



SERVICE  
MANUAL **2218**



**marantz**

model **2218**

*Stereophonic Receiver*

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**MARANTZ DESIGN AND SERVICE**

Using superior design and selected high grade components, MARANTZ Company has created the ultimate in stereo sound. Only original MARANTZ parts can insure that your MARANTZ product will continue to perform to the specifications for which it is famous.

Parts for your MARANTZ stereo are generally available within 72 hours throughout the nation via a toll-free line to our National Parts Depot in California. The sales professionals who take your call immediately refer to their own desk top computer terminal and can quickly determine the availability and price information you require. If for some reason, your order should exceed our available stock, we usually can instantly provide an alternate replacement part or current delivery information. When the order is placed and confirmed, the computer simultaneously generates "hard copy" orders at the distribution center. As hard copies come directly from the computer to the national parts depot, your requested stock is assembled and prepared for shipment and placed on the first available carrier for delivery to you.

**ORDERING PARTS**

Phone orders will eliminate mail delays, and we encourage the use of this method. If you order by mail, use MARANTZ parts order forms which are available from our National Parts Depot located at the following address:

**SUPERSCOPE NATIONAL PARTS DEPARTMENT**  
20525 Nordhoff Street  
Chatsworth, California 91311  
Phone: 1-800-423-5108  
1-213-998-9333

The following information must be supplied to eliminate delays in processing your order:

1. Complete address.
2. Complete part numbers.
3. Complete description of parts.
4. Model number for which part is required (indicate MARANTZ).
5. Account number (for account customers only).

Direct consumers will be provided with the current retail price quotation on available parts in order to advise them of the cost of the parts and shipping.

**OVERSEAS PARTS ORDERING**

Parts may also be ordered from the following overseas addresses:

**CANADA**

Superscope Canada, Ltd.  
3710 Nashua Drive  
Mississauga  
Ontario, Canada L4V1M5

**AUSTRALIA**

Superscope (Australasia) Pty., Ltd.  
32 Cross Street (P.O. Box 604)  
Brookvale 2100 N.S.W.  
Australia

**JAPAN**

Marantz Japan, Inc.  
3622 Kamitsuruma  
Sagamihara Shi  
Kanagawa, Japan

**EUROPE**

Superscope Europe, S.A.  
Avenue Leopold III, 2  
7120 Peronnes-Lez-Binche  
Belgium

Marantz France  
Rue Louis Armand 9  
92600 Asnieres  
Hauts-de-Seine  
France

Marantz Audio U.K. Ltd.  
London Road, 203  
Staines  
Middlesex  
England

Superscope GmbH  
Max-Planck-Strasse 22  
D-6072 Dreieich 1  
West Germany

All of the above locations are fully equipped to take care of your total service needs. Because various countries have differing configuration requirements, it is necessary that you contact the service facility in your particular country. In the event that there is no service location listed for your country, please contact the nearest facility for the necessary assistance.



**1. INTRODUCTION**

This service manual was prepared for use by Authorized Warranty Stations and contains service information for Marantz Model 2218 Stereophonic Receiver.

Servicing information and voltage data included in this manual are intended for use by the knowledgeable and experienced technician only. All instructions should be read carefully. No attempt should be made to proceed without a good understanding of the operation of the receiver.

The part list furnishes information by which replacement parts may be ordered from the Marantz Company. A simple description is included for parts which can usually be obtained through local suppliers.

**2. SERVICE NOTES**

As can be seen from the circuit diagram, the chassis of Model 2218 consists of the following units. Each unit mounted on a printed circuit board is described within the square enclosed by a bold dotted line on the circuit diagram.

- 1. FM Front End ..... mounted on P.W.B. P 100
- 2. Tuner ..... mounted on P.W.B. P 200
- 3. Phono Equalizer Amp. .... mounted on P.W.B. P 400
- 4. Main Amp. & Power Supply ..... mounted on P.W.B. P 700
- 5. Pre & Tone Amp. .... mounted on P.W.B. PE 01
- 6. Monitor, Hi Filter  
Loudness Switches ..... mounted on P.W.B. PH 01
- 7. Dial Lamp ..... mounted on P.W.B. PZ 01
- 8. Protector ..... mounted on P.W.B. PN 01

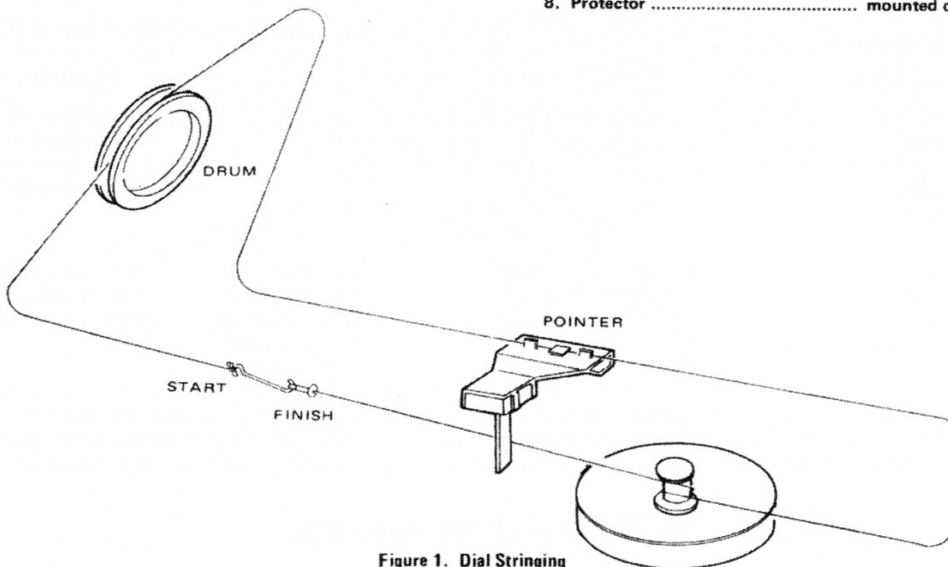


Figure 1. Dial Stringing

### 3. TEST EQUIPMENT REQUIRED FOR SERVICING

Table 1 lists the test equipment required for servicing the Model 2218 Receiver.

Item	Manufacturer and Model No.	Use
AM signal Generator		Signal source for AM alignment
Test Loop		Use with AM Signal Generator
FM Signal Generator MPX Signal Generator	Sound Technology Model 1000A	Signal source for FM alignment Stereo separation alignment and trouble shooting
Distortion Analyzer Audio Oscillator AC VTVM	Sound Technology Model 1700A	Distortion measurements Sinewave and squarewave signal source Voltage measurements (AC)
Oscilloscope	Tektronix Model T932 Philips Model 3232	Waveform analysis and trouble shooting and ASO alignment
Frequency Counter	Fluke Model 1900A	MPX Oscillator adjustment (VCO)
Circuit Tester		Trouble shooting
DC VTVM	Fluke Model 8000 "Digital" Simpson Model 313, Triplet Model 801	Voltage measurements (DC)
AC Wattmeter	Simpson Model 1379	Monitors primary power to amplifier
AC Ammeter	Commercial Grade (1-10A)	Monitors amplifier output under short circuit condition
Line Voltmeter	Simpson Model 1359	Monitors potential of primary power to amplifier
Variable Autotransformer	Superior Electronic Co., Powerstat Model 116B-10A	Adjusts level of primary power to amplifier
Shorting Plug	Use phono plug with 600 ohm across center pin and shell	Shorts amplifier input to eliminate noise pickup
Output Load (8 ohms, $\pm 0.5\%$ , 100W)	Commercial Grade	Provides 8-ohm load for amplifier output termination
Output Load (4 ohms, $\pm 0.5\%$ , 100W)	Commercial Grade	Provides 4-ohm load for amplifier output termination

### 4. AM ALIGNMENT PROCEDURE

#### 4.1 AM IF Alignment

1. Connect a sweep generator to the L153 and an alignment scope to the J233.
2. Rotate each core of IF transformer L155 and L156 for the maximum height and flat top symmetrical response.

#### 4.2 AM (MW) Frequency Range and Tracking Alignment

1. Set AM signal generator to 515 kHz. Turn the tuning capacitor fully closed (place the tuning pointer at the low end) and adjust the oscillator coil L154 for maximum audio output.
2. Set the signal generator to 1650 kHz. Place the tuning pointer in the high frequency end and adjust the oscillator trimmer on the oscillator tuning capacitor for maximum audio output.

3. Repeat steps 1 and 2 until no further adjustment is necessary.
4. Set the generator to 600 kHz, tune the receiver to the same frequency and adjust a slug core of AM ferrite-rod antenna L001 for maximum output.
5. Set the generator to 1400 kHz and tune the receiver to the same frequency and adjust the trimming capacitor on the antenna tuning capacitor for maximum output.
6. Repeat procedures 4 and 5 until no further adjustment is necessary.

#### NOTE

During tracking alignment reduce the signal generator output as necessary to avoid AGC action.

## 5. FM ALIGNMENT PROCEDURE

### 5.1 FM Frequency Range and Tracking Alignment

1. Connect an FM signal generator to the FM antenna terminals and an oscilloscope and an audio distortion analyzer to the TAPE OUT jacks on the rear panel.
2. Set the generator to 87.4 MHz and provide about 3 to 5  $\mu\text{V}$ . Place the tuning pointer at the low frequency end by rotating the tuning knob and adjust the pitch of oscillator coil L107 to obtain maximum audio output.
3. Set the generator to 109 MHz and provide about 3 to 5  $\mu\text{V}$ . Rotate the tuning knob and place the tuning pointer at the high frequency end and adjust the trimming capacitor C121 for maximum output.
4. Repeat steps 2 and 3 until no further adjustment is necessary.
5. Set the generator to 90 MHz and tune the receiver to the same frequency. Decrease signal generator output until the audio output level decreases with the decreasing generator output. Adjust the pitch of antenna coil L102 and RF coil L104 for maximum output.
6. Set the generator to 106 MHz and tune the receiver to the same frequency. Decrease the signal generator output until the audio output level decreases with the decreasing generator output. Adjust the trimming capacitors of antenna and RF tuning circuits for maximum output.
7. Repeat steps 5 and 6 until no further adjustment is necessary.
8. Adjust the primary core (lower core) of discriminator transformer L202 so that the center tuning meter pointer indicates its center at no signal applied. Set the FM signal generator to 98 MHz and increase its output level 1  $\mu\text{V}$  and tune the receiver to the same frequency so that the center tuning meter pointer indicates its center. Adjust the secondary core (upper core) of L202 for minimum distortion.

### 5.2 Stereo Separation Alignment

1. Set the FM signal generator to provide 1  $\mu\text{V}$  at 98 MHz. Tune the receiver to the same frequency so that the center tuning meter pointer indicates its center. Then turn off the modulation of the generator, connect a frequency counter to test point J229 and adjust R301 so that the frequency counter may precisely read 76 kHz.
2. Modulate the generator with stereo composite signal consisting of only L or R channel (of course a pilot signal must be included).
3. Adjust the trimming resistor R317 for maximum and same separation in both channels.

### 5.3 Muting Threshold Adjustment

Set the FM signal generator output to provide 12.5  $\mu\text{V}$  (IHF) at 98 MHz and tune receiver to the same frequency. Adjust the trimming resistor R212 for the threshold level of 12.5  $\mu\text{V}$ . (During this adjustment turn the FM MUTING pushswitch "on".)

### 5.4 FM Tape Out Level Adjustment

1. Set the FM signal generator to provide a 1000 Hz, 100% modulated 98 MHz mono signal, at 1  $\mu\text{V}$  output. Precisely tune the receiver to 98 MHz.
2. Adjust R215 until the outputs of both channels are 1060 mV.

## 6. POWER AMPLIFIER ADJUSTMENT

Connect a VTVM between the test point (R731, R733) and adjust the trimming resistor R719 until the VTVM reads 9 mV DC. For the other channel, connect the VTVM between the test point (R732, R734) and adjust the R720 for the same reading.

## 7. VOLTAGE CONVERSION

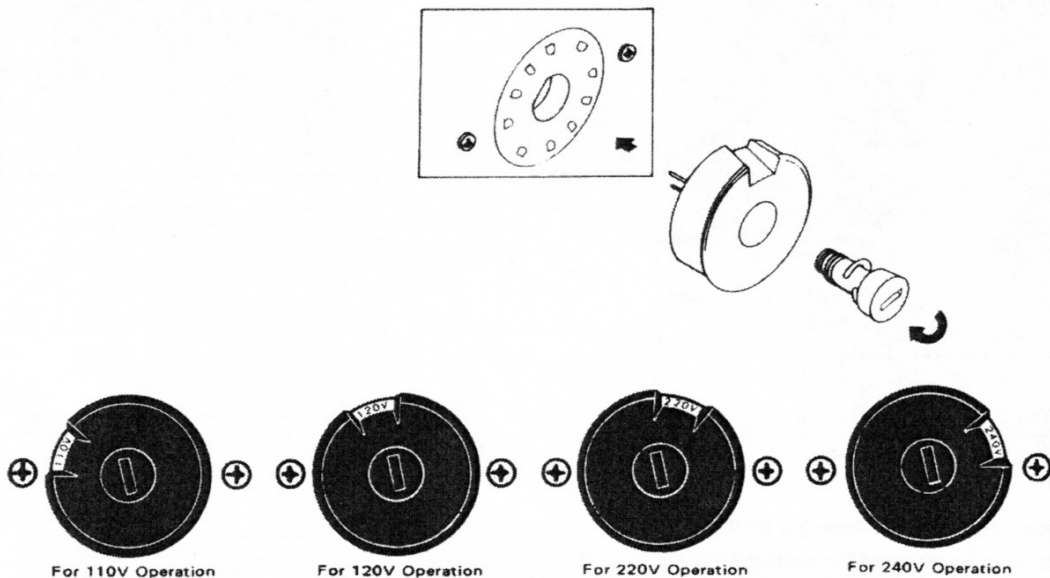
### • EUROPEAN MODEL ONLY

The European version of the Model 2218 is equipped with a universal power transformer that may be adjusted to operate at 110 V, 120 V, 220 V, or 240 V AC at 50 to 60 Hz. To convert the unit to a different power source voltage, reposition conversion plug at shown in Figure 2.

#### CAUTION

DISCONNECT POWER SUPPLY CORD FROM AC OUTLET BEFORE CONVERTING VOLTAGE...

Figure 2. Voltage Conversion Chart



## 9. FTZ REGULATION

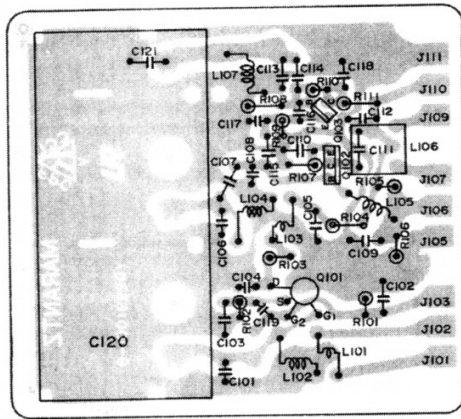
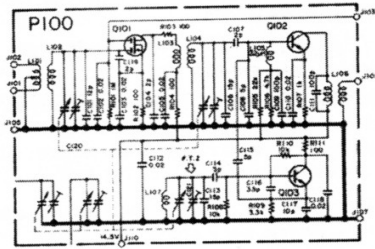
Instruction for the use  
in the range other than specified in FTZ codes

Achtung für die Leute, die in dem Gebiet wohnen,  
wo die FTZ-Bestimmungen vorherrschend sind.

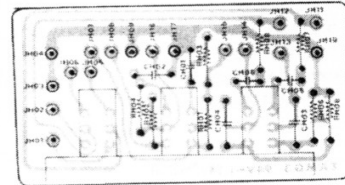
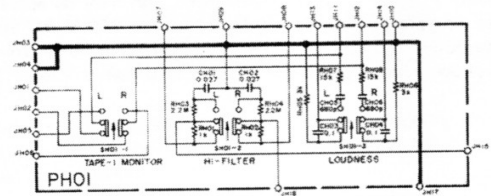
Sollte das Gerät auch für Frequenzen außerhalb des in den FTZ-Bestimmungen angegebenen Bereiches empfangebereit sein, bitten wir, den Bereich durch Nachstellen des Kernes in der Oszillatorspule (in der Abbildung mit „FTZ“ gekennzeichnet) so zu korrigieren, daß er den Bestimmungen entspricht.

9. DIAGRAM AND COMPONENT LOCATIONS

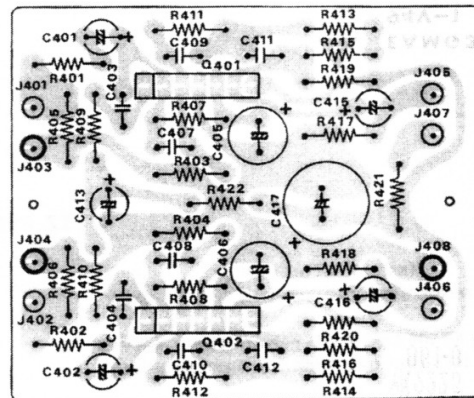
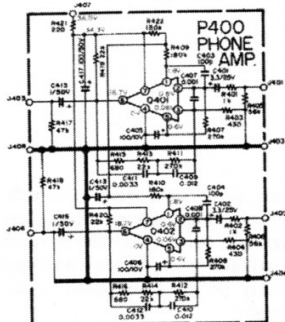
9.1 FM Front End Assembly (P100) Schematic Diagram and Component Location



9.2 Monitor, Hi-Filter, Loudness Switches Assembly (PH01) Schematic Diagram and Component Location

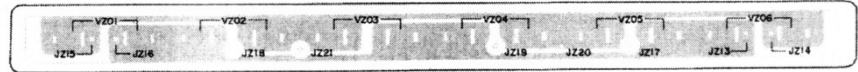
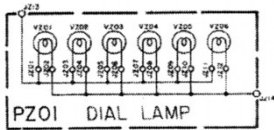


9.3 Phono Equalizer Amp. Assembly (P400) Schematic Diagram and Component Location

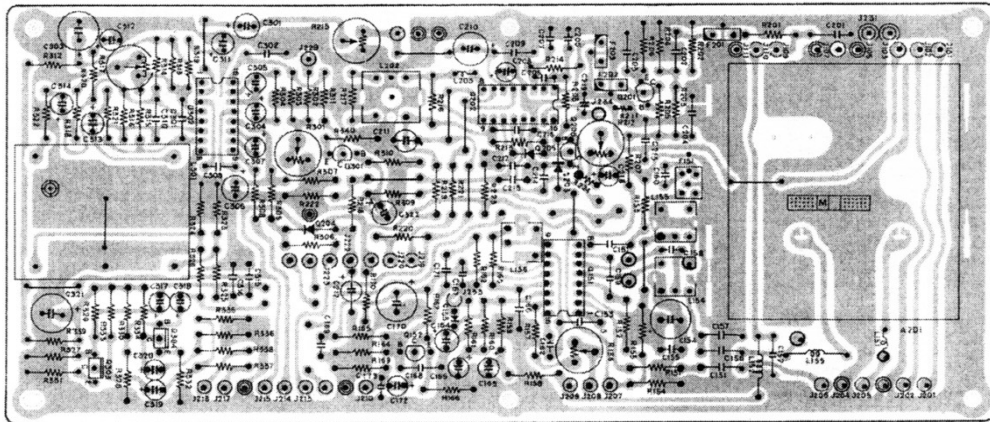
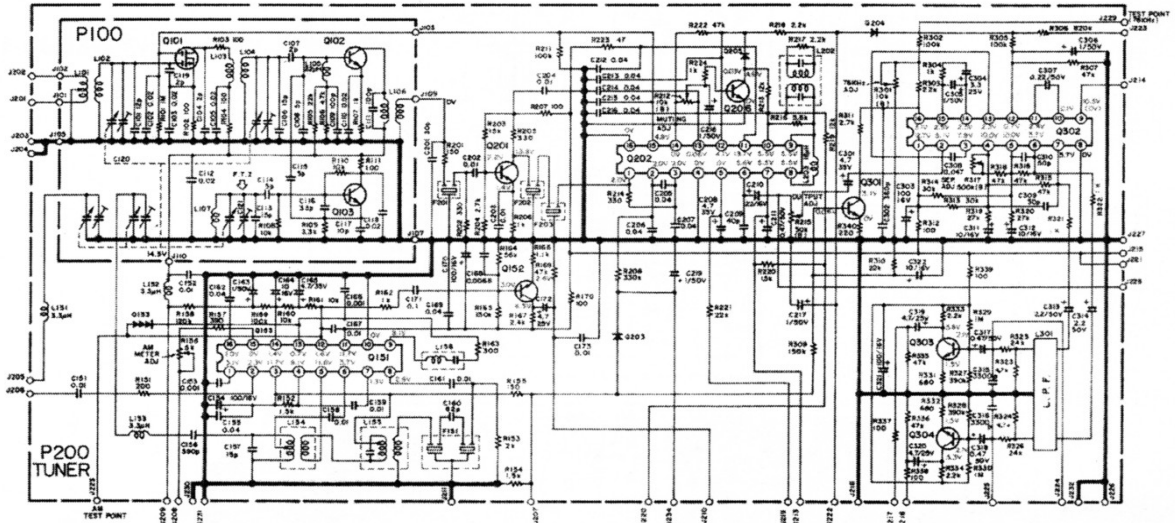




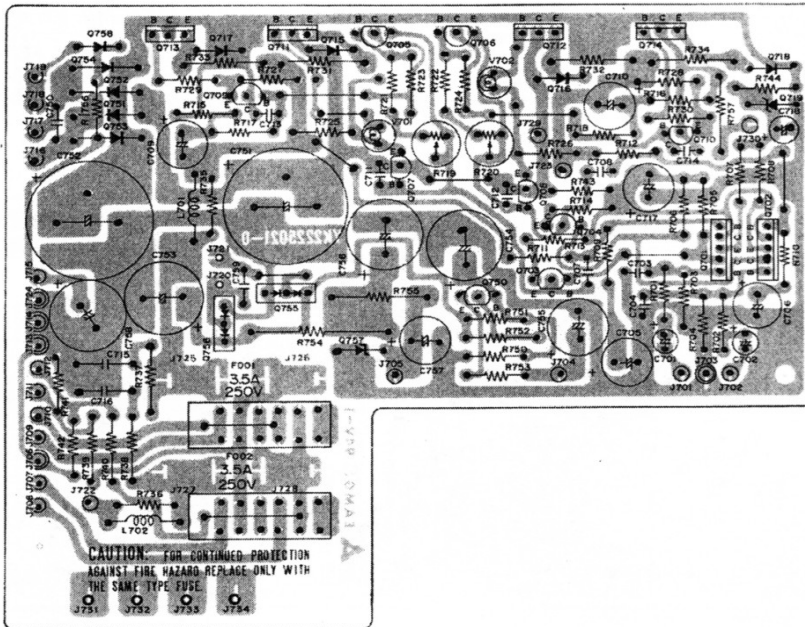
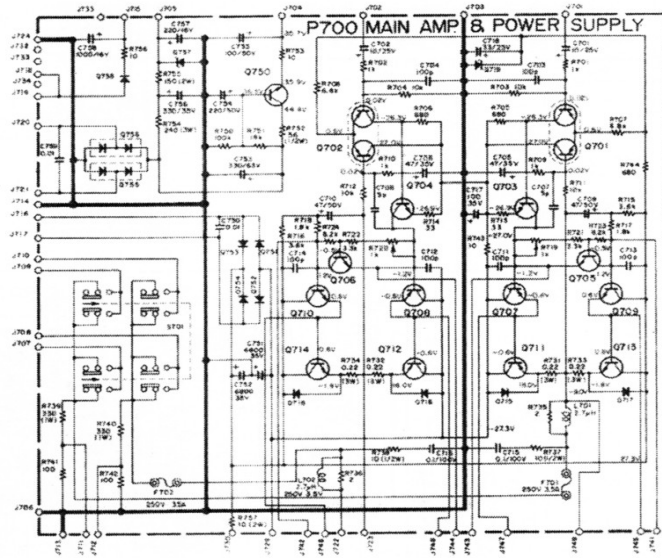
### 9.4 Dial Lamp Assembly (PZ01) Schematic Diagram and Component Location



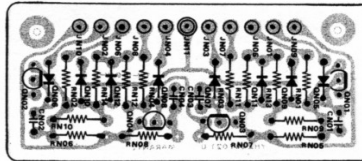
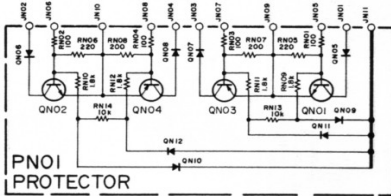
### 9.5 Tuner Assembly (P200) Schematic Diagram and Component Location



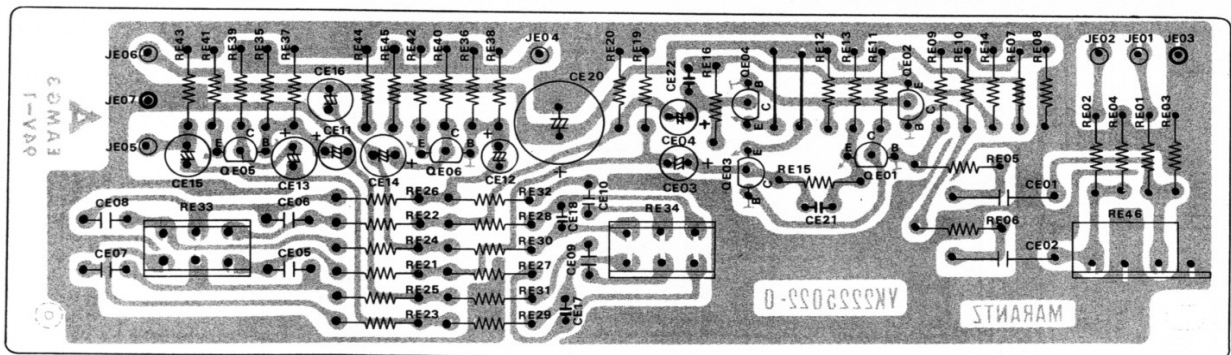
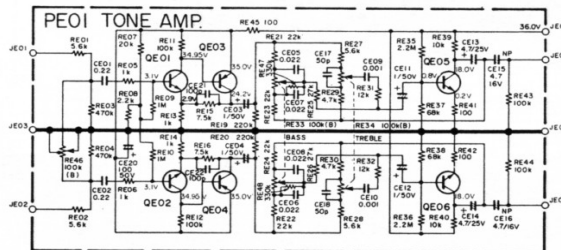
9.6 Main Amp. & Power Supply Assembly (P700) Schematic Diagram and Component Location



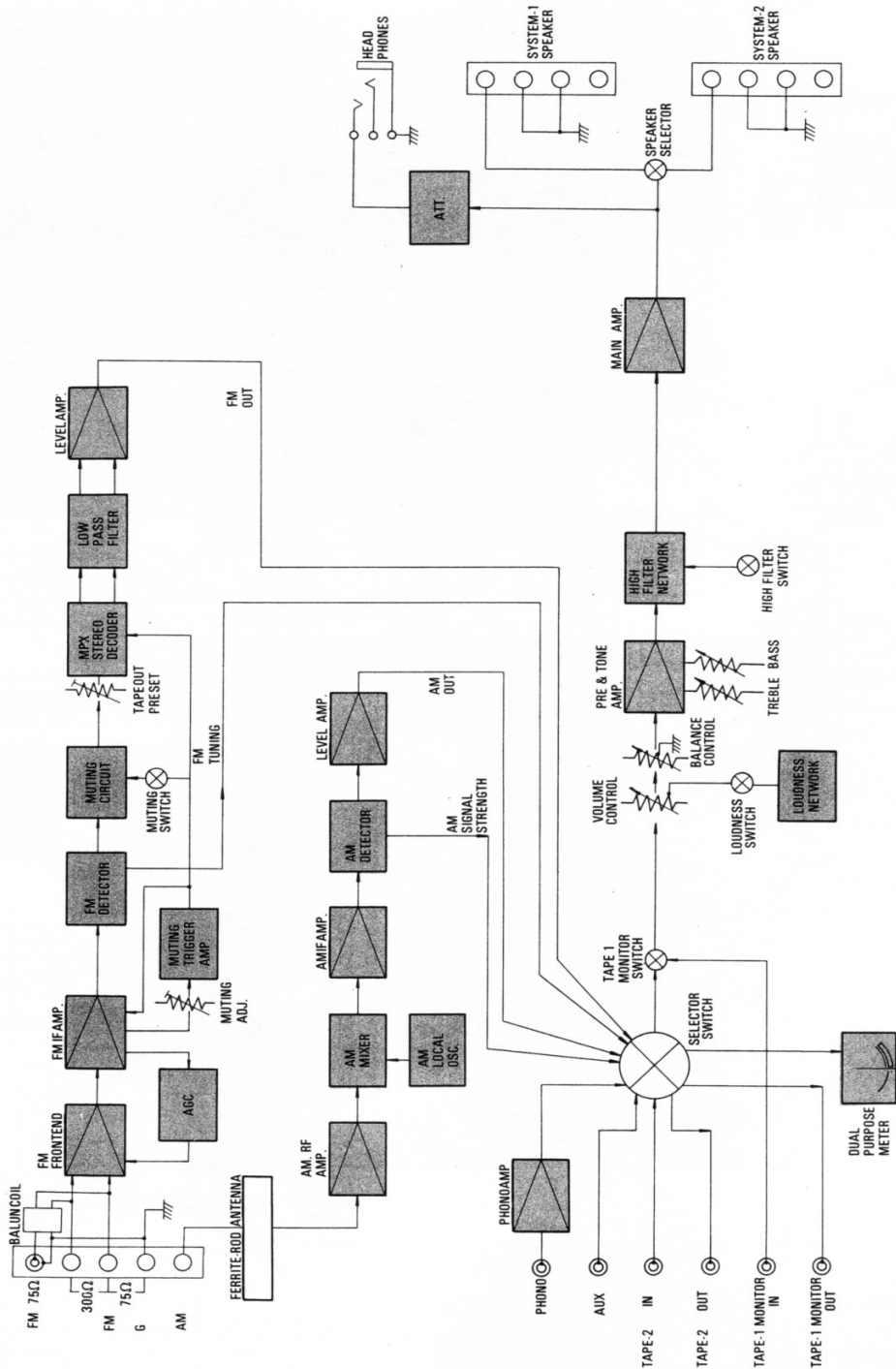
### 9.7 Protector Assembly (PN01) Schematic Diagram and Component Location



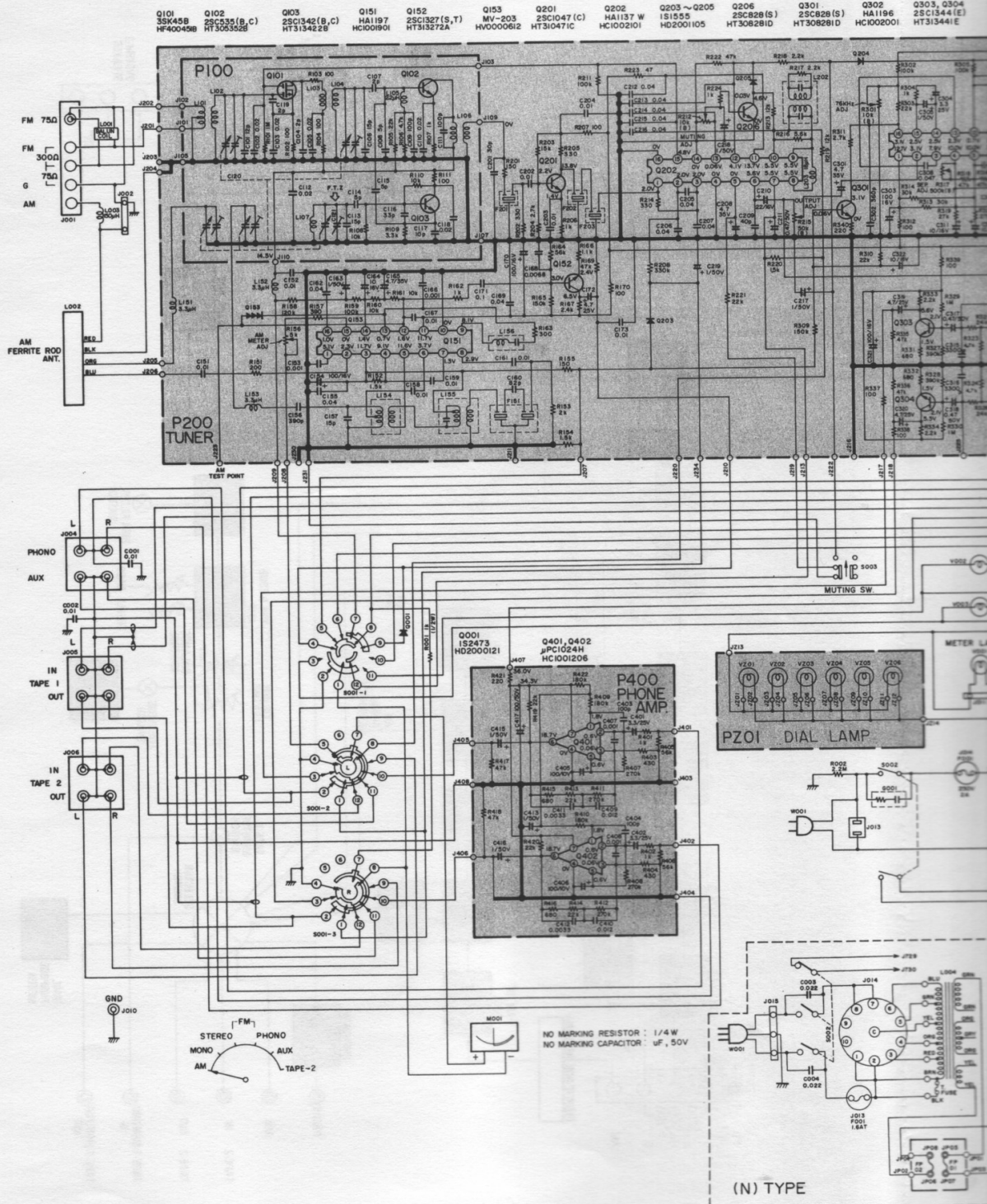
### 9.8 Pre & Tone Amp. Assembly (PE01) Schematic Diagram and Component Location



# 10. BLOCK DIAGRAM



11. SCHEMATIC DIAGRAMS



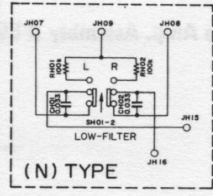
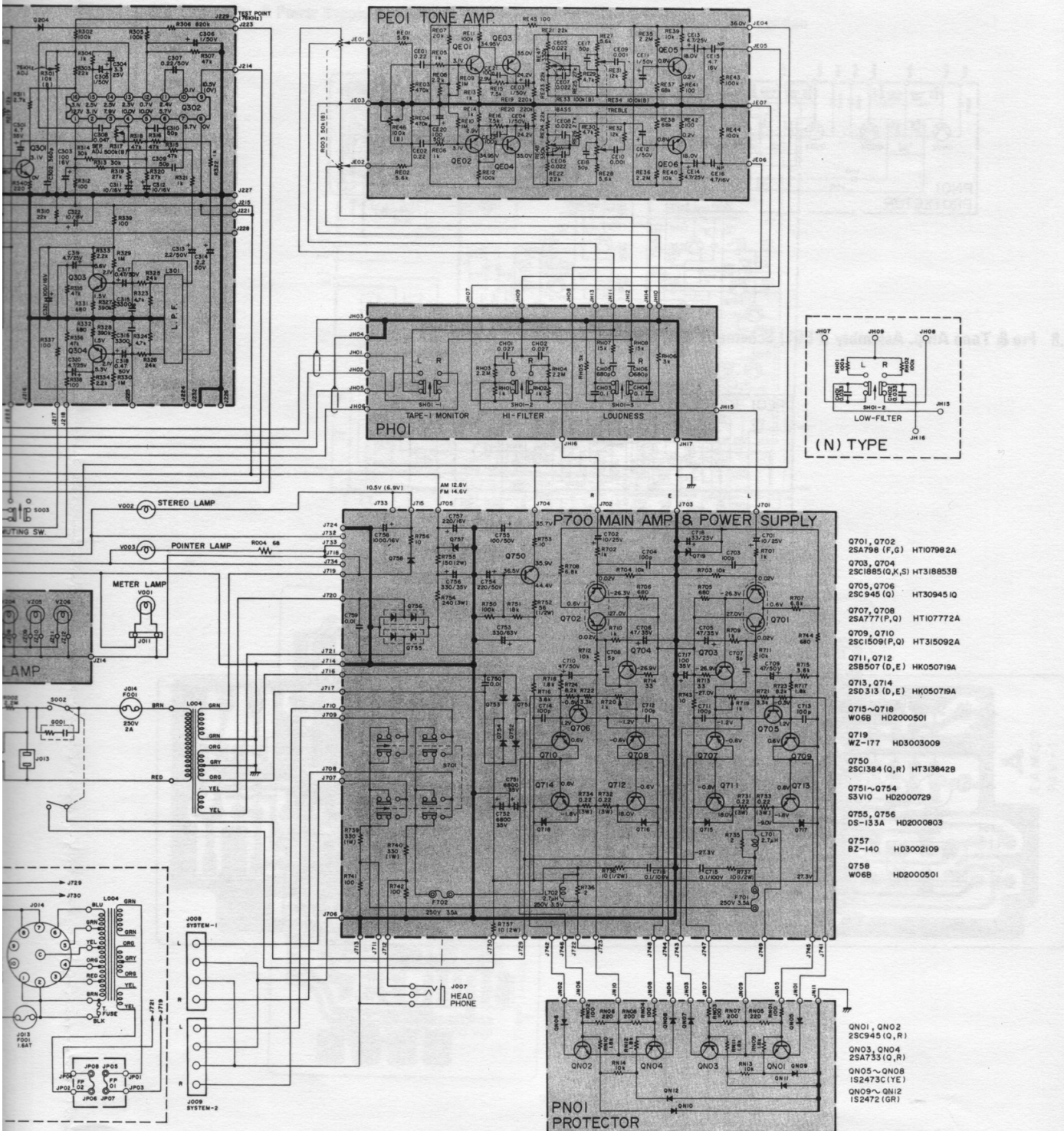
# Model 2218

Q302 HA1196  
Q303, Q304 25C1344(E)  
HT313441E

QE01, QE2 25C1681(GR, BL)  
HT316812A

QE03, QE04 25A841(GR, BL)  
HT108412A

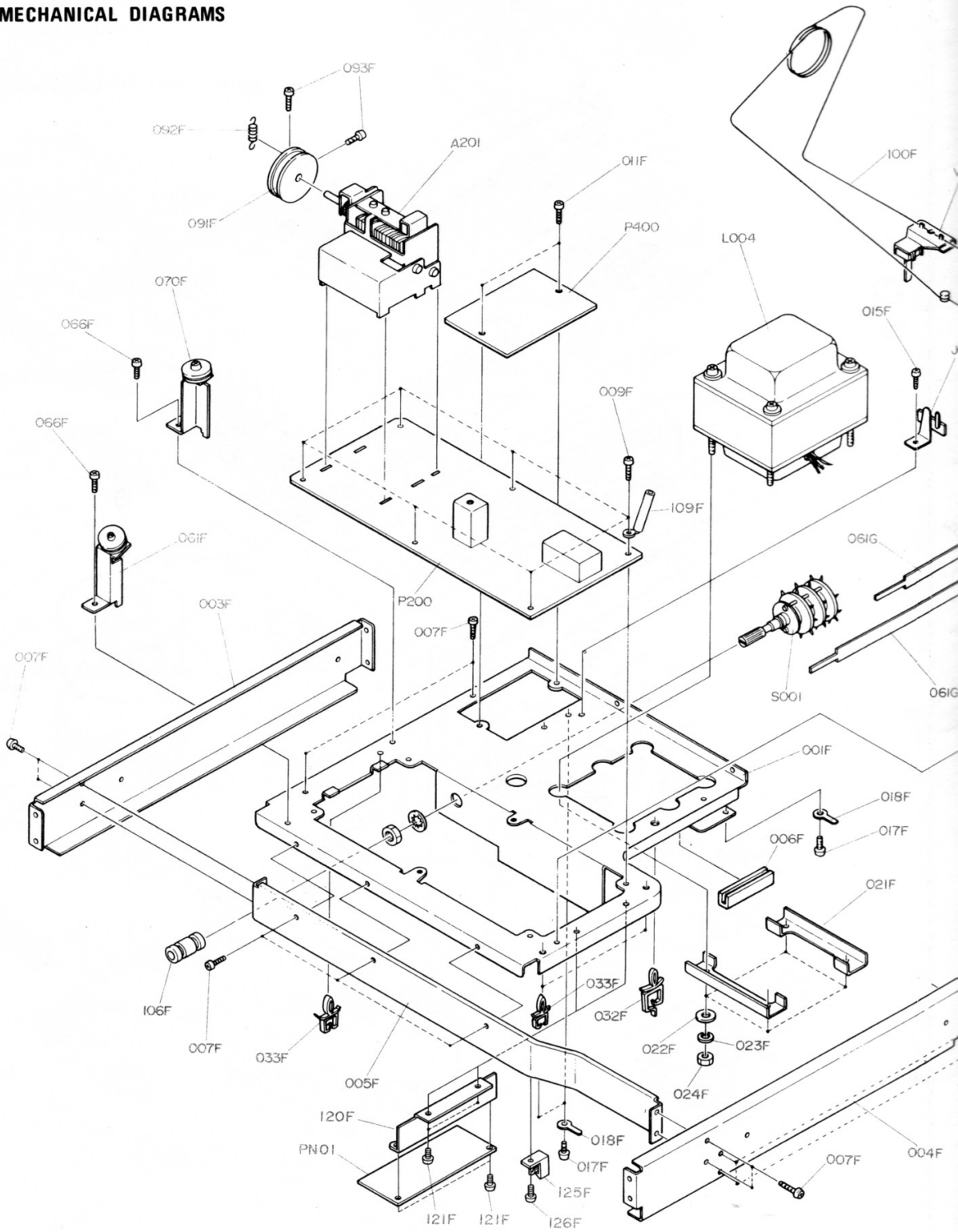
QE05, QE6 25C1681(BL)  
HT316811B



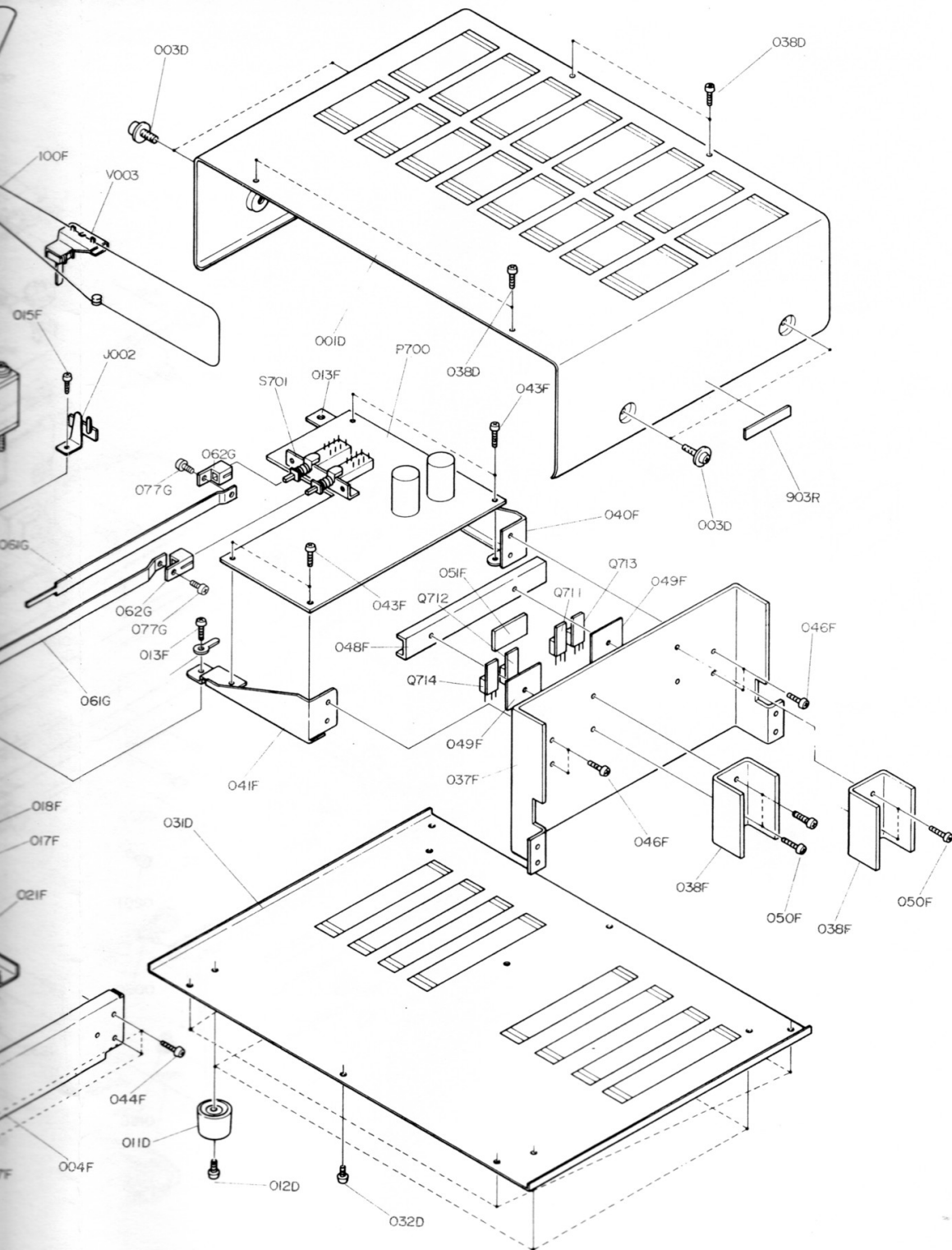
- Q701, Q702 HT10798 2A
- Q703, Q704 25C1681(Q,K,S) HT316853B
- Q705, Q706 25C945 (Q) HT30945 1Q
- Q707, Q708 25A777(P,Q) HT10777 2A
- Q709, Q710 25C1509(P,Q) HT31509 2A
- Q711, Q712 25B507 (D,E) HK050719A
- Q713, Q714 25D313 (D,E) HK050719A
- Q715-HD2000501
- Q719 WZ-177 HD3003009
- Q750 25C1364 (R) HT31364 2B
- Q751~Q754 53V10 HD2000729
- Q755, Q756 DS-153A HD2000803
- Q757 BZ-140 HD3002109
- Q758 W06B HD2000501
- QN01, QN02 25C945 (Q, R)
- QN03, QN04 25A733 (Q, R)
- QN05~QN08 152473C (Y,E)
- QN09~QN12 152472 (GR)

## 12. EXPLODED MECHANICAL DIAGRAMS

### 12.1 Cabinet

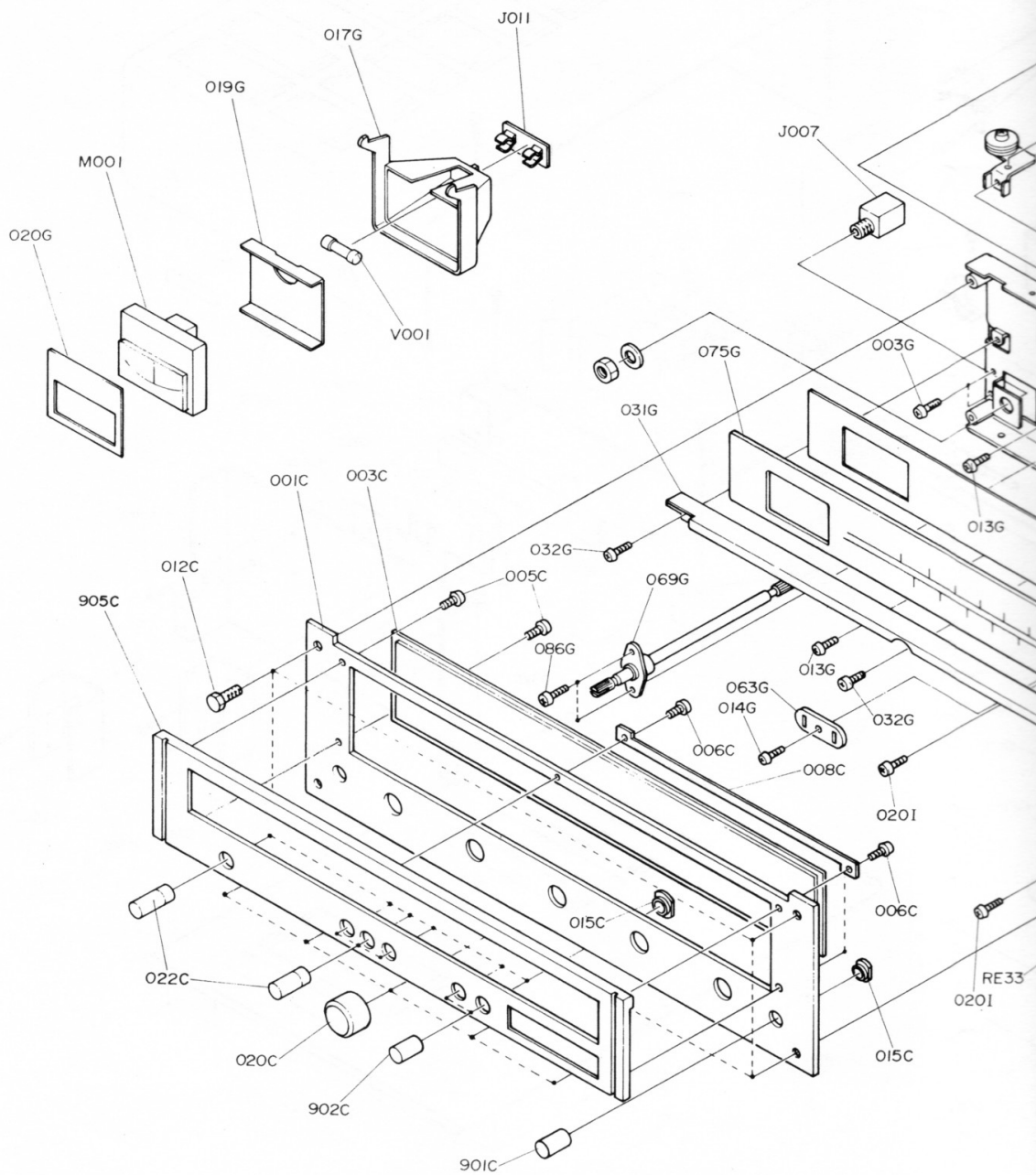


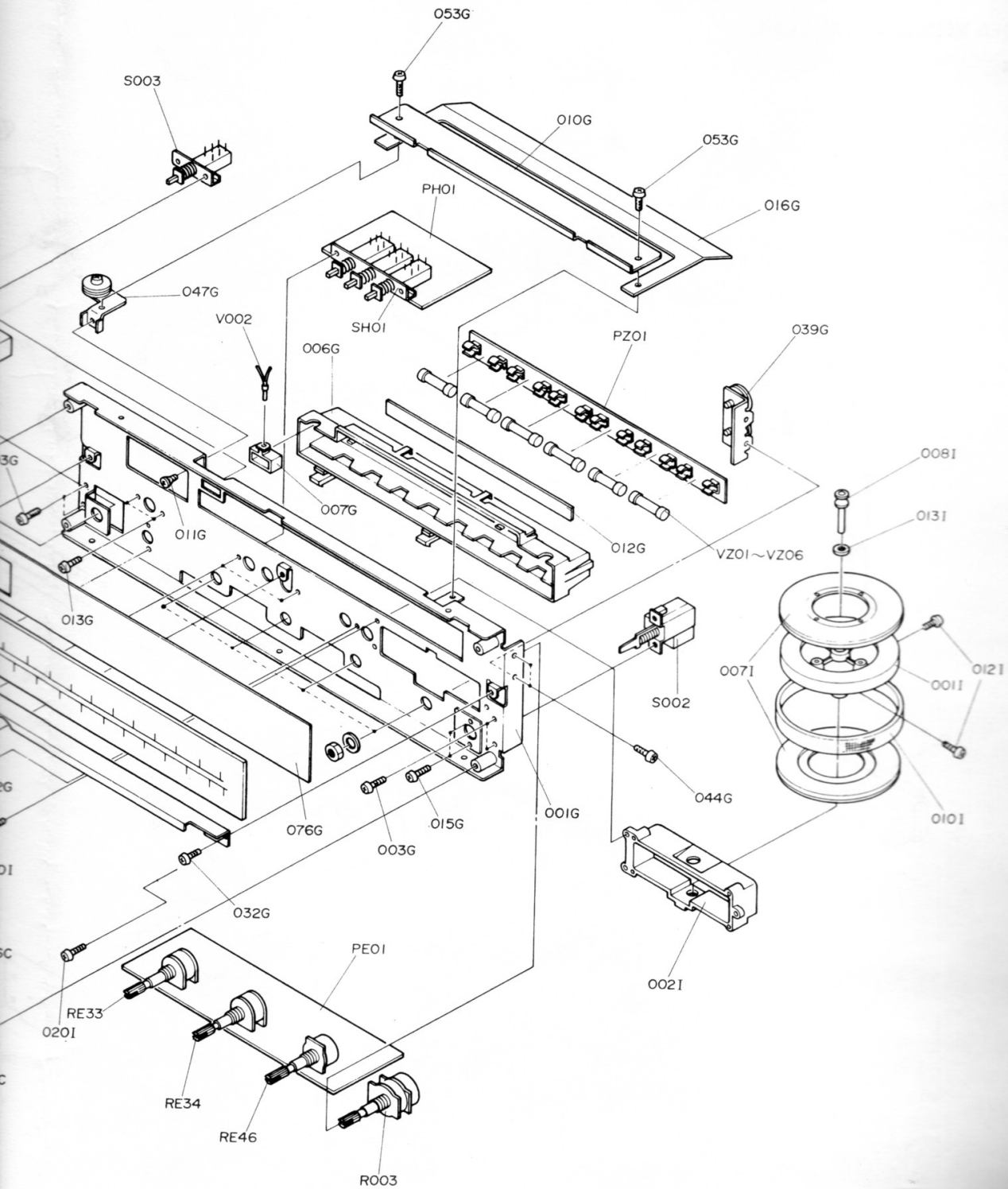
MODEL 2218 JUN - 7-1978



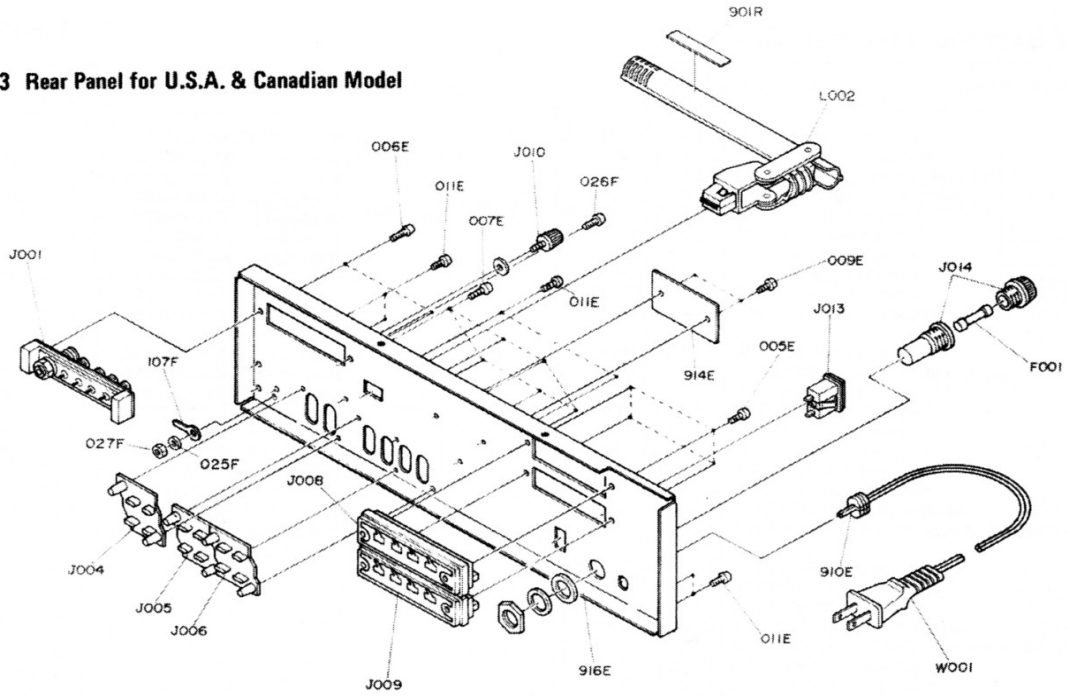


12.2 Chassis

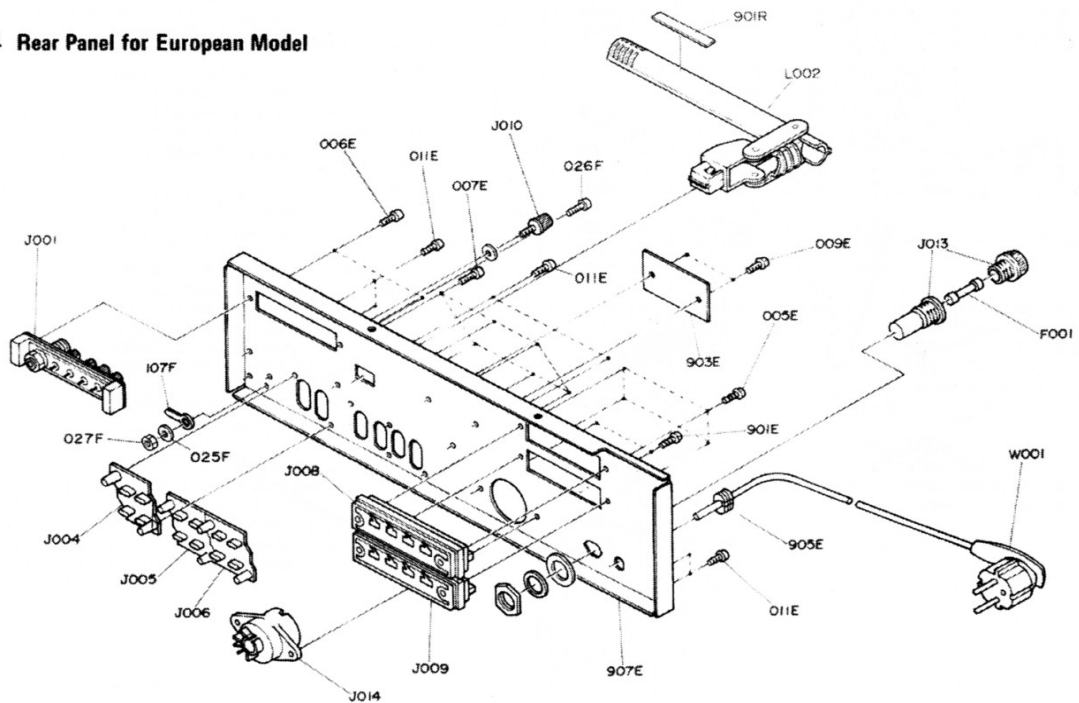




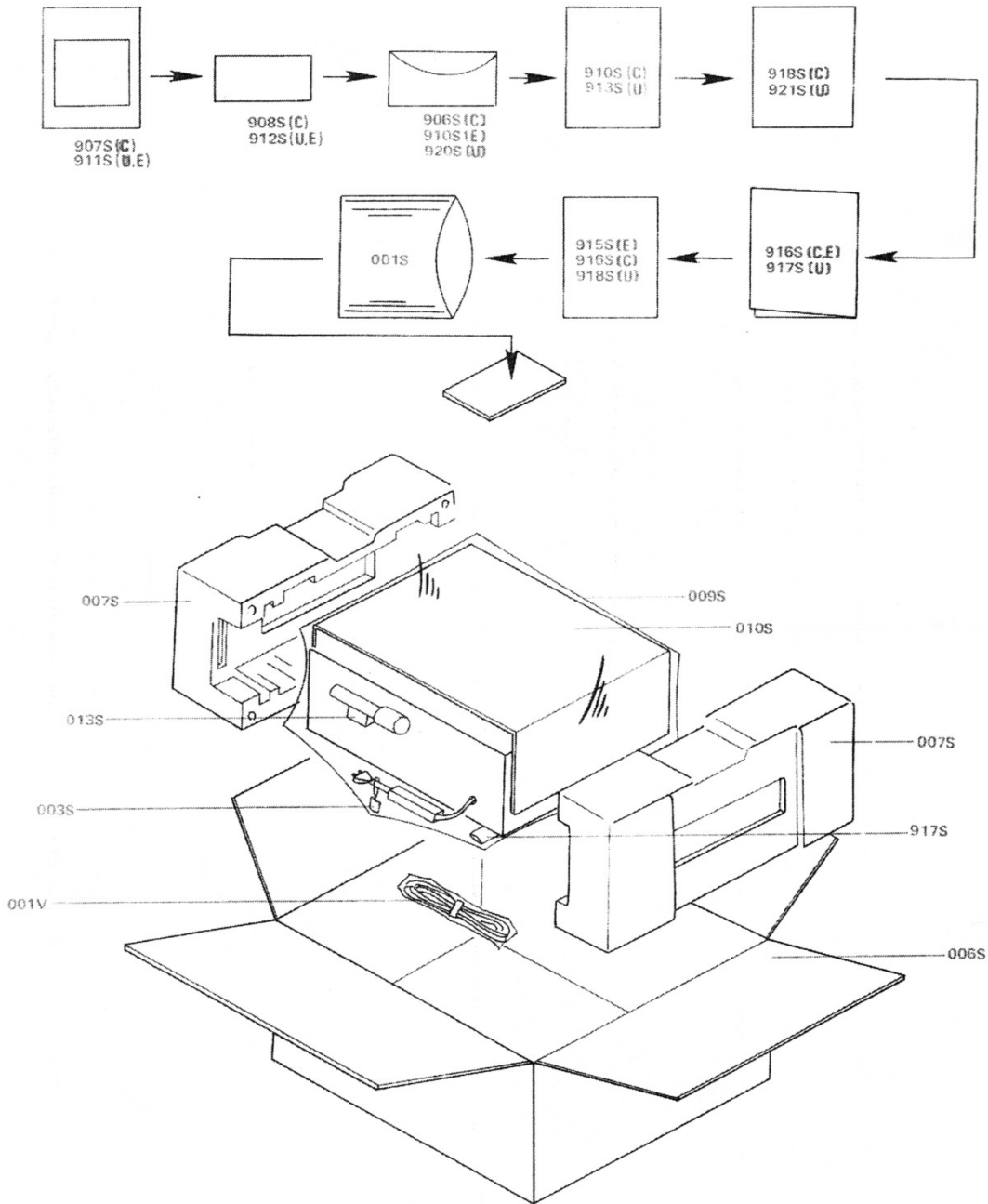
### 12.3 Rear Panel for U.S.A. & Canadian Model



### 12.4 Rear Panel for European Model



**13. PACKING MATERIAL EXPLODED VIEW**



14. PARTS LIST

• (U) for U.S.A.  
• (C) for Canada  
• (N) for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N		
A	1	1		2287063400	Front Panel Assembly
A1			1	2287063410	Front Panel Assembly (Gold)
A2			1	2287063420	Front Panel Assembly (Black)
001C	1	1	1	2225063014	Escutcheon, Main (Gold)
001C			1	2225063210	Escutcheon, Main (Black)
003C	1	1	1	2287158010	Window
005C	3	3	3	51100305A9	B.H.M. Screw, B3 x 5
006C	2	2	2	51100306S9	B.H.M. Screw, B3 x 6
008C	1	1	1	2213160172	Bracket
015C	7	7	7	2978259012	Bushing
905C	1	1		2287063012	Escutcheon, Sub (Gold)
905C			1	2287063022	Escutcheon, Sub (Gold)
905C			1	2287063122	Escutcheon, Sub (Black)
B	1	1	1	2219273400	Flywheel Assembly
0011	1	1	1	2219273012	Flywheel
0071	2	2	2	2219063030	Escutcheon
0081	1	1	1	2219112012	Shaft
0101	1	1	1	2215353010	Ring
0121	2	2	2	51690306Q9	Socket Screw
PE08	2	2	2	2933118020	Spacer
PE12	2	2	2	75061251P0	Jumper
PN07	28	28	28	3444118050	Spacer
P208	12	12	12	2933118020	Spacer
P211	9	9	9	75061251P0	Jumper
P212	1	1	1	75061001P0	Jumper
P408	2	2	2	2933118020	Spacer
P707	22	22	22	3444118050	Spacer
P708	2	2	2	2933118020	Spacer
P709	8	8	8	2933118010	Spacer
P711	2	2	2	75061001P0	Jumper
P712	5	5	5	75061251P0	Jumper
P713	1	1	1	75061501P0	Jumper
P714	2	2	2	75061751P0	Jumper
P715	1	1	1	75062001P0	Jumper
P757	8	8	8	3444118050	Spacer
P758	5	5	5	2933118020	Spacer
P759	8	8	8	2225118020	Spacer
P760	1	1	1	2933118010	Spacer
P761	1	1	1	75061001P0	Jumper
R729	1	1	1	75061251P0	Jumper
P730	1	1	1	75061251P0	Jumper
001C	1	1	1	2225063014	Escutcheon (Gold)
001C			1	2225063210	Escutcheon
001D	1	1	1	2225257010	Lid
001E	1	1	1	2218271060	Holder
001F	1	1	1	2225105016	Chassis
001G	1	1	1	2225160010	Bracket

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N		
001H	1	1	1	2991103500	Pointer
0011	1	1	1	2219273010	Flywheel
001S	1	1	1	9013025010	Polyethylene Bag
001V	1	1	1	ZA02000070	Ext. Antenna, FM
002E	1	1	1	2218271070	Holder
002G	1	1	1	2991861010	Label
002H	1	1	1	2991103010	Pointer
002I	1	1	1	2213104500	Retainer
003C	1	1	1	2287158010	Window
003D	4	4	4	51480406S9	F. Washer Screw, F4 x 6
003F	1	1	1	2225126010	Stay
003G	4	4	4	51280308B0	B.H. Tapped Screw, B3 x 8
003H	1	1	1	2218103010	Pointer
003I	1	1	1	2213104012	Retainer
003S	1	1	1	2864804010	Sleeve
004F	1	1	1	225126020	Stay
004H	1	1	1	2218118010	Spacer
004I	2	2	2	2219106010	Sustainer
005C	3	3	3	51100305A9	B.H.M. Screw, B3 x 5
005E	4	4	4	51280308U0	B.H. Tapped Screw, B3 x 8
005F	1	1	1	2225126033	Stay
005H	1	1	1	2218152010	Tube
005I	1	1	1	2219106020	Sustainer
006C	2	2	2	51100306S9	B.H.M. Screw, B3 x 6
006E	2	2	2	51280308U0	B.H. Tapped screw, B3 x 8
006F	1	1	1	2225259010	Bushing
006G	1	1	1	2215274100	Reflector
006H	1	1	1	2218280010	Housing
006S	1	1	1	2287801010	Packing Case
006S			1	2287801150	Packing Case
007E	6	6	6	51280308U0	B.H. Tapped Screw, B3 x 8
007F	9	9	9	51280308B0	B.H. Tapped Screw, B3 x 8
007G	1	1	1	2211274300	Reflector
007I	2	2	2	2219063030	Escutcheon
007S	2	2	2	2221803010	Partitioner
008C	1	1	1	2213160170	Bracket
008I	1	1	1	2219112010	Shaft
009E	2	2	2	51760306B0	OS Tapped Screw, O3 x 6
009F	6	6	6	51280308B0	B.H. Tapped Screw, B3 x 8
009S	1	1	1	9014538350	Polyethylene Bag
010G	1	1	1	2225051010	Guide
010I	1	1	1	2215353010	Ring
010S	1	1	1	2918107160	Sheet
011D	4	4	4	2932057010	Leg
011E	6	6	6	51280308U0	B.H. Tapped Screw, B3 x 8
011F	2	2	2	51280308B0	B.H. Tapped Screw, B3 x 8
011G	1	1	1	51042608A0	F.H.M. Screw, F2.6 x 8
012C	4	4	4	52017069J0	H. Head Bolt
012D	4	4	4	51570410S0	P. Tapped Screw, P4 x 10
012G	1	1	1	2225118010	Spacer
012I	2	2	2	51690306Q9	Socket Screw, HP
012S	1	1	1	9013025010	Polyethylene Bag
013F	2	2	2	51280308B0	B.H. Tapped Screw, B3 x 8
013G	4	4	4	51100306A9	B.H.M. Screw, B3 x 6
013I	1	1	1	59031405G9	Washer
013S	1	1	1	2819056010	Buffer
014F	1	1	1	62030039W0	Lug

• (U) for U.S.A.  
 • (C) for Canada  
 • (N) for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION	REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N				U	C	N		
014G	1	1	1	51280308B0	B.H. Tapped Screw, B3 x 8	062G	2	2	2	2891271010	Holder
015C	7	7	7	2978259010	Bushing	063F	1	1	1	2991262010	Pulley
015F	2	2	2	51280308B0	B.H. Tapped Screw, B3 x 8	063G	1	1	1	2205259010	Bushing
015G	2	2	2	51100306A9	B.H.M. Screw, B3 x 6	064F	1	1	1	51103029A0	B.H.M. Screw
016F	1	1	1	59030805P0	Washer	064G	1	1	1	51280308B0	B.H. Tapped Screw, B3 x 8
016G	1	1	1	2225120010	Insulator	066F	2	2	2	51280308B0	B.H. Tapped Screw, B3 x 8
017F	2	2	2	51280308B0	B.H. Tapped Screw, B3 x 8	069G	1	1	1	2225112500	Shaft
017G	1	1	1	2225274204	Reflector	070F	1	1	1	2205262530	Pulley
019F	1	1	1	62030049W0	Lug	070G	1	1	1	2225112010	Shaft
019G	1	1	1	2213053020	Cover	071F	1	1	1	2205262530	Pulley
020C	5	5	5	2221154230	Knob	071G	2	2	2	64000400R0	RG Ring, E
020G	1	1	1	2991107020	Sheet	072F	1	1	1	2991262010	Pulley
020I	3	3	3	51280308B0	B.H. Tapped Screw, B3 x 8	072G	1	1	1	2204106010	Sustainer
021F	2	2	2	2956160050	Bracket	073F	1	1	1	51103029A0	B.H.M. Screw
022C	4	4	4	2205154030	Knob	075G	1	1	1	2225302016	Dial
022F	4	4	4	54020401A0	Flat Washer, P.	077G	2	2	2	51100306A9	B.H.M. Screw, B3 x 6
023F	4	4	4	54040402A0	Spring Washer	086G	2	2	2	51280308B0	B.H. Tapped Screw, B3 x 8
024F	4	4	4	53110403A9	Hexagon Nut	091F	1	1	1	2219159010	Drum
025C				53118219G0	Hexagon Nut	092F	1	1	1	71101689L0	Spring
025F	1	1	1	54040302N0	Spring Washer	093F	2	2	2	51064019A9	P.H.M. Screw
026F	1	1	1	51100308B9	B.H.M. Screw, B3 x 8	098F	1	1	1	1202258010	Hook
027F	1	1	1	53110303E9	Hexagon Nut	100F	1	1	1	72071605A0	String (150 cm)
031D	1	1	1	2225257020	Lid	103F	1	1	1	56332040G0	Eyelet
031F	2	2	2	2886005060	Clamper	106F	1	1	1	2963125010	Joint
031G	1	1	1	2205269015	Protector	107F	1	1	1	62030049W0	Lug
032D	7	7	7	51280408U0	B.H. Tapped Screw, B4 x 8	109F	1	1	1	2871005010	Clamper
032F	1	1	1	2886005020	Clamper	110F	1	1	1	51100306A9	B.H.M. Screw, B3 x 6
032G	3	3	3	51280306B0	B.H. Tapped Screw, B3 x 6	111F	1	1	1	54050300R0	T.L. Washer, OR
033F	1	1	1	2886005050	Clamper	120F	1	1	1	2287160020	Bracket
036D	2	2	2	2965118010	Spacer	121F	2	2	2	51280306B0	B.H. Tapped Screw, B3 x 6
037F	1	1	1	2287267010	Heatsink	122F	2	2	2	51280308B0	B.H. Tapped Screw, B3 x 8
038D	4	4	4	51280306U0	B.H. Tapped Screw, B3 x 6	125F	1	1	1	2887005110	Clamper
038F	2	2	2	2287267020	Heatsink	126F	1	1	1	51280308B0	B.H. Tapped Screw, B3 x 8
039F	2	2	2	51280310B0	B.H. Tapped Screw, B3 x 10	128F	1	1	1	2481118010	Spacer
039G	1	1	1	2205262510	Pulley	135F	1	1	1	2991109010	Shield
040F	1	1	1	2225160030	Bracket	136F	1	1	1	2991053110	Cover
040G	1	1	1	2205160070	Bracket	901C	1	1		2963154020	Knob
041F	1	1	1	2225160040	Bracket	901E	2			2970154010	Knob
041G	2	2	2	2991262010	pulley	901E	2			51100308S9	B.H.M. Screw, B3 x 8
042G	2	2	2	51103029A0	B.H.M. Screw	901F	1			2854160030	Bracket
043F	4	4	4	51280308B0	B.H. Tapped Screw, B3 x 8	901R	1	1		2506265062	Indicator
044F	4	4	4	51280308B0	B.H. Tapped Screw, B3 x 8	901R	1			2911861170	Label
044G	2	2	2	51280308B0	B.H. Tapped Screw, B3 x 8	902C	1			2218154020	Knob
045F	2	2	2	51100316A9	B.H.M. Screw, B3 x 16	902C	2	2		2970154010	Knob
046F	4	4	4	51280308B0	B.H. Tapped Screw, B3 x 8	902F	2			51100306A0	B.H.M. Screw, B3 x 6
047G	1	1	1	2205262500	Pulley	902R	1	1		2578861010	Label
048F	1	1	1	2225005010	Clamper	902R	1			2911861110	Label
048G	1	1	1	2205160100	Bracket	903E	1			2287265030	Indicator
049F	2	2	2	2874118010	Spacer	903F	2			51280308B0	B.H. Tapped Screw, B3 x 8
049G	1	1	1	2577262010	Pulley	903R	1			2932861010	Label
050F	2	2	2	54040302N0	Spring Washer	903R	1			9510601020	Label
050G	1	1	1	51103029A0	B.H.M. Screw	904R	1			2225861010	Label
051F	1	1	1	3917118010	Spacer	904R	1			2882861020	Label
053G	2	2	2	51290308B0		905E	1			1455259050	Bushing
061F	1	1	1	2225262500	Pulley						
061G	2	2	2	2225112020	Shaft						
062F	1	1	1	2225160020	Bracket						

- (U) for U.S.A.
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REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N		
905R	1			2911861143	Label
905R	1			95111101020	Label
905S		3		9526019020	Serial No. Card
906F			2	5128031480	B.H. Tapped Screw, B3 x 14
906S	1			2918813010	Envelope
907E	1			2225160224	Bracket
907F	1			4113120010	Insulator
907R	1			2457861040	Label
908E	1			2211123110	Contacto
908E	1			3941120020	Insulator
908F			2	3926120010	Insulator
908R	1			2911861010	LABEL
908S	3			9526019010	Serial No. Card
908S	1			9560000043	Hang Tag
908S	1			9630000180	Guarantee Card
909S		3		9526019060	Serial No. Card
909S	1			9650000050	S. Station Card
910E	1			1455259030	Bushing
910F			2	2225861020	Label
910R	1			2911861260	Label
910S			1	2818813010	Envelope
910S	1			2818854040	Guarantee Card
911F			1	62030049W0	Lug
912S	1			9630000180	Guarantee Card
913S	1			2818854020	Guarantee Card
914E	1			2287265010	Indicator
914E	1			2287265020	Indicator
915S			1	2287851030	Instructions
916E	1			2225160212	Bracket
916S	1			2287851312	Instructions
917S	1			2287851012	Instructions
917S	1			2287851050	Instructions
917S	1			2731821010	Silicagel
918S	1			2287851020	Instructions
918S	1			2886851100	Instructions
920E	1			62030049W0	Lug
920S			2	9510901090	Label
921S	1			2225813010	Envelope
CE01	1	1	1	DF17224050	Film Cap., 0.22μF ±20% 50V
CE02	1	1	1	DF17224050	Film Cap., 0.22μF ±20% 50V
CE03	1	1	1	EE10505010	Electrolytic Cap., 1μF ±20% 50V
CE04	1	1	1	EE10505010	Electrolytic Cap., 1μF ±20% 50V
CE05	1	1	1	DF16223050	Film cap., 0.022μF ±10% 50V
CE06	1	1	1	DF16223050	Film Cap., 0.022μF ±10% 50V
CE07	1	1	1	DF16223050	Film Cap., 0.022μF ±10% 50V
CE08	1	1	1	DF16223050	Film Cap., 0.022μF ±10% 50V
CE09	1	1	1	DF16102050	Film Cap., 0.001μF ±10% 50V
CE10	1	1	1	DF16102050	Film Cap., 0.001μF ±10% 50V
CE11	1	1	1	EE10505010	Electrolytic Cap., 1μF ±20% 50V
CE12	1	1	1	EE10505010	Electrolytic Cap., 1μF ±20% 50V
CE13	1	1	1	EE47502510	Electrolytic Cap., 4.7μF ±20% 25V
CE14	1	1	1	EE47502510	Electrolytic Cap., 4.7μF ±20% 25V
CE15	1	1	1	EQ47501610	Electrolytic Cap., 4.7μF ±30% 16V
CE16	1	1	1	EQ47501610	Electrolytic Cap., 4.7μF ±30% 16V
CE17	1	1	1	DD16500010	Ceramic Cap., 50pF ±10% 50V
CE18	1	1	1	DD16500010	Ceramic Cap., 50pF ±10% 50V
CE20	1	1	1	EA10705090	Electrolytic Cap., 100μF ±30% 50V

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N		
CE21	1	1	1	DD16101010	Ceramic Cap., 100pF ±10% 50V
CE22	1	1	1	DD16101010	Ceramic Cap., 100pF ±10% 50V
JE01					
JE07	7	7	7	YP10001130	Plug
PE01	1	1	1	YK22250220	PE01 PRE & TONE AMP. BOARD
	1	1	1	ZZ22250220	P.W. Board
					P.W. Board Assembly
QE01	1	1	1	HT316812A0	Transistor, 2SC1681 (GR, BL)
QE02	1	1	1	HT316812A0	Transistor, 2SC1681 (GR, BL)
QE03	1	1	1	HT108412A0	Transistor, 2SA841 (GR, BL)
QE04	1	1	1	HT108412A0	Transistor, 2SA841 (GR, BL)
QE05	1	1	1	HT316811B0	Transistor, 2SC1681 (BL)
QE06	1	1	1	HT316811B0	Transistor, 2SC1681 (BL)
RE01	1	1	1	RT05562140	Resistor, 5.6kΩ ±5% ¼W
RE02	1	1	1	RT05562140	Resistor, 5.6kΩ ±5% ¼W
RE03	1	1	1	RT05474140	Resistor, 470kΩ ±5% ¼W
RE04	1	1	1	RT05474140	Resistor, 470kΩ ±5% ¼W
RE05	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
RE06	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
RE07	1	1	1	RT05203140	Resistor, 20kΩ ±5% ¼W
RE08	1	1	1	RT05222140	Resistor, 2.2kΩ ±5% ¼W
RE09	1	1	1	RT05105140	Resistor, 1MΩ ±5% ¼W
RE10	1	1	1	RT05105140	Resistor, 1MΩ ±5% ¼W
RE11	1	1	1	RT05104140	Resistor, 100kΩ ±5% ¼W
RE12	1	1	1	RT05104140	Resistor, 100kΩ ±5% ¼W
RE13	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
RE14	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
RE15	1	1	1	RN05752140	Resistor, 7.5kΩ ±5% ¼W
RE16	1	1	1	RN05752140	Resistor, 7.5kΩ ±5% ¼W
RE19	1	1	1	RT05224140	Resistor, 220kΩ ±5% ¼W
RE20	1	1	1	RT05224140	Resistor, 220kΩ ±5% ¼W
RE21	1	1	1	RT05223140	Resistor, 22kΩ ±5% ¼W
RE22	1	1	1	RT05223140	Resistor, 22kΩ ±5% ¼W
RE23	1	1	1	RT05223140	Resistor, 22kΩ ±5% ¼W
RE24	1	1	1	RT05223140	Resistor, 22kΩ ±5% ¼W
RE25	1	1	1	RT05273140	Resistor, 27kΩ ±5% ¼W
RE26	1	1	1	RT05273140	Resistor, 27kΩ ±5% ¼W
RE27	1	1	1	RT05562140	Resistor, 5.6kΩ ±5% ¼W
RE28	1	1	1	RT05562140	Resistor, 5.6kΩ ±5% ¼W
RE29	1	1	1	RT05472140	Resistor, 4.7kΩ ±5% ¼W
RE30	1	1	1	RT05472140	Resistor, 4.7kΩ ±5% ¼W
RE31	1	1	1	RT05123140	Resistor, 12kΩ ±5% ¼W
RE32	1	1	1	RT05123140	Resistor, 12kΩ ±5% ¼W
RE33	1	1	1	RM01040150	Variable Resistor, 100kΩ (B)
RE34	1	1	1	RM01040150	Variable Resistor, 100kΩ (B)
RE35	1	1	1	RT05225140	Resistor, 2.2MΩ ±5% ¼W
RE36	1	1	1	RT05225140	Resistor, 2.2MΩ ±5% ¼W
RE37	1	1	1	RT05683140	Resistor, 68kΩ ±5% ¼W
RE38	1	1	1	RT05683140	Resistor, 68kΩ ±5% ¼W
RE39	1	1	1	RT05103140	Resistor, 10kΩ ±5% ¼W
RE40	1	1	1	RT05103140	Resistor, 10kΩ ±5% ¼W
RE41	1	1	1	RT05101140	Resistor, 100Ω ±5% ¼W
RE42	1	1	1	RT05101140	Resistor, 100Ω ±5% ¼W
RE43	1	1	1	RT05104140	Resistor, 100kΩ ±5% ¼W
RE44	1	1	1	RT05104140	Resistor, 100kΩ ±5% ¼W

• (U) for U.S.A.  
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REF. DESIG.	Q'TY			PART NO.	DESCRIPTION	REF. DESIG.	Q'TY			PART NO.	DESCRIPTION	
	U	C	N				U	C	N			
RE45	1	1	1	RT05101140	Resistor, 100Ω ±5% ¼W	RN10	1	1	1	GF05182140	Resistor, 1.8kΩ ±5% ¼W	
RE46	1	1	1	RK01040160	Variable Resistor, 100kΩ (B)	RN11	1	1	1	GF05182140	Resistor, 1.8kΩ ±5% ¼W	
RE47	1	1	1	RT05334140	Resistor, 330kΩ ±5% ¼W	RN12	1	1	1	GF05182140	Resistor, 1.8kΩ ±5% ¼W	
RE48	1	1	1	RT05334140	Resistor, 330kΩ ±5% ¼W	RN13	1	1	1	GF05103140	Resistor, 10kΩ ±5% ¼W	
CH01	1	1	1	DF16273050	Film Cap., 0.027μF ±10% 50V	RN14	1	1	1	GF05103140	Resistor, 10kΩ ±5% ¼W	
CH01	1	1	1	DF16333050	Film Cap., 0.033μF ±10% 50V	FP01	1	1	1	FS10400800	Fuse, 4AT (SEMKO)	
CH02	1	1	1	DF16273050	Film Cap., 0.027μF ±10% 50V	FP02	1	1	1	FS10100800	Fuse, 1AT (SEMKO)	
CH02	1	1	1	DF16333050	Film Cap., 0.033μF ±10% 50V	JP01	?	4	4	YP10001130	Plug	
CH03	1	1	1	DF16104010	Film Cap., 0.1μF ±10% 50V	JP04	?	4	4	YP10001130	Plug	
CH04	1	1	1	DF16104010	Film Cap., 0.1μF ±10% 50V	JP05	?	4	4	YJ08000200	Jack, Fuse Holder	
CH05	1	1	1	DK16681010	Ceramic Cap., 680pF ±10% 50V	JP08	?	4	4	YJ08000200	Jack, Fuse Holder	
CH06	1	1	1	DK16681010	Ceramic Cap., 680pF ±10% 50V	PP01	1	1	1	YF22250020	PP01 FUSE BOARD	
JH01	17	17	17	YP10001130	Plug	PP01	1	1	1	ZZ22250020	P.W. Board Assembly	
JH17	17	17	17	YP10001130	Plug	JZ01	?	12	12	12	YJ08000170	Jack, Lamp Holder
PH01	1	1	1	YK22250410	P.W. Board	JZ12	1	1	1	1	YP10001130	Plug
	1	1	1	ZZ22250410	P.W. Board	JZ13	1	1	1	1	YP10001130	Plug
	1	1	1	ZZ22258410	P.W. Board Assembly	JZ14	1	1	1	1	YP10001130	Plug
RH01	1	1	1	GD05104140	Resistor, 100kΩ ±5% ¼W	PZ01	1	1	1	1	YF22250010	PZ01 DIAL LAMP BOARD
RH01	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W	PZ01	1	1	1	1	ZZ22250010	P.W. Board Assembly
RH02	1	1	1	GD05104140	Resistor, 100kΩ ±5% ¼W	VZ01	1	1	1	1	IN10080070	lamp, 8V 200mA
RH02	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W	VZ02	1	1	1	1	IN10080070	Lamp, 8V 200mA
RH03	1	1	1	RT05225140	Resistor, 2.2MΩ ±5% ¼W	VZ03	1	1	1	1	IN10080070	Lamp, 8V 200mA
RH04	1	1	1	RT05225140	Resistor, 2.2MΩ ±5% ¼W	VZ04	1	1	1	1	IN10080070	Lamp, 8V 200mA
RH05	1	1	1	RT05302140	Resistor, 3kΩ ±5% ¼W	VZ05	1	1	1	1	IN10080070	Lamp, 8V 200mA
RH06	1	1	1	RT05302140	Resistor, 3kΩ ±5% ¼W	VZ06	1	1	1	1	IN10080070	Lamp, 8V 200mA
RH07	1	1	1	RT05153140	Resistor, 15kΩ ±5% ¼W	C001	1	1	1	1	DK18103010	Ceramic Cap., 0.01μF ±20% 50V
RH08	1	1	1	RT05153140	Resistor, 15kΩ ±5% ¼W	C002	1	1	1	1	DK18103010	Ceramic Cap., 0.01μF ±20% 50V
SH01	1	1	1	SP02030020	Pushswitch	C003	1	1	1	1	DF17223800	Film Cap., 0.022μF ±20%1000V
						C004	1	1	1	1	DF17223800	Film Cap., 0.022μF ±20%1000V
PN01	1	1	1	YH22870210	P.W. Board	F001	1	1	1	1	FS10160800	Fuse, SEMKO 1.6AT
	1	1	1	ZZ22870210	P.W. Board Assembly	F001	1	1	1	1	FS10200060	Fuse, 250V 2A
QN01	1	1	1	HT309452A0	Transistor, 2SC945 (Q, R)	G001	1	1	1	1	BF10400030	Cap. Comp., Spark Killer (UL)
QN02	1	1	1	HT309452A0	Transistor, 2SC945 (Q, R)	G001	1	1	1	1	BF10400050	Cap. Comp., Spark Killer (CSA)
QN03	1	1	1	HT107332B0	Transistor, 2SA733 (Q, R)	J001	1	1	1	1	BY04050010	Terminal, 4P Screw, 75Ω Coax. Ant.
QN04	1	1	1	HT107332B0	Transistor, 2SA733 (Q, R)	J001	1	1	1	1	BY04050020	Terminal, 4P Screw, 75Ω Coax. Ant.
QN05	1	1	1	HD20001210	Diode, 1S2473C (YE) 40V	J002	1	1	1	1	YL01020080	Terminal, 2P
QN06	1	1	1	HD20001210	Diode, 1S2473C (YE) 40V	J004	1	1	1	1	YT02040140	Terminal, 4P RCA for Phono, Aux In
QN07	1	1	1	HD20001210	Diode, 1S2473C (YE) 40V	J005	1	1	1	1	YT02040140	Terminal, 4P RCA for Tape 1
QN08	1	1	1	HD20001210	Diode, 1S2473C (YE) 40V	J006	1	1	1	1	YT02040140	Terminal, 4P RCA for Tape 2
QN09	1	1	1	HD20002210	Diode, 1S2472 (GR) 55V	J007	1	1	1	1	JY01001080	Jack, Headphones
QN10	1	1	1	HD20002210	Diode, 1S2472 (GR) 55V	J008	1	1	1	1	YT03040160	Terminal, Spkr Out System-1
QN11	1	1	1	HD20002210	Diode, 1S2472 (GR) 55V	J009	1	1	1	1	YT03040160	Terminal, Spkr Out System-2
QN12	1	1	1	HD20002210	Diode, 1S2472 (GR) 55V	J010	1	1	1	1	YL03010240	Terminal, Ground
RN01	1	1	1	GF05101140	Resistor, 100Ω ±5% ¼W	J011	1	1	1	1	YJ08000250	Jack, Meter Lamp Holder
RN02	1	1	1	GF05101140	Resistor, 100Ω ±5% ¼W	J013	1	1	1	1	YJ04000560	Jack, AC Outlet
RN03	1	1	1	GF05101140	Resistor, 100Ω ±5% ¼W	J013	1	1	1	1	YJ08000220	Jack, Fuse Holder
RN04	1	1	1	GF05101140	Resistor, 100Ω ±5% ¼W	J014	1	1	1	1	BY03110010	Plug, Voltage Selector
RN05	1	1	1	GF05221140	Resistor, 220Ω ±5% ¼W	J014	1	1	1	1	YJ08000120	Jack, Fuse Holder
RN06	1	1	1	GF05221140	Resistor, 220Ω ±5% ¼W	J014	1	1	1	1	YJ08000230	Jack, Fuse Holder
RN07	1	1	1	GF05201140	Resistor, 200Ω ±5% ¼W							
RN08	1	1	1	GF05201140	Resistor, 200Ω ±5% ¼W							
RN09	1	1	1	GF05182140	Resistor, 1.8kΩ ±5% ¼W							



- (U) for U.S.A.
- (C) for Canada
- (N) for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION		REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N					U	C	N		
J015			1	YL09030010	Terminal,	3P	C166	1	1	1	DK17102010	Ceramic Cap., 0.001μF ±20%
L001	1	1	1	LB30075260	Balun Coil		C167	1	1	1	DK18103010	Ceramic Cap., 0.01μF
L002	1	1	1	LF11200522	Ant. Coil,	AM	C168	1	1	1	DK16682010	Ceramic Cap., 0.0068μF ±10%
L003	1	1	1	LC11540040	Choke Coil,	150μH	C169	1	1	1	DK18403020	Ceramic Cap., 0.04μF
L004	1	1	1	TS18603080	Power Transformer		C170	1	1	1	EA10701690	Electrolytic Cap., 100μF 16V
L004			1	TS18603090	Power Transformer		C171	1	1	1	DF16104010	Film Cap., 0.1μF ±10%
M001	1	1	1	IM11055073	D.C. Meter,	AM SIS, FM Tuning	C172	1	1	1	EE47502510	Electrolytic Cap., 4.7μF 25V
Q001	1	1	1	HD20001210	Diode,	1S2473	C173	1	1	1	DK17103040	Ceramic Cap., 0.01μF ±20%
R001	1	1	1	GF05102120	Resistor,	1kΩ ±5% ½W	F151	1	1	1	FF10045160	Ceramic Filter, AM CF SFD455D
R002	1	1	1	RC10225120	Resistor,	2.2MΩ ±10% ½W	J101	1	1	1	YP10001510	Plug
R003	1	1	1	RM05030740	Variable Resistor,	50kΩ (B)	J102	1	1	1	YP10001510	Plug
R004	1	1	1	GF05680140	Resistor,	68Ω ±5% ¼W	J103	1	1	1	YP10001510	Plug
S001	1	1	1	SR09060030	Rotary Switch,	Selector	J105	1	1	1	YP10001510	Plug
S002	1	1	1	SP02010270	Pushswitch,	Power (CSA)	J107	1	1	1	YP10001510	Plug
S002			1	SP04010250	Pushswitch,	Power (SEMKO)	J109	1	1	1	YP10001510	Plug
S003	1	1	1	SP02010090	Pushswitch,	FM Muting	J110	1	1	1	YP10001510	Plug
V001	1	1	1	IN10080430	Lamp,	Meter 8V 300mA	J111	1	1	1	YP10001510	Plug
V002	1	1	1	IN10080340	Lamp,	Stereo 8V 60mA	L105	1	1	1	LC12220010	Choke Coil
V003	1	1	1	IN10080410	Lamp,	8V 50mA	L106	1	1	1	LI10239010	I.F.T.
W001			1	YC01900030	AC Power Cord		L151	1	1	1	LC13320020	Choke Coil, 3.3μH
W001	1	1	1	YC02000140	AC Power Cord		L152	1	1	1	LC13320020	Choke Coil, 3.3μH
C101	1	1	1	DD16120020	Ceramic Cap.,	12pF ±10%	L153	1	1	1	LC13320020	Choke Coil, 3.3μH
C102	1	1	1	DK18203030	Ceramic Cap.,	0.02μF	L154	1	1	1	LO10010480	Osc. Coil, AM
C103	1	1	1	DK18203030	Ceramic Cap.,	0.02μF	L155	1	1	1	LI10015010	I.F.T., AM
C104	1	1	1	DD11020010	Ceramic Cap.,	2pF	L156	1	1	1	LI10015060	I.F.T., AM
C105	1	1	1	DK18203030	Ceramic Cap.,	0.02μF	<b>P100 FM FRONT END BOARD</b>					
C106	1	1	1	DD16150040	Ceramic Cap.,	15pF ±10%						
C107	1	1	1	DD11020010	Ceramic Cap.,	2pF						
C108	1	1	1	DD12050010	Ceramic Cap.,	5pF						
C109	1	1	1	DD16101010	Ceramic Cap.,	100pF ±10%						
C110	1	1	1	DK18203030	Ceramic Cap.,	0.02μF						
C111	1	1	1	DD16101010	Ceramic Cap.,	100pF ±10%						
C112	1	1	1	DK18203030	Ceramic Cap.,	0.02μF						
C113	1	1	1	DD15150020	Ceramic Cap.,	15pF ±5%						
C114	1	1	1	DD10050030	Ceramic Cap.,	5pF						
C115	1	1	1	DD12050010	Ceramic Cap.,	5pF						
C116	1	1	1	DD16330020	Ceramic Cap.,	33pF ±10%						
C117	1	1	1	DD12100060	Ceramic Cap.,	10pF						
C118	1	1	1	DK18203030	Ceramic Cap.,	0.02μF						
C119	1	1	1	DD11020010	Ceramic Cap.,	2pF						
C120	1	1	1	CA32400080	Variable Cap.		P100	1	1	1	YD29910010	P.W. Board
C121	1	1	1	CT14200010	Trimming Cap.			1	1	1	ZZ29910010	P.W. Board Assembly
C151	1	1	1	DK17103010	Ceramic Cap.,	0.01μF ±20%	Q101	1	1	1	HF40045180	F.E.T., 3SK45 B
C152	1	1	1	DK17103010	Ceramic Cap.,	0.01μF ±20%	Q102	1	1	1	HT30535280	Transistor, 2SC535 B or C
C153	1	1	1	DK17102010	Ceramic Cap.,	0.001μF ±20%	Q103	1	1	1	HT31342280	Transistor, 2SC1342 B or C
C154	1	1	1	EA10701690	Electrolytic Cap.,	100μF 16V	Q151	1	1	1	HC10019010	IC, HA1197
C155	1	1	1	DK18403020	Ceramic Cap.,	0.04μF	Q152	1	1	1	HT313272A0	Transistor, 2SC1327 S or T
C156	1	1	1	DF65391010	Film Cap.,	390pF	Q153	1	1	1	HV00006120	Varistor, MV-203
C157	1	1	1	DD16150010	Ceramic Cap.,	15pF ±10%	R101	1	1	1	GD05105140	Resistor, 1MΩ ±5% ¼W
C158	1	1	1	DK18103010	Ceramic Cap.,	0.01μF	R102	1	1	1	GD05101140	Resistor, 100Ω ±5% ¼W
C159	1	1	1	DK17103010	Ceramic Cap.,	0.01μF ±20%	R103	1	1	1	GD05101140	Resistor, 100Ω ±5% ¼W
C160	1	1	1	DD16820010	Ceramic Cap.,	82pF ±10%	R104	1	1	1	GD05101140	Resistor, 100Ω ±5% ¼W
C161	1	1	1	DK17103010	Ceramic Cap.,	0.01μF ±20%	R105	1	1	1	GD05223140	Resistor, 22kΩ ±5% ¼W
C162	1	1	1	DK18403020	Ceramic Cap.,	0.04μF	R106	1	1	1	GD05472140	Resistor, 4.7kΩ ±5% ¼W
C163	1	1	1	EA10505090	Electrolytic Cap.,	1μF 50V	R107	1	1	1	GD05102140	Resistor, 1kΩ ±5% ¼W
C164	1	1	1	EA10601690	Electrolytic Cap.,	10μF 16V	R108	1	1	1	GD05103140	Resistor, 10kΩ ±5% ¼W
C165	1	1	1	EA47503590	Electrolytic Cap.,	4.7μF 35V	R109	1	1	1	GD05332140	Resistor, 3.3kΩ ±5% ¼W
							R110	1	1	1	GD05103140	Resistor, 10kΩ ±5% ¼W
							R111	1	1	1	GD05101140	Resistor, 100Ω ±5% ¼W
							R151	1	1	1	RT05201140	Resistor, 200Ω ±5% ¼W
							R152	1	1	1	RT05152140	Resistor, 1.5kΩ ±5% ¼W
							R153	1	1	1	RT05202140	Resistor, 2kΩ ±5% ¼W
							R154	1	1	1	RT05152140	Resistor, 1.5kΩ ±5% ¼W
							R155	1	1	1	RT05151140	Resistor, 150Ω ±5% ¼W
							R156	1	1	1	RA05020200	Trimming Resistor, 5kΩ
							R157	1	1	1	RT05391140	Resistor, 390Ω ±5% ¼W
							R158	1	1	1	RT05124140	Resistor, 120kΩ ±5% ¼W
							R159	1	1	1	RT05104140	Resistor, 100kΩ ±5% ¼W
							R160	1	1	1	RT05103140	Resistor, 10kΩ ±5% ¼W
							R161	1	1	1	RT05103140	Resistor, 10kΩ ±5% ¼W

• (U) for U.S.A.  
• (C) for Canada  
• (N) for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N		
R162	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
R163	1	1	1	RT05301140	Resistor, 300Ω ±5% ¼W
R164	1	1	1	RT05563140	Resistor, 56kΩ ±5% ¼W
R165	1	1	1	RT05154140	Resistor, 150kΩ ±5% ¼W
R166	1	1	1	RT05112140	Resistor, 1.1kΩ ±5% ¼W
R167	1	1	1	RT05242140	Resistor, 2.4kΩ ±5% ¼W
R169	1	1	1	RT05473140	Resistor, 47kΩ ±5% ¼W
R170	1	1	1	RT05101140	Resistor, 100Ω ±5% ¼W
A201	1	1	1	AV01202060	V.H.F. Tuner, FM Front End
C201	1	1	1	DD15300010	Ceramic Cap., 300F ±5%
C202	1	1	1	DK17103010	Ceramic Cap., 0.01μF ±20%
C203	1	1	1	DK17103010	Ceramic Cap., 0.01μF ±20%
C204	1	1	1	DK17103010	Ceramic Cap., 0.01μF ±20%
C205	1	1	1	DK18403020	Ceramic Cap., 0.04μF
C206	1	1	1	DK18403020	Ceramic Cap., 0.04μF
C207	1	1	1	DK18403020	Ceramic Cap., 0.04μF
C208	1	1	1	EA47503590	Electrolytic Cap., 4.7μF 35V
C209	1	1	1	DD15400040	Ceramic Cap., 40pF ±5%
C210	1	1	1	EA22601690	Electrolytic Cap., 22μF 16V
C211	1	1	1	EA47405010	Electrolytic Cap., 0.47μF 50V
C212	1	1	1	DK18403010	Ceramic Cap., 0.04μF
C213	1	1	1	DK18403010	Ceramic Cap., 0.04μF
C214	1	1	1	DK18403010	Ceramic Cap., 0.04μF
C215	1	1	1	DK18403010	Ceramic Cap., 0.04μF
C216	1	1	1	DK18403010	Ceramic Cap., 0.04μF
C217	1	1	1	EA10505090	Electrolytic Cap., 1μF 50V
C218	1	1	1	EA10505090	Electrolytic Cap., 1μF 50V
C219	1	1	1	EE10505010	Electrolytic Cap., 1μF 50V
F201	1	1	1	FF11070050	Ceramic Filter, FM CF SFE10.7MD1
F202	1	1	1	FF11070050	Ceramic Filter, FM CF SFE10.7MD1
F203	1	1	1	FF11070050	Ceramic Filter, FM CF SFE10.7 MD1
J201	1	1	1	YP10001130	Plug
J202	1	1	1	YP10001130	Plug
J204	7	7	7	YP10001130	Plug
J210	1	1	1	YP10001130	Plug
J213	1	1	1	YP10001130	Plug
J214	1	1	1	YP10001130	Plug
J215	1	1	1	YP10001130	Plug
J217	7	7	7	YP10001130	Plug
J223	1	1	1	YP10001130	Plug
J227	1	1	1	YP10001130	Plug
J228	1	1	1	YP10001130	Plug
J229	1	1	1	YP10001130	Plug
J231	1	1	1	YP10001130	Plug
J233	1	1	1	YP10001130	Plug
J234	1	1	1	YP10001130	Plug
L202	1	1	1	LI14019010	I.F.T., FM
L203	1	1	1	LC11830010	Choke Coil, 18μH
P200	1	1	1	YG22870010	P200 TUNER BOARD
	1	1	1	ZZ22870010	P.W. Board
	1	1	1	ZZ22878010	P.W. Board Assembly
Q201	1	1	1	HT310471C0	Transistor, 2SC1047 C

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N		
Q202	1	1	1	HC10021010	IC, HA1137W
Q203	1	1	1	HD20011050	Diode, 1S1555
Q204	1	1	1	HD20011050	Diode, 1S1555
Q205	1	1	1	HD20011050	Diode, 1S1555
Q206	1	1	1	HT308281D0	Transistor, 2SC828 S
R201	1	1	1	RT05151140	Resistor, 150Ω ±5% ¼W
R202	1	1	1	RT05331140	Resistor, 330Ω ±5% ¼W
R203	1	1	1	RT05153140	Resistor, 15kΩ ±5% ¼W
R204	1	1	1	RT05272140	Resistor, 2.7kΩ ±5% ¼W
R205	1	1	1	RT05331140	Resistor, 330Ω ±5% ¼W
R206	1	1	1	RT05511140	Resistor, 510Ω ±5% ¼W
R207	1	1	1	RT05101140	Resistor, 100Ω ±5% ¼W
R208	1	1	1	RT05334140	Resistor, 330kΩ ±5% ¼W
R211	1	1	1	RT05104140	Resistor, 100kΩ ±5% ¼W
R212	1	1	1	RA01030250	Trimming Resistor, 10kΩ B
R213	1	1	1	RT05123140	Resistor, 12kΩ ±5% ¼W
R214	1	1	1	RT05331140	Resistor, 330Ω ±5% ¼W
R215	1	1	1	RA05030120	Trimming Resistor, 50kΩ B
R216	1	1	1	RT05562140	Resistor, 5.6kΩ ±5% ¼W
R217	1	1	1	RT05272140	Resistor, 2.7kΩ ±5% ¼W
R218	1	1	1	RT05222140	Resistor, 2.2kΩ ±5% ¼W
R219	1	1	1	RT05123140	Resistor, 12kΩ ±5% ¼W
R220	1	1	1	RT05152140	Resistor, 15kΩ ±5% ¼W
R221	1	1	1	RT05223140	Resistor, 22kΩ ±5% ¼W
R222	1	1	1	RT05473140	Resistor, 47kΩ ±5% ¼W
R223	1	1	1	RT05470140	Resistor, 47Ω ±5% ¼W
R224	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
C301	1	1	1	EA47503590	Electrolytic Cap., 4.7μF 35V
C302	1	1	1	DF65361500	Film Cap., 360pF ±5%
C303	1	1	1	EA10701690	Electrolytic Cap., 100μF 25V
C304	1	1	1	EE33502510	Electrolytic Cap., 3.3μF 25V
C305	1	1	1	EE10505010	Electrolytic Cap., 1μF 50V
C306	1	1	1	EA10505090	Electrolytic Cap., 1μF 50V
C307	1	1	1	EQ22405010	Electrolytic Cap., 0.22μF 50V
C308	1	1	1	DF17473010	Film Cap., 0.047μF ±20%
C309	1	1	1	DD15500050	Ceramic Cap., 50pF ±5%
C310	1	1	1	DD15500050	Ceramic Cap., 50pF ±5%
C311	1	1	1	EA10601690	Electrolytic Cap., 10μF 16V
C312	1	1	1	EA10601690	Electrolytic Cap., 10μF 16V
C313	1	1	1	EA22505090	Electrolytic Cap., 2.2μF 50V
C314	1	1	1	EA22505090	Electrolytic Cap., 2.2μF 50V
C315	1	1	1	DF15222050	Film Cap., 2200pF ±5% 50V
C316	1	1	1	DF15332050	Film Cap., 3300pF ±5% 50V
C316	1	1	1	DF15222050	Film Cap., 2200pF ±5% 50V
C316	1	1	1	DF15332050	Film Cap., 3300pF ±5% 50V
C317	1	1	1	EA47405010	Electrolytic Cap., 0.47μF 50V
C318	1	1	1	EA47405010	Electrolytic Cap., 0.47μF 50V
C319	1	1	1	EE47502510	Electrolytic Cap., 4.7μF 25V
C320	1	1	1	EE47502510	Electrolytic Cap., 4.7μF 25V
C321	1	1	1	EA10701690	Electrolytic Cap., 100μF 16V
C322	1	1	1	EE10601610	Electrolytic Cap., 10μF 16V
L301	1	1	1	LS35010020	M.P.X. Coil, L.P.F.
Q301	1	1	1	HT308281D0	Transistor, 2SC828 S
Q302	1	1	1	HC10020010	IC, HA1196
Q303	1	1	1	HT313441E0	Transistor, 2SC1344 E
Q304	1	1	1	HT313441E0	Transistor, 2SC1344 E
R301	1	1	1	RA01030310	Trimming Resistor, 10kΩ B

- (U) for U.S.A.
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REF. DESIG.	Q'TY			PART NO.	DESCRIPTION	REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N				U	C	N		
R302	1	1	1	RT05104140	Resistor, 100kΩ ±5% ¼W	J404				YP10001130	Plug
R303	1	1	1	RT05223140	Resistor, 22kΩ ±5% ¼W	J408	5	5	5		
R304	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W						
R305	1	1	1	RT05104140	Resistor, 100kΩ ±5% ¼W						
R306	1	1	1	RT056824140	Resistor, 820kΩ ±5% ¼W						
R307	1	1	1	RT05473140	Resistor, 47kΩ ±5% ¼W	P400	1	1	1	YK22250610	P400 PHONO AMP. BOARD
R309	1	1	1	RT05154140	Resistor, 150kΩ ±5% ¼W		1	1	1	ZZ22250610	P.W. Board
R310	1	1	1	RT05223140	Resistor, 22kΩ ±5% ¼W						P.W. Board Assembly
R311	1	1	1	RT05272140	Resistor, 2.7kΩ ±5% ¼W						
R312	1	1	1	RT05101140	Resistor, 100Ω ±5% ¼W	Q401	1	1	1	HC10012060	IC, UPC1024H
						Q402	1	1	1	HC10012060	IC, UPC1024H
R313	1	1	1	RT05303140	Resistor, 30kΩ ±5% ¼W	R401	1	1	1	GD05182140	Resistor, 1.8kΩ ±5% ¼W
R314	1	1	1	RT05303140	Resistor, 30kΩ ±5% ¼W	R402	1	1	1	GD05182140	Resistor, 1.8kΩ ±5% ¼W
R315	1	1	1	RT05473140	Resistor, 47kΩ ±5% ¼W	R403	1	1	1	GD05431140	Resistor, 430Ω ±5% ¼W
R316	1	1	1	RT05473140	Resistor, 47kΩ ±5% ¼W	R404	1	1	1	GD05431140	Resistor, 430Ω ±5% ¼W
R317	1	1	1	RA05040080	Trimming Resistor, 500kΩ B	R405	1	1	1	GD05563140	Resistor, 56kΩ ±5% ¼W
R318	1	1	1	RT05473140	Resistor, 47kΩ ±5% ¼W	R406	1	1	1	GD05563140	Resistor, 56kΩ ±5% ¼W
R319	1	1	1	RT05273140	Resistor, 27kΩ ±5% ¼W	R407	1	1	1	GD05274140	Resistor, 270kΩ ±5% ¼W
R320	1	1	1	RT05273140	Resistor, 27kΩ ±5% ¼W	R408	1	1	1	GD05274140	Resistor, 270kΩ ±5% ¼W
R321	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W						
R322	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W	R409	1	1	1	GD05184140	Resistor, 180kΩ ±5% ¼W
						R410	1	1	1	GD05184140	Resistor, 180kΩ ±5% ¼W
R323	1	1	1	RT05472140	Resistor, 4.7kΩ ±5% ¼W	R411	1	1	1	GD05274140	Resistor, 270kΩ ±5% ¼W
R324	1	1	1	RT05472140	Resistor, 4.7kΩ ±5% ¼W	R412	1	1	1	GD05274140	Resistor, 270kΩ ±5% ¼W
R325	1	1	1	RT05243140	Resistor, 24kΩ ±5% ¼W	R413	1	1	1	GD05223140	Resistor, 22kΩ ±5% ¼W
R326	1	1	1	RT05243140	Resistor, 24kΩ ±5% ¼W	R414	1	1	1	GD05223140	Resistor, 22kΩ ±5% ¼W
R327	1	1	1	RT05394140	Resistor, 390kΩ ±5% ¼W	R415	1	1	1	GD05681140	Resistor, 680Ω ±5% ¼W
R328	1	1	1	RT05394140	Resistor, 390kΩ ±5% ¼W	R416	1	1	1	GD05681140	Resistor, 680Ω ±5% ¼W
R329	1	1	1	RT05105140	Resistor, 1MΩ ±5% ¼W	R417	1	1	1	GD05473140	Resistor, 47kΩ ±5% ¼W
R330	1	1	1	RT05105140	Resistor, 1MΩ ±5% ¼W	R418	1	1	1	GD05473140	Resistor, 47kΩ ±5% ¼W
R331	1	1	1	RT05681140	Resistor, 680Ω ±5% ¼W						
R332	1	1	1	RT05681140	Resistor, 680Ω ±5% ¼W	R419	1	1	1	GD05223140	Resistor, 22kΩ ±5% ¼W
						R420	1	1	1	GD05223140	Resistor, 22kΩ ±5% ¼W
R333	1	1	1	RT05222140	Resistor, 2.2kΩ ±5% ¼W	R421	1	1	1	GD05221140	Resistor, 220Ω ±5% ¼W
R334	1	1	1	RT05222140	Resistor, 2.2kΩ ±5% ¼W	R422	1	1	1	GD05184140	Resistor, 180kΩ ±5% ¼W
R335	1	1	1	RT05473140	Resistor, 47kΩ ±5% ¼W	C701	1	1	1	EE10602540	Electrolytic Cap., 10μF ±20% 25V
R336	1	1	1	RT05473140	Resistor, 47kΩ ±5% ¼W	C702	1	1	1	EE10602540	Electrolytic Cap., 10μF ±20% 25V
R337	1	1	1	RT05101140	Resistor, 100Ω ±5% ¼W	C703	1	1	1	DD16101010	Ceramic Cap., 100pF ±10% 25V
R338	1	1	1	RT05101140	Resistor, 100Ω ±5% ¼W	C704	1	1	1	DD16101010	Ceramic Cap., 100pF ±10% 25V
R339	1	1	1	RT05101140	Resistor, 100Ω ±5% ¼W	C705	1	1	1	EE47603550	Electrolytic Cap., 47μF ±20% 35V
R340	1	1	1	RT05201140	Resistor, 200Ω ±5% ¼W	C706	1	1	1	EE47603550	Electrolytic Cap., 47μF ±20% 35V
C401	1	1	1	EV33502560	Electrolytic Cap., 3.3μF ±20% 25V						
C402	1	1	1	EV33502560	Electrolytic Cap., 3.3μF ±20% 25V	C707	1	1	1	DD11050500	Ceramic Cap., 5pF ±25pF 500V
						C708	1	1	1	DD11050500	Ceramic Cap., 5pF ±25pF 500V
C403	1	1	1	DD16680010	Ceramic Cap., 68pF ±10% 50V	C709	1	1	1	EA47605090	Electrolytic Cap., 47μF ±10% 50V
C404	1	1	1	DD16680010	Ceramic Cap., 68pF ±10% 50V	C710	1	1	1	EA47605090	Electrolytic Cap., 47μF ±10% 50V
C405	1	1	1	EA10701090	Electrolytic Cap., 100μF ±10% 10V	C711	1	1	1	DK16101500	Ceramic Cap., 100pF ±10% 500V
C406	1	1	1	EA10701090	Electrolytic Cap., 100μF ±10% 10V	C712	1	1	1	DK16101500	Ceramic Cap., 100pF ±10% 500V
C407	1	1	1	DK17102010	Ceramic Cap., 0.001μF ±20% 50V	C713	1	1	1	DK16101500	Ceramic Cap., 100pF ±10% 500V
C408	1	1	1	DK17102010	Ceramic Cap., 0.001μF ±20% 50V	C714	1	1	1	DK16101500	Ceramic Cap., 100pF ±10% 500V
C409	1	1	1	DF15123010	Film Cap., 0.012μF ±5% 50V	C715	1	1	1	DF16104050	Film Cap., 0.1μF ±10% 100V
C410	1	1	1	DF15123010	Film Cap., 0.012μF ±5% 50V	C716	1	1	1	DF16104050	Film Cap., 0.1μF ±10% 100V
C411	1	1	1	DF15332010	Film Cap., 0.0033μF ±5% 50V						
C412	1	1	1	DF15332010	Film Cap., 0.0033μF ±5% 50V	C717	1	1	1	EA10703590	Electrolytic Cap., 100μF ±10% 35V
						C718	1	1	1	EA33602590	Electrolytic Cap., 33μF ±10% 25V
C413	1	1	1	EA10505090	Electrolytic Cap., 1μF ±10% 50V	C750	1	1	1	DK18103510	Ceramic Cap., 0.01μF ±20% 500V
C415	1	1	1	EE10505040	Electrolytic Cap., 1μF ±20% 50V	C751	1	1	1	EB68803520	Electrolytic Cap., 6800μF ±20% 35V
C416	1	1	1	EE10505040	Electrolytic Cap., 1μF ±20% 50V	C752	1	1	1	EB68803520	Electrolytic Cap., 6800μF ±20% 35V
C417	1	1	1	EA10705090	Electrolytic Cap., 100μF ±10% 50V	C753	1	1	1	EA33706310	Electrolytic Cap., 330μF ±10% 63V
J401	1	1	1	YP10001130	Plug	C754	1	1	1	EA22705090	Electrolytic Cap., 220μF ±10% 50V
J402	1	1	1	YP10001130	Plug	C755	1	1	1	EA10705090	Electrolytic Cap., 100μF ±10% 50V
						C756	1	1	1	EA33703590	Electrolytic Cap., 330μF ±10% 35V
						C757	1	1	1	EA22701690	Electrolytic Cap., 220μF ±10% 16V

• (U) for U.S.A.  
• (C) for Canada  
• (N) for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N		
C758	1	1	1	EA10801690	Electrolytic Cap., 1000 $\mu$ F $\pm$ 5% 16V
C759	1	1	1	DK18103510	Ceramic Cap., 0.01 $\mu$ F $\pm$ 20% 500V
F701	1	1	1	FS10350800	Fuse, SPKR 3.5AT 250V (SEMKO)
F702	1	1	1	FS20350910	Fuse, 3.5A 250V
F702	1	1	1	FS10350800	Fuse, SPKR 3.5AT 250V (SEMKO)
F702	1	1	1	FS20350910	Fuse, 3.5A 250V
J724	24	24	24	YP10001130	Plug
J725		1		YJ08000270	Jack, SP. Fuse Holder
J726		1		YJ08000270	Jack, SP. Fuse Holder
J727		1		YJ08000270	Jack, SP. Fuse Holder
J728		1		YJ08000270	Jack, SP. Fuse Holder
J729					
J734	6	6	6	YP10001130	Plug
L701	1	1	1	LC22720010	Choke Coil, 2.7 $\mu$ H
L702	1	1	1	LC22720010	Choke Coil, 2.7 $\mu$ H
<b>P700 MAIN AMP. &amp; POWER SUPPLY BOARD</b>					
P700	1	1	1	YK22250212	P.W. Board
	1	1	1	ZZ22871210	P.W. Board Assembly
				ZZ22878210	P.W. Board Assembly
Q701	1	1	1	HT107982A0	Transistor, 2SA 798 (F,G) Dual
Q702	1	1	1	HT107982A0	Transistor, 2SA 798 (F,G) Dual
Q703	1	1	1	HT318853B0	Transistor, 2SC1885 (Q,R,S.)
Q704	1	1	1	HT318853B0	Transistor, 2SC1885 (Q,R,S.)
Q705	1	1	1	HT309451Q0	Transistor, 2SC 945 (Q)
Q706	1	1	1	HT309451Q0	Transistor, 2SC 945 (Q)
Q707	1	1	1	HT107772A0	Transistor, 2SA 777 (P,Q)
Q708	1	1	1	HT107772A0	Transistor, 2SA 777 (P,Q)
Q709	1	1	1	HT315092A0	Transistor, 2SC1509 (P,Q)
Q710	1	1	1	HT315092A0	Transistor, 2SC1509 (P,Q)
Q711	1	1	1	HT107712B0	Transistor, 2SA 771 (O,Y)
Q712	1	1	1	HT107712B0	Transistor, 2SA 771 (O,Y)
Q713	1	1	1	HT319862B0	Transistor, 2SC1986 (O,Y)
Q714	1	1	1	HT319862B0	Transistor, 2SC1986 (O,Y)
Q715	1	1	1	HD20005010	Diode, W06B
Q716	1	1	1	HD20005010	Diode, W06B
Q717	1	1	1	HD20005010	Diode, W06B
Q718	1	1	1	HD20005010	Diode, W06B
Q719	1	1	1	HD30030090	Zener, WZ-177
Q750	1	1	1	HT313842B0	Transistor, 2SC1384 (Q,R)
Q751	1	1	1	HD20007290	Diode, S3V10
Q752	1	1	1	HD20007290	Diode, S3V10
Q753	1	1	1	HD20007290	Diode, S3V10
Q754	1	1	1	HD20007290	Diode, S3V10
Q755	1	1	1	HD20008030	Diode, DS-133A
Q756	1	1	1	HD20008030	Diode, DS-133A
Q757	1	1	1	HD30021090	Zener, BZ-140
Q758	1	1	1	HD20005010	Diode, W06B
R701	1	1	1	RT05392140	Resistor, 3.9k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R702	1	1	1	RT05392140	Resistor, 3.9k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R703	1	1	1	RT05333140	Resistor, 33k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R704	1	1	1	RT05333140	Resistor, 33k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R705	1	1	1	RT05102140	Resistor, 1k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R706	1	1	1	RT05102140	Resistor, 1k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	N		
R707	1	1	1	RT05752140	Resistor, 7.5k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R708	1	1	1	RT05752140	Resistor, 7.5k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R709	1	1	1	RT05122140	Resistor, 1.2k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R710	1	1	1	RT05122140	Resistor, 1.2k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R711	1	1	1	RT05123140	Resistor, 12k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R712	1	1	1	RT05123140	Resistor, 12k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R713	1	1	1	RT05123140	Resistor, 12k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R714	1	1	1	GF05330140	Resistor, 33 $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R715	1	1	1	GF05432140	Resistor, 4.3k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R716	1	1	1	GF05432140	Resistor, 4.3k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R717	1	1	1	RT05182140	Resistor, 1.8k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R718	1	1	1	RT05182140	Resistor, 1.8k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R719	1	1	1	RA01020150	Trimming Resistor, 1k B
R720	1	1	1	RA01020150	Trimming Resistor, 1k B
R721	1	1	1	RT05332140	Resistor, 3.3k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R722	1	1	1	RT05332140	Resistor, 3.3k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R723	1	1	1	RT05822140	Resistor, 8.2k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R724	1	1	1	RT05822140	Resistor, 8.2k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R731	1	1	1	GX10222030	Resistor, 0.22 $\Omega$ $\pm$ 10% 3W
R732	1	1	1	GX10222030	Resistor, 0.22 $\Omega$ $\pm$ 10% 3W
R733	1	1	1	GX10222030	Resistor, 0.22 $\Omega$ $\pm$ 10% 3W
R734	1	1	1	GX10222030	Resistor, 0.22 $\Omega$ $\pm$ 10% 3W
R735	1	1	1	RC10020120	Resistor, 2 $\Omega$ $\pm$ 10% $\frac{1}{2}$ W
R736	1	1	1	RC10020120	Resistor, 2 $\Omega$ $\pm$ 10% $\frac{1}{2}$ W
R737	1	1	1	RC10100120	Resistor, 10 $\Omega$ $\pm$ 10% $\frac{1}{2}$ W
R738	1	1	1	RC10100120	Resistor, 10 $\Omega$ $\pm$ 10% $\frac{1}{2}$ W
R739	1	1	1	GJ05331010	Resistor, 330 $\Omega$ $\pm$ 5% 1W
R740	1	1	1	GJ05331010	Resistor, 330 $\Omega$ $\pm$ 5% 1W
R741	1	1	1	GF05101140	Resistor, 100 $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R742	1	1	1	GF05101140	Resistor, 100 $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R743	1	1	1	GF05100140	Resistor, 10 $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R744	1	1	1	GF05681140	Resistor, 680 $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R750	1	1	1	RT05104140	Resistor, 100k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R751	1	1	1	RT05183140	Resistor, 18k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R752	1	1	1	GF05560120	Resistor, 56 $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R753	1	1	1	GF05100140	Resistor, 10 $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R754	1	1	1	GJ05241030	Resistor, 240 $\Omega$ $\pm$ 5% 3W
R755	1	1	1	GJ05151020	Resistor, 150 $\Omega$ $\pm$ 5% 2W
R756	1	1	1	GF05100140	Resistor, 10 $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R757	1	1	1	GJ05100030	Resistor, 10 $\Omega$ $\pm$ 5% 3W
S701	1	1	1	SP04020200	Pushswitch, SPKR

## 15. TECHNICAL SPECIFICATIONS

### FOR U.S.A. MODEL ONLY

#### RATED POWER OUTPUT, MINIMUM CONTINUOUS AVERAGE POWER

PER CHANNEL, BOTH CHANNELS DRIVEN	18 W
POWER BAND	20 Hz to 20 kHz
TOTAL HARMONIC DISTORTION	0.08%
LOAD IMPEDANCE	8 OHMS

#### RATED POWER OUTPUT, MINIMUM CONTINUOUS AVERAGE POWER

PER CHANNEL, BOTH CHANNELS DRIVEN	24 W
POWER BAND	20 Hz to 20 kHz
TOTAL HARMONIC DISTORTION	0.15%
LOAD IMPEDANCE	4 OHMS

#### I.M. Distortion

(I.H.F. method, 60 Hz and 7 kHz mixed 4:1 at rated power output)

at 8 ohm load impedance	0.15%
at 4 ohm load impedance	0.3%
Damping Factor	40

#### PREAMPLIFIER SECTION:

##### Phono

Input Overload at 1 kHz	100 mV
Equivalent Input Noise	2.5 $\mu$ V
Dynamic Range	92 dB
(Dynamic Range is the ratio of input overload to equivalent input noise)	
Input Sensitivity	2.5 mV
Input Impedance	47 k ohms
Input Capacitance	100 PF
Frequency Response, RIAA 20 Hz to 20 kHz	$\pm 1.0$ dB
Signal-to-Noise Ratio	74 dB
(at rated output and 7.75 mV input)	

##### High Level (Aux and Tape)

Input Sensitivity	180 mV
Input Impedance	20 k ohms
Frequency Response	20 Hz to 60 kHz $\pm 1.5$ dB
(includes power amp)	
Signal-to-Noise Ratio	85 dB
(ref. to rated output and 775 mV input)	

##### Output Levels

Tape Out (ref. 7.75 mV at Phono inputs)	525 mV
Output Impedance	120 ohms
Tape Out	

#### FM TUNER SECTION:

##### Sensitivity

IHF Usable	10.8 dBf (1.9 $\mu$ V)
IHF 50 dB Quieting (Mono)	14.2 dBf (2.8 $\mu$ V)
(Stereo)	37.3 dBf (40 $\mu$ V)

##### Quieting Slope (Mono)

RF Input for 30 dB Quieting	9.3 dBf (1.6 $\mu$ V)
Quieting at:	
20 dBf ( 5.5 $\mu$ V)	55 dB
25 dBf ( 10 $\mu$ V)	60 dB
40 dBf ( 55 $\mu$ V)	70 dB
65 dBf (1000 $\mu$ V)	75 dB

Quieting Slope (Stereo)	
Quieting at:	
30 dBf ( 17 $\mu$ V)	42 dB
40 dBf ( 55 $\mu$ V)	53 dB
50 dBf ( 173 $\mu$ V)	58 dB
65 dBf (1000 $\mu$ V)	65 dB
Distortion (Mono) at 65 dBf (1000 $\mu$ V)	
100 Hz	0.3 %
1000 Hz	0.2 %
6000 Hz	0.35%
Distortion (Stereo) at 65 dBf (1000 $\mu$ V)	
100 Hz	0.5 %
1000 Hz	0.4 %
6000 Hz	0.5 %
Distortion (Mono and Stereo)	
at 50 dB Quieting, 1000 Hz	0.6%
Hum and Noise	
at 65 dBf (1000 $\mu$ V)	
Mono	70 dB
Frequency Response	
30 Hz to 15 kHz	
Mono	+0.2 dB, -1.5 dB
Stereo	$\pm$ 1.5 dB
Capture Ratio at 65 dBf (1000 $\mu$ V)	1.0 dB
Alternate Channel Selectivity	70 dB
Spurious Response Rejection	90 dB
Image Response Rejection	55 dB
I.F. Rejection (Balanced)	90 dB
A.M. Suppression	50 dB
Stereo Separation	
100 Hz	40 dB
1000 Hz	45 dB
10 kHz	40 dB
Subcarrier Rejection	65 dB
<b>AM TUNER SECTION:</b>	
IHF Usable Sensitivity	15 $\mu$ V
Distortion (THD), 30% Modulation	0.5%
Signal-to-Noise Ratio	50 dB
Alternate Channel Selectivity	40 dB
Image Rejection	45 dB
Spurious Response Rejection	60 dB
I.F. Rejection	40 dB
<b>GENERAL:</b>	
Power Requirements	120 VAC, 60 Hz
Power Consumption at rated output, both channels operating	97 W
Idling Power (Volume Control at zero)	27 W
Dimensions:	
Panel Width	440 mm (17-5/16 inches)
Panel Height	137 mm ( 5-3/8 inches)
Depth	293 mm (11-7/16 inches)
Weight:	
Unit alone	9 kg (19.8 lbs)
Packed for Shipment	10.5 kg (23.1 lbs)

FOR EUROPEAN MODEL ONLY

**AUDIO SECTION**

POWER OUTPUT, DIN, 4 OHM, PER CHANNEL .....	37 W
POWER OUTPUT, FTC AMERICAN STANDARDS, 4 OHM, PER CHANNEL .....	22 W
TOTAL HARMONIC DISTORTION AT RATED POWER OUTPUT .....	0.3%
I.M. DISTORTION AT RATED POWER OUTPUT (250 Hz AND 8 kHz MIXED, AMPLITUDE RATIO 4:1) .....	0.3%
POWER BANDWIDTH .....	8 Hz ~ 30 kHz

POWER OUTPUT, DIN, 8 OHM, PER CHANNEL .....	28 W
POWER OUTPUT, FTC AMERICAN STANDARDS, 8 OHM, PER CHANNEL .....	18 W
TOTAL HARMONIC DISTORTION AT RATED POWER OUTPUT .....	0.08%
I.M. DISTORTION AT RATED POWER OUTPUT (250 Hz AND 8 kHz MIXED, AMPLITUDE RATIO 4:1) .....	0.3%
POWER BANDWIDTH .....	8 Hz ~ 30 kHz

DAMPING FACTOR 8 OHMS .....	(40 Hz)	(1 kHz)	(12.5 kHz)
	30	30	25

Frequency Response	
Phono ( $\pm 2$ dB) .....	
Aux ( $\pm 1.5$ dB) .....	20 Hz ~ 20 kHz
Signal to Noise Ratio	15 Hz ~ 35 kHz

Phono .....	75 dB
Aux .....	50 dB
Input Terminals	

Phono: Input Impedance .....	47 k ohms
Input Capacitance .....	100 pF
Input Sensitivity .....	2.7 mV
Overload Margin .....	30 dB
Aux: Input Impedance .....	20 k ohms
Input Sensitivity .....	180 mV
Overload Margin .....	40 dB

Phono Equivalent Input Noise .....	2.5 $\mu$ V
Phono Dynamic Range .....	90 dB
Channel Balance (0 to -40 dB/40 Hz ~ 16 kHz)	

Phono .....	2.5 dB
Aux .....	2.0 dB
Interchannel Crosstalk	

Phono, 1 kHz .....	35 dB
Aux, 1 kHz .....	43 dB
Tape, 1 kHz .....	43 dB

Intersource Crosstalk, 1 kHz .....	43 dB
Output Voltage, 1 kHz .....	43 dB

Tape Out .....	0.18 V
Output Impedance, 1 kHz .....	120 ohms
Tape Out .....	

**FM TUNER SECTION**

Frequency Range .....	87.5 ~ 108 MHz
Usable Sensitivity 40 kHz Deviation, 98 MHz	
Mono S/N 26 dB .....	1.6 $\mu$ V
Stereo S/N 46 dB .....	47 $\mu$ V
Alternate Channel Selectivity 98 MHz, $\pm 300$ kHz .....	50 dB
Image Response Rejection, 98 MHz .....	60 dB
IF Rejection, 98 MHz .....	80 dB
Spurious Response Rejection, 98 MHz .....	80 dB
AM Suppression, 98 MHz .....	50 dB

Signal to Noise Ratio at 98 MHz		
Unweighted	Mono	65 dB
	Stereo	58 dB
Weighted	Mono	68 dB
	Stereo	62 dB
Pilot and Subcarrier Rejection		
	19 kHz	60 dB
	38 kHz	65 dB
Total Harmonic Distortion		
	Mono	0.2%
	Stereo	0.4%
Frequency Response (30 Hz ~ 15 kHz)		+0.2 dB, -2.0 dB
Stereo Separation		40 dB
Channel Balance		0.5 dB
Output Voltage, 1 kHz		565 mV
Output Impedance, 1 kHz		2.3 k ohms
Acceptable Load Impedance, 1 kHz		47 k ohms
Antenna Terminals		
	Balanced	300 ohms
	Unbalanced	75 ohms

#### AM TUNER SECTION

Frequency Range	515 ~ 1650 kHz
Usable Sensitivity (26 dB S/N, 30% Mod., 1 MHz)	25 $\mu$ V
Selectivity, 1 MHz, $\pm$ 9 kHz	20 dB
Image Rejection, 1 MHz	18 dB
I.F. Rejection, 1 MHz	3 dB
Spurious Response Rejection, 1 MHz	60 dB
Signal to Noise Ratio, 1 MHz	52 dB
Frequency Response, 1 MHz, $\pm$ 3 dB	40 Hz ~ 2.3 kHz
Total Harmonic Distortion, 1 MHz	0.5%

#### GENERAL

Power Requirements	220 V AC, 50 Hz
(E and N versions are featuring an external voltage selector for use on 110/120/240 V. Other versions can be converted by a qualified technician to operate on 110/120/240 V.)	
Power Consumption at Rated Output, 2 Channels Driven	105W $\pm$ 15W
Idling Power	27 W $\pm$ 5W
Semiconductor Complement	
Integrated Circuits	5
Transistors	29
Diodes	18
Field Effect Transistors	1
Dimensions	
Panel Width	440 mm ( 17-5/16 inches)
Panel Height	137 mm ( 5-25/64 inches)
Depth	293 mm (11-17/32 inches)
Weight	
Unit Alone	9.0 kg (19.8 lbs)
Packed for Shipment	10.5 kg (23.1 lbs)



Signal to Noise Ratio at 50 MHz		
Unweighted Noise		95 dB
Weighted Noise		88 dB
Unweighted Noise		95 dB
Weighted Noise		88 dB
Power and Spurious Rejection		
10 kHz		57 dB
20 kHz		65 dB
Total Harmonic Distortion		
None		0.2%
1 kHz		0.2%
Frequency Response (20 Hz - 45 kHz)		+0.2dB - 2.0 dB
50% Separation		40 dB
Channel Select		0.5 dB
Output Voltage (1 kHz)		680 mV
Output Impedance (1 kHz)		250 ohms
Resistive Load Impedance (1 kHz)		47.5 ohms
Amplifier Terminal		
Shorted		200 ohms
Unloaded		75 ohms
AM TUNING SECTION		
Frequency Range		515 - 1650 kHz
Waveform Accuracy (20 - 200, 80% Mod., 1 kHz)		25 μV
Deviation (1 MHz, 25% Mod)		20 dB
Wave Resistor (1 kHz)		10 dB
RF Rejection (1 kHz)		3 dB
Spurious Rejection (1 kHz)		20 dB
RF to AF Ratio (1 kHz)		55 dB
Frequency Response (1 MHz, 25% Mod)		20 dB
Total Harmonic Distortion (1 kHz)		0.5%



# marantz

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