



**SERVICE  
MANUAL SR9000G**



**marantz**<sup>®</sup>

**model SR9000G**

*Stereophonic Receiver*

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2. Complete part numbers.
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### MODEL SR-9000G STEREOPHONIC RECEIVER



## INTRODUCTION

This service manual was prepared for use by Authorized Warranty Stations and contains service information for Marantz Model SR-9000G Stereophonic Receiver.

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

The 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

1. Tuner/Phono . . . . .	mounted on P.W. Board	P100
2. Power Amp . . . . .	mounted on P.W. Board	P700
3. Power Supply . . . . .	mounted on P.W. Board	P800
4. Sub Power Supply . . . . .	mounted on P.W. Board	P860
5. Display Unit . . . . .	mounted on P.W. Board	P900
6. Noise Amp . . . . .	mounted on P.W. Board	PB00
7. Synthesizer . . . . .	mounted on P.W. Board	PC00
8. Tone Amp . . . . .	mounted on P.W. Board	PE00
9. Volume/Balance . . . . .	mounted on P.W. Board	PG00
10. Power Level LED . . . . .	mounted on P.W. Board	PK00
11. Voltage Amp . . . . .	mounted on P.W. Board	PN00
12. Tape/Filter/Loudness . . . . .	mounted on P.W. Board	PS00
13. Multipath . . . . .	mounted on P.W. Board	PS50
14. Speaker Switch . . . . .	mounted on P.W. Board	PT00
15. Rec. Mode Switch . . . . .	mounted on P.W. Board	PT50
16. Tuning Key . . . . .	mounted on P.W. Board	PU00
17. Scan Step . . . . .	mounted on P.W. Board	PU50
18. Tape 2 Terminal . . . . .	mounted on P.W. Board	PV00
19. Remote Cont. . . . .	mounted on P.W. Board	PV50
20. Phone Jack . . . . .	mounted on P.W. Board	PW00
21. Function Indicator . . . . .	mounted on P.W. Board	PY00

## 2. TEST EQUIPMENT REQUIRED FOR SERVICING

This table lists the test equipment required for servicing the Model SR-9000G Receiver.

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



### 3. FREQUENCY SYNTHESIZER RADIO TUNING SYSTEM

#### 3.1 Construction of Synthesizer System

This frequency synthesizer is composed of a micro-computer (MN 1400SJ), PLL LSI (MN6142), CMOS RAM (MN1203), prescaler (uPB551C), lowpass filter, crystals and fluorescent indicating tubes, as shown in Fig. 1.

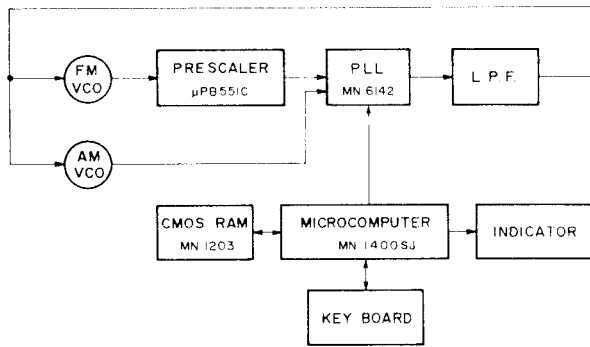


Figure 1. Block Diagram of Synthesizer

#### 3.2 Microcomputer MN1400SJ

##### [1] Terminal connections

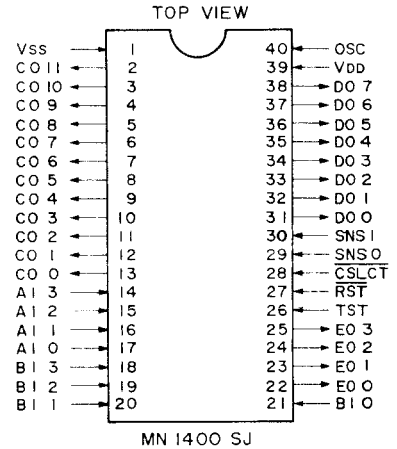


Figure 2

##### [2] Block diagram

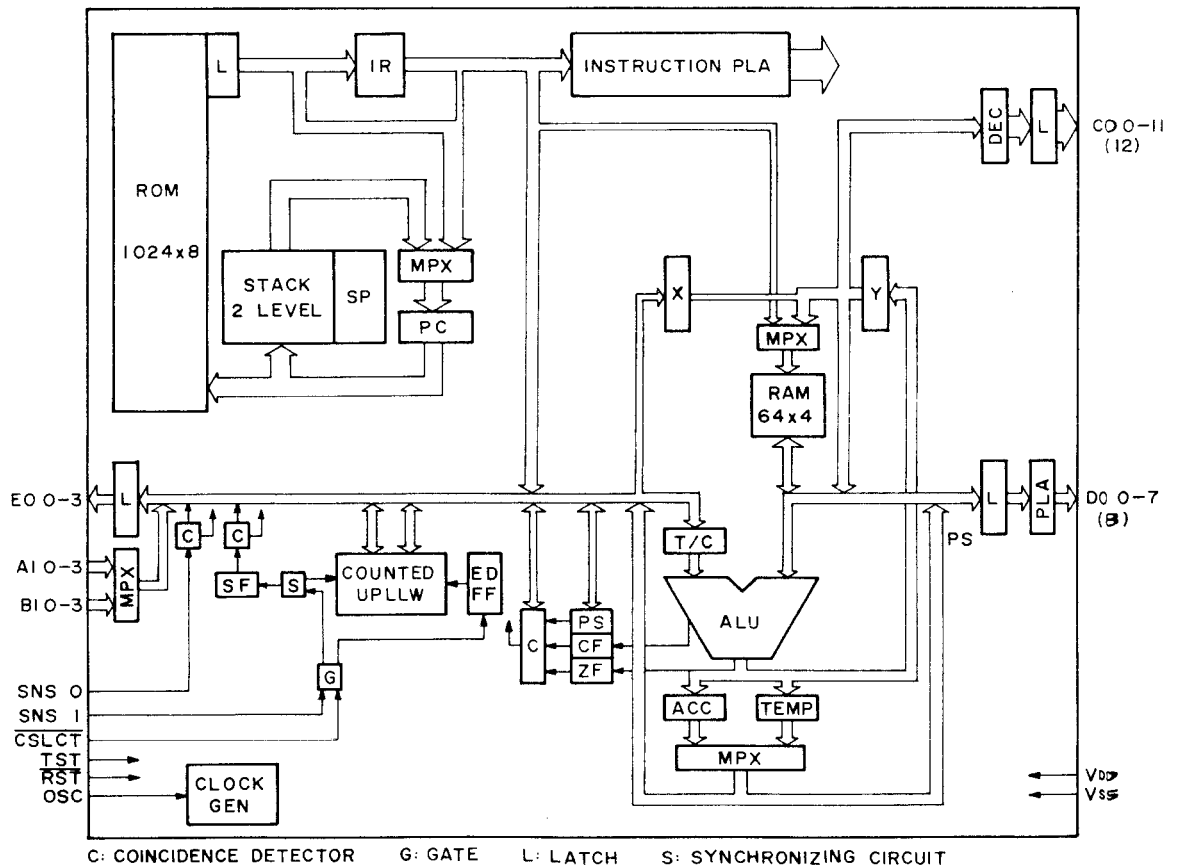


Figure 3

[3] Specifications

Type No.	Function	Maximum Ratings (Ta = 25°C)			Electrical Characteristics (Ta = 25°C)						
		Item	Rating	Unit	Item	Condition	Min.	Typ.	Max.	Unit	
MN1400	N-Channel LOCOS E/D MOS 4-Bit · 1 Chip Microcomputers	V <sub>DD</sub>	-0.3~+10	V	I <sub>DD</sub>	V <sub>DD</sub> = 5V Without load		20	40	mA	
		V <sub>I</sub>	-0.3~+10	V							
		V <sub>O</sub>	-0.3~+10	V	P <sub>1</sub>	V <sub>DD</sub> = 5V Without load		100	200	mA	
		V <sub>OSC</sub>	-0.3~+10	V							
		I <sub>OH</sub> (PK) (C,D,E Port)	-0.5	mA	V <sub>IH1</sub>	AI0~AI3, BI0~BI3 SNS0, SNS1 V <sub>DD</sub> = 5V	2.4		V <sub>DD</sub>	V	
		I <sub>OL</sub> (PK) (C,D,E Port)	8	mA	V <sub>IL1</sub>		V <sub>SS</sub>	0.8			
		I <sub>OH</sub> (aV) (C,D,E Port)	-0.25	mA	V <sub>IH2</sub>	RST, CSLCT, RDY V <sub>DD</sub> = 5V	2.4		V <sub>DD</sub>	V	
		I <sub>OL</sub> (aV) (C,D,E Port)	4	mA	V <sub>IL2</sub>		V <sub>SS</sub>	0.8			
		P <sub>T</sub>	500	mW	I <sub>I2</sub>	V <sub>I</sub> = 0.8V	-5	-15	-30	μA	
		Topr	-30~+70	°C	V <sub>OH1</sub>	CO0~CO11, DO0~DO7, SYNC, EO0~EO3, DOPS, RA0~RA10	V <sub>DD</sub> = 5V I <sub>OH</sub> = -30μA	4			V
		Tstg	-55~+125	°C	V <sub>OH2</sub>		V <sub>DD</sub> = 5V I <sub>OH</sub> = -100μA	2.6			
		Operating Condition (Ta = 25°C)			V <sub>OL</sub>		V <sub>DD</sub> = 5V I <sub>OL</sub> = 2mA			0.5	
		Item	min.typ.max.	Unit	f <sub>OSC</sub>	V <sub>DD</sub> = 5V, R <sub>OSC</sub> = 18kΩ, C <sub>OSC</sub> = 100pF	200	300	450	kHz	
		V <sub>DD</sub>	4,5,5,6	V	C <sub>1</sub>	V <sub>DD</sub> = 5V, V <sub>I</sub> = 2V		5		pF	
C <sub>0</sub>	V <sub>DD</sub> = 5V, V <sub>I</sub> = 2V					7					

[4] Functions of terminals

No.	Symbol	Item	No.	Symbol	Item
1	V <sub>SS</sub>	GND	40	OSC	360 kHz In
2	CO11		39	V <sub>DD</sub>	5V
3	CO10	Muting Output (H)	38	DO7	
4	CO9	Band: AM/FM Select Signal Output	37	DO6	Segment output: c
5	CO8	Load signal output to PLL latch circuit	36	DO5	Segment output: d
6	CO7	Memory chip enabling output	35	DO4	Segment output: a
7	CO6		34	DO3	Segment output: f Frequency division ratio preset output
8	CO5	Digit output: AM, FM, ME, FM Stereo	33	DO2	Segment output: e Frequency division ratio preset output
9	CO4	5th digit	32	DO1	Segment output: g Frequency division ratio preset output
10	CO3	4th digit	31	DO0	Segment output: b Frequency division ratio preset output
11	CO2	3rd digit	30	SNS1	5V
12	CO1	2nd digit	29	SNS0	
13	CO0	1st digit	28	CSLCT	GND
14	AI3	Key mode switch input	27	RST	Reset
15	AI2	Key mode switch input	26	TST	
16	AI1	Key mode switch input	25	EO3	Key mode switch output
17	AI0	Key mode switch input	24	EO2	Key mode switch output
18	BI3	5V	23	EO1	Key mode switch output
19	BI2		22	EO0	Memory PLL address latch select output
20	BI1		21	BI0	Squelch input (L)

### 3.3 PLL LSI MN6142

#### [1] Terminal connections

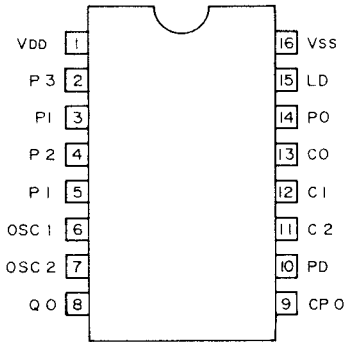


Figure 4

#### [2] Specifications

Absolute maximum ratings				
Item	Symbol	Rating	Unit	Remarks
Power supply voltage	$V_{DD}$	-0.3 - +10	V	$V_{SS} = 0V$
Power consumption	$P_T$ (MAX)	50	mW	
Input voltage	$V_{IN}$	-0.3 - $V_{DD} + 0.3$	V	$V_{SS} = 0V$
Output voltage	$V_{OUT}$	-0.3 - $V_{DD} + 0.3$	V	$V_{SS} = 0V$
Operating temperature	$T_{opr}$	-20 - +70	°C	
Storage temperature	$T_{stg}$	-55 - +100	°C	

#### [3] Block diagram

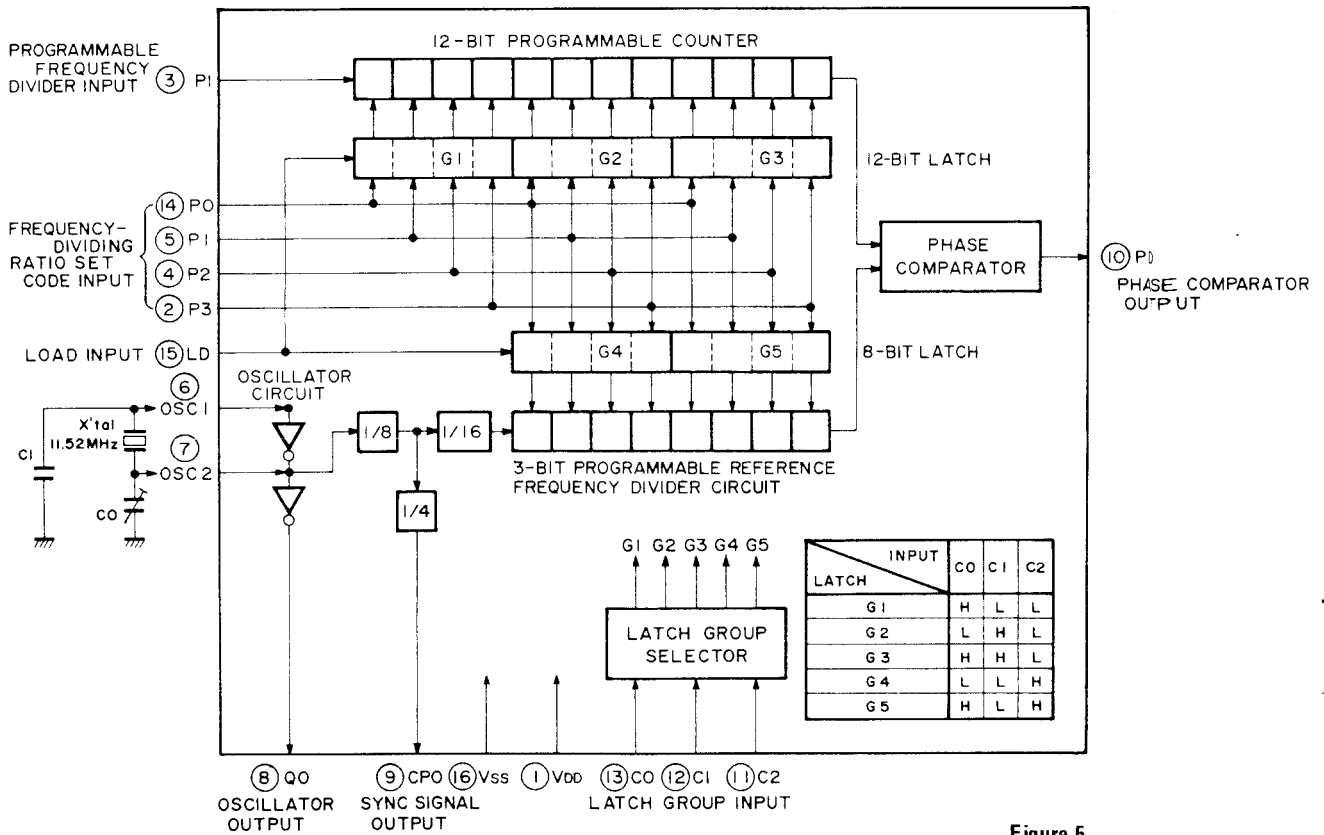


Figure 5

[4] Functions of terminals

No.	Symbol	Descriptions
1	V <sub>DD</sub>	Power supply +5V
2	P <sub>3</sub>	Frequency dividing ratio preset code input
3	P <sub>1</sub>	Programmable frequency divider input
4	P <sub>2</sub>	Frequency dividing ratio preset code input
5	P <sub>1</sub>	Frequency dividing ratio preset code input
6	OSC1	Oscillator
7	OSC2	Oscillator
8	QO	Oscillator output, 11.52 MHz
9	COP	Sync signal output, 360kHz
10	PD	Phase comparator output
11	C <sub>2</sub>	Latch group select input
12	C <sub>1</sub>	Latch group select input
13	CO	Latch group select input
14	PO	Frequency dividing ratio preset code input
15	LD	Load signal terminal for frequency dividing ratio preset coad input latch circuit
16	V <sub>SS</sub>	Ground

3.4 CMOS RAM MN1203

[1] Terminal connections

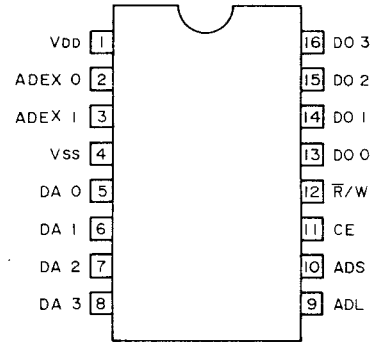


Figure 6

[2] Specifications

Absolute maximum ratings				
Item	Symbol	Rating	Unit	Remarks
Power supply voltage	V <sub>DD</sub>	-0.3 - +8.0	V	V <sub>SS</sub> = 0V
Input voltage	V <sub>IN</sub>	-0.3 - V <sub>DD</sub> + 0.3	V	V <sub>SS</sub> = 0V
Output voltage	V <sub>OUT</sub>	-0.3 - V <sub>DD</sub> + 0.3	V	V <sub>SS</sub> = 0V
Operating temperature	T <sub>opr</sub>	-20 - +70	°C	
Storage temperature	T <sub>stg</sub>	-55 - +100	°C	

[3] Block diagram

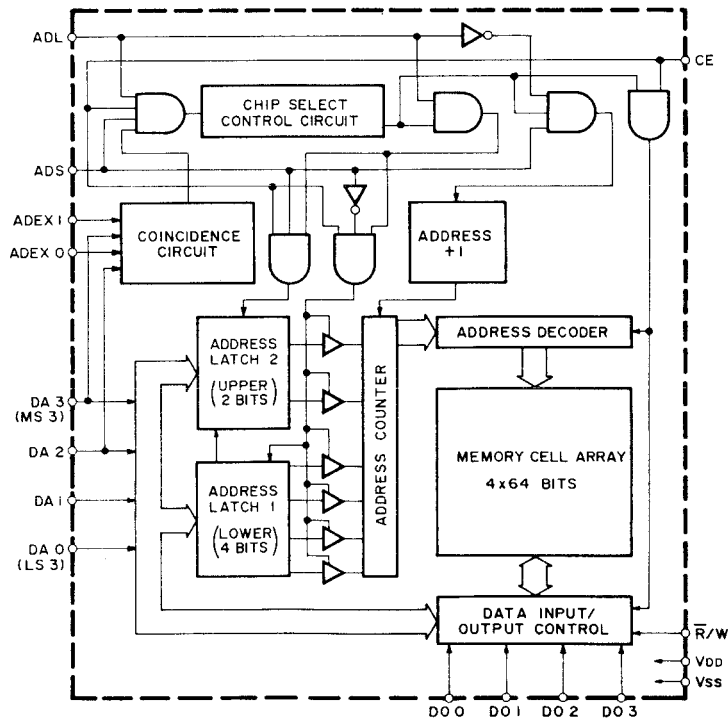


Figure 7

[4] Functions of terminals

No.	Symbol	Descriptions
1	VDD	Power supply, +5V
2	ADEX0	Chip select input
3	ADEX1	Chip select input
4	VSS	Ground
5	DA0	Data/address input
6	DA1	Data/address input
7	DA2	Data/address input
8	DA3	Data/address input
9	ADL	Address latch data input
10	ADS	Address latch select input
11	CE	Chip enable input
12	R/W	Writing designation input
13	DO0	Data output
14	DO1	Data output
15	DO2	Data output
16	DO3	Data output

3.5 Prescaler uPB551C

[1] Terminal connections

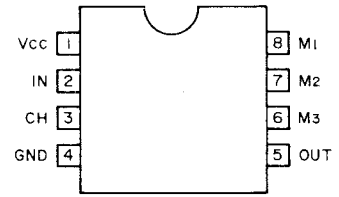


Figure 8

[2] Specifications

Absolute maximum ratings (Ta = 25°C)

Item	Symbol	Rating	Unit
Power supply voltage	V <sub>CC</sub>	-0.5 – +6.0	V
Input voltage	V <sub>I</sub>	-0.5 – V <sub>CC</sub>	V
Output current	V <sub>O</sub>	15	mA
Junction temperature	T <sub>J</sub>	+125	°C
Storage temperature	T <sub>stg</sub>	-55 – +125	°C

Electrical characteristics (V<sub>CC</sub> = 5V ±10%, Ta = -30 – +75°C)

Item	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Power supply current	I <sub>CC</sub>	V <sub>CC</sub> = 5.0V		38	52	mA
High level output voltage	V <sub>OH</sub>	Out terminal I <sub>o</sub> = -40μA	4.0			V
Low level output voltage	V <sub>OL</sub>	Out terminal I <sub>o</sub> = 1.0mA			1.0	V
High level input voltage	V <sub>IH</sub>	M <sub>3</sub> terminal *1	4.0			V
Low level input voltage	V <sub>IL</sub>	M <sub>3</sub> terminal *2			1.0	V
Input voltage	V <sub>in</sub>	IN terminal	140			mVr.m.s.
Response frequency	fin <sub>1</sub>	IN terminal, 1/10, 1/11 frequency-division *3	1.0		100	MHz
Response frequency	fin <sub>2</sub>	IN terminal, other than 1/10, 1/11 frequency-division *3	1.0		150	MHz

[3] Block diagram

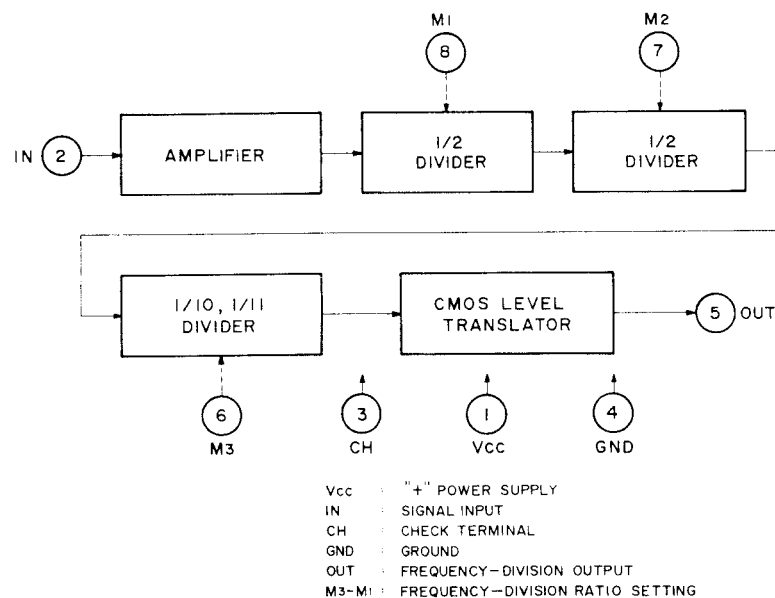


Figure 9

### 3.6 Principles of operation of PLL Synthesizer Tuning System

This synthesizer system incorporates a PLL circuit and a microcomputer to electronically select radio stations by varying the capacity of a varactor diode, eliminating the need for a mechanical variable condenser.

The basic operation of the system is illustrated in Fig. 10. When a reverse voltage is applied to the varactor diode, the junction capacity of the diode is varied which in turn varies the tank tuning frequency and hence the antenna circuit, RF amplifier and local oscillator circuit are tuned to the desired radio frequency.

In FM tuning, the local oscillator frequency  $f_L$  is divided by 20 by the prescaler, since it is as high as  $\star 98.8-118.6$  MHz (or  $\star 98.2-118.7$  MHz). The divided frequency is then applied to the 1/N programmable counter where it is further divided by N. The divided signal ( $f_L'$ ) is phase compared with the reference signal ( $f_r$ ), which the crystal oscillator frequency (11.52 MHz) is count down by the reference frequency divider. If there is a difference in frequency or phase between the two signals, an error output ( $e_r$ ) corresponding to the difference is produced.

The error output is a pulse signal and its DC component is

picked up by the LPF in the next stage. The DC component is fed back to the varactor diode to vary the local oscillator frequency.

When the local oscillator frequency is varied and " $f_r$ " and " $f_L'$ " are equal, the phase sync loop is locked.

$$f_L' = f_L / 20N = f_r$$

$$f_L = 20Nf_r$$

By changing the value of N (an integer) fed from the microcomputer to the 1/N programmable counter, the local oscillator frequency can be varied in 20f steps. When tuning FM in 200kHz steps, the value of  $N = 2N'$  ( $N'$ : integer) is fed from the microcomputer. Proper tracking adjustment between the tuning circuit for the antenna and RF amplifier and the local oscillator tuning circuit enables reception of the desired station.

The microcomputer programs the relationship between the receiving mode, intermediate frequency and the value of N and feeds the data of the receiving frequency via the driver to indicate the tuned frequency on the fluorescent tube indicator.

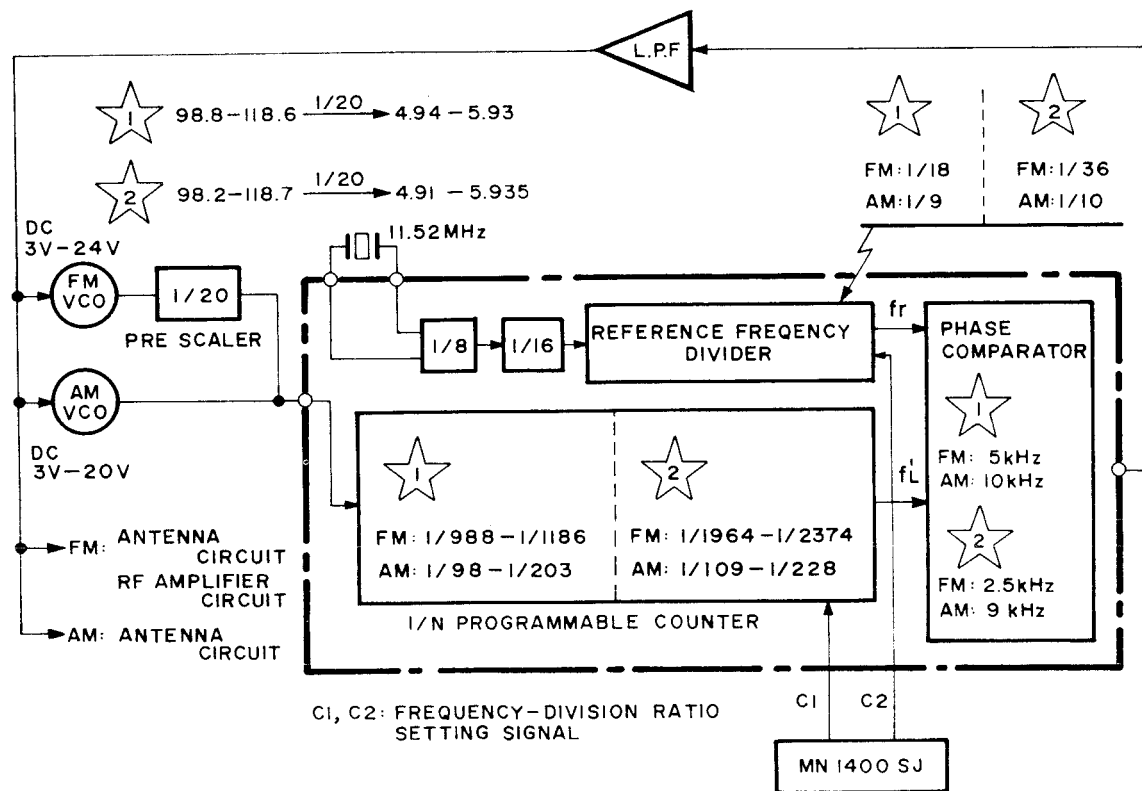


Figure 10

SCAN STEP	Receiving frequency	Intermediate frequency	Local Oscillator frequency	Number of channels	Phase comparator reference frequency
★	FM: 200kHz	88.1MHz - 107.9MHz	10.7MHz	100	10kHz
	AM: 10kHz	530kHz - 1,610kHz	450kHz	109	10kHz
★	FM: 50kHz	87.50MHz - 108.00MHz	10.7MHz	411	15kHz
	AM: 9kHz	531kHz - 1,602kHz	450kHz	120	10kHz

### Mode Setting and Control Key Connections

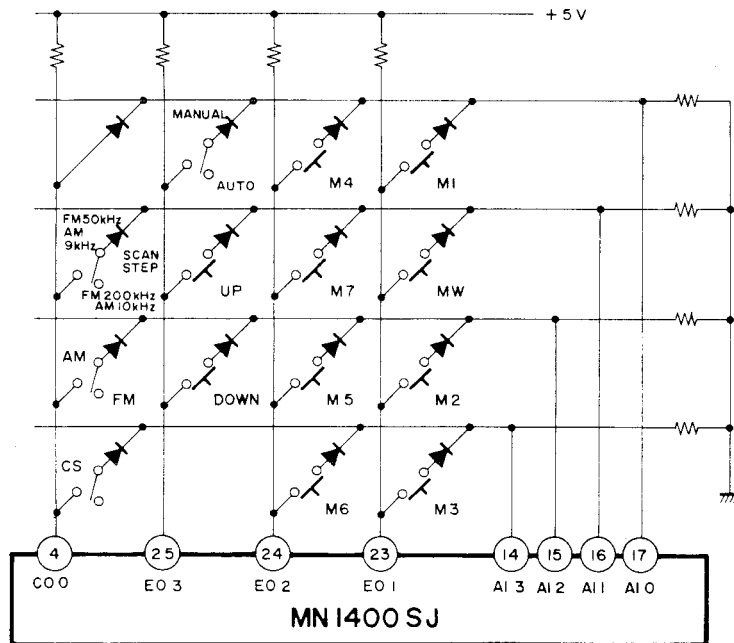


Figure 11

MW: Memory write

- \* Memory write is possible with key input.
- \* Memory write mode is retained for 5 seconds after key input is turned ON.

M1 – M7: Memory address

- \* Received station is stored in memory by key input in memory write mode.
- \* Station frequency scanned in memory is called in modes other than "memory write".

UP, DOWN: Up/Down scan

Mode switch in AUTO: Scanned at about 110 msec/ch intervals.

Mode switch in MANUAL: a) Step scan by channel.  
b) Scanned at about 90 msec/ch one second after continuous key input.

Scan stop: AUTO . . . Activated by Squelch signal (receive signal).

MANUAL . . . Activated by Key input OFF.

AUTO/MANUAL: Scan AUTO/MANUAL select switch.

- \* AUTO . . . Automatic scan with up/down key input.
- \* MANUAL . . Manual scan with up/down key input.

AM/FM: AM/FM select switch

- \* Selects AM and FM bands.
- \* Calls the last channel of the selected band.

CS: Chip select switch

- \* Display goes off at ON position.
- \* Control key input is inhibited at the same time.

SCAN STEP: Channel space and frequency select switch

- \* AM 10K: 10kHz space 530kHz – 1610kHz
- \* FM 200K: 200kHz space 88.1MHz – 107.9MHz
- \* AM 9K: 9kHz space 531kHz – 1602kHz
- \* FM 50K: 50kHz space 87.50MHz – 108MHz

Switches other than SCAN STEP are transistor switches and used for remote control capability.

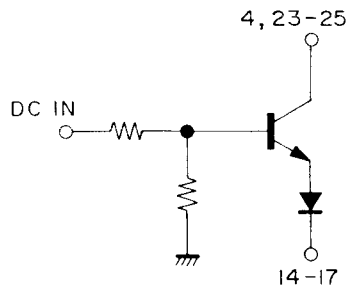


Figure 12

**Indicator**

The indicator employs fluorescent tubes for dynamic lighting.

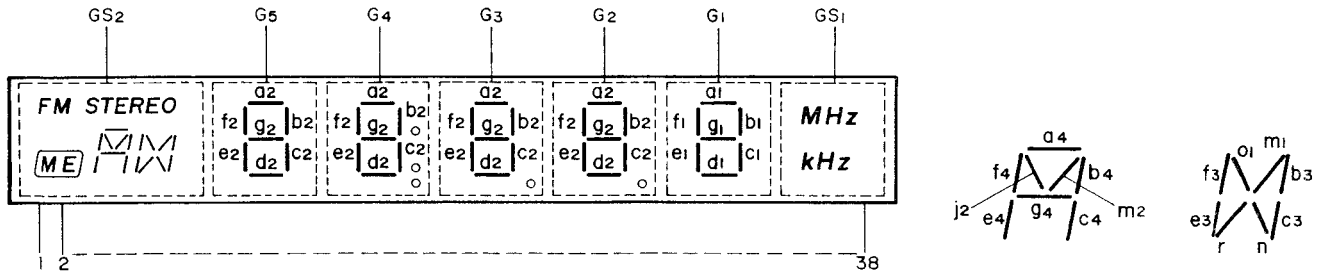


Figure 13

Pin. No.	Connection	Pin. No.	Connection	Pin. No.	Connection	Pin. No.	Connection
1	F	11	b <sub>4</sub>	21	G <sub>3</sub>	31	a <sub>2</sub>
2	FM STEREO	12	a <sub>4</sub>	22	e <sub>2</sub>	32	g <sub>1</sub>
3	ME	13	G <sub>5</sub>	23	Dp <sub>3</sub>	33	b <sub>1</sub> , e <sub>1</sub>
4	GS <sub>2</sub>	14	j <sub>1</sub> , m <sub>1</sub>	24	Dp <sub>2</sub>	34	GS <sub>1</sub>
5	j <sub>2</sub> , m <sub>2</sub>	15	n, r	25	d <sub>2</sub>	35	a <sub>1</sub> , f <sub>1</sub> , c <sub>1</sub> , d <sub>1</sub>
6	g <sub>4</sub>	16	b <sub>3</sub> , c <sub>3</sub> , e <sub>3</sub> , f <sub>3</sub>	26	G <sub>2</sub>	36	KHz
7	e <sub>4</sub>	17	G <sub>4</sub>	27	Dp <sub>1</sub>	37	MHz
8	d <sub>4</sub>	18	g <sub>2</sub>	28	C <sub>2</sub>	38	F
9	c <sub>4</sub>	19	f <sub>2</sub>	29	b <sub>2</sub>		
10	GS <sub>2</sub>	20	CoI	30	G <sub>1</sub>		

**Dynamic lighting Timing chart**

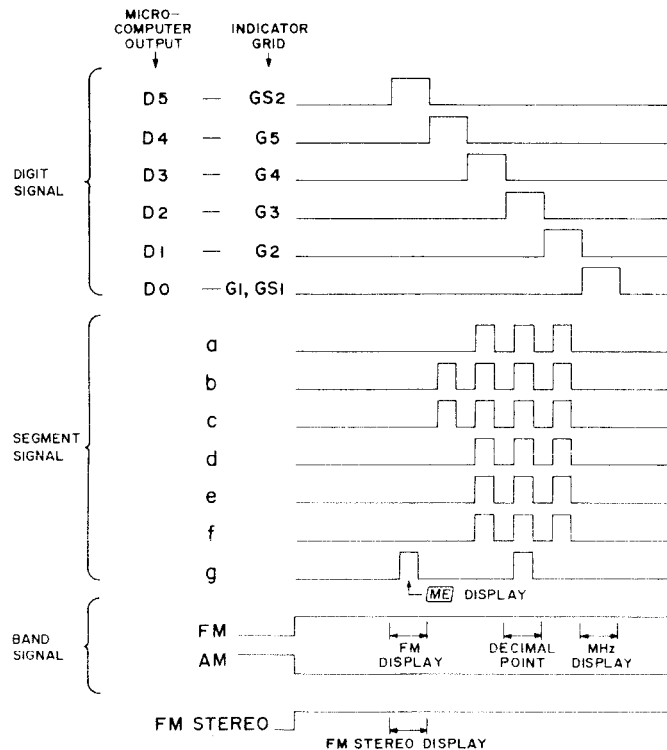


Figure 14

\* In the above timing chart, the display lights on FM STEREO, ME and FM 108.00 MHz.

\* For the indication of minimum digit (G1), the segments

a1, c1, d1 and f1 are always lighted, the letter 5 is lighted by the signal g, and the figure 0 is lighted by signals b1 & e1 fed by Q902 & Q903 when the signal g is low level.



## 4. ALIGNMENT PROCEDURES

A dummy resistor of 47 kohms must be connected across the tuner output terminals before alignment.

### 4.1 FM Alignment Procedures (Selector switch in the "FM" position, Rec. Mode Switch in the "Direct" position and mode/tuning switch in the "Mono/Manual" position)

Step	Signal Source Connection	Signal Frequency	Indicator Connection	Set the Digital Read out Frequency to:	Adjust:
<b>FM LOCAL OSCILLATOR ALIGNMENT</b> (Scan step selector switch (SU51) in the "50 KHz" position)					
1			DC Volt meter in 30V and 3V range to point (A) (J120 or JA12)	108.00 MHz	C159 for 20.0V
2				87.50 MHz	L106 for 3.0V
3	Repeat steps 1 and 2.				
<b>FM RF ALIGNMENT</b>					
1	RF generator to FM antenna terminals (B) through matching network (300 ohms balanced) (Maintain RF level below limit)	106, 10 MHz	VTVM to L or R channel output (JT51 or JV11)	106, 10 MHz	C156, C157, C158 for maximum output and minimum distortion
2		90, 10 MHz		90, 10 MHz	L101, L120, L121 for maximum output and minimum distortion
3	Repeat steps 1 and 2				
4	RF generator to FM antenna terminals (B) through matching network (300 ohms balanced) (Maintain RF level below limit)	98, 10 MHz	VIVM to L or R channel output (JT51 or JV11)	98, 10 MHz	L105 for maximum output and minimum distortion
5	No. Connection	No. Signal	"O" Center Meter or DC current meter in 100 $\mu$ A range to point (C) (J131 and J132)		L109 Core so that the meter indicator its center or may read "O"
6	RF generator 1mV output to FM antenna terminals B through matching network (300 ohms, balanced)	98, 10 MHz	Distortions meter to L or R Channel output (JT51 or JV11)	98, 10 MHz	L110 core for minimum distortion
7					RS51 so that signal Strength Led may light 5 points
<b>Muting circuit Alignment</b> (FM Stopping Level of Scanning FM Stereo indicator threshold Level)					
1	RF generator 12.5 $\mu$ V output to FM antenna terminal (B) through matching network (300 ohms balanced)	98, 10 MHz	VTVM to R or L channel output (JT51 or JV11)	98, 10 MHz	R131 for 12.5 $\mu$ V threshold level (Setting to Auto position of mode switch)



### MULTIPLEX ALIGNMENT PROCEDURES

(Selector switch in the "FM" position. Rec Mode Switch in the "Direct" position and Mode/Tuning switch in the Stereo/Auto position)

Step	Signal Source Connection	Signal Frequency	Indicator Connection	Set the Digital Read out Frequency to:	Adjust:
1	RF generator to FM antenna terminals (B) through matching network (300 ohms balanced) with 1mV FM stereo simulator RF level and 100% modulation (pilot 9%)	NO, modulation	Frequency counter to point (D) (J302)	98, 10 MHz	R302 so that Frequency counter may precisely read 76kHz
2		Stereo, left (1,000 Hz)	VTVM to right channel (JT51 or JV11)		R326 for maximum output and same separation in both channels.
3		Stereo right (1,000 Hz)	VTVM to left channel output terminal (JT51 or JV11)		
4	Repeat step 2 and 3				
5	RF generator to FM antenna terminals (B) through matching network (300 ohms, balanced). with 1mV FM stereo simulator RF level and Pilot 9% modulation	Pilot only	VTVM to right and left channel output (JT51 or JV11)	98, 10 MHz	R306 so that minimum output should be the same in both channels.

#### 4.2 AM ALIGNMENT Procedures (Selector Switch in the "AM" position. Rec. Mode Switch in the "DIRECT" position and Mode/Tuning switch in the "MONO/MANUAL" position)

Step	Signal Source Connection	Signal Frequency	Indicator Connection	Set the Digital Read out Frequency to:	Adjust:
<b>AM LOCAL OSCILLATOR ALIGNMENT</b> (Scan Step Selector switch (SU51) in the "10KHz" position)					
1	—	—	DC Volt meter in 30V and 3V range to point (A) (J120 or JA12)	1610 kHz	CA35 for 25V
2				530 kHz	LA01 for 2.0V
3			Repeat step 1 and 2		
<b>AM IF ALIGNMENT</b>					
1	Sweep generator to point (E) (RA20)	450kHz marker	Oscilloscope to point (F) (JA03)	Quiet point on band	LA02 & LA03 for maximum and symmetric response.
<b>AM RF ALIGNMENT</b>					
1	Apply the signal to the AM bar antenna from the RF generator, using the test loop. As per the Figure 15	1400kHz	VTVM to L or R Channel output (JT51 or JV11)	1400kHz	CA49 for maximum output
2		600kHz		600kHz	LB01 for maximum output
3		Repeat step 1 and 2 as necessary to obtain maximum sensitivity.			

AM STOPPING LEVEL OF SCANNING (Mode/Tuning Switch in the Stereo/Auto position)					
Step	Signal Source Connection	Signal Frequency	Indicator Connection	Set the Digital Read out Frequency to:	Adjust:
1	Apply the signal Level of $700\mu\text{V}$ to the AM bar antenna from the RF generator using the test loop as per the Figure 15	1,000 kHz	VTVM to L or R Channel output (JT51 or JV11)	1,000 kHz	RA34 for $700\mu\text{V}$ threshold Level

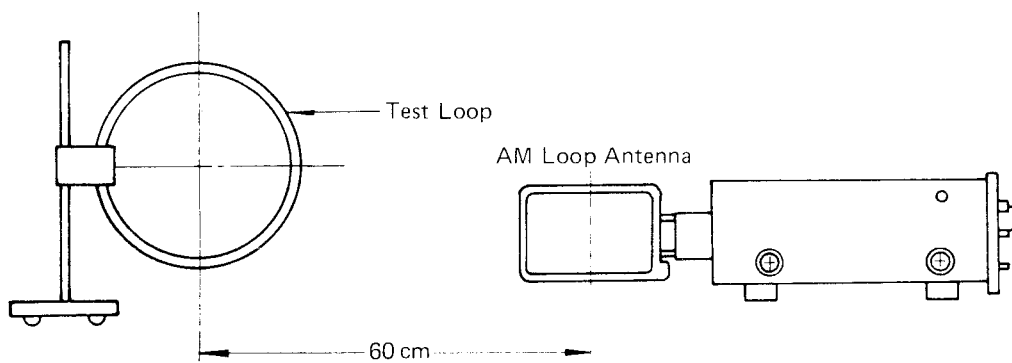


Figure 15

## AUDIO ALIGNMENT PROCEDURE

Selector switch in the TAPE 3/AUX position.

### 1. DC OFFSET ADJUSTMENT

- Remove load from the SPK jack and connect a VTVM to the output terminals.
- Turn the power switch on and adjust R709 and R710 so that both channels become 0 V.

### 2. IDLING ADJUSTMENT

- Remove load from the SPK jack.
- Connect the VTVM to idling test points (on the P700) and SPK + terminal and adjust R765 and R766 so that the VTVM reading is  $6 \pm 1$  mV.

### 3. POWER METER ADJUSTMENT

- Do not apply a signal and adjust RK09 and RK10 so that the 1st point of the LED does not light.
- Apply a signal of 1 kHz. When the voltage at the SPK jack is 32.2 V (130W) with 8 ohm load, adjust RK01 and RK02 so that the 5th LED lights up.
- When the output voltage is 0 V, confirm that the 1st LED does not light.

## 5. 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. DO NOT DISASSEMBLE THE VOLTAGE SELECTOR ABSOLUTELY.**

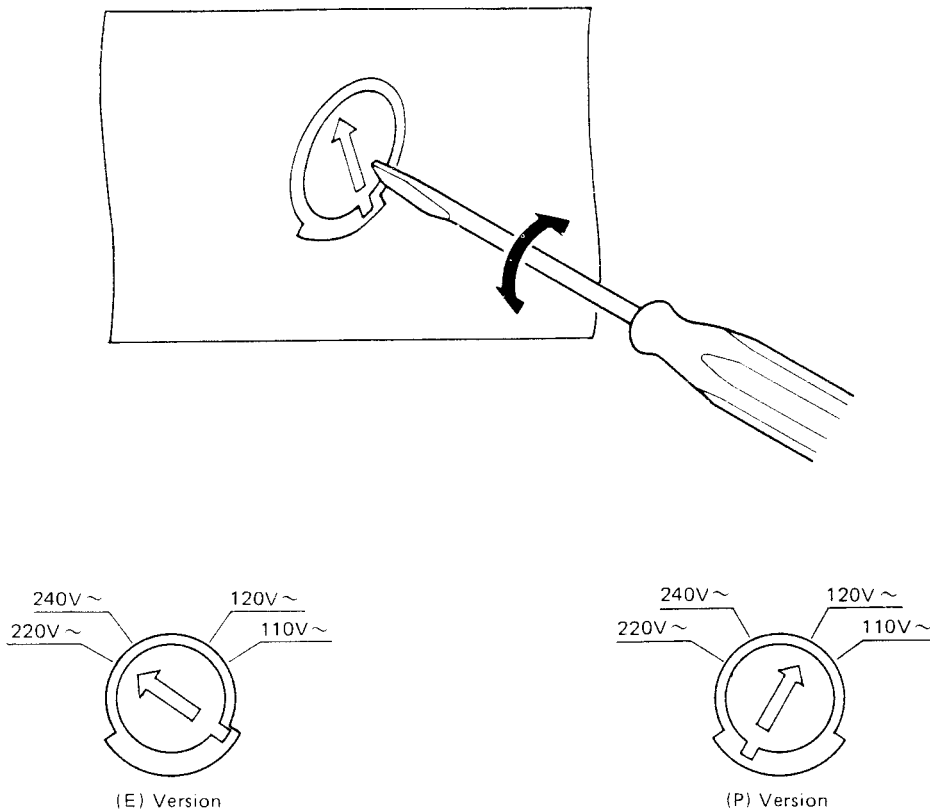


Figure 16. Voltage Conversion

**NOTE ON SAFETY:** THE PARTS MARKED WITH  ARE IMPORTANT PARTS ON THE SAFETY. PLEASE USE THE PARTS HAVING THE DESIGNATED PARTS NUMBERS WITHOUT FAIL.

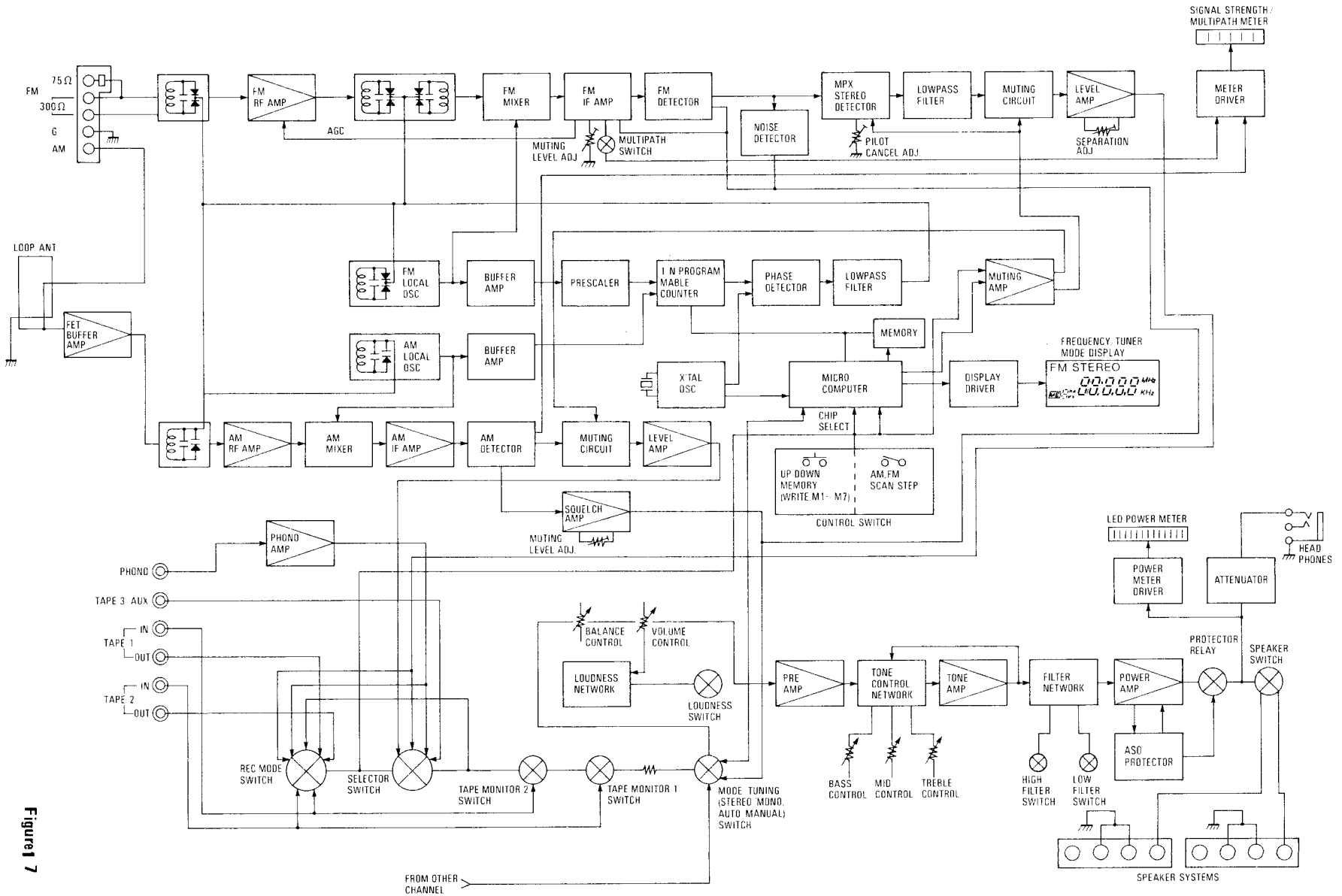
### FTZ REGULATION

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 empfindlich sein, bitten wir, den Bereich durch Nachstellen des Kernes in der Oszillatorschleife (in der Abbildung mit "FTZ" gekennzeichnet) so zu korrigieren, dass er den Bestimmungen entspricht.

6. BLOCK DIAGRAM

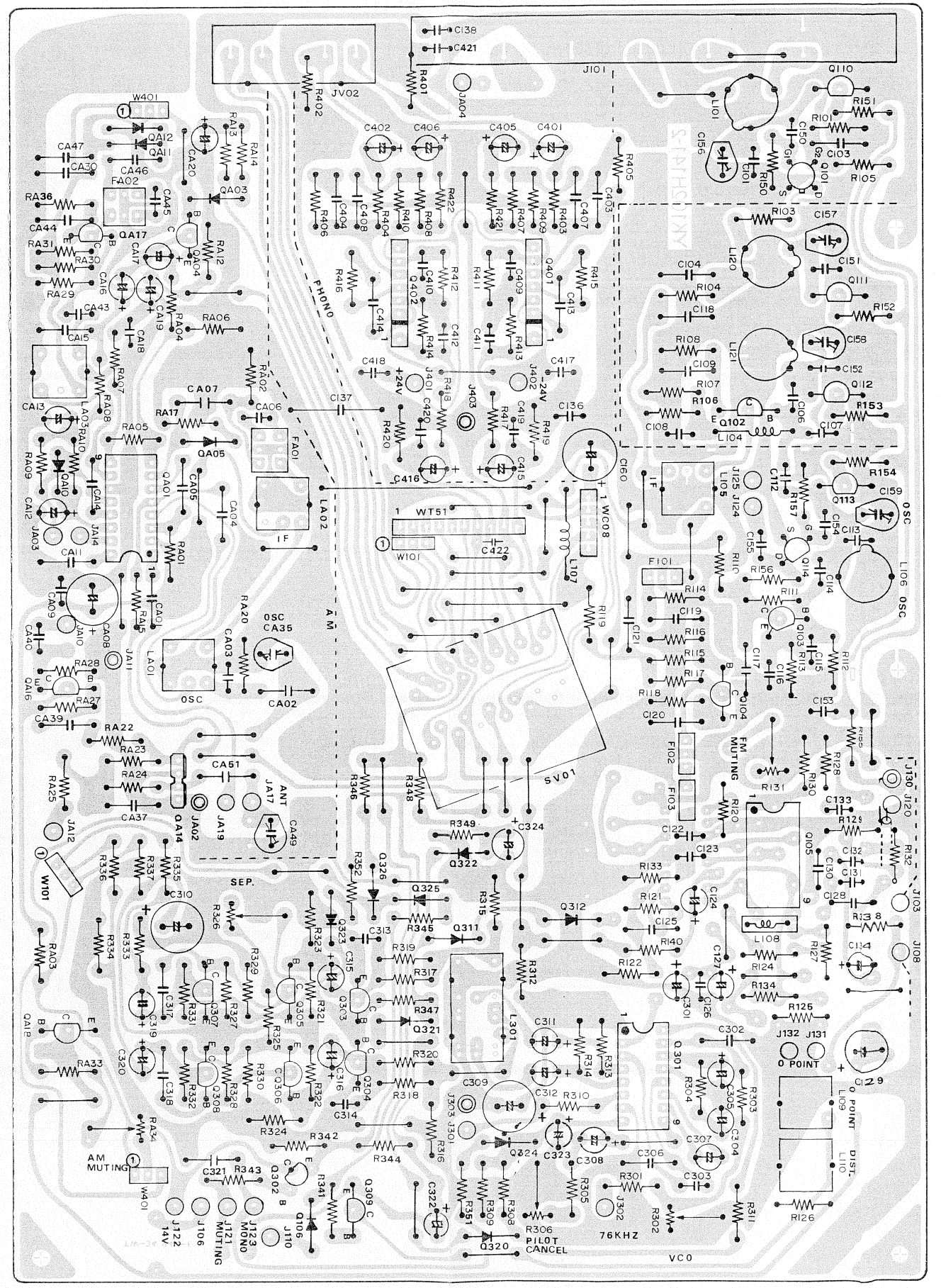
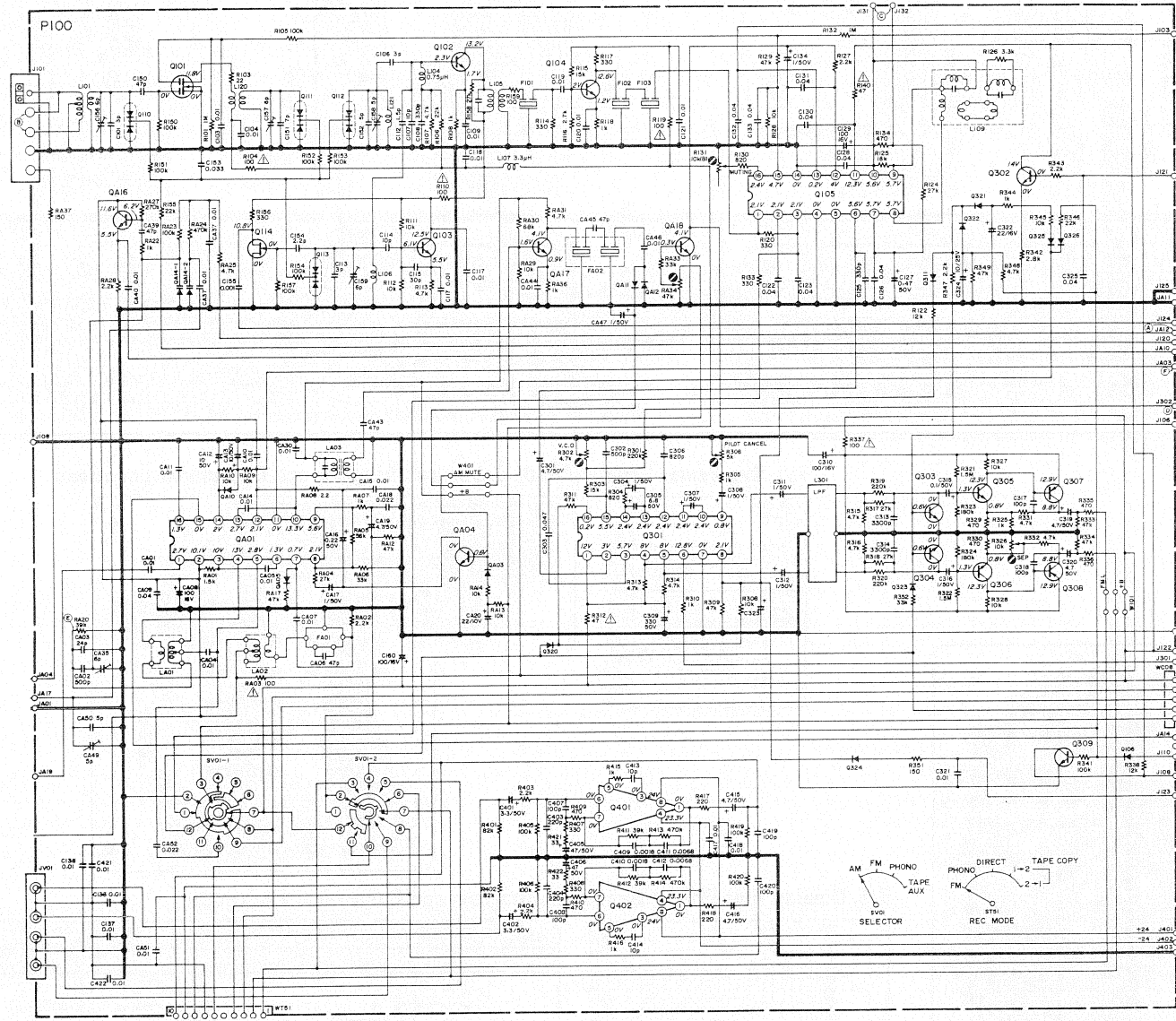


16

Figure 7

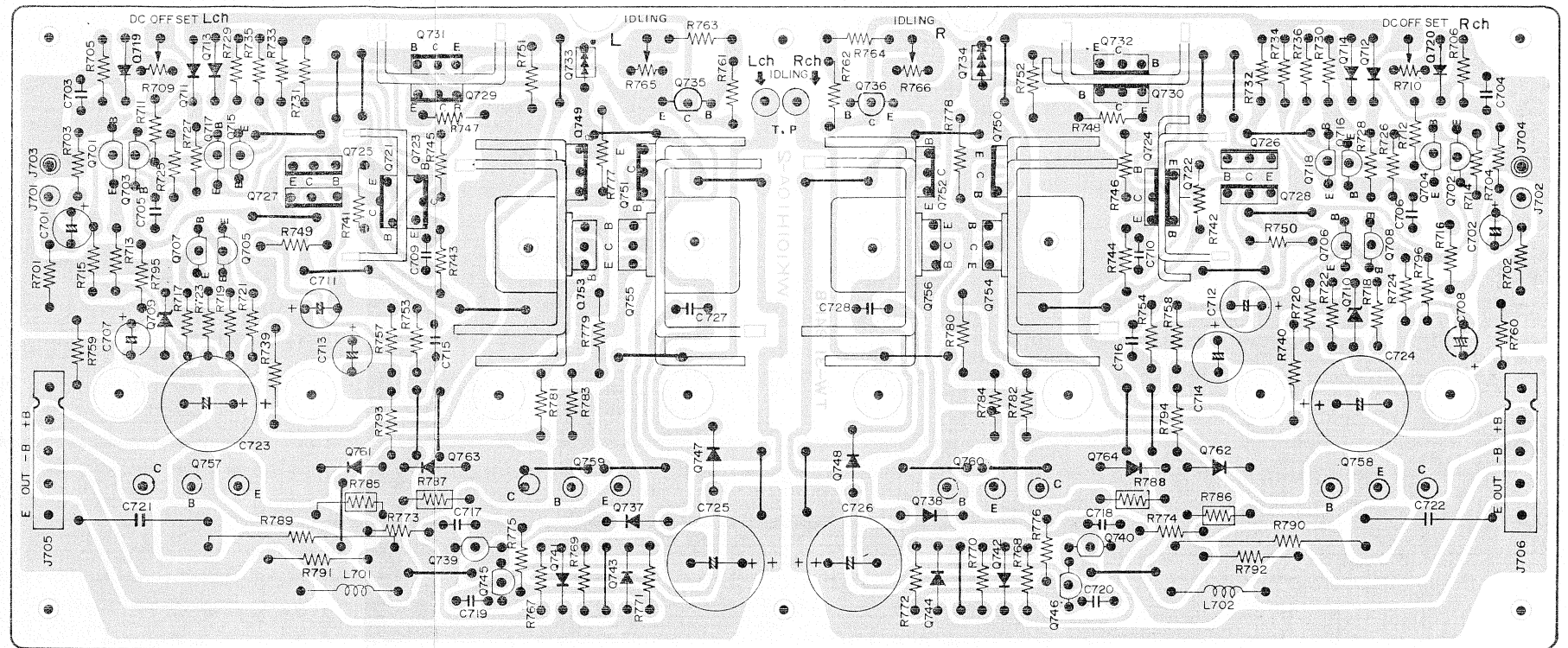
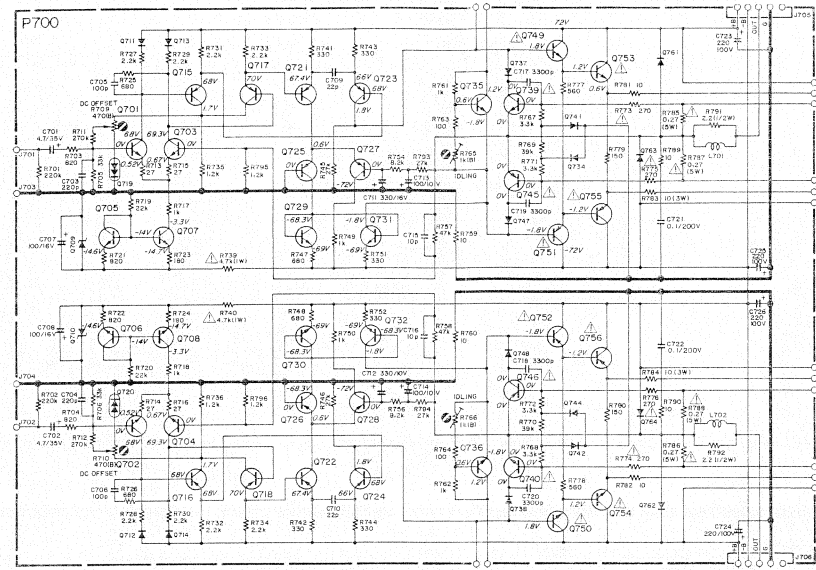
# 7. DIAGRAM AND COMPONENT LOCATIONS

## 7.1 Tuner/Phone Amp.(P100) Schematic Diagram and Component Locations

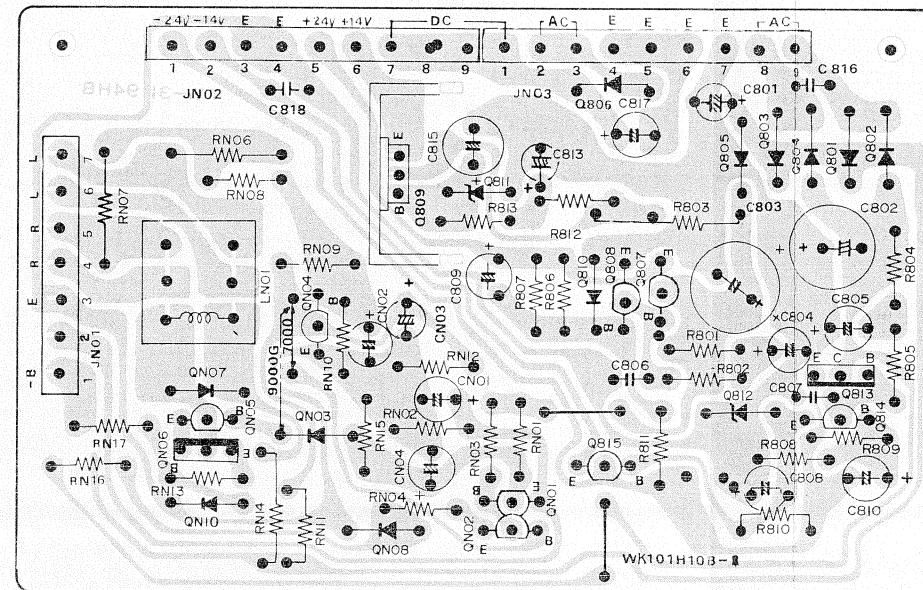
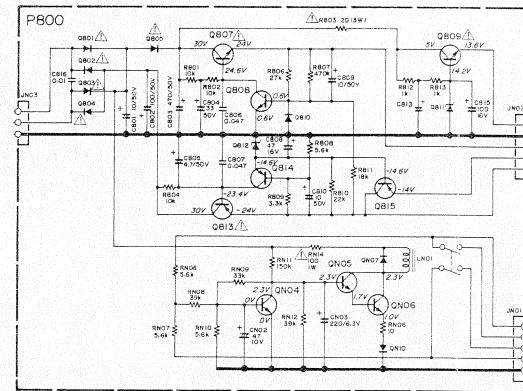




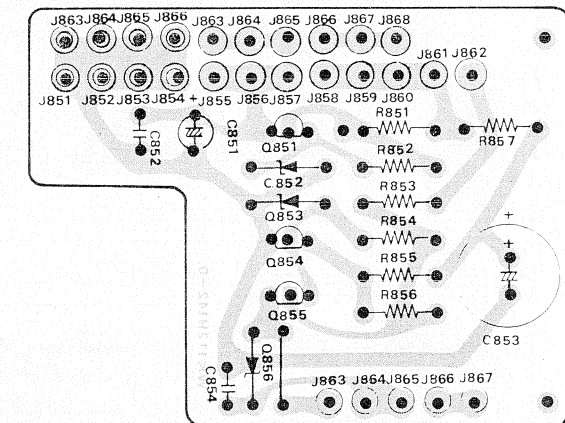
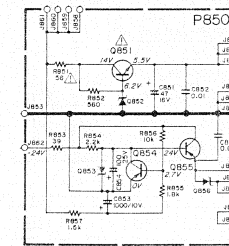
7.2 Main Amp.(P700) Schematic Diagram and Component Locations



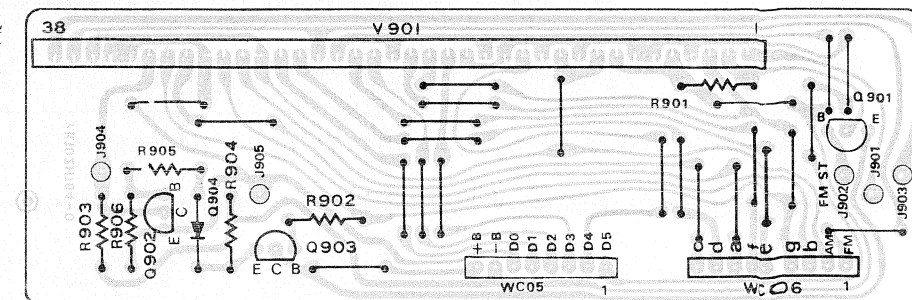
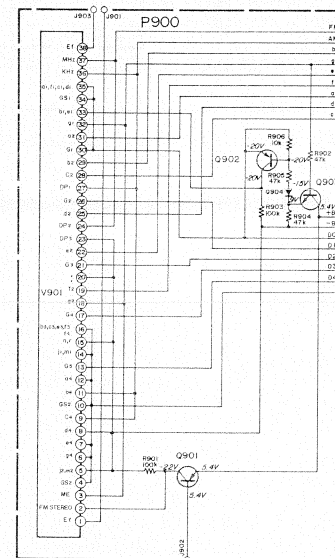
7.3 Power Supply(P800) Schematic Diagram and Component Locations



7.4 Sub Power Supply (P850) Schematic Diagram and Component Locations

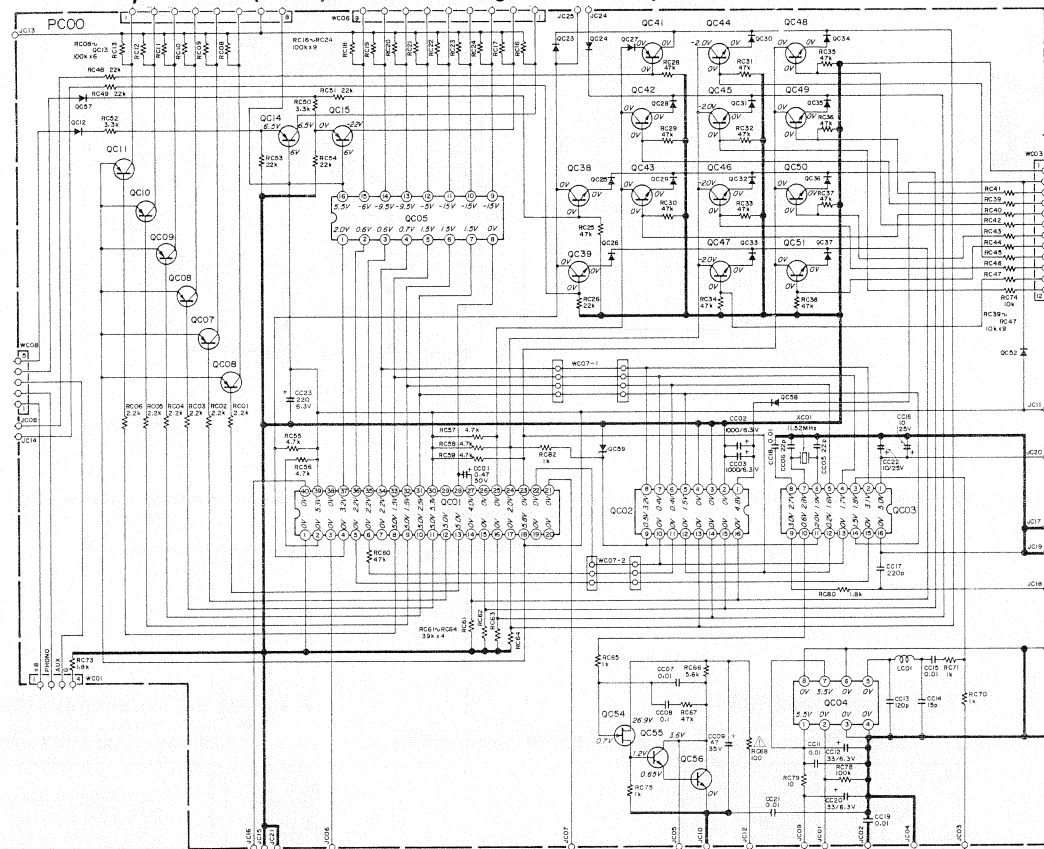


7.5 Display Unit (P900) Schematic Diagram and Component Locations

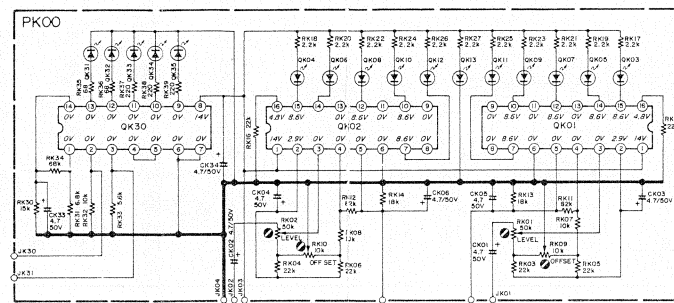




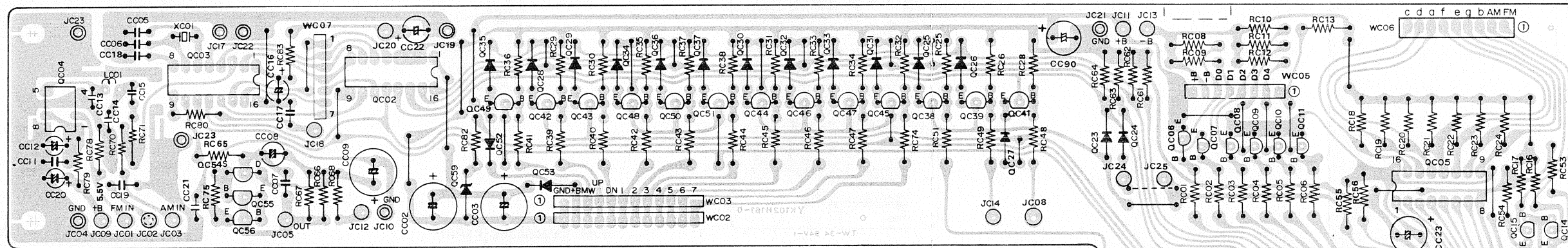
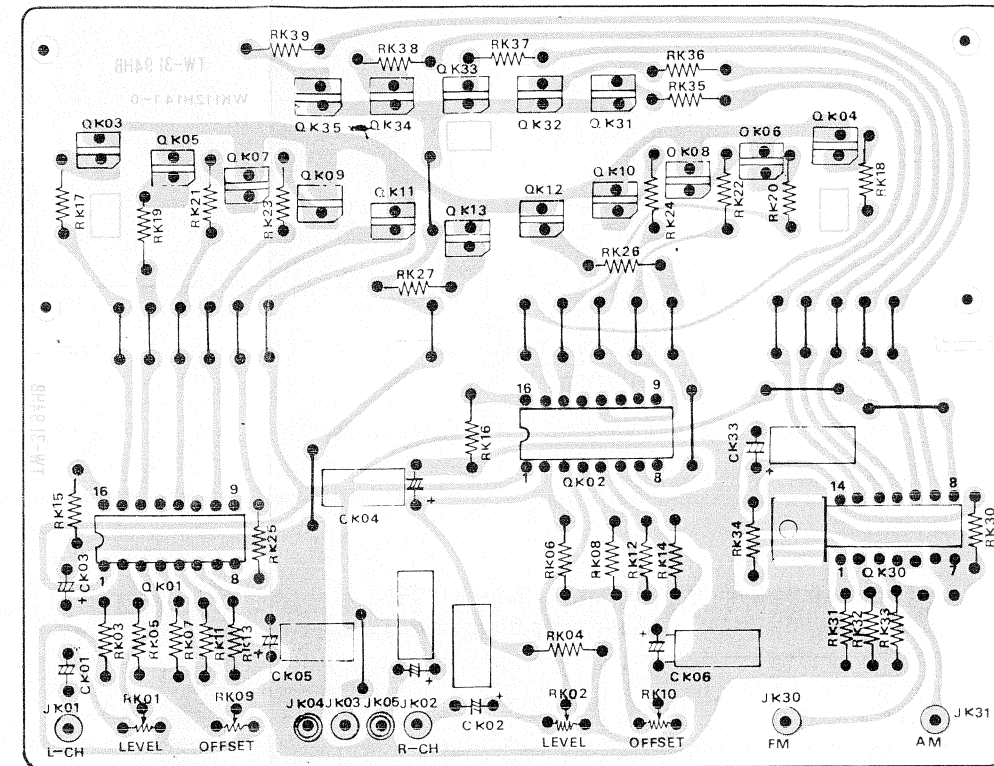
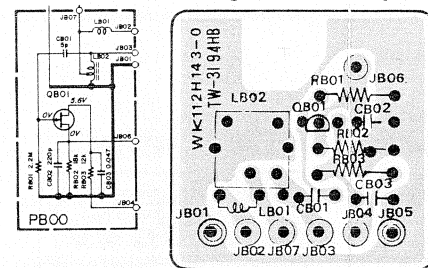
7.6 PLL Synthesizer (PC00) Schematic Diagram and Component Locations



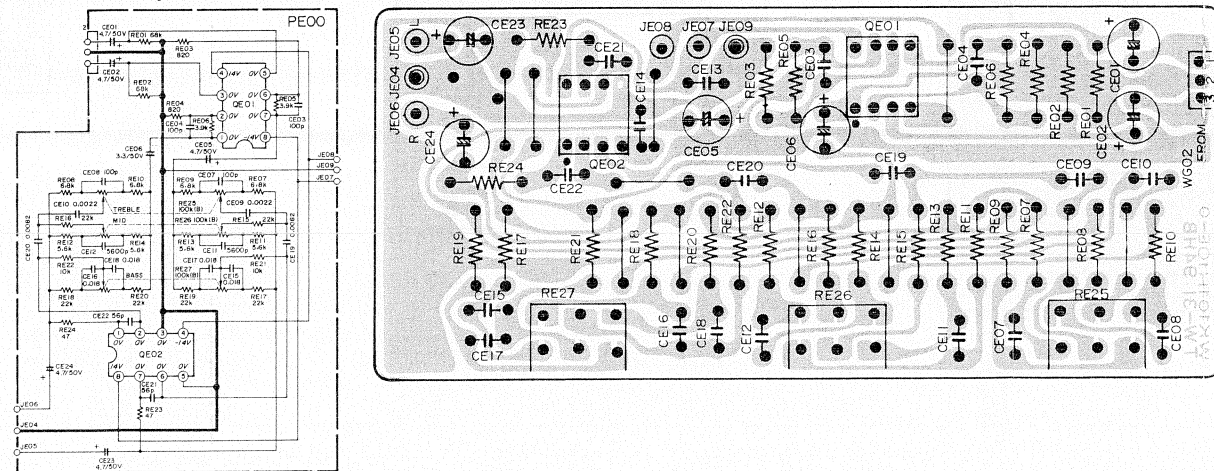
7.8 L.E.D. Meter (PK00) Schematic Diagram and Component Locations



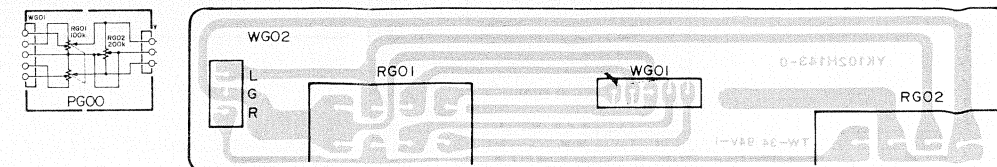
7.9 AM Antenna (PB00) Schematic Diagram and Component Locations



7.7 Tone Amp (PE00) Schematic Diagram and Component Locations

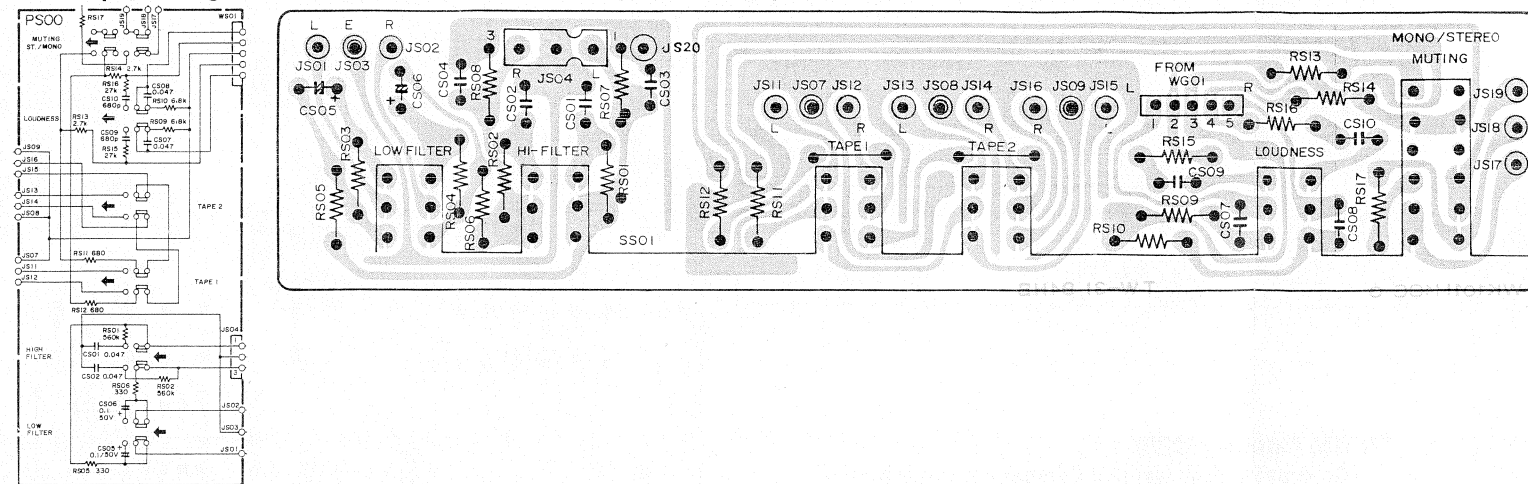


7.10 Vol. & Balance (PG00) Schematic Diagram and Component Locations

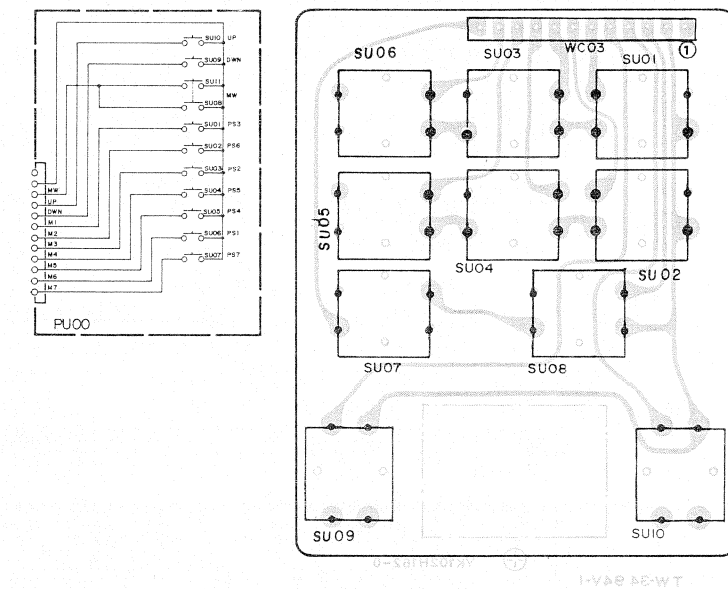




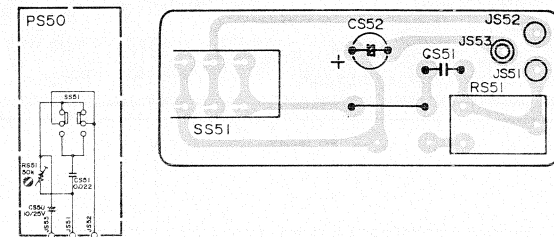
7.11 Tape/Muting Filter Switch (PS00) Schematic Diagram and Component Locations



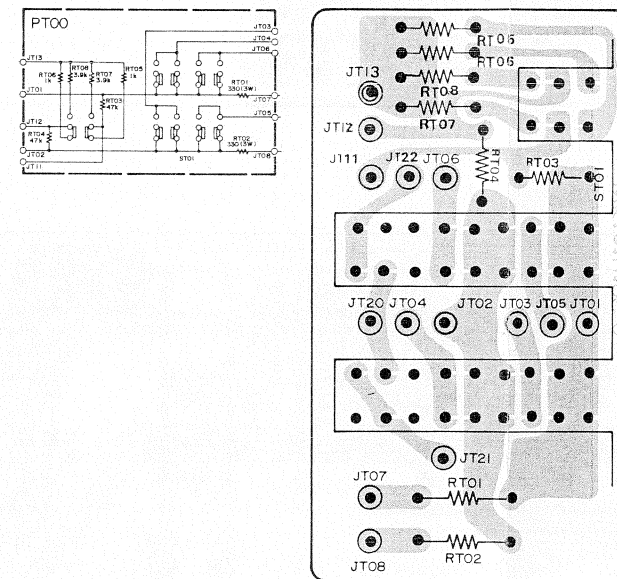
7.15 Tuning Keyboard (PU00) Schematic Diagram and Component Locations



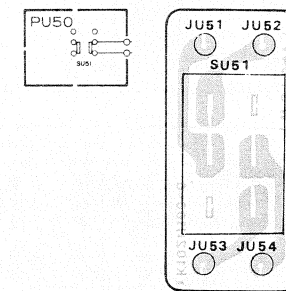
7.12 Multipath Switch (PS50) Schematic Diagram and Component Locations



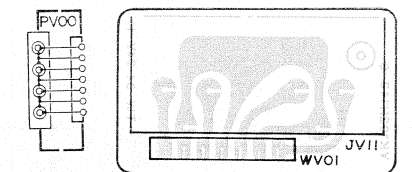
7.13 Speaker Switch (PT00) Schematic Diagram and Component Locations



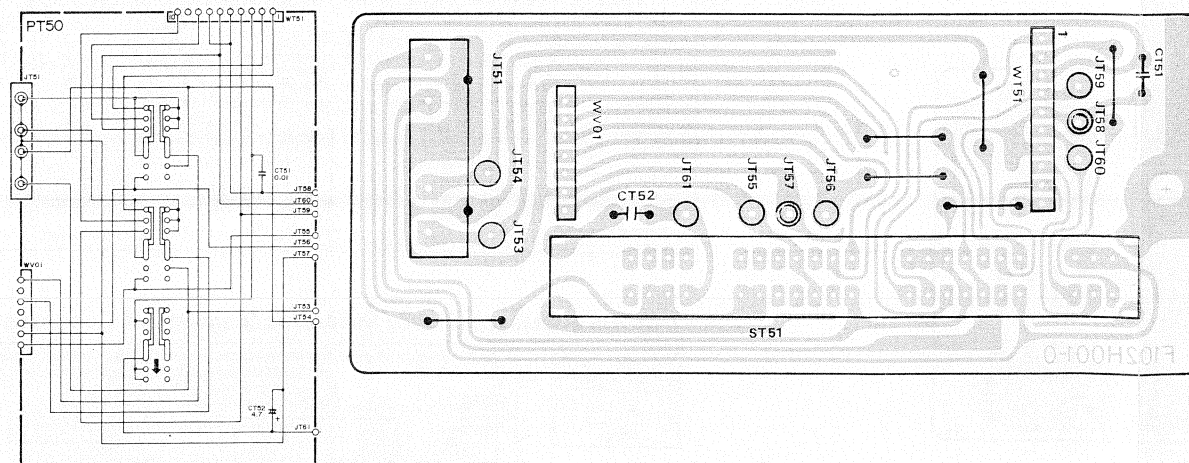
7.16 Scan Step (PU50) Schematic Diagram and Component Locations



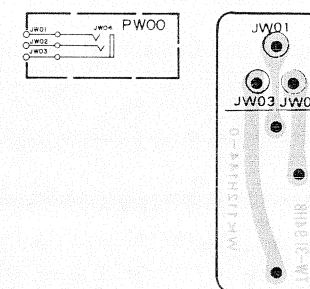
7.17 Tape 2 Terminal (PV00) Schematic Diagram and Component Locations



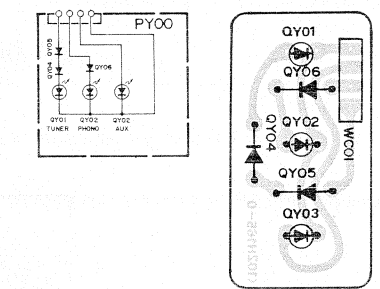
7.14 REC.Mode Switch (PT50) Schematic Diagram and Component Locations



7.18 Headphone (PW00) Schematic Diagram and Component Locations

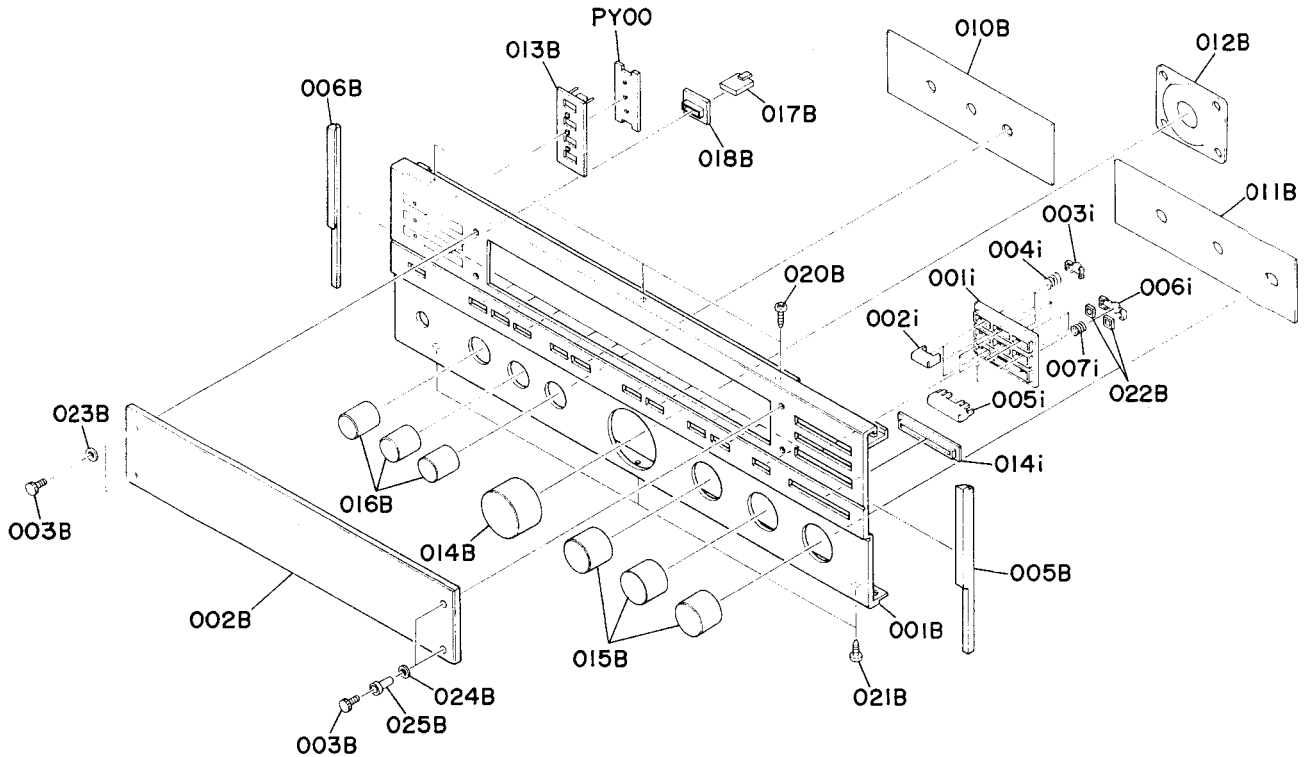


7.19 Function Indicator (PY00) Schematic Diagram and Component Locations



## 8. EXPLODED VIEW AND PARTS LIST

### 8.1 [C01-99] Front Panel

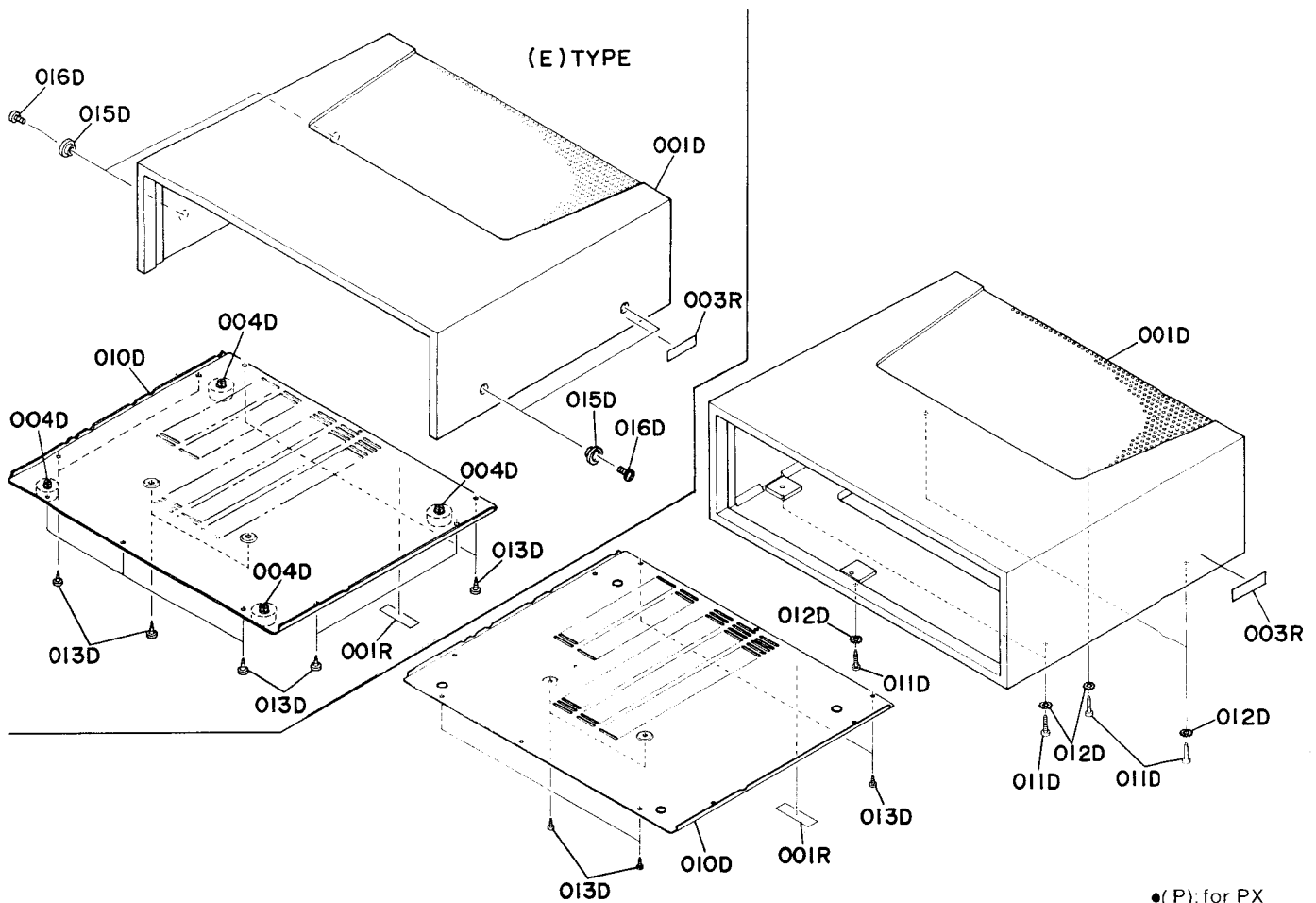


●(P)for PX  
●(E)for Europe

REF. DESIG.	QTY		PART NO.	DESCRIPTION
	E	P		
A	1	1	112H063400	Front Panel Assembly
001B	1	1	112H063010	Escutcheon, Front Panel
002B	1	1	102H158010	Window
003B	4	4	4279112020	Shaft
005B	1	1	2112067010	Cap, (R)
006B	1	1	2112067020	Cap, (L)
010B	1	1	102H303010	Mask
011B	1	1	102H303020	Mask
012B	1	1	102H063120	Escutcheon, Volume
013B	1	1	102H355010	Lens, Function
018B	11	11	216H259010	Bushing, Push Switch
023B	2	2	54020301E0	Flat Washer, P.
024B	2	2	4278107010	Sheet
025B	2	2	4278055010	Coller
001i	1	1	2137259010	Bushing, Preset Tuning
002i	7	7	2137154010	Knob
003i	7	7	2137005010	Clamper
004i	7	7	2137115010	Spring
005i	1	1	2137154020	Knob, Memory
006i	1	1	2137005020	Clamper
007i	1	1	2137115110	Spring
014i	1	1	2137259020	Bushing

REF. DESIG.	QTY		PART NO.	DESCRIPTION
	E	P		
014B	1	1	112H154010	Knob, Volume
015B	3	3	112H154020	Knob, Selector
016B	3	3	112H154030	Knob, Tone
017B	11	11	216H154010	Knob, Push Switch
020B	3	3	51300308B0	P.H. Tapped Screw P3x 8
021B	3	3	51280308B0	B.H. Tapped Screw B3x 8
022B	2	2	102H118140	Spacer

8.2 [C02-99] Top Cover

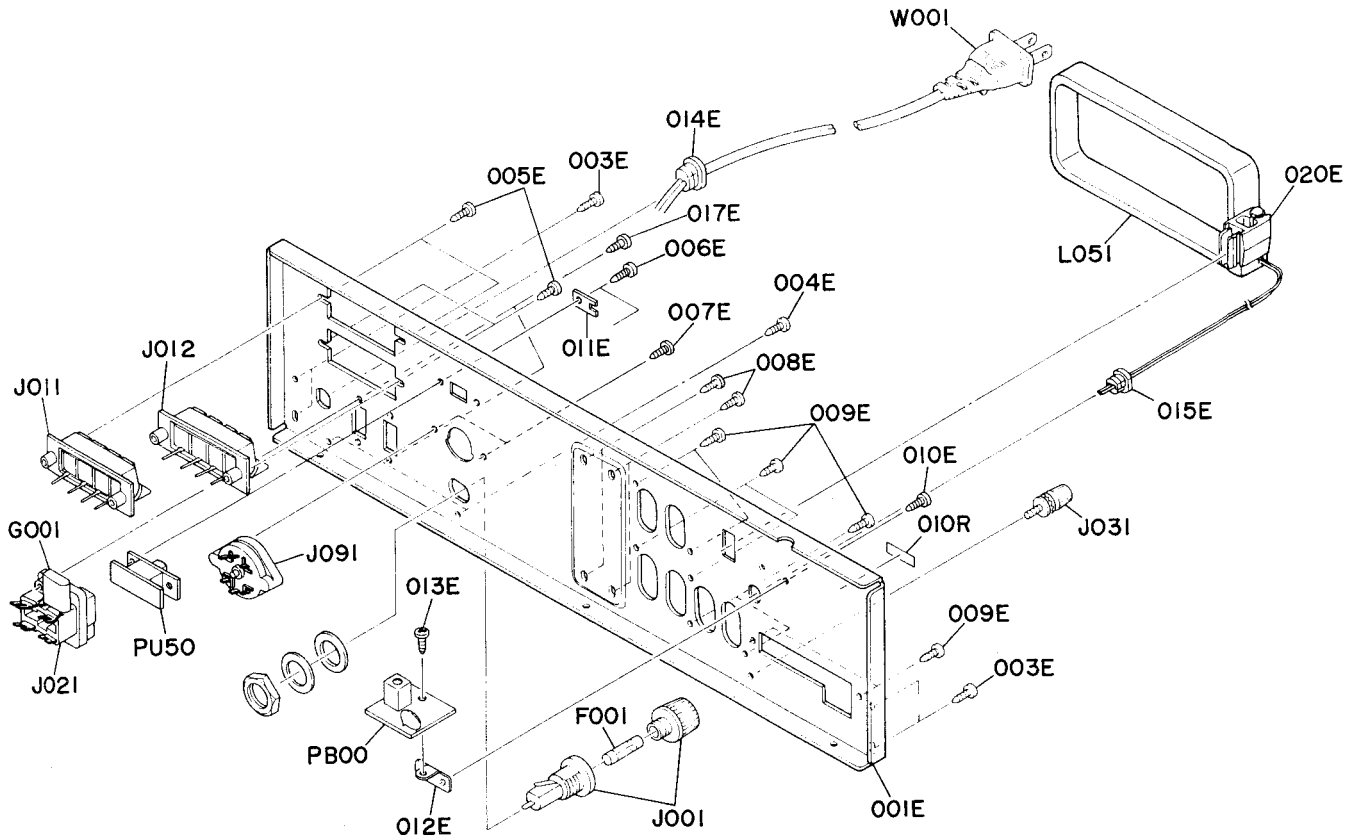


•(P): for PX  
 •(E): for Europe

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
001D	1		112H064600	Case, Wood (Kit)
001D	1		112H064500	Case, Wood (Kit)
004D	4		2259057010	Leg
010D	1		112H257010	Lid, Bottom Cover
011D	6		51280425U0	B.H. Tapped Screw B4 x 25
012D	6		54080400R0	T.L. Washer, RR
013D	12	6	51280410U0	B.H. Tapped Screw B4 x 10
015D	4		3906259010	Bushing
016D	4		51280415U0	B.H. Tapped Screw B4 x 14

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
001R	1	1	2578861010	Label
003R	1	1	2932861010	Label

8.3 [C03-99] Rear Panel

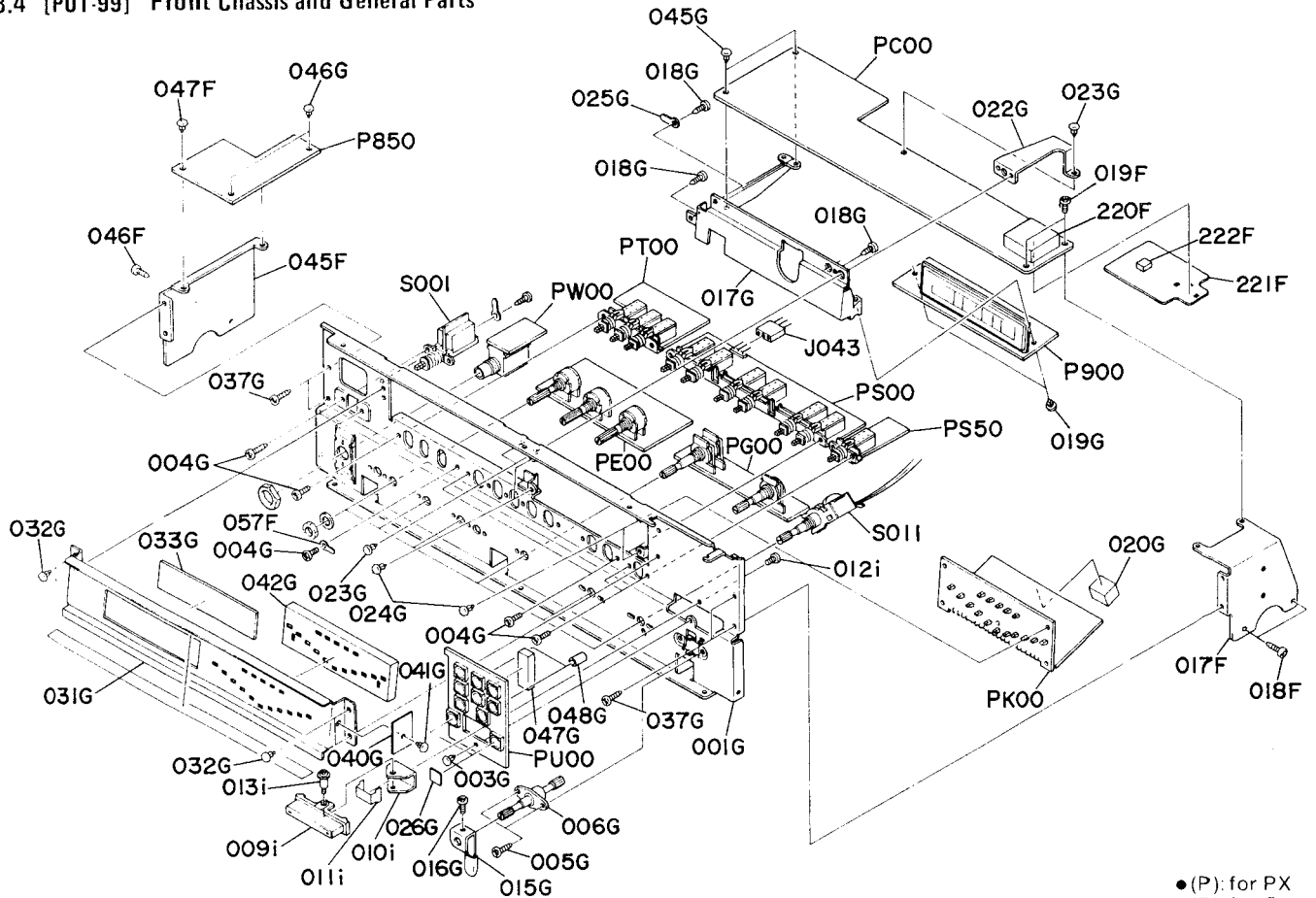


•(P):for PX  
•(E):for Europe

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
001E	1	1	112H160250	Bracket, Rear Panel
003E	4	4	51280308U0	B.H. Tapped Screw B3 x 8
004E	2	2	51280308U0	B.H. Tapped Screw B3 x 8
005E	4	4	51280308U0	B.H. Tapped Screw B3 x 8
006E	2	2	51100308S9	B.H.M. Screw B3 x 8
007E	2	2	51280308U0	B.H. Tapped Screw B3 x 8
008E	4	4	51280308U0	B.H. Tapped Screw B3 x 8
009E	8	8	51280308U0	B.H. Tapped Screw B3 x 8
010E	1	1	51280308U0	B.H. Tapped Screw B3 x 8
011E	1	1	2137114010	Stopper
012E	1	1	404H160030	Bracket, Ant, PWB
013E	1	1	51280308B0	B.H. Tapped Screw B3 x 8
014E	1	1	1455259090	Bushing, AC Power Cord
015E	1	1	1455259010	Bushing, Ant. Cord
020E	1	1	408H271010	Holder, Loop Ant.
017E	2	2	51280308U0	B.H. Tapped Screw B3 x 8
010R	1	1	2112265010	Indicator, Serial No.

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
△F001	1		FS10300010	Fuse, 3A 250V
△F001	1	1	FS10600600	Fuse, 6A 250V
△G001	1	1	BF10400030	Cap. Camp. 0.1μF + 1Ω/250V
△J001	1	1	YJ08000300	Jack, Fuse Holder
J011	1	1	YT03040170	Terminal, System-1
J012	1	1	YT03040170	Terminal, System-2
△J021	1	1	YJ04000960	Jack, AC Outlet (2P)
J031	1	1	YL03010250	Terminal, GND
△J091	1	1	BY05080040	Voltage Selector
L051	1	1	LA00015010	Antenna Coil, Loop
△W001	1	1	YC01800200	A.C. Power Cord

### 8.4 [P01-99] Front Chassis and General Parts

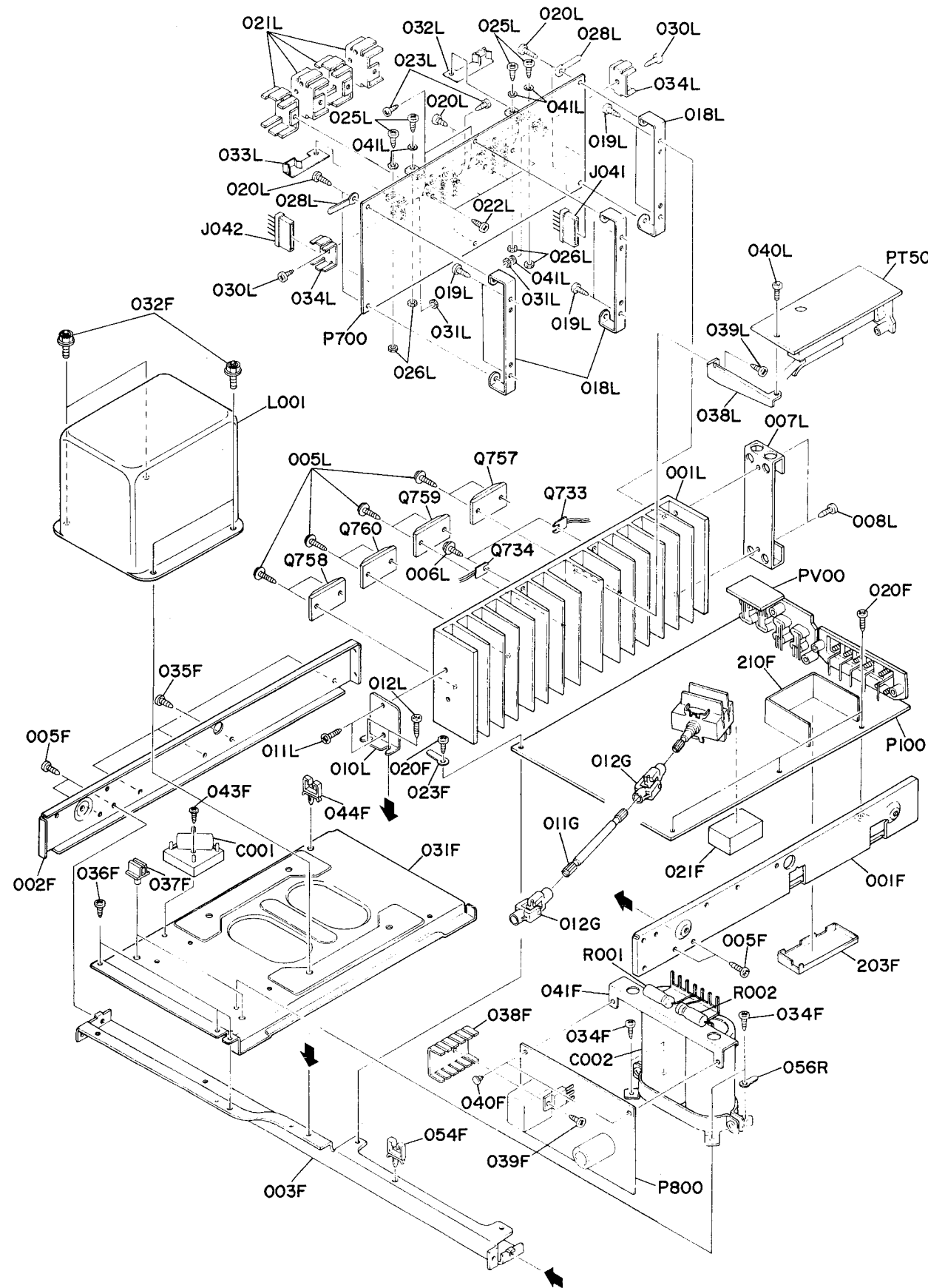


●(P): for PX  
●(E): for Europe

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
017F	1	1	102H160050	Bracket, (R)
018F	2	2	51280308B0	B.H. Tapped Screw B3 x 8
019F	2	2	51100308A9	B.H.M. Screw B3 x 8
045F	1	1	102H160150	Bracket, (L)
046F	2	2	51280308B0	B.H. Tapped Screw B3 x 8
047F	1	1	2276005050	Clamper
057F	1	1	62030039W0	Lug
220F	1	1	2137109030	Shield
221F	1	1	102H109060	Shield
222F	1	1	102H118010	Spacer
001G	1	1	102H160010	Bracket, Front Chassis
003G	1	1	2276005050	Clamper
004G	8	8	51100308A9	B.H.M. Screw B3 x 8
005G	2	2	51280308B0	B.H. Tapped Screw B3 x 8
006G	1	1	102H112500	Shaft, (Kit) Selector
015G	1	1	102H114010	Stopper
016G	1	1	51064019A9	P.H.M. Screw
017G	1	1	102H160060	Bracket
018G	3	3	51280308B0	B.H. Tapped Screw B3 x 8
019G	2	2	2276005050	Clamper
020G	1	1	4182056010	Buffer
022G	1	1	102H160090	Bracket
023G	3	3	2276005050	Clamper
024G	4	4	2276005050	Clamper
025G	1	1	62030049W0	Lug
026G	2	2	2491107060	Sheet
031G	1	1	112H274010	Reflector
032G	4	4	2912259020	Bushing
033G	1	1	2137158020	Window

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
037G	4	4	51280308B0	B.H. Tapped Screw B3 x 8
040G	1	1	102H303030	Mask
041G	1	1	2912259020	Bushing
042G	1	1	112H118010	Spacer
045G	2	2	2276005050	Clamper
046G	2	2	2276005050	Clamper
047G	1	1	102H118030	Spacer
048G	2	2	102H101010	Support
009i	1	1	2137154030	Knob, Tuning
010i	1	1	2137160020	Bracket
011i	1	1	2137115020	Spring
012i	1	1	51100306A9	B.H.M. Screw B3 x 6
013i	1	1	4367112180	Shaft
S00I	1	1	SP01010290	Push Switch, Power
S011	1	1	SR00050100	Rotary Switch, Mode
J043	1	1	YJ06001040	Jack, (3P)

8.5 [P02-99] Chassis and Other Parts

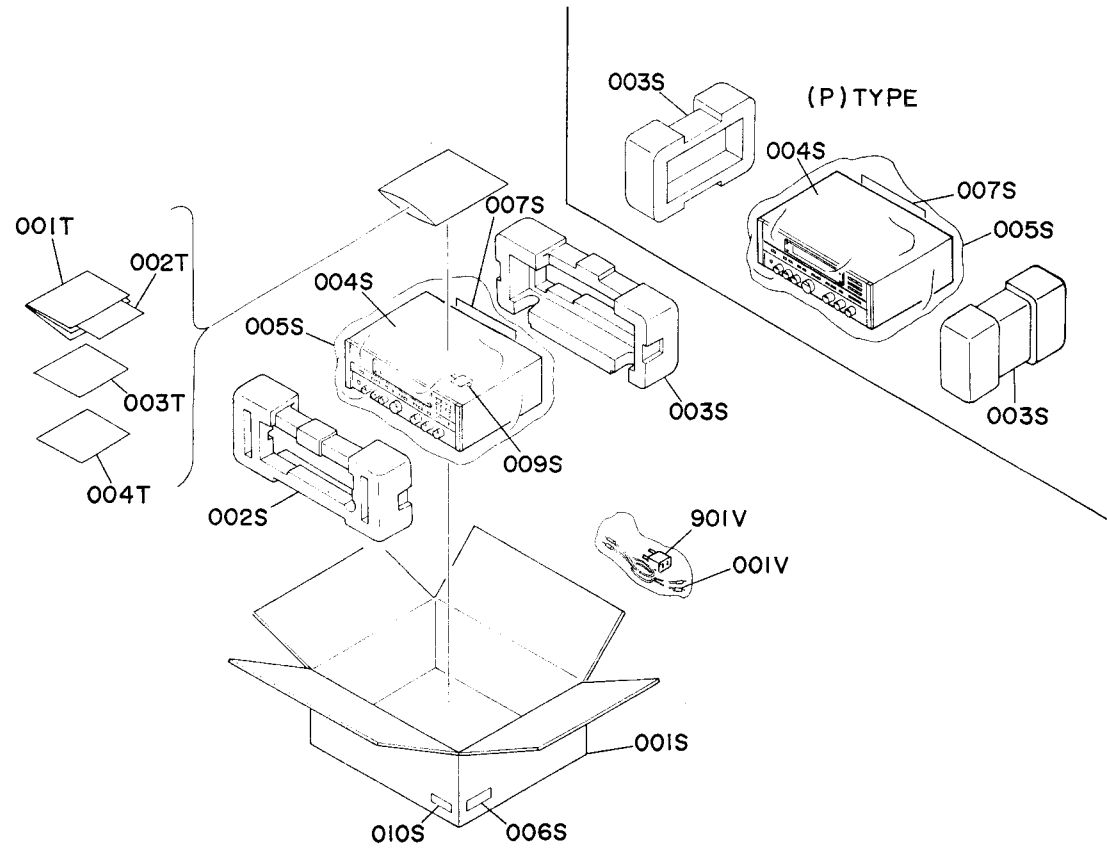


•(P): for PX  
•(E): for Europe

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
001F	1	1	112H126010	Stay, (R)
002F	1	1	112H126020	Stay, (L)
003F	1	1	101H126010	Stay, Center
005F	4	4	51280308B0	B.H. Tapped Screw B3 x 8
020F	4	4	51260308B0	B.T. Screw B3 x 8
021F	1	1	2116056010	Buffer
023F	1	1	62030049W0	Lug
031F	1	1	101H105010	Chassis, Transformer Bracket
032F	4	4	51480410S9	F. Washer Screw F4 x 10
034F	4	4	51280308B0	B.H. Tapped Screw B3 x 8
035F	4	4	51280308B0	B.H. Tapped Screw B3 x 8
036F	3	3	51280308B0	B.H. Tapped Screw B3 x 8
037F	2	2	2218271020	Holder
038F	1	1	202H267030	Heatsink
039F	1	1	51280308B0	B.H. Tapped Screw B3 x 8
040F	2	2	2276005050	Clamper
041F	1	1	112H123010	Contact
043F	1	1	51280312B0	B.H. Tapped Screw B3 x 12
044F	1	1	2886005020	Clamper
054F	1	1	2886005020	Clamper
056F	1	1	62030049W0	Lug
203F	1	1	2112109010	Shield
210F	1	1	2137109010	Shield
011G	1	1	112H112010	Shaft
012G	2	2	2258125510	Joint, (Kit)
001L	1	1	101H267010	Heatsink
005L	8	8	51780315B0	B.T. Screw, Fin Neck B3 x 15
006L	2	2	51260310B0	B.T. Screw B3 x 10
007L	1	1	2116160070	Bracket
008L	2	2	51280308B0	B.H. Tapped Screw B3 x 8
010L	1	1	2276160040	Bracket
011L	2	2	51280308B0	B.H. Tapped Screw B3 x 8
012L	2	2	51280308B0	B.H. Tapped Screw B3 x 8
018L	3	3	2867160010	Bracket
019L	6	6	51280308B0	B.H. Tapped Screw B3 x 8
020L	6	6	51100306A9	B.H.M. Screw B3 x 6
021L	4	4	2212267020	Heatsink
022L	4	4	51300308B0	P.H. Tapped Screw P3 x 8
023L	8	8	51300308B0	P.H. Tapped Screw P3 x 8
025L	4	4	51100310A9	B.H.M. Screw B3 x 10
026L	4	4	53110303A9	Hexagon Nut M3
028L	2	2	4220005030	Clamper
030L	2	2	51100310A9	B.H.M. Screw B3 x 10
031L	2	2	53110303A9	Hexagon Nut M3
032L	1	1	101H271010	Holder, (L)
033L	1	1	101H271020	Holder, (R)
034L	2	2	2917267020	Heatsink
038L	1	1	112H160010	Bracket
039L	1	1	51280308B0	B.H. Tapped Screw B3 x 8
040L	1	1	51260308B0	B.T. Screw B3 x 8
041L	4	4	59030805P0	Washer

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
C001	1	1	DK18103560	Ceramic Cap. 0.01μF 500V
C002	1	1	E110908020	Elect Cap. 10000μF x 2 80V
J041	1	1	YJ06001050	Jack, (5P)
J042	1	1	YJ06001050	Jack, (5P)
ΔL001	1	1	TS19615020	Power Transformer
ΔQ001	1	1	HE20001290	Diode S5VB40
R001	1	1	CJ05272030	Resistor 2.7KΩ ±5% 3W
R002	1	1	CJ05272030	Resistor 2.7KΩ ±5% 3W
Q733	1	1	HV00004080	Varistor STV-3H
Q734	1	1	HV00004080	Varistor STV-3H
Q757	1	1	HT329222B0	Transistor 2SC2922(O or Y)
Q758	1	1	HT329222B0	Transistor 2SC2922(O or Y)
Q759	1	1	HT112162B0	Transistor 2SA1216(O or Y)
Q760	1	1	HT112162B0	Transistor 2SA1216(O or Y)

8.6 [H01-99] Packing Materials



●(P): for PX  
●(E): for Europe

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
001S	1		112H801110	Packing Case
001S	1		112H801010	Packing Case
002S	1		2112809010	Cushion, Front
003S	1		2112809020	Cushion, Rear
003S	2		112H809010	Cushion
004S	1		2918107260	Sheet
005S	1		9090909030	Polyethylene Sheet
006S	3		9526019060	Serial No. Card
006S	3		9526019050	Serial No. Card
007S	1		2918107380	Sheet
009S	1		2731821010	Silicagel
010S	1		9510911090	Label

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
001T	1		112H851310	Instructions
002T	1		112H851320	Instructions, Spec
003T	1		2818854010	Guarantee Card
004T	1		9650000010	S. Station Card
001V	1		ZA02000070	EXT. Antenna Jack, Socket
901V	1		YJ04000240	

8.7 ELECTRICAL PARTS LIST

●(P): for PX  
●(E): for Europe

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
P100	1		YK102H1410	P100-TUNER/PHONE AMP. CIRCUIT BOARD
	1		ZZ102H8410	P.W. Board, Tuner/Phone Amp. P.W. Board Assembly
CA01	1		DA17103010	Ceramic 0.01μF ±20%
CA02	1		DF55471090	Film 470pF ±5%
CA03	1		DD15150360	Ceramic 15pF ±5%
CA04	1		DA17103010	Ceramic 0.01μF ±20%
CA05	1		DA17103010	Ceramic 0.01μF ±20%
CA06	1		DD15470370	Ceramic 47pF ±5%
CA07	1		DA17103010	Ceramic 0.01μF ±20%
CA08	1		EA10701630	Elect 100μF 16V
CA09	1		DK18403320	Ceramic 0.04μF +80% -20%
CA10	1		EA22405030	Elect 0.22μF 50V
CA11	1		DA17103010	Ceramic 0.01μF ±20%
CA12	1		EA10602530	Elect 10μF 25V
CA13	1		EA10602530	Elect 10μF 25V
CA14	1		DA17103010	Ceramic 0.01μF ±20%
CA15	1		DA17103010	Ceramic 0.01μF ±20%
CA16	1		EA22405030	Elect 0.22μF 50V
CA17	1		EA10505030	Elect 1μF 50V
CA18	1		DK18223310	Ceramic 0.022μF +80% -20%
CA19	1		EA47405030	Elect 0.47μF 50V
CA20	1		EA22601630	Elect 22μF 16V
CA30	1		DA17103010	Ceramic 0.01μF ±20%
CA35	1		CT12000090	Trimming 20pF
CA37	1		DA17103010	Ceramic 0.01μF ±20%
CA39	1		DA15470010	Ceramic 47pF ±5%
CA40	1		DK17103300	Ceramic 0.01μF ±20%
CA43	1		DD15470370	Ceramic 47pF ±5%
CA44	1		DA17103010	Ceramic 0.01μF ±20%
CA45	1		DA15470370	Ceramic 47pF ±5%
CA46	1		DA17103010	Ceramic 0.01μF ±20%
CA47	1		EA10505030	Elect 1μF 50V
CA49	1		CT10600090	Trimming 6pF
CA50	1		DD10050320	Ceramic 5pF ±0.25pF
CA51	1		DA17103010	Ceramic 0.01μF ±20%
CA52	1		DK17223300	Ceramic 0.022μF ±20%
C101	1		DD10010300	Ceramic 1pF ±0.25pF
C103	1		DA17103010	Ceramic 0.01μF ±20%
C104	1		DA17103010	Ceramic 0.01μF ±20%
C106	1		DD10030370	Ceramic 3pF ±0.25pF
C107	1		DD11100370	Ceramic 10pF ±0.5pF
C108	1		DK16331300	Ceramic 330pF ±10%
C109	1		DA17103010	Ceramic 0.01μF ±20%
C112	1		DD10015370	Ceramic 1.5pF ±0.25pF
C113	1		DD10030300	Ceramic 3pF ±0.25pF
C114	1		DD11100300	Ceramic 10pF ±0.5pF
C115	1		DD15300300	Ceramic 30pF ±5%
C116	1		DD15150300	Ceramic 15pF ±5%
C117	1		DA17103010	Ceramic 0.01μF ±20%
C118	1		DA17103010	Ceramic 0.01μF ±20%
C119	1		DA17103010	Ceramic 0.01μF ±20%

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
C120	1		DA17103010	Ceramic 0.01μF ±20%
C121	1		DA17103010	Ceramic 0.01μF ±20%
C122	1		DK18403320	Ceramic 0.04μF +80% -20%
C123	1		DK18403320	Ceramic 0.04μF +80% -20%
C125	1		DA16331010	Ceramic 330pF ±10%
C126	1		DK18403320	Ceramic 0.04μF +80% -20%
C127	1		EA47405090	Elect 0.47μF 50V
C128	1		DK18403320	Ceramic 0.04μF +80% -20%
C129	1		EA10701630	Elect 100μF 16V
C130	1		DK18403320	Ceramic 0.04μF +80% -20%
C131	1		DK18403320	Ceramic 0.04μF +80% -20%
C132	1		DK18403320	Ceramic 0.04μF +80% -20%
C133	1		DK18403320	Ceramic 0.04μF +80% -20%
C134	1		EA47405030	Elect 0.47μF 50V
C136	1		DK18403320	Ceramic 0.04μF +80% -20%
C137	1		DK18104010	Ceramic 0.1μF +80% -20%
C138	1		DK18403320	Ceramic 0.04μF +80% -20%
C150	1		DD15470370	Ceramic 47pF ±5%
C151	1		DD10050300	Ceramic 5pF ±0.25pF
C152	1		DD10050300	Ceramic 5pF ±0.25pF
C153	1		DF17333300	Film 0.033μF ±20%
C154	1		DD10020300	Ceramic 2pF ±0.25pF
C155	1		DK16102300	Ceramic 1000pF ±10%
C156	1		CT10600090	Trimming 5pF
C157	1		CT10600090	Trimming 5pF
C158	1		CT10600090	Trimming 5pF
C159	1		CT10600090	Trimming 5pF
C160	1		EA10701630	Elect 100μF 16V
C161	1		DK17103300	Ceramic 0.01μF ±20%
C162	1		DK18103320	Ceramic 0.01μF +80% -20%
C301	1		EA47505030	Elect 0.47μF 50V
C302	1		DF65501010	Film 500pF ±5%
C303	1		DF15473300	Film 0.047μF ±5%
C304	1		EE68501650	Elect 6.8μF 16V
C305	1		EQ10505030	Elect 1μF 50V
C306	1		DF65821010	Film 820pF ±5%
C307	1		EQ10505030	Elect 1μF 50V
C308	1		EA10505030	Elect 1μF 50V
C309	1		EA33701630	Elect 330μF 16V
C310	1		EA10701630	Elect 100μF 16V
C311	1		EA10505030	Elect 1μF 50V
C312	1		EA10505030	Elect 1μF 50V
C313	1		DF15332300	Film 3300pF ±5%
C314	1		DF15332300	Film 3300pF ±5%
C315	1		EA10405030	Elect 0.1μF 50V
C316	1		EA10405030	Elect 0.1μF 50V
C317	1		DA15101010	Ceramic 100pF ±5%
C318	1		DA15101010	Ceramic 100pF ±5%
C319	1		EA47505030	Elect 0.47μF 50V
C320	1		EA47505030	Elect 0.47μF 50V
C321	1		DF17104300	Film 0.1μF ±20%
C322	1		EA22601630	Elect 22μF 16V
C323	1		EA47503530	Elect 4.7μF 35V
C324	1		EA10602530	Elect 10μF 25V
C325	1		DK18403320	Ceramic 0.04μF +80% -20%

●(P): for PX  
●(E): for Europe

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION		
	E	P				
C401	1	1	EE33502540	Elect	3.3μF	25V
C402	1	1	EE33502540	Elect	3.3μF	25V
C403	1	1	DA16221010	Ceramic	220pF	±10%
C404	1	1	DA16221010	Ceramic	220pF	±10%
C405	1	1	EA47601030	Elect	47μF	10V
C406	1	1	EA47601030	Elect	47μF	10V
C407	1	1	DA15101010	Ceramic	100pF	±5%
C408	1	1	DA15101010	Ceramic	100pF	±5%
C409	1	1	DF15182300	Film	1800pF	±5%
C410	1	1	DF15182300	Film	1800pF	±5%
C411	1	1	DF15682300	Film	6800pF	±5%
C412	1	1	DF15682300	Film	6800pF	±5%
C413	1	1	DA15100010	Ceramic	10pF	±5%
C414	1	1	DA15100010	Ceramic	10pF	±5%
C415	1	1	EA47505030	Elect	4.7μF	50V
C416	1	1	EA47505030	Elect	4.7μF	50V
C417	1	1	DK17103300	Ceramic	0.01μF	±20%
C418	1	1	DK17103300	Ceramic	0.01μF	±20%
C419	1	1	DK16101300	Ceramic	100pF	±10%
C420	1	1	DK16101300	Ceramic	100pF	±10%
C421	1	1	DK18403320	Ceramic	0.04μF	+80% -20%
C422	1	1	DK17103300	Ceramic	0.01μF	±20%
<b>P100-RESISTORS</b>						
(All Resistors are ±5% and ¼W)						
RA01	1	1	GD05152140		1.5KΩ	
RA02	1	1	GD05222140		2.2KΩ	
△RA03	1	1	GD05101140		100Ω	
RA04	1	1	GD05273140		27KΩ	
RA05	1	1	GD05563140		56KΩ	
RA06	1	1	GD05333140		33KΩ	
RA07	1	1	GD05102140		1KΩ	
RA08	1	1	GD05222140		2.2KΩ	
RA09	1	1	GD05103140		10KΩ	
RA10	1	1	GD05103140		10KΩ	
RA12	1	1	GD05223140		22KΩ	
RA13	1	1	GD05103140		10KΩ	
RA14	1	1	GD05103140		10KΩ	
RA17	1	1	GD05473140		47KΩ	
RA20	1	1	GD05105140		1MΩ	
RA22	1	1	GD05102140		1KΩ	
RA23	1	1	GD05104140		100KΩ	
RA24	1	1	GD05474140		470KΩ	
RA25	1	1	GD05472140		4.7KΩ	
RA27	1	1	GD05474140		470KΩ	
RA28	1	1	GD05222140		2.2KΩ	
RA29	1	1	GD05103140		10KΩ	
RA30	1	1	GD05683140		68KΩ	
RA31	1	1	GD05472140		4.7KΩ	
RA33	1	1	GD05332140		3.3KΩ	
RA34	1	1	GD05473140		47KΩ	
RA36	1	1	GD05102140		1KΩ	
RA37	1	1	GD05151140		150Ω	

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION		
	E	P				
R101	1	1	GD05105140		1MΩ	
R103	1	1	GD05220140		22Ω	
△R104	1	1	GG05101140		100Ω	
R105	1	1	GD05104140		100KΩ	
R106	1	1	GD05223140		22KΩ	
R107	1	1	GD05472140		4.7KΩ	
R108	1	1	GD05332140		3.3KΩ	
R110	1	1	GG05101140		100Ω	
△R111	1	1	GD05103140		10KΩ	
R112	1	1	GD05103140		10KΩ	
R113	1	1	GD05272140		2.7KΩ	
R114	1	1	GD05331140		330Ω	
R115	1	1	GD05153140		15KΩ	
R116	1	1	GD05272140		2.7KΩ	
R117	1	1	GD05331140		330Ω	
R118	1	1	GD05102140		1KΩ	
△R119	1	1	GG05101140		100Ω	
R120	1	1	GD05331140		330Ω	
R121	1	1	75061001P0		Jumper	
R122	1	1	GD05123140		12KΩ	
R124	1	1	GD05223140		22KΩ	
R125	1	1	GD05153140		15KΩ	
R126	1	1	GD05332140		3.3KΩ	
R127	1	1	GD05222140		2.2KΩ	
R128	1	1	GD05103140		10KΩ	
R129	1	1	GD05473140		47KΩ	
R130	1	1	GD05821140		820Ω	
R131	1	1	RA01030260		10KΩ(B), Trimming	
R132	1	1	GD05105140		1MΩ	
R133	1	1	GD05331140		330Ω	
R134	1	1	GD05102140		1KΩ	
R140	1	1	GG05470140		47Ω	
R150	1	1	GD05104140		100KΩ	
R151	1	1	GD05104140		100KΩ	
R152	1	1	GD05104140		100KΩ	
R153	1	1	GD05104140		100KΩ	
R154	1	1	GD05104140		100KΩ	
R155	1	1	GD05223140		22KΩ	
R156	1	1	GD05331140		330Ω	
R157	1	1	GD05104140		100KΩ	
R158	1	1	GD05273140		27KΩ	
R159	1	1	GD05101140		100Ω	
R301	1	1	GD05224140		220KΩ	
R302	1	1	RA04720080		4.7KΩ(B), Trimming	
R303	1	1	GD05153140		15KΩ	
R304	1	1	GD05821140		82KΩ	
R305	1	1	GD05102140		1KΩ	
R306	1	1	RA05020160		5KΩ(B), Trimming	
R308	1	1	GD05103140		10KΩ	
R309	1	1	GD05473140		47KΩ	
R310	1	1	GD05102140		1KΩ	
R311	1	1	GD05473140		47KΩ	
△R312	1	1	GG05470140		47Ω	
R313	1	1	GD05472140		4.7KΩ	
R314	1	1	GD05472140		4.7KΩ	
R315	1	1	GD05472140		4.7KΩ	
R316	1	1	GD05472140		4.7KΩ	
R317	1	1	GD05273140		27KΩ	
R318	1	1	GD05273140		27KΩ	
R319	1	1	GD05224140		220KΩ	
R320	1	1	GD05224140		220KΩ	
R321	1	1	GD05155140		1.5MΩ	



●(P): for PX  
●(E): for Europe

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
R322	1	1	GD05155140	1.5MΩ
R323	1	1	GD05184140	180KΩ
R324	1	1	GD05184140	180KΩ
R325	1	1	GD05102140	1KΩ
R326	1	1	RA01030260	10KΩ(B), Trimming
R327	1	1	GD05103140	10KΩ
R328	1	1	GD05103140	10KΩ
R329	1	1	GD05471140	470Ω
R330	1	1	GD05471140	470Ω
R331	1	1	GD05472140	4.7KΩ
R332	1	1	GD05472140	4.7KΩ
R333	1	1	GD05473140	47KΩ
R334	1	1	GD05473140	47KΩ
R335	1	1	GD05471140	470Ω
R336	1	1	GD05471140	470Ω
△R337	1	1	GG05101140	100Ω
R338	1	1	GD05123140	12KΩ
R341	1	1	GD05104140	100KΩ
R342	1	1	GD05222140	2.2KΩ
R343	1	1	GD05222140	2.2KΩ
R344	1	1	GD05102140	1KΩ
R345	1	1	GD05102140	1KΩ
R346	1	1	GD05223140	22KΩ
R347	1	1	GD05222140	2.2KΩ
R348	1	1	GD05472140	4.7KΩ
R349	1	1	GD05473140	47KΩ
R351	1	1	GD05154140	150KΩ
R352	1	1	GD05333140	33KΩ
R401	1	1	GD05823140	82KΩ
R402	1	1	GD05823140	82KΩ
R403	1	1	GD05222140	2.2KΩ
R404	1	1	GD05222140	2.2KΩ
R405	1	1	GD05104140	100KΩ
R406	1	1	GD05104140	100KΩ
R407	1	1	GD05331140	330Ω
R408	1	1	GD05331140	330Ω
R409	1	1	GD05471140	470Ω
R410	1	1	GD05471140	470Ω
R411	1	1	GD05393140	39KΩ
R412	1	1	GD05393140	39KΩ
R413	1	1	GD05474140	470KΩ
R414	1	1	GD05474140	470KΩ
R415	1	1	GD05102140	1KΩ
R416	1	1	GD05102140	1KΩ
R417	1	1	GD05221140	220Ω
R418	1	1	GD05221140	220Ω
R419	1	1	GD05104140	100KΩ
R420	1	1	GD05104140	100KΩ
R421	1	1	GD05330140	33Ω
R422	1	1	GD05330140	33Ω

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
<b>P100-SEMICONDUCTORS</b>				
QA01	1	1	HC10025060	IC μPC1178C
QA03	1	1	HD20011050	Diode 1S1555
QA04	1	1	HT309452C0	Transistor 2SC945(K or P)
QA05	1	1	HD20011050	Diode 1S1555
QA10	1	1	HV00006120	Varistor MV-203
QA11	1	1	HD10005020	Diode OA-99
QA12	1	1	HD10005020	Diode OA-99
QA14	1	1	HD40002420	Varicap KV-1226
QA16	1	1	HT310471C0	Transistor 2SC1047(C)
QA17	1	1	HT310471C0	Transistor 2SC1047(C)
QA18	1	1	HT309452C0	Transistor 2SC945(K or P)
Q101	1	1	HF400451B0	F.E.T. 3SK45(B)
Q102	1	1	HT310471C0	Transistor 2SC1047(C)
Q103	1	1	HT308291C0	Transistor 2SC829(C)
Q104	1	1	HT310471C0	Transistor 2SC1047(C)
Q105	1	1	HC10033010	IC HA11225
Q106	1	1	HD20001210	Diode 1S2473
Q110	1	1	HD40004010	Varicap 1SV55
Q111	1	1	HD40004010	Varicap 1SV55
Q112	1	1	HD40004010	Varicap 1SV55
Q113	1	1	HD40004010	Varicap 1SV55
Q114	1	1	HF200191A0	F.E.T. 2SK19(Y)
Q301	1	1	HC10001420	IC KB4437
Q302	1	1	HT309452C0	Transistor 2SC945(K or P)
Q303	1	1	HT309452C0	Transistor 2SC945(K or P)
Q304	1	1	HT309452C0	Transistor 2SC945(K or P)
Q305	1	1	HT326342B0	Transistor 2SC2634(S or T)
Q306	1	1	HT326342B0	Transistor 2SC2634(S or T)
Q307	1	1	HT111272B0	Transistor 2SA1127(S or T)
Q308	1	1	HT111272B0	Transistor 2SA1127(S or T)
Q309	1	1	HT309452B0	Transistor 2SC945(P or Q)
Q311	1	1	HD20001210	Diode 1S2473
Q312	1	1	HD20001210	Diode 1S2473
Q320	1	1	HD20001210	Diode 1S2473
Q322	1	1	HD20001210	Diode 1S2473
Q323	1	1	HD20001210	Diode 1S2473
Q324	1	1	HD20001210	Diode 1S2473
Q325	1	1	HD20001210	Diode 1S2473
Q326	1	1	HD20001210	Diode 1S2473
Q401	1	1	HC10034010	IC HA145(W)
Q402	1	1	HC10034010	IC HA145(W)
<b>P100-MISCELLANEOUS</b>				
FA01	1	1	FG450302B0	Ceramic Filter SFZ4 50B-3
FA02	1	1	FG450302A0	Ceramic Filter SFZ4 50A-3
F101	1	1	FF11070530	Ceramic Filter SFEI 0.7MD-1
F102	1	1	FF11070530	Ceramic Filter
F103	1	1	FF11070530	Ceramic Filter
J101	1	1	YT01050010	Terminal, Antenna
LA01	1	1	LO10010480	OSC Coil, AM
LA02	1	1	LI10010730	I.F.T. Coil, AM
LA03	1	1	LI10010740	I.F.T. Coil, AM

•(P): for PX  
•(E): for Europe

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
L101	1	1	LA12026190	Antenna Coil, FM
L104	1	1	LC17510010	Choke Coil, 0.75μH
L105	1	1	LI10016010	I.F.T. Coil, FM
L106	1	1	LO12046030	OSC Coil, FM
L107	1	1	LC13320050	Choke Coil, 3.3μH
L109	1	1	LI14030010	I.F.T. Coil, FM Det
L120	1	1	LA12026200	Antenna Coil, FM RF
L121	1	1	LA12026210	Antenna Coil, FM RF
L301	1	1	LS20010020	M.P.X. Coil, 38KHz
W101	1	1	YU03140260	Jumper Lead, (3P)
W401	1	1	YU03240260	Jumper Lead, (3P)
WT51	2	2	YU05160260	Jumper Lead, (5P)
SV01	1	1	SR06040170	Rotary Switch
<b>P700-MAIN AMP. CIRCUIT BOARD</b>				
P700	1	1	WK101H10A0	P.W. Board, Main Amp.
	1	1	ZZ101H10A0	P.W. Board Assembly
<b>P700-CAPACITORS</b>				
C701	1	1	EA47505030	Elect 4.7μF 50V
C702	1	1	EA47505030	Elect 4.7μF 50V
C703	1	1	DK16271300	Ceramic 270pF ±10%
C704	1	1	DK16271300	Ceramic 270pF ±10%
C705	1	1	DK16101300	Ceramic 100pF ±10%
C706	1	1	DK16101300	Ceramic 100pF ±10%
C707	1	1	EA10701630	Elect 100μF 16V
C708	1	1	EA10701630	Elect 100μF 16V
C709	1	1	DD15220550	Ceramic 22pF ±5%
C710	1	1	DD15220550	Ceramic 22pF ±5%
C711	1	1	EA33701030	Elect 330μF 10V
C712	1	1	EA33701030	Elect 330μF 10V
C713	1	1	EA10701030	Elect 100μF 10V
C714	1	1	EA10701030	Elect 100μF 10V
C715	1	1	DD11100550	Ceramic 10pF ±0.5pF
C716	1	1	DD11100550	Ceramic 10pF ±0.5pF
△C717	1	1	DF16332300	Film 3300pF ±10%
△C718	1	1	DF16332300	Film 3300pF ±10%
△C719	1	1	DF16332300	Film 3300pF ±10%
△C720	1	1	DF16332300	Film 3300pF ±10%
C721	1	1	DF17104520	Film 0.1μF ±20%
C722	1	1	DF17104520	Film 0.1μF ±20%
C723	1	1	EA22710030	Elect 220μF 100V
C724	1	1	EA22710030	Elect 220μF 100V
C725	1	1	EA22710030	Elect 220μF 100V
C726	1	1	EA22710030	Elect 220μF 100V
C727	1	1	DK16101550	Ceramic 100pF ±10%
C728	1	1	DK16101550	Ceramic 100pF ±10%
<b>P700-RESISTORS</b> (All Resistors are ±5% and ¼W)				
R701	1	1	GD05224140	220KΩ
R702	1	1	GD05224140	220KΩ
R703	1	1	GD05821140	820Ω
R704	1	1	GD05821140	820Ω
R705	1	1	GD05333140	33KΩ
R706	1	1	GD05333140	33KΩ
R709	1	1	RA04710040	470Ω(B), Trimming
R710	1	1	RA04710040	470Ω(B), Trimming
R711	1	1	GD05274140	270KΩ
R712	1	1	GD05274140	270KΩ

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
R713	1	1	GD05270140	270Ω
R714	1	1	GD05270140	270Ω
R715	1	1	GD05270140	270Ω
R716	1	1	GD05270140	270Ω
R717	1	1	GD05102140	1KΩ
R718	1	1	GD05102140	1KΩ
R719	1	1	GD05223140	22KΩ
R720	1	1	GD05223140	22KΩ
R721	1	1	GD05821140	820Ω
R722	1	1	GD05821140	820Ω
R723	1	1	GD05181140	180Ω
R724	1	1	GD05181140	180Ω
R725	1	1	GD05681140	680Ω
R726	1	1	GD05681140	680Ω
R727	1	1	GD05222140	2.2KΩ
R728	1	1	GD05222140	2.2KΩ
R729	1	1	GD05222140	2.2KΩ
R730	1	1	GD05222140	2.2KΩ
R731	1	1	GD05222140	2.2KΩ
R732	1	1	GD05222140	2.2KΩ
R733	1	1	GD05222140	2.2KΩ
R734	1	1	GD05222140	2.2KΩ
R735	1	1	GD05122140	1.2KΩ
R736	1	1	GD05122140	1.2KΩ
△R739	1	1	GA05472010	4.7KΩ 1W
△R740	1	1	GA05472010	4.7KΩ 1W
R741	1	1	GD05331140	330Ω
R742	1	1	GD05331140	330Ω
R743	1	1	GD05331140	330Ω
R744	1	1	GD05331140	330Ω
R745	1	1	GD05273140	27KΩ
R746	1	1	GD05273140	27KΩ
R747	1	1	GD05681140	680Ω
R748	1	1	GD05681140	680Ω
R749	1	1	GD05102140	1KΩ
R750	1	1	GD05102140	1KΩ
R751	1	1	GD05331140	330Ω
R752	1	1	GD05331140	330Ω
R753	1	1	GD05473140	47KΩ
R754	1	1	GD05473140	47KΩ
R757	1	1	GD05822140	8.2KΩ
R758	1	1	GD05822140	8.2KΩ
R759	1	1	GD05100140	10Ω
R760	1	1	GD05100140	10Ω
R761	1	1	GD05102140	1KΩ
R762	1	1	GD05102140	1KΩ
R763	1	1	GD05101140	100Ω
R764	1	1	GD05101140	100Ω
R765	1	1	RA01020360	1KΩ(B), Trimming
R766	1	1	RA01020360	1KΩ(B), Trimming
R767	1	1	GD05332140	3.3KΩ
R768	1	1	GD05332140	3.3KΩ
R769	1	1	GD05393140	39KΩ
R770	1	1	GD05393140	39KΩ
R771	1	1	GD05332140	3.3KΩ
R772	1	1	GD05332140	3.3KΩ
△R773	1	1	GG05271140	270Ω
△R774	1	1	GG05271140	270Ω
△R775	1	1	GG05271140	270Ω
△R776	1	1	GG05271140	270Ω

●(P): for PX  
●(E): for Europe

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION	
	E	P			
R777	1	1	GG05561120	560Ω	½W
R778	1	1	GG05561120	560Ω	½W
R779	1	1	GG05151120	150Ω	½W
R780	1	1	GG05151120	150Ω	½W
R781	1	1	GD05100140	10Ω	
R782	1	1	GD05100140	10Ω	
R783	1	1	GD05100140	10Ω	
R784	1	1	GD05100140	10Ω	
△R785	1	1	GO10272050	0.27Ω	±10% 5W
△R786	1	1	GO10272050	0.27Ω	±10% 5W
△R787	1	1	GO10272050	0.27Ω	±10% 5W
△R788	1	1	GO10272050	0.27Ω	±10% 5W
R789	1	1	GA05100030	10Ω	3W
R790	1	1	GA05100030	10Ω	3W
R791	1	1	RC10022120	2.2Ω	±10% ½W
R792	1	1	RC10022120	2.2Ω	±10% ½W
R793	1	1	GD05273140	27KΩ	½W
R794	1	1	GD05273140	27KΩ	½W
R795	1	1	GD05122140	1.2KΩ	
R796	1	1	GD05122140	1.2KΩ	
<b>P700-SEMICONDUCTORS</b>					
Q701	1	1	HT322401A0	Transistor	2SC2240(GR)
Q702	1	1	HT322401A0	Transistor	2SC2240(GR)
Q703	1	1	HT322401A0	Transistor	2SC2240(GR)
Q704	1	1	HT322401A0	Transistor	2SC2240(GR)
Q705	1	1	HT326342A0	Transistor	2SC2634(R or S)
Q706	1	1	HT326342A0	Transistor	2SC2634(R or S)
Q707	1	1	HT326342A0	Transistor	2SC2634(R or S)
Q708	1	1	HT326342A0	Transistor	2SC2634(R or S)
Q709	1	1	HD30025090	Zener	WZ-150
Q710	1	1	HD30025090	Zener	WZ-150
Q711	1	1	HD20001210	Diode	1S2473C
Q712	1	1	HD20001210	Diode	1S2473C
Q713	1	1	HD20001210	Diode	1S2473C
Q714	1	1	HD20001210	Diode	1S2473C
Q715	1	1	HT109922B0	Transistor	2SA992(F or E)
Q716	1	1	HT109922B0	Transistor	2SA992(F or E)
Q717	1	1	HT109922B0	Transistor	2SA992(F or E)
Q718	1	1	HT109922B0	Transistor	2SA992(F or E)
Q719	1	1	HV00003120	Varistor	MV13
Q720	1	1	HV00003120	Varistor	MV13
Q721	1	1	HT112092B0	Transistor	2SA1209(S or T)
Q722	1	1	HT112092B0	Transistor	2SA1209(S or T)
Q723	1	1	HT112092B0	Transistor	2SA1209(S or T)
Q724	1	1	HT112092B0	Transistor	2SA1209(S or T)
Q725	1	1	HT112092B0	Transistor	2SA1209(S or T)
Q726	1	1	HT112092B0	Transistor	2SA1209(S or T)
Q727	1	1	HT112092B0	Transistor	2SA1209(S or T)
Q728	1	1	HT112092B0	Transistor	2SA1209(S or T)
Q729	1	1	HT329112B0	Transistor	2SC2911(S or T)
Q730	1	1	HT329112B0	Transistor	2SC2911(S or T)
Q731	1	1	HT329112B0	Transistor	2SC2911(S or T)
Q732	1	1	HT329112B0	Transistor	2SC2911(S or T)
Q733	1	1	HV00004080	Varistor	STV-3H
Q734	1	1	HV00004080	Varistor	STV-3H
Q735	1	1	HT326342A0	Transistor	2SC2634(R or S)

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION	
	E	P			
Q736	1	1	HT326342A0	Transistor	2SC2634(R or S)
Q737	1	1	HD20003210	Diode	1S2471
Q738	1	1	HD20003210	Diode	1S2471
Q739	1	1	HT309452B0	Transistor	2SC945(P or Q)
Q740	1	1	HT309452B0	Transistor	2SC945(P or Q)
Q741	1	1	HD20003210	Diode	1S2471
Q742	1	1	HD20003210	Diode	1S2471
Q743	1	1	HD20003210	Diode	1S2471
Q744	1	1	HD20003210	Diode	1S2471
Q745	1	1	HT107332A0	Transistor	2SA733(P or Q)
Q746	1	1	HT107332A0	Transistor	2SA733(P or Q)
Q747	1	1	HD20003210	Diode	1S2471
Q748	1	1	HD20003210	Diode	1S2471
△Q749	1	1	HT329112B0	Transistor	2SC2911(S or T)
△Q750	1	1	HT329112B0	Transistor	2SC2911(S or T)
△Q751	1	1	HT112092B0	Transistor	2SA1209(S or T)
△Q752	1	1	HT112092B0	Transistor	2SA1209(S or T)
△Q753	1	1	HT323442A0	Transistor	2SC2344(D or E)
△Q754	1	1	HT323442A0	Transistor	2SC2344(D or E)
△Q755	1	1	HT110112A0	Transistor	2SA1011(D or E)
△Q756	1	1	HT110112A0	Transistor	2SA1011(D or E)
Q761	1	1	HD20011010	Diode	W06C
Q762	1	1	HD20011010	Diode	W06C
Q763	1	1	HD20011010	Diode	W06C
Q764	1	1	HD20011010	Diode	W06C
<b>P700-MISCELLANEOUS</b>					
J704	1	1	YP06001050	Plug,	(5P)
J705	1	1	YP06001050	Plug,	(5P)
L701	1	1	LL23915120	Coil	
L702	1	1	LL23915120	Coil	
<b>P800-POWER SUPPLY CIRCUIT BOARD</b>					
P800	1	1	WK101H00B0	P.W. Board, Power Supply	
	1	1	ZZ112H80B0	P.W. Board Assembly	
<b>P800-CAPACITORS</b>					
CN02	1	1	EA47601030	Elect	47μF 10V
CN03	1	1	EA22700630	Elect	220μF 6.3V
C801	1	1	EA10605030	Elect	10μF 50V
C802	1	1	EA10705030	Elect	100μF 50V
C803	1	1	EA47705030	Elect	470μF 50V
C804	1	1	EA33605030	Elect	33μF 50V
C805	1	1	EA47505030	Elect	4.7μF 50V
C806	1	1	EA47505030	Elect	4.7μF 50V
C807	1	1	DK18473320	Ceramic	0.047μF +80% -20%
C808	1	1	EA10701630	Elect	100μF 16V
C809	1	1	EA10605030	Elect	10μF 50V
C810	1	1	EA10605030	Elect	10μF 50V
C813	1	1	EA10605030	Elect	10μF 50V
C815	1	1	EA10701630	Elect	100μF 16V
C816	1	1	DK18103560	Ceramic	0.01μF +80% -20%
C818	1	1	DK18103300	Ceramic	0.01μF

●(P): for PX  
●(E): for Europe

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION	
	E	P			
<b>P800-RESISTORS</b> (All Resistors are $\pm 5\%$ and $\frac{1}{4}W$ )					
RN06	1	1	GA05562010	5.6K $\Omega$	1W
RN07	1	1	GA05562010	5.6K $\Omega$	1W
RN08	1	1	GD05393140	39K $\Omega$	
RN09	1	1	GD05333140	33K $\Omega$	
RN10	1	1	GD05562140	5.6K $\Omega$	
RN11	1	1	GD05154140	150K $\Omega$	
RN12	1	1	GD05393140	39K $\Omega$	
RN13	1	1	GD05100140	10 $\Omega$	
△RN14	1	1	GA05101010	100 $\Omega$	1W
R801	1	1	GD05103140	10K $\Omega$	
R802	1	1	GD05103140	10K $\Omega$	
△R803	1	1	GP05200030	20 $\Omega$	3W
R804	1	1	GD05103140	10K $\Omega$	
R805	1	1	GD05103140	10K $\Omega$	
R806	1	1	GD05273140	27K $\Omega$	
R807	1	1	GD05474140	470K $\Omega$	
R808	1	1	GD05562140	5.6K $\Omega$	
R809	1	1	GD05332140	3.3K $\Omega$	
R810	1	1	GD05183140	18K $\Omega$	
R811	1	1	GD05223140	22K $\Omega$	
R812	1	1	GD05102140	1K $\Omega$	
R813	1	1	GD05102140	1K $\Omega$	
<b>P800-SEMICONDUCTORS</b>					
QN04	1	1	HT326342A0	Transistor	2SC2634(R or S)
QN05	1	1	HT326342A0	Transistor	2SC2634(R or S)
QN06	1	1	HT405712A0	Transistor	2SD571(M or L)
QN07	1	1	HD20003210	Diode	1S2471
QN10	1	1	HD20003210	Diode	1S2471
△Q801	1	1	HD20015030	Diode	DS135
△Q802	1	1	HD20015030	Diode	DS135
△Q803	1	1	HD20015030	Diode	DS135
△Q804	1	1	HD20015030	Diode	DS135
△Q805	1	1	HD20015030	Diode	DS135
△Q807	1	1	HT323622A0	Transistor	2SC2362(F or G)
△Q808	1	1	HT323622A0	Transistor	2SC2362(F or G)
△Q809	1	1	HT403131E0	Transistor	2SD313(E)
Q810	1	1	HD20003210	Diode	1S2471
Q811	1	1	HD30027090	Zener	WZ140
Q812	1	1	HD30027090	Zener	WZ140
△Q813	1	1	HT206052A0	Transistor	2SB605(M or L)
Q814	1	1	HT110162A0	Transistor	2SA1016(F or G)
Q815	1	1	HT110162A0	Transistor	2SA1016(F or G)
<b>P800-MISCELLANEOUS</b>					
JN01	1	1	YD06000580	Plug,	(5P)
JN02	1	1	YD06000590	Plug,	(7P)
JN03	1	1	YD06000570	Plug,	(3P)
LN01	1	1	LY20240140	Relay	

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION	
	E	P			
<b>P850-SUB POWER SUPPLY CIRCUIT BOARD</b>					
P850	1	1	WK112H1420	P.W. Board, Sub Power Supply	
	1	1	ZZ112H8420	P.W. Board Assembly	
<b>P850-CAPACITORS</b>					
C851	1	1	EA47601030	Elect	47 $\mu$ F 10V
C852	1	1	DK18103320	Ceramic	0.01 $\mu$ F
C853	1	1	EA10801030	Elect	1000 $\mu$ F 10V
C854	1	1	DK18103320	Ceramic	0.01 $\mu$ F
C855	1	1	EA22703530	Elect	220 $\mu$ F 35V
<b>P850-RESISTORS</b> (All Resistors are $\pm 5\%$ and $\frac{1}{4}W$ )					
△R851	1	1	GG05680120	68 $\Omega$	1W
R852	1	1	GD05561140	560 $\Omega$	
R853	1	1	GD05390140	39 $\Omega$	
R854	1	1	GD05222140	2.2K $\Omega$	
R855	1	1	GD05182140	1.8K $\Omega$	
R856	1	1	GD05103140	10K $\Omega$	
R857	1	1	GD05152140	1.5K $\Omega$	
R858	1	1	GD05390140	39 $\Omega$	
<b>P850-SEMICONDUCTORS</b>					
△Q851	1	1	HT404002B0	Transistor	2SD400(E or F)
Q852	1	1	HD30036090	Zener	WZ-065
Q853	1	1	HD30039090	Zener	WZ-240
Q854	1	1	HT110162A0	Transistor	2SA1016(F or G)
Q855	1	1	HT110162A0	Transistor	2SA1016(F or G)
Q856	1	1	HD30029090	Zener	WZ-090
<b>P900-DISPLAY UNIT CIRCUIT BOARD</b>					
P900	1	1	YK102H1640	P.W. Board, Display Unit	
	1	1	ZZ102H1640	P.W. Board Assembly	
<b>P900-RESISTORS</b> (All Resistors are $\pm 5\%$ and $\frac{1}{4}W$ )					
R901	1	1	GD05104140	100K $\Omega$	
R902	1	1	GD05104140	100K $\Omega$	
R903	1	1	GD05104140	100K $\Omega$	
R904	1	1	GD05822140	8.2K $\Omega$	
R905	1	1	GD05473140	47K $\Omega$	
R906	1	1	GD05103140	10K $\Omega$	
<b>P900-SEMICONDUCTORS</b>					
Q901	1	1	HT107332A0	Transistor	2SA733(P or Q)
Q902	1	1	HT107332A0	Transistor	2SA733(P or Q)
Q903	1	1	HT309452B0	Transistor	2SB945(P or Q)
Q904	1	1	HD20001210	Diode	1S2473
V901	1	1	HQ30701410	Display Unit	8-MT-01

●(P): for PX  
●(E): for Europe

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
PB00	1	1	WK112H1430	<b>PB00-AM ANTENNA CIRCUIT BOARD</b>
	1	1	ZZ112H8430	P.W. Board, AM Antenna P.W. Board Assembly
CB01	1	1	DD10020370	<b>PB00-CAPACITORS</b> Ceramic 2pF ±0.25pF
CB02	1	1	DD15221370	Ceramic 220pF ±5%
CB03	1	1	DK18473310	Ceramic 0.047μF
RB01	1	1	GD05225140	<b>PB00-RESISTORS</b> 2.2MΩ ±5% ¼W
RB02	1	1	GD05182140	1.8KΩ ±5% ¼W
RB03	1	1	GD05123140	12KΩ ±5% ¼W
QB01	1	1	HF200551D0	<b>PB00-SEMICONDUCTOR</b> F.E.T. 2SK55
LB01	1	1	LC11540020	<b>PB00-MISCELLANEOUS</b> Choke Coil, 150μH
LB02	1	1	LA10015010	Antenna Coil
PC00	1	1	YK102H1610	<b>PC00-PLL SYNTHESIZER CIRCUIT BOARD</b>
	1	1	ZZ102H1610	P.W. Board, PLL Synthesizer P.W. Board Assembly
CC01	1	1	EA47405030	<b>PC00-CAPACITORS</b> Elect 4.7μF 50V
CC02	1	1	EA10800630	Elect 1000μF 6.3V
CC03	1	1	EA10800630	Elect 1000μF 6.3V
CC05	1	1	DD15220300	Ceramic 22pF ±5%
CC06	1	1	DD15220300	Ceramic 22pF ±5%
CC07	1	1	DF17683300	Film 0.068μF ±20%
CC08	1	1	EQ22505030	Elect 2.2μF 50V
CC09	1	1	EA47603530	Elect 47μF 35V
CC11	1	1	DK18103310	Ceramic 0.01μF +80% -20%
CC12	1	1	EJ33600610	Elect 33μF 6.3V
CC13	1	1	DD15121360	Ceramic 120pF ±5%
CC14	1	1	DD15750360	Ceramic 75pF ±5%
CC15	1	1	DK18103310	Ceramic 0.01μF +80% -20%
CC16	1	1	EA10602530	Elect 10μF 25V
CC18	1	1	DK16221300	Ceramic 220pF ±10%
CC20	1	1	EJ33600610	Elect 33μF 6.3V
CC21	1	1	DK17103300	Ceramic 0.01μF ±20%
CC22	1	1	EA10602530	Elect 10μF 25V
CC23	1	1	EA22700630	Elect 220μF 6.3V
CC24	1	1	EA22700630	Elect 220μF 6.3V
CC25	1	1	EA10505030	Elect 1μF 50V
C856	1	1	EA10702530	Elect 100μF 25V
RC01	1	1	GD05222140	<b>PC00-RESISTORS</b> (All Resistors are ±5% and ¼W) 2.2KΩ
RC02	1	1	GD05222140	2.2KΩ
RC03	1	1	GD05222140	2.2KΩ
RC04	1	1	GD05222140	2.2KΩ
RC05	1	1	GD05222140	2.2KΩ
RC06	1	1	GD05222140	2.2KΩ
RC08	1	1	GD05104140	100KΩ
RC10	1	1	GD05104140	100KΩ
RC11	1	1	GD05104140	100KΩ

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
RC12	1	1	GD05104140	100KΩ
RC13	1	1	GD05104140	100KΩ
RC16	1	1	GD05104140	100KΩ
RC17	1	1	GD05104140	100KΩ
RC18	1	1	GD05104140	100KΩ
RC19	1	1	GD05104140	100KΩ
RC20	1	1	GD05104140	100KΩ
RC21	1	1	GD05104140	100KΩ
RC22	1	1	GD05104140	100KΩ
RC23	1	1	GD05104140	100KΩ
RC24	1	1	GD05104140	100KΩ
RC25	1	1	GD05473140	47KΩ
RC26	1	1	GD05223140	22KΩ
RC28	1	1	GD05223140	22KΩ
RC29	1	1	GD05473140	47KΩ
RC30	1	1	GD05473140	47KΩ
RC31	1	1	GD05473140	47KΩ
RC32	1	1	GD05473140	47KΩ
RC33	1	1	GD05473140	47KΩ
RC34	1	1	GD05473140	47KΩ
RC35	1	1	GD05473140	47KΩ
RC36	1	1	GD05473140	47KΩ
RC37	1	1	GD05473140	47KΩ
RC38	1	1	GD05473140	47KΩ
RC39	1	1	GD05103140	10KΩ
RC40	1	1	GD05103140	10KΩ
RC41	1	1	GD05103140	10KΩ
RC42	1	1	GD05103140	10KΩ
RC43	1	1	GD05103140	10KΩ
RC44	1	1	GD05103140	10KΩ
RC45	1	1	GD05103140	10KΩ
RC46	1	1	GD05103140	10KΩ
RC47	1	1	GD05103140	10KΩ
RC48	1	1	GD05223140	22KΩ
RC49	1	1	GD05223140	22KΩ
RC50	1	1	GD05332140	3.3KΩ
RC51	1	1	GD05223140	22KΩ
RC52	1	1	GD05332140	3.3KΩ
RC53	1	1	GD05223140	22KΩ
RC54	1	1	GD05223140	22KΩ
RC55	1	1	GD05472140	4.7KΩ
RC56	1	1	GD05472140	4.7KΩ
RC57	1	1	GD05472140	4.7KΩ
RC58	1	1	GD05472140	4.7KΩ
RC59	1	1	GD05472140	4.7KΩ
RC60	1	1	GD05473140	47KΩ
RC61	1	1	GD05393140	39KΩ
RC62	1	1	GD05393140	39KΩ
RC63	1	1	GD05393140	39KΩ
RC64	1	1	GD05393140	39KΩ
RC65	1	1	GD05221140	220Ω
RC66	1	1	GD05562140	5.6KΩ
RC67	1	1	GD05222140	2.2KΩ
RC68	1	1	GD05101140	100Ω
RC70	1	1	GD05102140	1KΩ
RC71	1	1	GD05102140	1KΩ
RC73	1	1	GD05122140	1.2KΩ
RC74	1	1	GD05103140	10KΩ
RC75	1	1	GD05102140	1KΩ
RC78	1	1	GD05104140	100KΩ
RC79	1	1	GG05100140	10Ω
RC80	1	1	GD05182140	1.8KΩ
RC82	1	1	GD05102140	1KΩ

•(P): for PX  
•(E): for Europe

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
<b>PC00-SEMICONDUCTORS</b>				
QC01	1	1	HC10016020	IC MN1400SJ
QC02	1	1	HC10018020	IC MN1203
QC03	1	1	HC10017020	IC MN6142
QC04	1	1	HC10032060	IC $\mu$ PB551C
QC05	1	1	HC10048050	IC TC5066BP
QC06	1	1	HT107332B0	Transistor 2SA733(Q or R)
QC07	1	1	HT107332B0	Transistor 2SA733(Q or R)
QC08	1	1	HT107332B0	Transistor 2SA733(Q or R)
QC09	1	1	HT107332B0	Transistor 2SA733(Q or R)
QC10	1	1	HT107332B0	Transistor 2SA733(Q or R)
QC11	1	1	HT107332B0	Transistor 2SA733(Q or R)
QC12	1	1	HD20001210	Diode 1S2473C
QC14	1	1	HT107332B0	Transistor 2SA733(Q or R)
QC15	1	1	HT107332B0	Transistor 2SA733(Q or R)
QC23	1	1	HD20001210	Diode 1S2473C
QC25	1	1	HD20001210	Diode 1S2473C
QC26	1	1	HD20001210	Diode 1S2473C
QC27	1	1	HD20001210	Diode 1S2473C
QC28	1	1	HD20001210	Diode 1S2473C
QC29	1	1	HD20001210	Diode 1S2473C
QC30	1	1	HD20001210	Diode 1S2473C
QC31	1	1	HD20001210	Diode 1S2473C
QC32	1	1	HD20001210	Diode 1S2473C
QC33	1	1	HD20001210	Diode 1S2473C
QC34	1	1	HD20001210	Diode 1S2473C
QC35	1	1	HD20001210	Diode 1S2473C
QC36	1	1	HD20001210	Diode 1S2473C
QC37	1	1	HD20001210	Diode 1S2473C
QC38	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC39	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC41	1	1	HT107332B0	Transistor 2SA733(Q or R)
QC42	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC43	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC44	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC45	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC46	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC47	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC48	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC49	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC50	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC51	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC52	1	1	HD20001210	Diode 1S2473C
QC53	1	1	HD20001210	Diode 1S2473C
QC54	1	1	HF200301C0	F.E.T. 2SK30(Y)
QC55	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC56	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC57	1	1	HD20001210	Diode 1S2473C
<b>PC00-MISCELLANEOUS</b>				
WC01	1	1	YU04180260	Jumper Lead, (4P)
WC03	1	1	YU06280260	Jumper Lead, (6P) x 2
WC05	1	1	YU08100260	Jumper Lead, (8P)
WC06	1	1	YU05100260	Jumper Lead, (5P)
WC07	1	1	YU07280260	Jumper Lead, (7P)
WC08	1	1	YU05620260	Jumper Lead, (5P)
WC09	1	1	YU04100260	Jumper Lead, (4P)
XC01	1	1	XA108001L2	Crystal, 11.52MHz
LC01	1	1	LC11030020	Choke Coil, 10 $\mu$ H

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
<b>PE00-TONE AMP. CIRCUIT BOARD</b>				
PE00	1	1	WK101H00E0	P.W. Board, Tone Amp.
			ZZ101H80E0	P.W. Board Assembly
<b>PE00-CAPACITORS</b>				
CE01	1	1	EA47505030	Elect 4.7 $\mu$ F 50V
CE02	1	1	EA47505030	Elect 4.7 $\mu$ F 50V
CE03	1	1	DK16101300	Ceramic 100pF $\pm$ 10%
CE04	1	1	DK16101300	Ceramic 100pF $\pm$ 10%
CE05	1	1	EA47505030	Elect 4.7 $\mu$ F 50V
CE06	1	1	EA47505030	Elect 4.7 $\mu$ F 50V
CE07	1	1	DK16101300	Ceramic 100pF $\pm$ 10%
CE08	1	1	DK16101300	Ceramic 100pF $\pm$ 10%
CE09	1	1	DF16222300	Film 2200pF $\pm$ 10%
CE10	1	1	DF16222300	Film 2200pF $\pm$ 10%
CE11	1	1	DF16562300	Film 5600pF $\pm$ 10%
CE12	1	1	DF16562300	Film 5600pF $\pm$ 10%
CE15	1	1	DF16183300	Film 0.018 $\mu$ F $\pm$ 10%
CE16	1	1	DF16183300	Film 0.018 $\mu$ F $\pm$ 10%
CE17	1	1	DF16183300	Film 0.018 $\mu$ F $\pm$ 10%
CE18	1	1	DF16183300	Film 0.018 $\mu$ F $\pm$ 10%
CE19	1	1	DF16822300	Film 8200pF $\pm$ 10%
CE20	1	1	DF16822300	Film 8200pF $\pm$ 10%
CE21	1	1	DD15560370	Ceramic 56pF $\pm$ 5%
CE22	1	1	DD15560370	Ceramic 56pF $\pm$ 5%
CE23	1	1	EA47505030	Elect 4.7 $\mu$ F 50V
CE24	1	1	EA47505030	Elect 4.7 $\mu$ F 50V
<b>PE00-RESISTORS</b> (All Resistors are $\pm$ 5% and 1/4W)				
RE01	1	1	GD05683140	68K $\Omega$
RE02	1	1	GD05683140	68K $\Omega$
RE03	1	1	GD05821140	820 $\Omega$
RE04	1	1	GD05821140	820 $\Omega$
RE05	1	1	GD05472140	4.7K $\Omega$
RE06	1	1	GD05472140	4.7K $\Omega$
RE07	1	1	GD05682140	6.8K $\Omega$
RE08	1	1	GD05682140	6.8K $\Omega$
RE09	1	1	GD05682140	6.8K $\Omega$
RE10	1	1	GD05682140	6.8K $\Omega$
RE11	1	1	GD05562140	5.6K $\Omega$
RE12	1	1	GD05562140	5.6K $\Omega$
RE13	1	1	GD05562140	5.6K $\Omega$
RE14	1	1	GD05562140	5.6K $\Omega$
RE15	1	1	GD05223140	22K $\Omega$
RE16	1	1	GD05223140	22K $\Omega$
RE17	1	1	GD05223140	22K $\Omega$
RE18	1	1	GD05223140	22K $\Omega$
RE19	1	1	GD05223140	22K $\Omega$
RE20	1	1	GD05223140	22K $\Omega$
RE21	1	1	GD05103140	10K $\Omega$
RE22	1	1	GD05103140	10K $\Omega$
RE23	1	1	GD05470140	47 $\Omega$
RE24	1	1	GD05470140	47 $\Omega$
RE25	1	1	RM01040150	100K $\Omega$ (B) Variable, Treble
RE26	1	1	RM01040150	100K $\Omega$ (B) Variable, Mid
RE27	1	1	RM01040150	100K $\Omega$ (B) Variable, Bass
<b>PE00-SEMICONDUCTORS</b>				
QE01	1	1	HC10013370	IC TL4558PB
QE02	1	1	HC10013370	IC TL4558PB

●(P): for PX  
●(E): for Europe

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
PG00	1	1	YK102H1430	<b>PG00-VOL. &amp; BALANCE CIRCUIT BOARD</b> P.W. Board, Vol. & Balance P.W. Board Assembly
	1	1	ZZ102H1430	
RG01	1	1	RM01040320	Variable Resistor, 100KΩ(B) x 2
RG02	1	1	RK02040080	Variable Resistor, 200KΩ(W)
WG01	1	1	YU05120260	Jumper Lead, (5P)
WG02	1	1	YU03080260	Jumper Lead, (3P)
PK00	1	1	WK112H1410	<b>PK00-L.E.D. METER CIRCUIT BOARD</b> P.W. Board, L.E.D. Meter P.W. Board Assembly
	1	1	ZZ112H1410	
<b>PK00-CAPACITORS</b>				
CK01	1	1	EA47505030	Elect 4.7μF 50V
CK02	1	1	EA47505030	Elect 4.7μF 50V
CK03	1	1	EA47505030	Elect 4.7μF 50V
CK04	1	1	EA47505030	Elect 4.7μF 50V
CK05	1	1	EA47505030	Elect 4.7μF 50V
CK06	1	1	EA47505030	Elect 4.7μF 50V
CK33	1	1	EA47505030	Elect 4.7μF 50V
<b>PK00-RESISTORS</b> (All Resistors are ±5% and ¼W)				
RK01	1	1	RA05030330	50KΩ(B), Trimming
RK02	1	1	RA05030330	50KΩ(B), Trimming
RK03	1	1	GD05223140	22KΩ
RK04	1	1	GD05223140	22KΩ
RK05	1	1	GD05223140	22KΩ
RK06	1	1	GD05223140	22KΩ
RK07	1	1	GD05103140	10KΩ
RK08	1	1	GD05103140	10KΩ
RK09	1	1	RA01030240	10KΩ(B), Trimming
RK10	1	1	RA01030240	10KΩ(B), Trimming
RK11	1	1	GD05823140	82KΩ
RK12	1	1	GD05823140	82KΩ
RK13	1	1	GD05183140	18KΩ
RK14	1	1	GD05183140	18KΩ
RK15	1	1	GD05223140	22KΩ
RK16	1	1	GD05223140	22KΩ
RK17	1	1	GD05222140	2.2KΩ
RK18	1	1	GD05222140	2.2KΩ
RK19	1	1	GD05222140	2.2KΩ
RK20	1	1	GD05222140	2.2KΩ
RK21	1	1	GD05222140	2.2KΩ
RK22	1	1	GD05222140	2.2KΩ
RK23	1	1	GD05222140	2.2KΩ
RK24	1	1	GD05222140	2.2KΩ
RK25	1	1	GD05222140	2.2KΩ
RK26	1	1	GD05222140	2.2KΩ
RK27	1	1	GD05222140	2.2KΩ
RK30	1	1	GD05153140	15KΩ
RK31	1	1	GD05682140	6.8KΩ
RK32	1	1	GD05103140	10KΩ
RK33	1	1	GD05562140	5.6KΩ
RK34	1	1	GD05683140	68KΩ
RK35	1	1	GD05680140	68Ω
RK36	1	1	GD05680140	68Ω
RK37	1	1	GD05221140	220Ω
RK38	1	1	GD05221140	220Ω
RK39	1	1	GD05221140	220Ω

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
QK01	1	1	HC10045030	<b>PK00-SEMICONDUCTOR</b> IC LB1409 IC LB1409 L.E.D. SLP154B(Red) L.E.D. SLP154B(Red) L.E.D. SLP154B(Red) L.E.D. SLP154B(Red) L.E.D. SLP154B(Red) L.E.D. SLP154B(Red) L.E.D. SLP154B(Red) L.E.D. SLP154B(Red)
	1	1	HC10045030	
	1	1	HI10012030	
	1	1	HI10012030	
	1	1	HI10012030	
	1	1	HI10012030	
	1	1	HI10012030	
	1	1	HI10012030	
	1	1	HI10012030	
	1	1	HI10012030	
QK11	1	1	HI10012030	L.E.D. SLP154B(Red) L.E.D. SLP154B(Red) L.E.D. SLP154B(Red) IC LB1416 L.E.D. SLP254B(Green) L.E.D. SLP254B(Green) L.E.D. SLP154B(Red) L.E.D. SLP154B(Red) L.E.D. SLP154B(Red)
	1	1	HI10012030	
	1	1	HI10012030	
	1	1	HC10040030	
	1	1	HI10013030	
	1	1	HI10013030	
	1	1	HI10012030	
	1	1	HI10012030	
	1	1	HI10012030	
	1	1	HI10012030	
PS00	1	1	WK101H00C0	<b>PS00-TAPE/MUTING FILTER SW. CIRCUIT BOARD</b> P.W. Board Tape/Muting Filter SW. P.W. Board Assembly
	1	1	ZZ101H80C0	
<b>PS00-CAPACITORS</b>				
CS01	1	1	DF15473350	Film 0.047μF ±5%
CS02	1	1	DF15473350	Film 0.047μF ±5%
CS05	1	1	EA10405030	Elect 0.1μF 50V
CS06	1	1	EA10405030	Elect 0.1μF 50V
CS07	1	1	DF15473350	Film 0.047μF ±5%
CS08	1	1	DF15473350	Film 0.047μF ±5%
CS09	1	1	DK16681300	Ceramic 680pF ±10%
CS10	1	1	DK16681300	Ceramic 680pF ±10%
<b>PS00-RESISTORS</b> (All Resistors are ±5% and ¼W)				
RS05	1	1	GD05331140	330Ω
RS06	1	1	GD05331140	330Ω
RS09	1	1	GD05682140	6.8KΩ
RS10	1	1	GD05682140	6.8KΩ
RS11	1	1	GD05681140	680Ω
RS12	1	1	GD05681140	680Ω
RS13	1	1	GD05272140	2.7KΩ
RS14	1	1	GD05272140	2.7KΩ
RS15	1	1	GD05273140	27KΩ
RS16	1	1	GD05273140	27KΩ
RS17	1	1	GD05222140	2.2KΩ
<b>PS00-MISCELLANEOUS</b>				
JS04	1	1	YP06000570	Plug, (3P)
SS01	1	1	SP04060120	Push Switch

●(P): for PX  
●(E): for Europe

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
PS50	1	1	YK102H1440	<b>PS50-MULTIPATH SWITCH CIRCUIT BOARD</b> P.W. Board, Multipath Switch P.W. Board Assembly
	1	1	ZZ102H1440	
CS51	1	1	DK18223320	Ceramic Cap. 0.022 $\mu$ F
CS52	1	1	EA10602530	Elect Cap. 10 $\mu$ F 25V
RS51	1	1	RA01040110	Trimming Resistor 100K $\Omega$ (B)
QS51	1	1	HD20011050	Diode 1S1555
SS51	1	1	SP02010550	Push Switch, Multipath
PT00	1	1	WK101H00G0	<b>PT00-SPEAKER SWITCH CIRCUIT BOARD</b> P.W. Board, Speaker Switch P.W. Board Assembly
	1	1	ZZ112H80G0	
<b>PT00-RESISTORS</b> (All Resistors are $\pm 5\%$ and $\frac{1}{4}W$ )				
RT01	1	1	GP05331030	330 $\Omega$ 3W
RT02	1	1	GP05331030	330 $\Omega$ 3W
RT03	1	1	GD05473140	47K $\Omega$
RT04	1	1	GD05473140	47K $\Omega$
RT05	1	1	GD05102140	1K $\Omega$
RT06	1	1	GD05102140	1K $\Omega$
RT07	1	1	GD05392140	3.9K $\Omega$
RT08	1	1	GD05392140	3.9K $\Omega$
ST01	1	1	SP04030240	<b>PT00-MISCELLANEOUS</b> Push Switch
PT50	1	1	YF102H0010	<b>PT50-REC. MODE SWITCH CIRCUIT BOARD</b> P.W. Board, Rec. Mode Switch P.W. Board Assembly
	1	1	ZZ102H0010	
CT51	1	1	DK18103300	Ceramic Cap. 0.01 $\mu$ F +80% -20%
CT52	1	1	EA47505030	Elect Cap. 4.7 $\mu$ F 50V
JT51	1	1	YT02040260	Terminal, Tape 1 In/Out
ST51	1	1	SS06060010	Slide Switch, Rec. Mode
PU00	1	1	YK102H1620	<b>PU00-TUNING KEYBOARD CIRCUIT BOARD</b> P.W. Board, Tuning Keyboard P.W. Board Assembly
	1	1	ZZ102H1620	
SU01	1	1	SP01010350	Push Switch, Preset (#3)
SU02	1	1	SP01010350	Push Switch, Preset (#6)
SU03	1	1	SP01010350	Push Switch, Preset (#2)
SU04	1	1	SP01010350	Push Switch, Preset (#5)
SU05	1	1	SP01010350	Push Switch, Preset (#4)
SU06	1	1	SP01010350	Push Switch, Preset (#1)
SU07	1	1	SP01010350	Push Switch, Preset (#7)
SU08	1	1	SP01010350	Push Switch, Memory Write
SU09	1	1	SP01010350	Push Switch, Down
SU10	1	1	SP01010350	Push Switch, Up

REF. DESIG.	Q'TY		PART NO.	DESCRIPTION
	E	P		
PU50	1	1	YK102H1660	<b>PU50-SCAN STEP CIRCUIT BOARD</b> P.W. Board, Scan Step P.W. Board Assembly
	1	1	ZZ102H1660	
SU51	1	1	SS02020380	Slide Switch, Scan Step
PV00	1	1	YK102H1420	<b>PV00-TAPE 2 TERMINAL CIRCUIT BOARD</b> P.W. Board, Tape 2 Terminal P.W. Board Assembly
	1	1	ZZ102H1420	
JV01	1	1	YT02040260	Terminal, Tape 2 In/Out
WV01	1	1	YU07080260	Jumper Lead, (7P)
PW00	1	1	WK112H1440	<b>PW00-HEADPHONE CIRCUIT BOARD</b> P.W. Board, Headphone P.W. Board Assembly
	1	1	ZZ112H8440	
JW04	1	1	YJ01001610	Jack, Headphone
PY00	1	1	YK102H1650	<b>PY00-FUNCTION INDICATOR CIRCUIT BOARD</b> P.W. Board, Function Indicator P.W. Board Assembly
	1	1	ZZ102H1650	
QY01	1	1	HI10004060	L.E.D. SR106C, Tuner
QY02	1	1	HI10004060	L.E.D. SR106C, Phone
QY03	1	1	HI10004060	L.E.D. SR106C, Aux
QY04	1	1	HD20001210	Diode 1S2473
QY05	1	1	HD20001210	Diode 1S2473
QY06	1	1	HD20001210	Diode 1S2473

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



## 9. TECHNICAL SPECIFICATIONS

### AUDIO SECTION

#### POWER OUTPUT PER CHANNEL

4 OHMS DIN	180 W
4 OHMS RMS	165 W
8 OHMS DIN	145 W
8 OHMS RMS	130 W
TOTAL HARMONIC DISTORTION AT RMS 8 OHMS	0.03%
DAMPING FACTOR 8 OHMS (1 kHz)	70

#### Frequency Response

Phono (RIAA)	±0.5 dB (20 Hz ~ 20 kHz)
Aux (±2 dB)	8 Hz ~ 65 kHz

#### Signal-to-Noise Ratio

Phono (7.75 mV, 20 V output)	85 dB
Aux (Vol. Max., 20 V output)	98 dB

#### Input Terminals

Phono: Input Sensitivity/Impedance	2.7 mV/47 kohms
Aux: Input Sensitivity/Impedance	160 mV/20 kohms

### FM TUNER SECTION

Frequency Range	87.5 ~ 108 MHz
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#### Usable Sensitivity

DIN Mono (S/N 26 dB, 75 ohms)	0.85 $\mu$ V
DIN Stereo (S/N 46 dB, 75 ohms)	19 $\mu$ V

Alternate Channel Selectivity, 98 MHz	70 dB
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#### Signal-to-Noise Ratio, 98 MHz

Unweighted: Mono	75 dB
Stereo	67 dB
Weighted: Mono	77 dB
Stereo	72 dB

### MW TUNER SECTION

Frequency Range	515 ~ 1650 kHz
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Usable Sensitivity (20 dB S/N 30% Mod., 1 MHz)	10 $\mu$ V
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Selectivity	20 dB
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### GENERAL

Power Requirements	220 V A.C., 50 Hz
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(E and N versions are featuring an external voltage selector for use on other voltages.)

Other versions can be converted by a qualified technician to operate on 110/120/240 V.)

Power Consumption at Rated Output, Both Channels Operating	560 W
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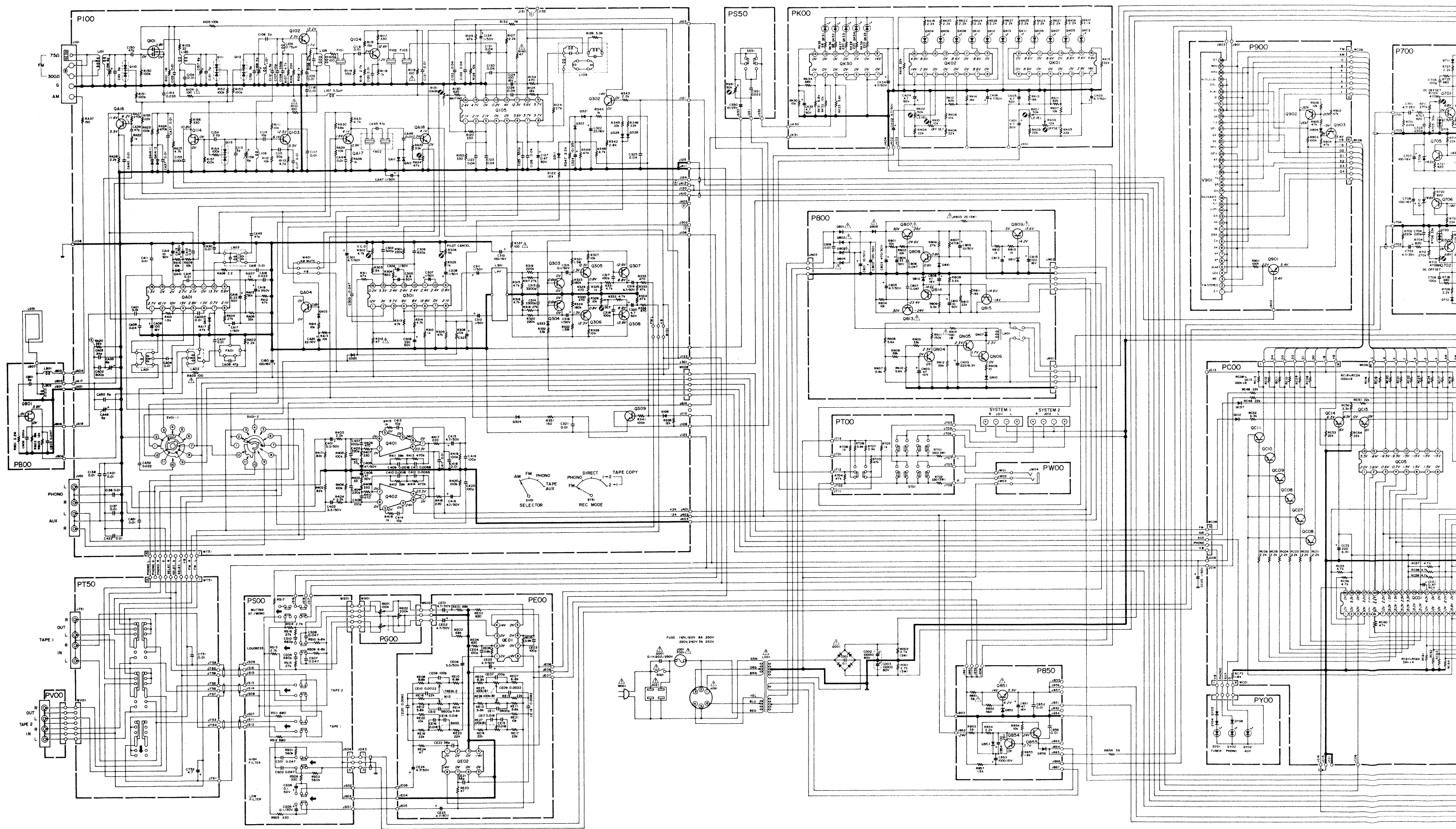
#### Dimensions

Panel Width	466 mm
Panel Height	146 mm
Depth	380 mm

#### Weight

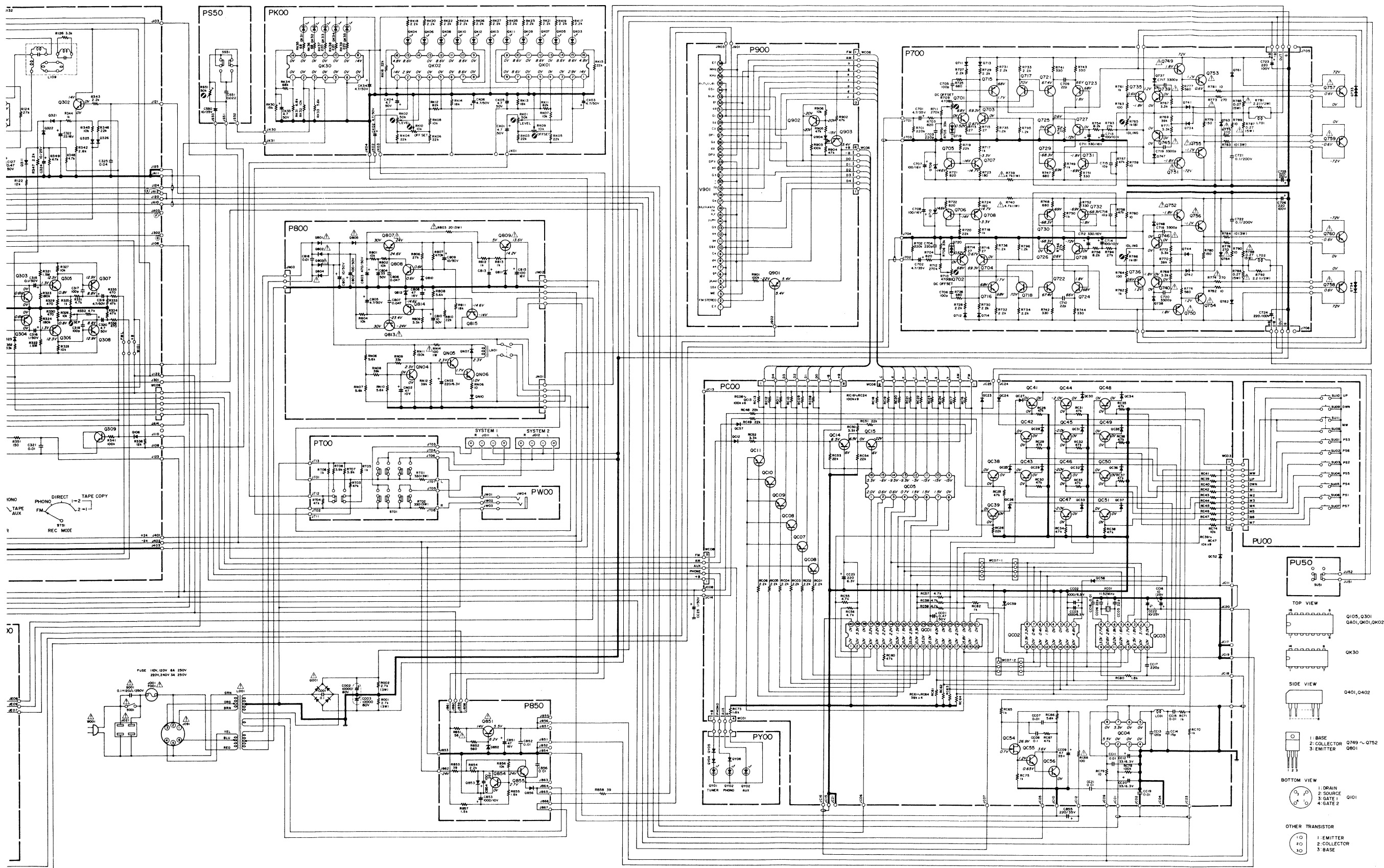
Unit alone	13 kg
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# 10. SCHEMATIC DIAGRAM



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

Components and wiring are subject to change for modification without notice.



Q001 HC1004290 55V940	Q755, Q756 HT10112AD 25A1209(5)	QK01, QK02 HC1004500 LB1408
Q101 HF4004518D 35K458	Q757, Q758 HT3202280 25C292(21, V)	QK33~QK35 OK33~OK35 HI10012030 SLP1448
Q102, Q104 HT33047C0 25C1047C	Q759, Q760 HT1121628D 25A1216(0, V)	QK30 HC10040030 LB1816
Q103 HT308291C0 25C829C	Q761~Q764 HD20011010 W06C	QK31, QK32 HI1003030 SLP2548
Q105 HC10233010 M41	Q801~Q805 HD2005030 IS2473	QK34, QK35 HI10012030 25C2634(4R, 5)
Q106 HD20001210 IS2473	Q807, Q808 HT1323622A0 25C2362(2F, 0)	QK06 HI10001030 25D571(M, L)
Q114 HF2003191A0 25K19Y	Q809 HT403131E0 25D3131E	QK07, QK10 HD20003210 IS2471
Q301 HC10200420 KB4437	Q810 HD20003210 IS2471	QK04, QK05 HT326342A0 25C2634(4R, 5)
Q302~Q304 HT30942C0 25C945(X, P)	Q811, Q812 HD30027090 WZ-140	QK08 HT206052A0 25B0505(M, L)
Q309, Q306 HT33834280 25C2634(5, T)	Q813 HT206052A0 25B0505(M, L)	QK09 HT1021628D 25A1216(0, V)
Q307, Q308 HT1127280 25A12715(7, T)	Q814, Q815 HT1101628D 25C1061F(0, 0)	QK11~QK13 HI10012030 SLP106C
Q309 HT3094280 25C945(9, 0)	Q816, Q815 HT1101628D 25A12715(7, T)	QK14~QK16 HD20001210 IS2473
Q311~Q316 HD20001210 IS2473	Q851 HT40400280 25D400	QK17, QK18 HD20001210 IS2473
Q401 HC10025060 JPC1178C	Q852 HD30036090 WZ-065	QK19, QK20 HD20001210 IS2473
Q403, Q405 HD20011050 IS1555	Q853 HD30036090 WZ-240	QK21, QK22 HD20001210 IS2473
Q404, Q418 HT30942C0 25C945(X, P)	Q854, Q855 HT1101628D 25A10161F(0, 0)	QK23, QK24 HD20001210 IS2473
Q410 HV0006120 MV-203	Q856 HD30036090 WZ-090	QK25, QK26 HD20001210 IS2473
Q411, Q412 HI10005020 QA-99	Q901, Q902 HT107332A0 25A7331(0, 1)	QK27, QK28 HD20001210 IS2473
Q414 HD40002420 MT-1226	Q903 HT30945280 25C9451P(0, 1)	QK29, QK30 HD20001210 IS2473
Q416, Q417 HT33047C0 25C1047C	Q904 HD20001210 IS2473	QK31, QK32 HI1003030 SLP2548
Q401, Q402 HC10034010 HA1457W	Q801 HT20055100 25K55	QK33~QK35 OK33~OK35 HI10012030 SLP1448
Q701~Q704 HT322401A0 25C22401(6R)	Q705~Q708 Q735, Q736 HT326342A0 25C2634(4R, 5)	QK36, QK37 HI10012030 25C2634(4R, 5)
Q709, Q710 HD30025090 WZ-150	Q711~Q714 HD20001210 IS2473C	QK38, QK39 HI10012030 25C2634(4R, 5)
Q715~Q718 HT10992280 25A8922(F, 0)	Q719, Q720 HD20001210 MV13	QK40, QK41 HD20001210 IS2473
Q721~Q728 HT11209280 25A120915(7, T)	Q729~Q732 Q749, Q750 HT326342A0 25C2634(4R, 5)	QK42, QK43 HT107332A0 25A7331(0, 1)
Q733, Q734 HV0004080 STV-3H	Q735, Q736 HT326342A0 25C2634(4R, 5)	QK44, QK45 HT107332A0 25A7331(0, 1)
Q737, Q738 Q741~Q744 Q747, Q748 HD20003210 IS2471	Q739, Q740 HT3094280 25C945(9, 0)	QK46, QK47 HT107332A0 25A7331(0, 1)
Q751, Q752 HT1029280 25A120915(7, T)	Q753, Q754 HT326342A0 25C2634(4R, 5)	QK48, QK49 HT107332A0 25A7331(0, 1)

Components and wiring are subject to change for modification without notice.