

STEREO POWER AMPLIFIER MX-2000

SERVICE MANUAL

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 perform as specified. For these reasons, we advise all Yamaha product owners that all service required should be performed by an authorized Yamaha Retailer or the appointed service representative.

IMPORTANT: The presentation or sale of this manual to any individual or firm does not constitute authorization, certification or recognition of any applicable technical capabilities, or establish a principle-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, therefore, inevitable and specifications 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).

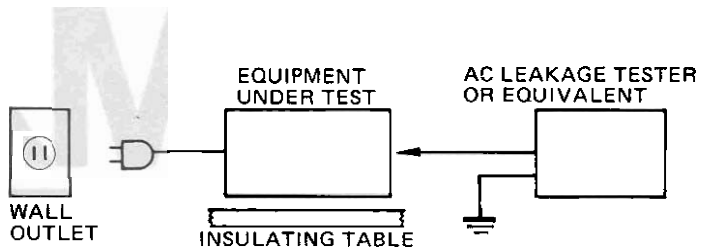
IMPORTANT: Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

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■ TO SERVICE PERSONNEL

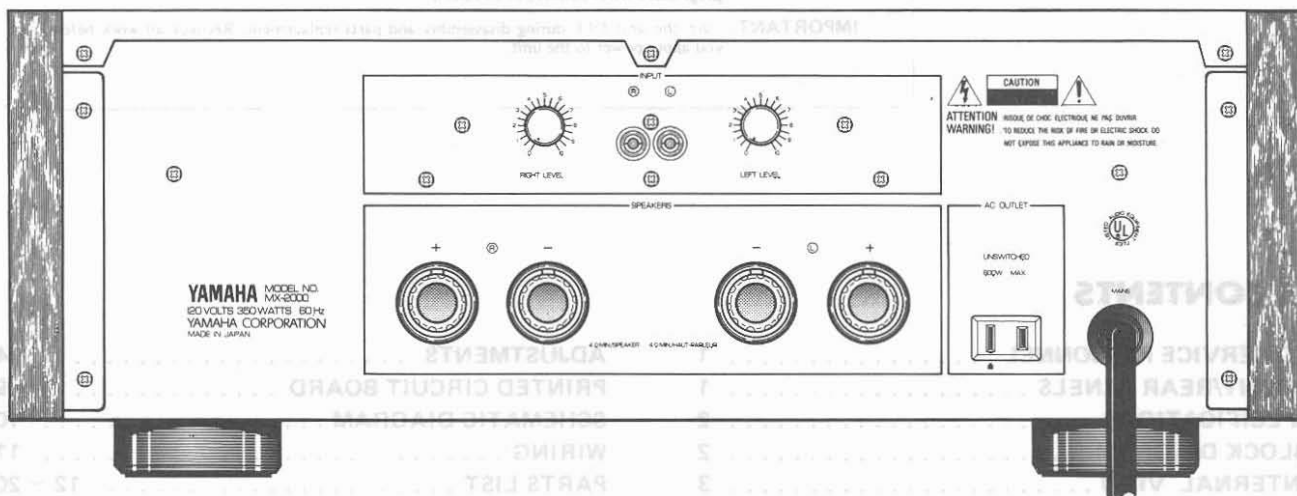
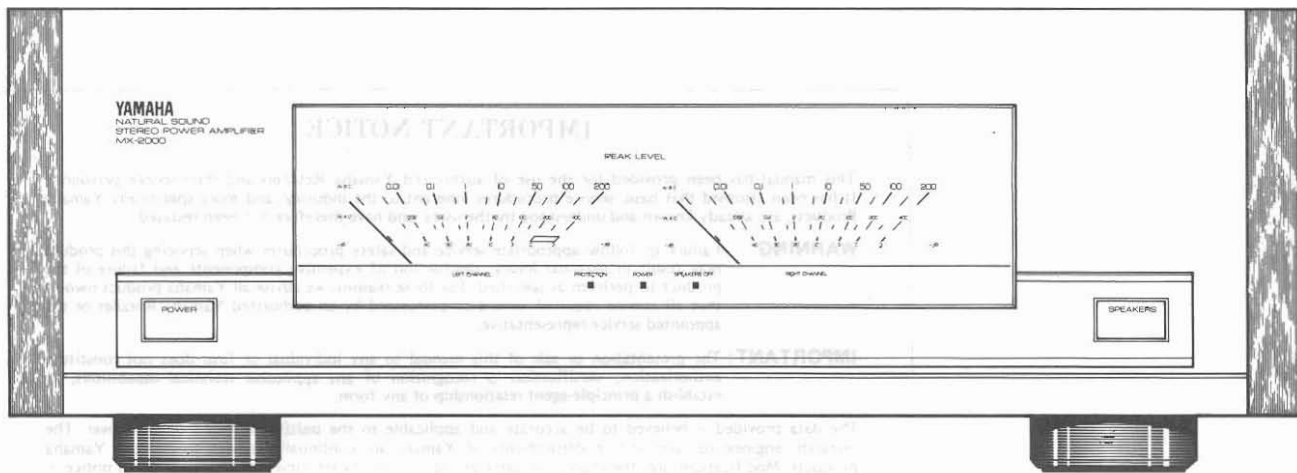
1. Critical Components Information.
Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.
2. Leakage Current Measurement (For 120V Model Only).
When service has been completed, it is imperative that you verify that all exposed conductive surfaces are properly insulated from supply circuits.
 - Meter impedance should be equivalent to 1500 ohm shunted by 0.15 μ F.
 - Leakage current must not exceed 0.5mA.
 - Be sure to test for leakage with the AC plug in both polarities.



● POLARIZATION

This amplifier product is equipped with a polarized alternating current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature.

■ FRONT/REAR PANELS

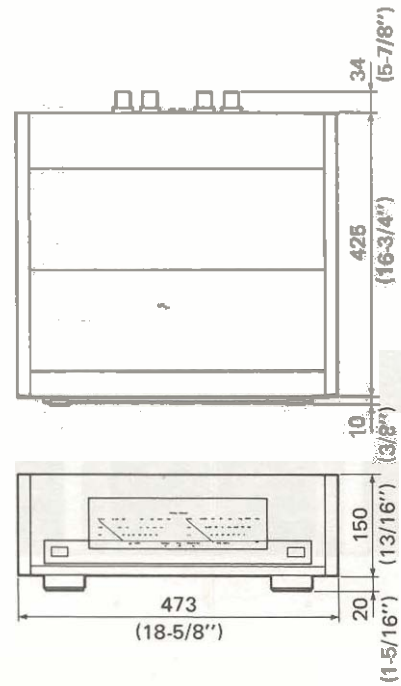


MX-2000

SPECIFICATIONS

Minimum RMS Output Power per Channel	
20Hz ~ 20kHz	
0.005% THD, 8Ω	130W + 130W
0.005% THD, 6Ω	150W + 150W
0.01% THD, 4Ω	180W + 180W
Dynamic Power per Channel (by IHF Dynamic Headroom measuring method)	
8Ω	180W
6Ω	240W
4Ω	340W
2Ω	490W
1Ω	600W
Power Band Width	
0.02% THD, 65W, 8Ω	10Hz ~ 100kHz
Damping Factor	
1kHz, 8Ω	1000
Input Sensitivity/Impedance	
MAIN IN 130W, 8Ω	1.2mV/20kΩ
Frequency Response	
20Hz ~ 20kHz, MAIN IN	+0, -0.3dB
Total Harmonic Distortion (20Hz ~ 20kHz)	
MAIN IN TO SP OUT, 130W, 8Ω	0.005%
Signal to Noise Ratio (IHF-A-Network)	
MAIN IN (Shorted)	126dB
Residual Noise (IHF-A-Network)	
	15μV
Channel Separation	
1kHz, Input Shorted, Vol. max.	95dB
Power Supply	
	AC120V, 60Hz
Power Consumption	
	580W
AC Outlet	
Un Switched x 1	600W max.
Dimension (W x H x D)	
	473 x 170 x 469mm (18-5/8" x 6-11/16" x 18-7/16")
Weight	
	28kg (61 lbs 11 oz)

• DIMENSION

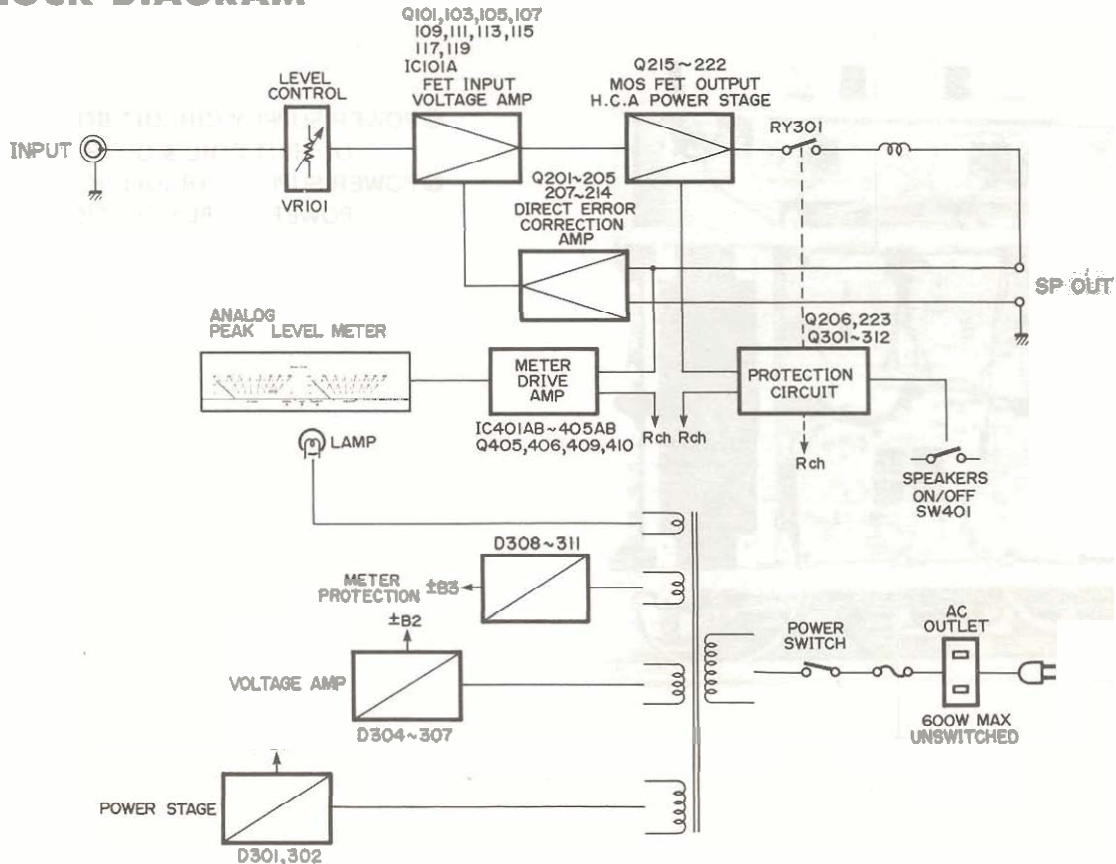


Unit: mm (inch)

* Specifications are subject to change without notice.

(U) ... U.S.A. Model
(C) ... Canadian Model

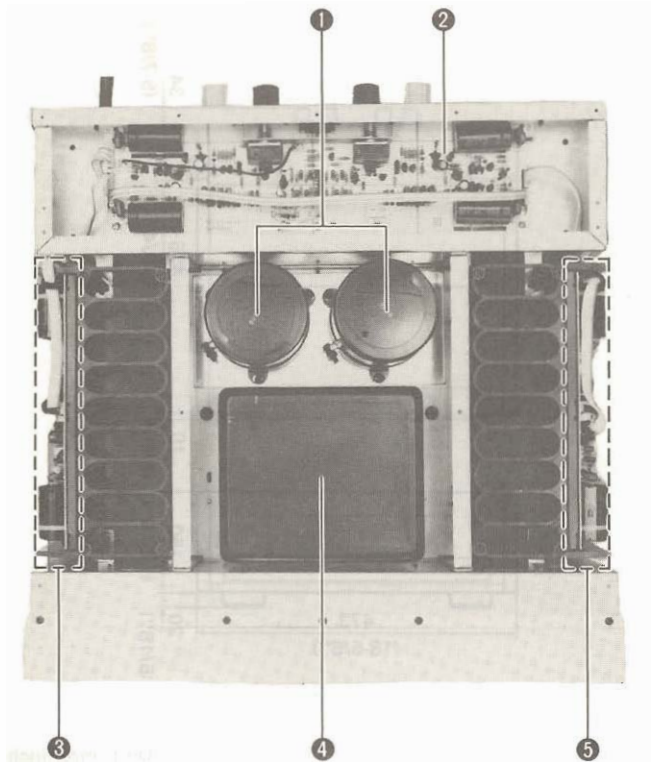
■ BLOCK DIAGRAM



MX-2000

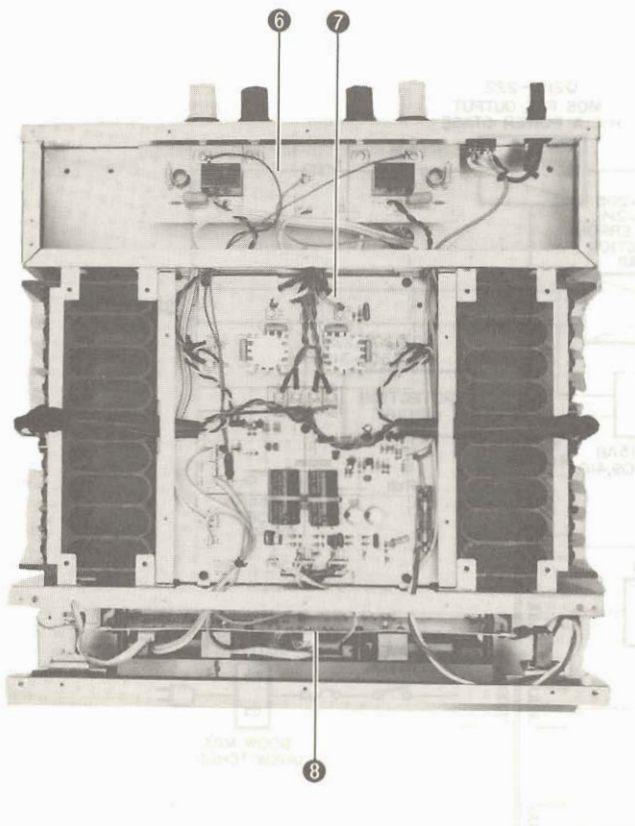
INTERNAL VIEW

• TOP VIEW



- ① ELECTRICAL CAPACITOR:
22000 μ F 80V x 2
- ② INPUT CIRCUIT BOARD:
VOLTAGE AMP SECTION & DIRECT
ERROR CORRECTION SECTION
- ③ MAIN CIRCUIT BOARD (Lch):
H.C.A. POWER STAGE
- ④ POWER TRANSFORMER
U model : XE669001
C model : XE670001
- ⑤ MAIN CIRCUIT BOARD (Rch):
H.C.A. POWER STAGE

• BOTTOM VIEW



- ⑥ POWER SUPPLY CIRCUIT BOARD (2):
OUTPUT COIL & OUTPUT ERROR
- ⑦ POWER SUPPLY CIRCUIT BOARD (1):
POWER SUPPLY SECTION
(\pm B1, \pm B2 and \pm B3)
& PROTECTION CIRCUIT SECTION
- ⑧ METER CIRCUIT BOARD (1)

DISASSEMBLY PROCEDURES

(Remove parts in disassembly order as numbered.)

1. **Removal of Top Cover Ass'y**
Remove 11 screws (①) in Fig. 1.
2. **Removal of Bottom Cover**
Remove 24 screws (②) in Fig. 1.
3. **Removal of Wood Panel Ass'y**
Remove 8 screws (③) in Fig. 1.
4. **Removal of Front Panel**
Remove 4 screws (④) and plastic rivet (⑤) in Fig. 1.

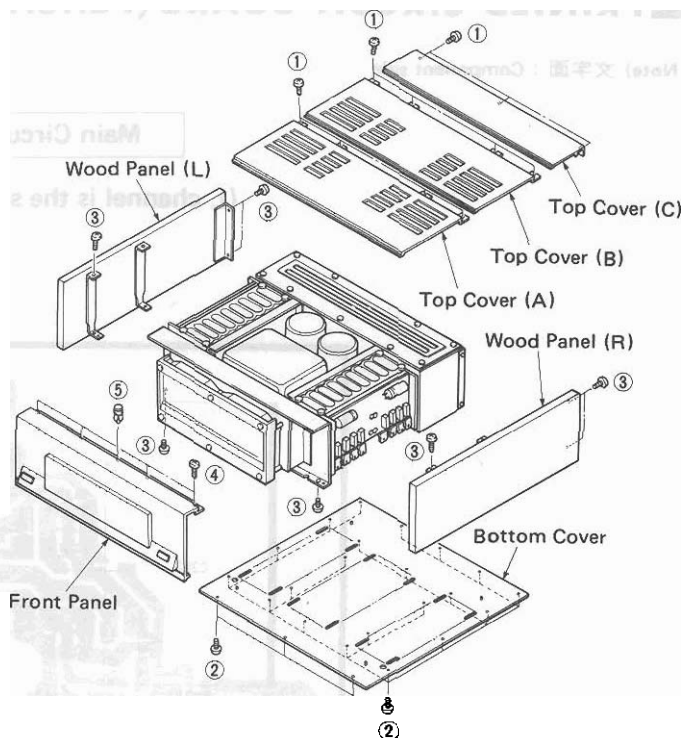
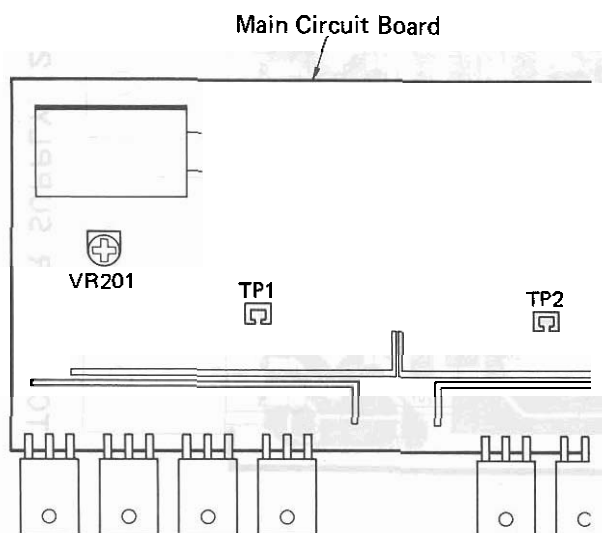


Fig. 1

ADJUSTMENTS

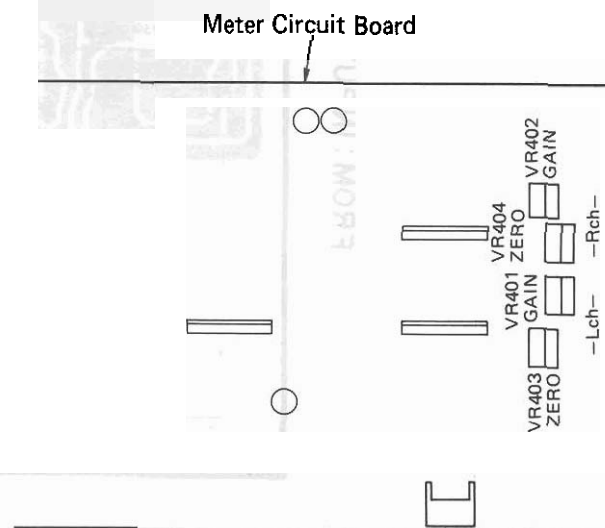
● Idling Adjustment

- 1) Remove the wood panel assembly.
- 2) Adjust VR201 (both L and R) so that the voltage between test pins TP1 and TP2 in the main circuit board becomes $DC60mV \pm 590mV$.



● Meter Adjustment

- 1) Connect a 8Ω dummy load.
- 2) Adjust VR403 (L ch) and VR404 (R ch) so that meter indicator reads 0W with no signal applied.
- 3) Apply 1kHz sine wave signal to INPUT and set the signal level so that 28.3Vrms voltage is obtained at both ends of the dummy load.
- 4) Adjust VR401 (L ch) and VR402 (R ch) so that the meter indicator reads 100W.
- 5) Recheck that the meter indicator reads 0W with no signal applied and adjust again if necessary.

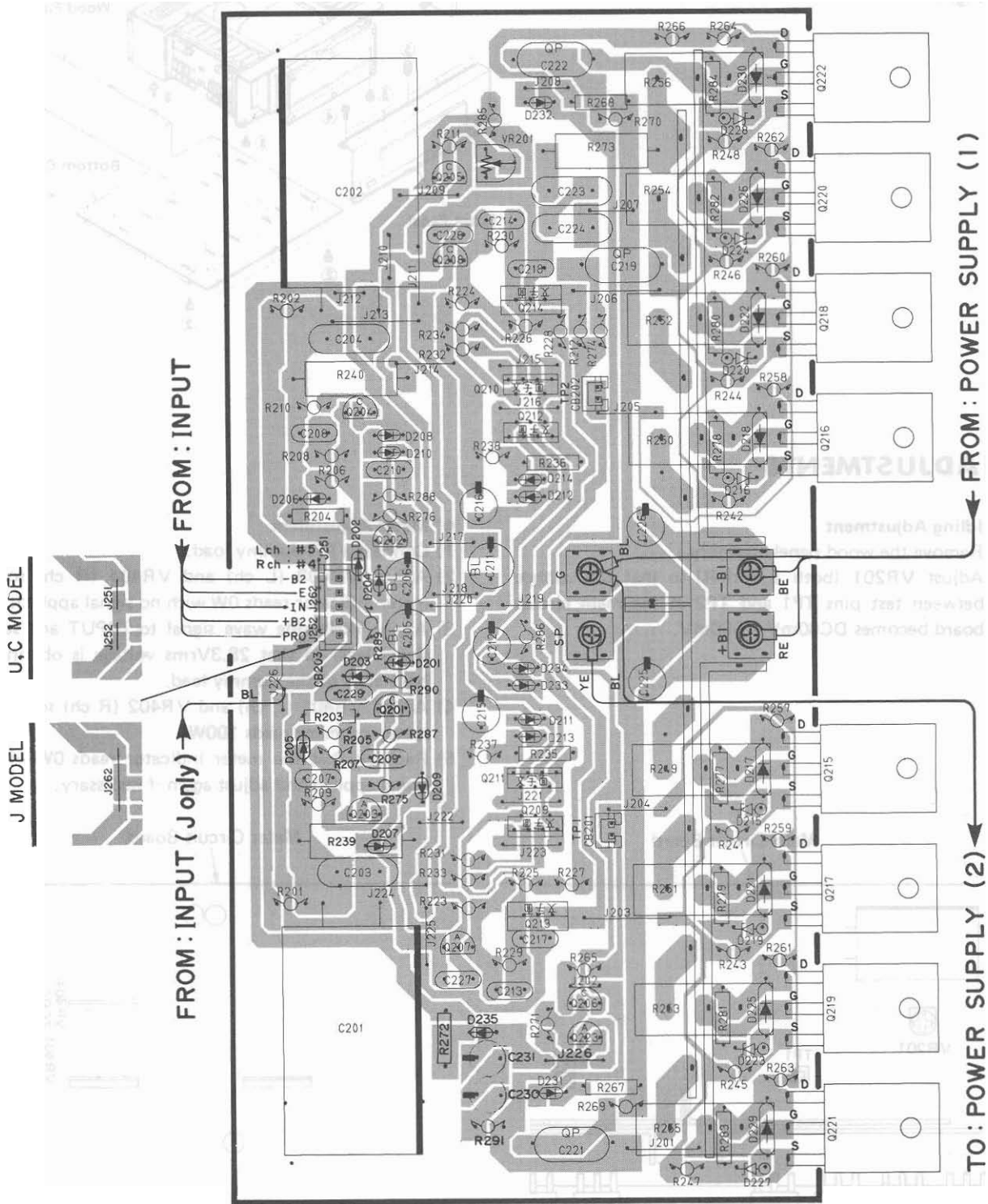


PRINTED CIRCUIT BOARD (Pattern side)

Note) 文字面 : Component side

Main Circuit Board

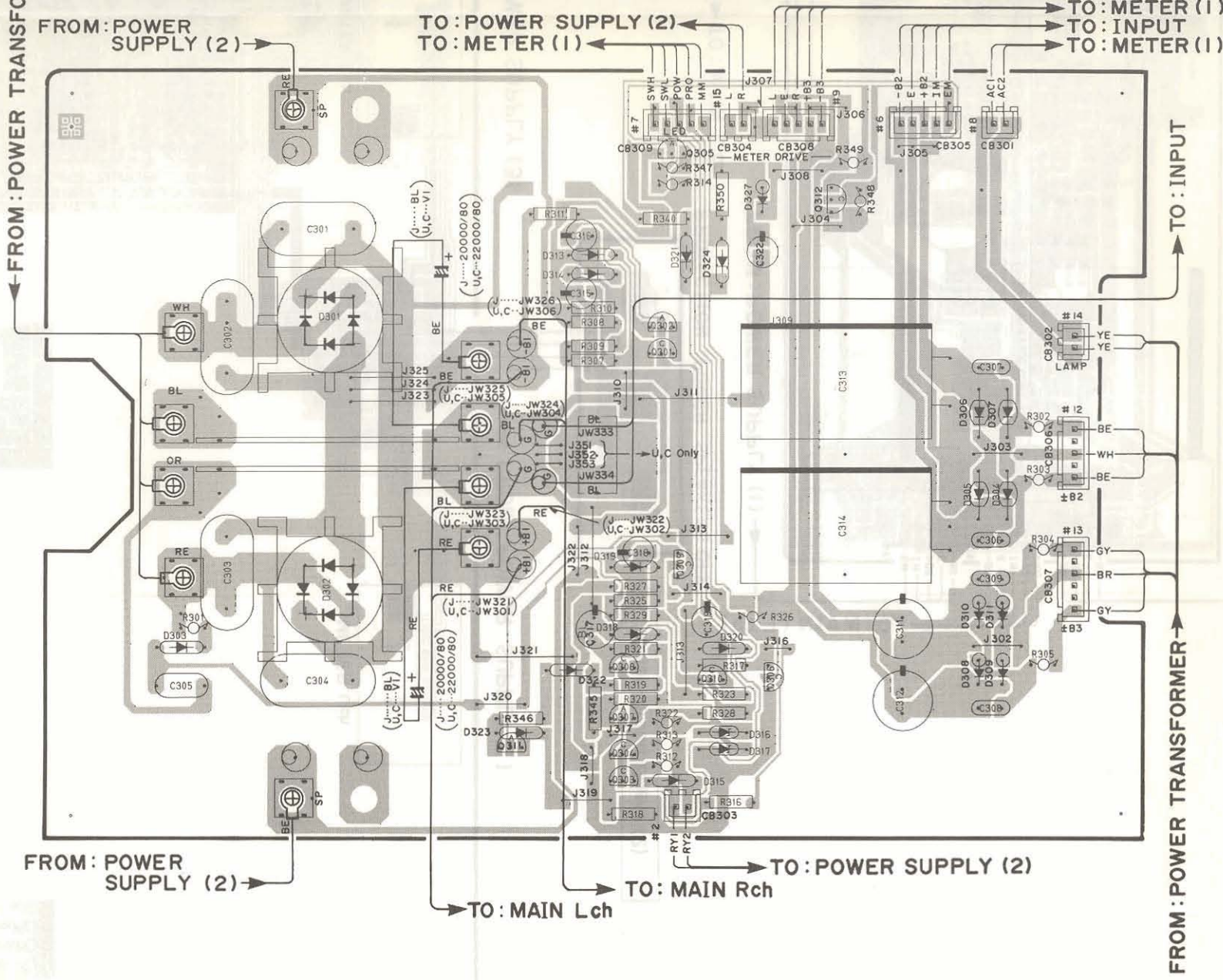
(L channel is the same as R channel)



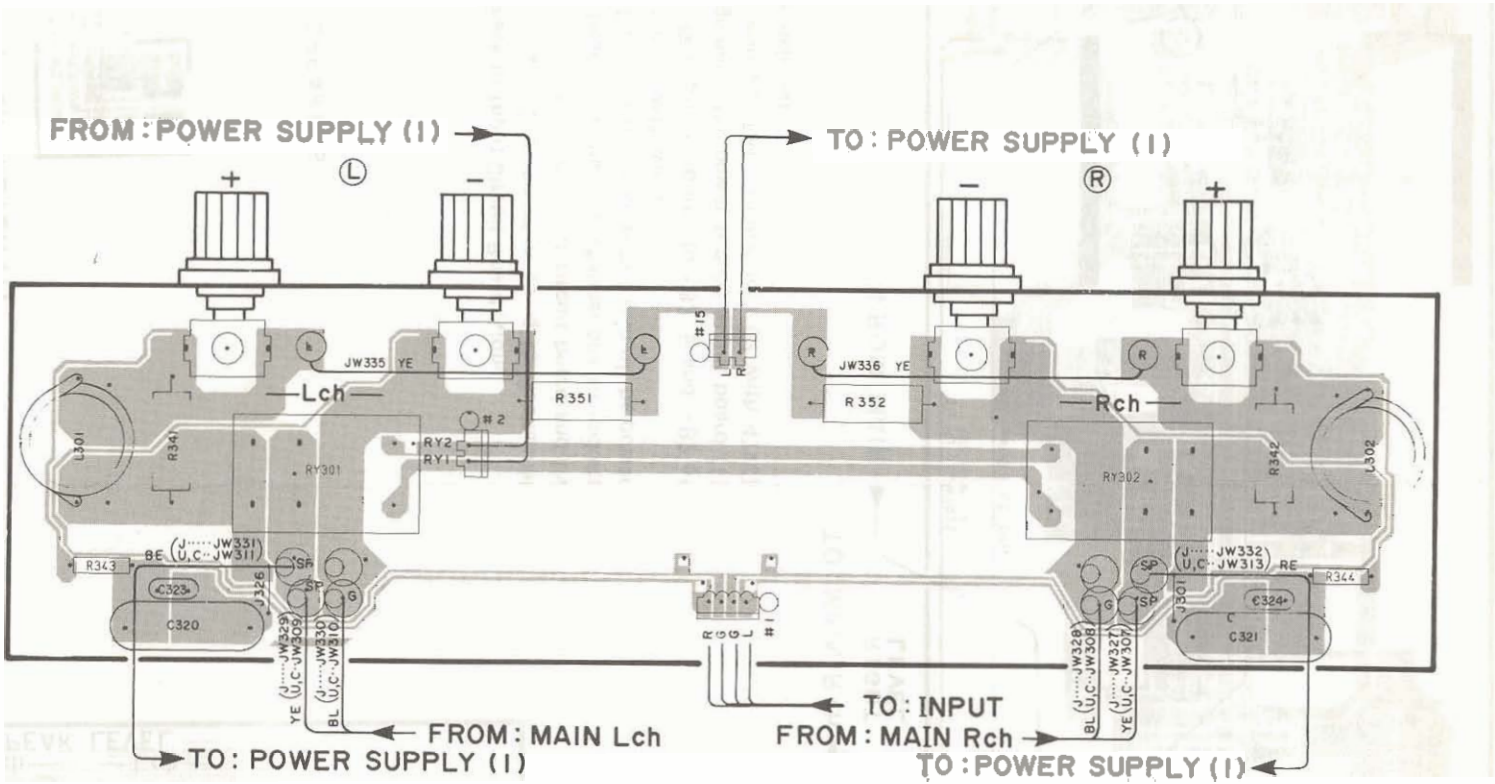
PRINTED CIRCUIT BOARD (Pattern side)

Note) 文字面 : Component side

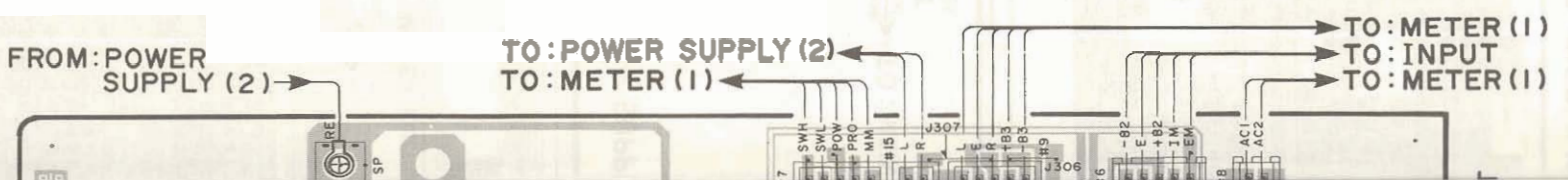
Power Supply Circuit Board (1)

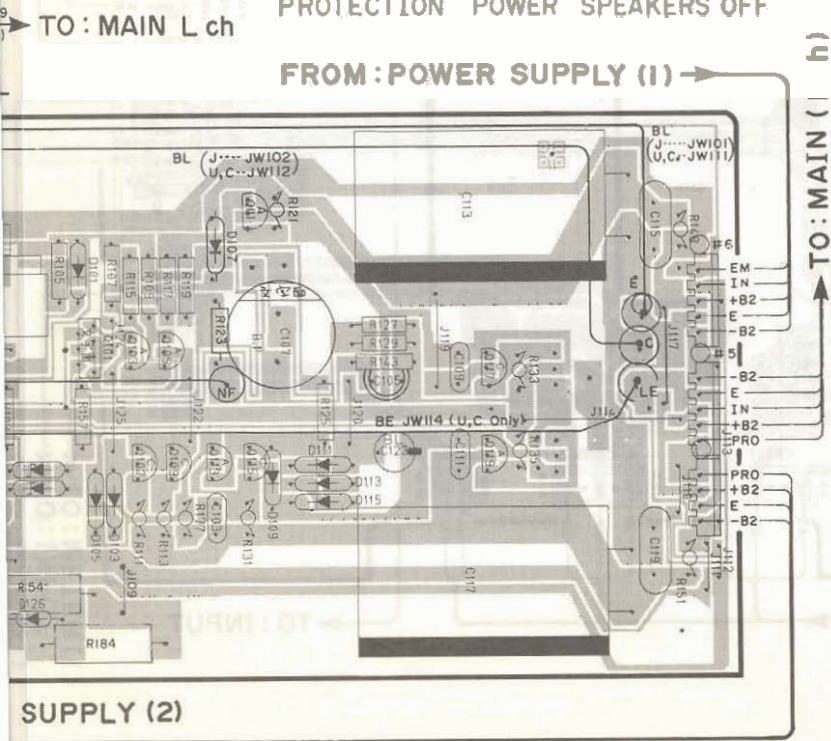
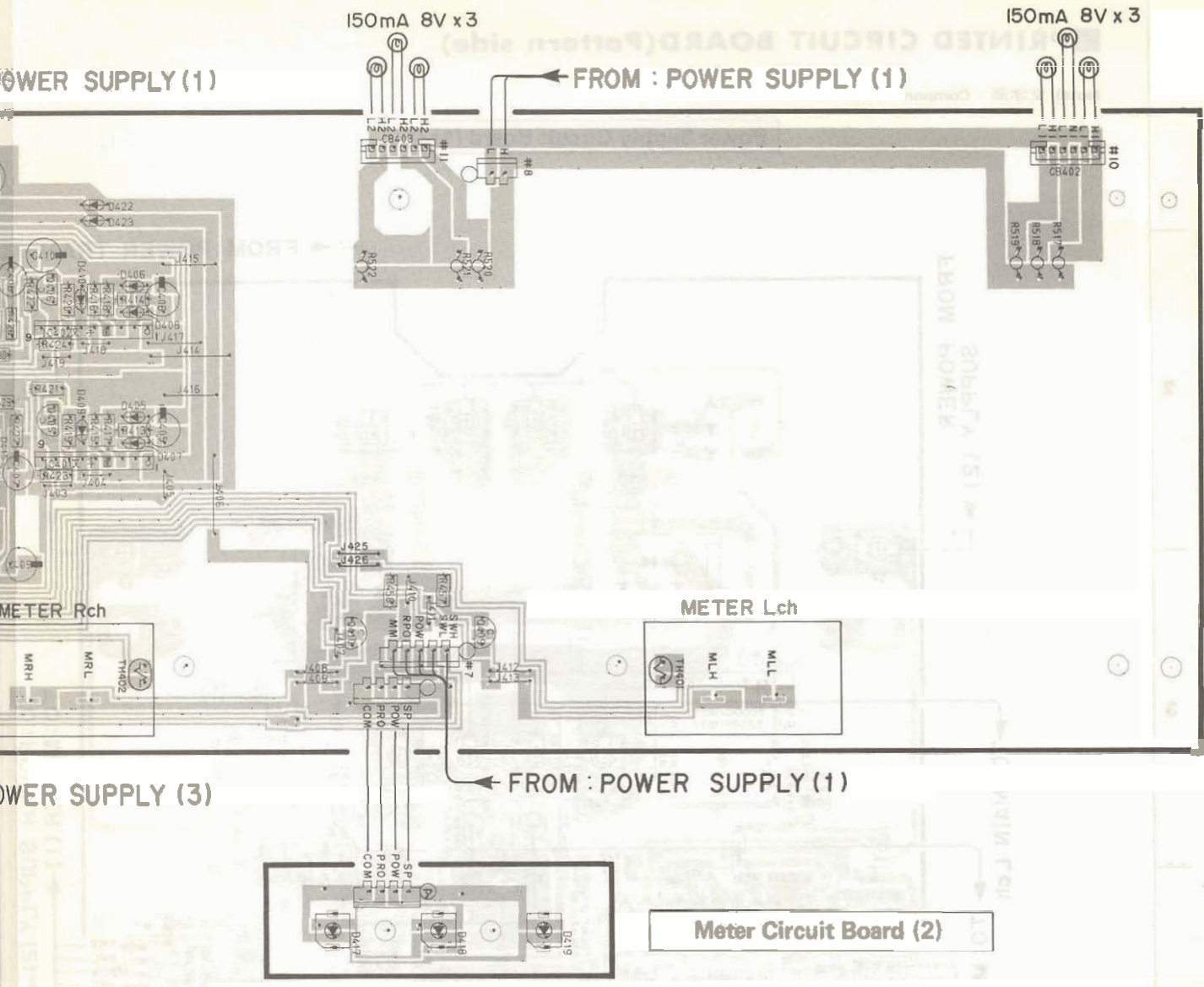


Power Supply Circuit Board (2)



RESISTOR TRANSFORMER



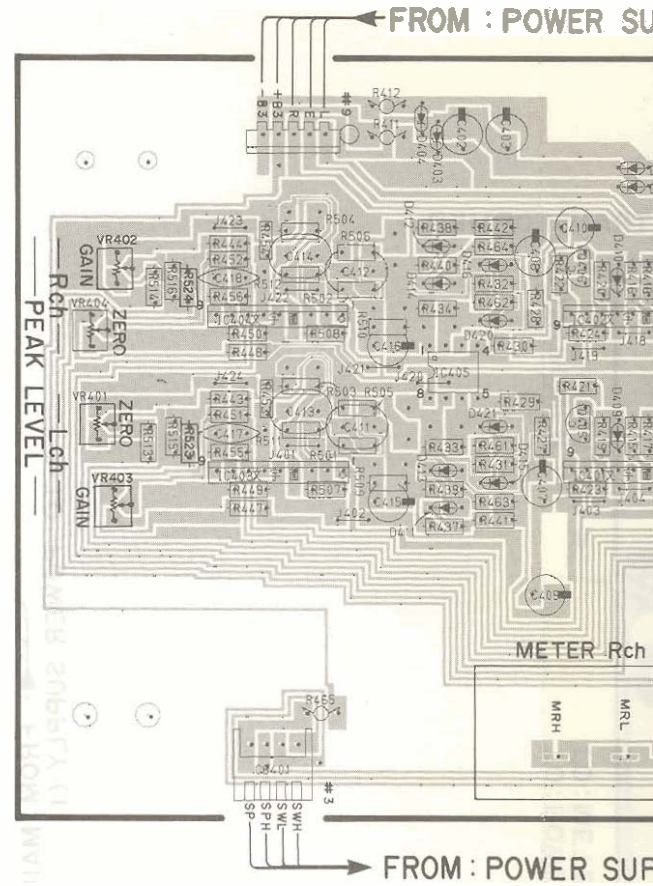
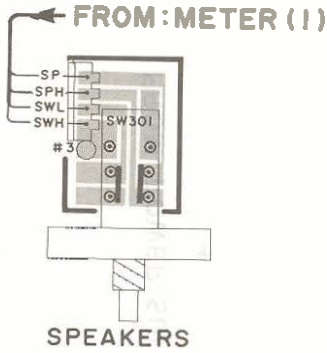


PRINTED CIRCUIT BOARD (Pattern side)

Note) 文字面 : Component side

Meter Circuit Board (1)

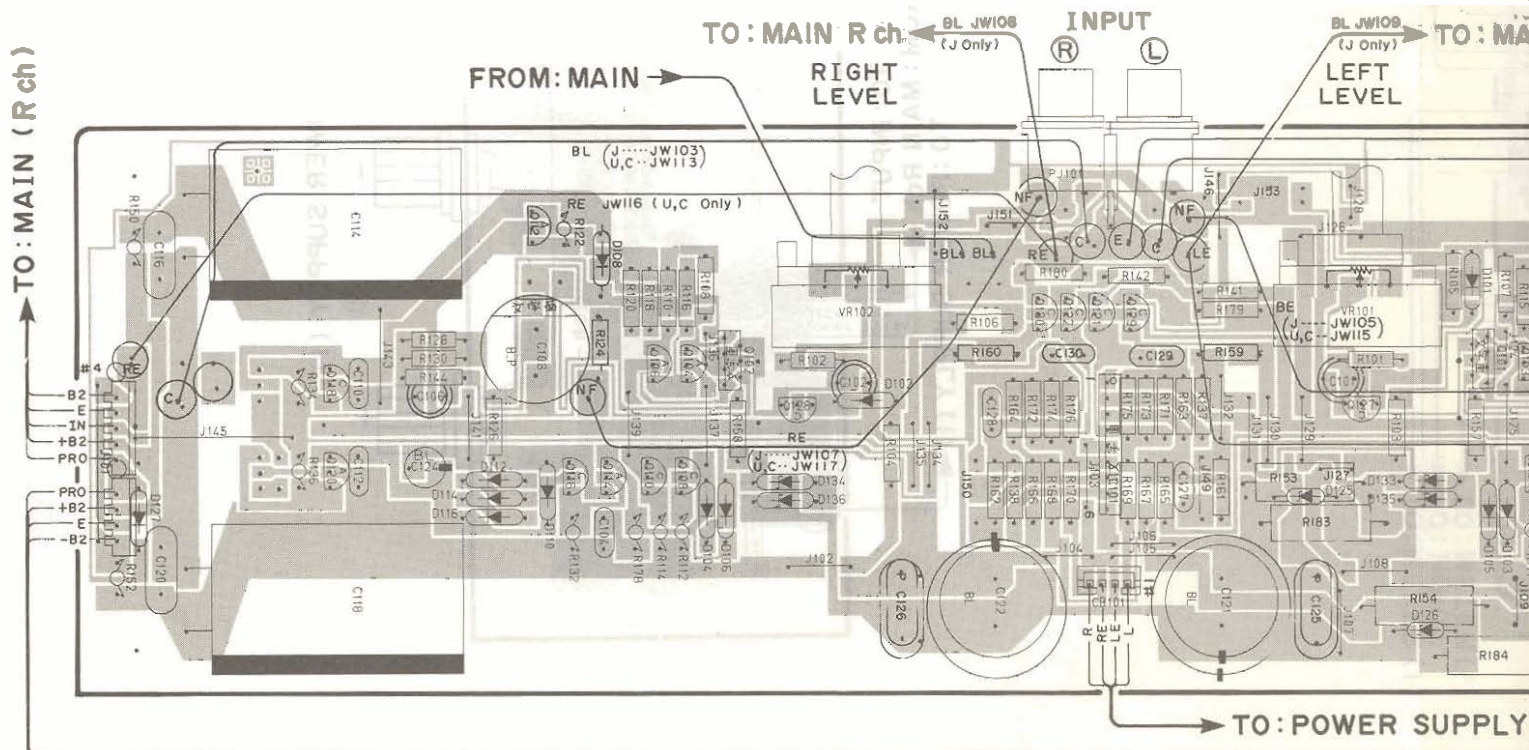
Power Supply Circuit Board (3)



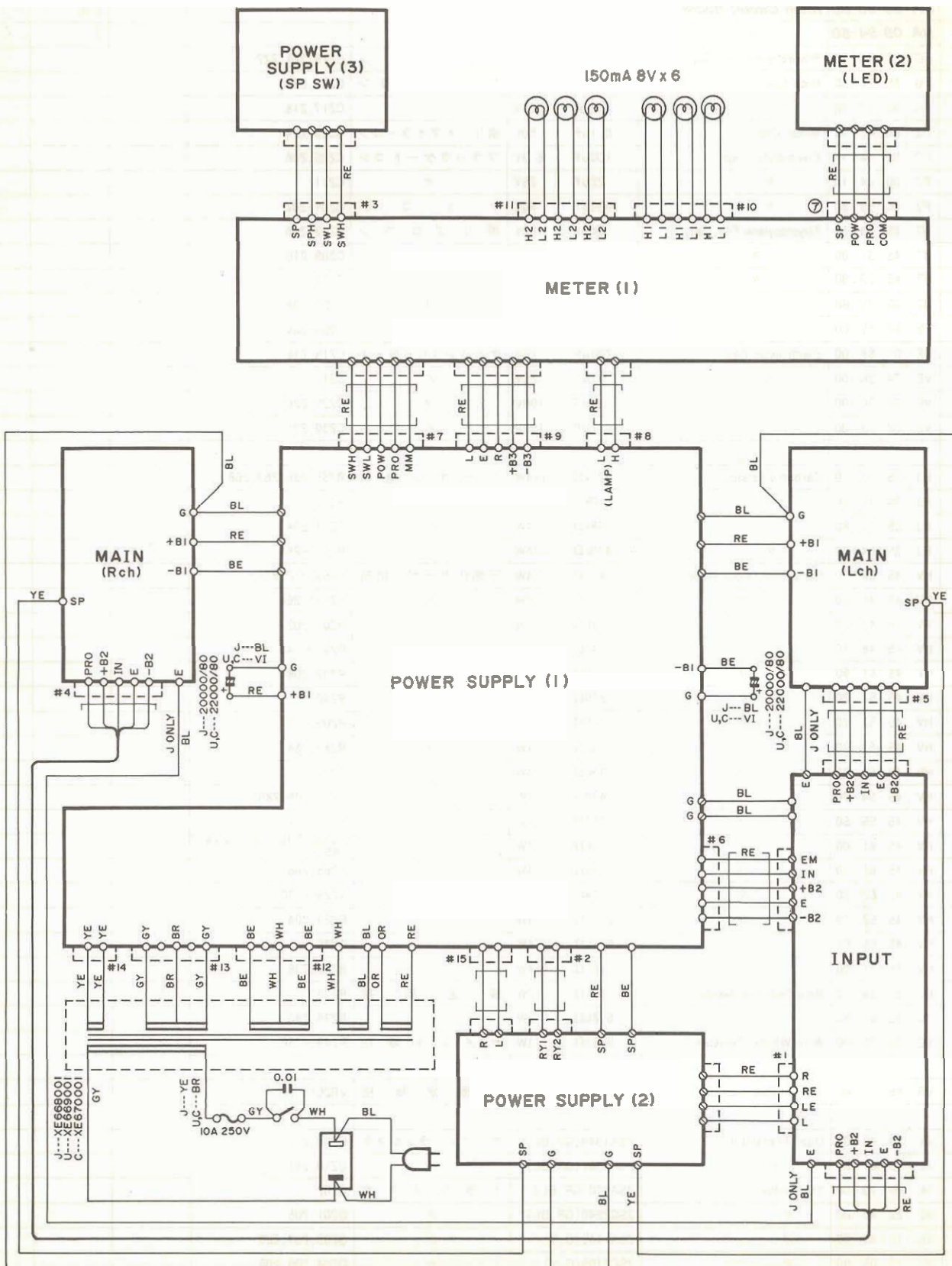
Operation Check of Input Circuit Board Alone

- Connect IN and E of board-in going to R channel main circuit board of the input circuit board and IN and E of board-in going to L channel one to sockets R, RE, LE and L which receive board-in of the power circuit board (2) with wires.
- Connect ±60V power source to +B2, E and -B2 of board-in going to the power supply circuit board (1) and then connect EM terminal to -B2 with 47kΩ resistance included.

Input Circuit Board



WIRING



MX-2000

PARTS LIST

ELECTRICAL PARTS

■WARNING

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

● Carbon resistors (1/6W or 1/4W) are not included in the ELECTRICAL PARTS list. For the parts No. of the carbon resistor, refer to p. 20.

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
	NA 09 93 80	Main Circuit Board	メ イ ン シ ー ト			U,C	
	NA 09 94 50	"	"			J	
	FC 27 51 00	Polypropylene Film Cap.	Q P コ ン	C219,221,222			
	FU 35 21 00	Mica Cap.	F E マ イ カ コ ン	C227,228			
	FU 35 17 50	"	"	C217,218			
	FZ 00 49 40	Mylar Cap.	銅 リ ー ド マ イ ラ ー コ ン	C223,224			
	FZ 00 54 10	Electrolytic Cap.	ブ ラ ッ ク ゲ ー ト コ ン	C205,206			
	FZ 00 64 10	"	"	C211			
	FZ 00 59 80	"	ケ ミ コ ン	C201,202			
	UT 65 23 30	Polypropylene Film Cap.	ポ リ プ ロ コ ン	C213,214			
	UT 45 31 00	"	"	C209,210			
	UT 45 33 90	"	"	C229			
	UT 65 35 60	"	"	C207,208			
	VE 87 45 00	"	"	C203,204			
	VE 01 88 00	Electrolytic Cap.	ケ ミ コ ン D U O R E X	C215,216			
	VE 74 26 00	"	"	C212			
	VE 74 30 00	"	"	C225,226			
	VE 02 19 00	"	"	C230,231			
	HJ 35 72 70	Carbon Resistor	カ ー ボ ン 抵 抗	R235,236,267,268			
	HJ 35 71 00	"	"	R272			
	HJ 35 76 80	"	"	R203,204			
	HJ 35 84 70	"	"	R277~284			
	HV 45 34 70	Flame Proof Carbon Resistor	不 燃 化 カ ー ボ ン 抵 抗	R269,270,274			
	HV 45 41 00	"	"	R257~264			
	HV 45 42 20	"	"	R201,202			
	HV 45 48 20	"	"	R241~248			
	HV 45 51 50	"	"	R207,208			
	HV 45 52 20	"	"	R290			
	HV 45 52 70	"	"	R209,210			
	HV 45 53 30	"	"	R287,288			
	HV 45 53 90	"	"	R212			
	HV 45 54 70	"	"	R275,276,289			
	HV 45 55 60	"	"	R211,271			
	HV 45 61 00	"	"	R205,206,231~234,285,291			
	HV 45 61 50	"	"	R265,266			
	HV 45 62 20	"	"	R225~230			
	HV 45 62 70	"	"	R223,224			
	HV 45 65 60	"	"	R286			
	HV 45 71 00	"	"	R237,238			
	HL 32 34 70	Metal Oxide Film Resistor	酸 金 抵 抗	R273			
	HL 32 66 80	"	"	R239,240			
	VE 33 25 00	Wire Wound Resistor	セ メ ン ト 抵 抗	R249~256			
	VB 86 13 00	Pre-Set Potentiometer	半 固 定 抵 抗	VR201			
	iA 13 49 00	Dual Transistor	デュアルトランジスタ	Q209,212			
	iC 33 81 00	"	"	Q210,211			
	iA 09 70 00	Transistor	ト ラ ン ジ ス タ	Q202			
	iC 22 40 00	"	"	Q201,205			
	iA 11 45 00	"	"	Q203,207,223			
	iC 27 05 00	"	"	Q204,206,208			

※New Parts (新規部品) NR

Ref. No.	Part No.	Description	部品名		Remarks	Common Model	Markets	ランク
	IA 13 06 00	Pair Transistor	2SA1306(O,Y)	ペアトランジスタ	Q214	Pair		
	IC 32 98 00	//	2SC3298(O,Y)	//	Q213			
	VF 44 79 00	Pair FET	2SK405	ペア F E T	Q215,217,219,221	Pair		
	VF 44 80 00	//	2SJ115	//	Q216,218,220,222			
	iF 00 34 50	Diode	ISS133	ダイオード	D205~208,211~214,233,234			
	VC 39 84 00	//	MA185	//	D231,232			
	iF 00 14 00	//	ISS82	//	D217,218,221,222,225,226,229,230			
	VB 44 40 00	//	ISS287	//	D201~204			
	iF 00 89 30	Zener Diode	MTZ16A	ツェナーダイオード	D209,210			
	iF 00 30 40	//	HZ18-1L	//	D215,216,219,220,223,224,227,228			
	VC 39 83 00	Diode	ISS146	ダイオード	D235			
	LB 91 80 50	Base Pin	5P i-Type	X H ベースピン	CB203			
	VD 00 45 00	//	2P i-Type	P H ベースピン	CB201,202			
	VE 80 85 00	Screw Terminal	M4	ネジ端子				
	VF 52 32 00	Bas Bar	5P-L	バスバー				
	VF 52 33 00	//	5P-R	//				
	CB 81 85 40	Binding Tie	T30R	インシュロックタイ				
※	NA 09 93 90	Meter Circuit Board		メーターシート				
	FG 41 33 30	Ceramic Cap.	3300pF 50V	セラコン	C417,418			
	FA 15 61 00	Mylar Cap.	1 μ F 50V	マイラーコン	C411~414			
	UJ 14 64 70	Electrolytic Cap.	4.7 μ F 25V	ケミコン	C405,406			
	UJ 14 72 20	//	22 μ F 25V	//	C402,403			
	UJ 46 63 30	//	3.3 μ F 50V	//	C407~410			
※	VF 94 63 00	//	10 μ F 16V	//	C415,416			
	HU 57 57 50	Metal Film Resistor	750 Ω 1/4W	金属皮膜抵抗	R453,454			
	HV 45 33 30	Flame Proof Carbon Resistor	3.3 Ω 1/4W	不燃化カーボン抵抗	R517~522			
	HV 45 52 70	//	270 Ω 1/4W	//	R411,412			
	HV 45 61 50	//	1.5k Ω 1/4W	//	R465			
	VB 85 95 00	Pre-Set Potentiometer	B2.2k Ω	半固定抵抗	VR401,402			
	VB 86 01 00	//	B47k Ω	//	VR403,404			
	iX 60 42 00	Transistor	2SC2878(A,B)	トランジスタ	Q405,406,409,410			
	iF 00 34 50	Diode	ISS133	ダイオード	D405~416,420~423			
	iF 00 89 30	Zener Diode	MTZ16A	ツェナーダイオード	D403,404			
	iF 00 42 70	LED(Red)	SLR-55URC3H	L E D	D417~419			
	iG 12 18 00	IC	NJM4560S	I C	IC401,402			
	iG 07 68 00	//	NJM4558S	//	IC403,404			
	iG 00 13 90	//	NJM4558DV	//	IC405			
	VB 97 26 00	Thermister	10k Ω DIN-DI03H4R	サーミスタ	TH401,402			
	LB 91 90 40	Base Pin	4P L-Type	H X ベースピン	CB401			
	VD 00 49 00	//	6P i-Type	P H ベースピン	CB402,403			

※New Parts (新規部品) NR

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
※	NA 09 94 00	Input Circuit Board	入 力 シ ー ト			J	
※	NA 09 99 90	"	"			U,C	
	FU 35 12 20	Mica Cap.	22pF 500V F E マイカコン	C109~112			
	FU 35 14 70	"	47pF 500V "	C127~130			
	FF 11 21 00	Polystyrene Cap.	100pF 銅ハクスチコン	C101,102			
※	FF 11 16 80	"	68pF "	C105,106			
	FZ 00 64 10	Electrolytic Cap.	22 μ F 25V ブラックゲートコン	C123,124			
	FZ 00 74 10	"	1000 μ F 25V "	C121,122		U,C	
	VF 87 81 00	"	820 μ F 80V オーディオケミコン	"		J	
※	VF 97 54 00	Polypropylene Film Cap.	0.022 μ F 50V 銅ハクポリプロコン	C125,126		U,C	
	VE 87 45 00	"	0.047 μ F 100V ポリプロコン	"		J	
	UT 45 31 50	"	1500pF 100V "	C103,104			
	VE 87 45 00	"	0.047 μ F 100V "	C115,116,119,120			
※	VF 87 81 00	Electrolytic Cap.	820 μ F 80V オーディオケミコン	C113,114,117,118			
	VF 47 28 00	"	47 μ F 50V " (B P)	C107,108			
	HJ 35 51 20	Carbon Resistor	120 Ω 1/4W カ ー ボ ン 抵 抗	R119,120			
	HJ 35 63 30	"	3.3k Ω 1/4W "	R115,116			
	HJ 35 61 20	"	1.2k Ω 1/4W "	R159,160			
	HJ 35 61 50	"	1.5k Ω 1/4W "	R137,138			
	HJ 35 64 70	"	4.7k Ω 1/4W "	R157,158,163,164, 173,174,179,180			
	HJ 35 71 00	"	10k Ω 1/4W "	R107~110,141,142,161,162, 165~172,175,176			
	HJ 35 71 20	"	12k Ω 1/4W "	R117,118			
	HJ 35 72 70	"	27k Ω 1/4W "	R125,126			
	HJ 35 74 70	"	47k Ω 1/4W "	R105,106			
	HJ 35 81 00	"	100k Ω 1/4W "	R143,144			
	HJ 35 82 20	"	220k Ω 1/4W "	R103,104			
	HJ 35 91 00	"	1M Ω 1/4W "	R181,182			
	HL 32 65 60	Metal Oxide Film Resistor	5.6k Ω 2W 酸 金 抵 抗	R153,154,183,184			
	HU 57 52 20	Metal Film Resistor	220 Ω 1/4W 金 属 皮 膜 抵 抗	R123,124			
	HU 57 54 70	"	470 Ω 1/4W "	R101,102			
	HU 57 71 20	"	12k Ω 1/4W "	R127~130			
	HV 45 42 70	Flame Proof Carbon Resistor	27 Ω 1/4W 不 燃 化 カ ー ボ ン 抵 抗	R177,178			
	HV 45 46 80	"	68 Ω 1/4W "	R133~136			
	HV 45 51 00	"	100 Ω 1/4W "	R149~152			
	HV 45 51 20	"	120 Ω 1/4W "	R121,122,131,132			
	HV 45 51 50	"	150 Ω 1/4W "	R111~114			
※	VF 47 35 00	Potentiometer	20kA	ロータリーボリューム	VR101,102		
	iA 09 70 00	Transistor	2SA970(GR,BL)	ト ラ ン ジ ス タ	Q103~106,113,114		
	iC 18 15 20	"	2SC1815(Y)	"	Q107~110		
	iX 60 42 00	"	2SC2878(A,B)	"	Q121,122,127~130		
	iA 11 45 00	"	2SA1145(O,Y)	"	Q111,112,119,120		
	iC 27 05 00	"	2SC2705(O,Y)	"	Q115~118		
	iE 10 45 00	FET	2SK389	F E T	Q101,102		
	iF 00 00 40	Diode	1S1555	ダ イ オ ー ド	D101~108,111~116,127	Inter-changeable	
	iF 00 06 70	"	1S2473	"	"		
	iF 00 14 00	"	1SS82	"	D109,110		
	iF 00 30 40	Zener Diode	HZ18-1L	ツェナーダイオード	D125,126		
	iF 01 06 30	"	MTZ4.3B	"	D133~136		

※New Parts (新規部品) NR

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
	XA 42 60 01	IC	NJM5532S	I C	IC101		
※	VF 80 39 00	Pin Jack	2P	ピンジャック	PJ101		
	VD 00 47 00	Base Pin	4P i-Type	P H ベースピン	CB101		
※	VF 33 09 00	VR Holder		V R ホルダー			
	CB 06 92 50	Binding Tie	BK-I	インシュロックタイ			
※	NA 09 94 10	Power Supply Circuit Board		電 源 シ ー ト		J	
※	NA 09 94 20	"		"		U,C	
	FC 29 44 70	Polypropylene Film Cap.	0.047 μ F 250V	Q P コ ン	C301~304		
	FZ 00 46 60	Metallized Mylar Cap.	0.1 μ F 250V	M M コ ン	C305		
	FZ 00 59 80	Electrolytic Cap.	1000 μ F 80V	ケ ミ コ ン	C313,314		
	FZ 00 63 00	"	47 μ F 16V	ブラックゲートコン	C317		
※	UT 45 41 00	Polypropylene Film Cap.	0.01 μ F 100V	ポリプロコン	C306~309		
	VG 19 63 00	Mylar Cap.	0.1 μ F 100V	マイラーコン	C323,324		
	UJ 11 74 70	Electrolytic Cap.	47 μ F 6.3V	ケ ミ コ ン	C315,316		
	UJ 14 84 70	"	470 μ F 25V	"	C322		
	UJ 46 63 30	"	3.3 μ F 50V	"	C318,319		
※	UJ 14 91 00	"	1000 μ F 25V	"	C311,312		
※	VF 92 21 00	Metallized Cap.	0.47 μ F 200V	メタライズコン	C320,321		
※	GD 90 05 20	Coil	1.5 μ H	空 芯 コ イ ル	L301,302		
	HJ 35 51 00	Carbon Resistor	100 Ω 1/4W	カ ー ボ ン 抵 抗	R323		
	HJ 35 71 00	"	10k Ω 1/4W	"	R311,317,320,346		
	HJ 35 71 50	"	15k Ω 1/4W	"	R350		
	HJ 35 72 20	"	22k Ω 1/4W	"	R319,340,345		
	HJ 35 81 00	"	100k Ω 1/4W	"	R307,309		
	HJ 35 81 20	"	120k Ω 1/4W	"	R308,310		
	HJ 35 82 20	"	220k Ω 1/4W	"	R316,318,325,329		
	HJ 35 84 70	"	470k Ω 1/4W	"	R327,328		
	HJ 35 88 20	"	820k Ω 1/4W	"	R321		
※	VF 63 53 00	"	68 Ω 1/4W	"	R343,344		
	HL 32 33 30	Metal Oxide Film Resistor	3.3 Ω 2W	酸 金 抵 抗	R341,342		
	HL 32 71 20	"	12k Ω 2W	"	R351,352		
	HV 45 32 20	Flame Proof Carbon Resistor	2.2 Ω 1/4W	不燃化カーボン抵抗	R302~305		
	HV 45 34 70	"	4.7 Ω 1/4W	"	R301,312,313		
	HV 45 51 00	"	100 Ω 1/4W	"	R314		
	HV 45 61 00	"	1k Ω 1/4W	"	R347,349		
	HV 45 61 50	"	1.5k Ω 1/4W	"	R326		
	HV 45 63 30	"	3.3k Ω 1/4W	"	R322		
	HV 45 71 00	"	10k Ω 1/4W	"	R348		
	iA 09 70 00	Transistor	2SA970(GR,BL)	ト ラ ン ジ ス タ	Q302,305,307,311		
	iC 18 15 20	"	2SC1815(Y)	"	Q306,308~310		
	iC 22 40 00	"	2SC2240(GR,BL)	"	Q301,312		
	iC 27 05 00	"	2SC2705(O,Y)	"	Q303,304		

※New Parts (新規部品) NR

EXPLODED VIEW

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
	iF 00 00 40	Diode	IS1555	ダイオード	} Inter-changeable		
	iF 00 06 70	//	IS2473	//			
	iF 00 14 00	//	ISS82	//		D303,315	
	iH 00 14 30	//	ISR35-100A	//	D308~311,327		
	iF 00 25 40	Zener Diode	HZ27-1L	ツェナーダイオード	D316,317,324		
	iF 00 35 30	//	HZ6C-1L	//	D318		
	iX 55 11 20	Diode	V11J	ダイオード	D304~307		
	iH 00 11 30	Diode Bridge	5FB20	ダイオードブリッジ	D301,302		
	VE 29 76 00	Relay	JC2a DC48V	リ レ ー	RY301,302		
	LB 91 80 20	Base Pin	2P i-Type	X H ベ ー ス ピ ン	CB301~304		
	LB 91 80 50	//	5P i-Type	//	CB305,306,308,309		
	LB 91 80 60	//	6P i-Type	//	CB307		
※	VF 49 93 00	Push Switch	2-2 NS	プッシュスイッチ	SW301		
	VE 80 85 00	Screw Terminal	M4	ネ ジ 端 子			
	CB 81 85 40	Binding Tie	T30R	インシュロックタイ			
	BB 06 95 10	Land Metal Fitting		ラ ン ド 金 具			
	VC 37 58 00	Terminal Plate		ターミナルプレート	MX-10000		
	BB 07 04 10	Bus Bar	I=55	バ ス バ ー			

※New Parts (新規部品) NR

MECHANISM PARTS

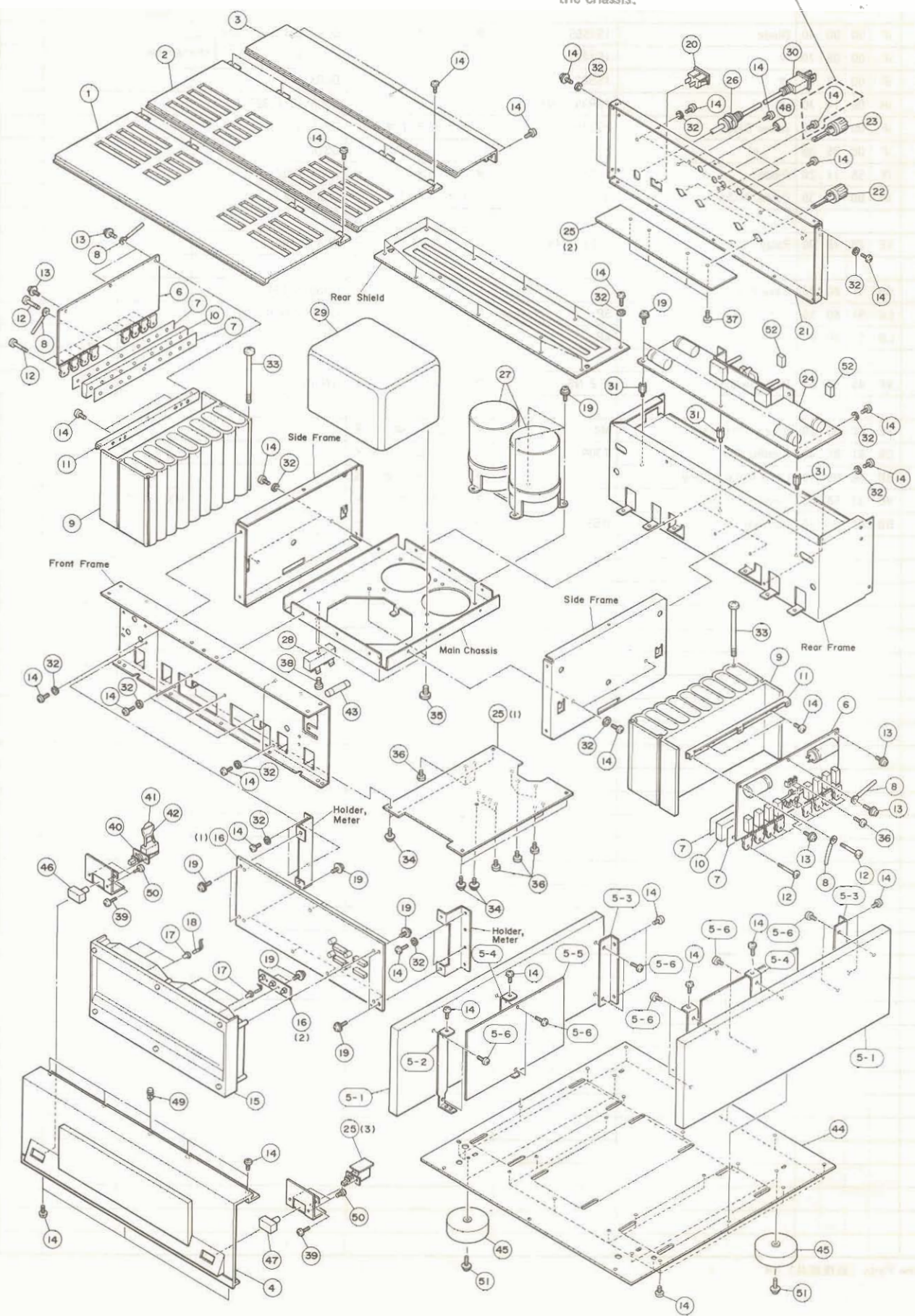
Note) φ : Diameter

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
1	VF 01 24 00	Top Cover Ass'y, A	トップカバー Ass'y A		AX-2000		
2	VF 01 25 00	// , B	// B		//		
3	VF 01 26 00	// , C	// C		//		
※	4	VF 50 46 00	Front Panel Unit	フロントパネルユニット			
	5-1	VE 27 54 10	Wood Panel L+R	ウッドパネル	AX-2000		
	5-2	VE 27 55 00	Wood Panel Holder (F)	ウッドパネルホルダー(F)	//		
	5-3	VE 27 56 00	// (R)	// (R)	//		
	5-4	VE 41 38 00	Top Cover Stay	トップカバーステイ	//		
※	5-5	VF 47 68 00	Barrier	バリアー		U,C	
	5-6	EQ 03 11 66	Round Head Wood Screw 3.1×16 ZMC2-Y	丸木ネジ	PACK		
※	6	NA 09 93 80	Main Circuit Board	メインシート		U,C	
※	//	NA 09 94 50	//	//		J	
※	7	VF 47 70 00	Sheet, TR	TRシート			
	8	CB 04 05 40	Wire Stopper	束線止メ			
※	9	VF 32 99 00	Radiator	ラジエター			
※	10	VF 33 00 00	Block, TR	TRブロック			
	11	AA 62 00 50	Holder, P.C.B.	シートホルダー			
	12	EK 93 50 10	BW Head Tapping Screw 3×20(φ8) ZMC2-BI	BWヘッドタッピングネジ			
	13	EK 33 60 10	// 3×8(φ8) FCRM3-BI	//			
	14	Ei 33 00 86	Binding Head Tapping Screw 3×8 FCRM3-BI	バインドタッピングネジ	PACK		
※	15	VF 33 01 00	Meter	メーター			
※	16	NA 09 93 90	Meter Circuit Board	メーターシート			
	17	VB 22 26 00	Lamp Cap.	ランプキャップ			
※	18	VF 90 99 00	Lamp Unit	ランプユニット			
	19	EK 03 00 60	BW Head Tapping Screw 3×8(φ8) ZMC2-Y	BWヘッドタッピングネジ			
	20	LB 20 30 60	AC Outlet	ACアウトレット			△
※	21	VF 33 03 00	Rear Panel	リアパネル		J	
※	//	VF 33 04 00	//	//		U,C	
	22	VC 68 39 00	Speaker Terminal	SPターミナル	+	MX-10000	
	23	VC 68 40 00	//	//	-	//	
※	24	NA 09 94 00	Input Circuit Board	入力シート		J	
※	//	NA 09 99 90	//	//		U,C	
※	25	NA 09 94 10	Power Supply Circuit Board	電源シート		J	
※	//	NA 09 94 20	//	//		U,C	
	26	CB 80 68 50	Cord Stopper SR-6N3-4	コードストッパー		U,C	
※	27	VF 47 32 00	Electrolytic Cap. 20000μF 80V	ブロックケミコン		J	
	//	VF 90 79 00	// 20000μF 80V	//		J	
	//	VF 90 80 00	// 22000μF 80V	//		U,C	
	//	VF 90 81 00	// 22000μF 80V	//		U,C	
	28	LB 20 13 00	Fuse Holder	ヒューズホルダー			
※	29	XE 66 80 01	Power Transformer	電源トランス		J	△
※	//	XE 66 90 01	//	//		U	△
※	//	XE 67 00 01	//	//		C	△
※	30	VF 90 98 00	Power Cord 15A 125V	電源コード		J	△
	//	VE 01 31 00	// 13A 125V	//		U,C	△
	31	VE 27 63 00	P.C.B, Post	P C B ポスト		AX-2000	
	32	EV 41 30 36	Toothed Lock Washer φ3 FCRM3-BI	歯付座金	PACK		
	33	EX 60 09 70	BW Head Screw 4×132 FCM3-BI	BWヘッド小ネジ			
	34	EX 60 07 60	// 3×8(φ8) FNM3-3g	//			
	35	EK 36 52 00	// 4×10(φ10) FCRM3-BI	//			
	36	VE 98 95 00	Pan Head Screw 4×5 AU	ナベ小ネジ		AX-2000	
	37	EX 60 05 60	// 4×8 AU	//		MX-10000	
	38	ED 03 01 06	Binding Head Screw 3×10 ZMC2-Y	バインド小ネジ	PACK		

※New Parts (新規部品) NR

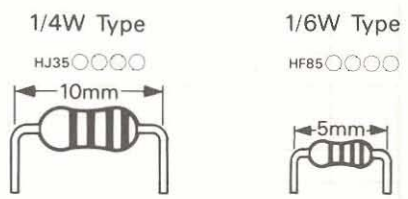
EXPLODED VIEW

Tighten this screw securely as it grounds the circuit to the chassis.



Parts List for Carbon Resistor

Value	1/4W Type Part No.	1/6W Type Part No.	Value	1/4W Type Part No.	1/6W Type Part No.
1.0 Ω	HJ353100	HF853100	12KΩ	HJ357120	HF857120
1.8 "	HJ353180	※	15 "	HJ357150	HF857150
2.2 "	HJ353220	HF853220	18 "	HJ357180	HF857180
3.3 "	HJ353330	HF853330	22 "	HJ357220	HF857220
4.7 "	HJ353470	HF853470	27 "	HJ357270	HF857270
5.6 "	HJ353560	HF853560	33 "	HJ357330	HF857330
10 "	HJ354100	HF854100	39 "	HJ357390	HF857390
15 "	HJ354150	HF854150	47 "	HJ357470	HF857470
22 "	HJ354220	HF854220	56 "	HJ357560	HF857560
27 "	HJ354270	HF854270	68 "	HJ357680	HF857680
33 "	HJ354330	HF854330	82 "	HJ357820	HF857820
39 "	HJ354390	HF854390	91 "	HJ357910	HF857910
47 "	HJ354470	HF854470	100 "	HJ358100	HF858100
56 "	HJ354560	HF854560	120 "	HJ358120	HF858120
68 "	HJ354680	HF854680	150 "	HJ358150	HF858150
82 "	HJ354820	HF854820	180 "	HJ358180	HF858180
100 "	HJ355100	HF855100	220 "	HJ358220	HF858220
110 "	HJ355110	HF855110	270 "	HJ358270	HF858270
120 "	HJ355120	HF855120	330 "	HJ358330	HF858330
150 "	HJ355150	HF855150	390 "	HJ358390	HF858390
160 "	HJ355160	※	470 "	HJ358470	HF858470
180 "	HJ355180	HF855180	560 "	HJ358560	HF858560
220 "	HJ355220	HF855220	680 "	HJ358680	HF858680
270 "	HJ355270	HF855270	820 "	HJ358820	HF858820
330 "	HJ355330	HF855330	1.0MΩ	HJ359100	HF859100
390 "	HJ355390	HF855390	1.2 "	HJ359120	※
470 "	HJ355470	HF855470	1.5 "	HJ359150	HF859150
510 "	※	HF855510	1.8 "	HJ359180	HF859180
560 "	HJ355560	HF855560	2.2 "	HJ359220	HF859220
680 "	HJ355680	HF855680	3.3 "	HJ359330	HF859330
820 "	HJ355820	HF855820	3.9 "	HJ359390	※
910 "	HJ355910	HF855910	4.7 "	HJ359470	HF859470
1.0KΩ	HJ356100	HF856100			
1.2 "	HJ356120	HF856120			
1.5 "	HJ356150	HF856150			
1.8 "	HJ356180	HF856180			
2.0 "	HJ356200	HF856200			
2.2 "	HJ356220	HF856220			
2.4 "	HJ356240	HF856240			
2.7 "	HJ356270	HF856270			
3.0 "	HJ356300	HF856300			
3.3 "	HJ356330	HF856330			
3.6 "	HJ356360	HF856360			
3.9 "	HJ356390	HF856390			
4.7 "	HJ356470	HF856470			
5.1 "	HJ356510	HF856510			
5.6 "	HJ356560	HF856560			
6.8 "	HJ356680	HF856680			
8.2 "	HJ356820	HF856820			
9.1 "	HJ356910	HF856910			
10 "	HJ357100	HF857100			



S M MX2000U