor (chip)	680				
	R523	RG005680	Carbon Resistor (chip)	680				
	R524	RG006270	Carbon Resistor (chip)	2.7K				
	R525	RG006270	Carbon Resistor (chip)	2.7K				
	R526	RG007100	Carbon Resistor (chip)	10K 0.1 J				
	R527	RG006270	Carbon Resistor (chip)	2.7K				
	R528	RG004100	Carbon Resistor (chip)	10 0.1 J				
	R529	RG007180	Carbon Resistor (chip)	18K 0.1 J				
	-533	RG007180	Carbon Resistor (chip)	18K 0.1 J				
	R534	RG008100	Carbon Resistor (chip)	100K 0.1 J				
	-536	RG008100	Carbon Resistor (chip)	100K 0.1 J				
	R537	RG006470	Carbon Resistor (chip)	4.7K 0.1 J				
	R538	RG007100	Carbon Resistor (chip)	10K 0.1 J				
	R602	V2440200	Metal Film Resistor	2.4K 1/4 F				01
	R603	V2440200	Metal Film Resistor	2.4K 1/4 F				01
*	R605	RG007150	Carbon Resistor (chip)	15K 0.1 J				
	R606	RG004100	Carbon Resistor (chip)	10 0.1 J				
	R607	RG004100	Carbon Resistor (chip)	10 0.1 J				

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RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
*	R608	**RF357470**	Carbon Resistor (chip)	47.0K D 1608				
*	R609	**RF357470**	Carbon Resistor (chip)	47.0K D 1608				
	R610	**RG004100**	Carbon Resistor (chip)	10 0.1 J				
	R611	**RG004100**	Carbon Resistor (chip)	10 0.1 J				
*	R612	**RG005150**	Carbon Resistor (chip)	150 0.1 J				
	R613	**RG007180**	Carbon Resistor (chip)	18K 0.1 J				
*	R614	**RF356820**	Carbon Resistor (chip)	8.2K D 1608				
*	R615	**RF356820**	Carbon Resistor (chip)	8.2K D 1608				
*	R616	**RF356220**	Carbon Resistor (chip)	2.2K D 1608				
*	R617	**RF356220**	Carbon Resistor (chip)	2.2K D 1608				
	R618	**RF357100**	Carbon Resistor (chip)	10.0K D 1608				01
	R619	**RF357100**	Carbon Resistor (chip)	10.0K D 1608				01
	R620	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R621	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R622	**RG005680**	Carbon Resistor (chip)	680				
	R623	**RG005680**	Carbon Resistor (chip)	680				
	R624	**RG006270**	Carbon Resistor (chip)	2.7K				
	R625	**RG006270**	Carbon Resistor (chip)	2.7K				
	R626	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R627	**RG006270**	Carbon Resistor (chip)	2.7K				
	R628	**RG004100**	Carbon Resistor (chip)	10 0.1 J				
	R629	**RG007180**	Carbon Resistor (chip)	18K 0.1 J				
	-633	**RG007180**	Carbon Resistor (chip)	18K 0.1 J				
	R636	**RG008100**	Carbon Resistor (chip)	100K 0.1 J				
	R637	**RG006470**	Carbon Resistor (chip)	4.7K 0.1 J				
	R638	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R639	**RG006100**	Carbon Resistor (chip)	1.0K 0.1 J				
	R640	**RG006100**	Carbon Resistor (chip)	1.0K 0.1 J				
	R641	**RG008470**	Carbon Resistor (chip)	470K 0.1 J				
	R642	**RG008470**	Carbon Resistor (chip)	470K 0.1 J				
	R643	**RG006470**	Carbon Resistor (chip)	4.7K 0.1 J				
	R644	**RG006470**	Carbon Resistor (chip)	4.7K 0.1 J				
	R645	**RG007470**	Carbon Resistor (chip)	47K 0.1 J				
	R646	**RG007470**	Carbon Resistor (chip)	47K 0.1 J				
	R701	**RG006820**	Carbon Resistor (chip)	8.2K 0.1 J				
	R702	**RG006820**	Carbon Resistor (chip)	8.2K 0.1 J				
	R703	**RG006150**	Carbon Resistor (chip)	1.5K 0.1 J				
	R704	**RG006150**	Carbon Resistor (chip)	1.5K 0.1 J				
*	R705	**RG006120**	Carbon Resistor (chip)	1.2K 0.1 J				
*	R706	**RG006120**	Carbon Resistor (chip)	1.2K 0.1 J				
	R710	**RG007180**	Carbon Resistor (chip)	18K 0.1 J				
*	R711	**RG007360**	Carbon Resistor (chip)	36K 0.1 J				
*	R712	**RG007360**	Carbon Resistor (chip)	36K 0.1 J				
	R713	**RG008220**	Carbon Resistor (chip)	220K 0.1 J				
	R714	**RG008100**	Carbon Resistor (chip)	100K 0.1 J				
*	R716	**RG008120**	Carbon Resistor (chip)	120K 0.1 J				
*	R717	**RG008120**	Carbon Resistor (chip)	120K 0.1 J				
	R718	**RG007180**	Carbon Resistor (chip)	18K 0.1 J				
	R719	**RG005220**	Carbon Resistor (chip)	220 0.1 J				
*	R720	**RG006430**	Carbon Resistor (chip)	4.3K 0.1 J				
	R721	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R724	**RG006330**	Carbon Resistor (chip)	3.3K 0.1 J				
	R725	**RG008100**	Carbon Resistor (chip)	100K 0.1 J				
	R726	**RG006330**	Carbon Resistor (chip)	3.3K 0.1 J				
	R727	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R728	**RG006470**	Carbon Resistor (chip)	4.7K 0.1 J				
*	R729	**RG005750**	Carbon Resistor (chip)	750 0.1 J				
	R730	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
*	R731	**RG205680**	Carbon Resistor (chip)	680 1/4 J				
*	-733	**RG205680**	Carbon Resistor (chip)	680 1/4 J				
	R734	**RG005560**	Carbon Resistor (chip)	560 0.1 J				
	R735	**RG005560**	Carbon Resistor (chip)	560 0.1 J				
	R737	**RF357100**	Carbon Resistor (chip)	10.0K D 1608				01
	R738	**RF357100**	Carbon Resistor (chip)	10.0K D 1608				01
	R739	**RG008100**	Carbon Resistor (chip)	100K 0.1 J				
	R741	**RG006910**	Carbon Resistor (chip)	9.1K 0.1 J				
	R742	**RG005100**	Carbon Resistor (chip)	100 0.1 J				
	R751	**RG005560**	Carbon Resistor (chip)	560 0.1 J				
	-757	**RG005560**	Carbon Resistor (chip)	560 0.1 J				
	R761	**RG007470**	Carbon Resistor (chip)	47K 0.1 J				

*: New Parts

RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	-768	**RG007470**	Carbon Resistor (chip)	47K 0.1 J				
	R771	**RG007120**	Carbon Resistor (chip)	12K 0.1 J				
	R772	**RG007120**	Carbon Resistor (chip)	12K 0.1 J				
	R773	**RG004680**	Carbon Resistor (chip)	68 0.1 J				
*	R774	**RF357470**	Carbon Resistor (chip)	47.0K D 1608				
*	R775	**RF357560**	Carbon Resistor (chip)	56.0K D 1608				
*	R776	**RF357560**	Carbon Resistor (chip)	56.0K D 1608				
*	R778	**RF357180**	Carbon Resistor (chip)	18.0K D 1608				
*	R779	**RF357180**	Carbon Resistor (chip)	18.0K D 1608				
	R780	**RG004680**	Carbon Resistor (chip)	68 0.1 J				
	R781	**RG007270**	Carbon Resistor (chip)	27K 0.1 J				
	R784	**RG007470**	Carbon Resistor (chip)	47K 0.1 J				
*	R785	**RG005330**	Carbon Resistor (chip)	330 0.1 J				
	R786	**RG008390**	Carbon Resistor (chip)	390K 0.1 J				
	R787	**RG008390**	Carbon Resistor (chip)	390K 0.1 J				
	R788	**RG007820**	Carbon Resistor (chip)	82K 0.1 J				
	R789	**RG007220**	Carbon Resistor (chip)	22K 0.1 J				
*	R790	**RG206150**	Carbon Resistor (chip)	1.5K 1/4W				
	R791	**RG005220**	Carbon Resistor (chip)	220 0.1 J				
*	R792	**RG008330**	Carbon Resistor (chip)	330K 0.1 J				
	R812	**RG007180**	Carbon Resistor (chip)	18K 0.1 J				
	R813	**RG008220**	Carbon Resistor (chip)	220K 0.1 J				
	R814	**RG008100**	Carbon Resistor (chip)	100K 0.1 J				
*	R816	**RG008120**	Carbon Resistor (chip)	120K 0.1 J				
*	R817	**RG008120**	Carbon Resistor (chip)	120K 0.1 J				
	R818	**RG007180**	Carbon Resistor (chip)	18K 0.1 J				
	R819	**RG005220**	Carbon Resistor (chip)	220 0.1 J				
*	R820	**RG006430**	Carbon Resistor (chip)	4.3K 0.1 J				
	R821	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R824	**RG006330**	Carbon Resistor (chip)	3.3K 0.1 J				
	R825	**RG008100**	Carbon Resistor (chip)	100K 0.1 J				
	R826	**RG006330**	Carbon Resistor (chip)	3.3K 0.1 J				
	R827	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
	R828	**RG006470**	Carbon Resistor (chip)	4.7K 0.1 J				
*	R829	**RG005750**	Carbon Resistor (chip)	750 0.1 J				
	R830	**RG007100**	Carbon Resistor (chip)	10K 0.1 J				
*	R831	**RG205680**	Carbon Resistor (chip)	680 1/4 J				
*	-833	**RG205680**	Carbon Resistor (chip)	680 1/4 J				
	R834	**RG005560**	Carbon Resistor (chip)	560 0.1 J				
	R835	**RG005560**	Carbon Resistor (chip)	560 0.1 J				
	R851	**RG005560**	Carbon Resistor (chip)	560 0.1 J				
	-857	**RG005560**	Carbon Resistor (chip)	560 0.1 J				
	R861	**RG007470**	Carbon Resistor (chip)	47K 0.1 J				
	-868	**RG007470**	Carbon Resistor (chip)	47K 0.1 J				
*	R869	**RG206270**	Carbon Resistor (chip)	2.7K 1/4 J				
	R871	**RG007120**	Carbon Resistor (chip)	12K 0.1 J				
	R872	**RG007120**	Carbon Resistor (chip)	12K 0.1 J				
	R873	**RG004680**	Carbon Resistor (chip)	68 0.1 J				
*	R874	**RF357470**	Carbon Resistor (chip)	47.0K D 1608				
*	R875	**RF357560**	Carbon Resistor (chip)	56.0K D 1608				
*	R876	**RF357560**	Carbon Resistor (chip)	56.0K D 1608				
*	R878	**RF357180**	Carbon Resistor (chip)	18.0K D 1608				
*	R879	**RF357180**	Carbon Resistor (chip)	18.0K D 1608				
	R880	**RG004680**	Carbon Resistor (chip)	68 0.1 J				
	R881	**RG007270**	Carbon Resistor (chip)	27K 0.1 J				
	R884	**RG007470**	Carbon Resistor (chip)	47K 0.1 J				
*	R885	**RG005330**	Carbon Resistor (chip)	330 0.1 J				
	R886	**RG008390**	Carbon Resistor (chip)	390K 0.1 J				
	R887	**RG008390**	Carbon Resistor (chip)	390K 0.1 J				
	R888	**RG007820**	Carbon Resistor (chip)	82K 0.1 J				
	R889	**RG007220**	Carbon Resistor (chip)	22K 0.1 J				
*	R890	**RG206150**	Carbon Resistor (chip)	1.5K 1/4W				
	R891	**RG005220**	Carbon Resistor (chip)	220 0.1 J				
*	R892	**RG008330**	Carbon Resistor (chip)	330K 0.1 J				
	R900	**RG004100**	Carbon Resistor (chip)	10 0.1 J				
	R901	**RG008100**	Carbon Resistor (chip)	100K 0.1 J				
	R902	**RG007220**	Carbon Resistor (chip)	22K 0.1 J				
	R904	**RG005220**	Carbon Resistor (chip)	220 0.1 J				
*	R905	**RG007150**	Carbon Resistor (chip)	15K 0.1 J				
*	R906	**RG007390**	Carbon Resistor (chip)	39K 0.1 J				

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	R907	**RG008100**	Carbon Resistor (chip)	100K 0.1 J				
	R908	**RG005560**	Carbon Resistor (chip)	560 0.1 J				
	R909	**RG005560**	Carbon Resistor (chip)	560 0.1 J				
	R910	**RG008470**	Carbon Resistor (chip)	470K 0.1 J				
	R911	**RG006470**	Carbon Resistor (chip)	4.7K 0.1 J				
	R912	**RG007270**	Carbon Resistor (chip)	27K 0.1 J				
	R913	**RG007270**	Carbon Resistor (chip)	27K 0.1 J				
	R914	**RG007680**	Carbon Resistor (chip)	68K 0.1 J				
	R915	**RG007680**	Carbon Resistor (chip)	68K 0.1 J				
*	R916	**RG206270**	Carbon Resistor (chip)	2.7K 1/4 J				
	R917	**RG205330**	Carbon Resistor (chip)	330 1/4 J				
	-925	**RG205330**	Carbon Resistor (chip)	330 1/4 J				
*	R926	**RG004180**	Carbon Resistor (chip)	18 0.1 J				
*	R928	**RF356390**	Carbon Resistor (chip)	3.9K D 1608				
*	R930	**RF357820**	Carbon Resistor (chip)	82.0K D 1608				
*	R934	**RG004180**	Carbon Resistor (chip)	18 0.1 J				
	R935	**RG205330**	Carbon Resistor (chip)	330 1/4 J				
*	R936	**RG004180**	Carbon Resistor (chip)	18 0.1 J				
	R938	**RF356390**	Carbon Resistor (chip)	3.9K D 1608				
	R940	**RF357820**	Carbon Resistor (chip)	82.0K D 1608				01
*	R944	**RG004180**	Carbon Resistor (chip)	18 0.1 J				
	R951	**RG000000**	Carbon Resistor (chip)	0 0.1 J				
	R952	**RG000000**	Carbon Resistor (chip)	0 0.1 J				
	SW101	**V6962600**	Push Switch			PAD (CH1)		02
	SW201	**V6962600**	Push Switch			PAD (CH2)		02
	SW301	**V6962600**	Push Switch			PAD (CH3)		02
	SW401	**V6962600**	Push Switch			PAD (CH4)		02
*	SW701	**V8059400**	Slide Switch	SS001P243OHcPA6		MAIN-MON, MAIN-MAIN, MAIN-BRIDGE		
	SW702	**V3483200**	Slide Switch	SS001P022BQcPA6		PHANTOM ON/OFF		03
	SW901	**VV056000**	Tact Switch	SKQNAED010		VOCAL ECHO 1		01
	SW902	**VV056000**	Tact Switch	SKQNAED010		VOCAL ECHO 2		01
	SW903	**VV056000**	Tact Switch	SKQNAED010		VOCAL REVERB 1		01
	SW904	**VV056000**	Tact Switch	SKQNAED010		VOCAL REVERB 2		01
	SW905	**VV056000**	Tact Switch	SKQNAED010		HALL 1		01
	SW906	**VV056000**	Tact Switch	SKQNAED010		HALL 2		01
	SW907	**VV056000**	Tact Switch	SKQNAED010		ROOM		01
	SW908	**VV056000**	Tact Switch	SKQNAED010		PLATE		01
	SW909	**VV056000**	Tact Switch	SKQNAED010		EFFECT ON		01
*	SW910	**V8058000**	Slide Switch	SS001P242BPcA6		YSP ON/OFF		
*	VR101	**V8264700**	Rotary Variable Resistor	B 50.0K XV09213P		LOW (CH1)		
*	VR102	**V8264700**	Rotary Variable Resistor	B 50.0K XV09213P		MID (CH1)		
*	VR103	**V8264700**	Rotary Variable Resistor	B 50.0K XV09213P		HIGH (CH1)		
*	VR104	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		MONITOR (CH1)		
*	VR105	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		EFFECT (CH1)		
*	VR106	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		LEVEL (CH1)		
*	VR201	**V8264700**	Rotary Variable Resistor	B 50.0K XV09213P		LOW (CH2)		
*	VR202	**V8264700**	Rotary Variable Resistor	B 50.0K XV09213P		MID (CH2)		
*	VR203	**V8264700**	Rotary Variable Resistor	B 50.0K XV09213P		HIGH (CH2)		
*	VR204	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		MONITOR (CH2)		
*	VR205	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		EFFECT (CH2)		
*	VR206	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		LEVEL (CH2)		
*	VR301	**V8264700**	Rotary Variable Resistor	B 50.0K XV09213P		LOW (CH3)		
*	VR302	**V8264700**	Rotary Variable Resistor	B 50.0K XV09213P		MID (CH3)		
*	VR303	**V8264700**	Rotary Variable Resistor	B 50.0K XV09213P		HIGH (CH3)		
*	VR304	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		MONITOR (CH3)		
*	VR305	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		EFFECT (CH3)		
*	VR306	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		LEVEL (CH3)		
*	VR401	**V8264700**	Rotary Variable Resistor	B 50.0K XV09213P		LOW (CH4)		
*	VR402	**V8264700**	Rotary Variable Resistor	B 50.0K XV09213P		MID (CH4)		
*	VR403	**V8264700**	Rotary Variable Resistor	B 50.0K XV09213P		HIGH (CH4)		
*	VR404	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		MONITOR (CH4)		
*	VR405	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		EFFECT (CH4)		
*	VR406	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		LEVEL (CH4)		
*	VR501	**V8264700**	Rotary Variable Resistor	B 50.0K XV09213P		LOW (CH5)		
*	VR502	**V8264700**	Rotary Variable Resistor	B 50.0K XV09213P		MID (CH5)		
*	VR503	**V8264700**	Rotary Variable Resistor	B 50.0K XV09213P		HIGH (CH5)		
*	VR504	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		MONITOR (CH5)		
*	VR505	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		EFFECT (CH5)		
*	VR506	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		LEVEL (CH5)		

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
*	VR601	**V8264700**	Rotary Variable Resistor	B 50.0K XV09213P		LOW (CH6)		
*	VR602	**V8264700**	Rotary Variable Resistor	B 50.0K XV09213P		MID (CH6)		
*	VR603	**V8264700**	Rotary Variable Resistor	B 50.0K XV09213P		HIGH (CH6)		
*	VR604	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		MONITOR (CH6)		
*	VR605	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		EFFECT (CH6)		
*	VR606	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		LEVEL (CH6)		
*	VR701	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		AUX IN		
*	VR702	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		2TR IN (MAIN)		
*	VR703	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		MASTER (MAIN)		
	VR704	**VV044600**	Slide Variable Resistor	RS20H11KD017-YL		125 (MAIN)		
	VR705	**VV044600**	Slide Variable Resistor	RS20H11KD017-YL		250 (MAIN)		
	VR706	**VV044600**	Slide Variable Resistor	RS20H11KD017-YL		500 (MAIN)		
	VR707	**VV044600**	Slide Variable Resistor	RS20H11KD017-YL		1k (MAIN)		
	VR708	**VV044600**	Slide Variable Resistor	RS20H11KD017-YL		2k (MAIN)		
	VR709	**VV044600**	Slide Variable Resistor	RS20H11KD017-YL		4k (MAIN)		
	VR710	**VV044600**	Slide Variable Resistor	RS20H11KD017-YL		8k (MAIN)		
*	VR802	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		2TR IN (MONITOR)		
*	VR803	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		MASTER (MONITOR)		
	VR804	**VV044600**	Slide Variable Resistor	RS20H11KD017-YL		125 (MONITOR)		
	VR805	**VV044600**	Slide Variable Resistor	RS20H11KD017-YL		250 (MONITOR)		
	VR806	**VV044600**	Slide Variable Resistor	RS20H11KD017-YL		500 (MONITOR)		
	VR807	**VV044600**	Slide Variable Resistor	RS20H11KD017-YL		1k (MONITOR)		
	VR808	**VV044600**	Slide Variable Resistor	RS20H11KD017-YL		2k (MONITOR)		
	VR809	**VV044600**	Slide Variable Resistor	RS20H11KD017-YL		4k (MONITOR)		
	VR810	**VV044600**	Slide Variable Resistor	RS20H11KD017-YL		8k (MONITOR)		
*	VR901	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		EFFECT RTN (MONITOR)		
*	VR902	**V8264600**	Rotary Variable Resistor	A 20.0K XV09213P		EFFECT RTN (MAIN)		
*		**AAX32870**	Circuit Board	PWR B66 1/4		J, U (V826870) (X0623B0)		
*		**AAX32880**	Circuit Board	PWR B66 1/4		H, A (V826890) (X0623B0)		
*		**AAX32890**	Circuit Board	PWR B66 2/4		(V826870) (X0623B0)		
*		**AAX32900**	Circuit Board	PWR B66 3/4		J (V826780) (X0623B0)		
*		**AAX32910**	Circuit Board	PWR B66 3/4		U (V826880) (X0623B0)		
*		**AAX32920**	Circuit Board	PWR B66 3/4		H, A (V826890) (X0623B0)		
*		**AAX32930**	Circuit Board	PWR B66 4/4		(V826870) (X0623B0)		
		--	Jumper Wire	0.60 TP		(V829020)		
		--	Wiring Assembly	SGND		(V842670)		
		--	Jumper Wire	0.60		(VV29140)		
		VV319600	Fuse Holder	CQ-05CT				
*	C101	**UR896220**	Electrolytic Cap.	2.2 100.0V				
*	-104	**UR896220**	Electrolytic Cap.	2.2 100.0V				
	C105	**UR838100**	Electrolytic Cap.	100.00 16.0V				
	C106	**UR838100**	Electrolytic Cap.	100.00 16.0V				
	C107	**FU451680**	Mica Capacitor	68P 500V J				
	C108	**FU451680**	Mica Capacitor	68P 500V J				
	C109	**FU451820**	Mica Capacitor	82P 500V J				
	C110	**FU451820**	Mica Capacitor	82P 500V J				
	C111	**V6185400**	Capacitor	3300P 400V J.U.C.S		U, H		
⚠	C112	**V6185400**	Capacitor	3300P 400V J.U.C.S		U, H		
⚠	C113	**UR877100**	Electrolytic Cap.	10.00 63.0V				
	C114	**UR877100**	Electrolytic Cap.	10.00 63.0V				
	C115	**VZ354000**	Ceramic Capacitor-F	0.0100 50V Z				
	C116	**VZ353900**	Ceramic Cap.-B	1000P 50V K				
	C117	**VZ353900**	Ceramic Cap.-B	1000P 50V K				
	C118	**V6113500**	Capacitor	1000P 400V J.U.C.S				
⚠	C119	**V0039700**	Capacitor	0.1 275V UCS				
⚠	C120	**UA953220**	Mylar Capacitor	2200P 50V J				
	C121	**V4567500**	Ceramic Capacitor-SL	10P 500V K				
	C122	**V4567500**	Ceramic Capacitor-SL	10P 500V K				
	C123	**VZ354600**	Monolithic Ceramic Cap.	0.10 50V Z				
	C124	**VZ354600**	Monolithic Ceramic Cap.	0.10 50V Z				
	C125	**V3280500**	Ceramic Capacitor-B	100P 500 K				
	C126	**VZ353500**	Ceramic Capacitor-SL	100P 50V J				
	C127	**UR877100**	Electrolytic Cap.	10.00 63.0V				
	C128	**UR877100**	Electrolytic Cap.	10.00 63.0V				
	C129	**VZ354000**	Ceramic Capacitor-F	0.0100 50V Z				
	C130	**VZ354600**	Monolithic Ceramic Cap.	0.10 50V Z				
	C131	**V4567500**	Ceramic Capacitor-SL	10P 500V K				
	C132	**VZ354600**	Monolithic Ceramic Cap.	0.10 50V Z				

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	C133	**V4567500**	Ceramic Capacitor-SL	10P 500V K				
	C134	**UR828470**	Electrolytic Cap.	470.00 10.0V				01
	C135	**UR857470**	Electrolytic Cap.	47.00 35.0V				01
	C136	**VZ353900**	Ceramic Cap.-B	1000P 50V K				01
	C137	**VZ353900**	Ceramic Cap.-B	1000P 50V K				01
	C138	**VZ353500**	Ceramic Capacitor-SL	100P 50V J				01
	C139	**UR877100**	Electrolytic Cap.	10.00 63.0V				01
	C140	**UA953220**	Mylar Capacitor	2200P 50V J				01
	C141	**UR877100**	Electrolytic Cap.	10.00 63.0V				01
*	-144	**UR877100**	Electrolytic Cap.	10.00 63.0V				01
*	C145	**UR896220**	Electrolytic Cap.	2.2 100.0V				
	C146	**UR896220**	Electrolytic Cap.	2.2 100.0V				
	C147	**V5482000**	Electrolytic Cap.	1000 35.0V				
	C148	**V5482000**	Electrolytic Cap.	1000 35.0V				
	C149	**V3280500**	Ceramic Capacitor-B	100P 500 K				01
	C150	**V3280500**	Ceramic Capacitor-B	100P 500 K				01
	C151	**V5482000**	Electrolytic Cap.	1000 35.0V				
	-153	**V5482000**	Electrolytic Cap.	1000 35.0V				
	C154	**VY897000**	Electrolytic Cap.	6800 100V				08
	C155	**VY897000**	Electrolytic Cap.	6800 100V				08
	C156	**UR896470**	Electrolytic Cap.	4.7 100.0V				
	C159	**VV082200**	Polyester Film Cap.	3.3000 100V M				03
	C160	**VV082200**	Polyester Film Cap.	3.3000 100V M				03
*	C161	**V3148500**	Polyester Film Cap.	0.33 250V M				01
*	C162	**UR896220**	Electrolytic Cap.	2.2 100.0V				
	C163	**UR896220**	Electrolytic Cap.	2.2 100.0V				
	C164	**V3148500**	Polyester Film Cap.	0.33 250V M				01
	C165	**UR866100**	Electrolytic Cap.	1.00 50.0V				01
	C166	**VZ354300**	Ceramic Capacitor-E	0.0022 500 M				01
	C167	**VZ354300**	Ceramic Capacitor-E	0.0022 500 M				01
	C168	**V5307900**	Electrolytic Cap.	100 100.0V				
	C169	**V5307900**	Electrolytic Cap.	100 100.0V				
	C170	**UR877100**	Electrolytic Cap.	10.00 63.0V				01
	C171	**UR877100**	Electrolytic Cap.	10.00 63.0V				01
	C172	**UA953220**	Mylar Capacitor	2200P 50V J				01
	C173	**UA953220**	Mylar Capacitor	2200P 50V J				01
	CN101	**V3765300**	Connector Base Post	M24185XX 15 TE				
⚠	CN102	**V5817000**	AC Inlet	HF-301L				02
	CN104	**LB933030**	Base Post Connector	VH- 3P SE				01
	CN105	**VV066200**	Connector Base Post	M2426XX 2P TE				01
	CN106	**LB932060**	Base Post Connector	VH- 6P TE				01
	CN107	**LB933030**	Base Post Connector	VH- 3P SE				01
	D101	**VD631600**	Diode	1SS133,176,HSS104				01
	-108	**VD631600**	Diode	1SS133,176,HSS104				01
	D109	**VG437700**	Zener Diode	MTZ J 5.6B 5.6V				01
	D110	**VQ469600**	Diode	HSS82				01
	D111	**VG437700**	Zener Diode	MTZ J 5.6B 5.6V				01
	D112	**VD631600**	Diode	1SS133,176,HSS104				01
	D113	**VD631600**	Diode	1SS133,176,HSS104				01
	D114	**VQ469600**	Diode	HSS82				01
	-117	**VQ469600**	Diode	HSS82				01
	D118	**VN478200**	Diode	D1NL20U				01
	D119	**VN478200**	Diode	D1NL20U				01
	D120	**VU801600**	Diode	1N4004L 26				01
	D121	**VU801600**	Diode	1N4004L 26				01
	D122	**VD631600**	Diode	1SS133,176,HSS104				01
	-125	**VD631600**	Diode	1SS133,176,HSS104				01
	D126	**VU801600**	Diode	1N4004L 26				01
	D127	**VG437700**	Zener Diode	MTZ J 5.6B 5.6V				01
	D128	**VD631600**	Diode	1SS133,176,HSS104				01
	D129	**VG437700**	Zener Diode	MTZ J 5.6B 5.6V				01
	D130	**VQ469600**	Diode	HSS82				01
	D131	**VD631600**	Diode	1SS133,176,HSS104				01
	D132	**VD631600**	Diode	1SS133,176,HSS104				01
	D133	**VN478200**	Diode	D1NL20U				01
	D134	**VN478200**	Diode	D1NL20U				01
	D135	**VQ469600**	Diode	HSS82				01
	-138	**VQ469600**	Diode	HSS82				01
	D139	**VD631600**	Diode	1SS133,176,HSS104				01
	D140	**VU801600**	Diode	1N4004L 26				01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	-143	**VU801600**	Diode	1N4004L 26				01
	D144	**VG438900**	Zener Diode	MTZ J 8.2B 8.2V				01
	D145	**VU801600**	Diode	1N4004L 26				01
	D146	**VU801600**	Diode	1N4004L 26				01
	D147	**VR149700**	Diode Stack	D8LD40 8.0A 400V				04
⚠	D148	**VU801600**	Diode	1N4004L 26				01
⚠	-150	**VU801600**	Diode	1N4004L 26				01
	D151	**VR149700**	Diode Stack	D8LD40 8.0A 400V				04
	D152	**VU801600**	Diode	1N4004L 26				01
⚠	D153	**V2261600**	Diode Stack	RBV-1306 13.0A 600				04
	D154	**VU801600**	Diode	1N4004L 26				01
	D155	**VS135800**	Diode Stack	FMX-22S 10.0A 200V				03
	D156	**VS135800**	Diode Stack	FMX-22S 10.0A 200V				03
	D157	**VU801600**	Diode	1N4004L 26				01
	E101	**VV075700**	Terminal Plate					01
	E102	**VV075700**	Terminal Plate					01
⚠	F101	**KB001540**	Fuse	12.00A UL		J L=30mm		04
⚠	F101	**VS823400**	Fuse	10.00A JUC		U L=20mm		01
⚠	F101	**VV071800**	Fuse	TSD 4A 250V SEMKO		H L=20mm		01
⚠	F102	**VV070600**	Fuse	TDS 2A 250V J/U/C		J, U		01
⚠	F102	**VV071500**	Fuse	TSD 2A 250V SEMKO		H,A		01
⚠	F103	**VV070600**	Fuse	TDS 2A 250V J/U/C		J, U		01
⚠	F103	**VV071500**	Fuse	TSD 2A 250V SEMKO		H,A		01
	IC101	**XD853A00**	IC	NJM7815FA		REGULATOR +15V		03
	IC102	**XD854A00**	IC	NJM7915FA		REGULATOR -15V		03
	IC103	**XJ607A00**	IC	NJM7805FA		REGULATOR +5V		02
	J101	**--**	Jumper Wire	0.60		(VV29140)		
*	J102	**--**	Jumper Wire	0.60		(VV29140)		
*	JK101	**V8102300**	Phone Jack	STJACK LJB0661		SPEAKERS A 1		
*	JK102	**V8102300**	Phone Jack	STJACK LJB0661		SPEAKERS A 2		
*	JK103	**V8102300**	Phone Jack	STJACK LJB0661		SPEAKERS BRIDGE		
*	JK104	**V8102300**	Phone Jack	STJACK LJB0661		SPEAKERS B 1		
	JK105	**V8102300**	Phone Jack	STJACK LJB0661		SPEAKERS B 2		
	L101	**V4668300**	Coil	OH-20 100UH				08
	L102	**V4668300**	Coil	OH-20 100UH				08
	L103	**GE300670**	Ferrite Bead	BL02RN2-R62T4				02
	L104	**GE300670**	Ferrite Bead	BL02RN2-R62T4				02
	L105	**VR150900**	Coil	RZ-001 21MM				02
	L106	**VR150900**	Coil	RZ-001 21MM				02
	PR101	**VL965100**	Positive Thermistor	PTH9M04BE222TS2				04
	PR102	**VL964800**	Positive Thermistor	PTH9M04BH222TS2				04
	Q101	**IC1815M0**	Transistor	2SC1815 Y,GR				01
	Q102	**IA097030**	Transistor	2SA970 GR,BL				01
	Q103	**IC1815M0**	Transistor	2SC1815 Y,GR				01
	Q104	**IA097030**	Transistor	2SA970 GR,BL				01
	Q105	**IC224030**	Transistor	2SC2240 GR,BL				01
	Q106	**IC224030**	Transistor	2SC2240 GR,BL				01
	Q107	**IA097030**	Transistor	2SA970 GR,BL				01
	-109	**IA097030**	Transistor	2SA970 GR,BL				01
	Q110	**IC1815M0**	Transistor	2SC1815 Y,GR				01
	Q111	**IA097030**	Transistor	2SA970 GR,BL				01
	Q112	**IC1815M0**	Transistor	2SC1815 Y,GR				01
	Q113	**VU418400**	Transistor	2SA1371 D,E				01
	Q114	**VU418600**	Transistor	2SC3468 D,E				01
	Q115	**VU418400**	Transistor	2SA1371 D,E				01
	Q116	**VU418600**	Transistor	2SC3468 D,E				01
	Q117	**VU418600**	Transistor	2SC3468 D,E				01
	Q118	**VU418400**	Transistor	2SA1371 D,E				01
	Q119	**V2797700**	Transistor	2SC5395 E,F				01
	Q120	**V2797600**	Transistor	2SA1993 E,F				01
	Q121	**VU418600**	Transistor	2SC3468 D,E				01
	Q122	**VU418400**	Transistor	2SA1371 D,E				01
	Q123	**V2797700**	Transistor	2SC5395 E,F				01
	Q124	**VU418400**	Transistor	2SA1371 D,E				01
	Q125	**VU418600**	Transistor	2SC3468 D,E				01
	Q126	**V2797600**	Transistor	2SA1993 E,F				01
	Q127	**V2797700**	Transistor	2SC5395 E,F				01
	-129	**V2797700**	Transistor	2SC5395 E,F				01
	Q130	**V2797600**	Transistor	2SA1993 E,F				01
	Q131	**VU418600**	Transistor	2SC3468 D,E				01

*: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
Q132	**VU418400**	Transistor	2SA1371 D,E				01
Q133	**VD678500**	Digital Transistor	DTA114ES				01
Q134	**VS883400**	Transistor	2SD2394 E,F				02
Q135	**V2797700**	Transistor	2SC5395 E,F				01
Q136	**VU418600**	Transistor	2SC3468 D,E				01
Q137	**VU418400**	Transistor	2SA1371 D,E				01
Q201N	**VR732800**	Transistor	A1859A/C4883A				04
Q201P	**VR732800**	Transistor	A1859A/C4883A				04
Q202N	**V5611000**	Pair Transistor	A1386A/C3519A				05
Q202P	**V5611000**	Pair Transistor	A1386A/C3519A				05
Q203N	**V5611000**	Pair Transistor	A1386A/C3519A				05
Q203P	**V5611000**	Pair Transistor	A1386A/C3519A				05
Q204N	**VR732800**	Transistor	A1859A/C4883A				04
Q204P	**VR732800**	Transistor	A1859A/C4883A				04
Q205N	**V5611000**	Pair Transistor	A1386A/C3519A				05
Q205P	**V5611000**	Pair Transistor	A1386A/C3519A				05
Q206N	**V5611000**	Pair Transistor	A1386A/C3519A				05
Q206P	**V5611000**	Pair Transistor	A1386A/C3519A				05
Q207N	**VR732800**	Transistor	A1859A/C4883A				04
Q207P	**VR732800**	Transistor	A1859A/C4883A				04
Q208N	**V5611000**	Pair Transistor	A1386A/C3519A				05
Q208P	**V5611000**	Pair Transistor	A1386A/C3519A				05
Q209N	**V5611000**	Pair Transistor	A1386A/C3519A				05
Q209P	**V5611000**	Pair Transistor	A1386A/C3519A				05
Q210N	**VR732800**	Transistor	A1859A/C4883A				04
Q210P	**VR732800**	Transistor	A1859A/C4883A				04
Q211N	**V5611000**	Pair Transistor	A1386A/C3519A				05
Q211P	**V5611000**	Pair Transistor	A1386A/C3519A				05
Q212N	**V5611000**	Pair Transistor	A1386A/C3519A				05
Q212P	**V5611000**	Pair Transistor	A1386A/C3519A				05
Q213N	**V5611000**	Pair Transistor	A1386A/C3519A				05
Q213P	**V5611000**	Pair Transistor	A1386A/C3519A				05
R101	**HF457470**	Carbon Resistor	47.0K 1/4 J				01
R102	**HF457220**	Carbon Resistor	22.0K 1/4 J				01
R103	**HF457220**	Carbon Resistor	22.0K 1/4 J				01
R104	**VV312800**	Metal Film Resistor	680.0 1/4 F				01
R105	**VV312800**	Metal Film Resistor	680.0 1/4 F				01
R106	**HF455560**	Carbon Resistor	560.0 1/4 J				01
R107	**HF455560**	Carbon Resistor	560.0 1/4 J				01
R108	**HF455100**	Carbon Resistor	100.0 1/4 J				01
R109	**HF455100**	Carbon Resistor	100.0 1/4 J				01
R110	**HF455560**	Carbon Resistor	560.0 1/4 J				01
R111	**HF455560**	Carbon Resistor	560.0 1/4 J				01
R112	**HF455100**	Carbon Resistor	100.0 1/4 J				01
R113	**HF455100**	Carbon Resistor	100.0 1/4 J				01
R114	**HF457470**	Carbon Resistor	47.0K 1/4 J				01
R115	**HF455560**	Carbon Resistor	560.0 1/4 J				01
R116	**HF455560**	Carbon Resistor	560.0 1/4 J				01
R117	**HF457470**	Carbon Resistor	47.0K 1/4 J				01
R118	**HF457470**	Carbon Resistor	47.0K 1/4 J				01
R119	**VV312900**	Metal Film Resistor	22K 1/4 F				01
R120	**VV312900**	Metal Film Resistor	22K 1/4 F				01
R121	**HF455330**	Carbon Resistor	330.0 1/4 J				01
-124	**HF455330**	Carbon Resistor	330.0 1/4 J				01
R125	**HF455220**	Carbon Resistor	220.0 1/4 J				01
R126	**HF455220**	Carbon Resistor	220.0 1/4 J				01
R127	**HF457470**	Carbon Resistor	47.0K 1/4 J				01
-130	**HF457470**	Carbon Resistor	47.0K 1/4 J				01
R131	**HF455560**	Carbon Resistor	560.0 1/4 J				01
R132	**HF455560**	Carbon Resistor	560.0 1/4 J				01
R133	**HF457120**	Carbon Resistor	12.0K 1/4 J				01
R134	**HF457120**	Carbon Resistor	12.0K 1/4 J				01
R135	**VV313800**	Flame Proof C. Resistor	220.0 1/4 J				01
R136	**VV313800**	Flame Proof C. Resistor	220.0 1/4 J				01
R137	**VZ009300**	Flame Proof C. Resistor	330.0 1/4 J				01
R138	**VZ009300**	Flame Proof C. Resistor	330.0 1/4 J				01
R139	**VV276800**	Flame Proof C. Resistor	100 1/4 J				01
-142	**VV276800**	Flame Proof C. Resistor	100 1/4 J				01
R143	**VZ009100**	Flame Proof C. Resistor	33.0 1/4 J				01
R144	**VZ009100**	Flame Proof C. Resistor	33.0 1/4 J				01

*: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
R145	**VZ008800**	Flame Proof C. Resistor	22.0 1/4 J				01
R146	**VZ008800**	Flame Proof C. Resistor	22.0 1/4 J				01
R147	**V4833200**	Wire Wound Resistor	0.22 5W K				01
R148	**V4833200**	Wire Wound Resistor	0.22 5W K				01
R149	**VZ009100**	Flame Proof C. Resistor	33.0 1/4 J				01
R150	**VZ009100**	Flame Proof C. Resistor	33.0 1/4 J				01
R151	**VZ008800**	Flame Proof C. Resistor	22.0 1/4 J				01
R152	**VZ008800**	Flame Proof C. Resistor	22.0 1/4 J				01
R153	**VV058500**	Flame Proof C. Resistor	10.0 1/4 J				01
R154	**V4833200**	Wire Wound Resistor	0.22 5W K				01
R155	**V4833200**	Wire Wound Resistor	0.22 5W K				01
R156	**VV058500**	Flame Proof C. Resistor	10.0 1/4 J				01
R157	**HF458150**	Carbon Resistor	150.0K 1/4 J				01
R158	**VV058500**	Flame Proof C. Resistor	10.0 1/4 J				01
R159	**HF455220**	Carbon Resistor	220.0 1/4 J				01
R160	**HF455220**	Carbon Resistor	220.0 1/4 J				01
R161	**HF457470**	Carbon Resistor	47.0K 1/4 J				01
-164	**HF457470**	Carbon Resistor	47.0K 1/4 J				01
R165	**HF458150**	Carbon Resistor	150.0K 1/4 J				01
R166	**HF457100**	Carbon Resistor	10.0K 1/4 J				01
R167	**VV058500**	Flame Proof C. Resistor	10.0 1/4 J				01
R168	**HF457560**	Carbon Resistor	56.0K 1/4 J				01
R169	**HF455560**	Carbon Resistor	560.0 1/4 J				01
R170	**HF455560**	Carbon Resistor	560.0 1/4 J				01
R171	**HF457120**	Carbon Resistor	12.0K 1/4 J				01
R172	**HF457120**	Carbon Resistor	12.0K 1/4 J				01
R173	**HF457100**	Carbon Resistor	10.0K 1/4 J				01
R174	**VZ009300**	Flame Proof C. Resistor	330.0 1/4 J				01
R175	**VZ009300**	Flame Proof C. Resistor	330.0 1/4 J				01
R176	**HF457100**	Carbon Resistor	10.0K 1/4 J				01
R177	**HF456220**	Carbon Resistor	2.2K 1/4 J				01
R178	**VV276800**	Flame Proof C. Resistor	100 1/4 J				01
R179	**VV313800**	Flame Proof C. Resistor	220.0 1/4 J				01
R180	**VV276800**	Flame Proof C. Resistor	100 1/4 J				01
R181	**HF457100**	Carbon Resistor	10.0K 1/4 J				01
R182	**VV313800**	Flame Proof C. Resistor	220.0 1/4 J				01
R183	**VV276800**	Flame Proof C. Resistor	100 1/4 J				01
R184	**VV276800**	Flame Proof C. Resistor	100 1/4 J				01
R185	**VZ009100**	Flame Proof C. Resistor	33.0 1/4 J				01
R186	**VZ009100**	Flame Proof C. Resistor	33.0 1/4 J				01
R187	**HF457120**	Carbon Resistor	12.0K 1/4 J				01
R188	**VZ008800**	Flame Proof C. Resistor	22.0 1/4 J				01
R189	**VZ008800**	Flame Proof C. Resistor	22.0 1/4 J				01
R190	**V4833200**	Wire Wound Resistor	0.22 5W K				01
R191	**V4833200**	Wire Wound Resistor	0.22 5W K				01
R192	**VZ009100**	Flame Proof C. Resistor	33.0 1/4 J				01
R193	**VZ009100**	Flame Proof C. Resistor	33.0 1/4 J				01
R194	**VZ008800**	Flame Proof C. Resistor	22.0 1/4 J				01
R195	**VZ008800**	Flame Proof C. Resistor	22.0 1/4 J				01
R196	**V4833200**	Wire Wound Resistor	0.22 5W K				01
R197	**V4833200**	Wire Wound Resistor	0.22 5W K				01
R198	**VV313800**	Flame Proof C. Resistor	220.0 1/4 J				01
R199	**HF455100**	Carbon Resistor	100.0 1/4 J				01
R200	**VV313800**	Flame Proof C. Resistor	220.0 1/4 J				01
R201	**HF456220**	Carbon Resistor	2.2K 1/4 J				01
R202	**HF457560**	Carbon Resistor	56.0K 1/4 J				01
R203	**HF456560**	Carbon Resistor	5.6K 1/4 J				01
R204	**HF456560**	Carbon Resistor	5.6K 1/4 J				01
R205	**HF457120**	Carbon Resistor	12.0K 1/4 J				01
R206	**VZ008800**	Flame Proof C. Resistor	22.0 1/4 J				01
R207	**VZ008700**	Flame Proof C. Resistor	2.2K 1/4 J				01
R208	**VZ008600**	Flame Proof C. Resistor	150.0 1/4 J				01
R209	**VZ008800**	Flame Proof C. Resistor	22.0 1/4 J				01
R210	**VZ008600**	Flame Proof C. Resistor	150.0 1/4 J				01
R211	**VZ008700**	Flame Proof C. Resistor	2.2K 1/4 J				01
R212	**VV313600**	Flame Proof C. Resistor	2.2 1/4 J				01
R213	**VV313600**	Flame Proof C. Resistor	2.2 1/4 J				01
R214	**VZ370200**	Wire Wound Resistor	0.1 5W K				01
R215	**VV313600**	Flame Proof C. Resistor	2.2 1/4 J				01
R216	**VV313600**	Flame Proof C. Resistor	2.2 1/4 J				01

*: New Parts

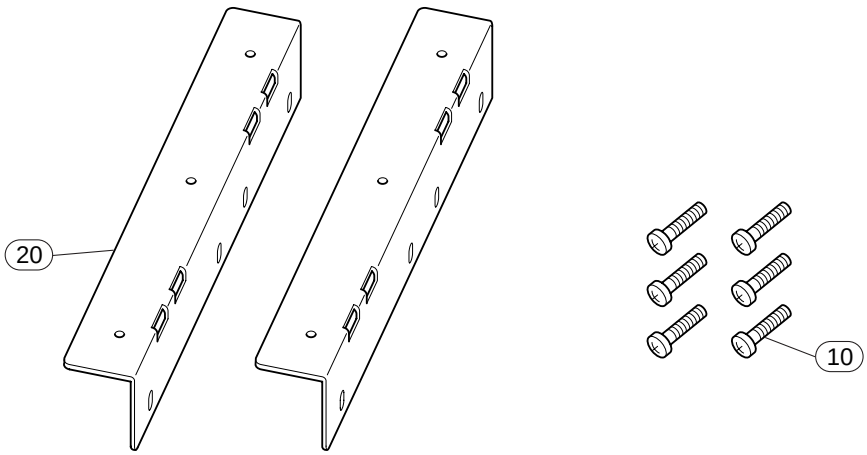
RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	R217	**VZ370200**	Wire Wound Resistor	0.1 5W K				01
	R218	**VV313600**	Flame Proof C. Resistor	2.2 1/4 J				01
	R219	**VZ370200**	Wire Wound Resistor	0.1 5W K				01
	R220	**VV313600**	Flame Proof C. Resistor	2.2 1/4 J				01
	R221	**VZ370200**	Wire Wound Resistor	0.1 5W K				01
	R222	**VV276700**	Flame Proof C. Resistor	4.7 1/4 J				01
	-225	**VV276700**	Flame Proof C. Resistor	4.7 1/4 J				01
	R226	**VV313600**	Flame Proof C. Resistor	2.2 1/4 J				01
	-231	**VV313600**	Flame Proof C. Resistor	2.2 1/4 J				01
	R232	**VV313900**	Flame Proof C. Resistor	680.0 1/4 J				01
	R233	**VV313900**	Flame Proof C. Resistor	680.0 1/4 J				01
	RY101	**VV315400**	Relay	DC OSA-SH-224DM3M				06
	RY102	**VV315400**	Relay	DC OSA-SH-224DM3M				06
⚠	SW101	**VY898100**	Push Switch	SDDFA3107U-YL UCS		POWER ON/OFF		05
	W101	**--**	Connector Assembly	B&B4P		(V827270)		
*	W101a	**V3225000**	Ferrite Core	FR25/15/12-D40				03
	W102	**V8272900**	Connector Assembly	PSW				
	W103	**--**	Connector Assembly	B&B1P		(V855290)		
*								
⚠ *		**X2294A00**	Power Transformer			J		
⚠ *		**X2295A00**	Power Transformer	UL		U, V		
⚠ *		**X2296A00**	Power Transformer	CE A		H, B, W		
⚠		**X2297A00**	Power Transformer	AS A		A		
		V6147300	Fan	3110GLB5WB50H02				08

*: New Parts

RANK: Japan only

■ RK-88 RACK MOUNT KIT



REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
		RACK MOUNT KIT			RK-88		
10	**VB132700**	Bind Head Screw	4.0X12 MFZN2BL			6	01
20	**--**	Rack Angle			(V840830)	2	

*: New Parts

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