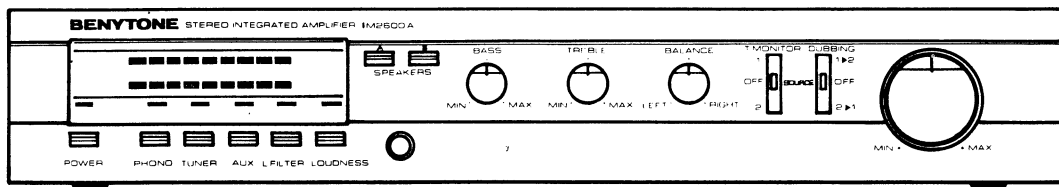


SERVICE MANUAL

BENYTONE

M-2600A

Stereo Amplifier



SPECIFICATIONS

POWER OUTPUT

- Music power at 1 kHz 10% THD into 4 ohms 100 watts + 100 watts
- Peak music power 170 watts + 170 watts

Total Harmonic Distortion	0.15% at 1 watts into 8 ohms (1 kHz)
Intermodulation Distortion (70 Hz : 7 kHz = 4 : 1)	Less than 1.0% at 25 watts into 8 ohms
Power Bandwidth	50 Hz — 20 kHz
Residual Noise	1.5 mV
Damping Factor	30 at 8 ohms
Input Sensitivity/Impedance	
Phono	2.5 mV/47 k ohms
Tuner	150 mV/47 k ohms
AUX	150 mV/47 k ohms
Tape Monitor	150 mV/47 k ohms
Maximum Input Level	
Phono	100 mV
Signal-to-Noise Ratio (IHF, A)	
Phono	77 dB
Tuner, AUX, Tape	87 dB
Frequency Response	
Phono	RIAA standard curve +1 dB
Tuner, AUX, Tape	50 Hz — 20 kHz, ± 1 dB

Tone Control

Bass	±8 dB at 100 Hz
Treble	±8 dB at 10 kHz
Loudness Control	+8 dB at 100 Hz, +6 dB at 10 kHz
Output Level	
Tape Rec	150 mV
Headphones	350 mV
Speaker Impedance	4 — 16 ohms

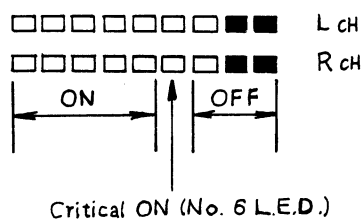
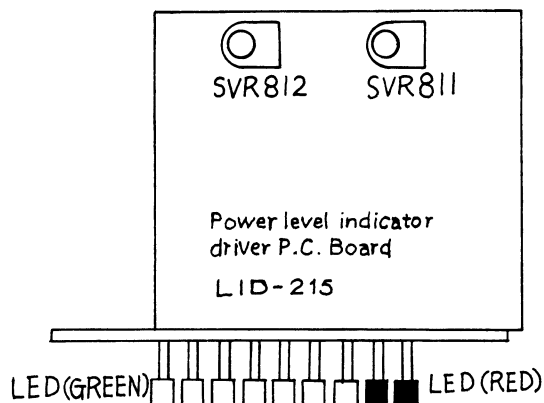
GENERAL

Power Consumption	210 watts
Power Supply	AC 220V (110V) 50 Hz
Dimensions	422 (W) x 302 (D) x 77.5 (H) mm
Weight (Net)	5.8 kg (12.8 lbs.)

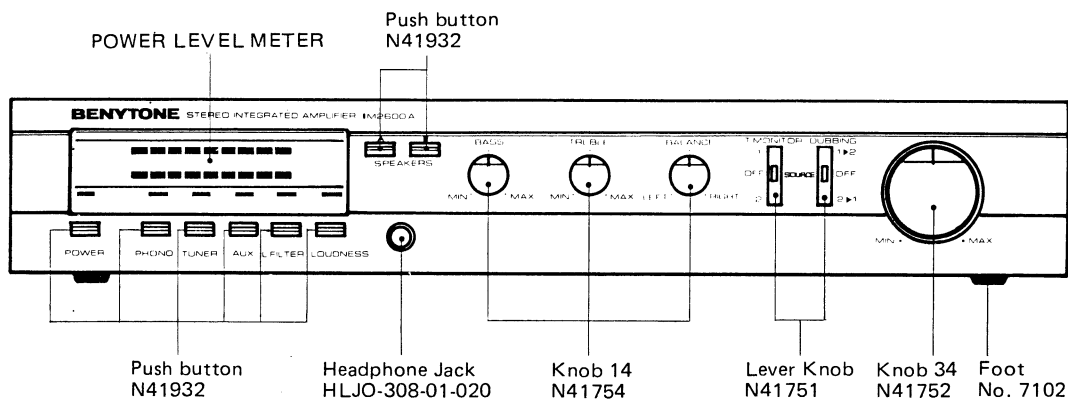
Specifications and design are subject to change without notice.

ADJUSTMENT OF METER RANGE

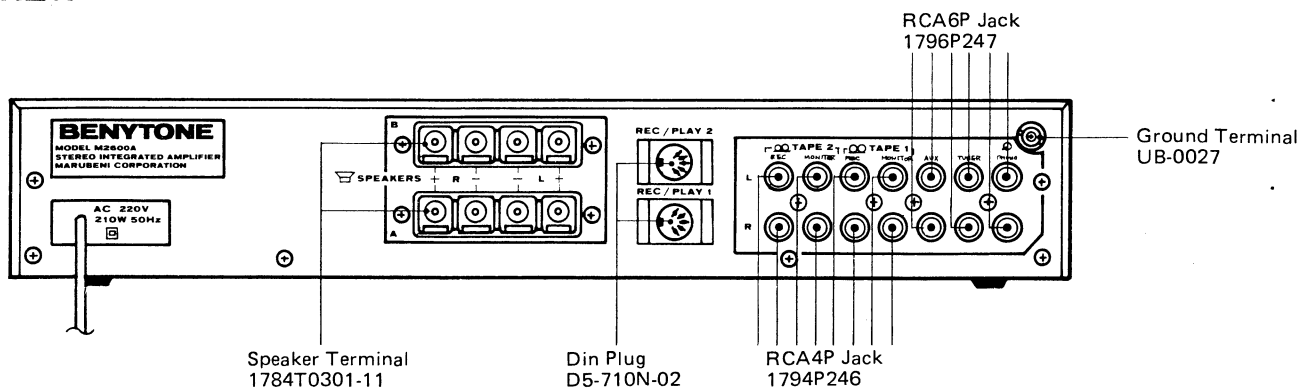
1. Connect an 8 ohms dummy resistor and a V.M to the SPEAKER terminals.
2. Connect an audio generator to the AUX input jacks and apply 1 KHz signals.
3. Turn the VOLUME control to fully clockwise and then adjust the input level of audio generator in order to V.M indicates about 1W. (2.8 volts)
4. Adjust carbon trimmers SRV811, 812 to the Digital Power meter indicates 1W. (No. 6 LED of Digital Power meter should be critical ON.)



FRONT VIEW



REAR VIEW



TO EQUALIZER
PCB(EQ-202)

TO EQUALIZER
PCB(EQ-202)

TO POWER AMP &
POWER SUPPLY
PCB(MA-197A)

TO SWITCH
PCB(FSW-222)

TO SWITCH
PCB(FSW-222)

TO(MT-255)

TO POWER AMP &
POWER SUPPLY
PCB(MA-197A)

TO SWITCH
PCB(FSW-222)

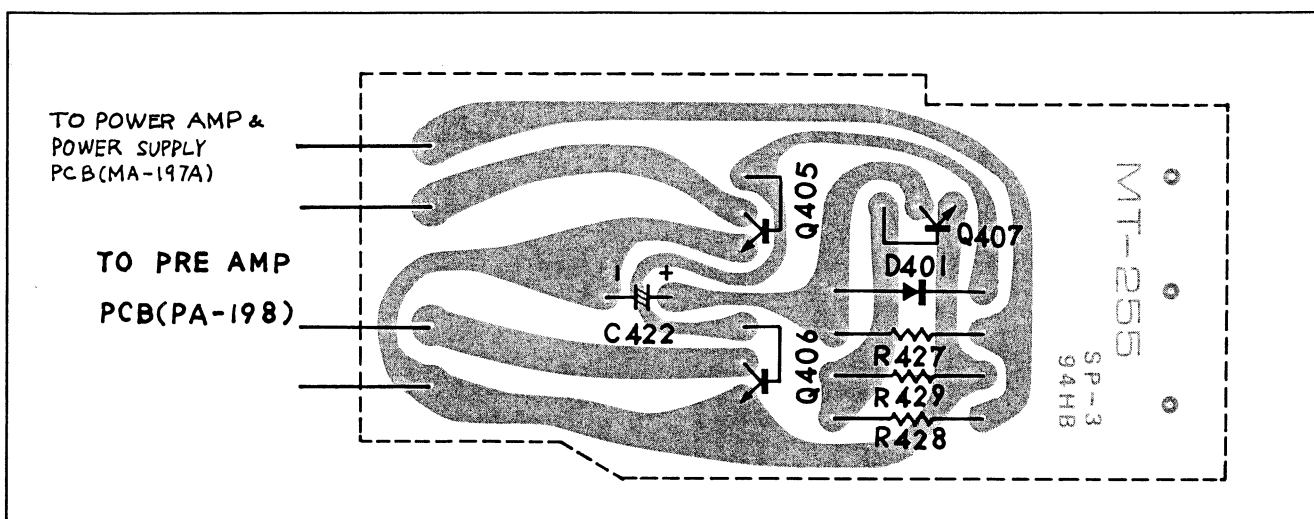
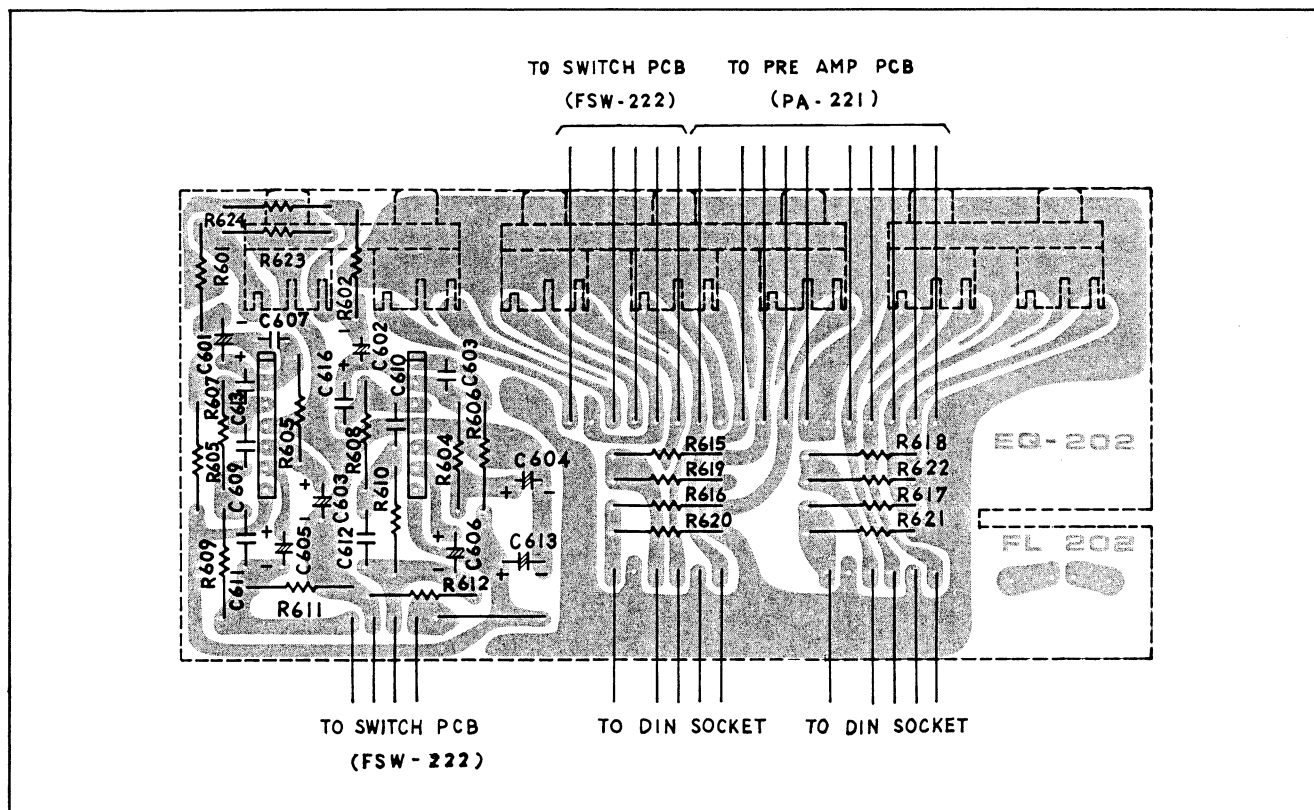
TO VOLUME CONTROL
PCB (VR-201)

PA-221

R421, R422, R423, R424, R425, R426, R427, R428, R429, R430, R431, R432, R433, R434, R435, R436, R437, R438, R439, R440, R441, R442, R443, R444, R445, R446, R447, R448, R449, R450, R451, R452, R453, R454, R455, R456, R457, R458, R459, R460, R461, R462, R463, R464, R465, R466, R467, R468, R469, R470, R471, R472, R473, R474, R475, R476, R477, R478, R479, R480, R481, R482, R483, R484, R485, R486, R487, R488, R489, R490, R491, R492, R493, R494, R495, R496, R497, R498, R499, R500, R501, R502, R503, R504, R505, R506, R507, R508, R509, R510, R511, R512, R513, R514, R515, R516, R517, R518, R519, R520, R521, R522, R523, R524, R525, R526, R527, R528, R529, R530, R531, R532, R533, R534, R535, R536, R537, R538, R539, R540, R541, R542, R543, R544, R545, R546, R547, R548, R549, R550, R551, R552, R553, R554, R555, R556, R557, R558, R559, R560, R561, R562, R563, R564, R565, R566, R567, R568, R569, R570, R571, R572, R573, R574, R575, R576, R577, R578, R579, R580, R581, R582, R583, R584, R585, R586, R587, R588, R589, R590, R591, R592, R593, R594, R595, R596, R597, R598, R599, R600, R601, R602, R603, R604, R605, R606, R607, R608, R609, R610, R611, R612, R613, R614, R615, R616, R617, R618, R619, R620, R621, R622, R623, R624, R625, R626, R627, R628, R629, R630, R631, R632, R633, R634, R635, R636, R637, R638, R639, R640, R641, R642, R643, R644, R645, R646, R647, R648, R649, R650, R651, R652, R653, R654, R655, R656, R657, R658, R659, R660, R661, R662, R663, R664, R665, R666, R667, R668, R669, R670, R671, R672, R673, R674, R675, R676, R677, R678, R679, R680, R681, R682, R683, R684, R685, R686, R687, R688, R689, R690, R691, R692, R693, R694, R695, R696, R697, R698, R699, R700, R701, R702, R703, R704, R705, R706, R707, R708, R709, R710, R711, R712, R713, R714, R715, R716, R717, R718, R719, R720, R721, R722, R723, R724, R725, R726, R727, R728, R729, R730, R731, R732, R733, R734, R735, R736, R737, R738, R739, R740, R741, R742, R743, R744, R745, R746, R747, R748, R749, R750, R751, R752, R753, R754, R755, R756, R757, R758, R759, R760, R761, R762, R763, R764, R765, R766, R767, R768, R769, R770, R771, R772, R773, R774, R775, R776, R777, R778, R779, R780, R781, R782, R783, R784, R785, R786, R787, R788, R789, R790, R791, R792, R793, R794, R795, R796, R797, R798, R799, R800, R801, R802, R803, R804, R805, R806, R807, R808, R809, R810, R811, R812, R813, R814, R815, R816, R817, R818, R819, R820, R821, R822, R823, R824, R825, R826, R827, R828, R829, R830, R831, R832, R833, R834, R835, R836, R837, R838, R839, R840, R841, R842, R843, R844, R845, R846, R847, R848, R849, R850, R851, R852, R853, R854, R855, R856, R857, R858, R859, R860, R861, R862, R863, R864, R865, R866, R867, R868, R869, R870, R871, R872, R873, R874, R875, R876, R877, R878, R879, R880, R881, R882, R883, R884, R885, R886, R887, R888, R889, R890, R891, R892, R893, R894, R895, R896, R897, R898, R899, R900, R901, R902, R903, R904, R905, R906, R907, R908, R909, R910, R911, R912, R913, R914, R915, R916, R917, R918, R919, R920, R921, R922, R923, R924, R925, R926, R927, R928, R929, R930, R931, R932, R933, R934, R935, R936, R937, R938, R939, R940, R941, R942, R943, R944, R945, R946, R947, R948, R949, R950, R951, R952, R953, R954, R955, R956, R957, R958, R959, R960, R961, R962, R963, R964, R965, R966, R967, R968, R969, R970, R971, R972, R973, R974, R975, R976, R977, R978, R979, R980, R981, R982, R983, R984, R985, R986, R987, R988, R989, R990, R991, R992, R993, R994, R995, R996, R997, R998, R999, R1000, R1001, R1002, R1003, R1004, R1005, R1006, R1007, R1008, R1009, R1010, R1011, R1012, R1013, R1014, R1015, R1016, R1017, R1018, R1019, R1020, R1021, R1022, R1023, R1024, R1025, R1026, R1027, R1028, R1029, R1030, R1031, R1032, R1033, R1034, R1035, R1036, R1037, R1038, R1039, R1040, R1041, R1042, R1043, R1044, R1045, R1046, R1047, R1048, R1049, R1050, R1051, R1052, R1053, R1054, R1055, R1056, R1057, R1058, R1059, R1060, R1061, R1062, R1063, R1064, R1065, R1066, R1067, R1068, R1069, R1070, R1071, R1072, R1073, R1074, R1075, R1076, R1077, R1078, R1079, R1080, R1081, R1082, R1083, R1084, R1085, R1086, R1087, R1088, R1089, R1090, R1091, R1092, R1093, R1094, R1095, R1096, R1097, R1098, R1099, R1100, R1101, R1102, R1103, R1104, R1105, R1106, R1107, R1108, R1109, R1110, R1111, R1112, R1113, R1114, R1115, R1116, R1117, R1118, R1119, R1120, R1121, R1122, R1123, R1124, R1125, R1126, R1127, R1128, R1129, R1130, R1131, R1132, R1133, R1134, R1135, R1136, R1137, R1138, R1139, R1140, R1141, R

MA-197A

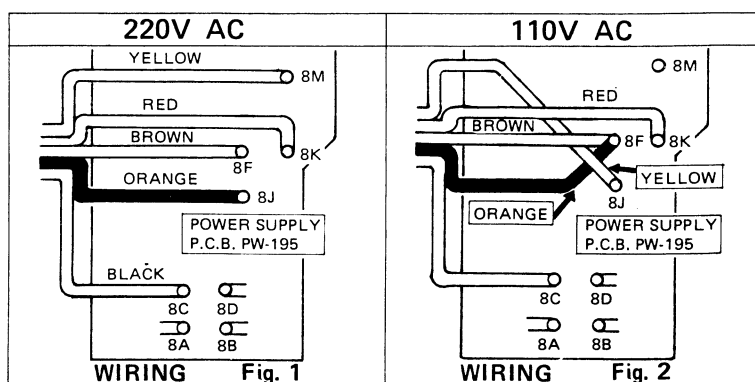
EQUALIZER BOARD (EQ-202)



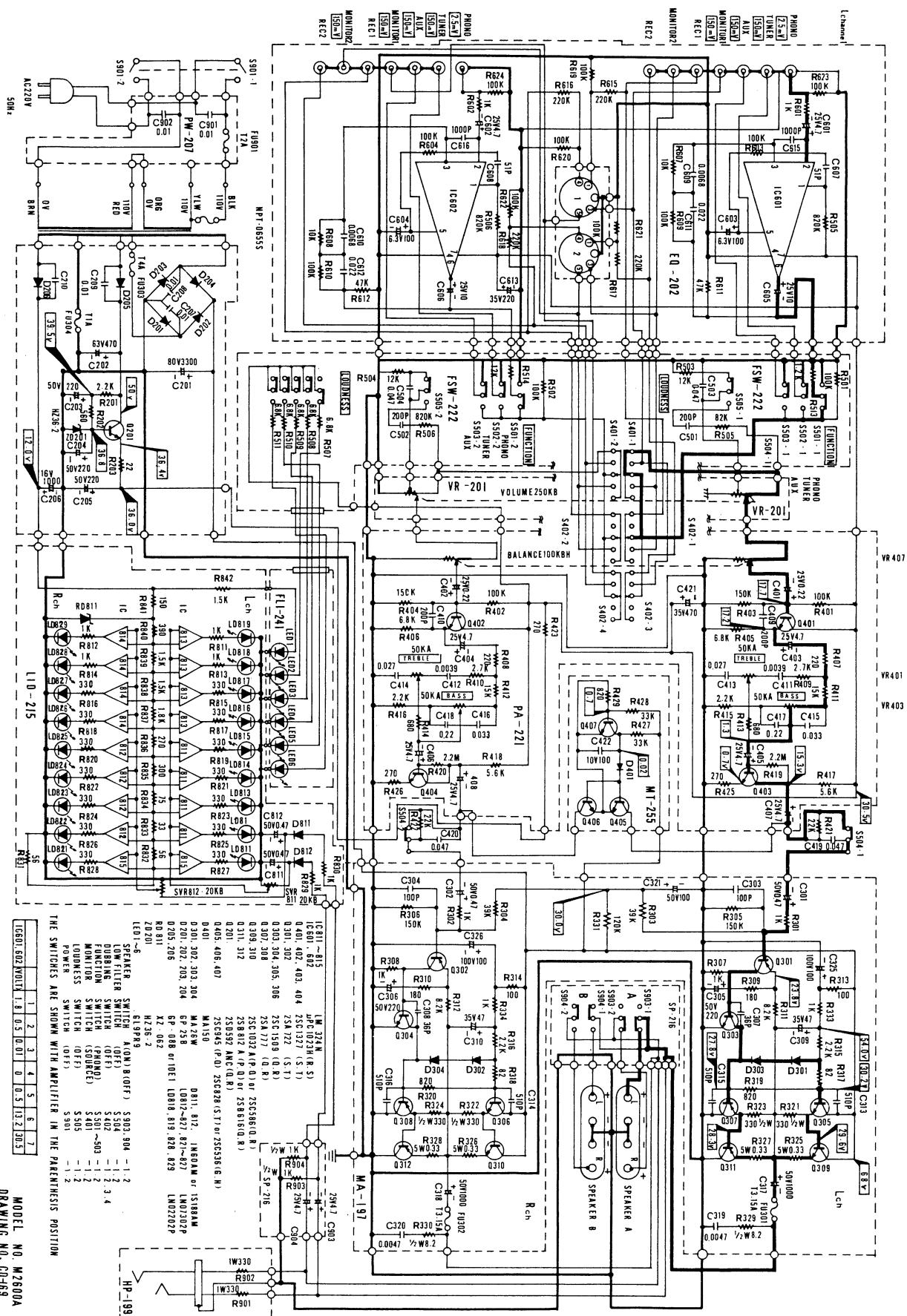
VOLTAGE CONVERSION

220V AC → 110V AC

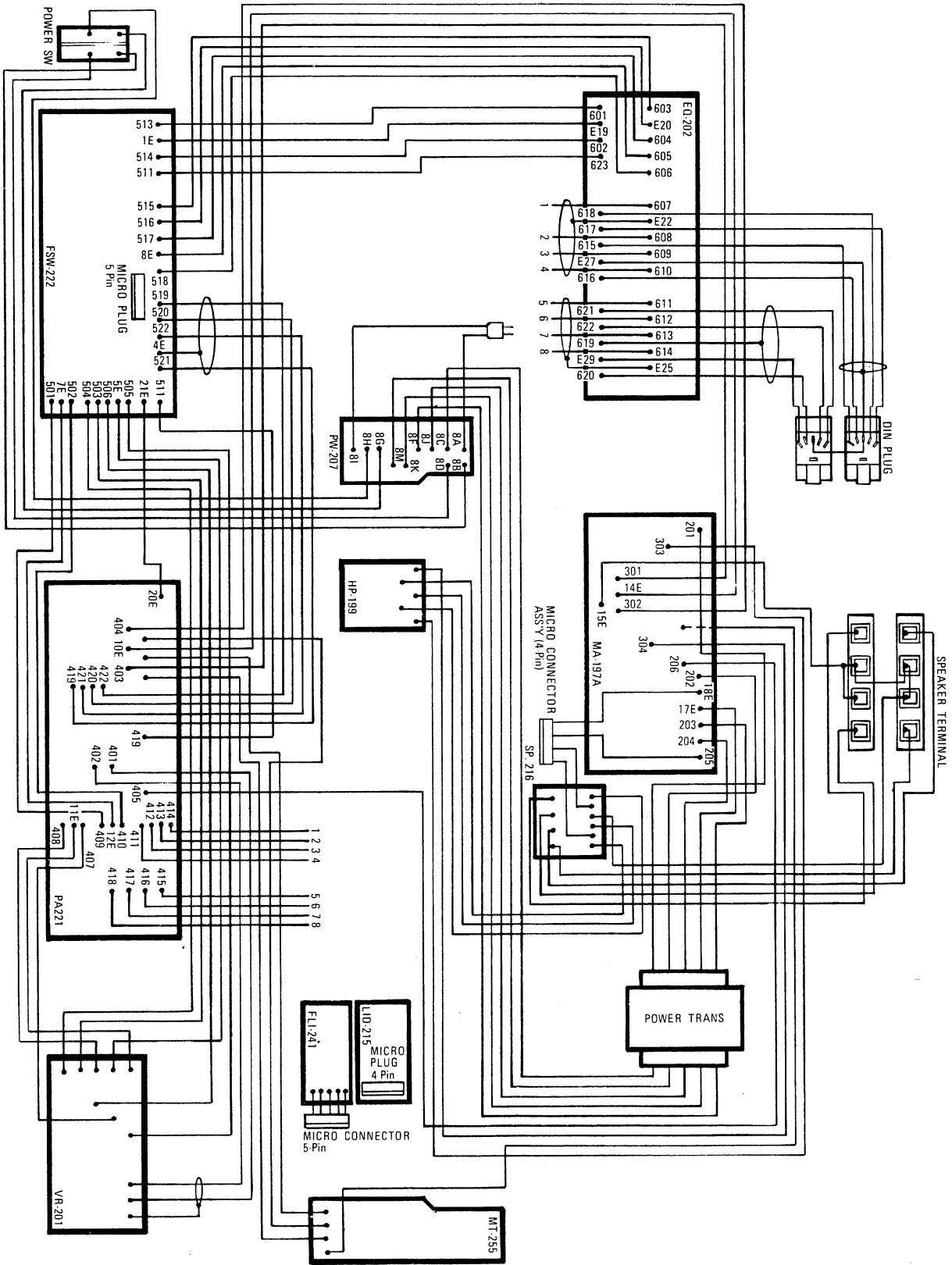
1. Disconnect the ORANGE and YELLOW wires from the holes 8J and 8M on POWER SUPPLY P.C.B. PW-195 as shown in Fig. 1.
2. Connect the wires as shown in Fig. 2.
3. Replace the fuse (2A) by the one (3.15A).



CIRCUIT DIAGRAM



WIRING DIAGRAM



PARTS LIST

Part No.	Description	Symbol No.	Q'ty a set	Part No.	Description	Symbol No.	Q'ty a set
INTEGRATED CIRCUITS & TRANSISTORS				10TW 100μF	Electrolytic	C422	1
μPC1023H (R.S)	IC	IC601, 602	2	16TW 1000μF	Electrolytic	C206	1
LM324N	IC	IC811-815	5	25TW 0.22μF	Electrolytic	C401, 402	2
2SA777 (Q.R)	Transistor	Q307, 308	2	25TW 4.7μF	Electrolytic	C403-408	8
2SA722 (S.T)	Transistor	Q301, 302	2			903, 904	
2SB616 (Q.R)	Transistor	Q311, 312	2	25TW 10μF	Electrolytic	C605, 606	2
or 2SB812A (Q.R)				35TW 47μF	Electrolytic	C309, 310	2
2SC945 (P.Q)	Transistor	Q405,406,407	3	50TW 100μF	Electrolytic	C321	1
or 2SC828 (S.T)				35TW 220μF	Electrolytic	C613	1
or 2SC536 (G.H)				35TW 470μF	Electrolytic	C421	1
2SC1327 (S.T)	Transistor	Q401,402,403	4	50TW 1000μF	Electrolytic	C317, 318	2
		404		50TW 0.47μF	Electrolytic	C301,302,811	4
2SC1509 (Q.R)	Transistor	Q303,304,305	4			812	
		306		50TW 220μF	Electrolytic	C203,204,205	5
2SD586 (Q.R)	Transistor	Q309,310	2			305, 306	
or 2SD1032A (Q.R)				63TW 470μF	Electrolytic	C202	1
2SD592ANC (Q.R)	Transistor	Q201	1	80TW 3300μF	Electrolytic	C201	1
DIODES & VARIABLE CAPACITOR				100TW 100μF	Electrolytic	C325, 326	2
HZ-36-2	Zener Diode	ZD201	1	50V 0.0039 (M)	Mylar	C411, 412	2
XZ-062	Zener Diode	RD811	1	50V 0.0047 (M)	Mylar	C319, 320	2
IS188AM or				50V 0.0068 (M)	Mylar	C609, 610	2
IN60AM	Germanium Diode	D811, 812	2	50V 0.022 (M)	Mylar	C611, 612	2
MA-150	Silicon Diode	D401	1	50V 0.027 (M)	Mylar	C413, 414	2
GP-25B	Rectifier	D201,202,203	4	50V 0.033 (M)	Mylar	C415, 416	2
or GP-30B		204		50V 0.047 (M)	Mylar	C503, 504	4
GP-08B or 10E1	Rectifier	D205, 206	2			C419, 420	
MA-26W	Silicon Variable, Capacitor	D301,302,303	4	50V 0.22μ (M)	Mylar	C417, 418	2
LN07302P	LED	304	2	HE12SJUU511K	Ceramic	C313-316	4
LN02202P	LED		2	HE12SJS102K	Ceramic	C615, 616	2
GL9PR9	LED		6	HE12SJYB103K	Ceramic	C209, 210	2
CONTROLS				HE17SJYB103K	Ceramic	C207, 208	2
EWK-KJA332BF5	Potentiometer (VOL)		1	HE40SJS1510K	Ceramic	C607, 608	2
EWK-G4A332375	Potentiometer (BAL)	VR407	1	HE40SJUU360K	Ceramic	C307, 308	2
EWK-G4A332A54	Potentiometer (TONE)	VR401, 403	2	HE60SJUU101K	Ceramic	C303, 304	2
TRANSFORMERS				HE70SJS1201K	Ceramic	C409, 410	4
NPT-0655S	Power Transformer		1	ECQ-E2A103MCS	Metalized Polyester	501, 502	2
SWITCHES				APPEARANCE PARTS			
ESB-70294	Power Switch		1	N20560	Front Panel		1
SW-1501038	5 Key Switch	S501-505	1	N20582-2	Rear Panel		1
SW-4235019	Lever Switch	SLR523	1	N20566-S	Case		1
SW4435020	Lever Switch	SLR543	1	N41932	Push button		8
CONNECTORS & TERMINALS				N41820-1	Push Knob Guide		1
HLJO-308-01-020	Headphone Jack		1	N41820-2	Push Knob Guide		1
1784T0301-11	Speaker Terminal		2	N41820-5	Push Knob Guide		1
UB-0027	Ground Terminal		1	N41751	Lever Knob		2
D5-710N-02	DIN Plug		2	N41818	Side Cap, Right		1
1796P247	RCA 6P Jack		1	N41819	Side Cap, Left		1
1794P246	RCA 4P Jack		2	N41752	Knob 34	Volume	1
S-N5053	Fuse Block		10	N41754	Knob 14	Audio Cont.	3
or FUH-002				N41932	Push Knob		8
FUSES				No. 7102	Foot		4
FU-521025T	Fuse, 1A	FU304	1	ACC-010	Line Cord		1
FU-522025T	Fuse, 2A	FU901	1	SR3P-4	Cord Strain Relief		1
FU-523125T	Fuse, 3.15A	FU301, 302	2	MISCELLANEOUS			
FU-524025T	Fuse, 4A	FU303	1	N30398	Heat Sink		1
CAPACITORS				No. 18 E or MP-50	Mica		2
ECQ-E2A103MCS	Metalized Polyester	C901, 902	2	OM-175-2	Instruction Book		1
ECE-	Electrolytic (MSR)	C601, 602	2	PACKING MATERIAL			
A25M4R7R4R7				N41886	Poly. Bag	for Unit	1
6.3TW 100μF	Electrolytic	C603, 604	2	N40487	Poly. Bag	for Inst. Book	1
				N20570	Pad		2
				N41880-2	Carton		1
RESISTOR				RESISTOR			
ERF5GEKR33N	Cement Resistor	R325,326,327	2				
330Ω (1W)	Metalized Resistor	328					
		R901, 902	2				

- Note: 1. Part orders must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and/or resistors must be of 10 pcs.
3. Resistors not detailed in parts list are all carbon type. ¼ watt. With regard to the value, refer to the schematic diagram.