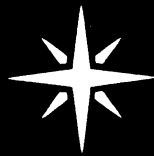




**SERVICE  
MANUAL 2120**



**marantz.**

**model 2120**

*A m / F m Stereophonic Tuner*

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## INTRODUCTION

This service manual was prepared for use by Authorized Warranty Stations and contains service information for Marantz Model 2120 AM/FM Stereophonic Tuner.

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 operations in the Tuner.

The parts 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.

## 1. P.W. BOARDS

As can be seen from the circuit diagram, the chassis of Model 2120 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. Board P100
2. AM Tuner, FM IF & MPX Stereo Decoder . . . . . mounted on P.W. Board P200
3. Antenna . . . . . mounted on P.W. Board PC01
4. Dolby Socket . . . . . mounted on P.W. Board PK01
5. Switch . . . . . mounted on P.W. Board PS01
6. Function Indicator . . . . . mounted on P.W. Board PY01
7. Dial Lamp . . . . . mounted on P.W. Board PZ01

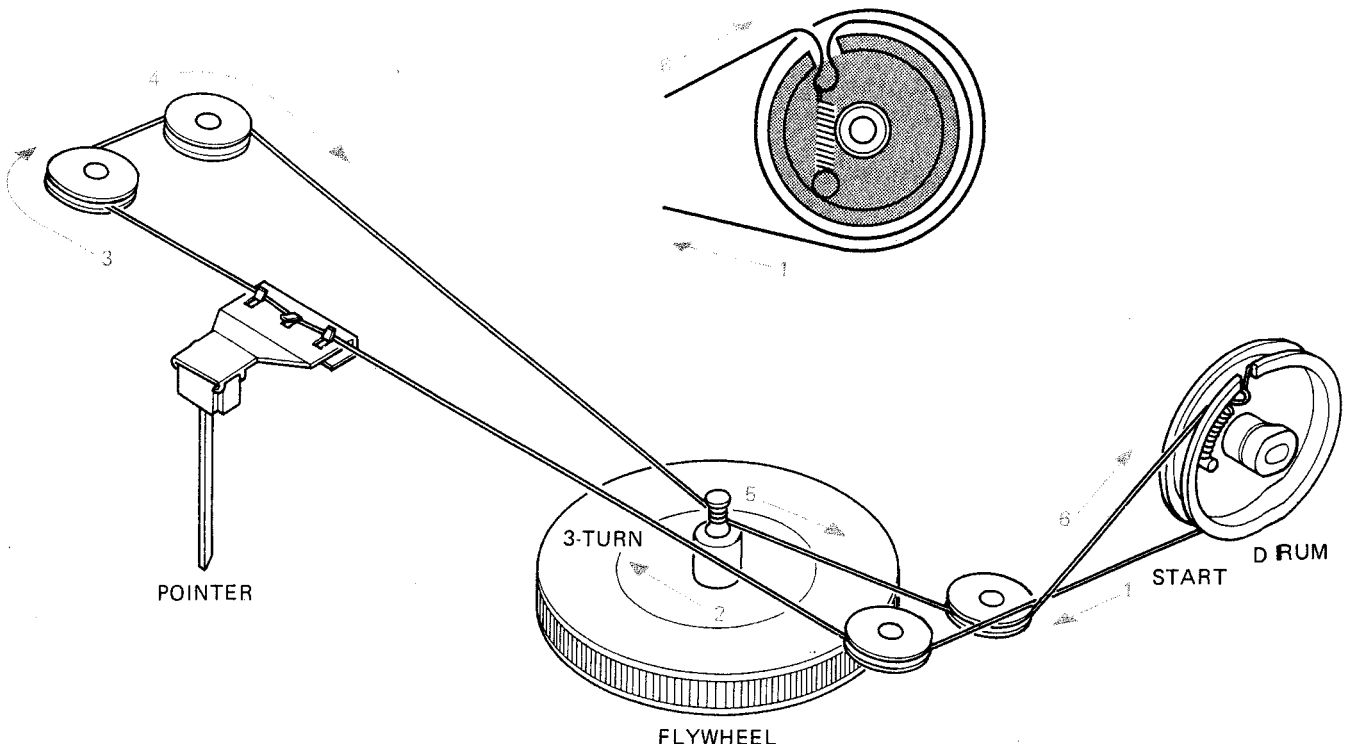


Figure 1. Dial Stringing

## 2. TEST EQUIPMENT REQUIRED FOR SERVICING

This table lists the test equipment required for servicing the Model 2120 Tuner.

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
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 tuner
Line Voltmeter	Simpson Model 1359	Monitors potential of primary power to tuner
Variable Autotransformer	Superior Electronic Co., Powerstat Model 116B-10A	Adjusts level of primary power to tuner

## 3. AM ALIGNMENT PROCEDURES

### 3.1 AM IF ALIGNMENT

1. Connect a sweep generator to the L152 and an alignment scope to the J267 (T.P.).
2. Rotate each core of IF transformers L154 and L155 for maximum height and flat top symmetrical response.

### 3.2 AM 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 L153 for maximum audio output.
2. Set the signal generator to 1650 kHz. Place the tuning pointer in the high frequency and adjust the oscillator trimmer (C125) 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 and tune the Tuner 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 Tuner to the same frequency and adjust the trimming capacitor (C124) on the antenna tuning capacitor for maximum output.
6. Repeat steps 4 and 5 until no further adjustment is necessary.

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

## 4. FM ALIGNMENT PROCEDURES

### 4.1 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 Tuner OUTPUT jacks on the rear panel.
2. Set the signal generator to 87.4 MHz and provide about 3 to 5  $\mu$ V. Place the tuning pointer at the low frequency end by rotating the tuning knob and adjust the core of oscillator coil L107 to obtain maximum audio output.
3. Set the signal generator to 109 MHz and provide about 3 to 5  $\mu$ V output. Rotate the tuning knob and place the tuning pointer at the high frequency end and adjust the trimming capacitor C123 for maximum output.
4. Repeat steps 2 and 3 until no further adjustment is necessary.
5. Set the signal generator to 90 MHz and tune the Tuner 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 L101 and adjust the core of RF coils L102 and L103 for maximum output.
6. Set the signal generator to 106 MHz and tune the Tuner 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 capacitors C120, C121 and C122 for maximum output.
7. Repeat steps 5 and 6 until no further adjustment is necessary.

8. Set the IF Bandwidth switch to wide (in) position. Adjust the primary core (lower) 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 Tuner to the same frequency so that the center tuning meter pointer indicates its center. Adjust the secondary core (upper) of L202 for minimum distortion.
9. Set the IF Bandwidth switch to narrow (out) position. Adjust the trimming resistor R251 so that the center tuning meter pointer indicates its center at no signal applied.

#### 4.2 STEREO SEPARATION AND DISTORTION ALIGNMENT

1. Set the FM signal generator to provide  $1 \mu\text{V}$  at 98 MHz. Tune the Tuner to the same frequency so that the center tuning meter pointer indicates its center.
2. Turn off the modulation of the generator, connect a frequency counter to test point J209, and adjust R304 so that the frequency counter may precisely read 19 kHz.
3. Modulate the signal generator with stereo composite signal consisting only of L or R channel (of course a pilot signal must be included).
4. Set the IF Bandwidth switch to wide (in) position. Adjust the trimming capacitor C224 for minimum distortion.
5. Adjust the trimming resistor R323 for maximum and same separation in both channels.

6. Set the IF Bandwidth switch to narrow (out) position. Adjust the core of L105 for minimum distortion.
7. Adjust the trimming resistor R324 for maximum and same separation in both channels.

#### 4.3 MUTING THRESHOLD ALIGNMENT

1. Set the FM signal generator output to provide  $12.5 \mu\text{V}$  (IHF) at 98 MHz and tune the Tuner to the same frequency.
2. Adjust the trimming resistor R244 for the threshold level of  $12.5 \mu\text{V}$ . (During this adjustment turn the MUTING pushswitch "on".)

#### 4.4 FM OUTPUT LEVEL ADJUSTMENT

1. Set the FM signal generator to provide a 400 Hz, 50% modulated 98 MHz mono signal, at  $1 \mu\text{V}$  output. Precisely tune the Tuner to 98 MHz.
2. Depress the FM 25  $\mu\text{S}$  pushswitch, and adjust R326 and R350 until the outputs of both channels are 580 mV.

#### 4.5 RECORD LEVEL TONE SWITCH ADJUSTMENT

Depress the REC LEVEL 400 Hz switch and adjust the trimming resistor RL05 for the 1160 mV output.

#### 5. POWER SUPPLY ADJUSTMENT

Connect a VTVM between J217(+) and J213(-), and adjust R803 until the VTVM reads 14.0 V under no signal condition.

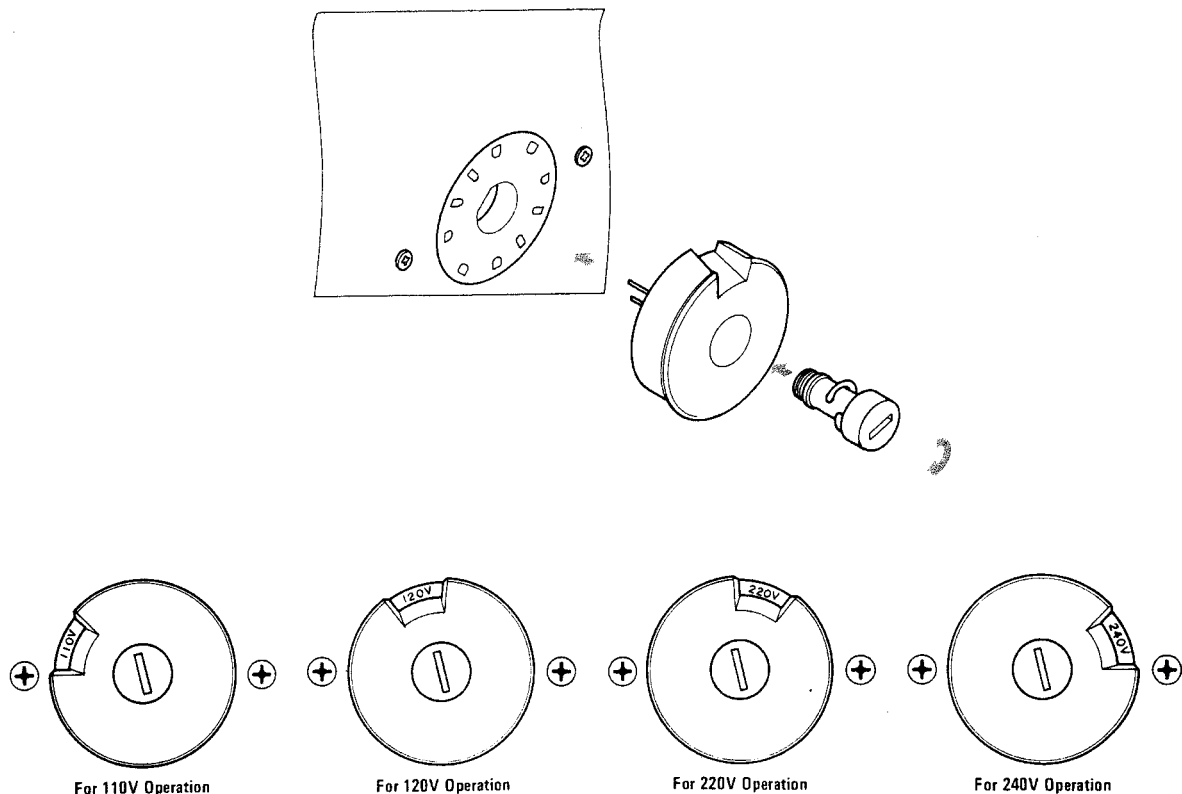


Figure 2. Voltage Conversion Chart

## 6. VOLTAGE CONVERSION FOR EUROPEAN MODEL

The European version of the Model 2120 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 as shown in Figure 2.

**CAUTION: DISCONNECT POWER SUPPLY CORD FROM AC OUTLET BEFORE CONVERTING VOLTAGE.**

## FTZ REGULATION

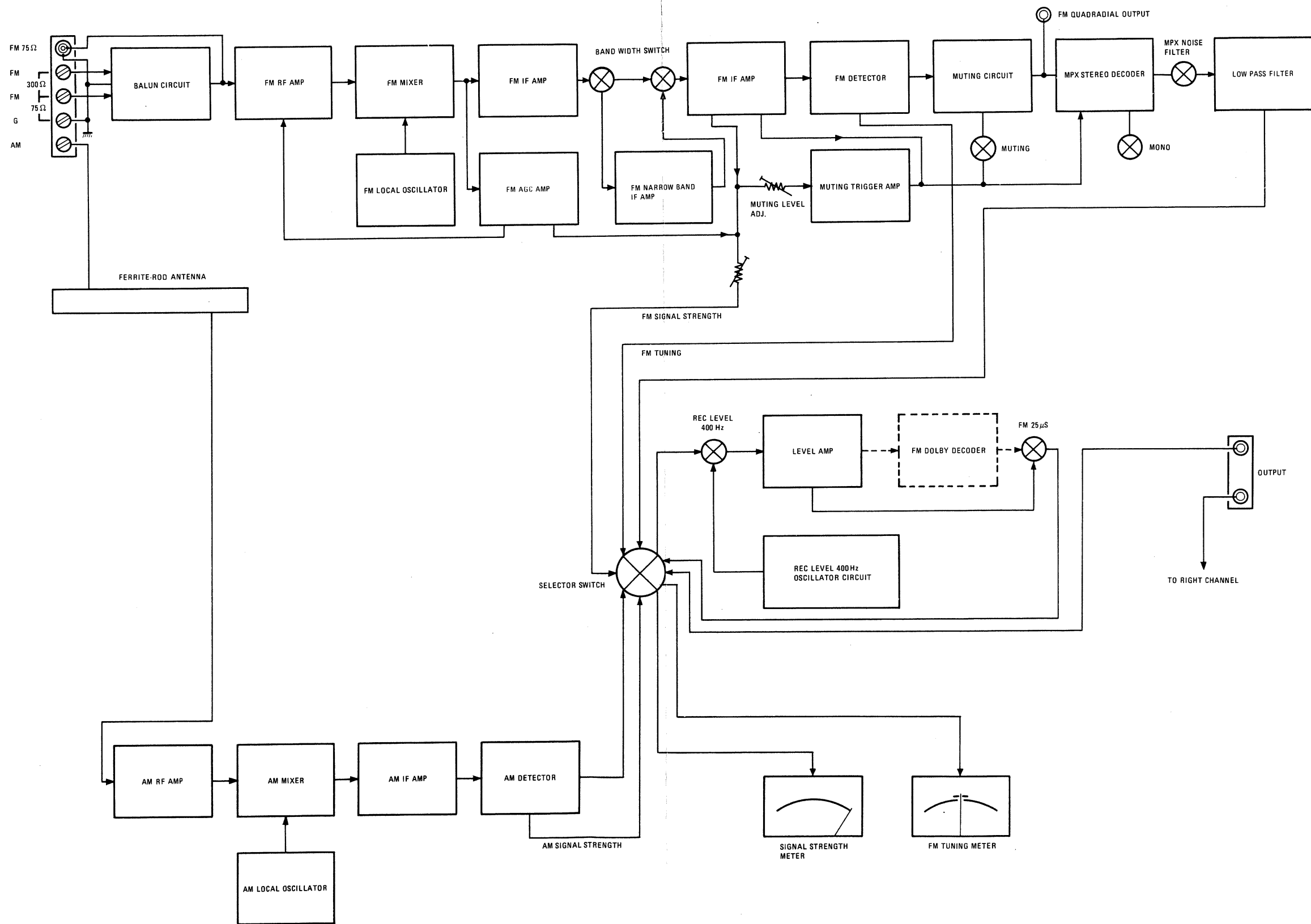
Instruction for the use in the range other than specified in FTZ codes.

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

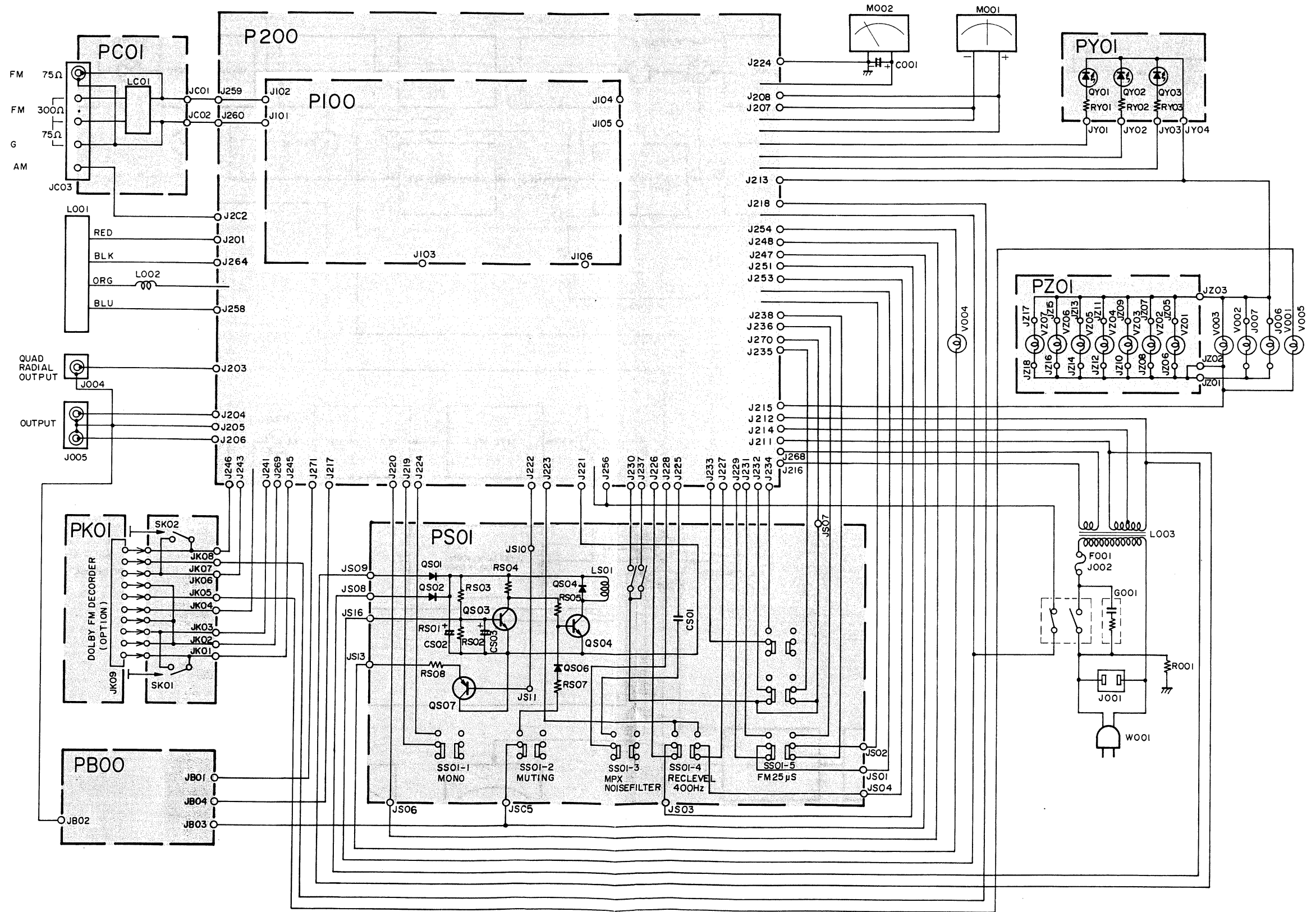
Sollte das Gerät auch für Frequenzen ausserhalb des in den FTZ-Bestimmungen angegebenen Bereiches empfangebereit sein, bitten wir, den Bereich durch Nachstellen des Kernes in der Oszillatortspule (in der Abbildung mit "FTZ" gekennzeichnet) so zu korrigieren, dass er den Bestimmungen entspricht.

# 7. DIAGRAMS

## 7.1 BLOCK DIAGRAM

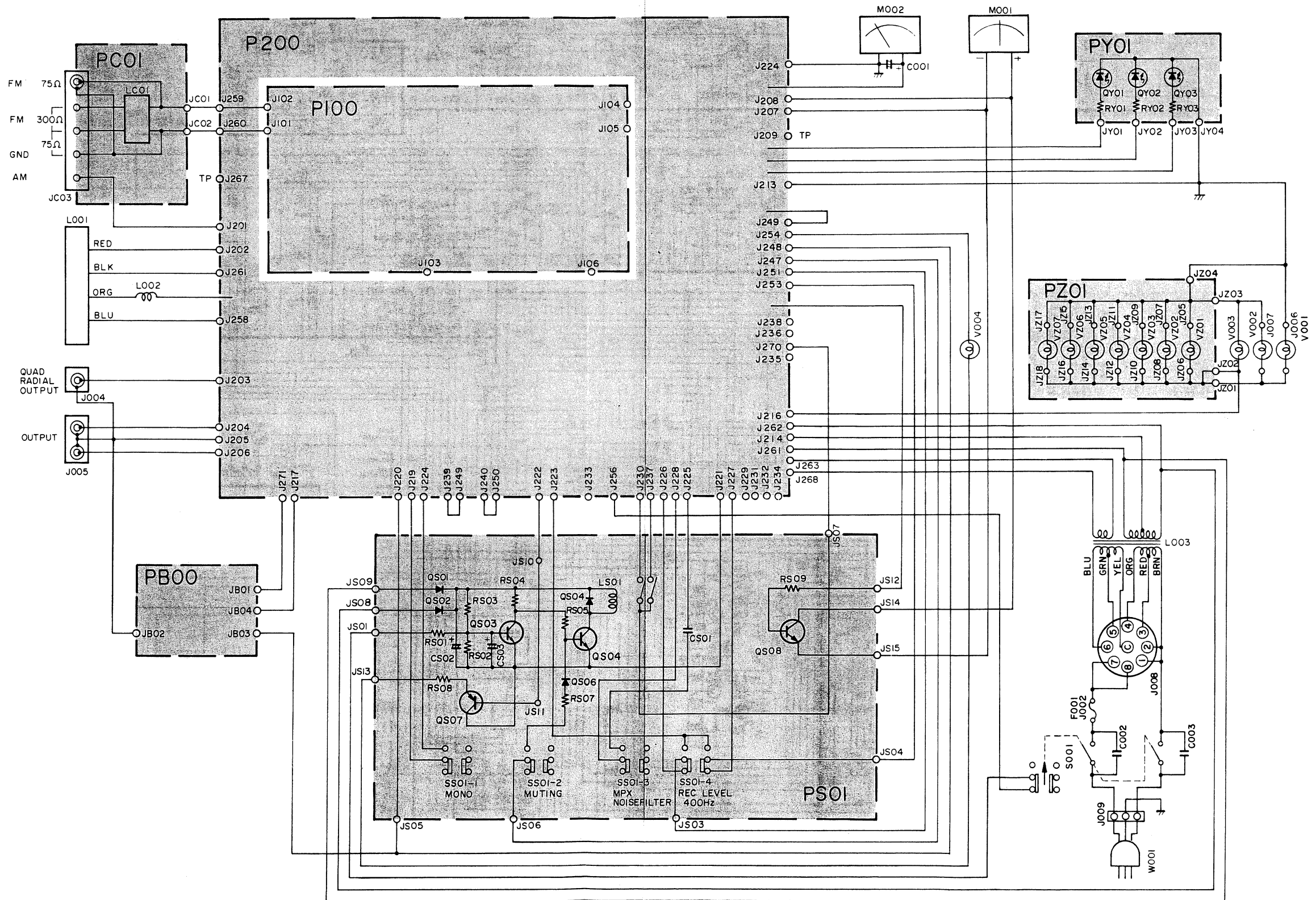


7.2 CONNECTION DIAGRAM - U.S.A. & CANADA

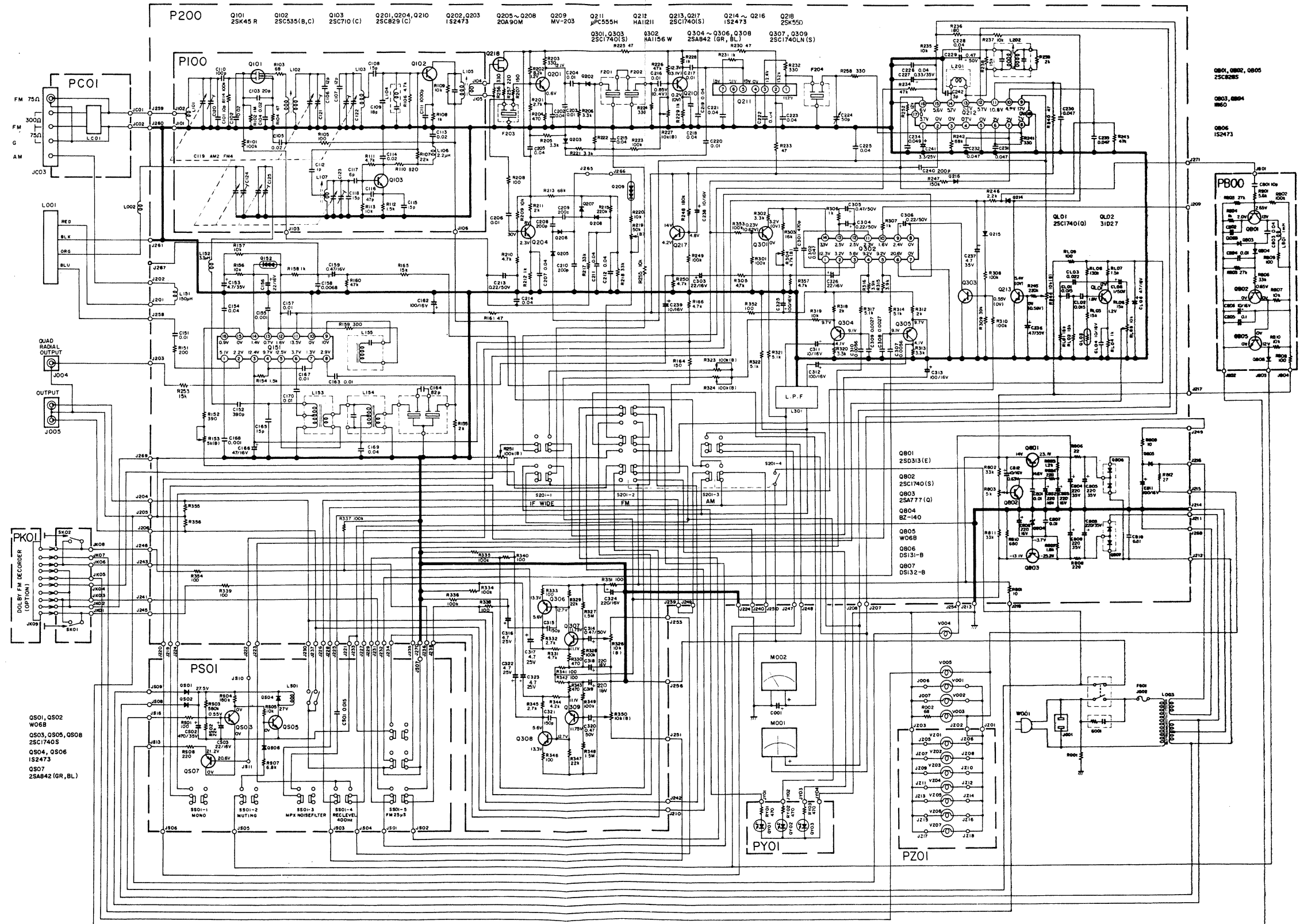




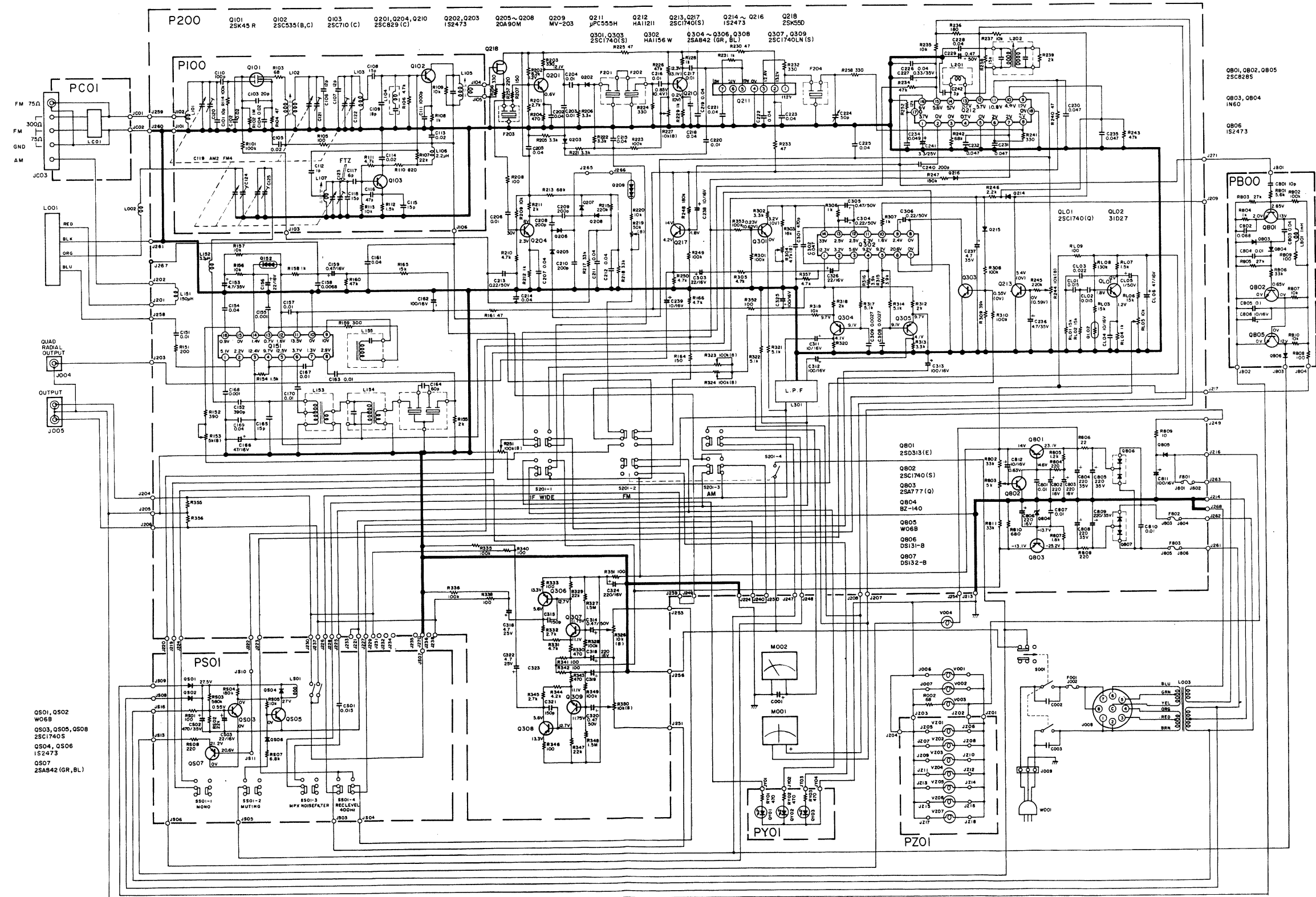
7.3 CONNECTION DIAGRAM - EUROPE



7.4 SCHEMATIC DIAGRAM - U.S.A. & CANADA



7.5 SCHEMATIC DIAGRAM - EUROPE



PC01  
FM 75Ω  
300Ω  
75Ω  
GND  
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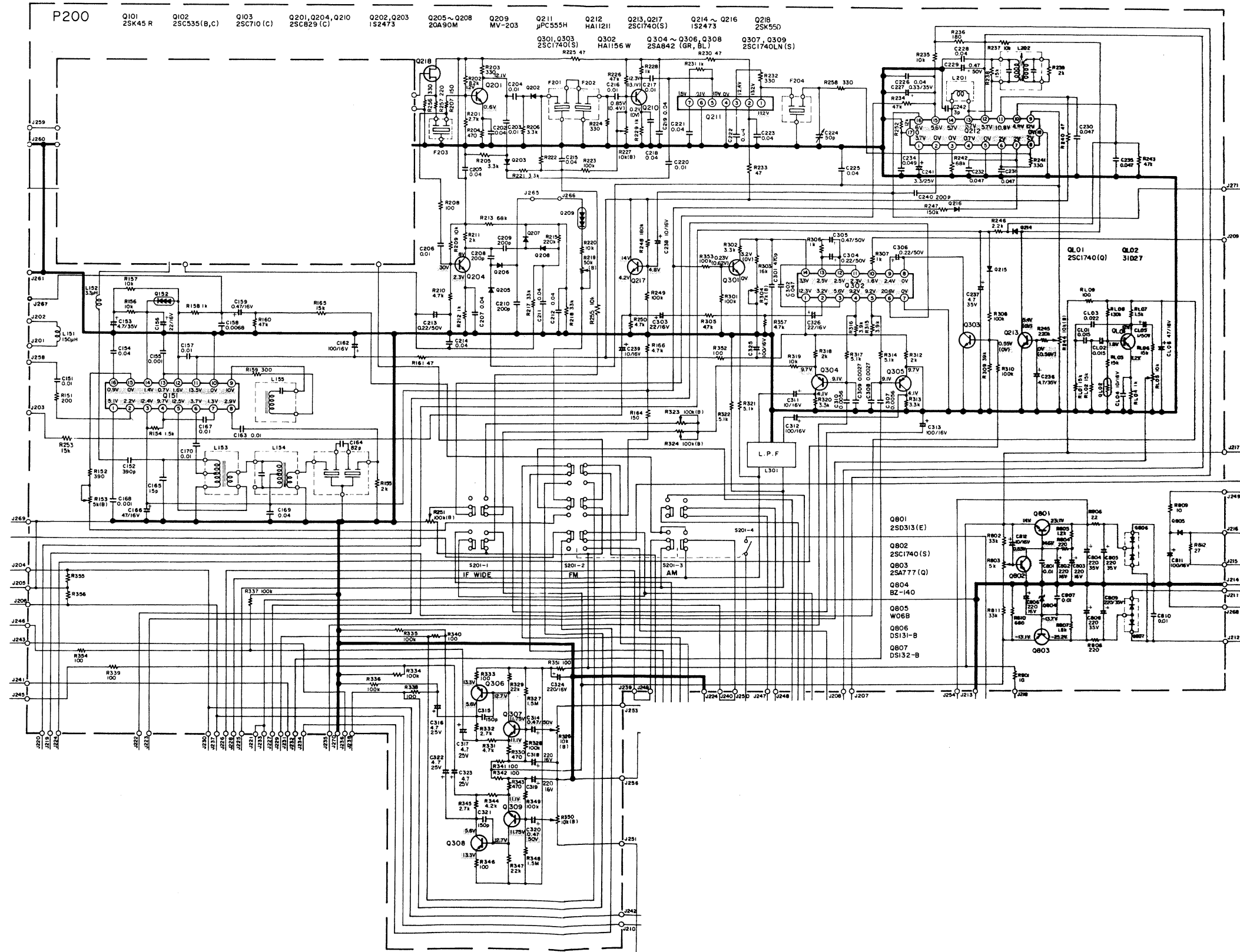
Q501, Q502  
W06B  
Q503, Q505, Q508  
2SC1740S  
Q504, Q506  
1S2473  
Q507  
2SAB42 (GR, BL)

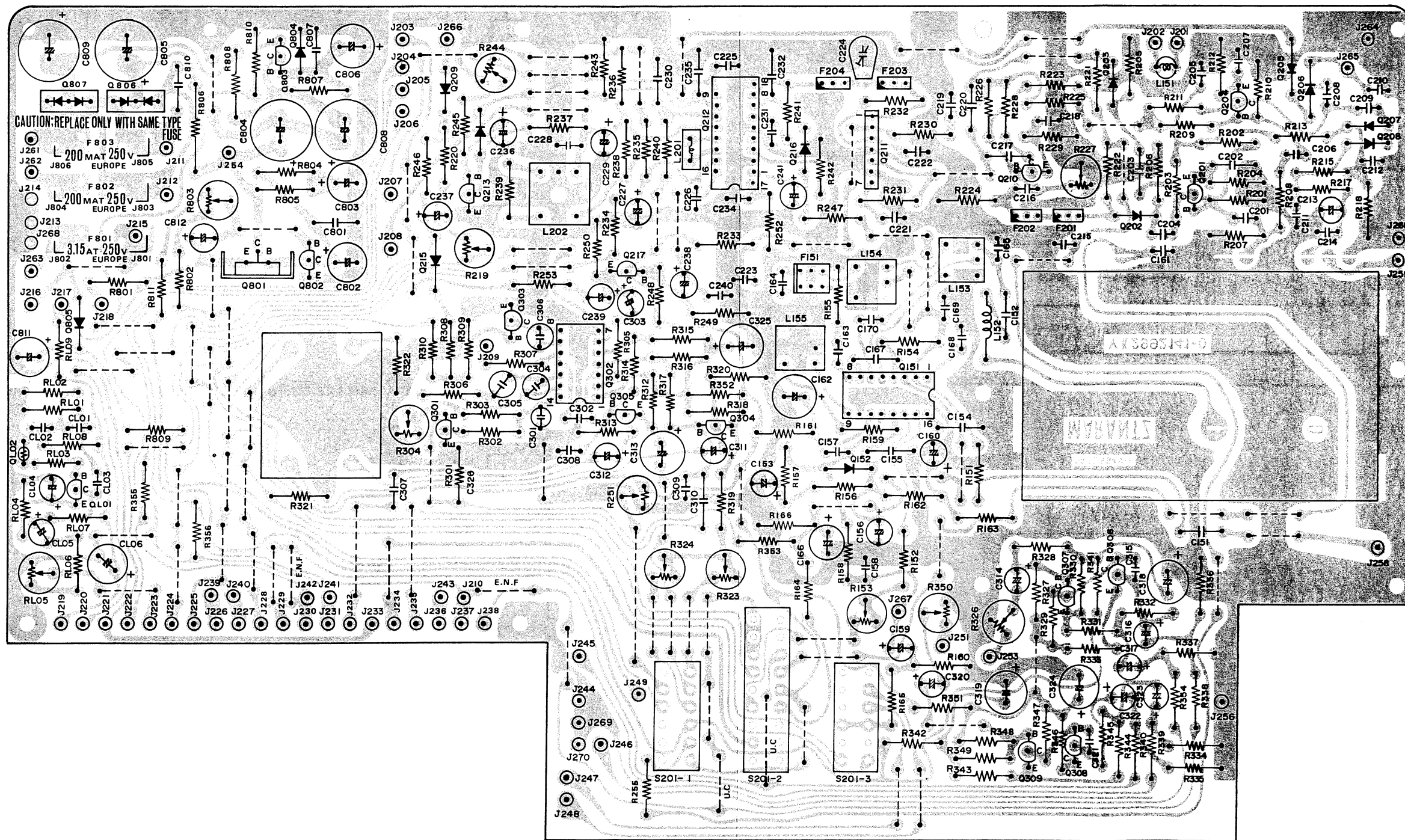
Q801, Q802, Q805  
2SC8285  
Q803, Q804  
1N60  
Q806  
1S2473

PB00  
R801 10Ω  
R802 100Ω  
R803 2T  
R804 2.2V  
R805 100Ω  
R806 100Ω  
R807 100Ω  
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R891 100Ω  
R892 100Ω  
R893 100Ω  
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R896 100Ω  
R897 100Ω  
R898 100Ω  
R899 100Ω  
R900 100Ω

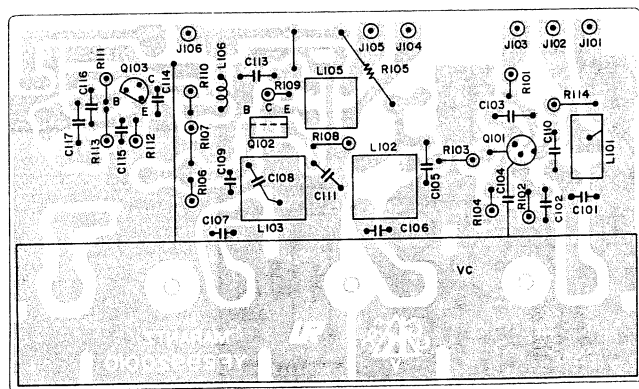
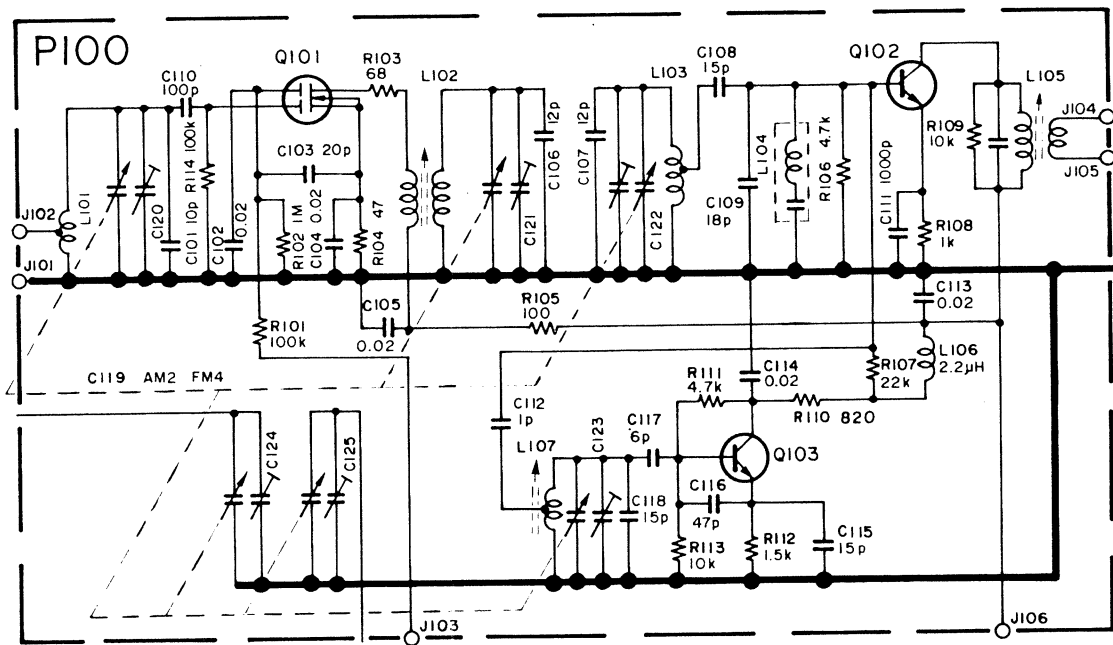
Q801  
2SD313(E)  
Q802  
2SC1740(S)  
Q803  
2SA777(Q)  
Q804  
BZ-140  
Q805  
W06B  
Q806  
DS131-B  
Q807  
DS132-B

7.6 TUNER BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - P200

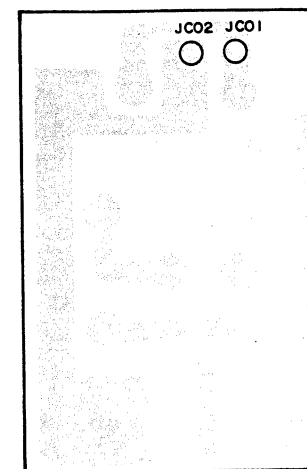
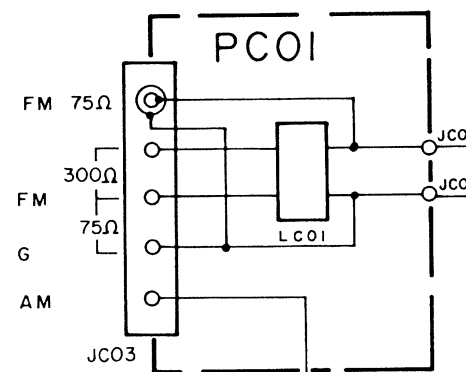




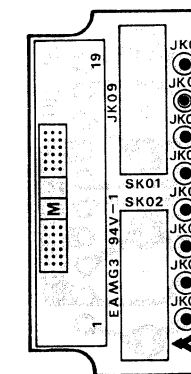
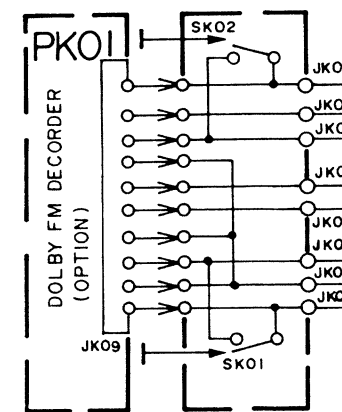
7.7 FRONT END BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - P100



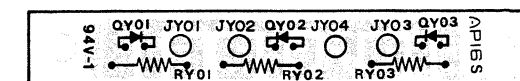
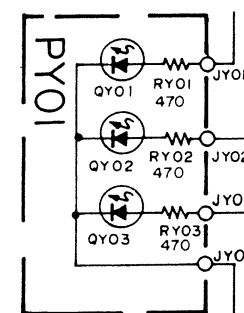
7.8 ANTENNA BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - PC01



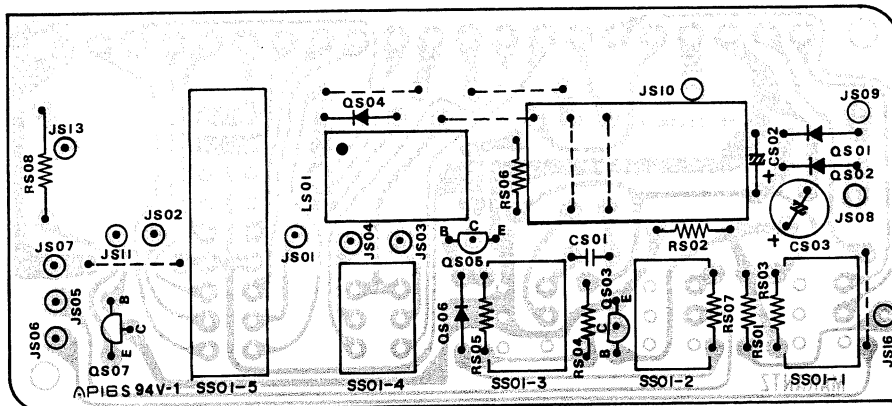
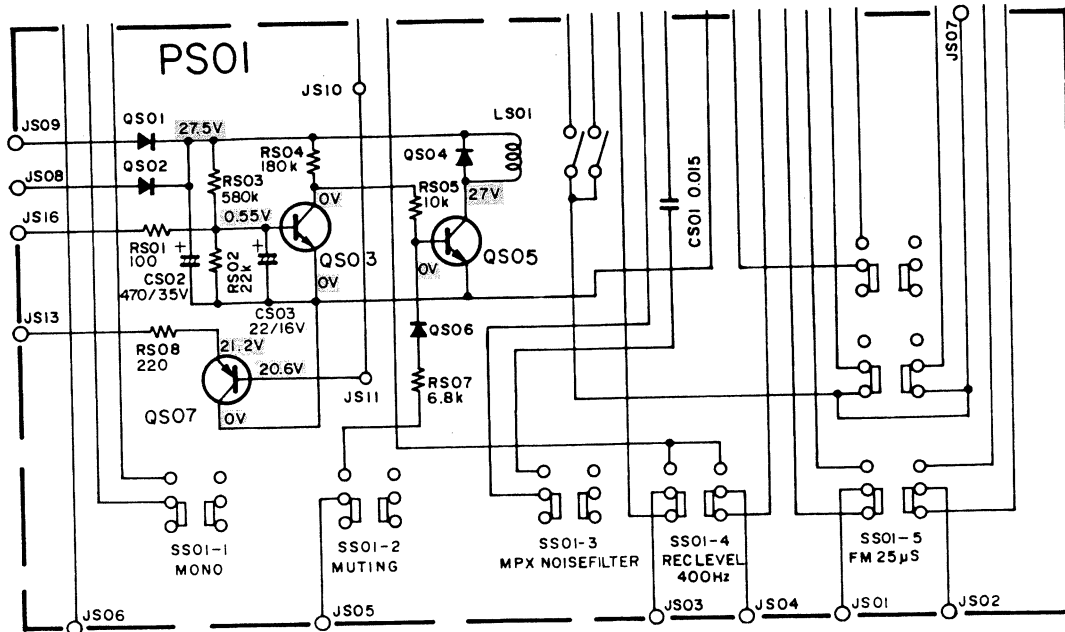
7.9 DOLBY SOCKET BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - PK01 - U.S.A. & CANADA



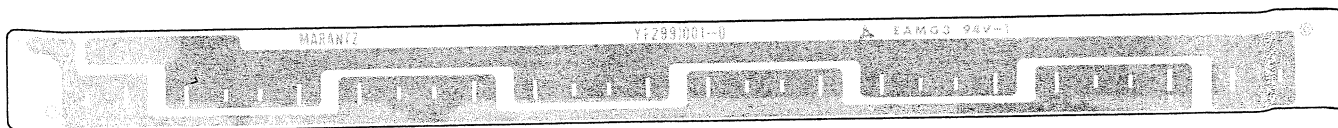
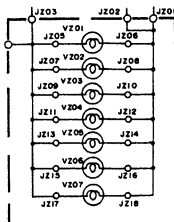
7.10 FUNCTION INDICATOR BOARD SCHEMATIC DIAGRAM COMPONENT LOCATIONS - PY01



7.11 SWITCH BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - PS01

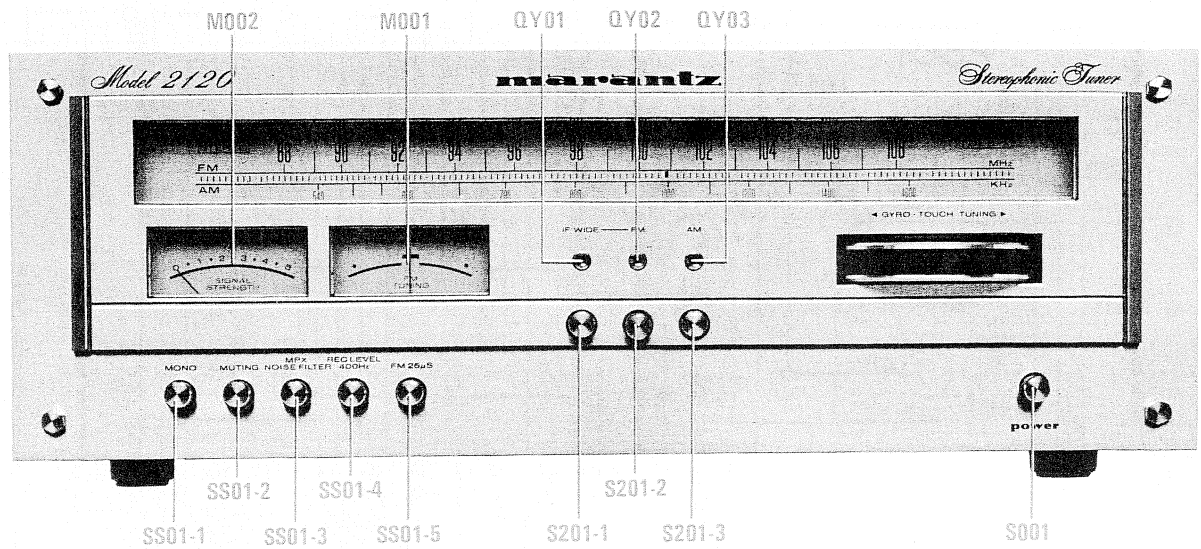


7.12 DIAL LAMP BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - PZ01

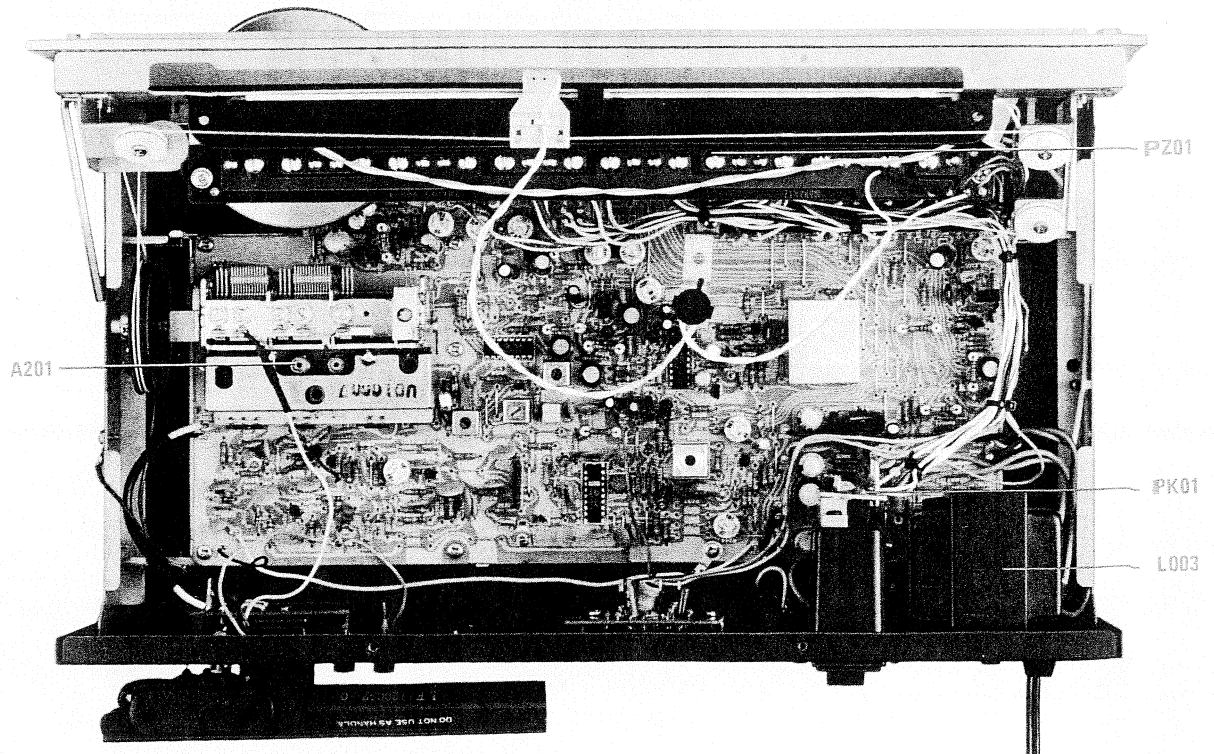


8. MAJOR COMPONENT LOCATIONS

8.1 CABINET - FRONT VIEW - U.S.A. & CANADA

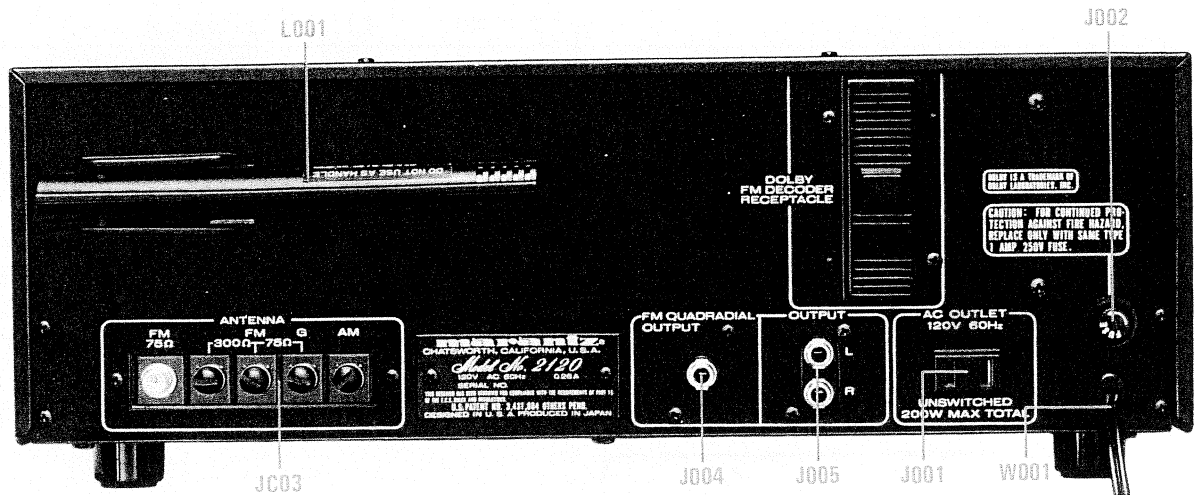


8.2 CHASSIS - TOP VIEW - U.S.A. & CANADA

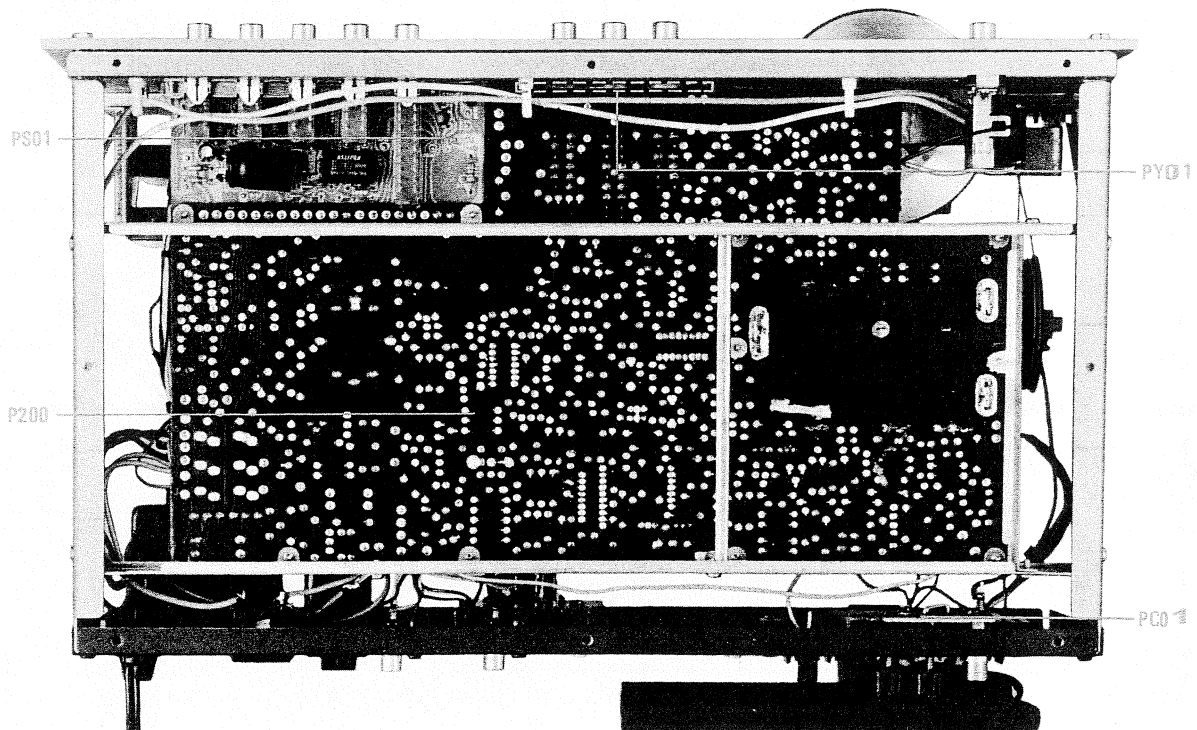




8.3 CABINET - REAR VIEW - U.S.A. & CANADA

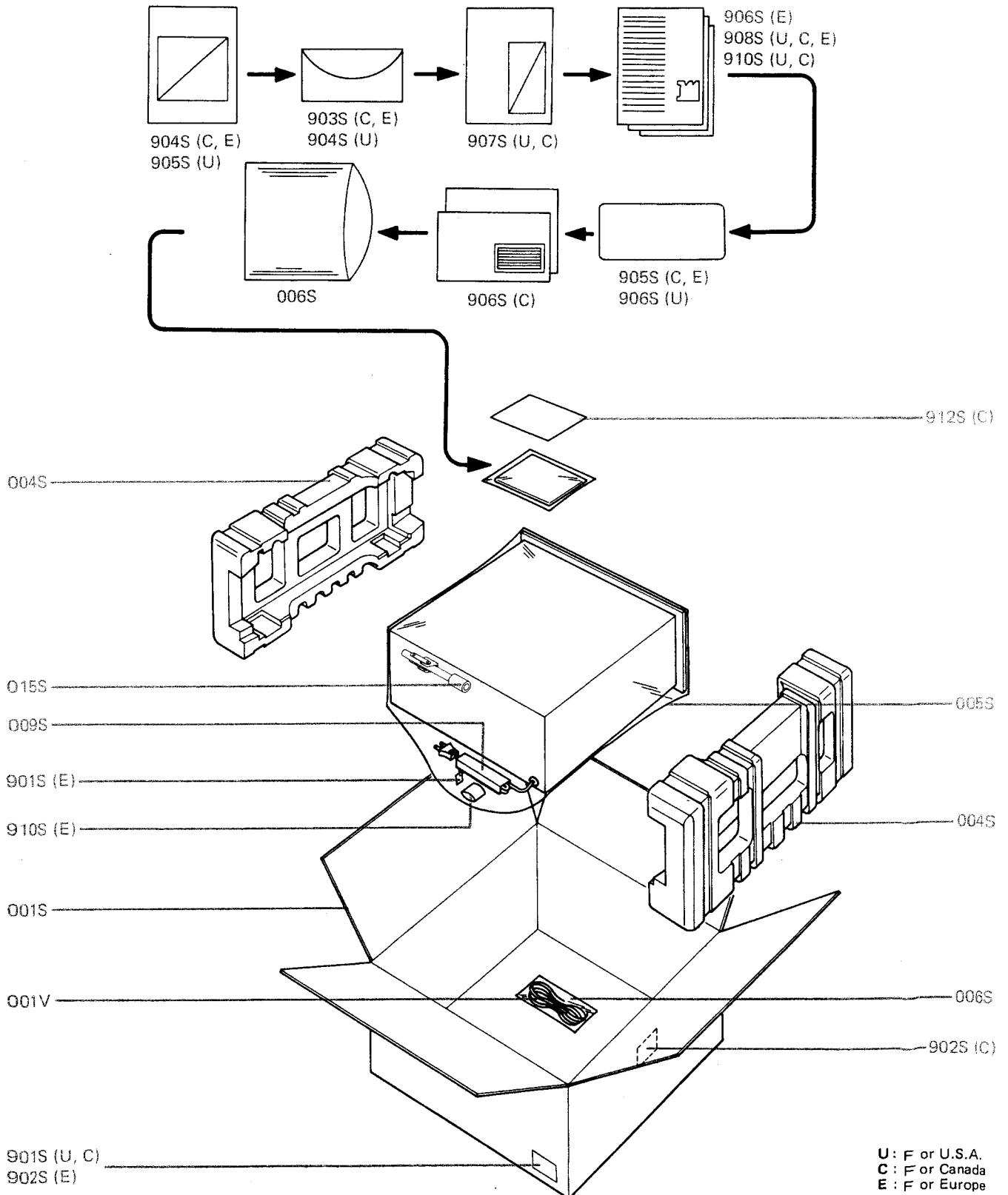


8.4 CHASSIS - BOTTOM VIEW - U.S.A. & CANADA

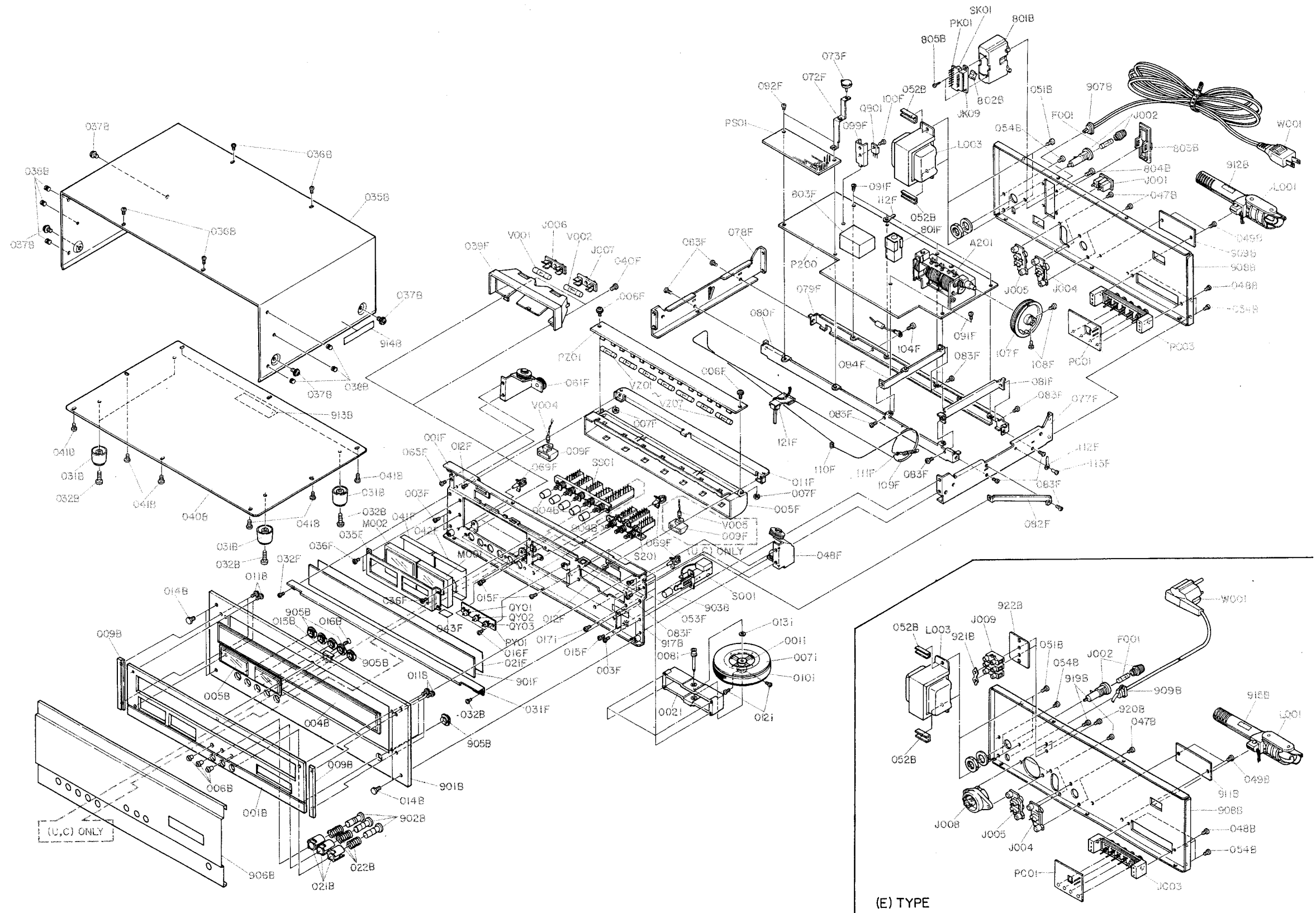


9. EXPLODED VIEWS

9.1 PACKING MATERIAL EXPLODED VIEW



9.2 MECHANICAL EXPLODED VIEW





U : For U.S.A.  
 C : For Canada  
 E : For Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
PS01	1	1	1	YK29921420 ZZ29921420	P.W. Board, Switch P.W. Board Assembly
QS01	1	1	1	HD20005010	Diode, W06B
QS02	1	1	1	HD20005010	Diode, W06B
QS03	1	1	1	HT317401S0	Transistor, 2SC1740S
QS04	1	1	1	HD20001210	Diode, 1S2473
QS05	1	1	1	HT317401S0	Transistor, 2SC1740S
QS06	1	1	1	HD20001210	Diode, 1S2473
QS07	1	1	1	HT108422A0	Transistor, 2SA842 GR or BL
QS08	1	1	1	HT317401S0	Transistor, 2SC1740S
RS01	1	1	1	GD05101140	Res., Fixed, 100Ω ±5%, ¼W
RS02	1	1	1	GD05223140	Res., Fixed, 22kΩ ±5%, ¼W
RS03	1	1	1	GD05624140	Res., Fixed, 620kΩ ±5%, ¼W
RS04	1	1	1	GD05184140	Res., Fixed, 180kΩ ±5%, ¼W
RS05	1	1	1	GD05103140	Res., Fixed, 10kΩ ±5%, ¼W
RS06	1	1	1	GD05821140	Res., Fixed, 820Ω ±5%, ¼W
RS07	1	1	1	GD05682140	Res., Fixed, 6.8kΩ ±5%, ¼W
RS08	1	1	1	GU05221120	Res., Fixed, 220Ω ±5%, ¼W
RS09	1	1	1	RT05223140	Res., Fixed, 22kΩ ±5%, ¼W
SS01	1	1	1	SP04040180	Pushswitch, Mode
SS01	1	1	1	SP06050100	Pushswitch, Mode
JY01	1	1	1	YP10001130	Plug
JY02	1	1	1	YP10001130	Plug
JY03	1	1	1	YP10001130	Plug
JY04	1	1	1	YP10001130	Plug
PY01	1	1	1	YK29921440 ZZ29921440	P.W. Board, L.E.D. P.W. Board Assembly
QY01	1	1	1	HI10004030	L.E.D., Wide
QY02	1	1	1	HI10004030	L.E.D., FM
QY03	1	1	1	HI10004030	L.E.D., AM
RY01	1	1	1	GD05471140	Res., Fixed, 470Ω ±5%, ¼W
RY02	1	1	1	GD05471140	Res., Fixed, 470Ω ±5%, ¼W
RY03	1	1	1	GD05471140	Res., Fixed, 470Ω ±5%, ¼W
JZ01	1	1	1	YP10001130	Plug
JZ02	1	1	1	YP10001130	Plug
JZ03	1	1	1	YP10001130	Plug
JZ04	1	1	1	YP10001130	Plug
JZ05	1	1	1	YJ08000170	Jack, Lamp Holder
JZ06	1	1	1	YJ08000170	Jack, Lamp Holder
JZ07	1	1	1	YJ08000170	Jack, Lamp Holder
JZ08	1	1	1	YJ08000170	Jack, Lamp Holder
JZ09	1	1	1	YJ08000170	Jack, Lamp Holder
JZ10	1	1	1	YJ08000170	Jack, Lamp Holder
JZ11	1	1	1	YJ08000170	Jack, Lamp Holder
JZ12	1	1	1	YJ08000170	Jack, Lamp Holder
JZ13	1	1	1	YJ08000170	Jack, Lamp Holder
JZ14	1	1	1	YJ08000170	Jack, Lamp Holder
JZ15	1	1	1	YJ08000170	Jack, Lamp Holder
JZ16	1	1	1	YJ08000170	Jack, Lamp Holder
JZ17	1	1	1	YJ08000170	Jack, Lamp Holder
JZ18	1	1	1	YJ08000170	Jack, Lamp Holder
PZ01	1	1	1	YF29910010 ZZ29910040	P.W. Board, Dial Lamp P.W. Board Assembly
VZ01	1	1	1	IN10080070	Lamp, Dial, 8V 200mA
VZ02	1	1	1	IN10080070	Lamp, Dial, 8V 200mA

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
VZ03	1	1	1	IN10080070	Lamp, Dial, 8V 200mA
VZ04	1	1	1	IN10080070	Lamp, Dial, 8V 200mA
VZ05	1	1	1	IN10080070	Lamp, Dial, 8V 200mA
VZ06	1	1	1	IN10080070	Lamp, Dial, 8V 200mA
VZ07	1	1	1	IN10080070	Lamp, Dial, 8V 200mA
C001	1	1	1	EA33601090	Cap., Elect., 330μF, 10V
C002	1	1	1	DO07473540	Cap., Oil-Paper, Line
C003	1	1	1	DO07473540	Cap., Oil-Paper, Line
F001	1	1	1	FS10050800	Fuse, 250V 500mA (SEMKO)
F001	1	1	1	FS10100080	Fuse, 250V 1A (UL)
G001	1	1	1	BF10400030	Cap. Comp.
G001	1	1	1	BF10400050	Cap. Comp.
J001	1	1	1	YJ04000560	Jack, AC Outlet
J002	1	1	1	YJ08000120	Jack, Fuse Holder
J002	1	1	1	YJ08000220	Jack, Fuse Holder
J004	1	1	1	YT02010130	Terminal, Quad. Output
J005	1	1	1	YT02020140	Terminal, Output
J006	1	1	1	YJ08000190	Jack, Meter Lamp Holder
J007	1	1	1	YJ08000190	Jack, Meter Lamp Holder
J008	1	1	1	BY03110010	Plug, Voltage Selector
J009	1	1	1	YL09030010	Terminal, 3P (SEMKO)
L001	1	1	1	LF11200520	Ant., Coil, AM
L002	1	1	1	LC13320020	Choke Coil, 3.3μH
L003	1	1	1	TS16015050	Power Transformer
L003	1	1	1	TS16015060	Power Transformer
M001	1	1	1	IM11055010	D.C. Meter, FM Tuning
M002	1	1	1	IM11055020	D.C. Meter, Signal Strength
R001	1	1	1	GT05225120	Res., Fixed, 2.2MΩ ±5%, ¼W
S001	1	1	1	SP02010270	Pushswitch, Power (UL)
S001	1	1	1	SP04010250	Pushswitch, Power (SEMKO)
V001	1	1	1	IN10080430	Lamp, Meter, 8V 300mA (Blue)
V002	1	1	1	IN10080430	Lamp, Meter, 8V 300mA (Blue)
V004	1	1	1	IN10080340	Lamp, Stereo, 8V 60mA
V005	1	1	1	IN10080340	Lamp, Dolby
W001	1	1	1	YC01900030	A.C. Power Cord
W001	1	1	1	YC02400220	A.C. Power Cord
C101	1	1	1	DD12100060	Cap., Ceramic, 10pF
C102	1	1	1	DK18203030	Cap., Ceramic, 0.02μF
C103	1	1	1	DD16200010	Cap., Ceramic, 20pF
C104	1	1	1	DK18203030	Cap., Ceramic, 0.02μF
C105	1	1	1	DK18203030	Cap., Ceramic, 0.02μF
C106	1	1	1	DD16120020	Cap., Ceramic, 12pF
C107	1	1	1	DD16120020	Cap., Ceramic, 12pF
C108	1	1	1	DD16150040	Cap., Ceramic, 15pF
C109	1	1	1	DD15180010	Cap., Ceramic, 18pF
C110	1	1	1	DD16101010	Cap., Ceramic, 100pF
C111	1	1	1	DK17102010	Cap., Ceramic, 1000pF
C112	1	1	1	DD10010020	Cap., Ceramic, 1pF
C113	1	1	1	DK18203030	Cap., Ceramic, 0.02μF
C114	1	1	1	DK18203030	Cap., Ceramic, 0.02μF
C115	1	1	1	DD16150030	Cap., Ceramic, 15pF
C116	1	1	1	DD16470020	Cap., Ceramic, 47pF
C117	1	1	1	DD16060010	Cap., Ceramic, 6pF
C118	1	1	1	DD15150020	Cap., Ceramic, 15pF
C119	1	1	1	CA42600010	Cap., Variable, AM2/FM4
C151	1	1	1	DK17103010	Cap., Ceramic, 0.01μF
C152	1	1	1	DF65391010	Cap., Film, 390pF
C153	1	1	1	EA47503590	Cap., Elect., 4.7μF, 35V
C154	1	1	1	DK18403020	Cap., Ceramic, 0.04μF
C155	1	1	1	DK17102010	Cap., Ceramic, 0.001μF

U : For U.S.A.  
 C : For Canada  
 E : For Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
C156	1	1	1	EA22601690	Cap., Elect., 22 $\mu$ F, 16V
C157	1	1	1	DK18103010	Cap., Ceramic, 0.01 $\mu$ F
C158	1	1	1	DK16682010	Cap., Ceramic, 0.0068 $\mu$ F
C159	1	1	1	EE47405010	Cap., Elect., 0.47 $\mu$ F, 50V
C160	1	1	1	EA10505090	Cap., Elect., 1 $\mu$ F, 50V
C161	1	1	1	DK18403020	Cap., Ceramic, 0.04 $\mu$ F
C162	1	1	1	EA10701690	Cap., Elect., 100 $\mu$ F, 16V
C163	1	1	1	DK17103010	Cap., Ceramic, 0.01 $\mu$ F
C164	1	1	1	DD16600010	Cap., Ceramic, 60pF
C165	1	1	1	DD16150010	Cap., Ceramic, 15pF
C166	1	1	1	EA47601690	Cap., Elect., 47 $\mu$ F, 16V
C167	1	1	1	DK17103010	Cap., Ceramic, 0.01 $\mu$ F
C168	1	1	1	DK17102010	Cap., Ceramic, 0.001 $\mu$ F
C169	1	1	1	DK18403020	Cap., Ceramic, 0.04 $\mu$ F
C170	1	1	1	DF15103010	Cap., Film, 0.01 $\mu$ F
F151	1	1	1	FF10045180	Ceramic Filter, SFZ455A
J101	1	1	1	YP10001510	Plug
J102	1	1	1	YP10001510	Plug
J103	1	1	1	YP10001510	Plug
J104	1	1	1	YP10001510	Plug
J105	1	1	1	YP10001510	Plug
J106	1	1	1	YP10001510	Plug
L104	1	1	1	FF31070030	L.C. Filter, QC113
L105	1	1	1	LI70039010	I.F.T., TM1222
L106	1	1	1	LC12220010	Choke Coil, 2.2 $\mu$ H
L151	1	1	1	LC11540020	Choke Coil, 150 $\mu$ H
L152	1	1	1	LC13320020	Choke Coil, 3.3 $\mu$ H
L153	1	1	1	LO10010480	OSC Coil, AM
L154	1	1	1	LI10015010	I.F.T., AM
L155	1	1	1	LI10015060	I.F.T., AM
P100	1	1	1	YF29920010	P.W. Board, FM Front End
A201	1	1	1	AV01202090	P.W. Board Assembly
Q101	1	1	1	HF40045180	F.E.T., 3SK45 B
Q102	1	1	1	HT30535280	Transistor, 2SC535 B or C
Q103	1	1	1	HT307101C0	Transistor, 2SC710 C
Q151	1	1	1	HC10019010	I.C., HA1197
Q152	1	1	1	HV00006120	Varistor, MV-203
R101	1	1	1	GD05104140	Res., Fixed, 100k $\Omega$ $\pm$ 5%, 1/4W
R102	1	1	1	GD05105140	Res., Fixed, 1M $\Omega$ $\pm$ 5%, 1/4W
R103	1	1	1	GD05680140	Res., Fixed, 68 $\Omega$ $\pm$ 5%, 1/4W
R104	1	1	1	GD05470140	Res., Fixed, 47 $\Omega$ $\pm$ 5%, 1/4W
R105	1	1	1	GD05101140	Res., Fixed, 100 $\Omega$ $\pm$ 5%, 1/4W
R106	1	1	1	GD05472140	Res., Fixed, 4.7k $\Omega$ $\pm$ 5%, 1/4W
R107	1	1	1	GD05223140	Res., Fixed, 22k $\Omega$ $\pm$ 5%, 1/4W
R108	1	1	1	GD05102140	Res., Fixed, 1k $\Omega$ $\pm$ 5%, 1/4W
R109	1	1	1	GD05103140	Res., Fixed, 10k $\Omega$ $\pm$ 5%, 1/4W
R110	1	1	1	GD05101140	Res., Fixed, 100 $\Omega$ $\pm$ 5%, 1/4W
R111	1	1	1	GD05472140	Res., Fixed, 4.7k $\Omega$ $\pm$ 5%, 1/4W
R112	1	1	1	GD05152140	Res., Fixed, 1.5k $\Omega$ $\pm$ 5%, 1/4W
R113	1	1	1	GD05103140	Res., Fixed, 10k $\Omega$ $\pm$ 5%, 1/4W
R114	1	1	1	GD05104140	Res., Fixed, 100k $\Omega$ $\pm$ 5%, 1/4W
R151	1	1	1	RT05201140	Res., Fixed, 200 $\Omega$ $\pm$ 5%, 1/4W
R152	1	1	1	RT05391140	Res., Fixed, 390 $\Omega$ $\pm$ 5%, 1/4W
R153	1	1	1	RA05020200	Res., Semifixed, 5k $\Omega$ (B)
R154	1	1	1	RT05152140	Res., Fixed, 1.5k $\Omega$ $\pm$ 5%, 1/4W
R155	1	1	1	RT05202140	Res., Fixed, 2k $\Omega$ $\pm$ 5%, 1/4W
R156	1	1	1	RT05103140	Res., Fixed, 10k $\Omega$ $\pm$ 5%, 1/4W
R157	1	1	1	RT05103140	Res., Fixed, 10k $\Omega$ $\pm$ 5%, 1/4W

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
R158	1	1	1	RT05102140	Res., Fixed, 1k $\Omega$ $\pm$ 5%, 1/4W
R159	1	1	1	RT05301140	Res., Fixed, 300 $\Omega$ $\pm$ 5%, 1/4W
R160	1	1	1	RT05473140	Res., Fixed, 47k $\Omega$ $\pm$ 5%, 1/4W
R161	1	1	1	RT05470140	Res., Fixed, 47 $\Omega$ $\pm$ 5%, 1/4W
R162	1	1	1	RT05104140	Res., Fixed, 100k $\Omega$ $\pm$ 5%, 1/4W
R163	1	1	1	RT05124140	Res., Fixed, 120k $\Omega$ $\pm$ 5%, 1/4W
R164	1	1	1	RT05151140	Res., Fixed, 150 $\Omega$ $\pm$ 5%, 1/4W
R165	1	1	1	RT05273140	Res., Fixed, 27k $\Omega$ $\pm$ 5%, 1/4W
R166	1	1	1	RT05472140	Res., Fixed, 4.7k $\Omega$ $\pm$ 5%, 1/4W
C201	1	1	1	DK17103010	Cap., Ceramic, 0.01 $\mu$ F
C202	1	1	1	DK18403020	Cap., Ceramic, 0.04 $\mu$ F
C203	1	1	1	DK17103010	Cap., Ceramic, 0.01 $\mu$ F
C204	1	1	1	DK17103010	Cap., Ceramic, 0.01 $\mu$ F
C205	1	1	1	DK18403020	Cap., Ceramic, 0.04 $\mu$ F
C206	1	1	1	DK17103010	Cap., Ceramic, 0.01 $\mu$ F
C207	1	1	1	DK18403020	Cap., Ceramic, 0.04 $\mu$ F
C208	1	1	1	DD16201010	Cap., Ceramic, 200pF
C209	1	1	1	DD16201010	Cap., Ceramic, 200pF
C210	1	1	1	DD16201010	Cap., Ceramic, 200pF
C211	1	1	1	DK18403020	Cap., Ceramic, 0.04 $\mu$ F
C212	1	1	1	DK18403020	Cap., Ceramic, 0.04 $\mu$ F
C213	1	1	1	EV22403560	Cap., Elect., 0.22 $\mu$ F, 35V
C214	1	1	1	DK18403020	Cap., Ceramic, 0.04 $\mu$ F
C215	1	1	1	DK18403020	Cap., Ceramic, 0.04 $\mu$ F
C216	1	1	1	DK17103010	Cap., Ceramic, 0.01 $\mu$ F
C217	1	1	1	DK17103010	Cap., Ceramic, 0.01 $\mu$ F
C218	1	1	1	DK18403020	Cap., Ceramic, 0.04 $\mu$ F
C219	1	1	1	DK18403020	Cap., Ceramic, 0.04 $\mu$ F
C220	1	1	1	DK17103010	Cap., Ceramic, 0.01 $\mu$ F
C221	1	1	1	DK18403020	Cap., Ceramic, 0.04 $\mu$ F
C222	1	1	1	DK18403020	Cap., Ceramic, 0.04 $\mu$ F
C223	1	1	1	DK18403020	Cap., Ceramic, 0.04 $\mu$ F
C224	1	1	1	CT15000010	Cap., Trimming, 50pF
C225	1	1	1	DK18403020	Cap., Ceramic, 0.04 $\mu$ F
C226	1	1	1	DK18403020	Cap., Ceramic, 0.04 $\mu$ F
C227	1	1	1	EV33403560	Cap., Elect., 0.33 $\mu$ F, 35V
C228	1	1	1	DK18403020	Cap., Ceramic, 0.04 $\mu$ F
C229	1	1	1	EA47405090	Cap., Elect., 0.47 $\mu$ F, 50V
C230	1	1	1	DK18403020	Cap., Ceramic, 0.047 $\mu$ F
C231	1	1	1	DK18403020	Cap., Ceramic, 0.047 $\mu$ F
C232	1	1	1	DK18403020	Cap., Ceramic, 0.047 $\mu$ F
C233	1	1	1	EA33502590	Cap., Elect., 3.3 $\mu$ F, 16V
C234	1	1	1	DK18403020	Cap., Ceramic, 0.047 $\mu$ F
C235	1	1	1	DK18403020	Cap., Ceramic, 0.047 $\mu$ F
C236	1	1	1	EA22601690	Cap., Elect., 22 $\mu$ F, 16V
C237	1	1	1	EA47501690	Cap., Elect., 4.7 $\mu$ F, 16V
C238	1	1	1	EA10601690	Cap., Elect., 10 $\mu$ F, 16V
C239	1	1	1	EA10601690	Cap., Elect., 10 $\mu$ F, 16V
C240	1	1	1	DK16101500	Cap., Ceramic, 100pF
F201	1	1	1	FF11070050	Ceramic Filter, SFEI $\phi$ .7MD1
F201	1	1	1	FF11070060	Ceramic Filter, SFEI $\phi$ .7MS2
F202	1	1	1	FF11070050	Ceramic Filter, SFEI $\phi$ .7MD1
F202	1	1	1	FF11070060	Ceramic Filter, SFEI $\phi$ .7MS2
F203	1	1	1	FF11070050	Ceramic Filter, SFEI $\phi$ .7MD1
F204	1	1	1	FF11070050	Ceramic Filter, SFEI $\phi$ .7MD1
J201	1	1	1	YP10001130	Plug
J202	1	1	1	YP10001130	Plug
J203	1	1	1	YP10001130	Plug
J204	1	1	1	YP10001130	Plug
J205	1	1	1	YP10001130	Plug

U : For U.S.A.  
 C : For Canada  
 E : For Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
J206	1	1	1	YP10001130	Plug
J207	1	1	1	YP10001130	Plug
J208	1	1	1	YP10001130	Plug
J209	1	1	1	YP10001130	Plug
J210	1	1	1	YP10001130	Plug
J211	1	1	1	YP10001130	Plug, Pin
J212	1	1	1	YP10001130	Plug, Pin
J213	1	1	1	YP10001130	Plug
J214	1	1	1	YP10001130	Plug
J215	1	1	1	YP10001130	Plug
J216	1	1	1	YP10001130	Plug
J217	1	1	1	YP10001130	Plug
J218	1	1	1	YP10001130	Plug
J219	1	1	1	YP10001130	Plug
J220	1	1	1	YP10001130	Plug
J221	1	1	1	YP10001130	Plug
J222	1	1	1	YP10001130	Plug
J223	1	1	1	YP10001130	Plug
J224	1	1	1	YP10001130	Plug
J225	1	1	1	YP10001130	Plug
J226	1	1	1	YP10001130	Plug
J227	1	1	1	YP10001130	Plug
J228	1	1	1	YP10001130	Plug
J229	1	1	1	YP10001130	Plug
J230	1	1	1	YP10001130	Plug
J231	1	1	1	YP10001130	Plug
J232	1	1	1	YP10001130	Plug
J233	1	1	1	YP10001130	Plug
J234	1	1	1	YP10001130	Plug
J235	1	1	1	YP10001130	Plug
J236	1	1	1	YP10001130	Plug
J237	1	1	1	YP10001130	Plug
J238	1	1	1	YP10001130	Plug
J239	1	1	1	YP10001130	Plug
J240	1	1	1	YP10001130	Plug
J241	1	1	1	YP10001130	Plug
J242	1	1	1	YP10001130	Plug
J243	1	1	1	YP10001130	Plug
J244	1	1	1	YP10001130	Plug
J245	1	1	1	YP10001130	Plug
J246	1	1	1	YP10001130	Plug
J247	1	1	1	YP10001130	Plug
J248	1	1	1	YP10001130	Plug
J249	1	1	1	YP10001130	Plug
J251	1	1	1	YP10001130	Plug
J253	1	1	1	YP10001130	Plug
J254	1	1	1	YP10001130	Plug
J256	1	1	1	YP10001130	Plug
J258	1	1	1	YP10001130	Plug
J259	1	1	1	YP10001130	Plug
J260	1	1	1	YP10001130	Plug
J261	1	1	1	YP10001130	Plug
J262	1	1	1	YP10001130	Plug
J263	1	1	1	YP10001130	Plug
J265	1	1	1	YP10001130	Plug, Pin
J266	1	1	1	YP10001130	Plug, Pin
J267	1	1	1	YP10001130	Plug, Pin
J268	1	1	1	YP10001130	Plug, Pin
J269	1	1	1	YP10001130	Plug, Pin
J270	1	1	1	YP10001130	Plug, Pin

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
K200			1	FP21070510	
L201	1	1	1	LC11830010	Choke Coil, 18μH
L202	1	1	1	LI14019020	I.F.T., FM
P200	1	1	1	YK29921410	P.W. Board, Tuner
	1	1		ZZ29921410	P.W. Board Assembly
			1	ZZ29928410	P.W. Board Assembly
Q201	1	1	1	HT308291C0	Transistor, 2SC829 C
Q202	1	1	1	HD20001210	Diode, 1S2473
Q203	1	1	1	HD20001210	Diode, 1S2473
Q204	1	1	1	HT308291C0	Transistor, 2SC829 C
Q205	1	1	1	HD10003020	Diode, 20A90M
Q206	1	1	1	HD10003020	Diode, 20A90M
Q207	1	1	1	HD10003020	Diode, 20A90M
Q208	1	1	1	HD10003020	Diode, 20A90M
Q209	1	1	1	HV00006120	Varistor, MV-203
Q210	1	1	1	HT308291C0	Transistor, 2SC829C
Q211	1	1	1	HC10011060	I.C., UPC555H
Q212	1	1	1	HC10025010	I.C., HA11211
Q213	1	1	1	HT317401S0	Transistor, 2SC1740 S
Q214	1	1	1	HD20001210	Diode, 1S2473
Q215	1	1	1	HD20001210	Diode, 1S2473
Q216	1	1	1	HD20001210	Diode, 1S2473
Q217	1	1	1	HT317401S0	Transistor, 2SC1740 S
R201	1	1	1	RT05272140	Res., Fixed, 2.7kΩ ±5%, ¼W
R202	1	1	1	RT05153140	Res., Fixed, 15kΩ ±5%, ¼W
R203	1	1	1	RT05102140	Res., Fixed, 1kΩ ±5%, ¼W
R204	1	1	1	RT05102140	Res., Fixed, 1kΩ ±5%, ¼W
R205	1	1	1	RT05102140	Res., Fixed, 1kΩ ±5%, ¼W
R206	1	1	1	RT05331140	Res., Fixed, 330Ω ±5%, ¼W
R207	1	1	1	RT05471140	Res., Fixed, 470Ω ±5%, ¼W
R208	1	1	1	RT05101140	Res., Fixed, 100Ω ±5%, ¼W
R209	1	1	1	RT05153140	Res., Fixed, 15kΩ ±5%, ¼W
R210	1	1	1	RT05472140	Res., Fixed, 4.7kΩ ±5%, ¼W
R211	1	1	1	RT05202140	Res., Fixed, 2kΩ ±5%, ¼W
R212	1	1	1	RT05102140	Res., Fixed, 1kΩ ±5%, ¼W
R213	1	1	1	RT05683140	Res., Fixed, 68kΩ ±5%, ¼W
R215	1	1	1	RT05224140	Res., Fixed, 220kΩ ±5%, ¼W
R217	1	1	1	RT05333140	Res., Fixed, 33kΩ ±5%, ¼W
R218	1	1	1	RT05333140	Res., Fixed, 33kΩ ±5%, ¼W
R219	1	1	1	RA05030120	Res., Semifixed, 50kΩ (B)
R220	1	1	1	RT05103140	Res., Fixed, 10kΩ ±5%, ¼W
R221	1	1	1	RT05273140	Res., Fixed, 27kΩ ±5%, ¼W
R222	1	1	1	RT05273140	Res., Fixed, 27kΩ ±5%, ¼W
R223	1	1	1	RT05104140	Res., Fixed, 100kΩ ±5%, ¼W
R224	1	1	1	RT05331140	Res., Fixed, 330Ω ±5%, ¼W
R225	1	1	1	RT05470140	Res., Fixed, 47Ω ±5%, ¼W
R226	1	1	1	RT05473140	Res., Fixed, 47kΩ ±5%, ¼W
R227	1	1	1	RA01030250	Res., Semifixed, 10kΩ (B)
R228	1	1	1	RT05102140	Res., Fixed, 1kΩ ±5%, ¼W
R229	1	1	1	RT05102140	Res., Fixed, 1kΩ ±5%, ¼W
R230	1	1	1	RT05470140	Res., Fixed, 47Ω ±5%, ¼W
R231	1	1	1	RT05102140	Res., Fixed, 1kΩ ±5%, ¼W
R232	1	1	1	RT05331140	Res., Fixed, 330Ω ±5%, ¼W
R233	1	1	1	RT05470140	Res., Fixed, 47Ω ±5%, ¼W
R234	1	1	1	RT05473140	Res., Fixed, 47kΩ ±5%, ¼W
R235	1	1	1	RT05103140	Res., Fixed, 10kΩ ±5%, ¼W
R236	1	1	1	RT05181140	Res., Fixed, 180Ω ±5%, ¼W
R237	1	1	1	RT05103140	Res., Fixed, 10kΩ ±5%, ¼W

U : For U.S.A.  
C : For Canada  
E : For Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
R238	1	1	1	RT05103140	Res., Fixed, 10kΩ ±5%, ¼W
R239	1	1	1	RT05222140	Res., Fixed, 2.2kΩ ±5%, ¼W
R240	1	1	1	RT05470140	Res., Fixed, 47Ω ±5%, ¼W
R241	1	1	1	RT05331140	Res., Fixed, 330Ω ±5%, ¼W
R242	1	1	1	RT05683140	Res., Fixed, 68kΩ ±5%, ¼W
R243	1	1	1	RT05473140	Res., Fixed, 47kΩ ±5%, ¼W
R244	1	1	1	RA01030250	Res., Semifixed, 10kΩ (B)
R245	1	1	1	RT05224140	Res., Fixed, 220kΩ ±5%, ¼W
R246	1	1	1	RT05222140	Res., Fixed, 2.2kΩ ±5%, ¼W
R247	1	1	1	RT05564140	Res., Fixed, 560kΩ ±5%, ¼W
R248	1	1	1	RT05184140	Res., Fixed, 180kΩ ±5%, ¼W
R249	1	1	1	RT05104140	Res., Fixed, 100kΩ ±5%, ¼W
R250	1	1	1	RT05472140	Res., Fixed, 4.7kΩ ±5%, ¼W
R251	1	1	1	RA01040180	Res., Semifixed, 100kΩ (B)
R252	1	1	1	RT05123140	Res., Fixed, 12kΩ ±5%, ¼W
R253	1	1	1	RT05153140	Res., Fixed, 15kΩ ±5%, ¼W
R254	1	1	1	RT05104140	Res., Fixed, 100kΩ ±5%, ¼W
R255	1	1	1	RT05103140	Res., Fixed, 10kΩ ±5%, ¼W
S201			1	SP04030140	Pushswitch, Function
S201	1	1		SP06030130	Pushswitch, Function
C301	1	1	1	DF55471010	Cap., Film, 470pF
C302	1	1	1	DF17473010	Cap., Film, 0.047μF
C303	1	1	1	EA10601690	Cap., Elect., 10μF, 16V
C304	1	1	1	EQ22405010	Cap., Elect., 0.22μF, 50V
C305	1	1	1	EQ47405010	Cap., Elect., 0.47μF, 50V
C306	1	1	1	EQ22405010	Cap., Elect., 0.22μF, 50V
C307	1	1		DF15562050	Cap., Film, 0.0056μF
C308	1	1		DF15272050	Cap., Film, 0.0027μF
C308			1	DF15562050	Cap., Film, 0.0056μF
C309	1	1		DF15272050	Cap., Film, 0.0027μF
C309			1	DF15562050	Cap., Film, 0.0056μF
C310	1	1		DF15562050	Cap., Film, 0.0056μF
C311	1	1	1	EA10601690	Cap., Elect., 10μF, 16V
C312	1	1	1	EA10601690	Cap., Elect., 10μF, 16V
C313	1	1	1	EA10701690	Cap., Elect., 100μF, 16V
C314	1	1	1	EE47405010	Cap., Elect., 0.47μF, 50V
C315	1	1	1	DD16151010	Cap., Ceramic, 150pF
C316	1	1	1	EE47502510	Cap., Elect., 4.7μF, 25V
C318	1	1	1	EA22701690	Cap., Elect., 220μF, 16V
C319	1	1	1	EA22701690	Cap., Elect., 220μF, 16V
C320	1	1	1	EE47405010	Cap., Elect., 0.47μF, 50V
C321	1	1	1	DD16151010	Cap., Ceramic, 150pF
C322	1	1	1	EE47502510	Cap., Elect., 4.7μF, 25V
C324	1	1	1	EA22701690	Cap., Elect., 220μF, 16V
C325	1	1	1	EA10701690	Cap., Elect., 100μF, 16V
L301	1	1	1	LS35035010	M.P.X. Coil
Q301	1	1	1	HT317401S0	Transistor, 2SC1740 S
Q302	1	1	1	HC10009060	I.C., HA1156 W
Q303	1	1	1	HT317401S0	Transistor, 2SC1740 S
Q304	1	1	1	HT108422A0	Transistor, 2SA842 GR or BL
Q305	1	1	1	HT108422A0	Transistor, 2SA842 GR or BL
Q306	1	1	1	HT108422A0	Transistor, 2SA842 GR or BL
Q307	1	1	1	HT317400S0	Transistor, 2SC1740LN S
Q308	1	1	1	HT108422A0	Transistor, 2SA842 GR or BL
Q309	1	1	1	HT317400S0	Transistor, 2SC1740LN S
R301	1	1	1	RT05104140	Res., Fixed, 100kΩ ±5%, ¼W
R302	1	1	1	RT05332140	Res., Fixed, 3.3kΩ ±5%, ¼W
R303	1	1	1	RT05163140	Res., Fixed, 16kΩ ±5%, ¼W
R304	1	1	1	RA04720050	Res., Semifixed, 4.7kΩ (B)
R305	1	1	1	RT05683140	Res., Fixed, 68kΩ ±5%, ¼W

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
R306	1	1	1	RT05102140	Res., Fixed, 1kΩ ±5%, ¼W
R307	1	1	1	RT05102140	Res., Fixed, 1kΩ ±5%, ¼W
R308	1	1	1	RT05104140	Res., Fixed, 100kΩ ±5%, ¼W
R309	1	1	1	RT05104140	Res., Fixed, 100kΩ ±5%, ¼W
R310	1	1	1	RT05104140	Res., Fixed, 100kΩ ±5%, ¼W
R312	1	1	1	RT05202140	Res., Fixed, 2kΩ ±5%, ¼W
R313	1	1	1	RT05332140	Res., Fixed, 3.3kΩ ±5%, ¼W
R314	1	1	1	RT05512140	Res., Fixed, 5.1kΩ ±5%, ¼W
R315	1	1	1	RT05392140	Res., Fixed, 3.9kΩ ±5%, ¼W
R316	1	1	1	RT05392140	Res., Fixed, 3.9kΩ ±5%, ¼W
R317	1	1	1	RT05512140	Res., Fixed, 5.1kΩ ±5%, ¼W
R318	1	1	1	RT05202140	Res., Fixed, 2kΩ ±5%, ¼W
R319	1	1	1	RT05103140	Res., Fixed, 10kΩ ±5%, ¼W
R320	1	1	1	RT05332140	Res., Fixed, 3.3kΩ ±5%, ¼W
R321	1	1	1	RT05512140	Res., Fixed, 5.1kΩ ±5%, ¼W
R322	1	1	1	RT05512140	Res., Fixed, 5.1kΩ ±5%, ¼W
R323	1	1	1	RA01040180	Res., Semifixed, 100kΩ (B)
R324	1	1	1	RA01040180	Res., Semifixed, 100kΩ (B)
R326	1	1	1	RA01030250	Res., Semifixed, 10kΩ (B)
R327	1	1	1	RT05155140	Res., Fixed, 1.5MΩ ±5%, ¼W
R328	1	1	1	RT05104140	Res., Fixed, 100kΩ ±5%, ¼W
R329	1	1	1	RT05223140	Res., Fixed, 22kΩ ±5%, ¼W
R330	1	1	1	RT05471140	Res., Fixed, 470Ω ±5%, ¼W
R331	1	1	1	RT05472140	Res., Fixed, 4.7kΩ ±5%, ¼W
R332	1	1	1	RT05272140	Res., Fixed, 2.7kΩ ±5%, ¼W
R333	1	1	1	RT05101140	Res., Fixed, 100Ω ±5%, ¼W
R334	1	1	1	RT05104140	Res., Fixed, 100kΩ ±5%, ¼W
R335	1	1	1	RT05104140	Res., Fixed, 100kΩ ±5%, ¼W
R336	1	1	1	RT05104140	Res., Fixed, 100kΩ ±5%, ¼W
R337	1	1	1	RT05104140	Res., Fixed, 100kΩ ±5%, ¼W
R338	1	1	1	RT05101140	Res., Fixed, 100Ω ±5%, ¼W
R339			1	RT05101140	Res., Fixed, 100Ω ±5%, ¼W
R339	1	1		RT05101140	Res., Fixed, 100Ω ±5%, ¼W
R340	1	1	1	RT05101140	Res., Fixed, 100Ω ±5%, ¼W
R341	1	1	1	RT05101140	Res., Fixed, 100Ω ±5%, ¼W
R342	1	1	1	RT05101140	Res., Fixed, 100Ω ±5%, ¼W
R343	1	1	1	RT05471140	Res., Fixed, 470Ω ±5%, ¼W
R344	1	1	1	RT05472140	Res., Fixed, 4.2kΩ ±5%, ¼W
R345	1	1	1	RT05272140	Res., Fixed, 2.7kΩ ±5%, ¼W
R346	1	1	1	RT05101140	Res., Fixed, 100Ω ±5%, ¼W
R347	1	1	1	RT05223140	Res., Fixed, 22kΩ ±5%, ¼W
R348	1	1	1	RT05155140	Res., Fixed, 1.5MΩ ±5%, ¼W
R349	1	1	1	RT05104140	Res., Fixed, 100kΩ ±5%, ¼W
R350	1	1	1	RA01030250	Res., Semifixed, 10kΩ (B)
R351	1	1	1	RT05101140	Res., Fixed, 100Ω ±5%, ¼W
R352	1	1	1	RT05101140	Res., Fixed, 100Ω ±5%, ¼W
R353	1	1	1	RT05104140	Res., Fixed, 100kΩ ±5%, ¼W
R354			1	RT05101140	Res., Fixed, 100Ω ±5%, ¼W
R354	1	1		RT05101140	Res., Fixed, 100Ω ±5%, ¼W
R355	1	1	1	RT05103140	Res., Fixed, 10kΩ ±5%, ¼W
R356	1	1	1	RT05103140	Res., Fixed, 10kΩ ±5%, ¼W
C801	1	1	1	DK18103510	Cap., Ceramic, 0.01μF
C802	1	1	1	EA22701690	Cap., Elect., 22μF, 16V
C803	1	1	1	EA22701690	Cap., Elect., 22μF, 16V
C804	1	1	1	EA22703590	Cap., Elect., 22μF, 35V
C805	1	1	1	EA22703590	Cap., Elect., 22μF, 35V
C806	1	1	1	EA22701690	Cap., Elect., 22μF, 16V
C807	1	1	1	DK18103510	Cap., Ceramic, 0.01μF
C808	1	1	1	EA22703590	Cap., Elect., 22μF, 35V
C809	1	1	1	EA22703590	Cap., Elect., 22μF, 35V



U : For U.S.A.  
 C : For Canada  
 E : For Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
C810	1	1	1	DK18103510	Cap., Ceramic, 0.01 $\mu$ F
C811	1	1	1	EA10701690	Cap., Elect., 100 $\mu$ F, 16V
C812	1	1	1	EA10601690	Cap., Elect., 10 $\mu$ F, 16V
F801			1	FS10315800	Fuse, 250V 3.15A (SEMKO)
F802			1	FS10050800	Fuse, 250V 500mA (SEMKO)
F803			1	FS10050800	Fuse, 250V 500mA (SEMKO)
J801			1	YJ08000200	Jack, Fuse Holder
J802			1	YJ08000200	Jack, Fuse Holder
J803			1	YJ08000200	Jack, Fuse Holder
J804			1	YJ08000200	Jack, Fuse Holder
J805			1	YJ08000200	Jack, Fuse Holder
J806			1	YJ08000200	Jack, Fuse Holder
Q801	1	1	1	HT403131E0	Transistor, 2SD313 E
Q802	1	1	1	HT317401S0	Transistor, 2SC1740 S
Q803	1	1	1	HT107771Q0	Transistor, 2SA777 Q
Q804	1	1	1	HD30021090	Zener, BZ-140
Q805	1	1	1	HD20005010	Diode, W06B
Q806	1	1	1	HD20011030	Diode, DS131-B
Q807	1	1	1	HD20012030	Diode, DS132-B
R801	1	1	1	RT05100140	Res., Fixed, 10 $\Omega$ $\pm$ 5%, $\frac{1}{4}$ W
R802	1	1	1	RT05333140	Res., Fixed, 33k $\Omega$ $\pm$ 5%, $\frac{1}{4}$ W
R803	1	1	1	RA05020200	Res., Semifixed, 5k $\Omega$
R804	1	1	1	RT05221140	Res., Fixed, 220 $\Omega$ $\pm$ 5%, $\frac{1}{4}$ W
R805	1	1	1	RT05122140	Res., Fixed, 1.2k $\Omega$ $\pm$ 5%, $\frac{1}{4}$ W
R806	1	1	1	GJ05220020	Res., Fixed, 22 $\Omega$ $\pm$ 5%, 2W
R807	1	1	1	RT05182140	Res., Fixed, 1.8k $\Omega$ $\pm$ 5%, $\frac{1}{4}$ W
R808	1	1	1	GJ05221010	Res., Fixed, 220 $\Omega$ $\pm$ 5%, 1W
R809	1	1	1	RT05100140	Res., Fixed, 10 $\Omega$ $\pm$ 5%, $\frac{1}{4}$ W
R810	1	1	1	GU05681120	Res., Fixed, 680 $\Omega$ $\pm$ 5%, $\frac{1}{4}$ W
R811	1	1	1	RT05333140	Res., Fixed, 33k $\Omega$ $\pm$ 5%, $\frac{1}{4}$ W

**11. TECHNICAL SPECIFICATIONS**

**FM Tuner Section:**

**Sensitivity**

IHF Usable .....	10.3 dBf (1.8 $\mu$ V)
IHF 50 dB Quieting (Mono) .....	13.2 dBf (2.5 $\mu$ V)
(Stereo) .....	36.1 dBf (35 $\mu$ V)

**Quieting Slope (Mono)**

RF Input for 30 dB Quieting .....	8.2 dBf (1.4 $\mu$ V)
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**Quieting at:**

20 dBf ( 5.5 $\mu$ V) .....	58 dB
25 dBf ( 10 $\mu$ V) .....	63 dB
40 dBf ( 55 $\mu$ V) .....	72 dB
65 dBf (1000 $\mu$ V) .....	80 dB

**Quieting Slope (Stereo)**

**Quieting at:**

30 dBf ( 17 $\mu$ V) .....	43 dB
40 dBf ( 55 $\mu$ V) .....	55 dB
50 dBf ( 173 $\mu$ V) .....	60 dB
65 dBf (1000 $\mu$ V) .....	70 dB

**Distortion (Mono) at 65 dBf (1000  $\mu$ V)**

100 Hz .....	NARROW: 0.15%, WIDE: 0.1%
1000 Hz .....	NARROW: 0.15%, WIDE: 0.1%
6000 Hz .....	NARROW: 0.2%, WIDE: 0.1%

**Distortion (Stereo) at 65 dBf (1000  $\mu$ V)**

100 Hz .....	NARROW: 0.4%, WIDE: 0.25%
1000 Hz .....	NARROW: 0.2%, WIDE: 0.15%
6000 Hz .....	NARROW: 0.4%, WIDE: 0.3%

**Distortion (Mono and Stereo)**

at 50 dB Quieting, 1000 Hz .....	0.6%
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**Hum and Noise**

**at 65 dBf (1000  $\mu$ V)**

Mono .....	75 dB
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**Frequency Response**

**30 Hz to 15 kHz**

Mono .....	+0.2, -1.0 dB
Stereo .....	+0.2, -1.0 dB

**Capture Ratio**

at 45 dBf (100 $\mu$ V) .....	NARROW: 1.4 dB, WIDE: 1.0 dB
at 65 dBf (1000 $\mu$ V) .....	NARROW: 1.4 dB, WIDE: 1.0 dB

Alternate Channel Selectivity .....	NARROW: 80 dB, WIDE: 50 dB
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Spurious Response Rejection .....	100 dB
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Image Response Rejection .....	90 dB
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I.F. Rejection (Balanced) .....	90 dB
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A. M. Suppression .....	55 dB
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**Stereo Separation**

100 Hz .....	42 dB
1000 Hz .....	50 dB
10 kHz .....	42 dB

Subcarrier Rejection .....	70 dB
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**AM Tuner Section:**

IHF Usable Sensitivity .....	12 $\mu$ V
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Distortion (THD), 30% Modulation .....	0.4%
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Signal-to-Noise Ratio .....	52 dB
Frequency Response ( $\pm 3$ dB) .....	40 Hz to 2.5 kHz
Alternate Channel Selectivity .....	46 dB
Image Rejection .....	45 dB
Spurious Response Rejection .....	60 dB
I.F. Rejection .....	40 dB

**General:**

Power Requirements .....	120 V AC, 60 Hz (for U.S.A. and Canada) 110/120/220/240 V AC, 50 Hz (for Europe)
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Power Consumption .....	26 W
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**Dimensions:**

Panel Width .....	416 mm (16-3/8 inches)
Panel Height .....	146 mm (5-3/4 inches)
Depth .....	239 mm (9-3/8 inches)

**Weight:**

Unit alone .....	6.5 kg (14.3 lbs)
Packed for shipment .....	8 kg (17.6 lbs)



**marantz**

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