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**SERVICE
MANUAL**

**PM-500
PM-700**

marantz

model PM500/PM700

Stereo Console Amplifier

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 Perennes-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

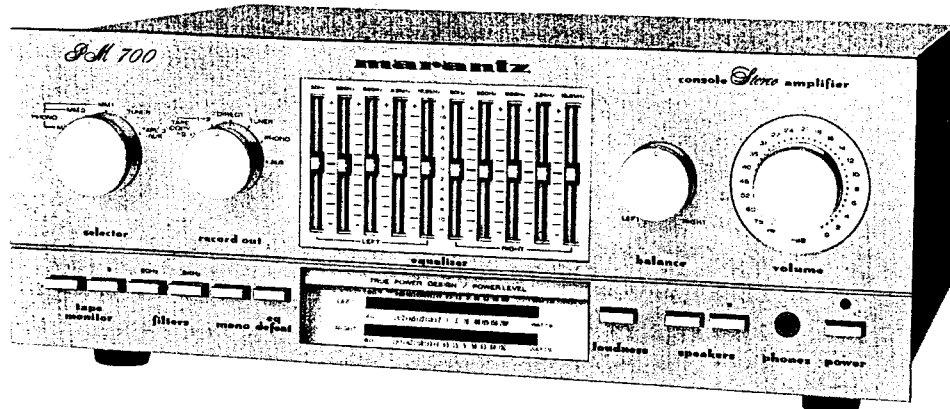
Superscope GmbH
Max-Planck-Strasse 22
D-6072 Dreieich 1
West Germany

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.

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1. INTRODUCTION

This service manual was prepared for use by Authorized Warranty Stations and contains service information for the Marantz PM500/PM700 Stereo Console Amplifier. Servicing information and voltage data included in this manual are intended for use by knowledgeable and experienced personnel only. All instructions should be read carefully. No attempt should be made to proceed without a good understanding of circuitry operation.

The parts list furnishes complete ordering information. Most replacement parts should be ordered from the Marantz Company. However, a simple description is included for parts which can be obtained locally.

2. PRE-AMPLIFIER

The input signal from the PHONO-MM1 or PHONO-MM2 terminal, selected with the SELECTOR SWITCH, is applied to the PHONO AMP where it is RIAA-equalized and amplified 36 dB.

(In PM700, the signal from the PHONO-MC terminal is amplified 56 dB.)

The PHONO AMP output signal is returned to the SELECTOR switch and is also fed to the RECORDING SELECTOR (SJ04). The signals from the TUNER and AUX/TAPE 3 terminals are applied to the SELECTOR SWITCH (SJ01) and to the RECORDING SELECTOR (SJ04). (PM700 only)

The signals from the TAPE 1 IN and TAPE 2 IN are applied to the TAPE MONITOR SWITCH (SJ07) and the RECORDING SELECTOR (SJ04).

One of five signals applied to the RECORDING SELECTOR (SJ04) is selected with the RECORDING SELECTOR and fed from the TAPE 1 OUT and TAPE 2 OUT terminals.

The signal from the SELECTOR SWITCH (SJ01) is fed to the TAPE MONITOR SWITCH (SJ07), MONO SW (SH01-2) and then level controlled with the BALANCE (RG01) and VOLUME (RG02) controls.

In the volume control circuit, the signal is controlled by the loudness control in the LOUDNESS circuit when the LOUDNESS SWITCH (SG01) is ON. The signal from the VOLUME (RG02) control is amplified 19 dB with the FLAT AMP (QE01-LCH, QE02-RCH), then fed to the EQ DEFEAT SWITCH (SH01-1). The amplified signal is also fed to the ZONE CONTROL (GRAPHIC EQUALIZ-

ER) circuit. The ZONE CONTROL output signal is applied to the EQ DEFEAT SWITCH (SH01-1).

The signal selected by the EQ DEFEAT SWITCH (SH011) is supplied to the main amplifier via the FILTER SWITCH (SH01-3 for PM500, SH01-3 and SH01-4 for PM700).

3. TROUBLESHOOTING ANALYSIS

1. Excessive line consumption
 - a. Check for shorting in QN01 through to AN04.
 - b. Check for any shorted transistors Q717 through to Q728.
 - c. Check for open Q715, Q716, Q743, Q744, R737 and R738.
2. No line consumption or zero bias voltage
 - a. Check line cord and fuse. Check for a shorted Q715 and Q716.
 - b. Check for open circuits in rectifiers Q717 through to Q728 and QN01 through to QN04 or for L001.
3. High hum and noise level
 - a. Check capacitors C421, C422, C803, C804, C811, C812 and Q801 through to Q806.

4. POWER AMPLIFIER ADJUSTMENT

ADJUSTING IDLING CURRENT

Connect a DC voltmeter between the emitters of Q725 and Q727. Adjust R741 for 14 mV meter reading. Perform similar adjustment to R742, Q726 and Q728.

5. POWER METER ADJUSTMENT

PM500

Connect an 8Ω load to the left speaker terminals. Connect VTVM across the 8Ω load and an 1kHz oscillator to the left AUX/TAPE 3. Adjust the oscillator level for a 20V VTVM reading. Adjust RX39 (L-CH) so that the power meter indicates 50W. Perform the same adjustment for the right channel (RX40).

PM700

Connect an 8Ω load to the left speaker terminals. Connect VTVM across the 8Ω load and an 1kHz oscillator to the

left AUX/TAPE 3. Adjust the oscillator level for a 23.6V VTVM reading. Adjust RX39 (L-CH) so that the power meter indicates 70W. Carry out the same adjustment for the right channel (RX40).

6. TEST EQUIPMENT REQUIRED FOR SERVICING

Table 1 lists the test equipment required for servicing the PM500/PM700 Stereo Console Amplifier. The wattmeter, AC voltmeter, and variable autotransformer may be assembled as a test fixture as shown schematically in Figure 1. The load resistors and AC ammeter may be assembled into a second test fixture as shown in Figure 2.

7. PERFORMANCE VERIFICATION

TEST PROCEDURE

A. TEST EQUIPMENT

Refer to Table 1 for required test equipment.

B. PRELIMINARY PROCEDURES

1. Make the test setup shown in Figure 1 with the instrument controls set in the following positions:

Line Switch	OFF
Variable-line switch	Variable
Wattmeter Switch	ON
Variable Autotransformer	0 V (fully CCW)
Load	8 ohms (0.5 mfd—OFF)
Audio Generator	1 kHz
Output	5 V range
Gain	Minimum
AC Voltmeter	30 V range

2. Make sure that connections between the resistive load and the system terminals of the PM500/PM700 have negligible resistance when compared with the resistance of the load itself. Appreciable resistance in wiring adds to the total load, resulting in inaccurate measurements of output power.
3. Connect amplifier output to load and connect AC cord to line power. Connect shorting plugs to the Phono input jacks of the PM500/PM700.

Table 1. Test Equipment Required for Servicing

Item	Manufacturer and Model No.	Use
Distortion Analyzer Audio Oscillator AC Voltmeter	Sound Technology Model 1700B	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
Circuit Tester		Trouble shooting
DC Voltmeter	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 ~ 10 A)	Monitors amplifier output under short circuit condition
Line Voltmeter	Simpson Model 1359	Monitors potential of primary power to amplifier
Variable Autotransformer	Superior Electronic Co., Powerstet 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, $\pm 0.5\%$ 100 W)	Commercial Grade	Provides 8-ohm load for amplifier output termination
Output Load (4 ohms, $\pm 0.5\%$ 100 W)	Commercial Grade	Provides 4-ohm load for amplifier output termination
Output Load Capacitor (0.5 mfd)	Mylar	Provides capacitive load for instability checks
AC Power Control Box	Optional Item. Fabricate in accordance with Figure 1	Monitors and controls primary power for amplifier
Amplifier Output Load Box	Optional Item. Fabricate in accordance with Figure 2	Provides various amplifier loads and can monitor shorted output

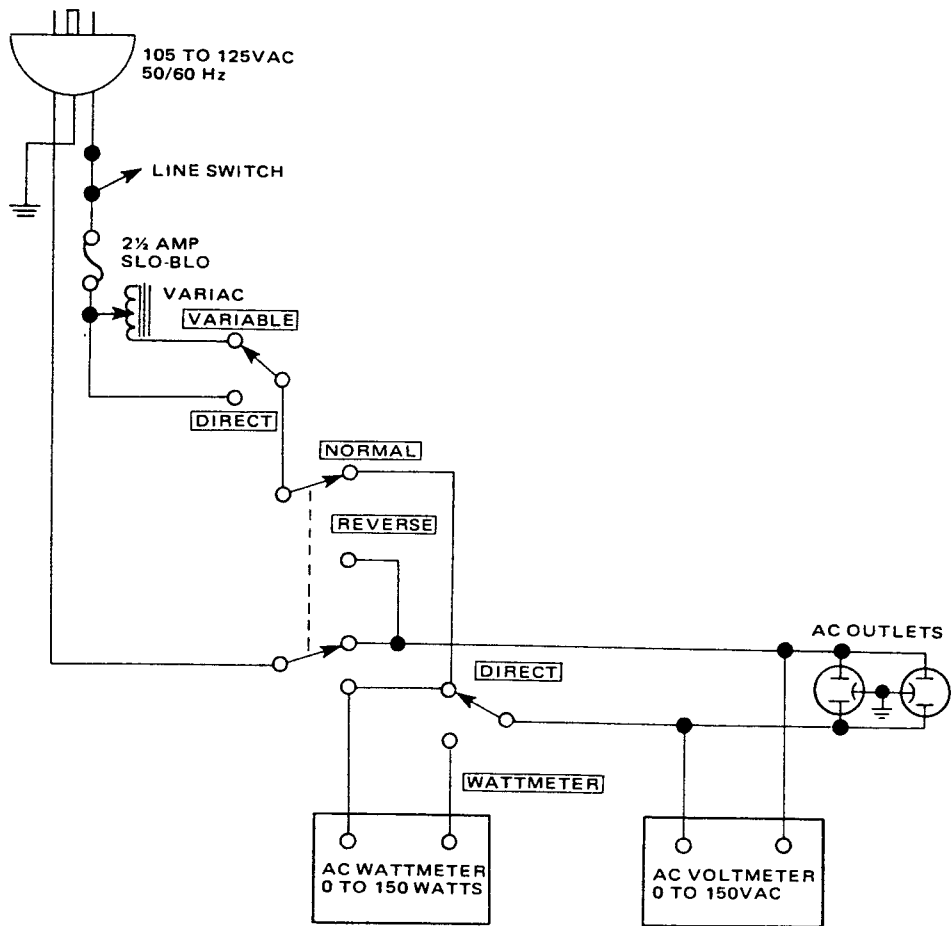


Figure 1. AC Power Control Box Simplified Schematic

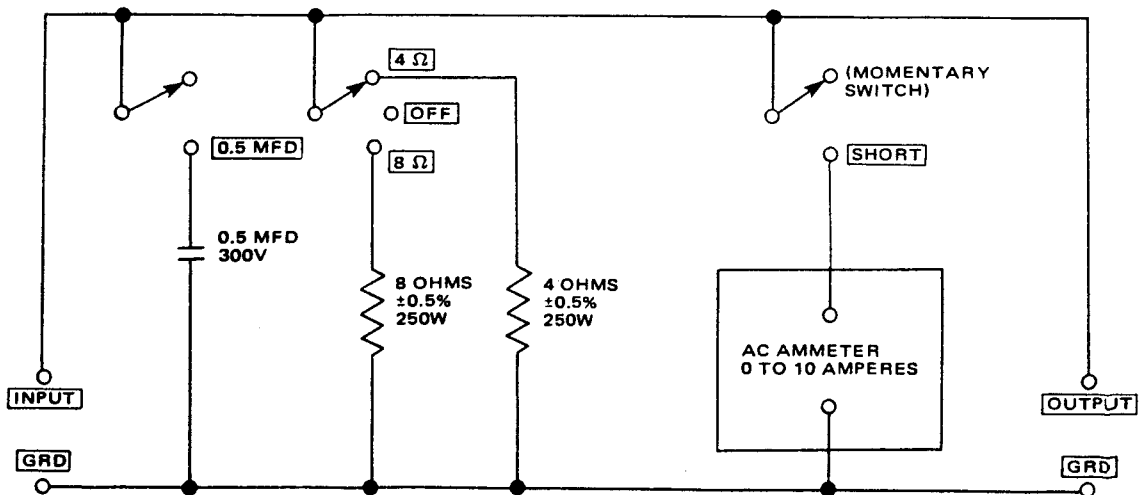


Figure 2. Amplifier Output Load Box Simplified Schematic

C. TOTAL HUM AND NOISE TEST

1. With shorting plugs connected to the Phono input jacks and an 8 ohm resistive load connected across the speaker system output terminals, connect a distortion analyzer across the load.

NOTE:

If the distortion analyzer does not contain a built-in voltmeter, an AC VTVM may be substituted.

2. Set the distortion analyzer controls for voltage measurements and apply power to the amplifier. Set the volume control fully CCW. Set the SELECTOR switch to PHONO.
3. If the distortion analyzer indicates more than 1.0 mV refer to the trouble analysis section of this manual.
4. Set the volume control fully CW. If the distortion analyzer indicates more than 15 mV, refer to the trouble analysis section of this manual.

D. MAXIMUM POWER OUTPUT

1. Connect the audio oscillator to the AUX input. Set audio oscillator frequency to 1 kHz. Set SELECTOR switch to AUX.
2. With the distortion analyzer connected across the output load (8-ohm), set the analyzer on the 30 VAC scale.
3. Turn the analyzer on and increase the audio oscillator output to 150 mV. The AC VTVM should read 23.6 VAC (20 VAC For Model PM500 only) or more.

E. HARMONIC DISTORTION TEST

1. Set the frequency of the audio oscillator and the distortion analyzer to 20 kHz.
2. Set the controls of the analyzer for voltage measurement on the 30 volt scale.
3. Adjust the audio oscillator output level until the analyzer meter indicates 23.6 VAC. (20 VAC For Model PM500 only)
4. Switch the distortion analyzer to Set Level and adjust SENSITIVITY for full scale reading on 0 ~ 0.1% scale.
5. Measure the total harmonic distortion with the analyzer and verify it is less than 0.03%.

NOTE:

Any parasitic oscillation in the amplifier will be displayed on the oscilloscope when capacitance is switched into the load.

6. Switch the distortion analyzer back to SET LEVEL. (Do not readjust sensitivity of analyzer.)
7. Change the frequency of the audio oscillator and distortion analyzer to 1 kHz. Adjust audio oscillator output for a full scale reading on the 0 ~ 1% scale.
8. Measure the distortion, verifying it is no greater than 0.03%.
9. Repeat steps 7 and 8, changing frequency to 20 Hz. Distortion should be no more than 0.03%.
10. Check for parasitic oscillation; there should be none.

CAUTION (For Model PM700 only)

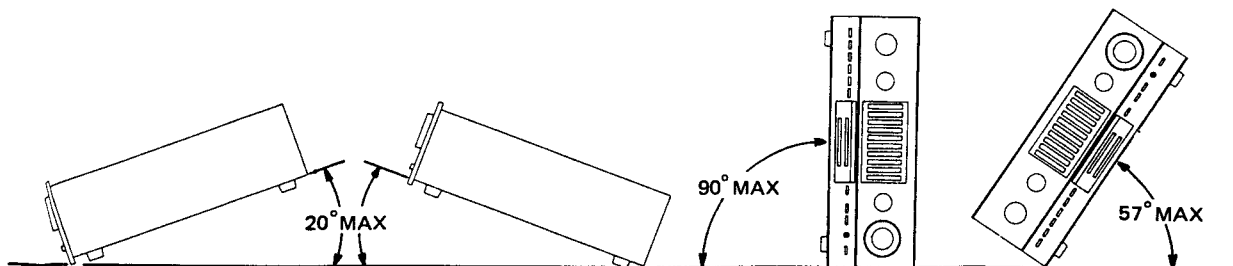
PM700 Heat-loop type Cooling System

The Model PM700 uses a heat pipe loop to cool power transistors. At the bottom of the pipe loop, the Freon enclosed in evaporatively cools the power transistors, then moves through the pipe to be cooled and liquefied by cooling fins.

The Freon liquid drops back to the bottom of the pipe loop, to continue the cooling cycle.

The heat loop is designed to give best performance when

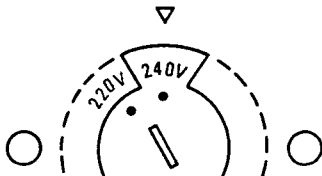
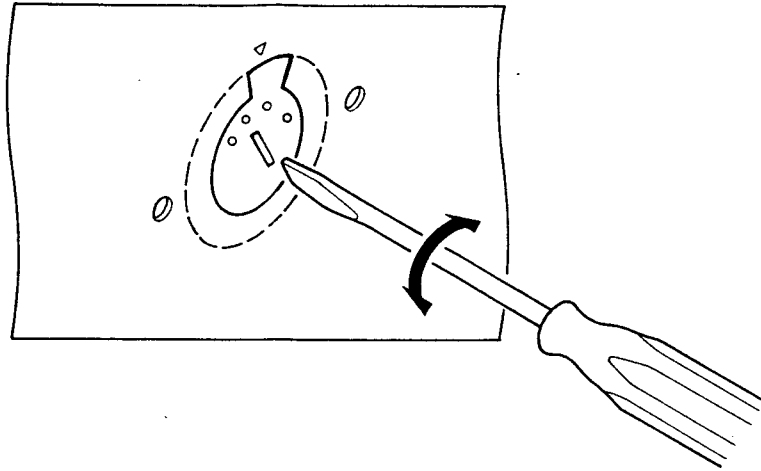
the PM700 is properly set. However, in a case of repair or measurement, approximately the same performance can be obtained if the PM700 is set up as shown in the following figures. If the inclination of the case exceeds the maximum value shown below, the liquefied Freon cannot return to the bottom of the pipe loop and the convection cycle ceases, so that transistors are not cooled, resulting in problems from overheating.



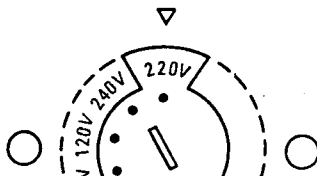
8. VOLTAGE CONVERSION

To convert the unit to a different power source voltage, change the position as illustrated in the drawing below.

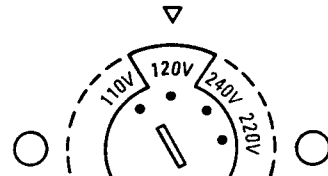
CAUTION: DISCONNECT POWER SUPPLY CORD FROM AC OUTLET BEFORE CONVERTING VOLTAGE. PLEASE DO NOT DISASSEMBLE THE VOLTAGE SELECTOR ABSOLUTELY.



(T) (A) Versions



(N) Version

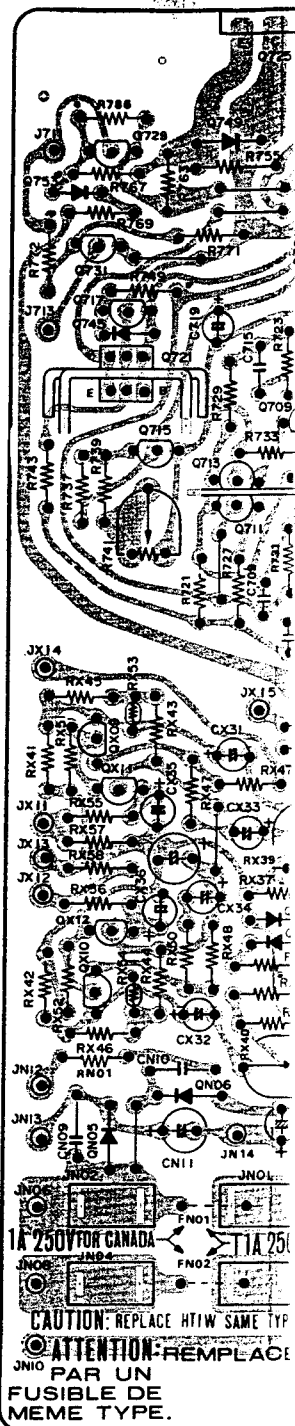
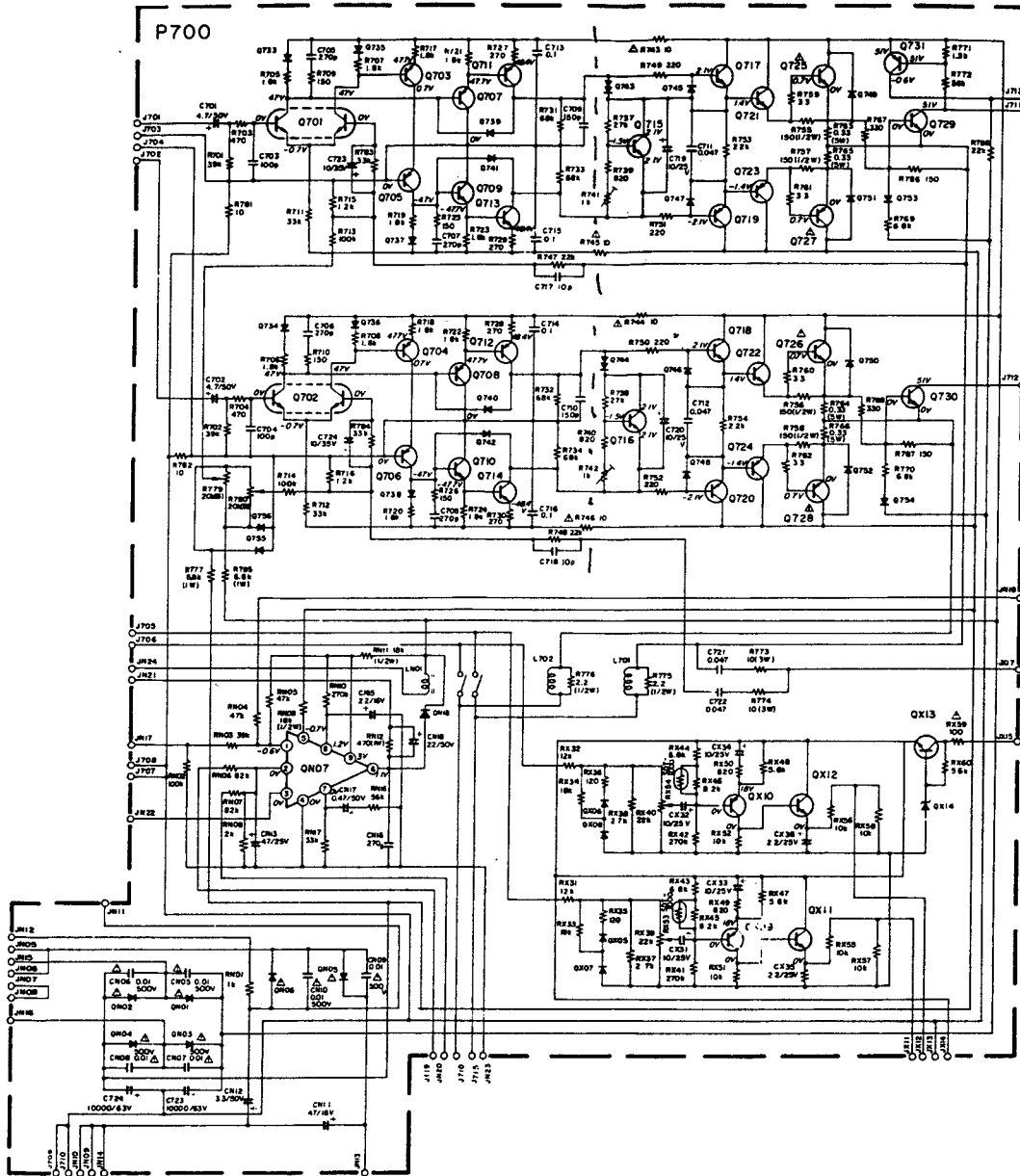


(P) Version

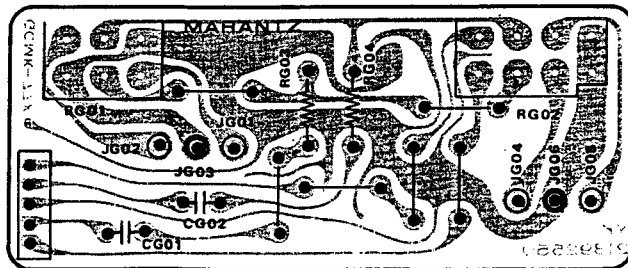
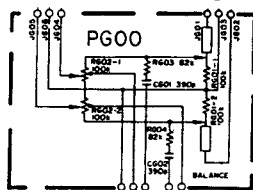
Note on safety: The parts marked with \triangle are important parts on the safety. Please use the parts having the designated parts number without fail.

9. DIAGRAM AND COMPONENT LOCATIONS

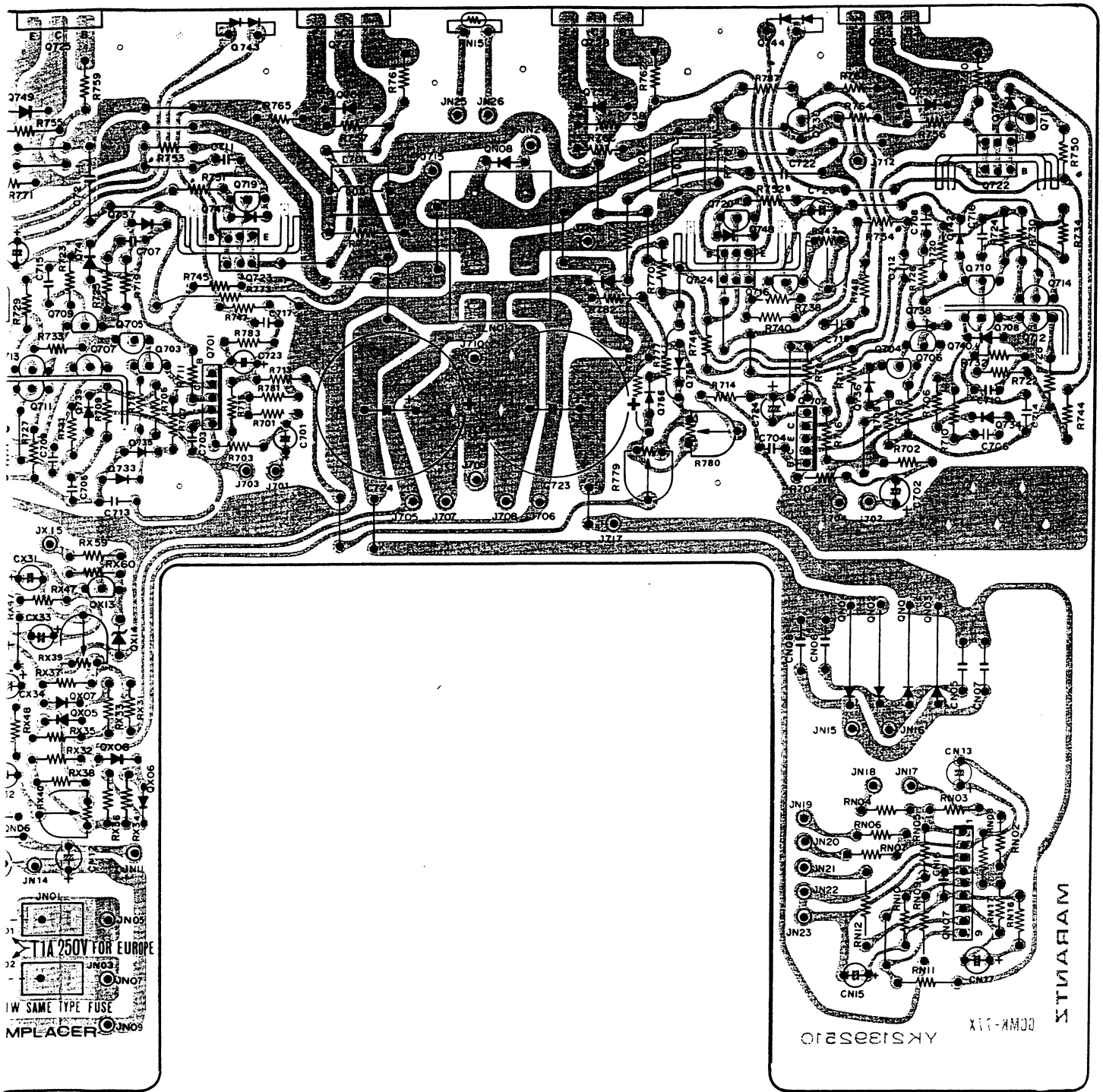
9.1 Main Amp. Assembly (P700) Schematic Diagram and Component Locations



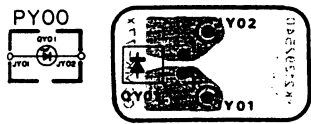
9.2 Volume and Balance Assembly (PG00) Schematic Diagram and Component Locations



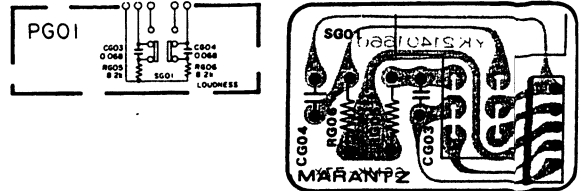
CAUTION: REPLACE HT1W SAME TYPE
 ATTENTION: REMPLACER
 PAR UN
 FUSIBLE DE
 MEME TYPE.



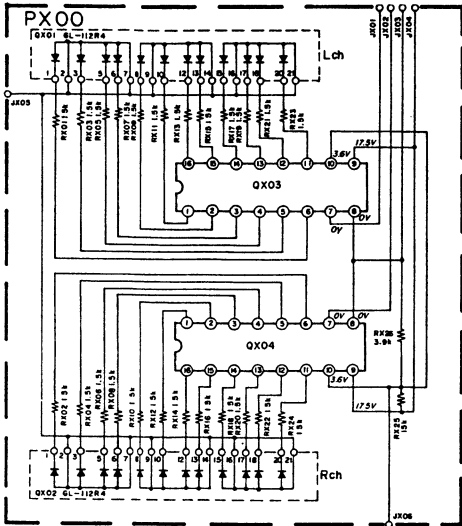
9.3 LED Power Lamp Assembly (PY00)
Schematic Diagram and Component Locations



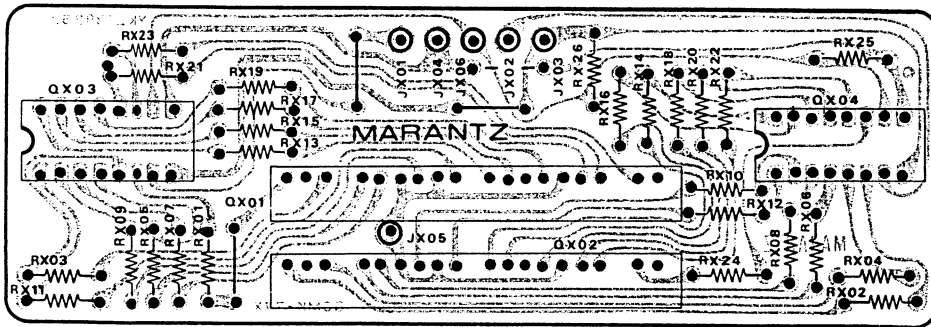
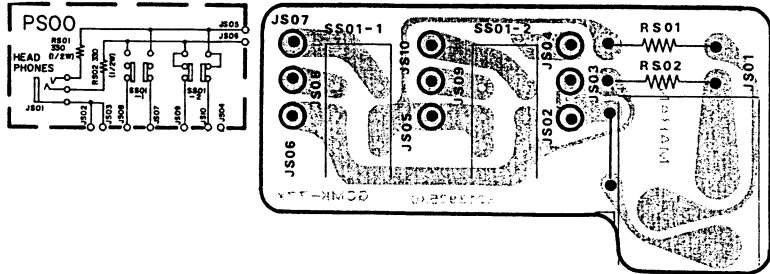
9.4 Loudness Assembly (PG01)
Schematic Diagram and Component Locations



9.5 LED Power Meter Assembly (PX00)
Schematic Diagram and Component Locations

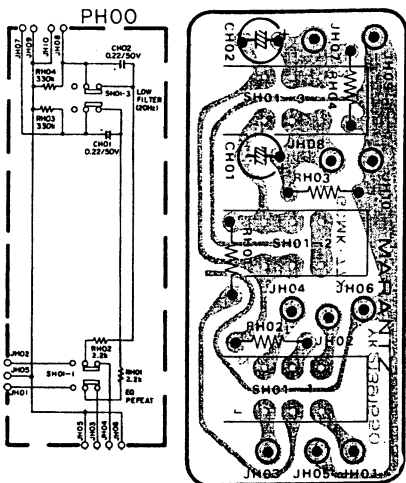


9.6 Head Phone Assembly (PS00)
Schematic Diagram and Component Locations

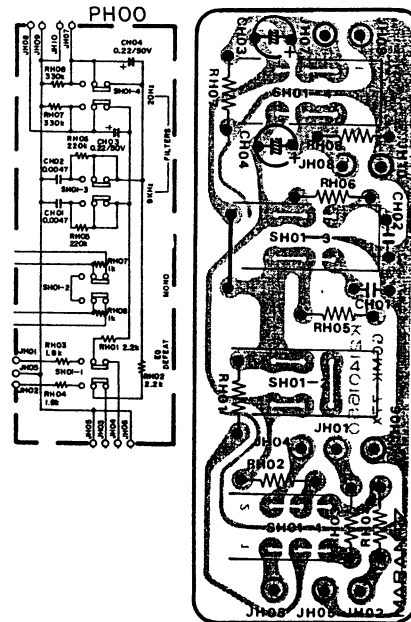


9.7 Filter Assembly (PH00) Schematic Diagram and Component Locations (PM500 and PM700)

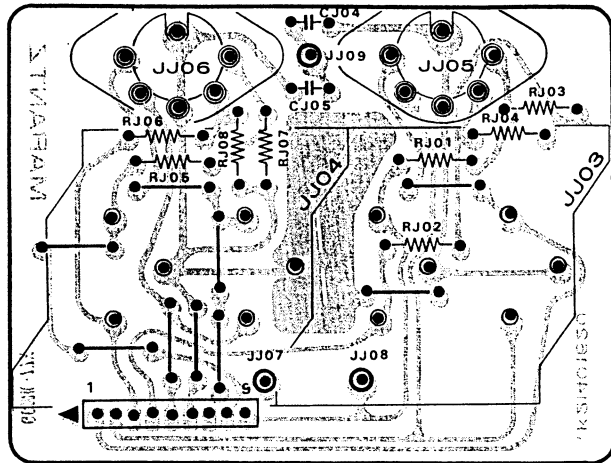
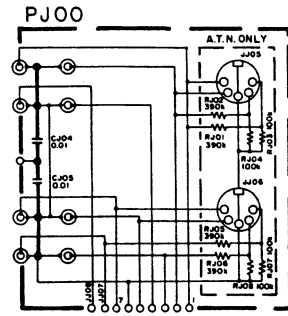
(PM500 ONLY)



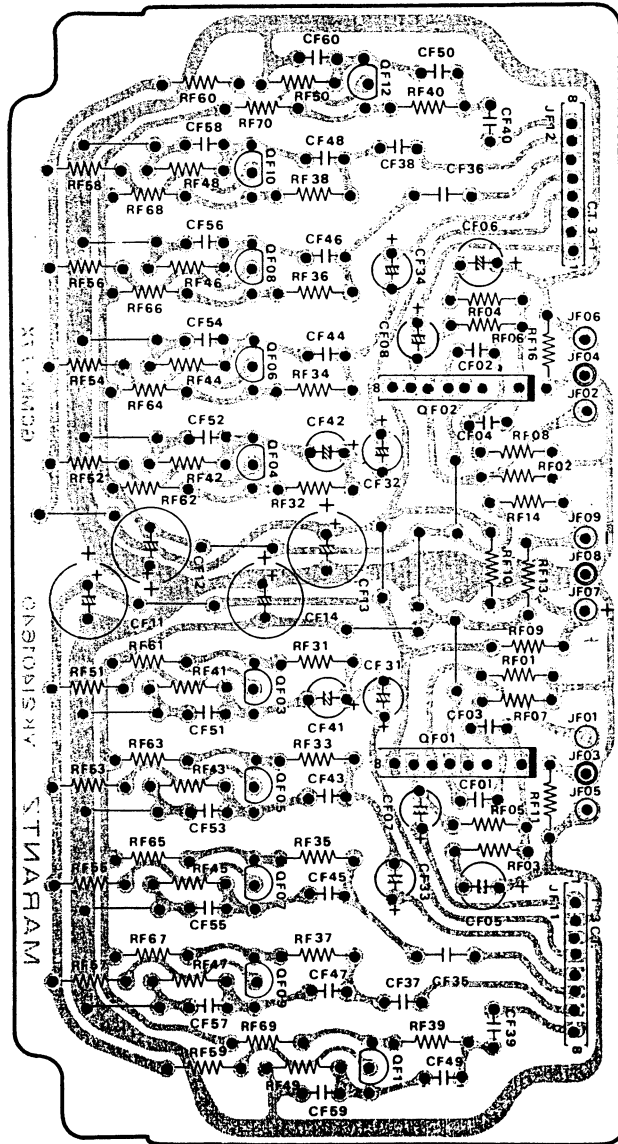
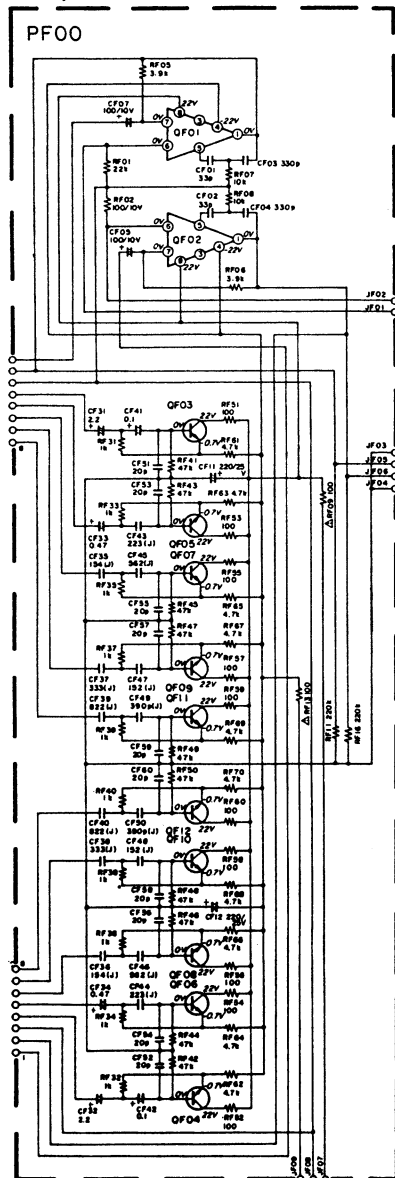
(PM700 ONLY)



9.8 Tape In and Tape Out Assembly (PJ00) Schematic Diagram and Component Locations

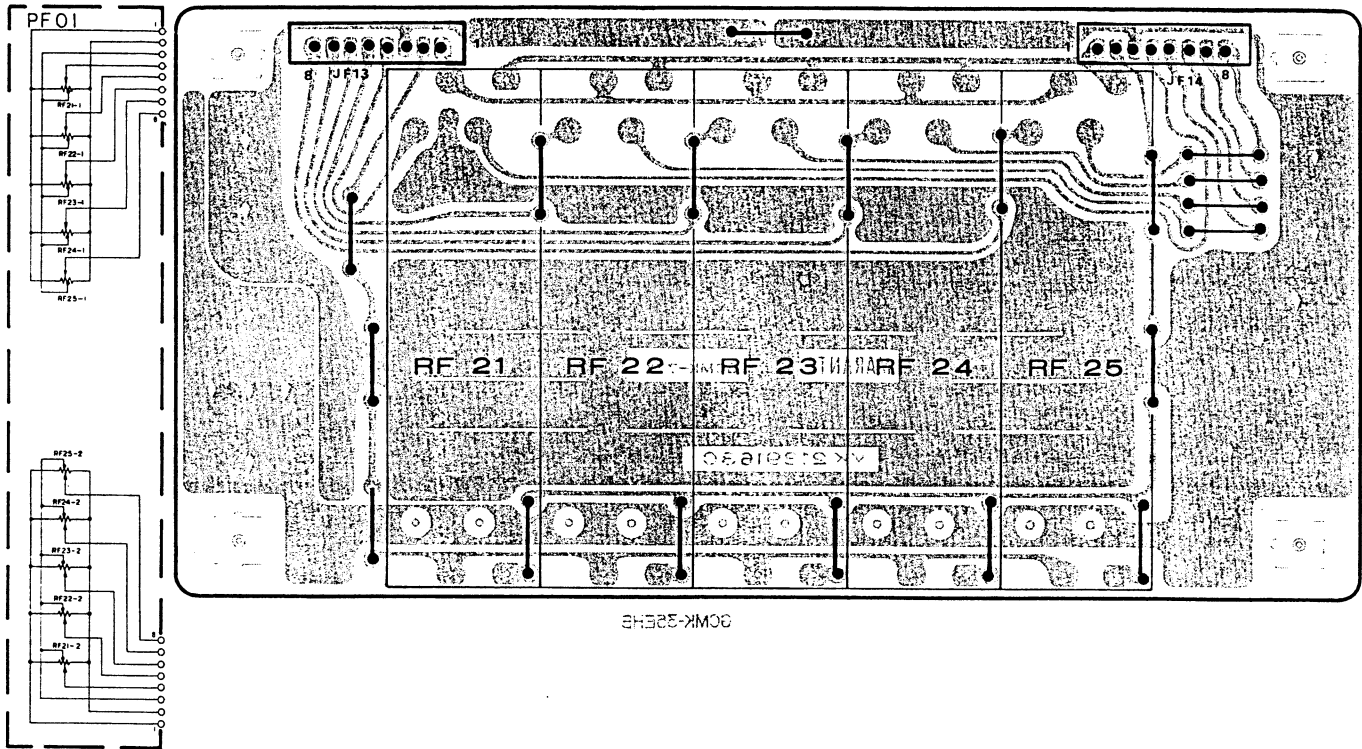


9.9 Graphic Amp. Assembly (PF00) Schematic Diagram and Component Locations

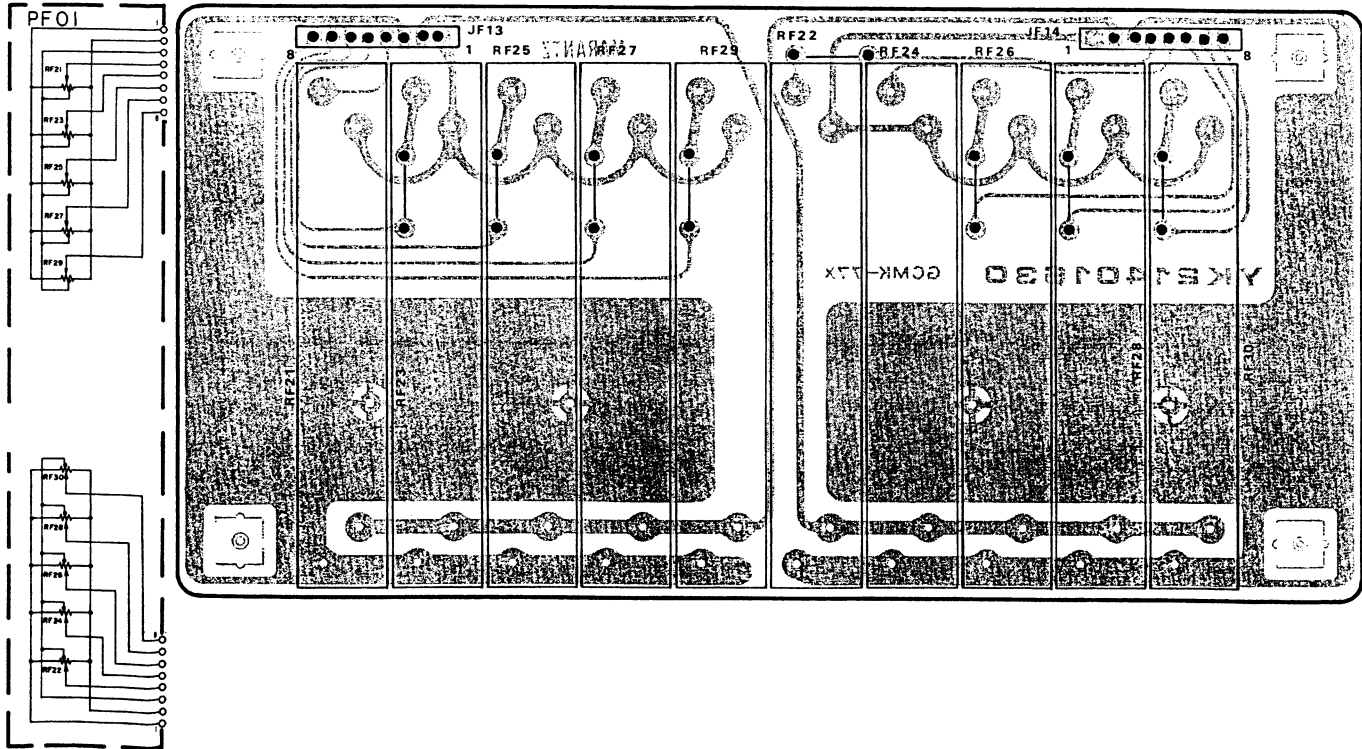


9.10 Graphic Volume Assembly (PF01) Schematic Diagram and Component Locations (PM500 and PM700)

(PM500 ONLY)

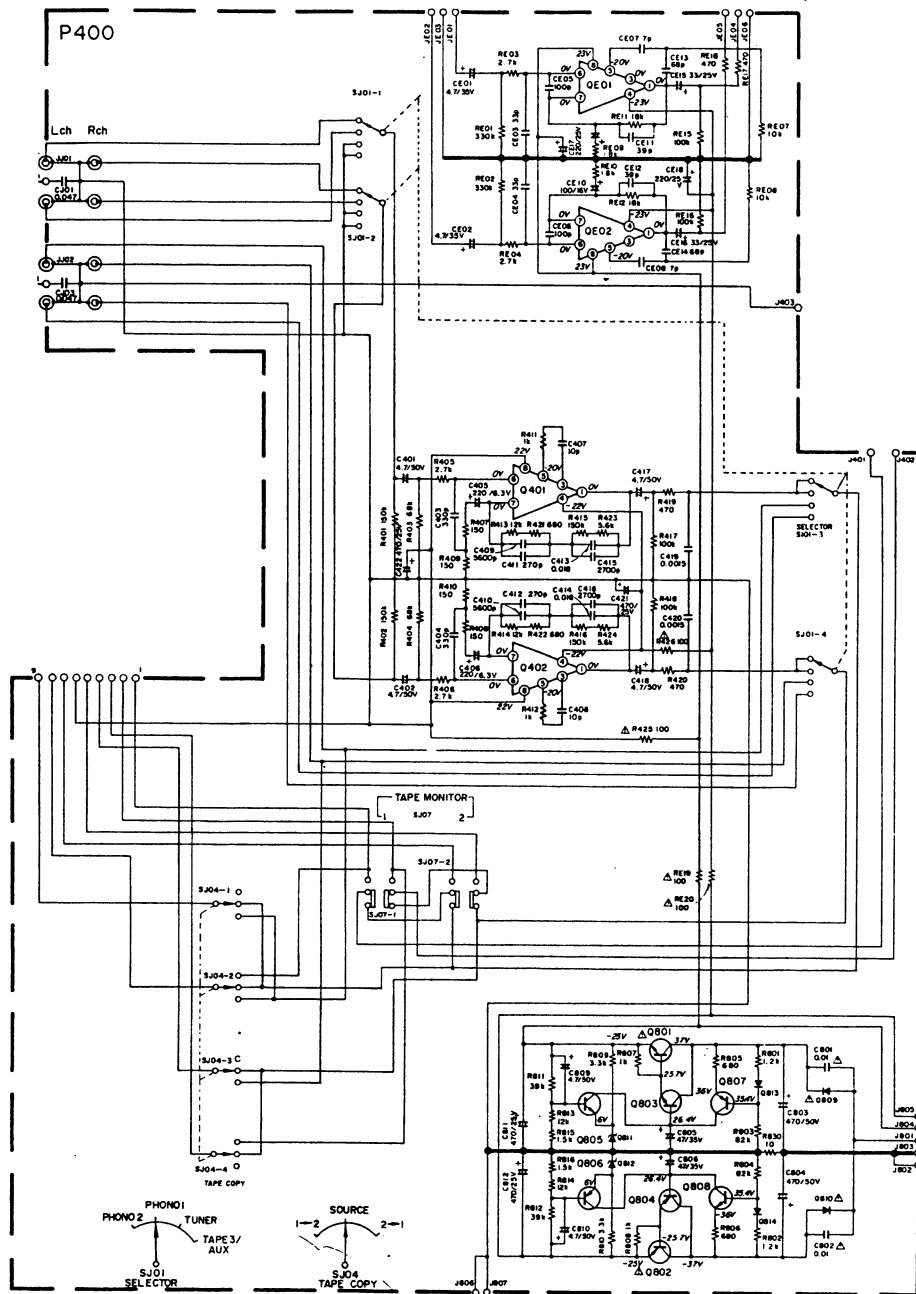


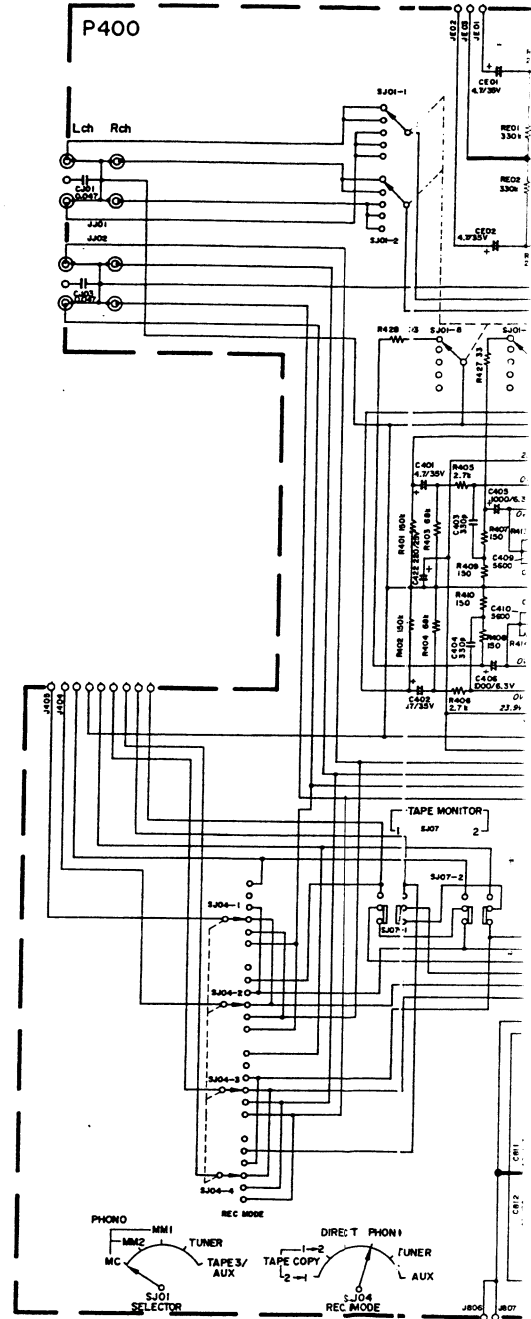
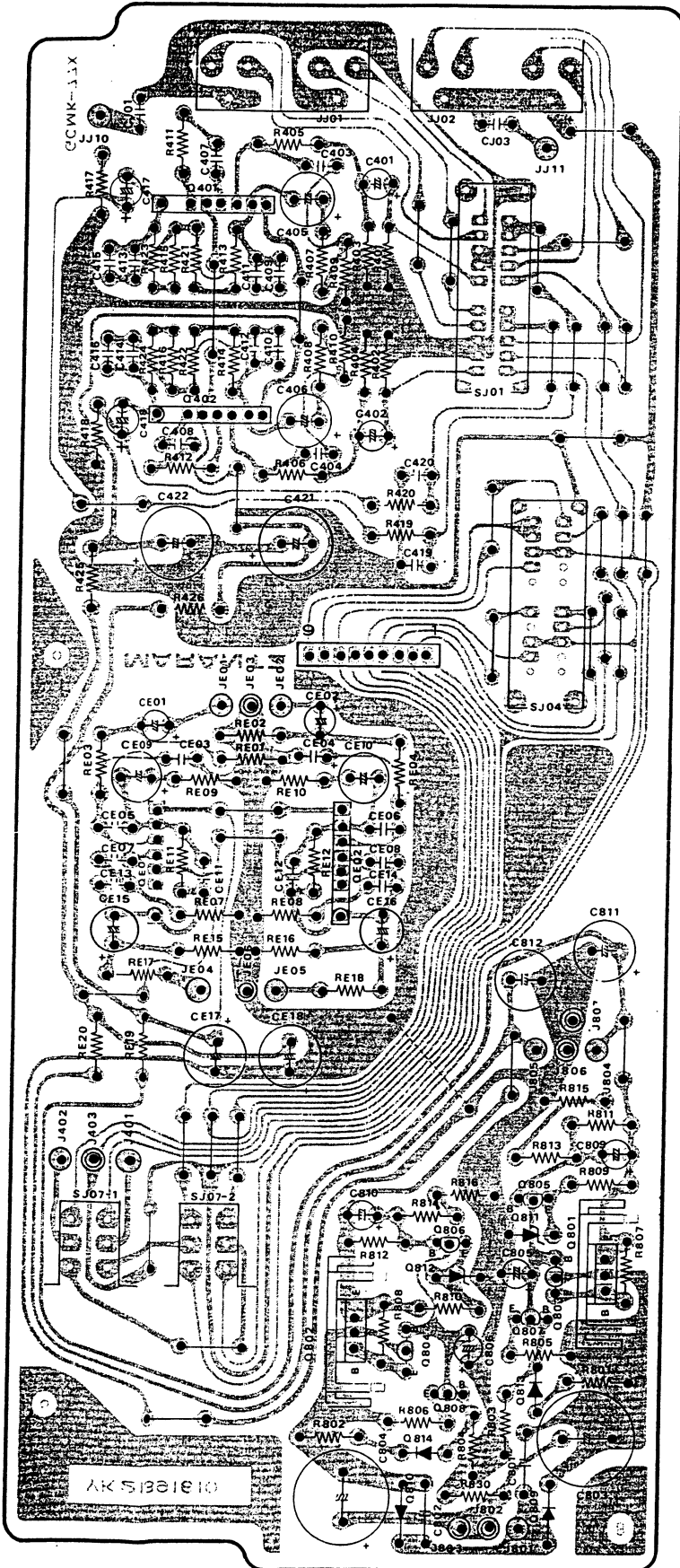
(PM700 ONLY)



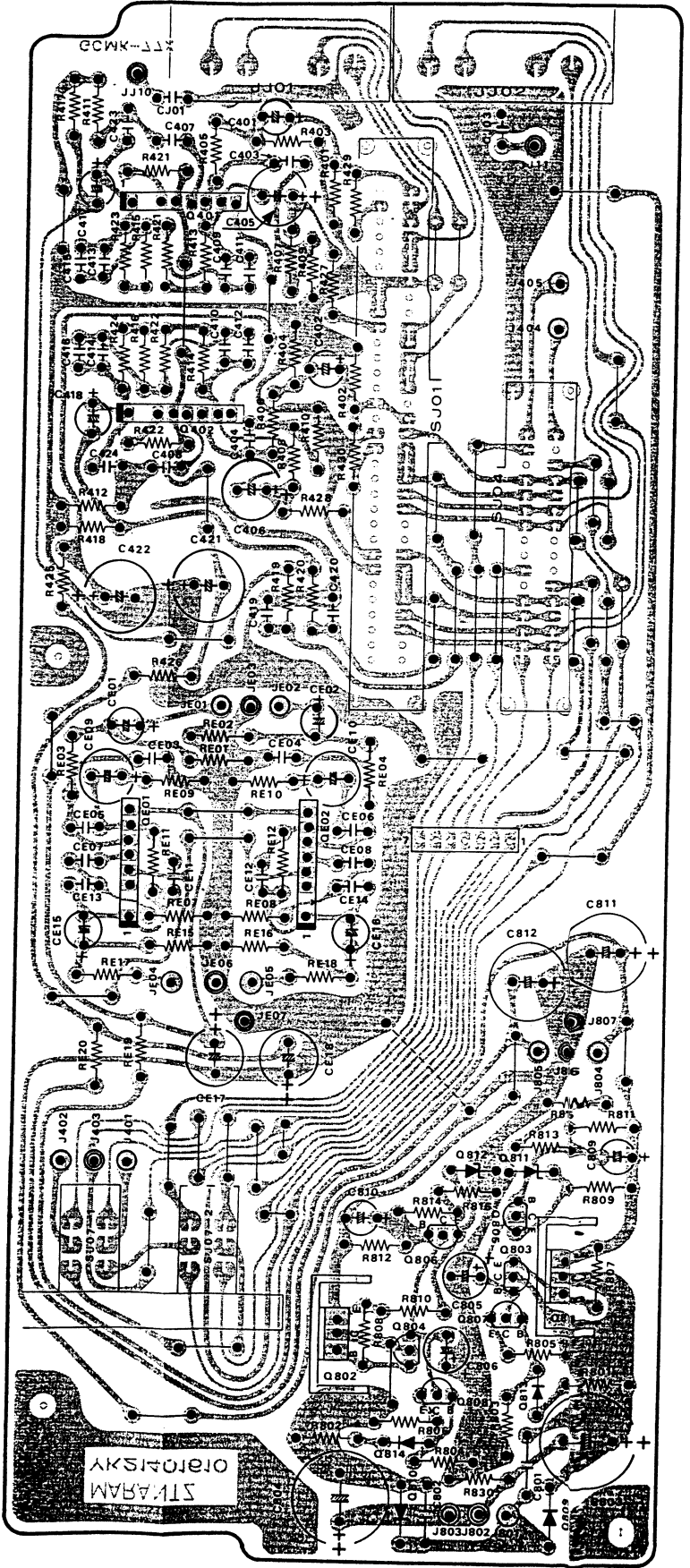
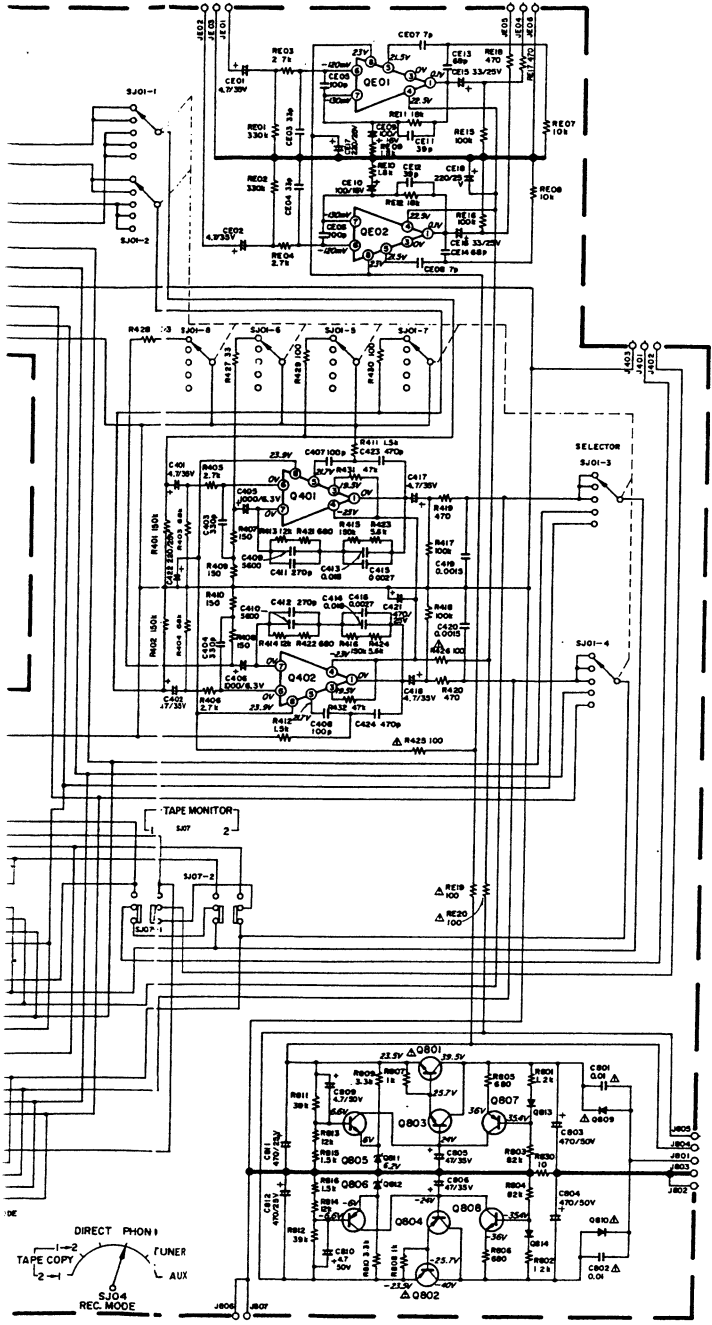
9.11 Phono Amp. Assembly (P400) Schematic Diagram and Component Locations (PM500 and PM700)

(PM500 ONLY)



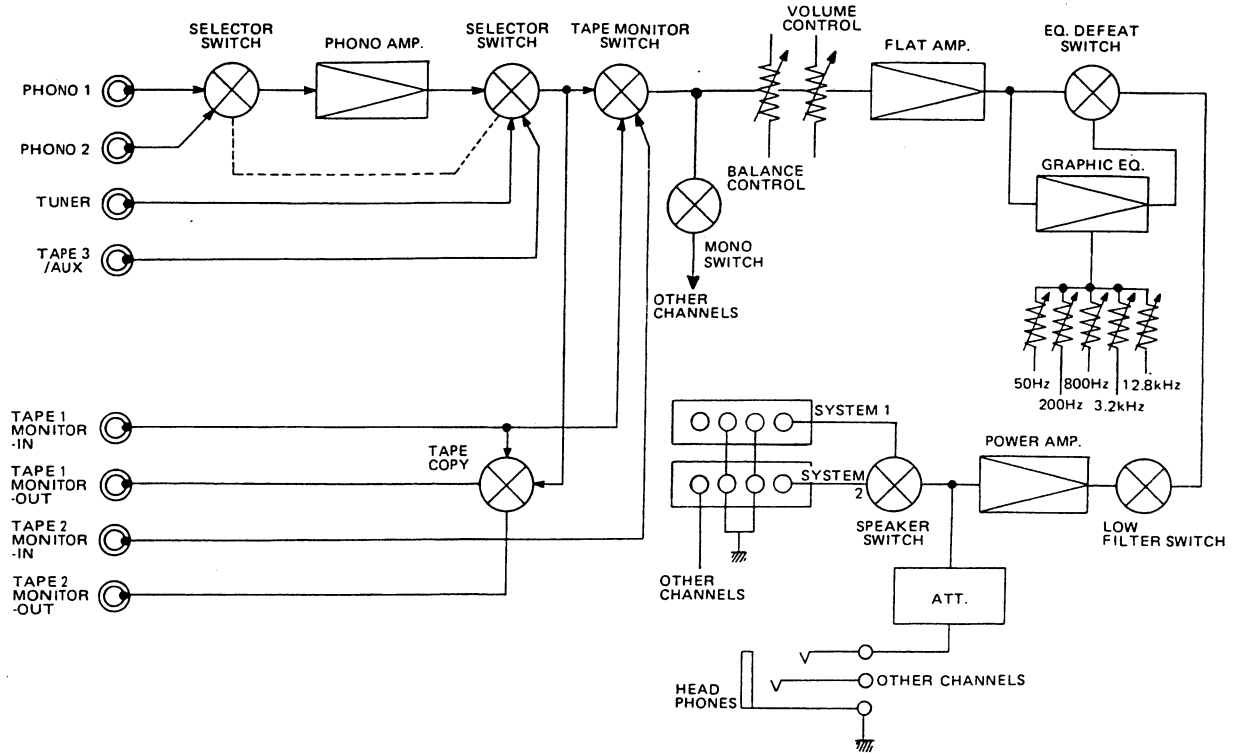


(PM700 ONLY)

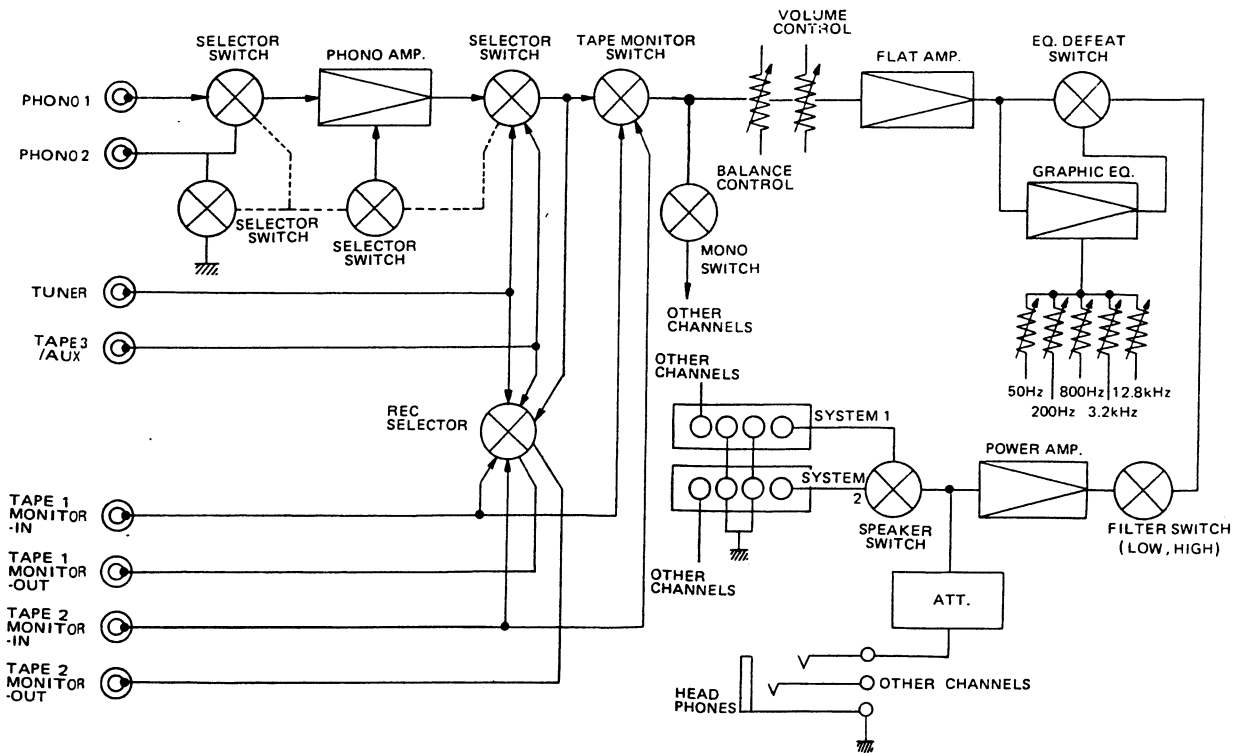


10. BLOCK DIAGRAM (PM500 and PM700)

MODEL PM500

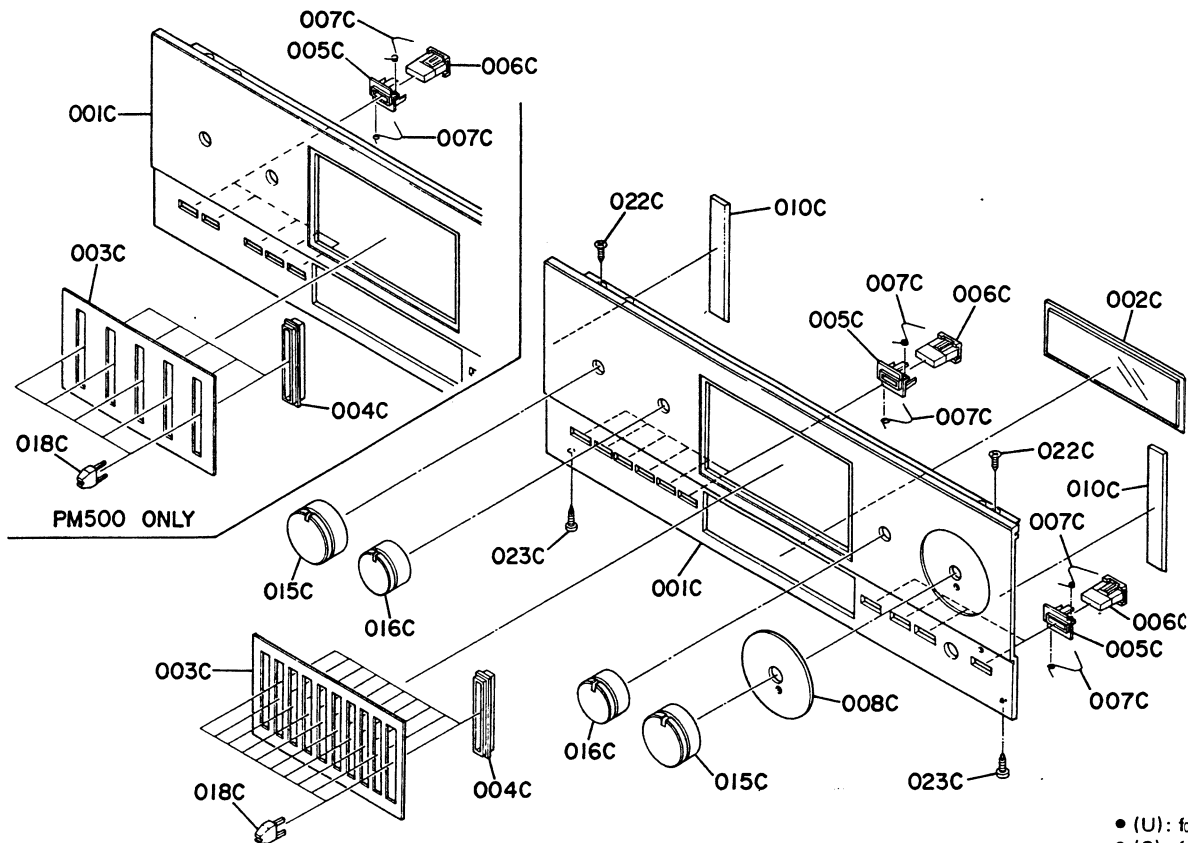


MODEL PM700



11. EXPLODED VIEW AND PARTS LIST

• [C01-99] Front Panel

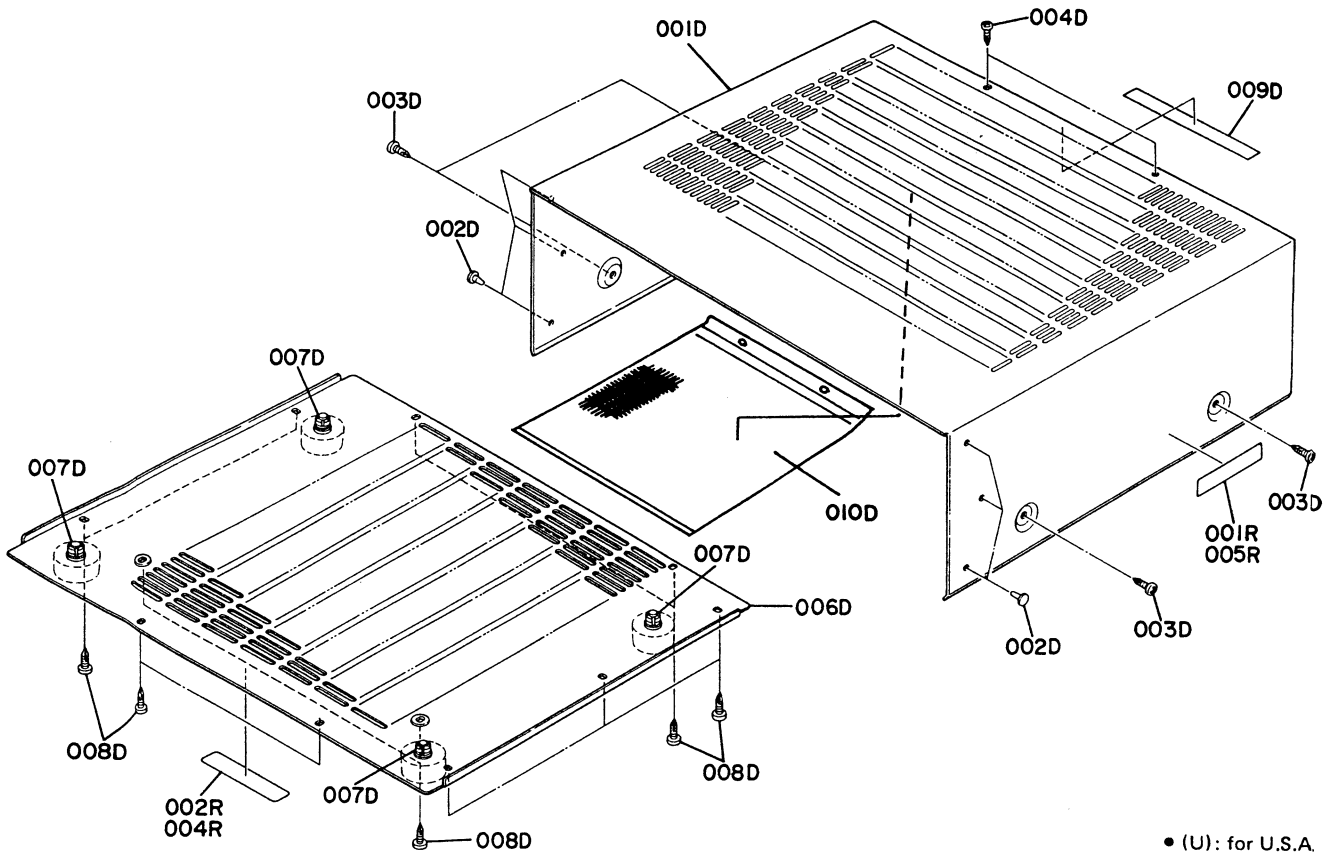


- (U): for U.S.A.
- (C): for Canada
- (N): for Europe
- (A): for Australia

REF. DESIG.	Q'TY				PART NO.	DESCRIPTION
	U	C	N	A		
						(PM500, ONLY)
A	1	1	1	1	2139063400	Front Panel Assembly
001C	1	1	1	1	2139063010	Escutcheon, Front Panel
002C	1	1	1	1	2129158020	Window, Meter
003C	1	1	1	1	2139063020	Escutcheon, Slide VR.
004C	5	5	5	5	2129259023	Bushing, Slide VR.
005C	9	9	9	9	2127259010	Bushing, Push SW.
008C	1	1	1	1	2129063030	Escutcheon, Volume
010C	2	2	2	2	2128118010	Spacer
						(PM700, ONLY)
A	1	1	1	1	2140063400	Front Panel Assembly
001C	1	1	1	1	2140063010	Escutcheon, Front Panel
002C	1	1	1	1	2140158010	Window, Meter
003C	1	1	1	1	2140063020	Escutcheon, Slide VR.
004C	10	10	10	10	2129259020	Bushing, Slide VR.
005C	10	10	10	10	2127259010	Bushing, Push SW.
008C	1	1	1	1	2129063030	Escutcheon, Volume
010C	2	2	2	2	2128118010	Spacer

REF. DESIG.	Q'TY				PART NO.	DESCRIPTION
	U	C	N	A		
006C	9	9	9	9	2127154010	Knob (PM500, Only)
006C	10	10	10	10	2127154010	Knob (PM700, Only)
007C	18	18	18	18	2127115010	Spring (PM500, Only)
007C	20	20	20	20	2127115010	Spring (PM700, Only)
015C	2	2	2	2	2129154010	Knob
016C	2	2	2	2	2129154020	Knob
018C	5	5	5	5	2129154040	Knob (PM500, Only)
018C	10	10	10	10	2129154040	Knob (PM700, Only)
022C	2	2	2	2	51340308A0	F.H. Tapped Screw F3 x 8
023C	2	2	2	2	51280308B0	B.H. Tapped Screw B3 x 8

• [C02-99] Top Cover

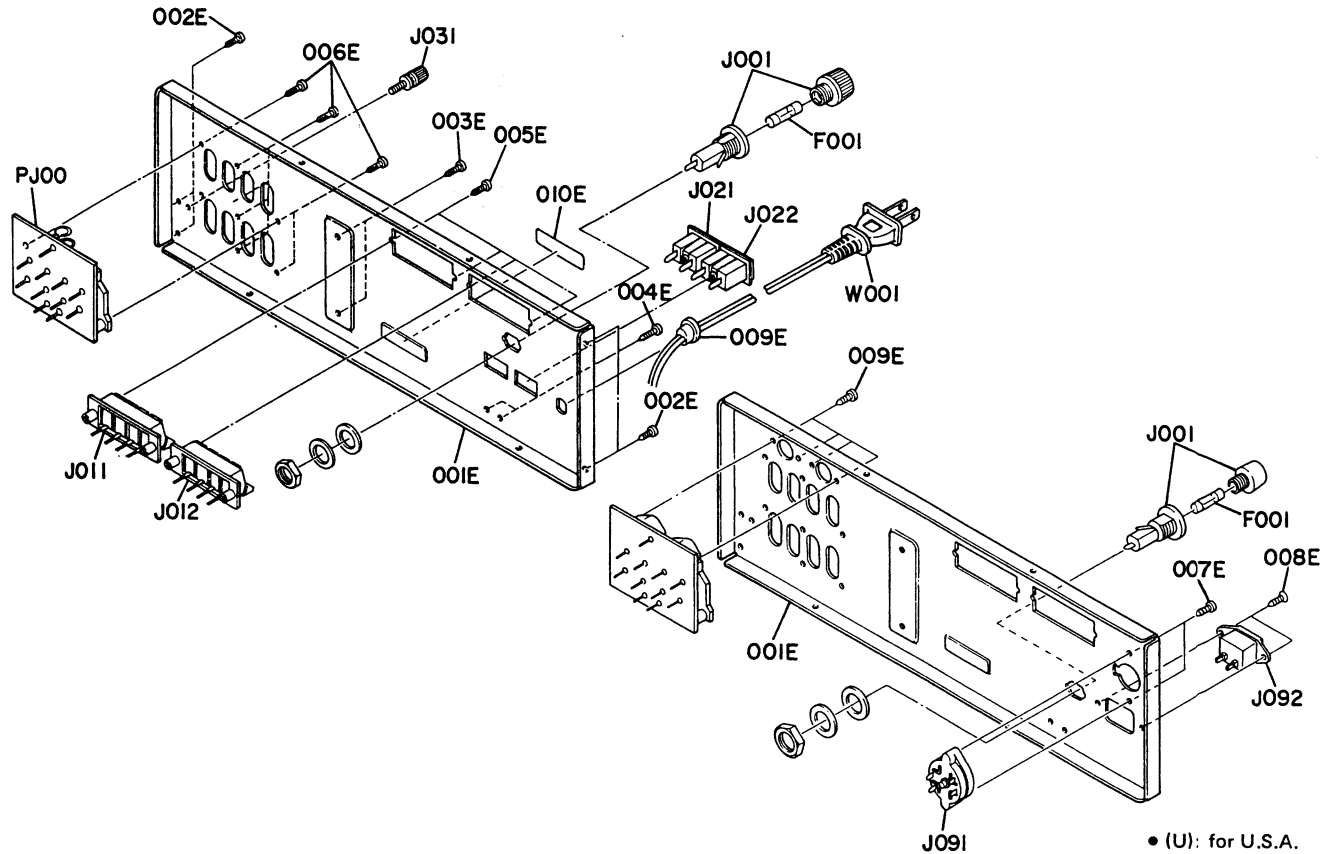


- (U): for U.S.A.
- (C): for Canada
- (N): for Europe
- (A): for Australia

REF. DESIG.	Q'TY				PART NO.	DESCRIPTION
	U	C	N	A		
001D			1		2140257010	Lid, Top Cover
002D	6	6	6	6	2991259010	Bushing
003D	4	4	4	4	51260408U0	F.Washer Screw 4 x 8
004D	2	2	2	2	51280308U0	B.H. Tapped Screw B3 x 8
006D	1	1	1	1	2140257020	Lid, Bottom Cover
007D	4	4	4	4	2259057010	Leg
008D	11	11	11	11	51280410U0	B.H. Tapped Screw B4 x 10
009D	1	1		1	2918107270	Sheet
010D			1		2140202010	Net
001D	1	1		1	2140257110	Lid, Top Cover

REF. DESIG.	Q'TY				PART NO.	DESCRIPTION
	U	C	N	A		
001R	1		1	1	2932861010	Label
002R	1		1	1	2578861010	Label
004R			1		2911861110	Label
005R			1		2911861140	Label

• [C03-99] Rear Panel

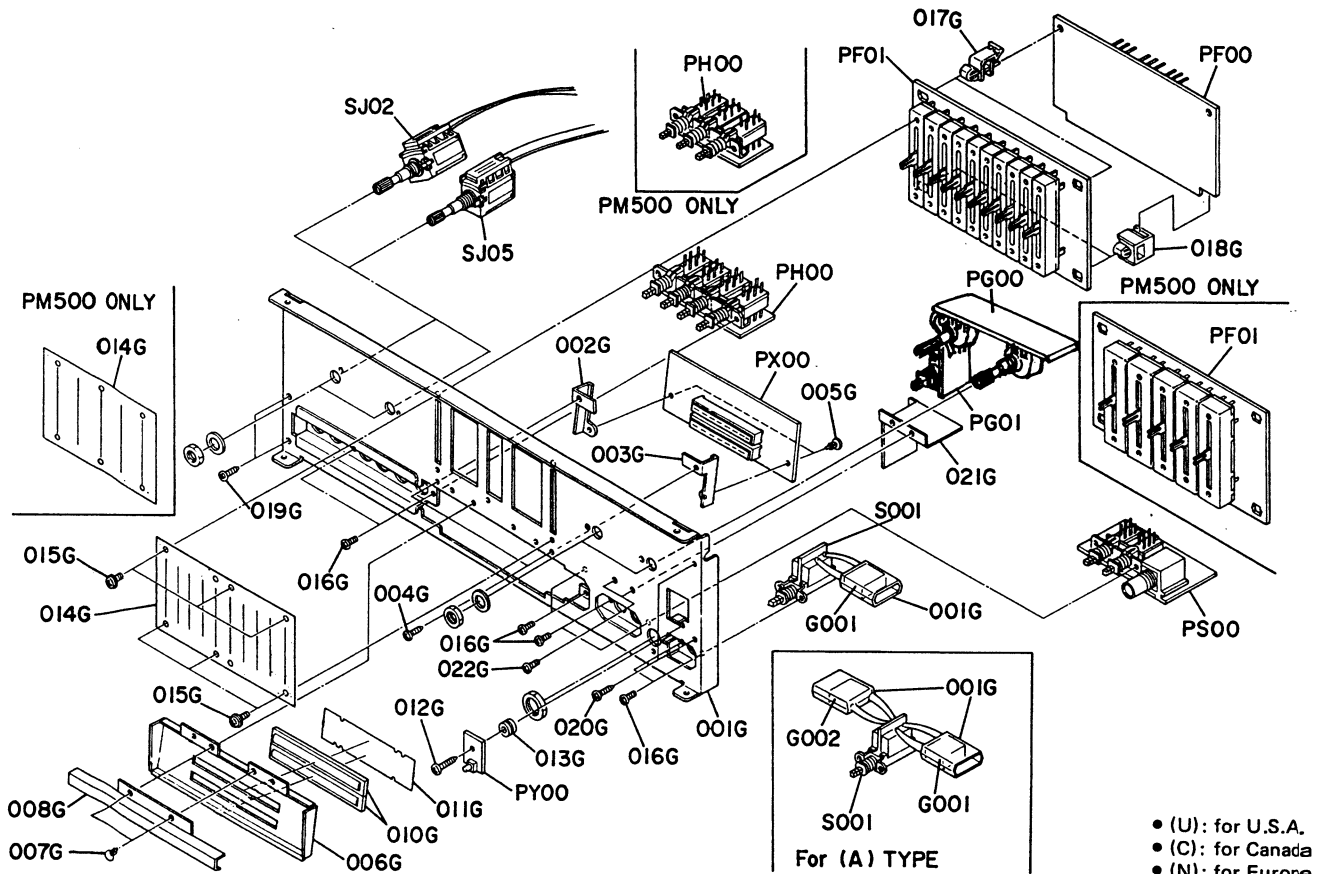


- (U): for U.S.A.
- (C): for Canada
- (N): for Europe
- (A): for Australia

REF. DESIG.	Q'TY				PART NO.	DESCRIPTION
	U	C	N	A		
001E	1				2139160210	(PM500, ONLY) Bracket, Rear Panel
001E		1			2139160270	Bracket, Rear Panel
001E			1		2139160220	Bracket, Rear Panel
001E				1	2139160240	Bracket, Rear Panel
001E	1				2140160210	(PM700, ONLY) Bracket, Rear Panel
001E		1			2140160260	Bracket, Rear Panel
001E			1		2140160220	Bracket, Rear Panel
001E				1	2140160250	Bracket, Rear Panel
002E	4	4	4	4	51280308U0	B.H. Tapped Screw B3 x 8
003E	2	2	2	2	51280308U0	B.H. Tapped Screw B3 x 8
004E	2	2	2	2	51280308U0	B.H. Tapped Screw B3 x 8
005E	4	4	4	4	51280308U0	B.H. Tapped Screw B3 x 8
006E	8	8	8	8	51280308U0	B.H. Tapped Screw B3 x 8
007E		2	2		51280310U0	B.H. Tapped Screw B3 x 10
008E		2	2		51420308T0	O.C.H. Tapped Screw O3 x 8
009E	1	1			1455259030	Bushing, AC Cord
009E		4	4		51100306S9	B.H.M. Screw B3 x 6
010E		1	1		4581861010	Label

REF. DESIG.	Q'TY				PART NO.	DESCRIPTION
	U	C	N	A		
Δ F001	1	1			FS10350010	Fuse, 3.5A (PM500, Only)
Δ F001			1	1	FS10125800	Fuse, 1.25A (PM500, Only)
Δ F001	1	1			FS10500040	Fuse, 5A (PM700, Only)
Δ F001			1	1	FS10200800	Fuse, 2A (PM700, Only)
Δ J001	1				YJ08000310	Jack, Fuse Holder
Δ J001		1			YJ08000300	Jack, Fuse Holder
Δ J001		1	1		YJ08000290	Jack, Fuse Holder
J011	1	1	1	1	YT03040170	Terminal, System 1
J012	1	1	1	1	YT03040170	Terminal, System 2
Δ J021	1	1			YJ04000560	Jack, AC Outlet
Δ J022	1	1			YJ04000560	Jack, AC Outlet
J031	1	1	1	1	YL03010240	Terminal, GND
Δ J091		1	1		BY05080010	Voltage Selector
Δ J092			1	1	YP04000590	Plug, AC Inlet
Δ W001	1	1			YC01900070	A.C. Power Cord

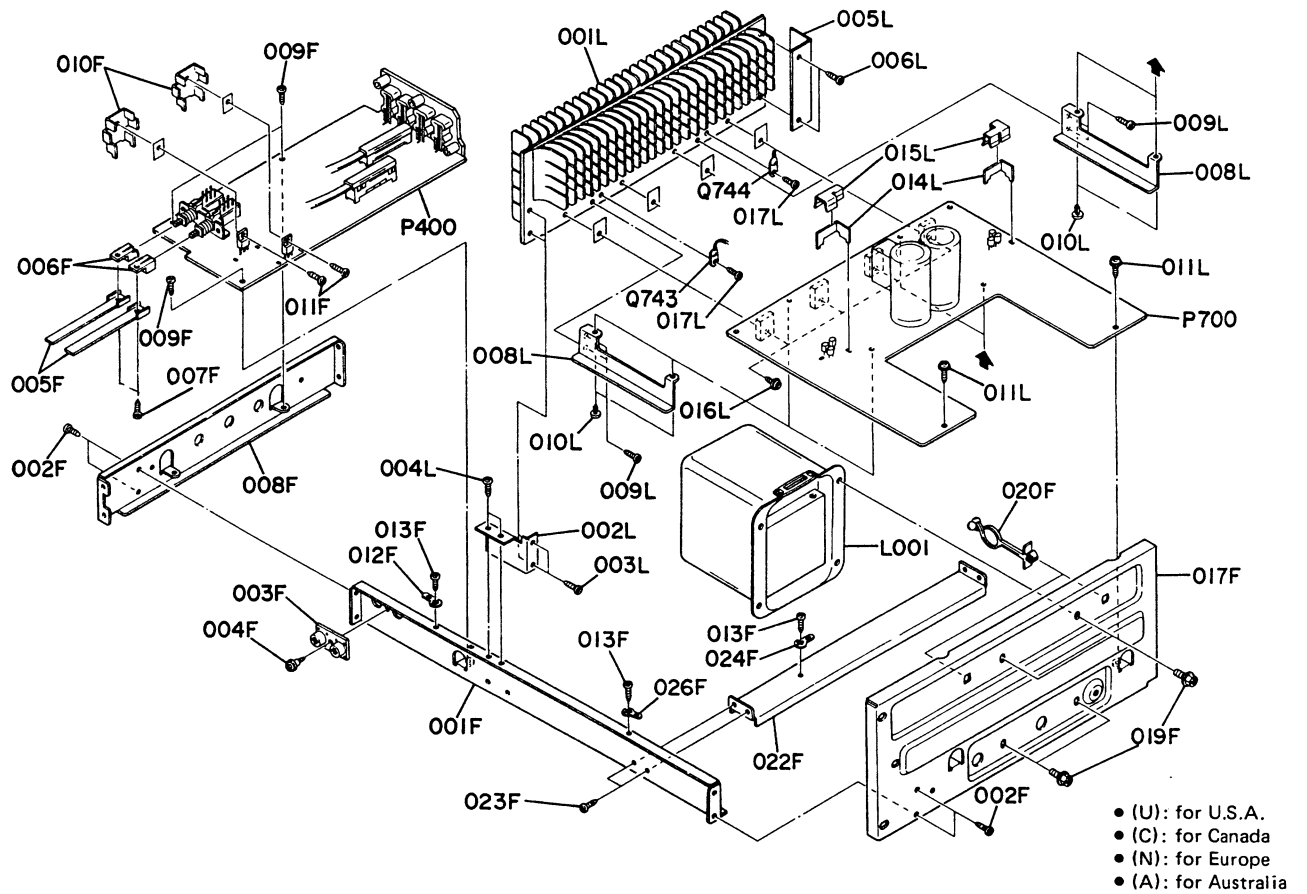
● [P01-99] Chassis and General Parts



REF. DESIG.	Q'TY				PART NO.	DESCRIPTION
	U	C	N	A		
001G	1	1	1	1	2140160010	Bracket, Front Chassis
002G	1	1	1	1	2140160040	Bracket
003G	1	1	1	1	2140160050	Bracket
004G	2	2	2	2	2912259020	Bushing
005G	2	2	2	2	2912259020	Bushing
006G	1	1	1	1	2139302010	Dial (PM500, Only)
006G	1	1	1	1	2140302010	Dial (PM700, Only)
007G	2	2	2	2	2276005050	Bushing
008G	1	1	1	1	2140063030	Escutcheon, Cover
010G	2	2	2	2	2127355010	Lens
011G	1	1	1	1	2129303040	Mask
012G	1	1	1	1	5128031480	B.H. Tapped Screw B3 x 14
013G	1	1	1	1	4367259020	Bushing
014G	1	1	1	1	2139303010	Mask (PM500, Only)
014G	1	1	1	1	2140303010	Mask (PM700, Only)
015G	6	6	6	6	51450306S9	F. Washer Screw F3 x 6
016G	8	8	8	8	51100306A9	B.H.M. Screw B3 x 6
017G	2	2	2	2	2139271010	Holder
018G	2	2	2	2	2139271020	Holder

REF. DESIG.	Q'TY				PART NO.	DESCRIPTION
	U	C	N	A		
019G	2	2	2	2	51280306B0	B.H. Tapped Screw B3 x 6
020G	2	2	2	2	51280306B0	B.H. Tapped Screw B3 x 6
021G	1	1	1	1	2139109010	Shield
022G	2	2	2	2	51280308B0	B.H. Tapped Screw B3 x 8
001G	1	1			2219120010	Insulator
001G			1	2	3926120010	Insulator
△ S001	1	1			SP01010280	Push Switch, Power
△ S001			1	1	SP02010440	Push Switch, Power
JS02	1	1	1	1	SR00040060	Rotary Switch
JS05	1	1	1	1	SR00030030	Rotary Switch
△ G001	1				BF10400030	Cap. Comp. Spark Killer
△ G001		1			BF33300020	Cap. Comp. (PM500, Only)
△ G001			1		BF10400050	Cap. Comp. (PM700, Only)
△ G001			1	1	DF17223800	Film Cap. 0.022μF ±20%
△ G002				1	DF17223800	Film Cap. 0.022μF ±20%

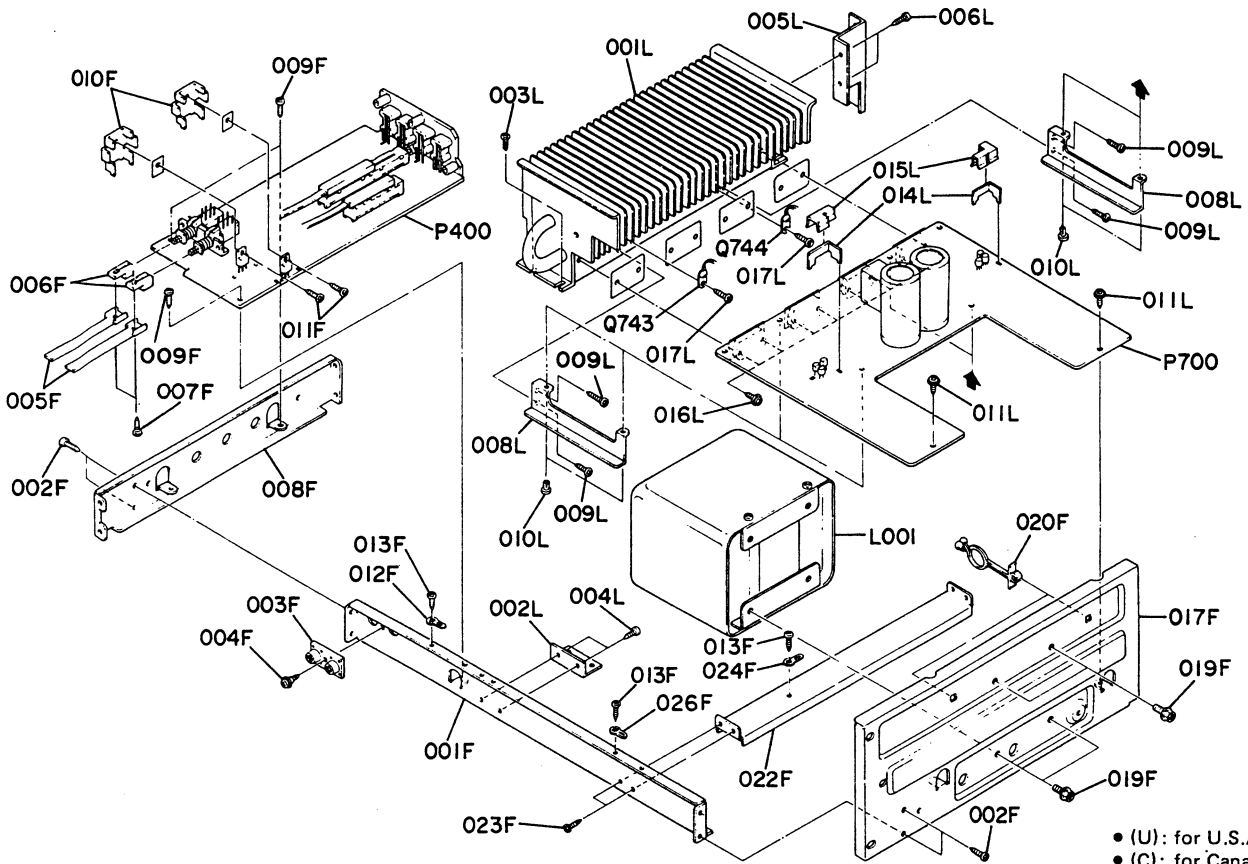
● [P02-99] Main P.W. Board and General Parts (PM500 ONLY)



REF. DESIG.	Q'TY				PART NO.	DESCRIPTION
	U	C	N	A		
(PM500, ONLY)						
001F	1	1	1	1	2140126010	Stay, Front
002F	4	4	4	4	51280308U0	B.H. Tapped Screw B3 x 8
003F	1	1	1	1	2213106010	Sustainer
004F	1	1	1	1	4367051030	Guide
005F	2	2	2	2	2140354010	Lever
006F	2	2	2	2	2891271010	Holder
007F	2	2	2	2	51280308B0	B.H. Tapped Screw B3 x 8
008F	1	1	1	1	2140160030	Bracket (L)
009F	3	3	3	3	51260308B0	B.H. Tapped Screw B3 x 8
010F	2	2	2	2	2963267020	Heatsink
011F	2	2	2	2	51280306B0	B.H. Tapped Screw B3 x 6
012F	1	1	1	1	62030049W0	Lug
013F	3	3	3	3	51280306B0	B.H. Tapped Screw B3 x 6
017F	1	1	1	1	2140160020	Bracket (R)
019F	4	4	4	4	52040410A0	H. Head Bolt, S. F H4 x 10
020F	2	2	2	2	2139005010	Clamper
022F	1	1	1	1	2140126020	Stay
023F	2	2	2	2	51280306B0	B.H. Tapped Screw B3 x 6
024F	1	1	1	1	62030049W0	Lug
026F	1	1	1	1	62030049W0	Lug
001L	1			1	2139267110	Heatsink
001L		1	1		2139267010	Heatsink
002L	1	1	1	1	2140160070	Bracket

REF. DESIG.	Q'TY				PART NO.	DESCRIPTION
	U	C	N	A		
003L	2	2	2	2	51280306B0	B.H. Tapped Screw B3 x 6
004L	2	2	2	2	51280306B0	B.H. Tapped Screw B3 x 6
005L	1	1	1	1	2140160080	Bracket
006L	2	2	2	2	51280306B0	B.H. Tapped Screw B3 x 6
008L	2	2	2	2	2140160090	Bracket
009L	4	4	4	4	51280306B0	B.H. Tapped Screw B3 x 6
010L	4	4	4	4	2276005050	Clamper
011L	2	2	2	2	51260308B0	B.H. Tapped Screw B3 x 8
014L	2	2	2	2	2990267080	Heatsink
015L	2	2	2	2	2990115020	Spring
016L	4	4	4	4	51780314B0	B.H. Tapped Screw B3 x 14
017L	2	2	2	2	51280306B0	B.H. Tapped Screw B3 x 6
Δ L001	1				TS18505030	Power Transformer
Δ L001		1			TS18505040	Power Transformer
Δ L001			1		TS19613010	Power Transformer
Δ L001				1	TS19613020	Power Transformer
Q743	1	1	1	1	HV00010120	Varistor MV-11Y
Q744	1	1	1	1	HV00010120	Varistor MV-11Y

• [P02-99] Main P.W. Board and General Parts (PM700 ONLY)

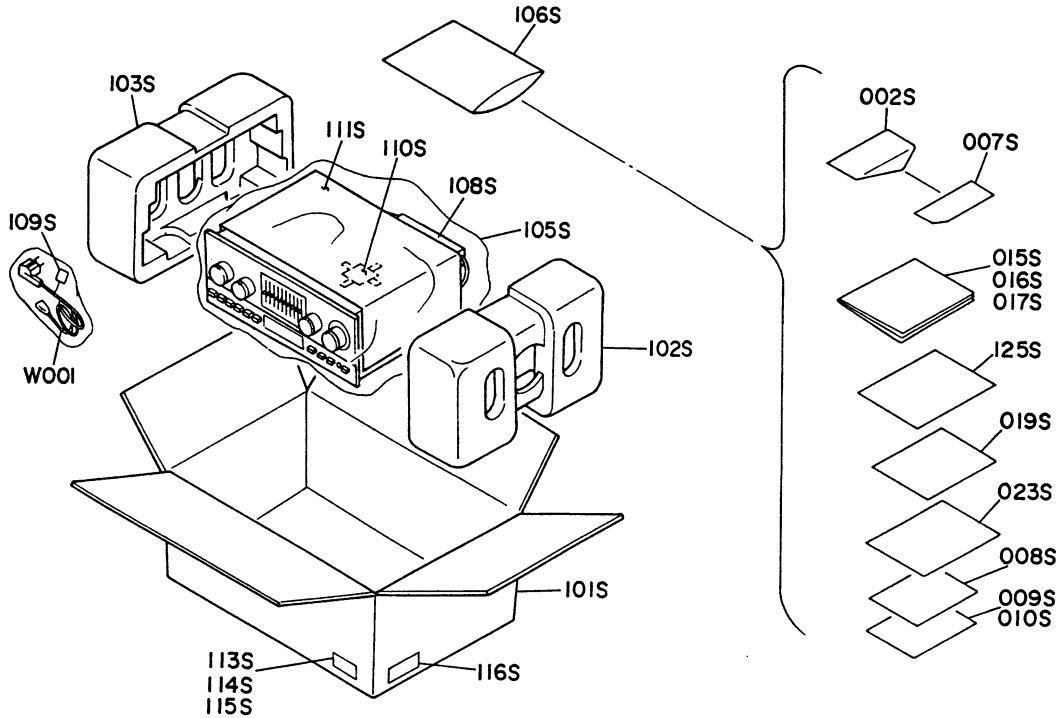


- (U): for U.S.A.
- (C): for Canada
- (N): for Europe
- (A): for Australia

REF. DESIG.	Q'TY				PART NO.	DESCRIPTION
	U	C	N	A		
(PM700, ONLY)						
001F	1	1	1	1	2140126010	Stay, Front
002F	4	4	4	4	51280308U0	B.H. Tapped Screw B3 x 8
003F	1	1	1	1	2213106010	Sustainer
004F	1	1	1	1	4367051030	Guide
005F	2	2	2	2	2140354010	Lever
006F	2	2	2	2	2891271010	Holder
007F	2	2	2	2	51280308B0	B.H. Tapped Screw B3 x 8
008F	1	1	1	1	2140160030	Bracket (L)
009F	3	3	3	3	51260308B0	B.H. Tapped Screw B3 x 8
010F	2	2	2	2	2963267020	Heatsink
011F	2	2	2	2	51280306B0	B.H. Tapped Screw B3 x 6
012F	1	1	1	1	62030049W0	Lug
013F	3	3	3	3	51280306B0	B.H. Tapped Screw B3 x 6
017F	1	1	1	1	2140160020	Bracket (R)
019F	4	4	4	4	52040410A0	H. Head Bolt, S. F H4 x 10
020F	2	2	2	2	2139005010	Clamper
022F	1	1	1	1	2140126020	Stay
023F	2	2	2	2	51280306B0	B.H. Tapped Screw B3 x 6
024F	1	1	1	1	62030049W0	Lug
026F	1	1	1	1	62030049W0	Lug
001L	1	1	1	1	2140160090	Heatsink
002L	1	1	1	1	2140160100	Bracket

REF. DESIG.	Q'TY				PART NO.	DESCRIPTION
	U	C	N	A		
003L	2	2	2	2	51280306B0	B.H. Tapped Screw B3 x 6
004L	2	2	2	2	51280306B0	B.H. Tapped Screw B3 x 6
005L	1	1	1	1	2140160110	Bracket
006L	2	2	2	2	51280306B0	B.H. Tapped Screw B3 x 6
008L	2	2	2	2	2140267010	Bracket
009L	4	4	4	4	51280306B0	B.H. Tapped Screw B3 x 6
010L	4	4	4	4	2276005050	Clamper
011L	2	2	2	2	51260308B0	B.H. Tapped Screw B3 x 8
014L	2	2	2	2	2990267080	Heatsink
015L	2	2	2	2	2990115020	Spring
016L	8	8	8	8	51780314B0	B.H. Tapped Screw B3 x 14
017L	2	2	2	2	51280306B0	B.H. Tapped Screw B3 x 6
ΔL001	1				TS19613040	Power Transformer
ΔL001		1			TS19613080	Power Transformer
ΔL001			1		TS19613050	Power Transformer
ΔL001				1	TS19613060	Power Transformer
Q743	1	1	1	1	HV00010120	Varistor MV-11Y
Q744	1	1	1	1	HV00010120	Varistor MV-11Y

• [H01-99] Packing Materials



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

REF. DESIG.	Q'TY				PART NO.	DESCRIPTION
	U	C	N	A		
002S	1				2225813010	Envelope
007S	1				9630000180	Guarantee Card
008S	1				9650000053	S. Station Card
009S	1				2818854020	Guarantee Card
010S	1				2818854040	Guarantee Card
015S	1				2128851010	Instructions
016S			1	1	2128851310	Instructions
017S		1			2128851310	Instructions
019S	1				2139851020	Instructions (PM500, Only)
019S	1				2140851020	Instructions (PM700, Only)
019S	1				2139851320	Instructions (PM500, Only)
019S	1				2140851320	Instructions (PM700, Only)
019S			1	1	2139851330	Instructions (PM500, Only)
019S			1	1	2140851330	Instructions (PM700, Only)
023S		1			2886851100	Instructions
101S	1	1			2139801010	Packing Case (PM500, Only)
101S	1	1			2140801010	Packing Case (PM700, Only)
101S			1	1	2139801030	packing Case (PM500, Only)
101S			1	1	2140801040	Packing Case (PM700, Only)
102S	1	1	1	1	2139809010	Cushion

REF. DESIG.	Q'TY				PART NO.	DESCRIPTION
	U	C	N	A		
103S	1	1	1	1	2139809020	Cushion
105S	1	1	1	1	9090909040	Polyethy Sheet
106S	1	1	1	1	9013025010	Polyethy Bag
108S	1	1	1	1	2864804010	Sleeve
109S	1	1	1	1	9560000043	Hang Tag
110S			1		2731821010	Silicagel
111S	1	1	1	1	2918107180	Sheet
113S	3				9526019010	Serial No. Card
114S		3			9526019020	Serial No. Card
115S			3	3	9526019060	Serial No. Card
116S		2			9510901020	Label
125S			1	1	2139856010	(PM500, ONLY) Circuit Diagram
125S			1	1	2140856010	(PM700, ONLY) Circuit Diagram
Δ W001			1	1	ZC01805020	A.C. Power Cord

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

REF. DESIG.	Q'TY				PART NO.	DESCRIPTION
	U	C	N	A		
C711	1	1	1	1	DF17473300	Film 0.047μF ±20%
C712	1	1	1	1	DF17473300	Film 0.047μF ±20%
C717	1	1	1	1	DD11100370	Ceramic 10pF ±5%
C718	1	1	1	1	DD11100370	Ceramic 10pF ±5%
C719	1	1	1	1	EA10602530	Elect 10μF 25V
C720	1	1	1	1	EA10602530	Elect 10μF 25V
C721	1	1	1	1	DF17473520	Film 0.047μF ±20%
C722	1	1	1	1	DF17473520	Film 0.047μF ±20%
(PM500, ONLY)						
C723	1	1	1	1	EB82805010	Elect 8200μF 50V
C724	1	1	1	1	EB82805010	Elect 8200μF 50V
(PM700, ONLY)						
C723	1	1	1	1	EB10906310	Elect 10000μF 63V
C724	1	1	1	1	EB10906310	Elect 10000μF 63V
P700-RESISTORS (All Resistors are ±5% & ¼W)						
RN01	1	1	1	1	GD05102140	1KΩ
RN02	1	1	1	1	GD05104140	100KΩ
RN03	1	1	1	1	GD05393140	39KΩ
RN04	1	1	1	1	GD05473140	47KΩ
RN05	1	1	1	1	GD05473140	47KΩ
RN06	1	1	1	1	GD05823140	82KΩ
RN07	1	1	1	1	GD05823140	82KΩ
RN08	1	1	1	1	GD05223140	22KΩ
RN09	1	1	1	1	GG05183120	18KΩ ½W
RN10	1	1	1	1	GD05274140	270KΩ
RN11	1	1	1	1	GG05183120	18KΩ ½W
RN12	1	1	1	1	GA05471010	470Ω 1W
RN16	1	1	1	1	GD05563140	56KΩ
RN17	1	1	1	1	GD05333140	33KΩ
(PM500, ONLY)						
RX31	1	1	1	1	GD05103140	10KΩ
RX32	1	1	1	1	GD05103140	10KΩ
(PM700, ONLY)						
RX31	1	1	1	1	GD05123140	12KΩ
RX32	1	1	1	1	GD05123140	12KΩ
RX33	1	1	1	1	GD05182140	1.8KΩ
RX34	1	1	1	1	GD05182140	1.8KΩ
RX35	1	1	1	1	GD05121140	120Ω
RX36	1	1	1	1	GD05121140	120Ω
RX37	1	1	1	1	GD05272140	2.7KΩ
RX38	1	1	1	1	GD05272140	2.7KΩ
RX39	1	1	1	1	RA02030060	20KΩ (B) Trimming
RX40	1	1	1	1	RA02030060	20KΩ (B) Trimming
RX41	1	1	1	1	GD05274140	270KΩ
RX42	1	1	1	1	GD05274140	270KΩ
RX43	1	1	1	1	GD05682140	6.8KΩ
RX44	1	1	1	1	GD05682140	6.8KΩ
RX45	1	1	1	1	GD05822140	8.2KΩ
RX46	1	1	1	1	GD05822140	8.2KΩ
RX47	1	1	1	1	GD05562140	5.6KΩ
RX48	1	1	1	1	GD05562140	5.6KΩ
RX49	1	1	1	1	GD05821140	820Ω
RX50	1	1	1	1	GD05821140	820Ω
RX51	1	1	1	1	GD05103140	10KΩ
RX52	1	1	1	1	GD05103140	10KΩ

REF. DESIG.	Q'TY				PART NO.	DESCRIPTION
	U	C	N	A		
RX53	1	1	1	1	HH00008030	Thermistor STD-1000
RX54	1	1	1	1	HH00008030	Thermistor STD-1000
RX55	1	1	1	1	GD05103140	10KΩ
RX56	1	1	1	1	GD05103140	10KΩ
RX57	1	1	1	1	GD05103140	10KΩ
RX58	1	1	1	1	GD05103140	10KΩ
ΔRX59	1	1	1	1	GG05101140	100Ω
RX60	1	1	1	1	GD05562140	5.6KΩ
(PM500, ONLY)						
R701	1	1	1	1	GD05393140	39KΩ
R702	1	1	1	1	GD05393140	39KΩ
R703	1	1	1	1	GD05471140	470Ω
R704	1	1	1	1	GD05471140	470Ω
R705	1	1	1	1	GD05182140	1.8KΩ
R706	1	1	1	1	GD05182140	1.8KΩ
R707	1	1	1	1	GD05182140	1.8KΩ
R708	1	1	1	1	GD05182140	1.8KΩ
R709	1	1	1	1	GD05151140	150Ω
R710	1	1	1	1	GD05151140	150Ω
R711	1	1	1	1	GD05333140	33KΩ
R712	1	1	1	1	GD05333140	33KΩ
R713	1	1	1	1	GD05104140	100KΩ
R714	1	1	1	1	GD05104140	100KΩ
R717	1	1	1	1	GD05182140	1.8KΩ
R718	1	1	1	1	GD05182140	1.8KΩ
R719	1	1	1	1	GD05182140	1.8KΩ
R720	1	1	1	1	GD05182140	1.8KΩ
R721	1	1	1	1	GD05182140	1.8KΩ
R722	1	1	1	1	GD05182140	1.8KΩ
R723	1	1	1	1	GD05182140	1.8KΩ
R724	1	1	1	1	GD05182140	1.8KΩ
R725	1	1	1	1	GD05151140	150Ω
R726	1	1	1	1	GD05151140	150Ω
R727	1	1	1	1	GG05271140	270Ω
R728	1	1	1	1	GG05271140	270Ω
R729	1	1	1	1	GG05271140	270Ω
R730	1	1	1	1	GG05271140	270Ω
R731	1	1	1	1	GD05683140	68KΩ
R732	1	1	1	1	GD05683140	68KΩ
R733	1	1	1	1	GD05683140	68KΩ
R734	1	1	1	1	GD05683140	68KΩ
R737	1	1	1	1	GD05272140	2.7KΩ
R738	1	1	1	1	GD05272140	2.7KΩ
R739	1	1	1	1	GD05821140	820Ω
R740	1	1	1	1	GD05821140	820Ω
R741	1	1	1	1	RA01020320	1KΩ (B) Trimming
R742	1	1	1	1	RA01020320	1KΩ (B) Trimming
R743	1	1	1	1	GG05100140	10Ω
R744	1	1	1	1	GG05100140	10Ω
R745	1	1	1	1	GG05100140	10Ω
R746	1	1	1	1	GG05100140	10Ω
R747	1	1	1	1	GD05223140	22KΩ
R748	1	1	1	1	GD05223140	22KΩ
R749	1	1	1	1	GG05221140	220Ω
R750	1	1	1	1	GG05221140	220Ω
R751	1	1	1	1	GG05221140	220Ω
R752	1	1	1	1	GG05221140	220Ω
R753	1	1	1	1	GG05222140	2.2KΩ
R754	1	1	1	1	GG05222140	2.2KΩ

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

REF. DESIG.	Q'TY				PART NO.	DESCRIPTION
	U	C	N	A		
RF64	1	1	1	1	GD05472140	4.7K Ω
RF65	1	1	1	1	GD05472140	4.7K Ω
RF66	1	1	1	1	GD05472140	4.7K Ω
RF67	1	1	1	1	GD05472140	4.7K Ω
RF68	1	1	1	1	GD05472140	4.7K Ω
RF69	1	1	1	1	GD05472140	4.7K Ω
RF70	1	1	1	1	GD05472140	4.7K Ω
PF00-SEMICONDUCTORS						
QF01	1	1	1	1	HC10034010	IC HA1457W
QF02	1	1	1	1	HC10034010	IC HA1457W
QF03	1	1	1	1	HT314001E0	Transistor 2SC1400(E)
QF04	1	1	1	1	HT314001E0	Transistor 2SC1400(E)
QF05	1	1	1	1	HT314001E0	Transistor 2SC1400(E)
QF06	1	1	1	1	HT314001E0	Transistor 2SC1400(E)
QF07	1	1	1	1	HT314001E0	Transistor 2SC1400(E)
QF08	1	1	1	1	HT314001E0	Transistor 2SC1400(E)
QF09	1	1	1	1	HT314001E0	Transistor 2SC1400(E)
QF10	1	1	1	1	HT314001E0	Transistor 2SC1400(E)
QF11	1	1	1	1	HT314001E0	Transistor 2SC1400(E)
QF12	1	1	1	1	HT314001E0	Transistor 2SC1400(E)
PF01-GRAPHIC VR CIRCUIT BOARD (PM500, ONLY)						
PF01	1	1	1	1	YK21391630	P.W. Board, Graphic VR
	1	1	1	1	ZZ21391630	P.W. Board Assembly
RF21	1	1	1	1	RS05030340	50K Ω (B) x 2 Variable
RF22	1	1	1	1	RS05030340	50K Ω (B) x 2 Variable
RF23	1	1	1	1	RS05030340	50K Ω (B) x 2 Variable
RF24	1	1	1	1	RS05030340	50K Ω (B) x 2 Variable
RF25	1	1	1	1	RS05030340	50K Ω (B) x 2 Variable
(PM700, ONLY)						
PF01	1	1	1	1	YK21401630	P.W. Board, Graphic VR
	1	1	1	1	ZZ21401630	P.W. Board Assembly
RF21	1	1	1	1	RX05030170	50K Ω (B) Variable
RF22	1	1	1	1	RX05030170	50K Ω (B) Variable
RF23	1	1	1	1	RX05030170	50K Ω (B) Variable
RF24	1	1	1	1	RX05030170	50K Ω (B) Variable
RF25	1	1	1	1	RX05030170	50K Ω (B) Variable
RF26	1	1	1	1	RX05030170	50K Ω (B) Variable
RF27	1	1	1	1	RX05030170	50K Ω (B) Variable
RF28	1	1	1	1	RX05030170	50K Ω (B) Variable
RF29	1	1	1	1	RX05030170	50K Ω (B) Variable
RF30	1	1	1	1	RX05030170	50K Ω (B) Variable
PG00-VOLUME/BALANCE CIRCUIT BOARD						
PG00	1	1	1	1	YK21392550	P.W. Board, Volume/Balance
	1	1	1	1	ZZ21392550	P.W. Board Assembly
PG00-CAPACITORS						
CF01	1	1	1	1	DD15391370	Ceramic 390 μ F \pm 5%
CF02	1	1	1	1	DD15391370	Ceramic 390 μ F \pm 5%
PG00-RESISTORS						
RG01	1	1	1	1	RM01040300	100K Ω Variable
RG02	1	1	1	1	RM01040310	100K Ω (B) Variable
RG03	1	1	1	1	GD05823140	82K Ω \pm 5% $\frac{1}{4}$ W
RG04	1	1	1	1	GD05823140	82K Ω \pm 5% $\frac{1}{4}$ W
RG05	1	1	1	1	GD05822140	8.2K Ω \pm 5% $\frac{1}{4}$ W
RG06	1	1	1	1	GD05822140	8.2K Ω \pm 5% $\frac{1}{4}$ W

REF. DESIG.	Q'TY				PART NO.	DESCRIPTION
	U	C	N	A		
PG01-LOUDNESS CIRCUIT BOARD						
PG01	1	1	1	1	YK21391660	P.W. Board, Loudness
	1	1	1	1	ZZ21391660	P.W. Board Assembly
CG03	1	1	1	1	DF17683300	Film Cap. 0.068 μ F \pm 20%
CG04	1	1	1	1	DF17683300	Film Cap. 0.068 μ F \pm 20%
SG01	1	1	1	1	SP02010240	Push Switch, Loudness
PH00-FILTER CIRCUIT BOARD (PM500, ONLY)						
PH00	1	1	1	1	YK21391650	P.W. Board, Filter
	1	1	1	1	ZZ21391650	P.W. Board Assembly
PH00-CAPACITORS						
CH01	1	1	1	1	EA22405030	Elect 0.22 μ F 50V
CH02	1	1	1	1	EA22405030	Elect 0.22 μ F 50V
PH00-RESISTORS						
RH01	1	1	1	1	GD05222140	2.2K Ω \pm 5% $\frac{1}{4}$ W
RH02	1	1	1	1	GD05222140	2.2K Ω \pm 5% $\frac{1}{4}$ W
RH03	1	1	1	1	GD05334140	330K Ω \pm 5% $\frac{1}{4}$ W
RH04	1	1	1	1	GD05334140	330K Ω \pm 5% $\frac{1}{4}$ W
PH00-SWITCH						
SH01	1	1	1	1	SP02030100	Push Switch
(PM700, ONLY)						
PH00	1	1	1	1	YK21401650	P.W. Board, Filter
	1	1	1	1	ZZ21401650	P.W. Board Assembly
PH00-CAPACITORS						
CH01	1	1	1	1	DF17472300	Film 4700pF \pm 20%
CH02	1	1	1	1	DF17472300	Film 4700pF \pm 20%
CH03	1	1	1	1	EA22405030	Elect 0.22 μ F 50V
CH04	1	1	1	1	EA22405030	Elect 0.22 μ F 50V
PH00-RESISTORS (All Resistors are \pm5% & $\frac{1}{4}$W)						
RH01	1	1	1	1	GD05222140	2.2K Ω
RH02	1	1	1	1	GD05222140	2.2K Ω
RH03	1	1	1	1	GD05182140	1.8K Ω
RH04	1	1	1	1	GD05182140	1.8K Ω
RH05	1	1	1	1	GD05224140	220K Ω
RH06	1	1	1	1	GD05224140	220K Ω
RH07	1	1	1	1	GD05334140	330K Ω
RH08	1	1	1	1	GD05334140	330K Ω
PH00-SWITCH						
SH01	1	1	1	1	SP02040070	Push Switch

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

REF. DESIG.	Q'TY				PART NO.	DESCRIPTION
	U	C	N	A		
PJ00	1	1	1	1	YK21391620	PJ00-TAPE IN/OUT CIRCUIT BOARD (PM500, ONLY) P.W. Board, Tape IN/OUT
	1	1			ZZ21391620	P.W. Board Assembly
			1	1	ZZ21398620	P.W. Board Assembly
PJ00	1	1	1	1	YK21401620	(PM700, ONLY) P.W. Board, Tape IN/OUT
	1	1			ZZ21401620	P.W. Board Assembly
			1	1	ZZ21408620	P.W. Board Assembly
CJ03	1	1	1	1	DK18473320	PJ00-CAPACITORS Ceramic 0.047μF
CJ04	1	1	1	1	DK18473320	Ceramic 0.047μF
						PJ00-RESISTORS (All Resistors are ±5% & ¼W)
RJ01			1	1	GD05394140	390KΩ
RJ02			1	1	GD05394140	390KΩ
RJ03			1	1	GD05104140	100KΩ
RJ04			1	1	GD05104140	100KΩ
RJ05			1	1	GD05394140	390KΩ
RJ06			1	1	GD05394140	390KΩ
RJ07			1	1	GD05104140	100KΩ
RJ08			1	1	GD05104140	100KΩ
						PJ00-MISCELLANEOUS
JJ03	1	1	1	1	YT02040150	Terminal, Tape 1
JJ04	1	1	1	1	YT02040150	Terminal, Tape 2
JJ05			1	1	YJ11000170	Jack, Din
JJ06			1	1	YJ11000170	Jack, Din
						PS00-HEAD PHONE CIRCUIT BOARD
PS00	1	1	1	1	YK21392530	P.W. Board, Head Phone
	1	1	1	1	ZZ21392530	P.W. Board Assembly
RS01	1	1	1	1	GA05331010	Resistor 330Ω ±5% 1W
RS02	1	1	1	1	GA05331010	Resistor 330Ω ±5% 1W
JS01	1	1	1	1	YJ01001340	Jack, Head Phone
SS01	1	1	1	1	SP02020480	Push Switch
						PY00-LED POWER LAMP CIRCUIT BOARD
PY00	1	1	1	1	YK21392540	P.W. Board, Led Power Lamp
	1	1	1	1	ZZ21392540	P.W. Board Assembly
QY01	1	1	1	1	HI10009020	L.E.D. LN26RP

REF. DESIG.	Q'TY				PART NO.	DESCRIPTION
	U	C	N	A		
PX00	1	1	1	1	YK21392520	PX00-LED METER CIRCUIT BOARD P.W. Board, Led Meter
	1	1	1	1	ZZ21392520	P.W. Board Assembly
						PX00-RESISTORS (All Resistors are ±5% & ¼W)
RX01	1	1	1	1	GD05152140	1.5KΩ
RX02	1	1	1	1	GD05152140	1.5KΩ
RX03	1	1	1	1	GD05152140	1.5KΩ
RX04	1	1	1	1	GD05152140	1.5KΩ
RX05	1	1	1	1	GD05152140	1.5KΩ
RX06	1	1	1	1	GD05152140	1.5KΩ
RX07	1	1	1	1	GD05152140	1.5KΩ
RX08	1	1	1	1	GD05152140	1.5KΩ
RX09	1	1	1	1	GD05152140	1.5KΩ
RX10	1	1	1	1	GD05152140	1.5KΩ
RX11	1	1	1	1	GD05152140	1.5KΩ
RX12	1	1	1	1	GD05152140	1.5KΩ
RX13	1	1	1	1	GD05152140	1.5KΩ
RX14	1	1	1	1	GD05152140	1.5KΩ
RX15	1	1	1	1	GD05152140	1.5KΩ
RX16	1	1	1	1	GD05152140	1.5KΩ
RX17	1	1	1	1	GD05152140	1.5KΩ
RX18	1	1	1	1	GD05152140	1.5KΩ
RX19	1	1	1	1	GD05152140	1.5KΩ
RX20	1	1	1	1	GD05152140	1.5KΩ
RX21	1	1	1	1	GD05152140	1.5KΩ
RX22	1	1	1	1	GD05152140	1.5KΩ
RX23	1	1	1	1	GD05152140	1.5KΩ
RX24	1	1	1	1	GD05152140	1.5KΩ
RX25	1	1	1	1	GD05153140	15KΩ
RX26	1	1	1	1	GD05392140	3.9KΩ
						PX00-SEMICONDUCTORS
QX01	1	1	1	1	HI11202320	L.E.D. GL-112R4
QX02	1	1	1	1	HI11202320	L.E.D. GL-112R4
QX03	1	1	1	1	HC10002320	IC IR2148A
QX04	1	1	1	1	HC10002320	IC IR2148A

(W01-99)	Assembly and Wiring
(T01-99)	Adjustment
(X01-00)	Correction

13. TECHNICAL SPECIFICATIONS (PM500 and PM700)

MODEL PM500

AUDIO SECTION

POWER OUTPUT, DIN, 4 OHM, PER CHANNEL	83W
POWER OUTPUT, FTC AMERICAN STANDARDS, 4 OHM, PER CHANNEL	63W
TOTAL HARMONIC DISTORTION AT RATED POWER OUTPUT	0.06%
I.M. DISTORTION AT RATED POWER OUTPUT (250 Hz AND 8 kHz MIXED, AMPLITUDE RATIO 4:1)	0.06%
POWER OUTPUT, DIN, 8 OHM, PER CHANNEL	58W
POWER OUTPUT, FTC AMERICAN STANDARDS, 8 OHM, PER CHANNEL	50W
TOTAL HARMONIC DISTORTION AT RATED POWER OUTPUT	0.03%
I.M. DISTORTION AT RATED POWER OUTPUT (250 Hz AND 8 kHz MIXED, AMPLITUDE RATIO 4:1)	0.03%
POWER BANDWIDTH	10 Hz ~ 70 kHz
DAMPING FACTOR 8 OHM	110
Frequency Response	
Phono (RIAA)	±0.25 dB
Aux (±1 dB)	10 Hz ~ 60 kHz
Signal-to-Noise Ratio (IHF-A Network)	
Phono (MM)	88 dB
Aux	93 dB
Input Terminals	
Phono: Input Impedance	47 k ohms
Input Capacitance	220 pF
Input Sensitivity	1.8 mV
Overload Margin	38 dB
Aux: Input Impedance	25 k ohms
Input Sensitivity	21 mV
Phono Equivalent Input Noise	0.4 µV
Phono Dynamic Range (Ratio of input overload to equivalent input noise)	108 dB
Channel Balance (0 to -40 dB/40 Hz ~ 16 kHz)	
Phono	2.0 dB
Aux	1.6 dB
Interchannel Crosstalk	
Phono, 1 kHz	50 dB
Aux, 1 kHz	65 dB
Tape, 1 kHz	65 dB
Intersource Crosstalk (Worst Point), 1 kHz	58 dB
Output Voltage, 1 kHz	
Tape Out	415 mV
Output Impedance, 1 kHz	
Tape Out	220 ohms

GENERAL

Power Requirements	220 V AC, 50 Hz
(E and N versions are featuring an external voltage selector for use on 110V. Other versions can be converted by a qualified technician to operate on 240V.)	
Power Consumption at Rated Output, both Channels Driven	230W ± 20W
Idling Power	45W ± 5W
Semiconductor Complement	
Transistors	54
Diodes	66
Integrated Circuits	9
Dimensions	
Panel Width	416 mm (16-3/8 inches)
Panel Height	146 mm (5-3/4 inches)
Depth	330 mm (13 inches)
Weight	
Unit Alone	9.5 kg (20.9 lbs)
Packed for Shipment	11 kg (24.2 lbs)

MODEL PM700**AUDIO SECTION**

POWER OUTPUT, DIN, 4 OHM, PER CHANNEL	100W
POWER OUTPUT, FTC AMERICAN STANDARDS, 4 OHM, PER CHANNEL	88W
TOTAL HARMONIC DISTORTION AT RATED POWER OUTPUT	0.06%
I.M. DISTORTION AT RATED POWER OUTPUT (250 Hz AND 8 kHz MIXED, AMPLITUDE RATIO 4:1)	0.06%
POWER OUTPUT, DIN, 8 OHM, PER CHANNEL	80W
POWER OUTPUT, FTC AMERICAN STANDARDS, 8 OHM, PER CHANNEL	70W
TOTAL HARMONIC DISTORTION AT RATED POWER OUTPUT	0.03%
I.M. DISTORTION AT RATED POWER OUTPUT (250 Hz AND 8 kHz MIXED, AMPLITUDE RATIO 4:1)	0.03%
POWER BANDWIDTH	10 Hz ~ 70 kHz
DAMPING FACTOR 8 OHM	110

Frequency Response

Phono (RIAA)	±0.25 dB
Aux (±1 dB)	10 Hz ~ 60 kHz

Signal-to-Noise Ratio (IHF-A Network)

Phono (MC)	78 dB
(MM)	88 dB
Aux	93 dB

Input Terminals

Phono: Input Impedance	47 k ohms
Input Capacitance	220 pF
Input Sensitivity	0.33 mV
Overload Margin	38 dB
Aux: Input Impedance	25 k ohms
Input Sensitivity	18 mV

Phono Equivalent Input Noise	0.38 µV
Phono Dynamic Range (Ratio of input overload to equivalent input noise)	112 dB

Channel Balance (0 to -40 dB/40 Hz ~ 16 kHz)

Phono	2.0 dB
Aux	1.6 dB

Interchannel Crosstalk

Phono, 1 kHz	50 dB
Aux, 1 kHz	65 dB
Tape, 1 kHz	65 dB

Intersource Crosstalk (Worst Point), 1 kHz	58 dB
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Output Voltage, 1 kHz

Tape Out	415 mV
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Output Impedance, 1 kHz

Tape Out	220 ohms
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GENERAL

Power Requirements	220 V AC, 50 Hz (E and N versions are featuring an external voltage selector for use on 110V. Other versions can be converted by a qualified technician to operate on 240V.)
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Power Consumption at Rated Output, both Channels Driven	300W ± 20W
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Idling Power	50W ± 5W
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Semiconductor Complement

Transistors	54
Diodes	66
Integrated Circuits	9

Dimensions

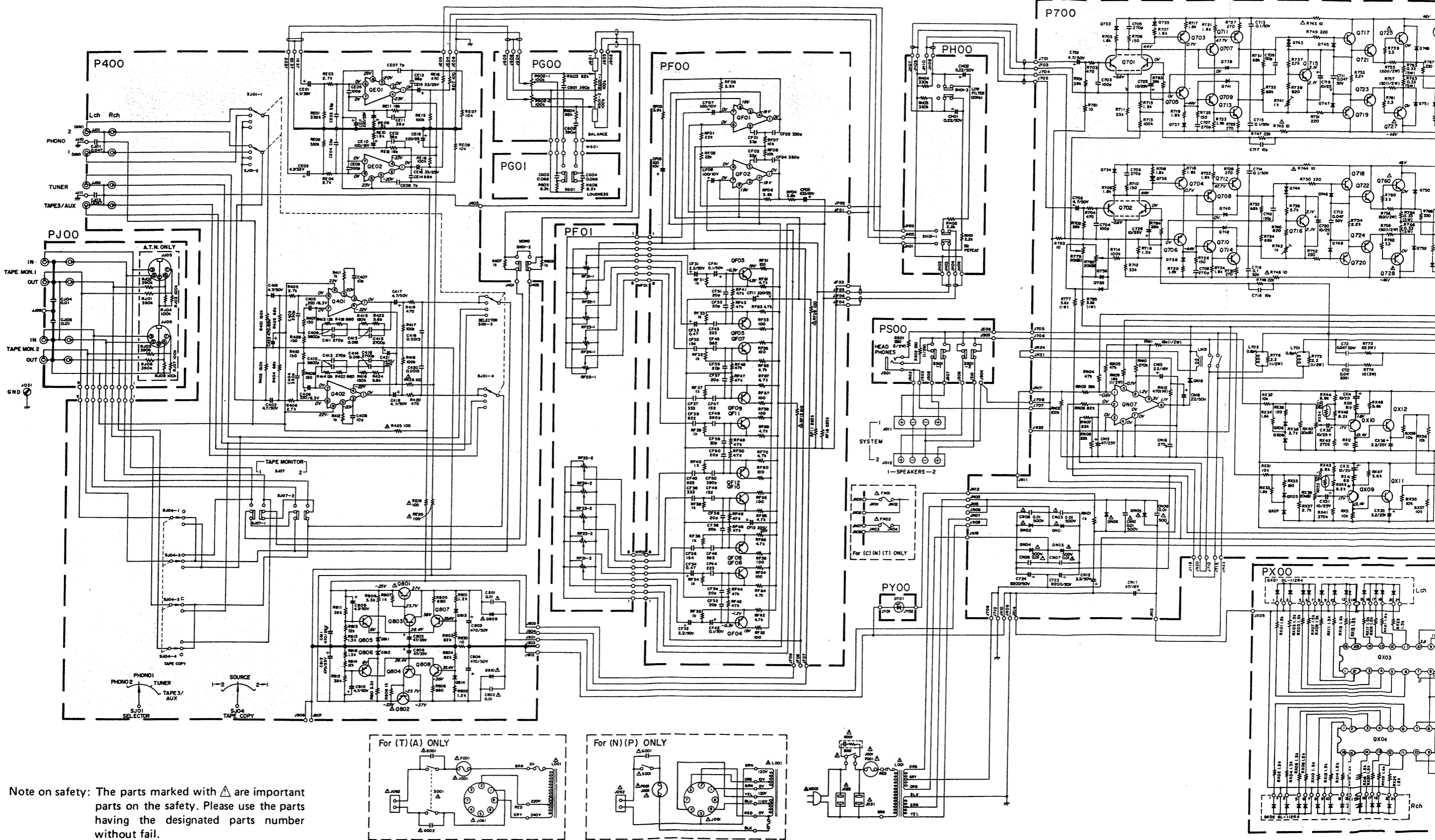
Panel Width	416 mm (16-3/8 inches)
Panel Height	146 mm (5-3/4 inches)
Depth	330 mm (13 inches)

Weight

Unit Alone	10 kg (22 lbs)
Packed for Shipment	11.5 kg (25.3 lbs)

14. SCHEMATIC DIAGRAM (PM500 and PM700)

Q701, Q702 HT32259260 25C2259(F or G)	Q703 ~ Q708, Q731 HT107501E0 25A7501(E)	Q709, Q710, Q715 Q716, Q729, Q730 HT31400E0 25C1400(E)	Q711, Q712 HT109702A0 25A970(GR or BL)	Q713, Q714 HT322402A0 25C2240(GR or BL)	Q717, Q718 HT322290A0 25C2229(Q or Y)	Q719, Q720 HT109492A0 25A949(D or Y)	Q721, Q722 HT325913A0 25C2591(P or R)	Q723, Q724 HT111113A0 25A1111	Q725, Q726 HT326812A0 25C2681(Q or R)	Q727, Q728 HT11412A0 25A1141(D or R)	Q733 ~ Q738 Q745 ~ Q748 Q755, Q756 HD00000E0 IS2473	Q739 ~ Q742 Q753, Q754 HD0000820 IS2471	Q743, Q744 MV0001020 MV-11Y	Q749 ~ Q752 HD20015030 DS135 (D)	Q801 HT323442A0 25C2344	Q802 HT11012A0 25A1011	Q803, Q805, Q808 HT31400E0 25C1400	Q804, Q806, Q807 HT107501E0 25A750	Q809, Q810 HD20005030 DS135 (D)	Q811, Q812 HD30008010 H26L (B)	Q401, Q402 HC1003400 HA1457W	Q601, Q602 HC1003400 HA1457W
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Note on safety: The parts marked with Δ are important parts on the safety. Please use the parts having the designated parts number without fail.

Model PM 500

09, 0710, Q715
6, 0729, Q730
3140Q1E
IC14001E)

0711, Q712
HT109702A0
25A970(QRvBL)

0713, Q714
HT322402A0
25C224(QRvBL)

0717, Q718
HT322292A0
25C222(QRvBL)

0719, Q720
HT109492A0
25A949(QRvBL)

0721, Q722
HT322913A0
25C229(QRvBL)

0723, Q724
HT11113A0
25A111(QRvBL)

0725, Q726
HT32262A0
25C226(QRvBL)

0727, Q728
HT11412A0
25A114(QRvBL)

0733~0738
0745~0748
0755, 0756
HD2000210
IS2473

0739~0742
0753, 0754
HD2000810
IS2471

0743, 0744
HV0001020
MV-11Y

0749~0752
HD20015030
DS135 (D)

0801
HT323442A0
25C2344

0802
HT10122A0
25A1011

0803, 0805, 0808
HT34001E
25C1400

0804, 0806, 0807
HT107501E0
25A750

0809, 0810
HD20015030
DS135 (D)

0811, 0812
HD30008010
HZ6L (B)

0401, 0402
HC10034010
HA1457W

QE01, QE02
HC10034010
HA1457W

QF01, QF02
HC10034010
HA1457W

QF03~QF12
HT314001E0
25C1400

QX01~QX04
HD2001290
S3V20

QX05, QX06
HD20015030
DS135 (D)

QX07
HC10048050
TA2317P

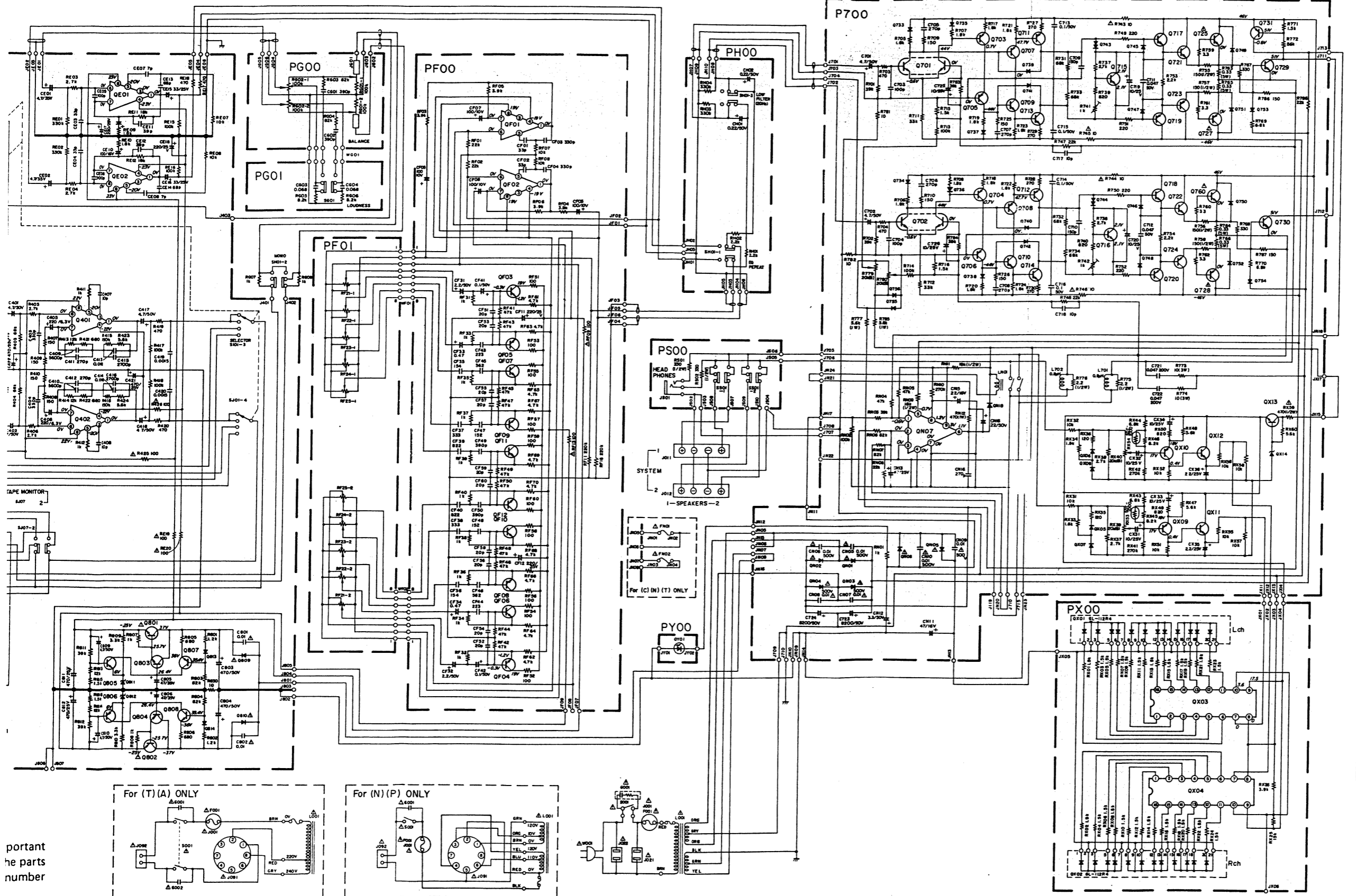
QX08, QX09
HD2001290
S3V20

QX10, QX11
HD2001290
S3V20

QX12, QX13
HT107501E0
25A750

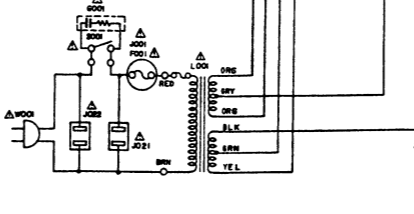
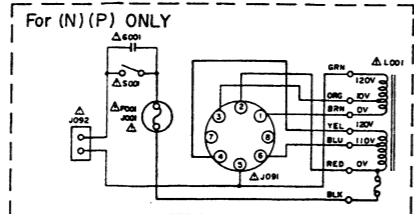
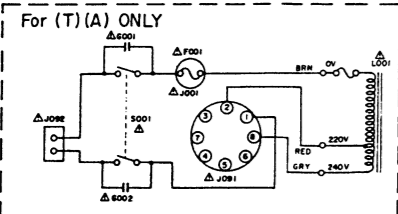
QX14
HD30047090
WZ192

QX15
HT106672E0
25D667

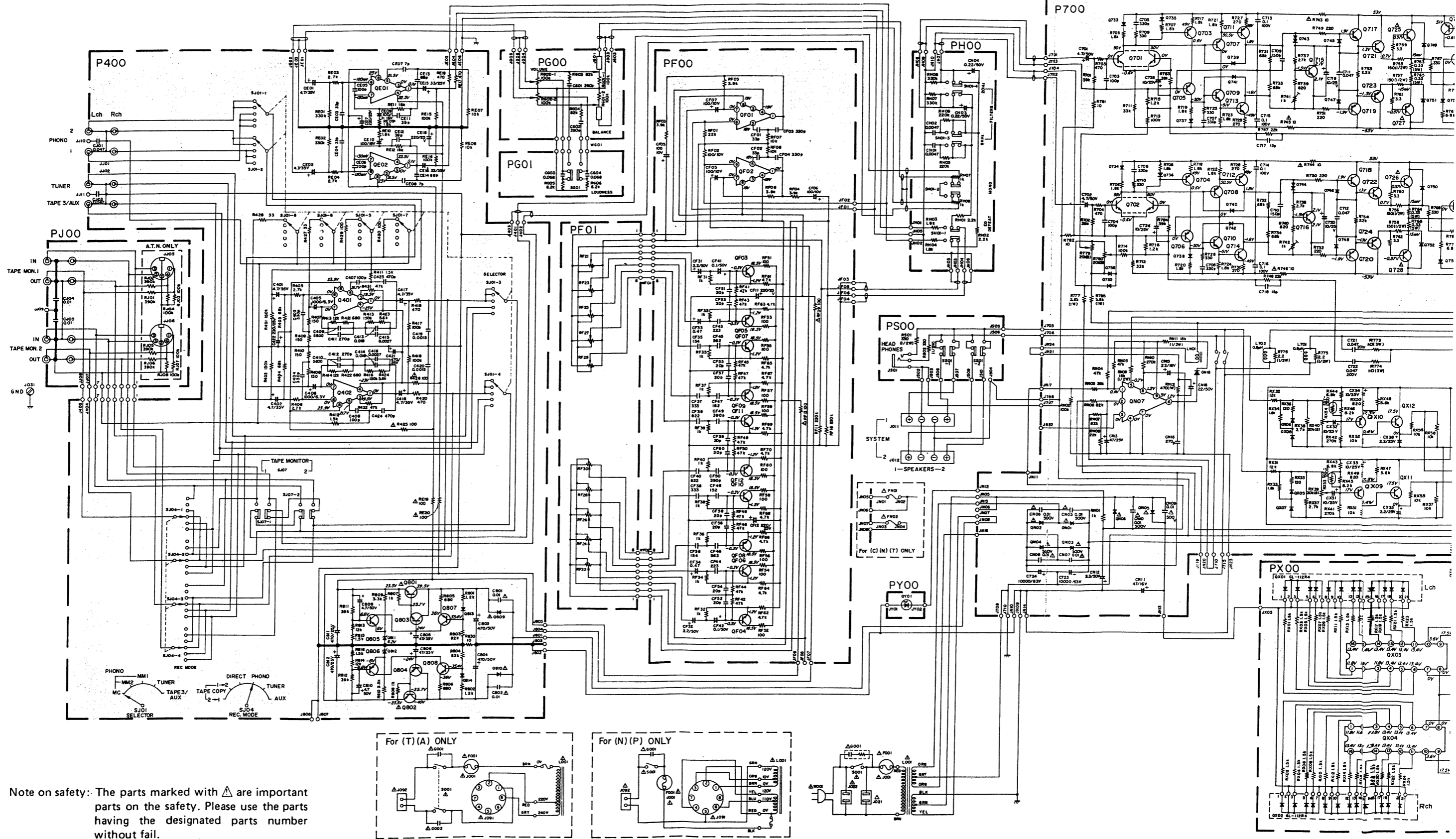


- MARKING SIDE
- Q721~Q724
 - Q701, Q702
 - Q725~Q728
 - QX13
 - Q401, Q402
QE01, QE02
QF01, QF02
 - Q703~Q720
Q729~Q731
Q801~Q807
 - QX03, QX04
 - QX01, QX02
 - QX07

portant
he parts
number

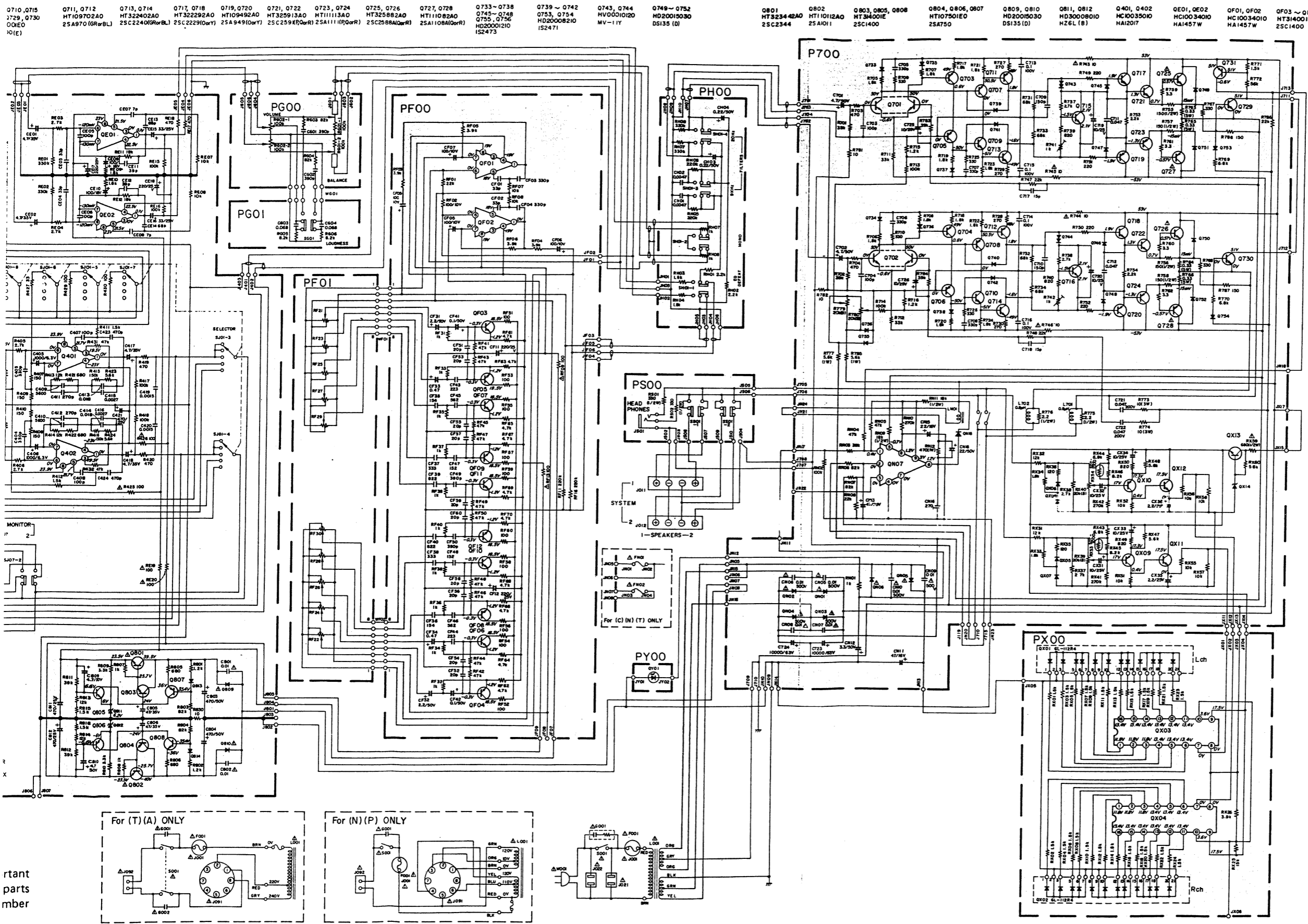


Q701, Q702 HT322592G0
 Q703 ~ Q708, Q731 HT107501E0
 25A7501(E)
 Q709, Q710, Q715 HT322402A0
 Q716, Q729, Q730 HT314001E0
 25C1400(E)
 Q711, Q712 HT109702A0
 Q713, Q714 HT322402A0
 25A970(GRvBL)
 25C2240(RvRBL)
 Q717, Q718 HT322292A0
 25C2292(RvR)
 Q719, Q720 HT109492A0
 25A949(QvY)
 Q721, Q722 HT3225913A0
 25C2591(RvRvR)
 Q723, Q724 HT111113A0
 25A1111(RvRvR)
 Q725, Q726 HT3225982A0
 25C2598(RvRvR)
 Q727, Q728 HT111082A0
 25A1108(RvRvR)
 Q733 ~ Q738 HT3225982A0
 Q745 ~ Q758 HT111082A0
 Q755, Q756 HT20001210
 IS2473
 Q739 ~ Q742 HT3225982A0
 IS2471
 Q743, Q744 HV00010120
 MV-11Y
 Q749 ~ Q752 HD20015030
 DS135(D)
 Q801 HT323442A0
 25C2344
 Q802 HT11012A0
 25A1011
 Q803, Q805, Q808 HT34001E
 25C1400
 Q804, Q806, Q807 HT107501E0
 25A750
 Q809, Q810 HD20015030
 DS135(D)
 Q811, Q812 HD30008010
 HZ6L(B)
 Q401, Q402 HC10035010
 HAI2017
 QE01, QE02 HC10034010
 HAI457W

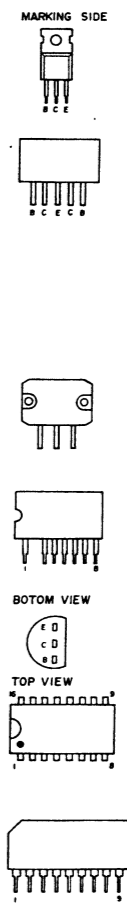


Note on safety: The parts marked with Δ are important parts on the safety. Please use the parts having the designated parts number without fail.

Model PM 700



- Q710, Q715
Q729, Q730
Q710, Q715
HT109702AO
25A970 (GRwL)
- Q713, Q714
HT322402AO
25C2240 (GRwBL)
- Q717, Q718
HT32292AO
25C2292 (GRw)
- Q719, Q720
HT109492AO
25A949 (GRw)
- Q721, Q722
HT325913AO
25C25913AO
- Q723, Q724
HT11113AO
25A1111 (HPGRw)
- Q725, Q726
HT325882AO
25C25882AO
- Q727, Q728
HT11082AO
25A1108A (GRw)
- Q733 ~ Q738
Q745 ~ Q748
Q755, Q756
HD200012IO
IS2473
- Q739 ~ Q742
Q753, Q754
HD200082IO
IS2471
- Q743, Q744
HV0001012O
MV-11Y
- Q749 ~ Q752
HD2001503O
DS135 (D)
- Q801
HT323442AO
25C2344
- Q802
HT11012AO
25A1011
- Q803, Q805, Q808
HT34001E
25C1400
- Q804, Q806, Q807
HT107501EO
25A750
- Q809, Q810
HD200503O
DS135 (D)
- Q811, Q812
HD3000801O
HZ6L (B)
- Q401, Q402
HC1003501O
HA12017
- QE01, QE02
HC1003401O
HA1457W
- QF01, QF02
HC1003401O
HA1457W
- QF03 ~ QF12
HT314001EO
25C1400
- QN01 ~ QN04
HD2001292O
S3V20
- QN05, QN06
HD2001503O
DS135 (D)
- QN07
HC1004205O
TA2317P
- QN11, QX02
H11120232O
GL-112R4
- QX03, QX04
HC1000232O
IR2418A
- QX05 ~ QX08
HD200012IO
IS2473
- QX09, QX10
HT107501EO
25A750
- QX11 ~ QX12
HT314001EO
25C1400
- QX13
HT406672EO
25D667
- QX14
HD3004709O
WZ192



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