

SERVICE MANUAL

marantz

model SR8000

Stereophonic Receiver

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20525 Nordhoff Street
Chatsworth, California 91311
Phone: 1-800-423-5108
1-213-998-9333

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

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

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3710 Nashua Drive
Mississauga
Ontario, Canada L4V 1M5

AUSTRALIA

Superscope (Australasia) Pty., Ltd.
32 Cross Street (P.O. Box 604)
Brookvale 2100 N.S.W.
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Marantz Japan, Inc.
3622 Kamitsuruma
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Rue Louis Armand 9
92600 Asnieres
Hauts-de-Seine
France

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London Road, 203
Staines
Middlesex
England

Superscope GmbH
Max-Planck-Strasse 22
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West Germany

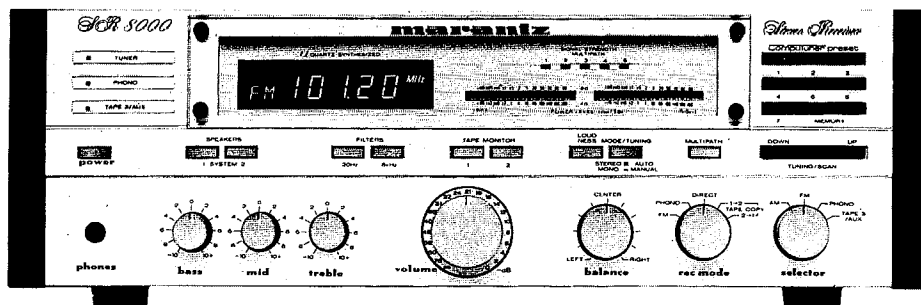
All of the above locations are fully equipped to take care of your total service needs. Because various countries have differing configuration requirements, it is necessary that you contact the service facility in your particular country. In the event that there is no service location listed for your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

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MODEL SR-8000 STEREOPHONIC RECEIVER



INTRODUCTION

This service manual was prepared for use by Authorized Warranty Stations and contains service information for Marantz Model SR-8000 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-8000 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] 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 _{DD}	-0.3~+10	V	I _{DD}	V _{DD} = 5V Without load		20	40	mA	
		V ₁	-0.3~+10	V							
		V _O	-0.3~+10	V	P _T	V _{DD} = 5V Without load		100	200	mA	
		V _{OSC}	-0.3~+10	V							
		I _{OH} (PK) (C,D,E Port)	-0.5	mA	V _{IH1}	AI0~AI3, BI0~BI3 SNS0, SNS1 V _{DD} = 5V	2.4		V _{DD}	V	
		I _{OL} (PK) (C,D,E. Port)	8	mA			V _{IL1}	V _{SS}		0.8	
		I _{OH} (aV) (C,D,E. Port)	-0.25	mA	V _{IH2}	RST, CSLCT, RDY V _{DD} = 5V	2.4		V _{DD}	V	
		I _{OL} (aV) (C,D,E. Port)	4	mA			V _{IL2}	V _{SS}		0.8	
		P _T	500	mW	I ₁₂	V ₁ = 0.8V	-5	-15	-30	μA	
		Topr	-30~+70	°C	V _{OH1}	CO0~CO11, DO0~DO7, SYNC, EO0~EO3, DOPS, RA0~RA10	V _{DD} = 5V I _{OH} = -30μA	4			V
		Tstg	-55~+125	°C			V _{OH2}	V _{DD} = 5V I _{OH} = -100μA	2.6		
		Operating Condition (Ta = 25°C)			V _{OL}		V _{DD} = 5V I _{OL} = 2mA			0.5	
		Item	min.typ.max.	Unit	f _{OSC}	V _{DD} = 5V, R _{OSC} = 18kΩ, C _{OSC} = 100pF	200	300	450	kHz	
		V _{DD}	4.5,5,6	V	C ₁	V _{DD} = 5V, V _I = 2V		5		pF	
C ₀	V _{DD} = 5V, V _I = 2V					7					

[4] Functions of terminals

No.	Symbol	Item	No.	Symbol	Item
1	V _{SS}	GND	40	OSC	360 kHz In
2	CO11		39	V _{DD}	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

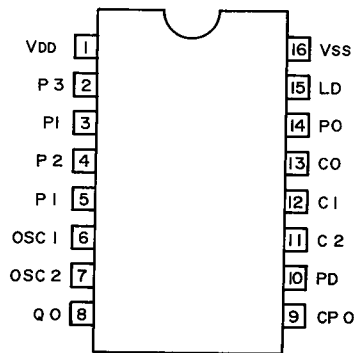


Figure 4

[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

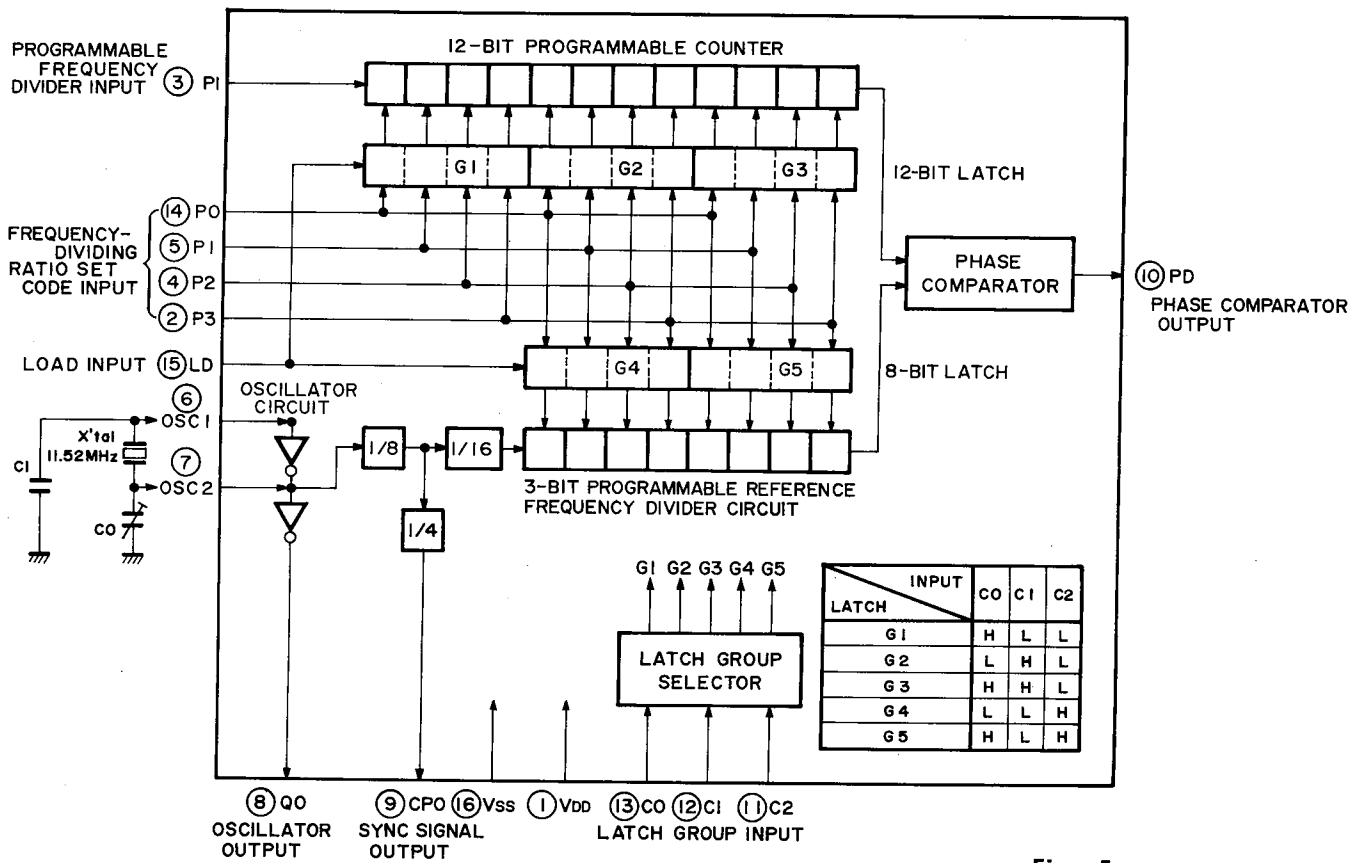


Figure 5

[4] Functions of terminals

No.	Symbol	Descriptions
1	V _{DD}	Power supply +5V
2	P ₃	Frequency dividing ratio preset code input
3	P ₁	Programmable frequency divider input
4	P ₂	Frequency dividing ratio preset code input
5	P ₁	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 ₂	Latch group select input
12	C ₁	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 _{SS}	Ground

3.4 CMOS RAM MN1203

[1] Terminal connections

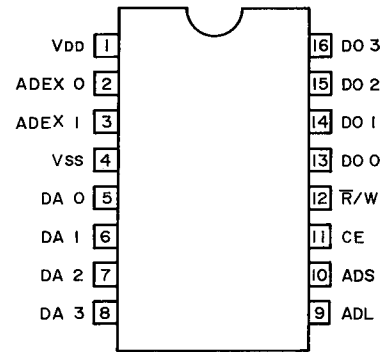


Figure 6

[2] Specifications

Absolute maximum ratings				
Item	Symbol	Rating	Unit	Remarks
Power supply voltage	V _{DD}	-0.3 - +8.0	V	V _{SS} = 0V
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

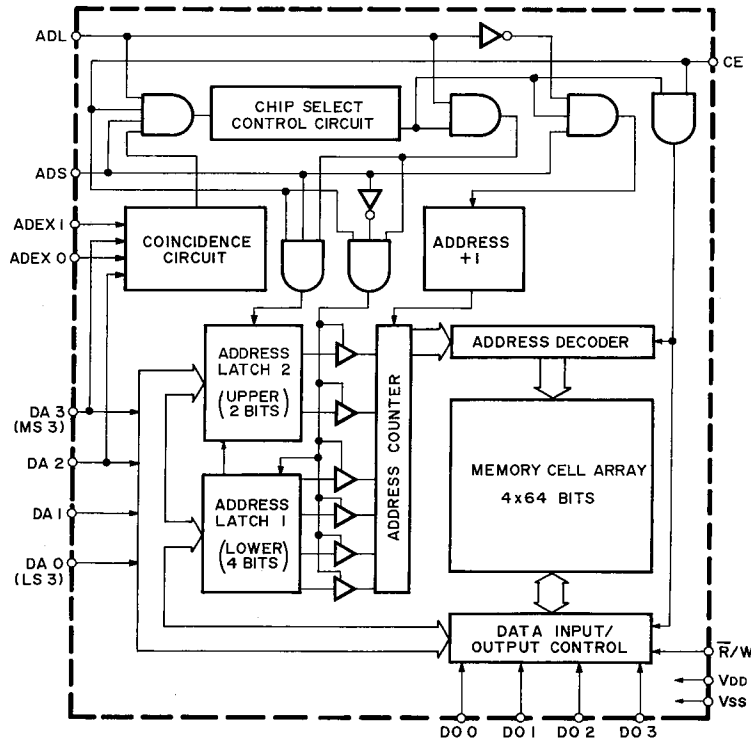


Figure 7

[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

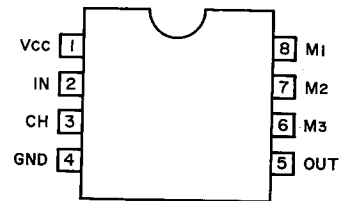


Figure 8

[2] Specifications

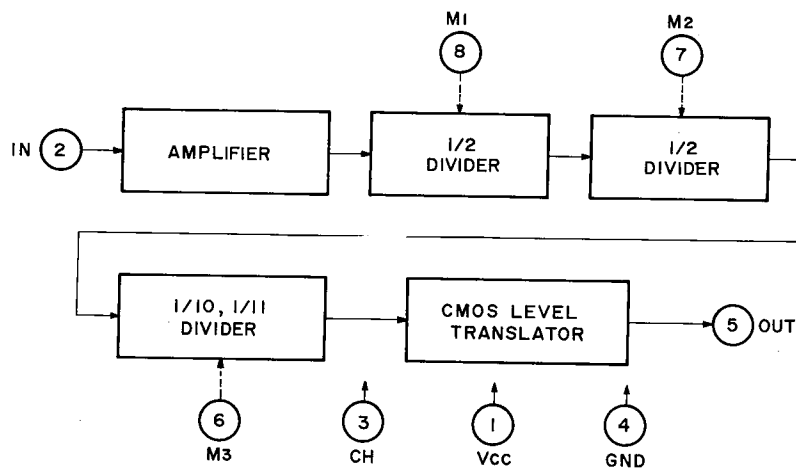
Absolute maximum ratings ($T_a = 25^\circ\text{C}$)

Item	Symbol	Rating	Unit
Power supply voltage	V_{CC}	-0.5 - +6.0	V
Input voltage	V_1	-0.5 - V_{CC}	V
Output current	V_o	15	mA
Junction temperature	T_1	+125	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 - +125	$^\circ\text{C}$

Electrical characteristics ($V_{CC} = 5V \pm 10\%$, $T_a = -30 - +75^\circ\text{C}$)

Item	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Power supply current	I_{CC}	$V_{CC} = 5.0V$		38	52	mA
High level output voltage	V_{OH}	Out terminal $I_o = -40\mu\text{A}$	4.0			V
Low level output voltage	V_{OL}	Out terminal $I_o = 1.0\text{mA}$			1.0	V
High level input voltage	V_{IH}	M_3 terminal *1	4.0			V
Low level input voltage	V_{IL}	M_3 terminal *2			1.0	V
Input voltage	V_{in}	IN terminal	140			mVr.m.s.
Response frequency	fin_1	IN terminal, 1/10, 1/11 frequency-division *3	1.0		100	MHz
Response frequency	fin_2	IN terminal, other than 1/10, 1/11 frequency-division *3	1.0		150	MHz

[3] Block diagram



V_{CC} : "+" POWER SUPPLY
 IN : SIGNAL INPUT
 CH : CHECK TERMINAL
 GND : GROUND
 OUT : FREQUENCY-DIVISION OUTPUT
 M_3 - M_1 : FREQUENCY-DIVISION RATIO SETTING

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 $20f_r$ 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.

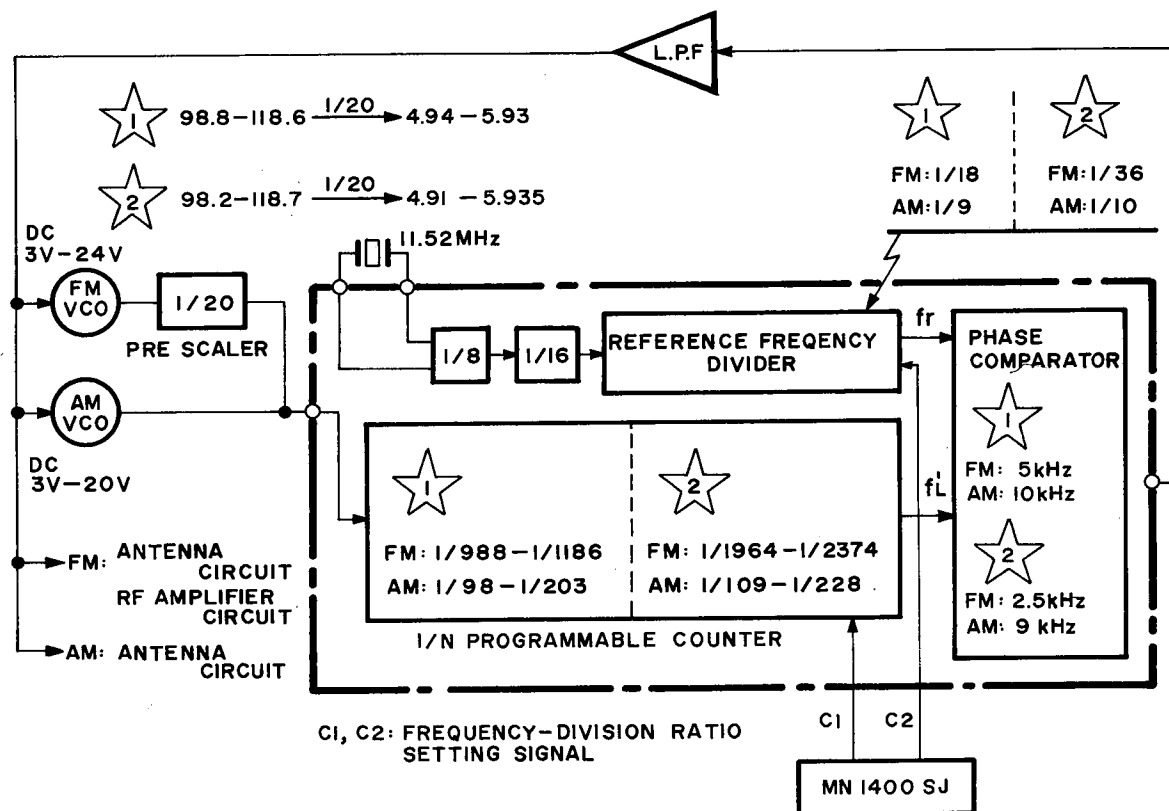


Figure 10

	SCAN STEP	Receiving frequency	Intermediate frequency	Local Oscillator frequency	Number of channels	Phase comparator reference frequency
\star	FM: 200kHz AM: 10kHz	88.1MHz - 107.9MHz 530kHz - 1,610kHz	10.7MHz 450kHz	98.8MHz - 118.6MHz 980kHz - 2,060kHz	100 109	5kHz 10kHz
\star	FM: 50kHz AM: 9kHz	87.50MHz - 108.00MHz 531kHz - 1,602kHz	10.7MHz 450kHz	98.2MHz - 118.7MHz 981kHz - 2,052kHz	411 120	2.5kHz 9kHz

Mode Setting and Control Key Connections

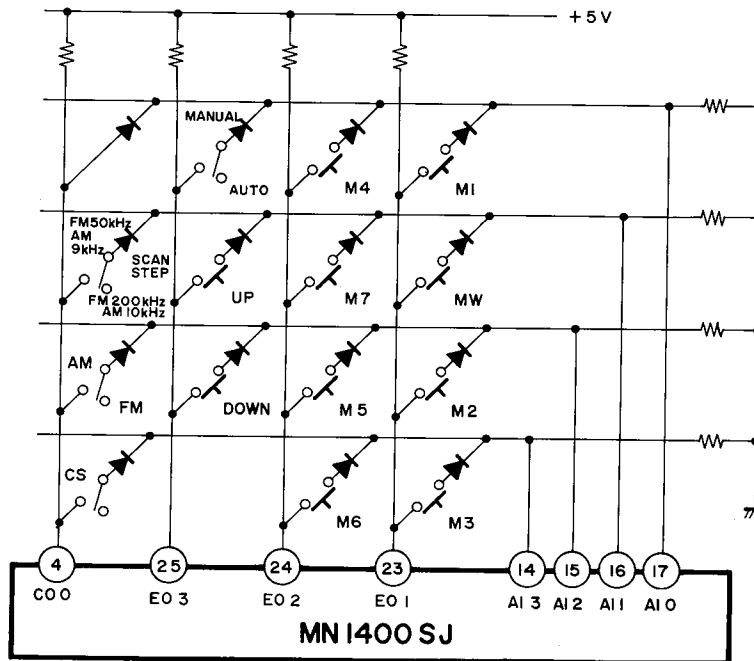


Figure 11

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.

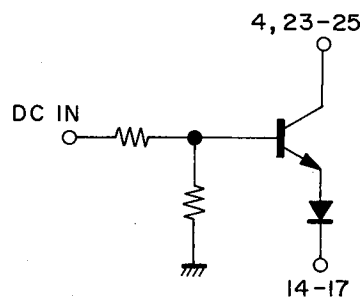


Figure 12

Indicator

The indicator employs fluorescent tubes for dynamic lighting.

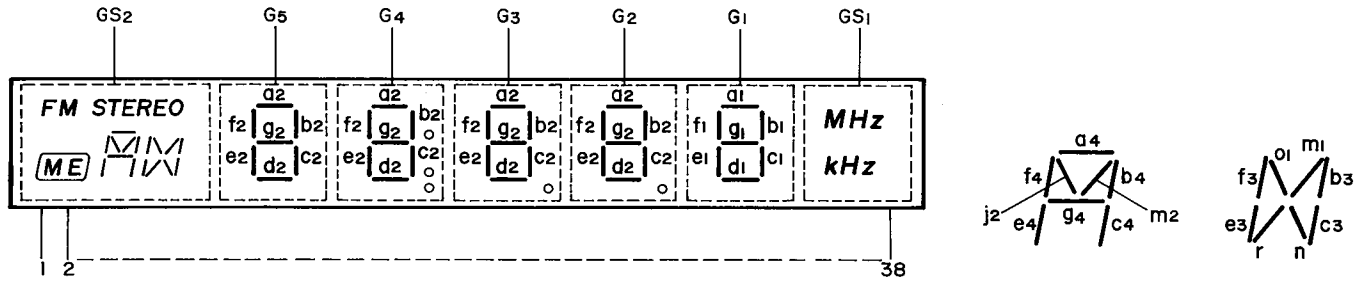


Figure 13

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

Dynamic lighting Timing chart

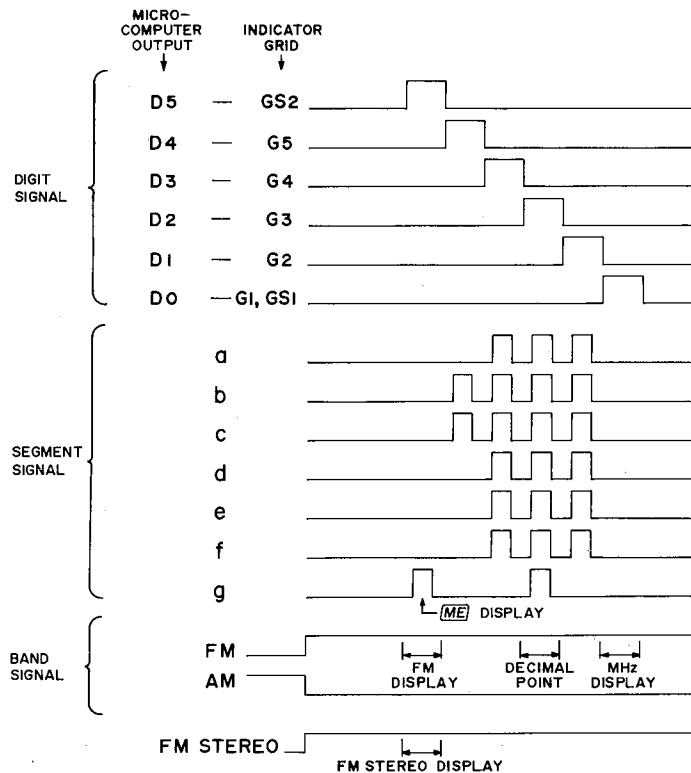


Figure 14

*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:
FM LOCAL OSCILLATOR ALIGNMENT (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.				
FM RF ALIGNMENT					
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 μ 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
Muting circuit Alignment (FM Stopping Level of Scanning FM Stereo indicator threshold Level)					
1	RF generator 12.5 μ 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 μ 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:
AM LOCAL OSCILLATOR ALIGNMENT (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				
AM IF ALIGNMENT					
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.
AM RF ALIGNMENT					
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	LO51 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 $700\mu V$ 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 $700\mu V$ threshold Level

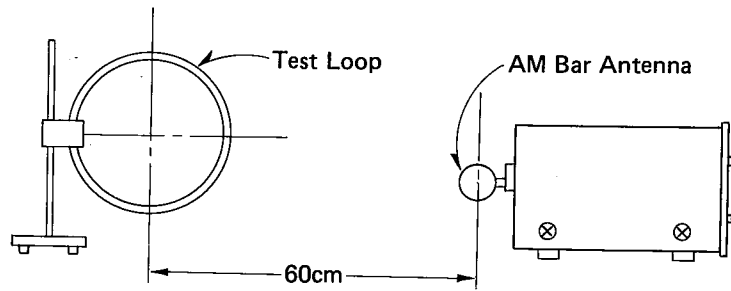


Figure 15

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.

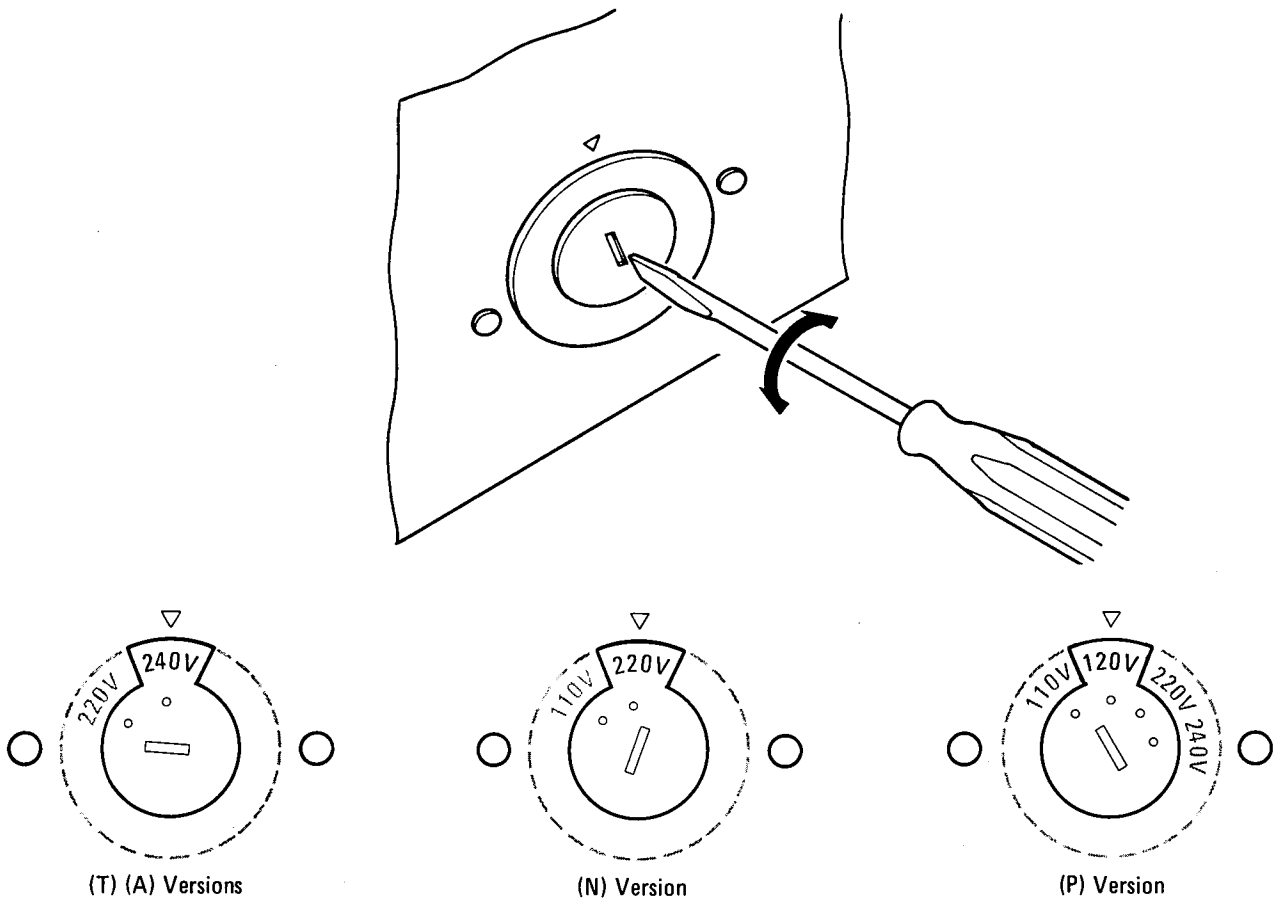


Figure 16. Voltage Conversion

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

6. DIAGRAM

6.1 BLOCK DIAGRAM

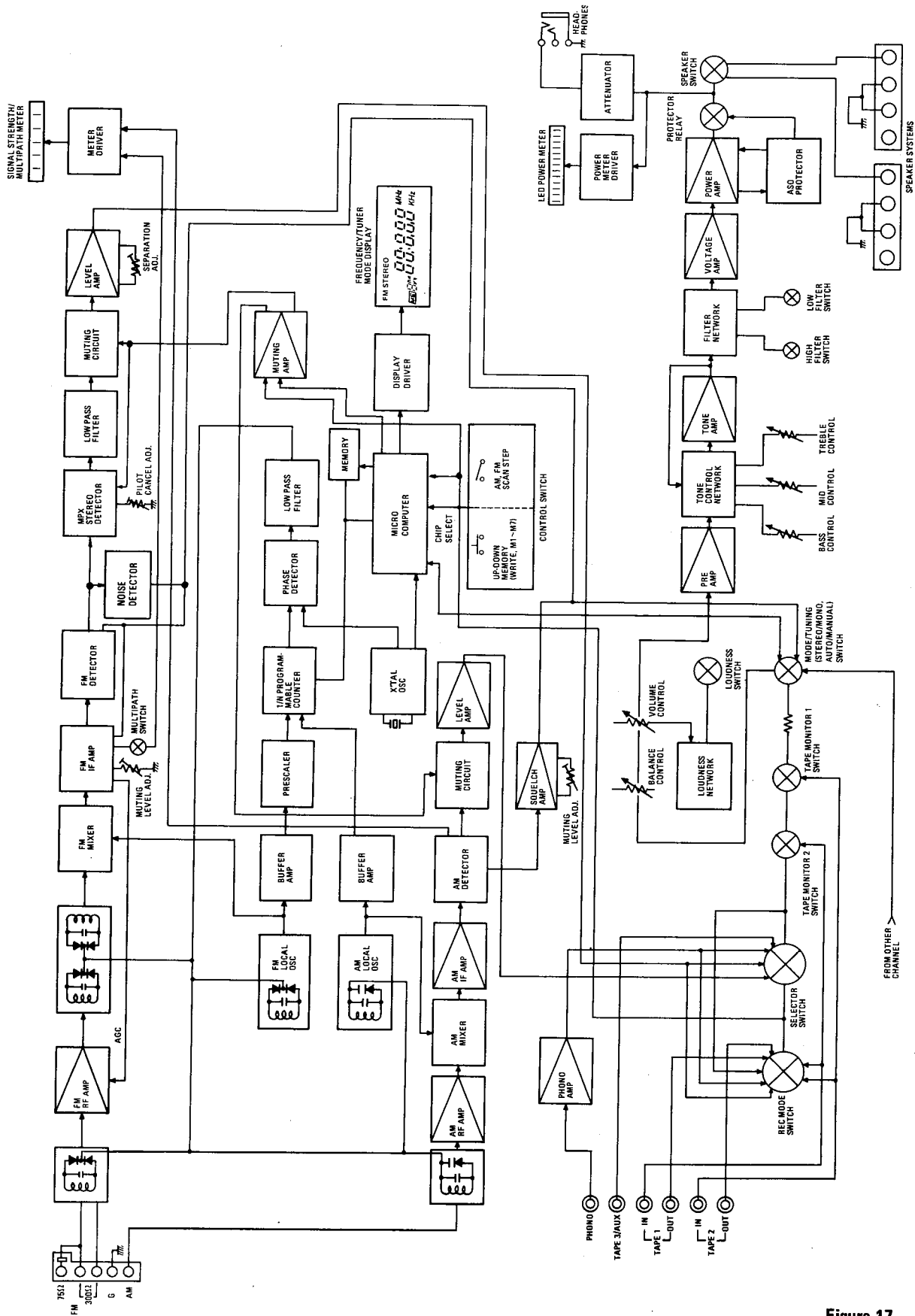
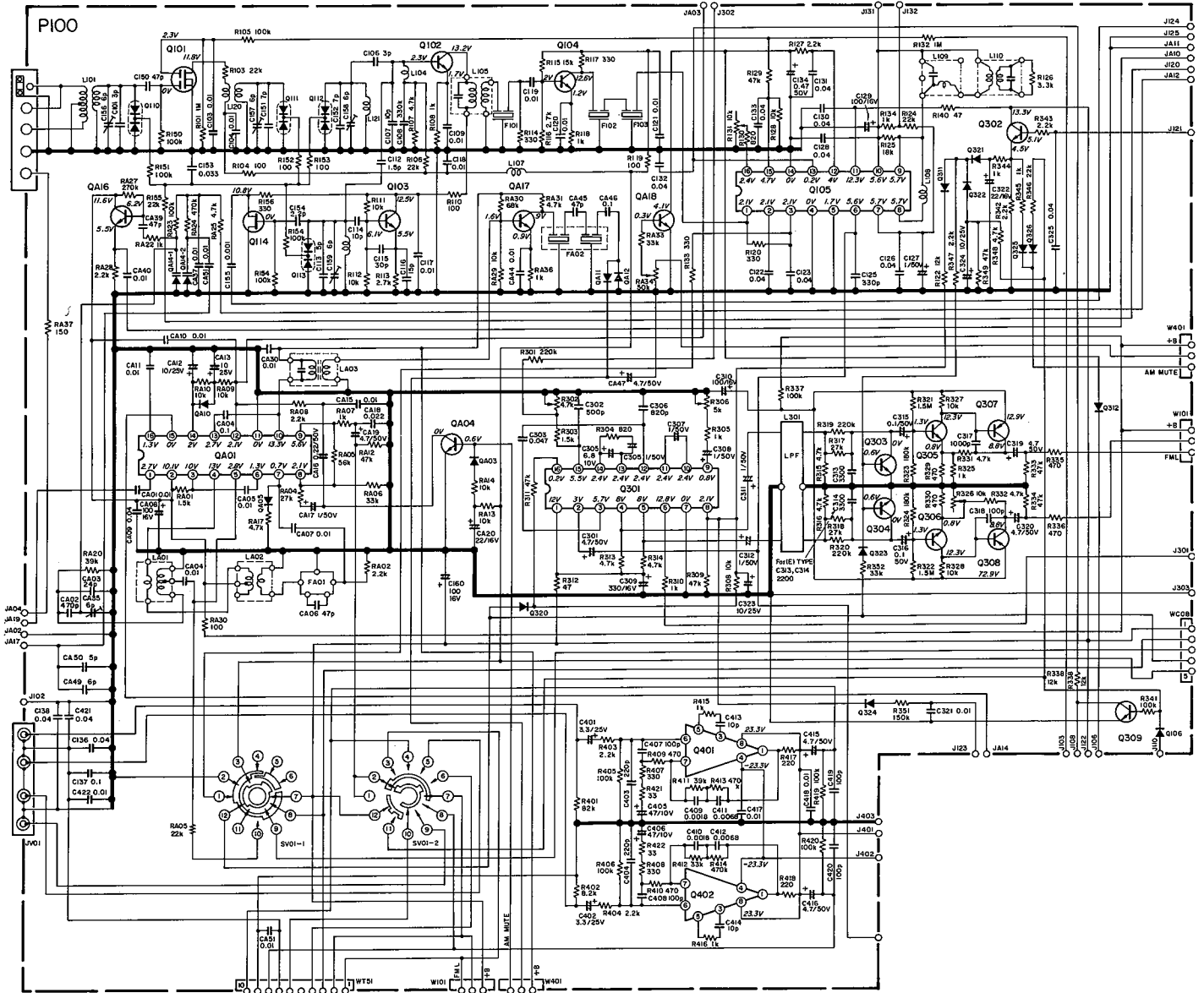
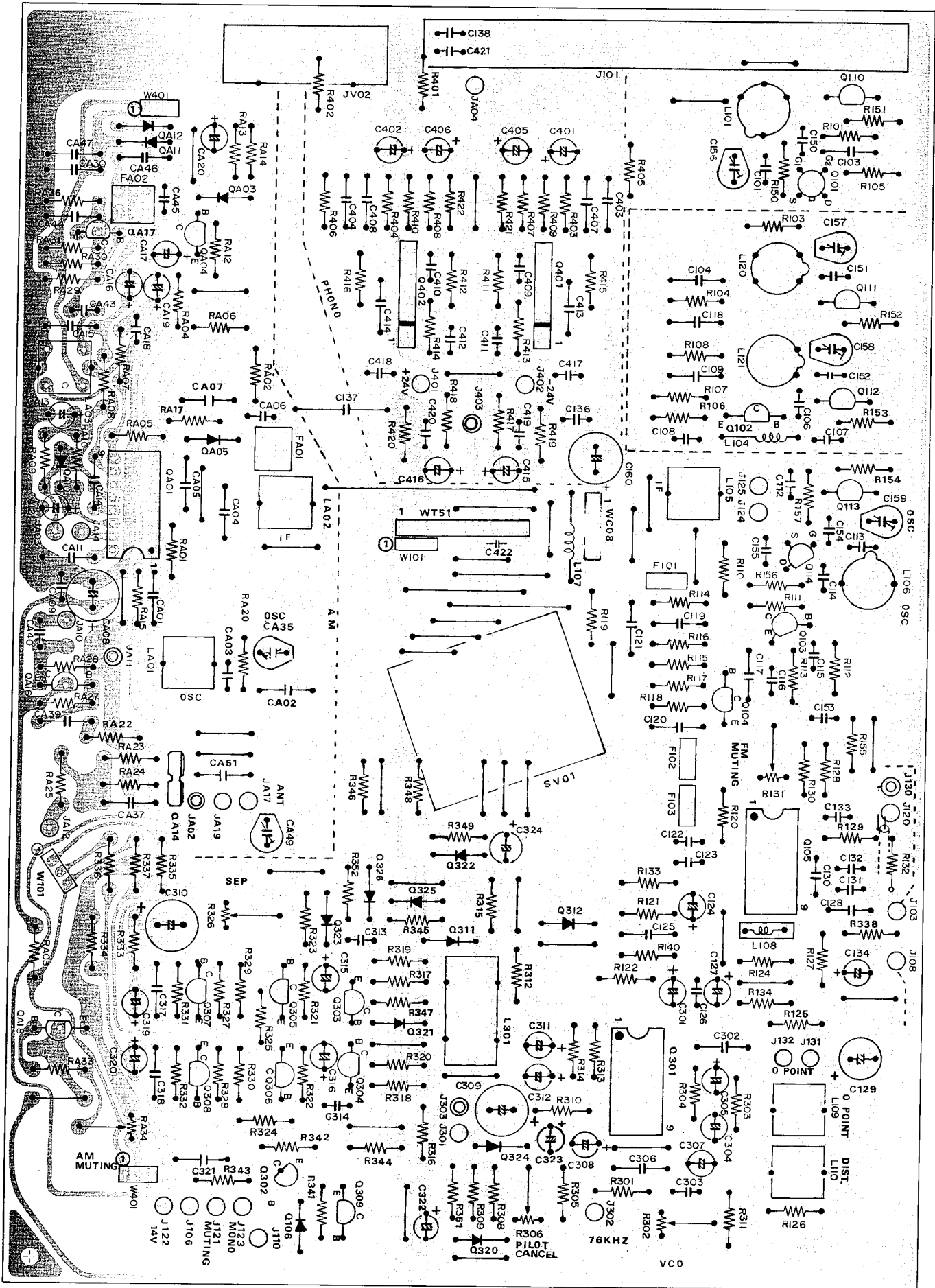


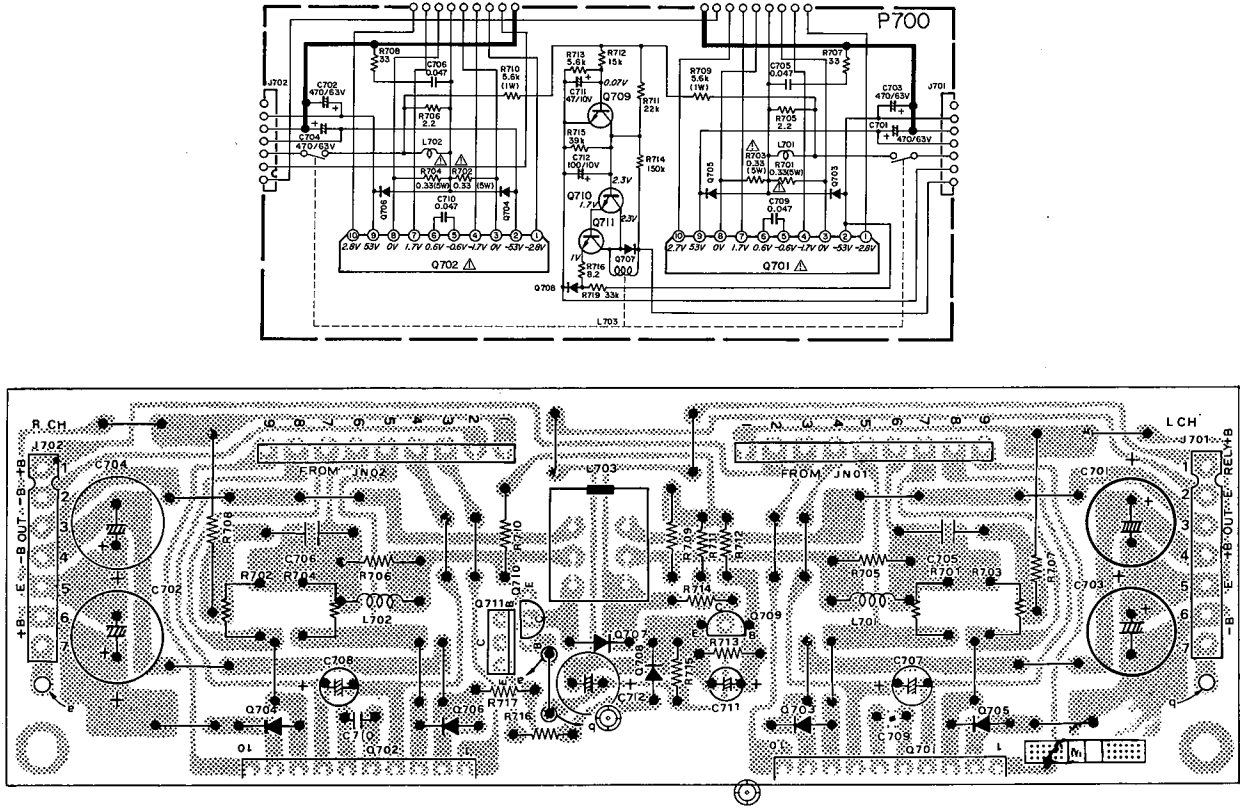
Figure 17

6.2 TUNER/PHONO BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - P100

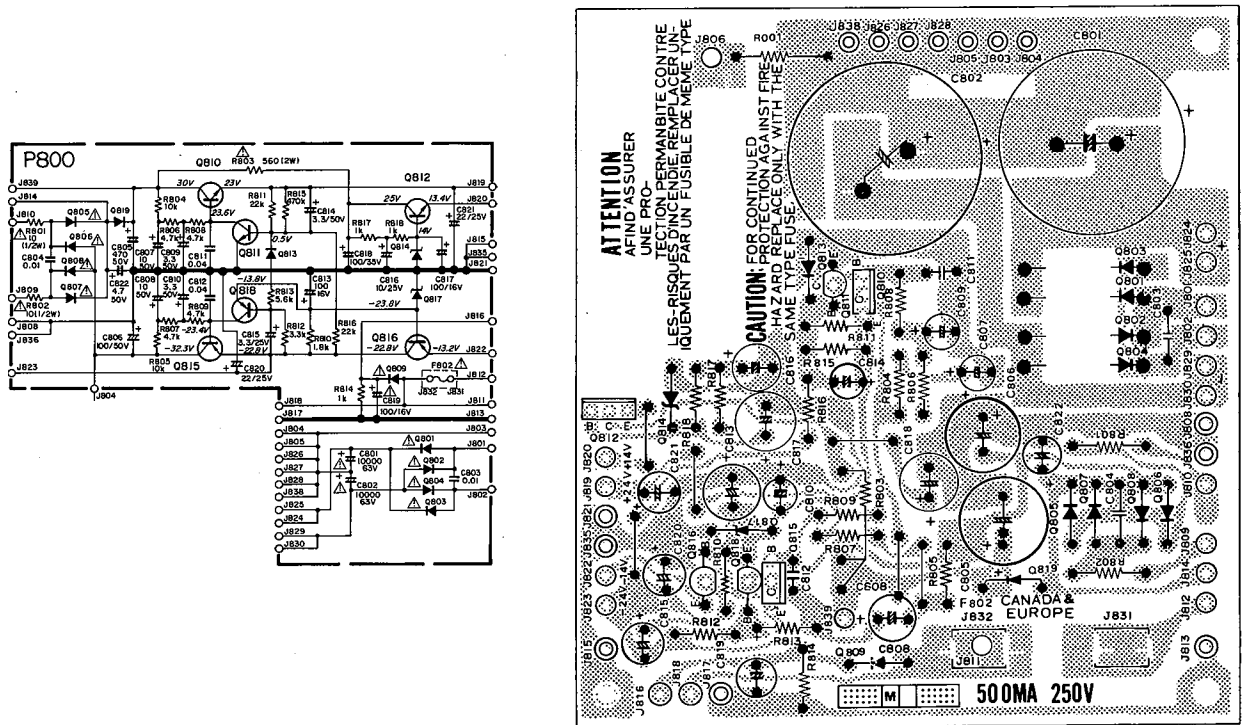




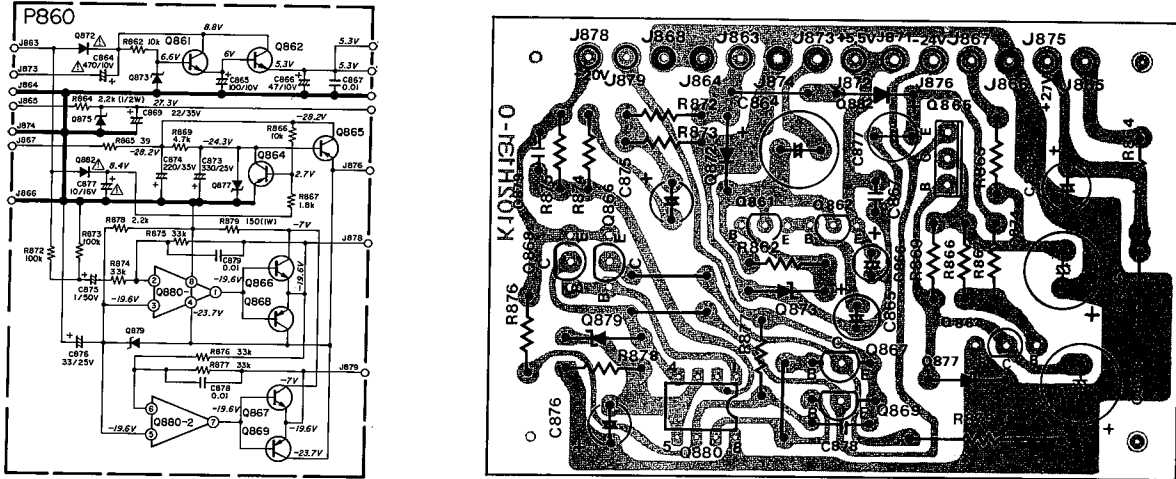
6.3 POWER AMP BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - P700



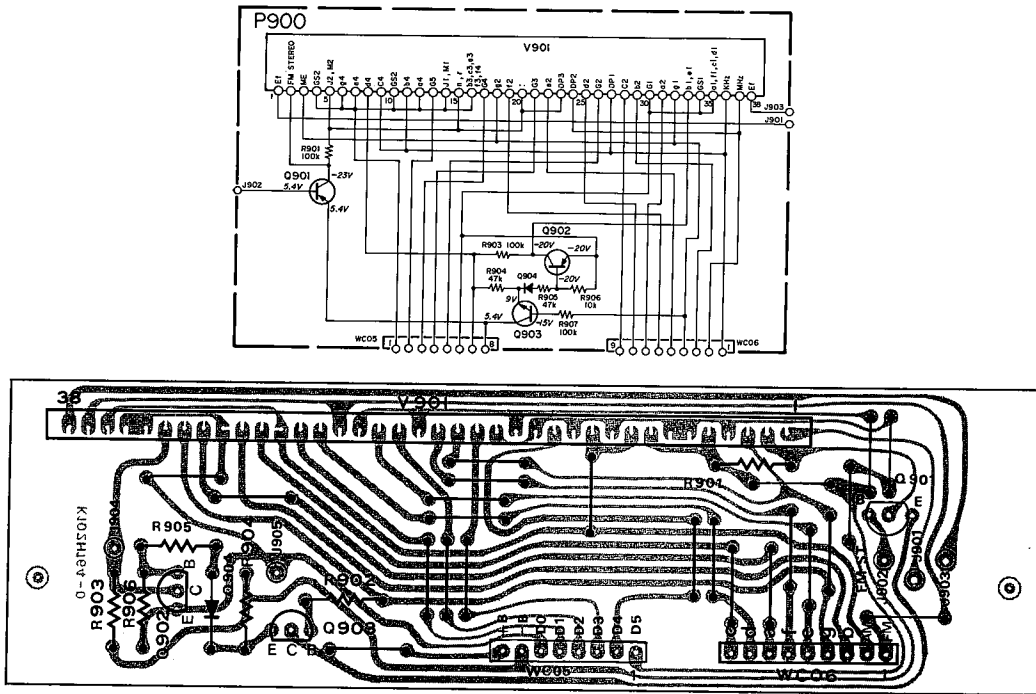
6.4 POWER SUPPLY BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - P800



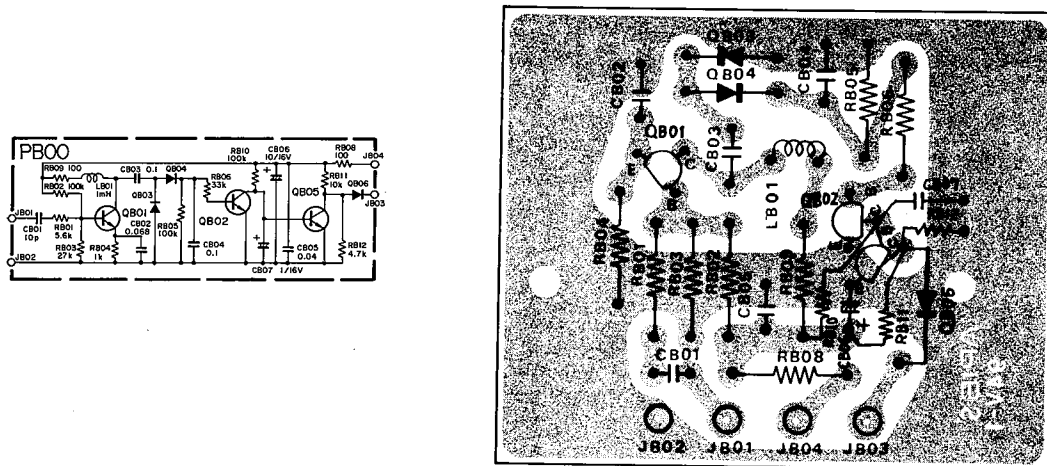
6.5 SUB POWER SUPPLY BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - P860



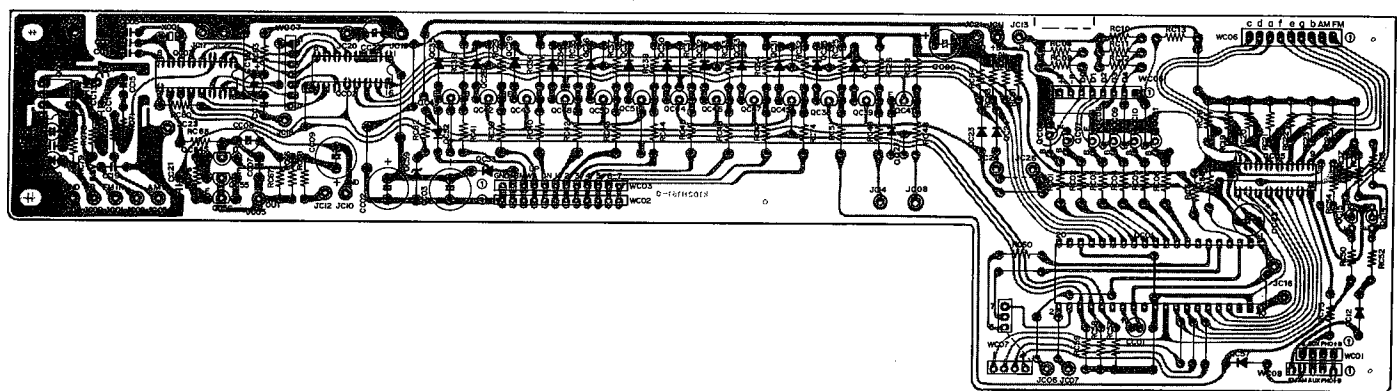
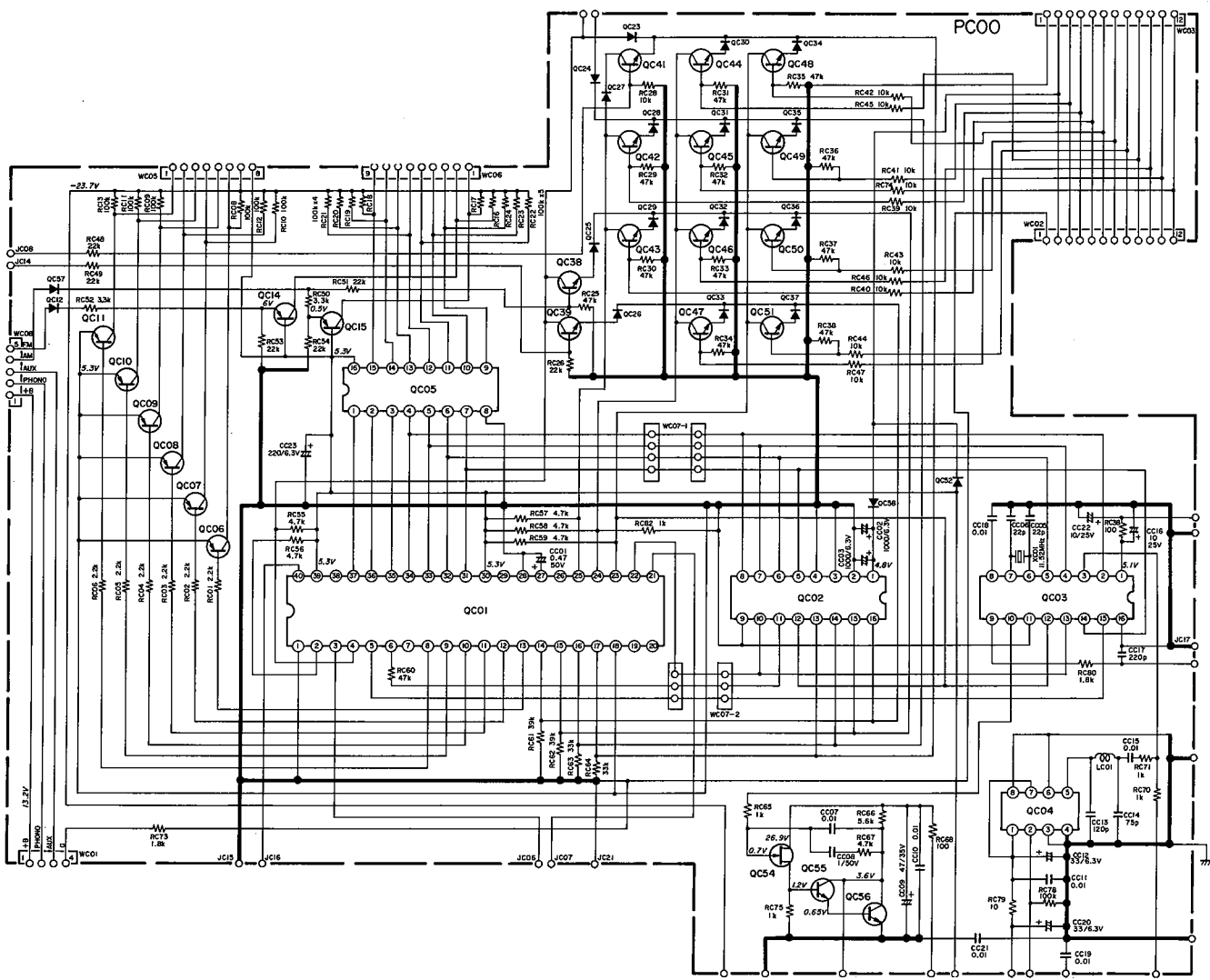
6.6 DISPLAY UNIT BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - P900



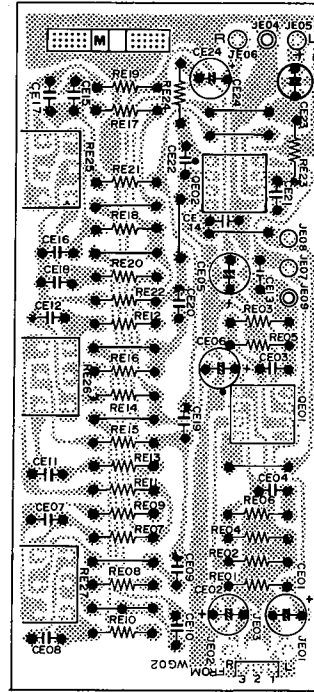
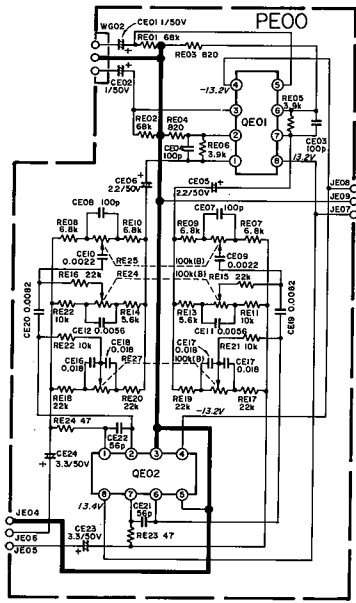
6.7 NOISE AMP BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - PB00



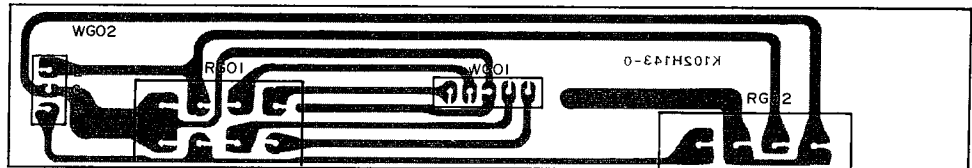
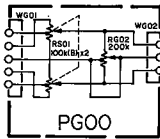
6.8 SYNTHESIZER BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - PC00



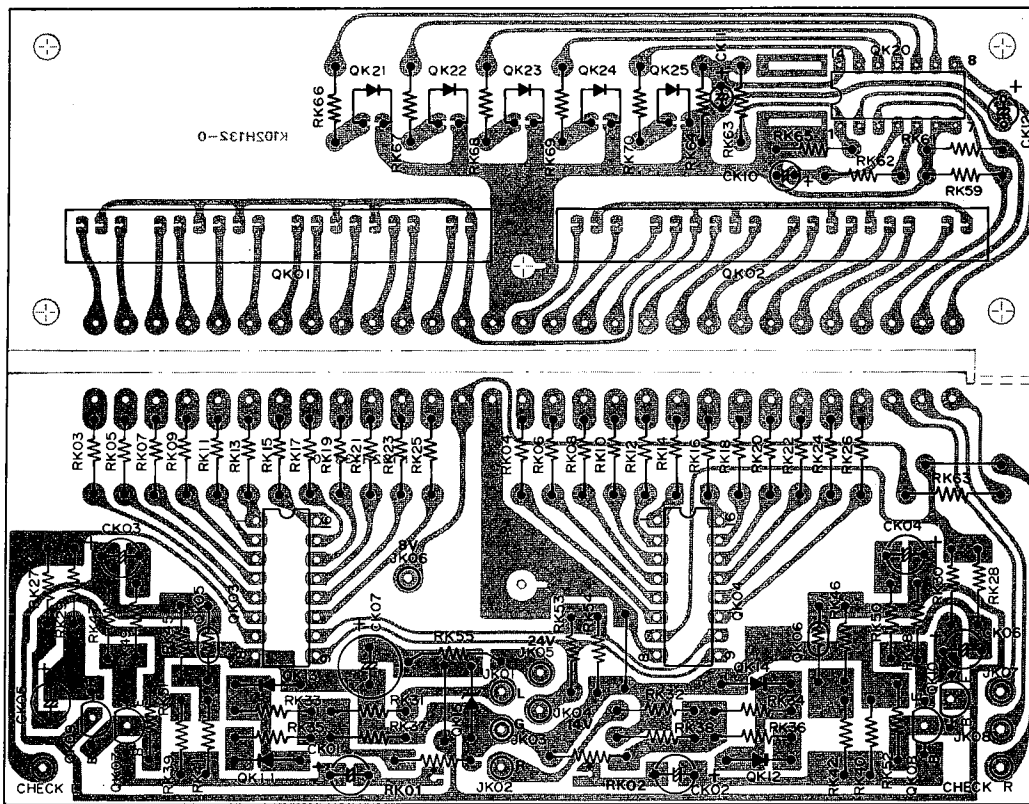
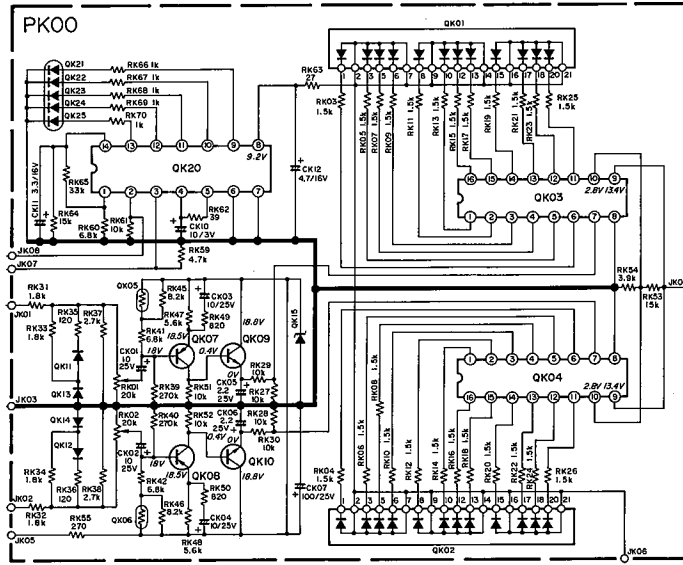
6.9 TONE AMP BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - PE00



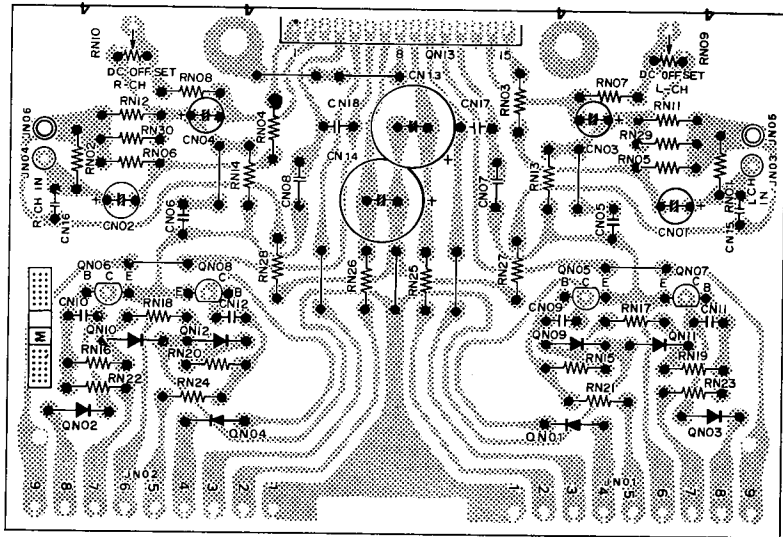
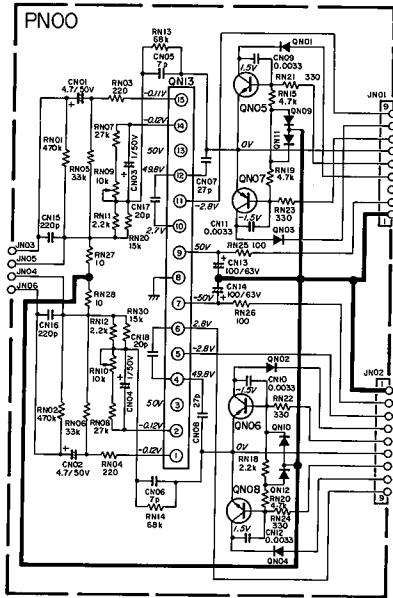
6.10 VOLUME/BALANCE BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - PG00



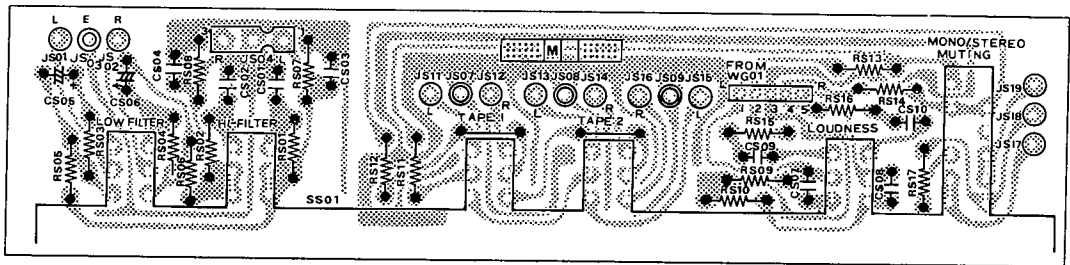
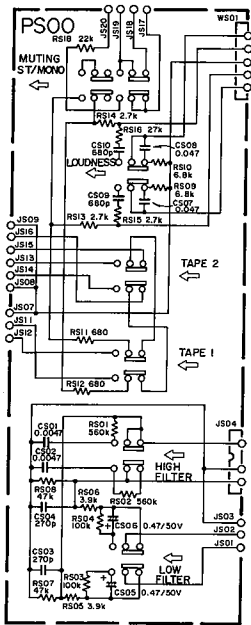
6.11 POWER LEVEL LED BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - PK00



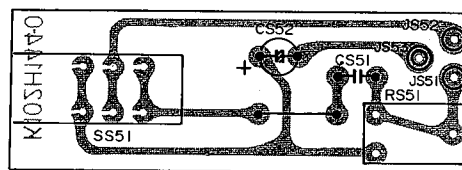
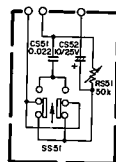
6.12 VOLTAGE AMP BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - PN00



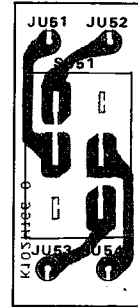
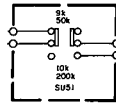
6.13 TAPE/FILTER/LOUDNESS BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - PS00



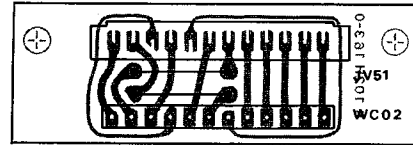
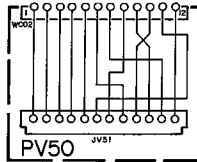
6.14 MULTIPATH BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - PS50



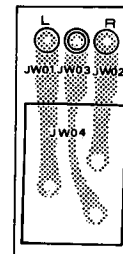
9.18 SCAN STEP BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS-PT50



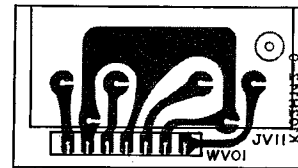
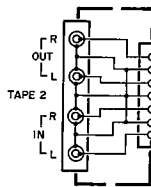
6.19 REMOTE CONT. BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - PV50



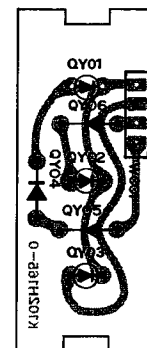
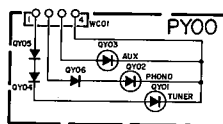
6.20 PHONE JACK BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - PW00



6.21 TAPE 2 TERMINAL BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - PV00

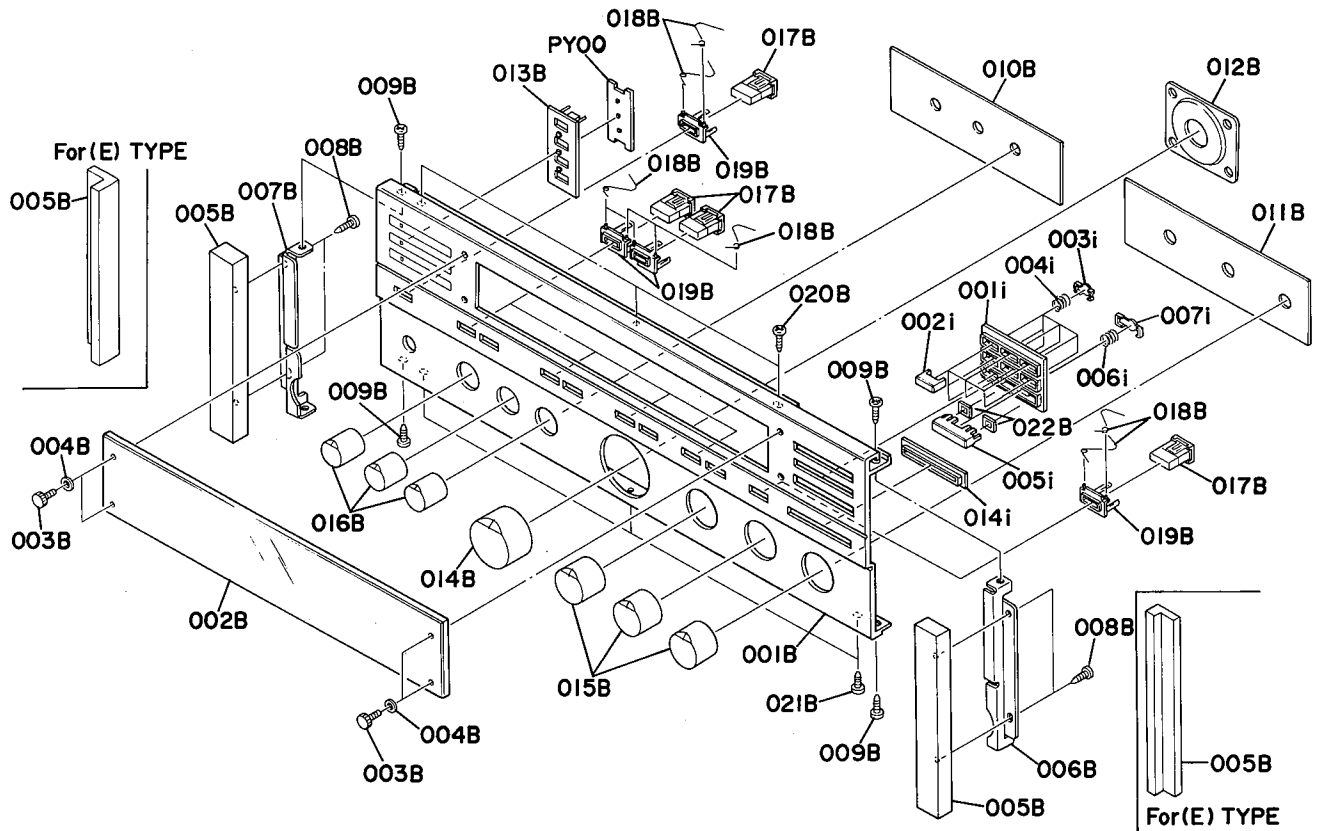


6.22 FUNCTION INDICATOR BOARD SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS - PY00



7. EXPLODED VIEWS AND PARTS LIST

7.1 [C01-99] FRONT PANEL

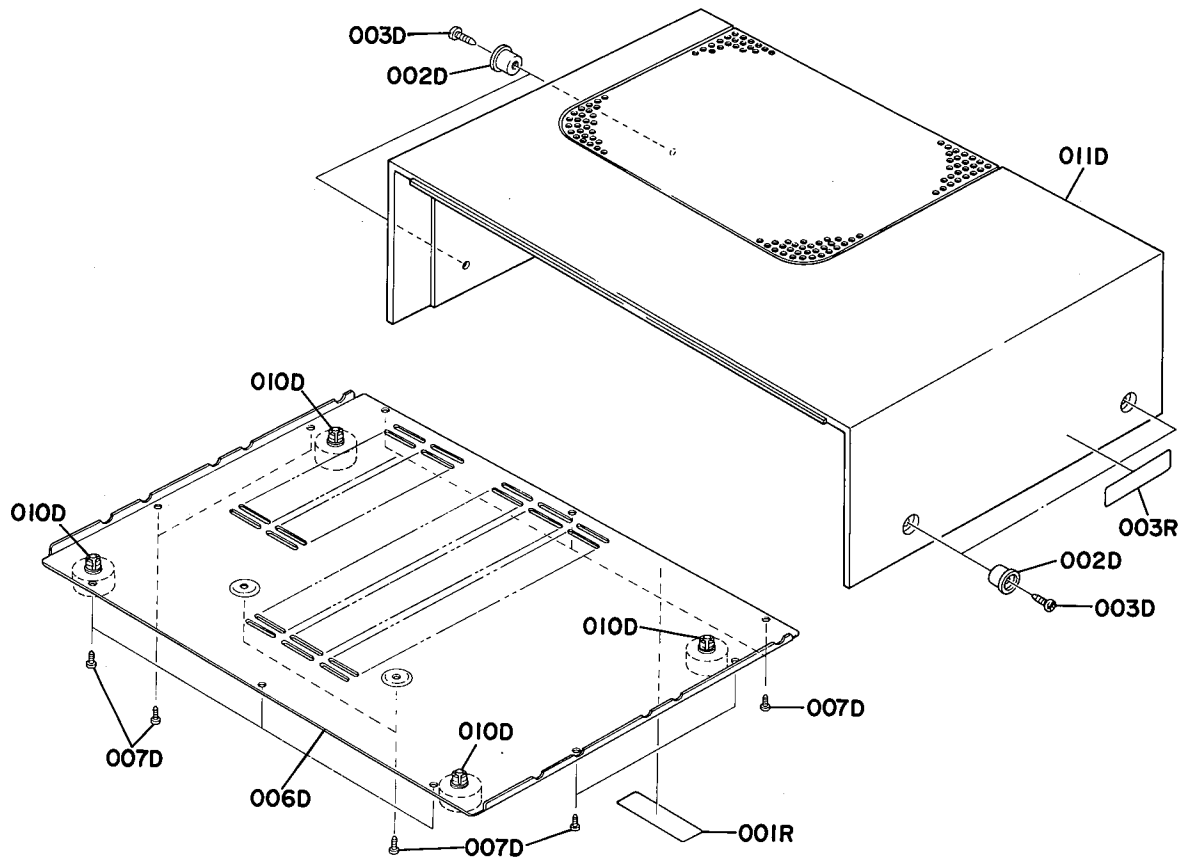


- (U): for U.S.A.
- (C): for Canada
- (E): for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
A	1	1		102H063400	Front Panel Assembly
A1			1	102H063410	Front Panel Assembly
001B	1	1	1	102H063010	Escutcheon, Front Panel
002B	1	1	1	102H158010	Window
003B	4	4	4	4279112020	Shaft
004B	4	4	4	59046502G9	Washer
005B	2	2		2112063040	Escutcheon, Wood
005B			2	2112063050	Escutcheon, AL.
006B	1	1	1	102H160020	Bracket (R)
007B	1	1	1	102H160030	Bracket (L)
008B	4	4		51400310A9	B.H. Tapped Screw B3 x 10
008B			4	51280306B0	B.H. Tapped Screw B3 x 6
009B	4	4	4	51280308B0	B.H. Tapped Screw B3 x 8
010B	1	1	1	102H303010	Mask
011B	1	1	1	102H303020	Mask
012B	1	1	1	102H063020	Escutcheon, Volume
013B	1	1	1	102H355010	Lens
019B	10	10	10	2127259010	Bushing, Push Button
001i	1	1	1	2137259010	Bushing, Preset Tuning
002i	7	7	7	2137154010	Knob
003i	7	7	7	2137005010	Clamper
004i	7	7	7	2137115010	Spring
005i	1	1	1	2137154020	Knob, Memory
006i	1	1	1	2137005020	Clamper
007i	1	1	1	2137115110	Spring
014i	1	1	1	2137259020	Bushing

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
014B	1	1	1	102H154010	Knob, Volume
015B	3	3	3	102H154020	Knob, Selector
016B	3	3	3	102H154030	Knob, Tone
017B	10	10	10	2127154010	Knob, Push Button
018B	20	20	20	2127115010	Spring
020B	3	3	3	51300308B0	B.H. Tapped Screw B3 x 8
021B	3	3	3	51280308B0	B.H. Tapped Screw B3 x 8
022B	2	2	2	102H118040	Knob, Memory

7.2 [C02-99] TOP COVER

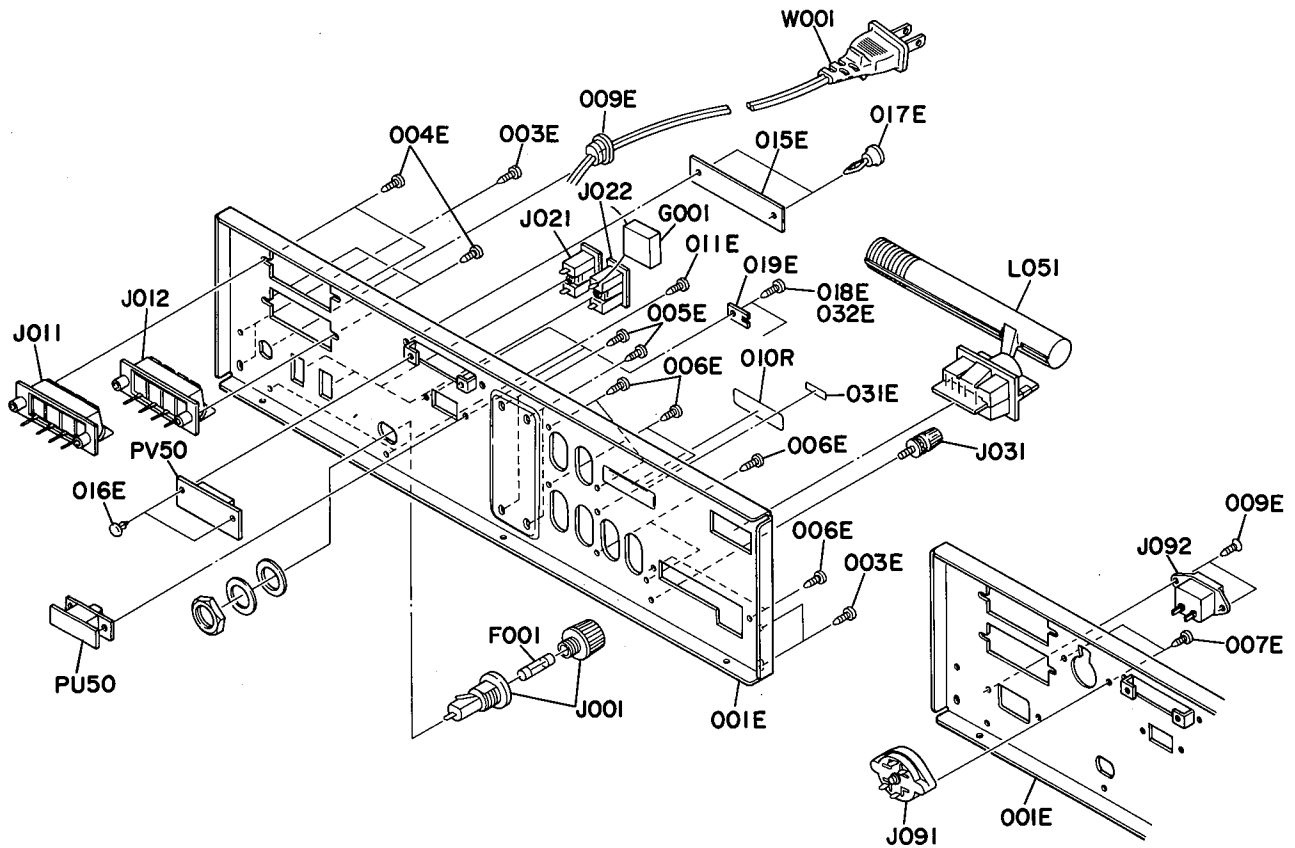


- (U): for U.S.A.
- (C): for Canada
- (E): for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
002D	4	4	4	3906259010	Bushing
003D	4	4	4	51280414U0	B.H. Tapped Screw B4 x 14
006D	1	1	1	2116257110	Lid, Bottom Cover
007D	12	12	12	51280410U0	B.H. Tapped Screw B4 x 10
010D	4	4	4	2259057010	Leg
011D	1	1	1	102H064500	Case, Wood Cabinet (K)

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
001R	1		1	2578861010	Label
001R		1		2911861110	Label
003R	1		1	2932861010	Label
003R		1		2911861140	Label

7.3 [C03-99] REAR PANEL

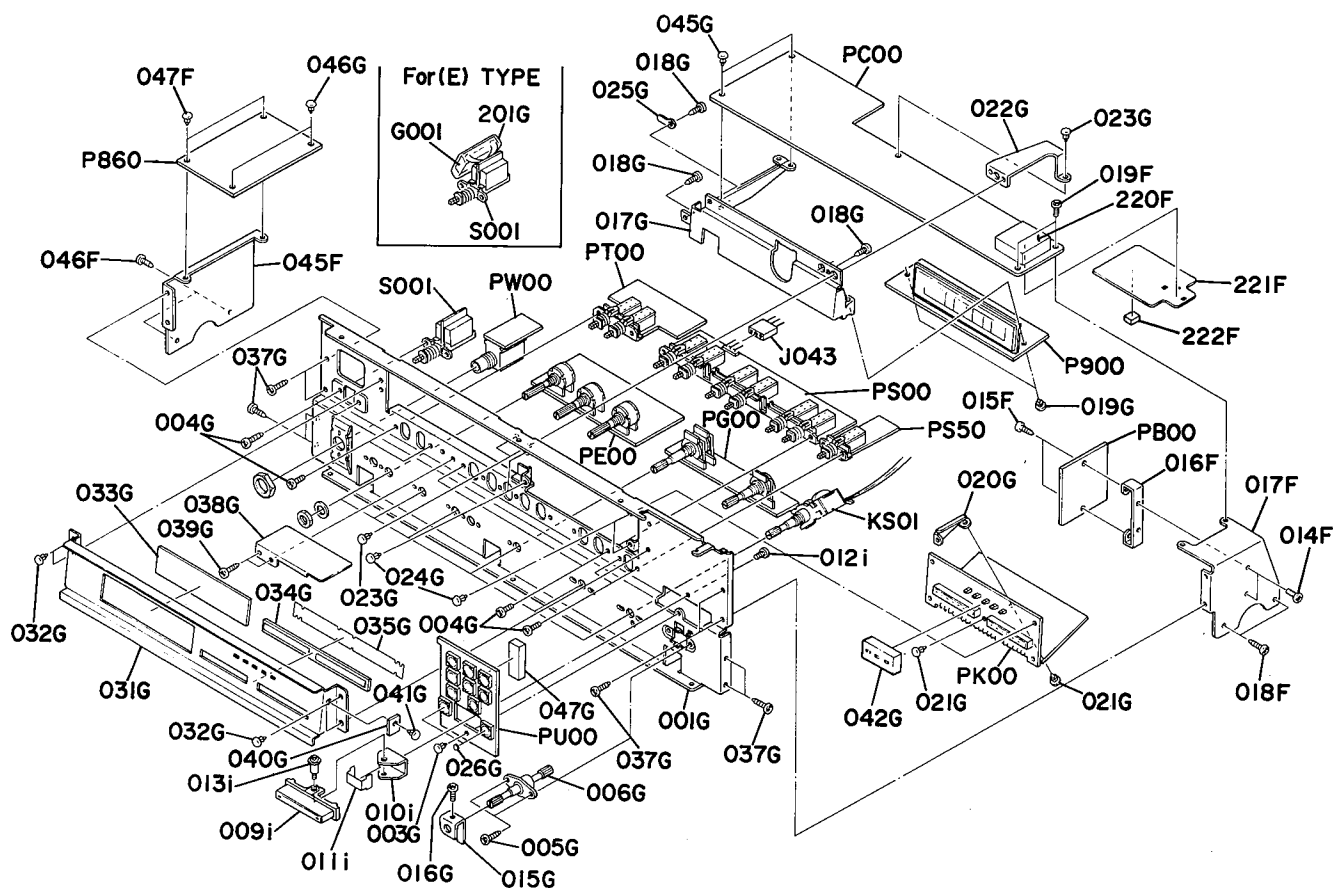


- (U): for U.S.A.
- (C): for Canada
- (E): for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
001E	1			102H160210	Bracket, Rear Panel
001E		1		102H160220	Bracket, Rear Panel
001E			1	102H160230	Bracket, Rear Panel
003E	4	4	4	51280308U0	B.H. Tapped Screw B3 x 8
004E	4	4	4	51280308U0	B.H. Tapped Screw B3 x 8
005E	4	4	4	51280308U0	B.H. Tapped Screw B3 x 8
006E	8	8	8	51280308U0	B.H. Tapped Screw B3 x 8
007E	2	2	2	51280308U0	B.H. Tapped Screw B3 x 8
009E	1	1		1455259030	Bushing
009E			2	51420308T0	O.C.H. Tapped Screw 3 x 8
011E	2	2	2	51280308U0	B.H. Tapped Screw B3 x 8
015E	1	1	1	102H053010	Cover
016E	2	2	2	2276005050	Clamper
017E	2	2	2	102H005010	Clamper
018E	2	2	2	51100308S9	B.H.M. Screw B3 x 8
019E	1	1	1	2137114010	Stopper
031E			1	4581861010	Label
032E			2	51100308S9	B.H.M. Screw B3 x 8
010R	1	1	1	2112265010	Indicator

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
△F001	1			FS10500040	Fuse 5A 250V
△F001		1		FS1050006-0	Fuse 5A 250V
△F001			1	FS10250800	Fuse 2.5AT 250V
△G001	1			BF10400030	Spark Killer
△G001		1		BF10400050	Spark Killer
△J001	1			YJ08000310	Jack, Fuse Holder
△J001		1		YJ08000300	Jack, Fuse Holder
△J001			1	YJ08000290	Jack, Fuse Holder
J011	1	1	1	YT03040170	Terminal, Speaker
J012	1	1	1	YT03040170	Terminal, Speaker
△J021	1	1		YJ04000560	Jack, AC Outlet
△J022	1	1		YJ04000560	Jack, AC Outlet
J031	1	1	1	YL03010250	Terminal, GND
△J091			1	BY05080010	Voltage Selector
△J092			1	YP04000590	Plug, AC Inlet
L051	1	1	1	LF11200640	Antenna Coil
△W001	1	1		YC02000150	A.C. Power Cord

7.4 [P01-99] FRONT CHASSIS AND GENERAL PARTS

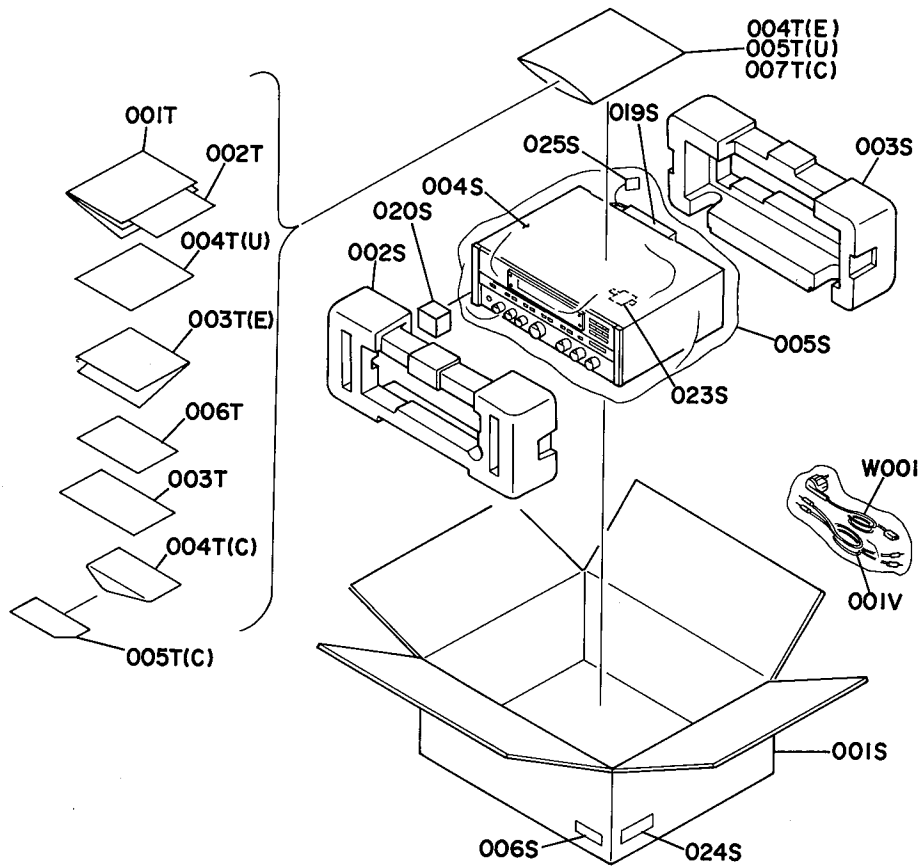


• (U): for U.S.A.
 • (C): for Canada
 • (E): for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
014F	2	2	2	51100306A9	B.H.M. Screw B3 x 6
015F	2	2	2	51100306A9	B.H.M. Screw B3 x 6
016F	1	1	1	3889160110	Bracket
017F	1	1	1	102H160050	Bracket
018F	2	2	2	51280308B0	B.H. Tapped Screw B3 x 8
019F	2	2	2	51100308A9	B.H.M. Screw B3 x 8
045F	1	1	1	102H160150	Bracket
046F	2	2	2	51280308B0	B.H. Tapped Screw B3 x 8
047F	2	2	2	2276005050	Clamper
220F	1	1	1	2137109030	Shield
221F	1	1	1	102H109060	Shield
222F	1	1	1	102H118010	Spacer
001G	1	1	1	102H160010	Bracket, Front Chassis
003G	1	1	1	2276005050	Clamper
004G	8	8	8	51100308A9	B.H.M. Screw B3 x 8
005G	2	2	2	51280308B0	B.H. Tapped Screw B3 x 8
006G	1	1	1	102H112500	Shaft
015G	1	1	1	102H114010	Stopper
016G	1	1	1	51064019A9	P.H.M. Screw
017G	1	1	1	102H160060	Bracket
018G	3	3	3	2276005050	Clamper
019G	2	2	2	2276005050	Clamper
020G	1	1	1	102H160080	Bracket
021G	2	2	2	2276005050	Clamper
022G	1	1	1	102H160090	Bracket
023G	3	3	3	2276005050	Clamper
024G	4	4	4	2276005050	Clamper

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
025G	1	1	1	62030049W0	Lug
026G	2	2	2	3653120110	Insulator
031G	1	1	1	102H274010	Reflector
032G	4	4	4	2912259020	Clamper
033G	1	1	1	2137158020	Window
034G	1	1	1	2116355010	Lens
035G	1	1	1	2116303010	Mask
037G	8	8	8	51280308B0	B.H. Tapped Screw B3 x 8
038G	1	1	1	102H109090	Shield
039G	2	2	2	51280308B0	B.H. Tapped Screw B3 x 8
040G	1	1	1	102H303030	Mask
041G	1	1	1	2912259020	Bushing
042G	1	1	1	102H303040	Mask
045G	2	2	2	2276005050	Clamper
046G	2	2	2	2276005050	Clamper
047G	1	1	1	102H118030	Spacer
201G			1	2219120010	Insulator
009i	1	1	1	2137154030	Knob, Tuning
010i	1	1	1	2137160020	Bracket
011i	1	1	1	2137115020	Spring
012i	1	1	1	51100306A9	B.H.M. Screw B3 x 6
013i	1	1	1	4367112180	Shaft
△ S001	1	1		SP01010240	Push Switch, Power
△ S001			1	SP02010330	Push Switch, Power
△ G001			1	DF17223800	Film Cap. 0.022μF ±20%
J043	1	1	1	YJ06001040	Jack, (3P)
KS01	1	1	1	SR06050200	Rotary Switch (K) Mode

7.6 [H01-99] PACKING MATERIALS



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

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
001T	1			102H851010	Instructions
001T		1	1	102H851310	Instructions
002T	1			102H851020	Instructions
002T		1		102H851220	Instructions
002T			1	102H851320	Instructions
003T	1			2818854020	Guarantee Card
003T		1		2818854030	Guarantee Card
003T			1	102H856010	Circuit Diagram
004T	1			2225813010	Envelope
004T		1		2918813010	Envelope
004T			1	9013025010	Polyethy Bag
005T	1			9013025010	Polyethy Bag
005T		1		9630000180	Guarantee Card
006T		1		9650000050	S. Station Card
007T		1		9013025010	Polyethy Bag

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
001S	1	1		102H801010	Packing Case
001S			1	102H801020	Packing Case
002S	1	1	1	2112809010	Cushion
003S	1	1	1	2112809020	Cushion
004S	1	1	1	2918107260	Sheet
005S	1	1	1	9090909040	Polyethy Sheet
006S	3			9526019010	Serial No. Card
006S		3		9526019020	Serial No. Card
006S			3	9526019060	Serial No. Card
019S	1	1	1	2864804010	Sleeve
020S	1	1	1	102H809010	Cushion
023S			1	2731821010	Silicagel
024S		2		9510901020	Label
025S			1	9560000040	Hang Tag
△W001			1	ZC01805020	A.C. Power Cord
001V	1	1	1	ZA02000070	EXT. Antenna

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

7.7 ELECTRICAL PARTS

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
P100	1	1	1	YK102H1410	P100-TUNER/PHONO AMP. CIRCUIT BOARD
	1	1		ZZ102H1410	P.W. Board, Tuner/Phono Amp.
			1	ZZ102H8410	P.W. Board Assembly
					P.W. Board Assembly
P100-CAPACITORS					
CA01	1	1	1	DA17103010	Ceramic 0.01 μ F \pm 20%
CA02	1	1	1	DF65471090	Film 470pF \pm 5%
CA03	1	1	1	DD15150360	Ceramic 15pF \pm 5%
CA04	1	1	1	DA17103010	Ceramic 0.01 μ F \pm 20%
CA05	1	1	1	DA17103010	Ceramic 0.01 μ F \pm 20%
CA06	1	1	1	DD15470370	Ceramic 47pF \pm 5%
CA07	1	1	1	DA17103010	Ceramic 0.01 μ F \pm 20%
CA08	1	1	1	EA10701630	Elect 100 μ F 16V
CA09	1	1	1	DK18403320	Ceramic 0.04 μ F +80% -20%
CA10	1	1	1	DK17103300	Ceramic 0.01 μ F \pm 20%
CA11	1	1	1	DA17103010	Ceramic 0.01 μ F \pm 20%
CA12	1	1	1	EA10602530	Elect 10 μ F 25V
CA13	1	1	1	EA10602530	Elect 10 μ F 25V
CA14	1	1	1	DA17103010	Ceramic 0.01 μ F \pm 20%
CA15	1	1	1	DA17103010	Ceramic 0.01 μ F \pm 20%
CA16	1	1	1	EA22405030	Elect 0.22 μ F 50V
CA17	1	1	1	EA10505030	Elect 1 μ F 50V
CA18	1	1	1	DK18223310	Ceramic 0.022 μ F +80% -20%
CA19	1	1	1	EA47405030	Elect 0.47 μ F 50V
CA20	1	1	1	EA22601630	Elect 22 μ F 16V
CA30	1	1	1	DA17103010	Ceramic 0.01 μ F \pm 20%
CA35	1	1	1	CT12000090	Trimming 20pF
CA37	1	1	1	DA17103010	Ceramic 0.01 μ F \pm 20%
CA39	1	1	1	DA15470010	Ceramic 47pF \pm 5%
CA40	1	1	1	DK17103300	Ceramic 0.01 μ F \pm 20%
CA43	1	1	1	DD15470370	Ceramic 47pF \pm 5%
CA44	1	1	1	DA17103010	Ceramic 0.01 μ F \pm 20%
CA45	1	1	1	DD15470370	Ceramic 47pF \pm 5%
CA46	1	1	1	DA17103010	Ceramic 0.01 μ F \pm 20%
CA47	1	1	1	EA10505030	Elect 1 μ F 50V
CA49	1	1	1	CT10600090	Trimming 5pF
CA50	1	1	1	DD10050320	Ceramic 5pF \pm 0.25pF
CA51	1	1	1	DA17103010	Ceramic 0.01 μ F \pm 20%
C101	1	1	1	DD10030300	Ceramic 3pF \pm 0.25pF
C103	1	1	1	DA17103010	Ceramic 0.01 μ F \pm 20%
C104	1	1	1	DA17103010	Ceramic 0.01 μ F \pm 20%
C106	1	1	1	DD10030370	Ceramic 3pF \pm 0.25pF
C107	1	1	1	DD11100370	Ceramic 10pF \pm 0.5pF
C108	1	1	1	DK16331300	Ceramic 330pF \pm 10%
C109	1	1	1	DA17103010	Ceramic 0.01 μ F \pm 20%
C112	1	1	1	DD10015370	Ceramic 1.5pF \pm 0.25pF
C113	1	1	1	DD10030300	Ceramic 3pF \pm 0.25pF
C114	1	1	1	DD11100300	Ceramic 10pF \pm 0.5pF
C115	1	1	1	DD15300300	Ceramic 30pF \pm 5%
C116	1	1	1	DD15150300	Ceramic 15pF \pm 5%
C117	1	1	1	DA17103010	Ceramic 0.01 μ F \pm 20%
C118	1	1	1	DA17103010	Ceramic 0.01 μ F \pm 20%
C119	1	1	1	DA17103010	Ceramic 0.01 μ F \pm 20%
C120	1	1	1	DA17103010	Ceramic 0.01 μ F \pm 20%
C121	1	1	1	DA17103010	Ceramic 0.01 μ F \pm 20%
C122	1	1	1	DK18403320	Ceramic 0.04 μ F +80% -20%
C123	1	1	1	DK18403320	Ceramic 0.04 μ F +80% -20%
C125	1	1	1	DA16331010	Ceramic 330pF \pm 10%
C126	1	1	1	DK18403320	Ceramic 0.04 μ F +80% -20%
C127	1	1	1	EA47405090	Elect 0.47 μ F 50V
C128	1	1	1	DK18403320	Ceramic 0.04 μ F +80% -20%
C129	1	1	1	EA10701630	Elect 100 μ F 16V

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
C130	1	1	1	DK18403320	Ceramic 0.04 μ F +80% -20%
C131	1	1	1	DK18403320	Ceramic 0.04 μ F +80% -20%
C132	1	1	1	DK18403320	Ceramic 0.04 μ F +80% -20%
C133	1	1	1	DK18403320	Ceramic 0.04 μ F +80% -20%
C134	1	1	1	EA47405030	Elect 0.47 μ F 50V
C136	1	1	1	DK18403320	Ceramic 0.04 μ F +80% -20%
C137	1	1	1	DK18104010	Ceramic 0.1 μ F +80% -20%
C138	1	1	1	DK18403320	Ceramic 0.04 μ F +80% -20%
C150	1	1	1	DD15470370	Ceramic 47pF \pm 5%
C151	1	1	1	DD10070300	Ceramic 7pF \pm 0.25pF
C152	1	1	1	DD10070300	Ceramic 7pF \pm 0.25pF
C153	1	1	1	DF17333300	Film 0.033 μ F \pm 20%
C154	1	1	1	DD10020300	Ceramic 2pF \pm 0.25pF
C155	1	1	1	DK16102300	Ceramic 1000pF \pm 10%
C156	1	1	1	CT10600090	Trimming 5pF
C157	1	1	1	CT10600090	Trimming 5pF
C158	1	1	1	CT10600090	Trimming 5pF
C159	1	1	1	CT10600090	Trimming 5pF
C160	1	1	1	EA10701630	Elect 100 μ F 16V
C301	1	1	1	EA47505030	Elect 4.7 μ F 50V
C302	1	1	1	DF65501010	Film 500pF \pm 5%
C303	1	1	1	DF15473300	Film 0.047 μ F \pm 5%
C304	1	1	1	EQ10505010	Elect 1 μ F 50V
C305	1	1	1	EV68501060	Elect 6.8 μ F 10V
C306	1	1	1	DF65821010	Film 820pF \pm 5%
C307	1	1	1	EQ10505010	Elect 1 μ F 50V
C308	1	1	1	EA10505030	Elect 1 μ F 50V
C309	1	1	1	EA33701630	Elect 330 μ F 16V
C310	1	1	1	EA10701630	Elect 100 μ F 16V
C311	1	1	1	EA10505030	Elect 1 μ F 50V
C312	1	1	1	EA10505030	Elect 1 μ F 50V
C313	1	1	1	DF15222300	Film 2200 μ F \pm 5%
C313	1	1	1	DF15332300	Film 3300 μ F \pm 5%
C314	1	1	1	DF15222300	Film 2200 μ F \pm 5%
C314	1	1	1	DF15332300	Film 3300 μ F \pm 5%
C315	1	1	1	EA10405030	Elect 0.1 μ F 50V
C316	1	1	1	EA10405030	Elect 0.1 μ F 50V
C317	1	1	1	DA15101010	Ceramic 100pF \pm 5%
C318	1	1	1	DA15101010	Ceramic 100pF \pm 5%
C319	1	1	1	EA47505030	Elect 4.7 μ F 50V
C320	1	1	1	EA47505030	Elect 4.7 μ F 50V
C321	1	1	1	DF17104300	Film 0.1 μ F \pm 20%
C322	1	1	1	EA22601630	Elect 22 μ F 16V
C323	1	1	1	EA47503530	Elect 4.7 μ F 35V
C324	1	1	1	EA10602530	Elect 10 μ F 25V
C325	1	1	1	DK18403320	Ceramic 0.04 μ F +80% -20%
C401	1	1	1	EE33502540	Elect 3.3 μ F 25V
C402	1	1	1	EE33502540	Elect 3.3 μ F 25V
C403	1	1	1	DA16221010	Ceramic 220pF \pm 10%
C404	1	1	1	DA16221010	Ceramic 220pF \pm 10%
C405	1	1	1	EA47601030	Elect 47 μ F 10V
C406	1	1	1	EA47601030	Elect 47 μ F 10V
C407	1	1	1	DA15101010	Ceramic 100pF \pm 5%
C408	1	1	1	DA15101010	Ceramic 100pF \pm 5%
C409	1	1	1	DF15182300	Film 1800pF \pm 5%
C410	1	1	1	DF15182300	Film 1800pF \pm 5%
C411	1	1	1	DF15682300	Film 6800pF \pm 5%
C412	1	1	1	DF15682300	Film 6800pF \pm 5%
C413	1	1	1	DA15100010	Ceramic 10pF \pm 5%
C414	1	1	1	DA15100010	Ceramic 10pF \pm 5%
C415	1	1	1	EA47505030	Elect 4.7 μ F 50V
C416	1	1	1	EA47505030	Elect 4.7 μ F 50V
C417	1	1	1	DK17103300	Ceramic 0.01 μ F \pm 20%
C418	1	1	1	DK17103300	Ceramic 0.01 μ F \pm 20%
C419	1	1	1	DK16101300	Ceramic 100pF \pm 10%
C420	1	1	1	DK16101300	Ceramic 100pF \pm 10%
C421	1	1	1	DK18403320	Ceramic 0.04 μ F +80% -20%
C422	1	1	1	DK17103300	Ceramic 0.01 μ F \pm 20%

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

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
P100-RESISTORS (All Resistors are $\pm 5\%$ and $\frac{1}{4}W$)					
RA01	1	1	1	GD05152140	1.5K Ω
RA02	1	1	1	GD05222140	2.2K Ω
RA03	1	1	1	GG05101140	100 Ω
RA04	1	1	1	GD05273140	27K Ω
RA04	1	1	1	GD05223140	22K Ω
RA05	1	1	1	GD05563140	56K Ω
RA06	1	1	1	GD05333140	33K Ω
RA07	1	1	1	GD05102140	1K Ω
RA08	1	1	1	GD05222140	2.2K Ω
RA09	1	1	1	GD05103140	10K Ω
RA10	1	1	1	GD05103140	10K Ω
RA12	1	1	1	GD05223140	22K Ω
RA13	1	1	1	GD05103140	10K Ω
RA14	1	1	1	GD05103140	10K Ω
RA15	1	1	1	GD05223140	22K Ω
RA17	1	1	1	GD05473140	47K Ω
RA20	1	1	1	GD05393140	39K Ω
RA22	1	1	1	GD05102140	1K Ω
RA23	1	1	1	GD05104140	100K Ω
RA24	1	1	1	GD05474140	470K Ω
RA25	1	1	1	GD05472140	4.7K Ω
RA27	1	1	1	GD05274140	270K Ω
RA28	1	1	1	GD05222140	2.2K Ω
RA29	1	1	1	GD05103140	10K Ω
RA30	1	1	1	GD05683140	68K Ω
RA31	1	1	1	GD05472140	4.7K Ω
RA33	1	1	1	GD05332140	3.3K Ω
RA34	1	1	1	RA05030090	50K Ω (B) Trimming
RA36	1	1	1	GD05102140	1K Ω
RA37	1	1	1	GD05151140	150 Ω
R101	1	1	1	GD05105140	1M Ω
R103	1	1	1	GD05220140	22 Ω
R104	1	1	1	GG05101140	100 Ω
R105	1	1	1	GD05104140	100K Ω
R106	1	1	1	GD05223140	22K Ω
R107	1	1	1	GD05472140	4.7K Ω
R108	1	1	1	GD05332140	3.3K Ω
R110	1	1	1	GG05101140	100 Ω
R111	1	1	1	GD05103140	10K Ω
R112	1	1	1	GD05103140	10K Ω
R113	1	1	1	GD05272140	2.7K Ω
R114	1	1	1	GD05331140	330 Ω
R115	1	1	1	GD05153140	15K Ω
R116	1	1	1	GD05272140	2.7K Ω
R117	1	1	1	GD05331140	330 Ω
R118	1	1	1	GD05102140	1K Ω
R119	1	1	1	GG05101140	100 Ω
R120	1	1	1	GD05331140	330 Ω
R121	1	1	1	75061001P0	Jumper
R122	1	1	1	GD05123140	12K Ω
R124	1	1	1	GD05223140	22K Ω
R125	1	1	1	GD05183140	18K Ω
R126	1	1	1	GD05332140	3.3K Ω
R127	1	1	1	GD05222140	2.2K Ω
R128	1	1	1	GD05103140	10K Ω
R129	1	1	1	GD05473140	47K Ω
R130	1	1	1	GD05821140	820 Ω
R131	1	1	1	RA01030260	10K Ω (B) Trim. Muting Level
R132	1	1	1	GD05105140	1M Ω
R133	1	1	1	GD05331140	330 Ω

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
R134	1	1	1	GD05102140	1K Ω
R140	1	1	1	GG05470140	47 Ω
R150	1	1	1	GD05104140	100K Ω
R151	1	1	1	GD05104140	100K Ω
R152	1	1	1	GD05104140	100K Ω
R153	1	1	1	GD05104140	100K Ω
R154	1	1	1	GD05104140	100K Ω
R155	1	1	1	GD05223140	22K Ω
R156	1	1	1	GD05331140	330 Ω
R157	1	1	1	GD05104140	100K Ω
R301	1	1	1	GD05224140	220K Ω
R302	1	1	1	RA04720080	4.7K Ω (B) Trim. V.C.O. Adj.
R303	1	1	1	GD05153140	15K Ω
R304	1	1	1	GD05821140	820 Ω
R305	1	1	1	GD05102140	1K Ω
R306	1	1	1	RA05020160	5K Ω (B) Trim. Pilot Cancel
R308	1	1	1	GD05103140	10K Ω
R309	1	1	1	GD05473140	47K Ω
R310	1	1	1	GD05102140	1K Ω
R311	1	1	1	GD05473140	47K Ω
R312	1	1	1	GG05470140	47 Ω
R313	1	1	1	GD05472140	4.7K Ω
R314	1	1	1	GD05472140	4.7K Ω
R315	1	1	1	GD05472140	4.7K Ω
R316	1	1	1	GD05472140	4.7K Ω
R317	1	1	1	GD05273140	27K Ω
R318	1	1	1	GD05273140	27K Ω
R319	1	1	1	GD05224140	220K Ω
R320	1	1	1	GD05224140	220K Ω
R321	1	1	1	GD05155140	1.5M Ω
R322	1	1	1	GD05155140	1.5M Ω
R323	1	1	1	GD05184140	180K Ω
R323	1	1	1	GD05154140	150K Ω
R324	1	1	1	GD05184140	180K Ω
R324	1	1	1	GD05154140	150K Ω
R325	1	1	1	GD05102140	1K Ω
R326	1	1	1	RA01030260	10K Ω (B) Trim. Separation Adj.
R327	1	1	1	GD05103140	10K Ω
R328	1	1	1	GD05103140	10K Ω
R329	1	1	1	GD05471140	470 Ω
R330	1	1	1	GD05471140	470 Ω
R331	1	1	1	GD05472140	4.7K Ω
R331	1	1	1	GD05682140	6.8K Ω
R332	1	1	1	GD05472140	4.7K Ω
R332	1	1	1	GD05682140	6.8K Ω
R333	1	1	1	GD05473140	47K Ω
R334	1	1	1	GD05473140	47K Ω
R335	1	1	1	GD05471140	470 Ω
R336	1	1	1	GD05471140	470 Ω
R337	1	1	1	GD05101140	100 Ω
R338	1	1	1	GD05123140	12K Ω
R341	1	1	1	GD05104140	100K Ω
R342	1	1	1	GD05222140	2.2K Ω
R343	1	1	1	GD05222140	2.2K Ω
R344	1	1	1	GD05102140	1K Ω
R345	1	1	1	GD05102140	1K Ω
R346	1	1	1	GD05223140	22K Ω
R347	1	1	1	GD05222140	2.2K Ω
R348	1	1	1	GD05472140	4.7K Ω
R349	1	1	1	GD05473140	47K Ω
R351	1	1	1	GD05154140	150K Ω
R352	1	1	1	GD05333140	33K Ω
R401	1	1	1	GD05823140	82K Ω
R402	1	1	1	GD05823140	82K Ω
R403	1	1	1	GD05222140	2.2K Ω

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

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
R404	1	1	1	GD05222140	2.2K Ω
R405	1	1	1	GD05104140	100K Ω
R406	1	1	1	GD05104140	100K Ω
R407	1	1	1	GD05331140	330 Ω
R408	1	1	1	GD05331140	330 Ω
R409	1	1	1	GD05471140	470 Ω
R410	1	1	1	GD05471140	470 Ω
R411	1	1	1	GD05393140	39K Ω
R412	1	1	1	GD05393140	39K Ω
R413	1	1	1	GD05474140	470K Ω
R414	1	1	1	GD05474140	470K Ω
R415	1	1	1	GD05102140	1K Ω
R416	1	1	1	GD05102140	1K Ω
R417	1	1	1	GD05221140	220 Ω
R418	1	1	1	GD05221140	220 Ω
R419	1	1	1	GD05104140	100K Ω
R420	1	1	1	GD05104140	100K Ω
R421	1	1	1	GD05330140	33 Ω
R422	1	1	1	GD05330140	33 Ω
QA01	1	1	1	HC10025060	P100-SEMICONDUCTORS
QA03	1	1	1	HD20011050	IC μ PC1178C
QA04	1	1	1	HT309452C0	Diode 1S1555
QA05	1	1	1	HD20011050	Transistor 2SC945(K or P)
QA10	1	1	1	HV00006120	Diode 1S1555
QA11	1	1	1	HD10001050	Varistor MV-203
QA12	1	1	1	HD10001050	Diode 1N60
QA14	1	1	1	HD40002420	Diode 1N60
QA16	1	1	1	HT310471C0	Varicap KV-1226
QA17	1	1	1	HT310471C0	Transistor 2SC1047(C)
QA18	1	1	1	HT309452C0	Transistor 2SC1047(C)
Q101	1	1	1	HF400451B0	Transistor 2SC945(K or P)
Q102	1	1	1	HT310471C0	Diode 1S1555
Q103	1	1	1	HT308291C0	Varicap 1SV55
Q104	1	1	1	HT310471C0	Varicap 1SV55
Q105	1	1	1	HC10033010	Varicap 1SV55
Q106	1	1	1	HD20011050	Varicap 1SV55
Q110	1	1	1	HD40004010	Varicap 1SV55
Q111	1	1	1	HD40004010	Varicap 1SV55
Q112	1	1	1	HD40004010	Varicap 1SV55
Q113	1	1	1	HD40004010	Varicap 1SV55
Q114	1	1	1	HF200191A0	F.E.T. 2SK19(Y)
Q301	1	1	1	HC10001420	IC KB4437
Q302	1	1	1	HT309452C0	Transistor 2SC945(K or P)
Q303	1	1	1	HT309452C0	Transistor 2SC945(K or P)
Q304	1	1	1	HT309452C0	Transistor 2SC945(K or P)
Q305	1	1	1	HT326342B0	Transistor 2SC2634(S or T)
Q306	1	1	1	HT326342B0	Transistor 2SC2634(S or T)
Q307	1	1	1	HT111272B0	Transistor 2SA1127(S or T)
Q308	1	1	1	HT111272B0	Transistor 2SA1127(S or T)
Q309	1	1	1	HT309452B0	Transistor 2SC945(P or Q)
Q311	1	1	1	HD20011050	Diode 1S1555
Q312	1	1	1	HD20011050	Diode 1S1555
Q320	1	1	1	HD20011050	Diode 1S1555
Q321	1	1	1	HD20011050	Diode 1S1555
Q322	1	1	1	HD20011050	Diode 1S1555
Q323	1	1	1	HD20011050	Diode 1S1555
Q324	1	1	1	HD20011050	Diode 1S1555
Q325	1	1	1	HD20011050	Diode 1S1555
Q326	1	1	1	HD20011050	Diode 1S1555
Q401	1	1	1	HC10034010	IC HA1457W
Q402	1	1	1	HC10034010	IC HA1457W

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
FA01	1	1	1	FG450302B0	P100-MISCELLANEOUS
FA02	1	1	1	FG450302A0	Ceramic Filter, AM SFZ450B-3
F101	1	1	1	FF11070530	Ceramic Filter, AM SFZ450A-3
F102	1	1	1	FF11070530	Ceramic Filter, SFE10.7MD-1
F102	1	1	1	FF11070530	Ceramic Filter, SFE10.7MD-1
F102	1	1	1	FF11070570	Ceramic Filter, SFE10.7MS3G
F103	1	1	1	FF11070530	Ceramic Filter, SFE10.7MD-1
F103	1	1	1	FF11070570	Ceramic Filter, SFE10.7MS3G
JV01	1	1	1	YT02040260	Terminal, Input
J101	1	1	1	YT01050010	Terminal, Antenna
LA01	1	1	1	LO10010480	OSC Coil, AM
LA02	1	1	1	LI10010730	I.F.T. Coil, AM
LA03	1	1	1	LI10010740	I.F.T. Coil, AM
L101	1	1	1	LA12026190	Ant. Coil, FM
L104	1	1	1	LC17510010	Choke Coil, 0.75 μ H
L105	1	1	1	LI10016010	I.F.T. Coil, FM
L106	1	1	1	LO12046030	OSC Coil, FM
L107	1	1	1	LC13320050	Choke Coil, 3.3 μ H
L109	1	1	1	LI14030010	I.F.T. Coil, FM Det
L120	1	1	1	LA12026200	Ant. Coil, FM RF
L121	1	1	1	LA12026210	Ant. Coil, FM RF
L301	1	1	1	LS20010020	M.P.X. Coil, 38kHz
SV01	1	1	1	SR06040170	Rotary Switch, Selector
P700	1	1	1	YK21161810	P700-POWER AMP.
	1	1	1	ZZ21161810	CIRCUIT BOARD
					P.W. Board, Power Amp.
					P.W. Board Assembly
C701	1	1	1	EA47706310	P700-CAPACITORS
C702	1	1	1	EA47706310	Elect 470 μ F 63V
C703	1	1	1	EA47706310	Elect 470 μ F 63V
C704	1	1	1	EA47706310	Elect 470 μ F 63V
C705	1	1	1	DF17473520	Film 0.047 μ F \pm 20%
C706	1	1	1	DF17473520	Film 0.047 μ F \pm 20%
C709	1	1	1	DF16473300	Film 0.047 μ F \pm 20%
C710	1	1	1	DF16473300	Film 0.047 μ F \pm 20%
C711	1	1	1	EA47601030	Elect 47 μ F 10V
C712	1	1	1	EA10701630	Elect 100 μ F 16V
C713	1	1	1	DD16470500	Ceramic 47pF \pm 10%
C714	1	1	1	DD16470500	Ceramic 47pF \pm 10%
C715	1	1	1	DD16470500	Ceramic 47pF \pm 10%
C716	1	1	1	DD16470500	Ceramic 47pF \pm 10%
Δ R701	1	1	1	GO10332050	P700-RESISTORS
Δ R702	1	1	1	GO10332050	0.33 Ω 5W
Δ R703	1	1	1	GO10332050	0.33 Ω 5W
Δ R704	1	1	1	GO10332050	0.33 Ω 5W
R705	1	1	1	RC10022120	2.2 Ω 1/2W
R706	1	1	1	RC10022120	2.2 Ω 1/2W
R707	1	1	1	GA05330030	33 Ω \pm 5% 3W
R708	1	1	1	GA05330030	33 Ω \pm 5% 3W
R709	1	1	1	GA05562010	5.6K Ω \pm 5% 1W
R710	1	1	1	GA05562010	5.6K Ω \pm 5% 1W

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

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
R711	1	1	1	GD05223140	22K Ω \pm 5% $\frac{1}{4}$ W
R712	1	1	1	GD05153140	15K Ω \pm 5% $\frac{1}{4}$ W
R713	1	1	1	GD05562140	5.6K Ω \pm 5% $\frac{1}{4}$ W
R714	1	1	1	GD05154140	150K Ω \pm 5% $\frac{1}{4}$ W
R715	1	1	1	GD05393140	39K Ω \pm 5% $\frac{1}{4}$ W
R716	1	1	1	GG05100140	10 Ω \pm 5% $\frac{1}{4}$ W
R717	1	1	1	GD05333140	33K Ω \pm 5% $\frac{1}{4}$ W
P700-SEMICONDUCTORS					
Δ Q701	1	1	1	HC10033030	IC STK-0080 Mark2
Δ Q702	1	1	1	HC10033030	IC STK-0080 Mark2
Q703	1	1	1	HD20005010	Diode W06B
Q704	1	1	1	HD20005010	Diode W06B
Q705	1	1	1	HD20005010	Diode W06B
Q706	1	1	1	HD20005010	Diode W06B
Q707	1	1	1	HD20003210	Diode 1S2471
Q708	1	1	1	HD20011050	Diode 1S1555
Q709	1	1	1	HT314001E0	Transistor 2SC1400(E)
Q710	1	1	1	HT314001E0	Transistor 2SC1400(E)
Q711	1	1	1	HT405712B0	Transistor 2SD571(L or K)
P700-MISCELLANEOUS					
J701	1	1	1	YP06001060	Plug, (9P)
J702	1	1	1	YP06001060	Plug, (9P)
JN01	1	1	1	YP06000600	Plug (9P)
JN02	1	1	1	YP06000600	Plug (9P)
L701	1	1	1	LL23915120	Coil
L702	1	1	1	LL23915120	Coil
Δ L703	1	1	1	LY20240140	Relay, 3A MU2U 24V
P800-POWER SUPPLY CIRCUIT BOARD					
P800	1	1	1	YK21161880	P.W. Board, Power Supply
	1			ZZ21163880	P.W. Board Assembly
		1		ZZ21162880	P.W. Board Assembly
			1	ZZ21168880	P.W. Board Assembly
P800-CAPACITORS					
Δ C801	1	1	1	EB10906310	Elect 10000 μ F 56V
Δ C802	1	1	1	EB10906310	Elect 10000 μ F 56V
C803	1	1	1	DK18103510	Ceramic 0.01 μ F
C804	1	1	1	DK18103510	Ceramic 0.01 μ F
Δ C805	1	1	1	EA47705090	Elect 470 μ F 50V
C806	1	1	1	EA10705090	Elect 100 μ F 50V
C807	1	1	1	EA10605030	Elect 10 μ F 50V
C808	1	1	1	EA10605030	Elect 10 μ F 50V
C809	1	1	1	EA33505030	Elect 3.3 μ F 50V
C810	1	1	1	EA33505030	Elect 3.3 μ F 50V
C811	1	1	1	DK18403320	Ceramic 0.04 μ F
C812	1	1	1	DK18403320	Ceramic 0.04 μ F
C813	1	1	1	EA10701630	Elect 100 μ F 16V
C814	1	1	1	EA33505030	Elect 3.3 μ F 50V
C815	1	1	1	EA33505030	Elect 3.3 μ F 50V
C816	1	1	1	EA10602530	Elect 10 μ F 25V
C817	1	1	1	EA10701630	Elect 100 μ F 16V
C818	1	1	1	EA10703590	Elect 100 μ F 35V
Δ C819	1	1	1	EA10701630	Elect 100 μ F 16V
C820	1	1	1	EA22602530	Elect 22 μ F 25V
C821	1	1	1	EA22602530	Elect 22 μ F 25V
Δ C822	1	1	1	EA22605030	Elect 22 μ F 50V

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
P800-RESISTORS (All Resistors are \pm 5% and $\frac{1}{4}$ W)					
Δ R801	1		1	RF05100120	10 Ω $\frac{1}{4}$ W, Fusible
Δ R802	1		1	RF05100120	10 Ω $\frac{1}{4}$ W, Fusible
Δ R803	1	1	1	GA05560020	56 Ω 2W
R804	1	1	1	GD05103140	10K Ω
R805	1	1	1	GD05103140	10K Ω
R806	1	1	1	GD05472140	4.7K Ω
R807	1	1	1	GD05472140	4.7K Ω
R808	1	1	1	GD05472140	4.7K Ω
R809	1	1	1	GD05472140	4.7K Ω
R810	1	1	1	GD05182140	1.8K Ω
R811	1	1	1	GD05223140	22K Ω
R812	1	1	1	GD05332140	3.3K Ω
R813	1	1	1	GD05562140	5.6K Ω
R814	1	1	1	GD05102140	1K Ω
R815	1	1	1	GD05474140	470K Ω
R816	1	1	1	GD05223140	22K Ω
R817	1	1	1	GD05102140	1K Ω
R818	1	1	1	GD05102140	1K Ω
P800-SEMICONDUCTORS					
Δ Q801	1	1	1	HD20011290	Diode S3VB-20
Δ Q802	1	1	1	HD20011290	Diode S3VB-20
Δ Q803	1	1	1	HD20011290	Diode S3VB-20
Δ Q804	1	1	1	HD20011290	Diode S3VB-20
Δ Q805	1		1	HD20005010	Diode W06B
Δ Q805	1		1	HD20022100	Diode 10E1
Δ Q806	1		1	HD20005010	Diode W06B
Δ Q806	1		1	HD20022100	Diode 10E1
Δ Q807	1		1	HD20005010	Diode W06B
Δ Q807	1		1	HD20022100	Diode 10E1
Δ Q808	1		1	HD20005010	Diode W06B
Δ Q808	1		1	HD20022100	Diode 10E1
Δ Q809	1	1	1	HD20005010	Diode W06B
Q810	1	1	1	HT405712B0	Transistor 2SD571(L or K)
Q811	1	1	1	HT326342A0	Transistor 2SC2634(R or S)
Q812	1	1	1	HT403131E0	Transistor 2SD313(E)
Q813	1	1	1	HD20011050	Diode 1S1555
Q814	1	1	1	HD30027090	Zener WZ-140
Q815	1	1	1	HT206052B0	Transistor 2SB605(L or K)
Q816	1	1	1	HT107332A0	Transistor 2SA733(P or Q)
Q817	1	1	1	HD30027090	Zener WZ-140
Q818	1	1	1	HT111272A0	Transistor 2SA1127(R or S)
Δ Q819	1		1	HD20005010	Diode W06B
Δ Q819	1		1	HD20022100	Diode 10E1
P800-MISCELLANEOUS					
Δ F802	1			FS10050080	Fuse 0.5A 250V
Δ F802	1			FS10050800	Fuse 0.5A 250V
J831	1			YJ08000170	Jack, Fuse Holder
J831	1		1	YJ08000270	Jack, Fuse Holder
J832	1			YJ08000170	Jack, Fuse Holder
J832	1		1	YJ08000270	Jack, Fuse Holder

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

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
P860	1	1	1	YK102H1310 ZZ102H1310	P860-SUB POWER SUPPLY CIRCUIT BOARD P.W. Board, Sub Power Supply P.W. Board Assembly
C864	1	1	1	EA47701030	P860-CAPACITORS Elect 470 μ F 10V
C865	1	1	1	EA10701030	Elect 100 μ F 10V
C866	1	1	1	EA47601030	Elect 47 μ F 10V
C867	1	1	1	DK18103320	Ceramic 0.01 μ F +80% -20%
C869	1	1	1	EA22603530	Elect 22 μ F 35V
C873	1	1	1	EA33702530	Elect 330 μ F 25V
C874	1	1	1	EA22703530	Elect 220 μ F 35V
C875	1	1	1	EA10505030	Elect 1 μ F 50V
C876	1	1	1	EA33602530	Elect 33 μ F 25V
C877	1	1	1	EA10601630	Elect 10 μ F 16V
C878	1	1	1	DK17103300	Ceramic 0.01 μ F \pm 20%
C879	1	1	1	DK17103300	Ceramic 0.01 μ F \pm 20%
R862	1	1	1	GD05103140	P860-RESISTORS (All Resistors are \pm 5% and $\frac{1}{4}$ W) 10K Ω
R864	1	1	1	GG05222120	2.2K Ω $\frac{1}{4}$ W
R865	1	1	1	GG05390140	39 Ω
R866	1	1	1	GD05103140	10K Ω
R867	1	1	1	GD05182140	1.8K Ω
R869	1	1	1	GD05472140	4.7K Ω
R872	1	1	1	GD05104140	100K Ω
R873	1	1	1	GD05104140	100K Ω
R874	1	1	1	GD05333140	33K Ω
R875	1	1	1	GD05333140	33K Ω
R876	1	1	1	GD05333140	33K Ω
R877	1	1	1	GD05333140	33K Ω
R878	1	1	1	GD05222140	2.2K Ω
R879	1	1	1	GA05151010	150 Ω 1W
Q861	1	1	1	HT309452A0	P860-SEMICONDUCTORS Transistor 2SC945(Q or R)
Q862	1	1	1	HT404002B0	Transistor 2SD400(E or F)
Q864	1	1	1	HT107332A0	Transistor 2SA733(P or Q)
Q865	1	1	1	HT205492A0	Transistor 2SB549(P or Q)
Q866	1	1	1	HT404002B0	Transistor 2SD400(E or F)
Q867	1	1	1	HT404002B0	Transistor 2SD400(E or F)
Q868	1	1	1	HT107202B0	Transistor 2SA720(Q or R)
Q869	1	1	1	HT107202B0	Transistor 2SA720(Q or R)
Q872	1	1	1	HD20005010	Diode W06B
Q873	1	1	1	HD30036090	Zener WZ065
Q875	1	1	1	HD30068090	Zener WZ270
Q877	1	1	1	HD30039090	Zener WZ240
Q879	1	1	1	HD30067090	Zener WZ040
Q880	1	1	1	HC10019020	IC AN6552
Q882	1	1	1	HD20005010	Diode W06B
P900	1	1	1	YK102H1640 ZZ102H1640	P900-DISPLAY UNIT CIRCUIT BOARD P.W. Board, Display Unit P.W. Board Assembly
R901	1	1	1	GD05104140	P900-RESISTORS (All Resistors are \pm 5% and $\frac{1}{4}$ W) 100K Ω
R902	1	1	1	GD05104140	100K Ω
R903	1	1	1	GD05104140	100K Ω
R904	1	1	1	GD05822140	8.2K Ω
R905	1	1	1	GD05473140	47K Ω
R906	1	1	1	GD05103140	10K Ω

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
Q901	1	1	1	HT107332A0	P900-SEMICONDUCTORS Transistor 2SA733(P or Q)
Q902	1	1	1	HT107332A0	Transistor 2SA733(P or Q)
Q903	1	1	1	HT309452B0	Transistor 2SC945(P or Q)
Q904	1	1	1	HD20011050	Diode 1S1555
V901	1	1	1	HQ30701410	Display Unit 8-MT-01
PB00	1	1	1	YA22180610 ZZ21370610	PB00-NOISE AMP. CIRCUIT BOARD P.W. Board, Noise Amp P.W. Board Assembly
CB01	1	1	1	DD11100370	PB00-CAPACITORS Ceramic 10pF \pm 0.5pF
CB02	1	1	1	DF16683300	Film 0.068 μ F \pm 10%
CB03	1	1	1	DF17403300	Film 0.1 μ F \pm 20%
CB04	1	1	1	DK18104020	Ceramic 0.1 μ F
CB05	1	1	1	DK18403320	Ceramic 0.04 μ F
CB06	1	1	1	EA10601690	Elect 10 μ F 16V
CB07	1	1	1	EA10501690	Elect 1 μ F 16V
RB01	1	1	1	GD05562140	PB00-RESISTORS (All Resistors are \pm 5% and $\frac{1}{4}$ W) 5.6K Ω
RB02	1	1	1	GD05104140	100K Ω
RB03	1	1	1	GD05273140	27K Ω
RB04	1	1	1	GD05102140	1K Ω
RB05	1	1	1	GD05104140	100K Ω
RB06	1	1	1	GD05333140	33K Ω
RB08	1	1	1	GG05101140	100 Ω
RB09	1	1	1	GD05101140	100 Ω
RB10	1	1	1	GD05104140	100K Ω
RB11	1	1	1	GD05103140	10K Ω
RB12	1	1	1	GD05472140	4.7K Ω
QB01	1	1	1	HT309452B0	PB00-SEMICONDUCTORS Transistor 2SC945(P or Q)
QB02	1	1	1	HT309452B0	Transistor 2SC945(P or Q)
QB03	1	1	1	HD10001050	Diode 1N60
QB04	1	1	1	HD10001050	Diode 1N60
QB05	1	1	1	HT309452B0	Transistor 2SC945(P or Q)
QB06	1	1	1	HD20011050	Diode 1S1555
LB01	1	1	1	LC21050010	PB00-COIL Choke Coil 1mH
PC00	1	1	1	YK102H1610 ZZ102H1610	PC00-PLL SYNTHESIZER CIRCUIT BOARD P.W. Board, PLL Synthesizer P.W. Board Assembly
CC01	1	1	1	EA47405030	PC00-CAPACITORS Elect 0.47 μ F 50V
CC02	1	1	1	EA10800630	Elect 1000 μ F 6.3V
CC03	1	1	1	EA10800630	Elect 1000 μ F 6.3V
CC05	1	1	1	DD15220300	Ceramic 22pF \pm 5%
CC06	1	1	1	DD15220300	Ceramic 22pF \pm 5%
CC07	1	1	1	DF17683300	Film 0.068 μ F \pm 20%
CC08	1	1	1	EQ22505010	Elect 2.2 μ F 50V
CC09	1	1	1	EA47603530	Elect 47 μ F 35V
CC11	1	1	1	DK18103310	Ceramic 0.01 μ F +80% -20%
CC12	1	1	1	EV33600660	Elect 33 μ F 6.3V

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

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
CC13	1	1	1	DD15121360	Ceramic 120pF ±5%
CC14	1	1	1	DD15750360	Ceramic 75pF ±5%
CC15	1	1	1	DK18103310	Ceramic 0.01µF +80% -20%
CC16	1	1	1	EA10602530	Elect 10µF 25V
CC17	1	1	1	DK16221300	Ceramic 220pF ±10%
CC18	1	1	1	DK16221300	Ceramic 220pF ±10%
CC19	1	1	1	DK18103310	Ceramic 0.01µF +80% -20%
CC20	1	1	1	EV33600660	Elect 33µF 6.3V
CC21	1	1	1	DK17103300	Ceramic 0.01µF ±20%
CC22	1	1	1	EA10602530	Elect 10µF 25V
CC23	1	1	1	EA22700630	Elect 220µF 6.3V
CC24	1	1	1	EA22700630	Elect 220µF 6.3V
PC00-RESISTORS (All Resistors are ±5% and ¼W)					
RC01	1	1	1	GD05222140	2.2KΩ
RC02	1	1	1	GD05222140	2.2KΩ
RC03	1	1	1	GD05222140	2.2KΩ
RC04	1	1	1	GD05222140	2.2KΩ
RC05	1	1	1	GD05222140	2.2KΩ
RC06	1	1	1	GD05222140	2.2KΩ
RC08	1	1	1	GD05104140	100KΩ
RC09	1	1	1	GD05104140	100KΩ
RC10	1	1	1	GD05104140	100KΩ
RC11	1	1	1	GD05104140	100KΩ
RC12	1	1	1	GD05104140	100KΩ
RC13	1	1	1	GD05104140	100KΩ
RC16	1	1	1	GD05104140	100KΩ
RC17	1	1	1	GD05104140	100KΩ
RC18	1	1	1	GD05104140	100KΩ
RC19	1	1	1	GD05104140	100KΩ
RC20	1	1	1	GD05104140	100KΩ
RC21	1	1	1	GD05104140	100KΩ
RC22	1	1	1	GD05104140	100KΩ
RC23	1	1	1	GD05104140	100KΩ
RC24	1	1	1	GD05104140	100KΩ
RC25	1	1	1	GD05473140	47KΩ
RC26	1	1	1	GD05223140	22KΩ
RC28	1	1	1	GD05223140	22KΩ
RC29	1	1	1	GD05473140	47KΩ
RC30	1	1	1	GD05473140	47KΩ
RC31	1	1	1	GD05473140	47KΩ
RC32	1	1	1	GD05473140	47KΩ
RC33	1	1	1	GD05473140	47KΩ
RC34	1	1	1	GD05473140	47KΩ
RC35	1	1	1	GD05473140	47KΩ
RC36	1	1	1	GD05473140	47KΩ
RC37	1	1	1	GD05473140	47KΩ
RC38	1	1	1	GD05473140	47KΩ
RC39	1	1	1	GD05103140	10KΩ
RC40	1	1	1	GD05103140	10KΩ
RC41	1	1	1	GD05103140	10KΩ
RC42	1	1	1	GD05103140	10KΩ
RC43	1	1	1	GD05103140	10KΩ
RC44	1	1	1	GD05103140	10KΩ
RC45	1	1	1	GD05103140	10KΩ
RC46	1	1	1	GD05103140	10KΩ
RC47	1	1	1	GD05103140	10KΩ
RC48	1	1	1	GD05223140	22KΩ
RC49	1	1	1	GD05223140	22KΩ
RC50	1	1	1	GD05332140	3.3KΩ
RC51	1	1	1	GD05223140	22KΩ
RC52	1	1	1	GD05332140	3.3KΩ
RC53	1	1	1	GD05223140	22KΩ
RC54	1	1	1	GD05223140	22KΩ

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
RC55	1	1	1	GD05472140	4.7KΩ
RC56	1	1	1	GD05472140	4.7KΩ
RC57	1	1	1	GD05472140	4.7KΩ
RC58	1	1	1	GD05472140	4.7KΩ
RC59	1	1	1	GD05472140	4.7KΩ
RC60	1	1	1	GD05473140	47KΩ
RC61	1	1	1	GD05393140	39KΩ
RC62	1	1	1	GD05393140	39KΩ
RC63	1	1	1	GD05393140	39KΩ
RC64	1	1	1	GD05393140	39KΩ
RC65	1	1	1	GD05221140	220Ω
RC66	1	1	1	GD05562140	5.6KΩ
RC67	1	1	1	GD05222140	2.2KΩ
RC68	1	1	1	GD05101140	100Ω
RC70	1	1	1	GD05102140	1KΩ
RC71	1	1	1	GD05102140	1KΩ
RC73	1	1	1	GD05122140	1.2KΩ
RC74	1	1	1	GD05103140	10KΩ
RC75	1	1	1	GD05102140	1KΩ
RC78	1	1	1	GD05104140	100KΩ
RC79	1	1	1	GG05100140	10Ω
RC80	1	1	1	GD05182140	1.8KΩ
RC82	1	1	1	GD05102140	1KΩ
RC83	1	1	1	GD05101140	100Ω
PC00-SEMICONDUCTORS					
QC01	1	1	1	HC10016020	IC MN1400SJ
QC02	1	1	1	HC10018020	IC MN1203
QC03	1	1	1	HC10017020	IC MN6142
QC04	1	1	1	HC10032060	IC µPB551C
QC05	1	1	1	HC10048050	IC TC5066BP
QC06	1	1	1	HT107332B0	Transistor 2SA733(Q or R)
QC07	1	1	1	HT107332B0	Transistor 2SA733(Q or R)
QC08	1	1	1	HT107332B0	Transistor 2SA733(Q or R)
QC09	1	1	1	HT107332B0	Transistor 2SA733(Q or R)
QC10	1	1	1	HT107332B0	Transistor 2SA733(Q or R)
QC11	1	1	1	HT107332B0	Transistor 2SA733(Q or R)
QC12	1	1	1	HD20011050	Diode 1S1555
QC14	1	1	1	HT107332B0	Transistor 2SA733(Q or R)
QC15	1	1	1	HT107332B0	Transistor 2SA733(Q or R)
QC23	1	1	1	HD20011050	Diode 1S1555
QC24	1	1	1	HD20011050	Diode 1S1555
QC25	1	1	1	HD20011050	Diode 1S1555
QC26	1	1	1	HD20011050	Diode 1S1555
QC27	1	1	1	HD20011050	Diode 1S1555
QC28	1	1	1	HD20011050	Diode 1S1555
QC29	1	1	1	HD20011050	Diode 1S1555
QC30	1	1	1	HD20011050	Diode 1S1555
QC31	1	1	1	HD20011050	Diode 1S1555
QC32	1	1	1	HD20011050	Diode 1S1555
QC33	1	1	1	HD20011050	Diode 1S1555
QC34	1	1	1	HD20011050	Diode 1S1555
QC35	1	1	1	HD20011050	Diode 1S1555
QC36	1	1	1	HD20011050	Diode 1S1555
QC37	1	1	1	HD20011050	Diode 1S1555
QC38	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC39	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC41	1	1	1	HT107332B0	Transistor 2SA733(Q or R)
QC42	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC43	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC44	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC45	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC46	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC47	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC48	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC49	1	1	1	HT309452A0	Transistor 2SC945(Q or R)

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

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
QC50	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC51	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC52	1	1	1	HD20011050	Diode 1S1555
QC53	1	1	1	HD20011050	Diode 1S1555
QC54	1	1	1	HF200301C0	F.E.T. 2SK30(Y)
QC55	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC56	1	1	1	HT309452A0	Transistor 2SC945(Q or R)
QC57	1	1	1	HD20011050	Diode 1S1555
PC00-MISCELLANEOUS					
LC01	1	1	1	LC11030020	Choke Coil 10 μ H
XC01	1	1	1	XA108001L0	Crystal 11.52MHz
PE00-TONE AMP. CIRCUIT BOARD					
PE00	1	1	1	YK21161850	P.W. Board, Tone Amp.
	1	1	1	ZZ21161850	P.W. Board Assembly
PE00-CAPACITORS					
CE01	1	1	1	EE10505040	Elect 1 μ F 50V
CE02	1	1	1	EE10505040	Elect 1 μ F 50V
CE03	1	1	1	DK16101300	Ceramic 100pF \pm 10%
CE04	1	1	1	DK16101300	Ceramic 100pF \pm 10%
CE05	1	1	1	EE22505040	Elect 2.2 μ F 50V
CE06	1	1	1	EE22505040	Elect 2.2 μ F 50V
CE07	1	1	1	DK16101300	Ceramic 100pF \pm 10%
CE08	1	1	1	DK16101300	Ceramic 100pF \pm 10%
CE09	1	1	1	DF16222300	Film 2200pF \pm 10%
CE10	1	1	1	DF16222300	Film 2200pF \pm 10%
CE11	1	1	1	DF16562300	Film 5600pF \pm 10%
CE12	1	1	1	DF16562300	Film 5600pF \pm 10%
CE15	1	1	1	DF16183300	Film 0.018 μ F \pm 10%
CE16	1	1	1	DF16183300	Film 0.018 μ F \pm 10%
CE17	1	1	1	DF16183300	Film 0.018 μ F \pm 10%
CE18	1	1	1	DF16183300	Film 0.018 μ F \pm 10%
CE19	1	1	1	DF16822300	Film 8200pF \pm 10%
CE20	1	1	1	DF16822300	Film 8200pF \pm 10%
CE21	1	1	1	DD15560370	Ceramic 56pF \pm 5%
CE22	1	1	1	DD15560370	Ceramic 56pF \pm 5%
CE23	1	1	1	EA33505030	Elect 3.3 μ F 50V
CE24	1	1	1	EA33505030	Elect 3.3 μ F 50V
PE00-RESISTORS (All Resistors are \pm 5% and $\frac{1}{4}$ W)					
RE01	1	1	1	GD05683140	68K Ω
RE02	1	1	1	GD05683140	68K Ω
RE03	1	1	1	GD05821140	820 Ω
RE04	1	1	1	GD05821140	820 Ω
RE05	1	1	1	GD05392140	3.9K Ω
RE06	1	1	1	GD05392140	3.9K Ω
RE07	1	1	1	GD05682140	6.8K Ω
RE08	1	1	1	GD05682140	6.8K Ω
RE09	1	1	1	GD05682140	6.8K Ω
RE10	1	1	1	GD05682140	6.8K Ω
RE11	1	1	1	GD05562140	5.6K Ω
RE12	1	1	1	GD05562140	5.6K Ω
RE13	1	1	1	GD05562140	5.6K Ω
RE14	1	1	1	GD05562140	5.6K Ω
RE15	1	1	1	GD05223140	22K Ω
RE16	1	1	1	GD05223140	22K Ω
RE17	1	1	1	GD05223140	22K Ω
RE18	1	1	1	GD05223140	22K Ω
RE19	1	1	1	GD05223140	22K Ω
RE20	1	1	1	GD05223140	22K Ω

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
RE21	1	1	1	GD05103140	10K Ω
RE22	1	1	1	GD05103140	10K Ω
RE23	1	1	1	GD05470140	47 Ω
RE24	1	1	1	GD05470140	47 Ω
RE25	1	1	1	RM01040150	100K Ω (B) Variable, Treble
RE26	1	1	1	RM01040150	100K Ω (B) Variable, Mid
RE27	1	1	1	RM01040150	100K Ω (B) Variable, Bass
PE00-IC					
QE01	1	1	1	HC10003090	IC NJM4558D
QE02	1	1	1	HC10003090	IC NJM4558D
PG00-VOLUME/BALANCE CIRCUIT BOARD					
PG00	1	1	1	YK102H1430	P.W. Board, Volume/Balance
	1	1	1	ZZ102H1430	P.W. Board Assembly
PG00-RESISTORS					
RG01	1	1	1	RM01040320	100K Ω (B) x 2 Variable, Vol.
RG02	1	1	1	RK02040080	200K Ω (W) Variable, Balance
PK00-POWER LEVEL LED CIRCUIT BOARD					
PK00	1	1	1	YK102H1320	P.W. Board, Power Level LED
	1	1	1	ZZ102H1320	P.W. Board Assembly
PK00-CAPACITORS					
CK01	1	1	1	EA10602530	Elect 10 μ F 25V
CK02	1	1	1	EA10602530	Elect 10 μ F 25V
CK03	1	1	1	EA10602530	Elect 10 μ F 25V
CK04	1	1	1	EA10602530	Elect 10 μ F 25V
CK05	1	1	1	EA22505030	Elect 2.2 μ F 50V
CK06	1	1	1	EA22505030	Elect 2.2 μ F 50V
CK07	1	1	1	EA10702530	Elect 100 μ F 25V
PK00-RESISTORS (All Resistors are \pm 5% and $\frac{1}{4}$ W)					
RK01	1	1	1	RA02030010	20K Ω Trimming
RK02	1	1	1	RA02030010	20K Ω Trimming
RK03	1	1	1	GD05152140	1.5K Ω
RK04	1	1	1	GD05152140	1.5K Ω
RK05	1	1	1	GD05152140	1.5K Ω
RK06	1	1	1	GD05152140	1.5K Ω
RK07	1	1	1	GD05152140	1.5K Ω
RK08	1	1	1	GD05152140	1.5K Ω
RK09	1	1	1	GD05152140	1.5K Ω
RK10	1	1	1	GD05152140	1.5K Ω
RK11	1	1	1	GD05152140	1.5K Ω
RK12	1	1	1	GD05152140	1.5K Ω
RK13	1	1	1	GD05152140	1.5K Ω
RK14	1	1	1	GD05152140	1.5K Ω
RK15	1	1	1	GD05152140	1.5K Ω
RK16	1	1	1	GD05152140	1.5K Ω
RK17	1	1	1	GD05152140	1.5K Ω
RK18	1	1	1	GD05152140	1.5K Ω
RK19	1	1	1	GD05152140	1.5K Ω
RK20	1	1	1	GD05152140	1.5K Ω
RK21	1	1	1	GD05152140	1.5K Ω
RK22	1	1	1	GD05152140	1.5K Ω
RK23	1	1	1	GD05152140	1.5K Ω
RK24	1	1	1	GD05152140	1.5K Ω
RK25	1	1	1	GD05152140	1.5K Ω
RK26	1	1	1	GD05152140	1.5K Ω
RK27	1	1	1	GD05103140	10K Ω
RK28	1	1	1	GD05103140	10K Ω
RK29	1	1	1	GD05103140	10K Ω
RK30	1	1	1	GD05103140	10K Ω

• (U): for U.S.A.
 • (C): for Canada
 • (E): for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
RK31	1	1	1	GD05123140	12KΩ
RK32	1	1	1	GD05123140	12KΩ
RK33	1	1	1	GD05182140	1.8KΩ
RK34	1	1	1	GD05182140	1.8KΩ
RK35	1	1	1	GD05121140	120Ω
RK36	1	1	1	GD05121140	120Ω
RK37	1	1	1	GD05272140	2.7KΩ
RK38	1	1	1	GD05272140	2.7KΩ
RK39	1	1	1	GD05274140	270KΩ
RK40	1	1	1	GD05274140	270KΩ
RK41	1	1	1	GD05682140	6.8KΩ
RK42	1	1	1	GD05682140	6.8KΩ
RK45	1	1	1	GD05822140	8.2KΩ
RK46	1	1	1	GD05822140	8.2KΩ
RK47	1	1	1	GD05562140	5.6KΩ
RK48	1	1	1	GD05562140	5.6KΩ
RK49	1	1	1	GD05821140	820Ω
RK50	1	1	1	GD05821140	820Ω
RK51	1	1	1	GD05103140	10KΩ
RK52	1	1	1	GD05103140	10KΩ
RK53	1	1	1	GD05153140	15KΩ
RK54	1	1	1	GD05392140	3.9KΩ
RK55	1	1	1	GG05271140	270Ω
PK00-SEMICONDUCTORS					
QK03	1	1	1	HC10002320	IC IR2418A
QK04	1	1	1	HC10002320	IC IR2418A
QK05	1	1	1	HH00008030	Thermistor SDT-1000
QK06	1	1	1	HH00008030	Thermistor SDT-1000
QK07	1	1	1	HT111271S0	Transistor 2SA1127(S)
QK08	1	1	1	HT111271S0	Transistor 2SA1127(S)
QK09	1	1	1	HT326341S0	Transistor 2SC2634(S)
QK10	1	1	1	HT326341S0	Transistor 2SC2634(S)
QK11	1	1	1	HD20011050	Diode 1S1555
QK12	1	1	1	HD20011050	Diode 1S1555
QK13	1	1	1	HD20011050	Diode 1S1555
QK14	1	1	1	HD20011050	Diode 1S1555
QK15	1	1	1	HD30059090	Zener XZ-185, 18.5V
PK00-CAPACITORS					
CK10	1	1	1	EV10600360	Elect 10μF 3V
CK11	1	1	1	EV47501660	Elect 4.7μF 16V
CK12	1	1	1	EV47501660	Elect 4.7μF 16V
PK00-RESISTORS (All Resistors are ±5% and ¼W)					
RK59	1	1	1	GD05472140	4.7KΩ
RK60	1	1	1	GD05682140	6.8KΩ
RK61	1	1	1	GD05103140	10KΩ
RK62	1	1	1	GD05390140	39Ω
RK63	1	1	1	GG05270140	27Ω
RK64	1	1	1	GD05153140	15KΩ
RK65	1	1	1	GD05333140	33KΩ
RK66	1	1	1	GD05102140	1KΩ
RK67	1	1	1	GD05102140	1KΩ
RK68	1	1	1	GD05102140	1KΩ
RK69	1	1	1	GD05102140	1KΩ
RK70	1	1	1	GD05102140	1KΩ

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
PK00-SEMICONDUCTORS					
QK01	1	1	1	HI11202320	L.E.D. GL-112R4
QK02	1	1	1	HI11202320	L.E.D. GL-112R4
QK20	1	1	1	HC10040030	IC LB1416
QK21	1	1	1	HI10008030	L.E.D. SLP141B
QK22	1	1	1	HI10008030	L.E.D. SLP141B
QK23	1	1	1	HI10008030	L.E.D. SLP141B
QK24	1	1	1	HI10008030	L.E.D. SLP141B
QK25	1	1	1	HI10008030	L.E.D. SLP141B
PN00-VOLTAGE AMP. CIRCUIT BOARD					
PN00	1	1	1	YK21161820	P.W. Board, Voltage Amp.
	1	1	1	ZZ21161820	P.W. Board Assembly
PN00-CAPACITORS					
CN01	1	1	1	EA47505030	Elect 4.7μF 50V
CN02	1	1	1	EA47505030	Elect 4.7μF 50V
CN03	1	1	1	EA10505030	Elect 1μF 50V
CN04	1	1	1	EA10505030	Elect 1μF 50V
CN05	1	1	1	DD10020300	Ceramic 2pF ±0.25pF
CN06	1	1	1	DD10020300	Ceramic 2pF ±0.25pF
CN07	1	1	1	DD15270510	Ceramic 27pF ±5%
CN08	1	1	1	DD15270510	Ceramic 27pF ±5%
CN09	1	1	1	DF16332350	Film 3300pF ±10%
CN10	1	1	1	DF16332350	Film 3300pF ±10%
CN11	1	1	1	DF16332350	Film 3300pF ±10%
CN12	1	1	1	DF16332350	Film 3300pF ±10%
CN13	1	1	1	EA10706310	Elect 100μF 63V
CN14	1	1	1	EA10706310	Elect 100μF 63V
CN15	1	1	1	DK16221300	Ceramic 220pF ±10%
CN16	1	1	1	DK16221300	Ceramic 220pF ±10%
CN17	1	1	1	DD15200310	Ceramic 20pF ±5%
CN18	1	1	1	DD15200310	Ceramic 20pF ±5%
PN00-RESISTORS (All Resistors are ±5% and ¼W)					
RN01	1	1	1	GD05474140	470KΩ
RN02	1	1	1	GD05474140	470KΩ
RN03	1	1	1	GD05221140	220Ω
RN04	1	1	1	GD05221140	220Ω
RN05	1	1	1	GD05333140	33KΩ
RN06	1	1	1	GD05333140	33KΩ
RN07	1	1	1	GD05273140	27KΩ
RN08	1	1	1	GD05333140	33KΩ
RN09	1	1	1	RA01030460	10KΩ Trimming
RN10	1	1	1	RA01030460	10KΩ Trimming
RN11	1	1	1	GD05222140	2.2KΩ
RN12	1	1	1	GD05222140	2.2KΩ
RN13	1	1	1	GD05683140	68KΩ
RN14	1	1	1	GD05683140	68KΩ
RN15	1	1	1	GG05472140	4.7KΩ
RN16	1	1	1	GG05472140	4.7KΩ
RN17	1	1	1	GD05223140	22KΩ
RN18	1	1	1	GD05223140	22KΩ
RN19	1	1	1	GG05472140	4.7KΩ
RN20	1	1	1	GG05472140	4.7KΩ
RN21	1	1	1	GD05331140	330Ω
RN22	1	1	1	GD05331140	330Ω
RN23	1	1	1	GD05331140	330Ω
RN24	1	1	1	GD05331140	330Ω
RN25	1	1	1	GG05101140	100Ω

- (U): for U.S.A.
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REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
RN26	1	1	1	GG05101140	100Ω
RN27	1	1	1	GG05100140	10Ω
RN28	1	1	1	GG05100140	10Ω
RN29	1	1	1	GD05153140	15KΩ
RN30	1	1	1	GD05153140	15KΩ
PN00-SEMICONDUCTORS					
QN01	1	1	1	HD20011050	Diode 1S1555
QN02	1	1	1	HD20011050	Diode 1S1555
QN03	1	1	1	HD20011050	Diode 1S1555
QN04	1	1	1	HD20011050	Diode 1S1555
QN05	1	1	1	HT309451Q0	Transistor 2SC945(Q)
QN06	1	1	1	HT309451Q0	Transistor 2SC945(Q)
QN07	1	1	1	HT107331Q0	Transistor 2SA733(Q)
QN08	1	1	1	HT107331Q0	Transistor 2SA733(Q)
QN09	1	1	1	HD20011050	Diode 1S1555
QN10	1	1	1	HD20011050	Diode 1S1555
QN11	1	1	1	HD20011050	Diode 1S1555
QN12	1	1	1	HD20011050	Diode 1S1555
QN13	1	1	1	HC10032030	IC STK-3082
PS00-TAPE/FILTER/LOUDNESS CIRCUIT BOARD					
PS00	1	1	1	YK21161860	P.W. Board, Tape/Filter/Loudness
	1	1	1	ZZ21161820	P.W. Board Assembly
PS00-CAPACITORS					
CS01	1	1	1	DF15472300	Film 4700pF ±5%
CS02	1	1	1	DF15472300	Film 4700pF ±5%
CS03	1	1	1	DK16271300	Ceramic 270pF ±10%
CS04	1	1	1	DK16271300	Ceramic 270pF ±10%
CS05	1	1	1	EA47405030	Elect 0.47μF 50V
CS06	1	1	1	EA47405030	Elect 0.47μF 50V
CS07	1	1	1	DF16473300	Film 0.047μF ±10%
CS08	1	1	1	DF16473300	Film 0.047μF ±10%
CS09	1	1	1	DK16681300	Ceramic 680pF ±10%
CS10	1	1	1	DK16681300	Ceramic 680pF ±10%
PS00-RESISTORS (All Resistors are ±5% and ¼W)					
RS01	1	1	1	GD05564140	560KΩ
RS02	1	1	1	GD05564140	560KΩ
RS03	1	1	1	GD05104140	100KΩ
RS04	1	1	1	GD05104140	100KΩ
RS05	1	1	1	GD05392140	3.9KΩ
RS06	1	1	1	GD05392140	3.9KΩ
RS07	1	1	1	GD05473140	47KΩ
RS08	1	1	1	GD05473140	47KΩ
RS09	1	1	1	GD05682140	6.8KΩ
RS10	1	1	1	GD05682140	6.8KΩ
RS11	1	1	1	GD05681140	680Ω
RS12	1	1	1	GD05681140	680Ω
RS13	1	1	1	GD05272140	2.7KΩ
RS14	1	1	1	GD05272140	2.7KΩ
RS15	1	1	1	GD05273140	27KΩ
RS16	1	1	1	GD05273140	27KΩ
RS18	1	1	1	GD05222140	2.2KΩ
PS00-MISCELLANEOUS					
JS04	1	1	1	YP06000570	Plug (3P)
SS01	1	1	1	SP04060120	Push Switch

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
PS50	1	1	1	YK102H1440	PS50-MULTIPATH CIRCUIT BOARD P.W. Board, Multipath
	1	1	1	ZZ102H1440	P.W. Board Assembly
PS50-CAPACITORS					
CS51	1	1	1	DK18223320	Ceramic 0.022μF
CS52	1	1	1	EA10602530	Elect 10μF 25V
PS50-RESISTOR					
RS51	1	1	1	RA01040110	100KΩ(B) Trimming
PS50-SWITCH					
SS51	1	1	1	SP02010550	Push Switch, Multipath
PT00-SPEAKER SWITCH CIRCUIT BOARD					
PT00	1	1	1	YK21161830	P.W. Board, Speaker Switch
	1	1	1	ZZ102H1830	P.W. Board Assembly
PT00-RESISTORS					
RT01	1	1	1	GA05331020	330Ω ±5% 2W
RT02	1	1	1	GA05331020	330Ω ±5% 2W
PT00-SWITCH					
ST01	1	1	1	SP04020270	Push Switch, Speaker
PT50-REC. MODE SWITCH CIRCUIT BOARD					
PT50	1	1	1	YF102H0010	P.W. Board, Rec. Mode Switch
	1	1	1	ZZ102H0010	P.W. Board Assembly
PT50-CAPACITORS					
CT51	1	1	1	DK18103300	Ceramic 0.01μF +80% -20%
CT52	1	1	1	EA47505030	Elect 4.7μF 50V
PT50-MISCELLANEOUS					
JT51	1	1	1	YT02040260	Terminal, Tape 1 IN/OUT
ST51	1	1	1	SS06060010	Slide Switch
S011	1	1	1	SR00050030	Rotary Switch
PU00-TUNING KEY BOARD CIRCUIT BOARD					
PU00	1	1	1	YK102H1620	P.W. Board, Tuning Key Board
	1	1	1	ZZ102H1620	P.W. Board Assembly
PU00-SWITCHES					
SU01	1	1	1	SP01010350	Push Switch, #3
SU02	1	1	1	SP01010350	Push Switch, #6
SU03	1	1	1	SP01010350	Push Switch, #2
SU04	1	1	1	SP01010350	Push Switch, #5
SU05	1	1	1	SP01010350	Push Switch, #4
SU06	1	1	1	SP01010350	Push Switch, #1
SU07	1	1	1	SP01010350	Push Switch, #7
SU08	1	1	1	SP01010350	Push Switch, Memory Write
SU09	1	1	1	SP01010350	Push Switch, Down
SU10	1	1	1	SP01010350	Push Switch, Up
PU50-SCAN STEP CIRCUIT BOARD					
PU50	1	1	1	YK102H1660	P.W. Board, Scan Step
	1	1	1	ZZ102H1660	P.W. Board Assembly
SU51	1	1	1	SS02020380	Slide Switch, Scan Step

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

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
PV00	1	1	1	YK102H1420	PV00-TAPE 2 TERMINAL CIRCUIT BOARD P.W. Board, Tape 2 Terminal P.W. Board Assembly
	1	1	1	ZZ102H1420	
JV11	1	1	1	YT02040260	Terminal, Tape 2 IN/Out
PV50	1	1	1	YK102H1630	PV50-REMOTE CONT. CONNECTOR CIRCUIT BOARD P.W. Board, Remote Cont. Connector P.W. Board Assembly
	1	1	1	ZZ102H1630	
JV51	1	1	1	YP06002230	Plug (12P)
PW00	1	1	1	YK21161840	PW00-PHONE JACK CIRCUIT BOARD P.W. Board, Phone Jack P.W. Board Assembly
	1	1	1	ZZ21161840	
JW04	1	1	1	YJ01001340	Jack, Phone Jack

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
PY00	1	1	1	YK102H1650	PY00-FUNCTION INDICATOR CIRCUIT BOARD P.W. Board, Function Indicator P.W. Board Assembly
	1	1	1	ZZ102H1650	
QY01	1	1	1	HI10004060	L.E.D. SR106C, Tuner
QY02	1	1	1	HI10004060	L.E.D. SR106C, Phone
QY03	1	1	1	HI10004060	L.E.D. SR106C, Aux
QY04	1	1	1	HD20011050	Diode 1S1555
QY05	1	1	1	HD20011050	Diode 1S1555
QY06	1	1	1	HD20011050	Diode 1S1555

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

8. TECHNICAL SPECIFICATIONS

[FOR U.S.A. & CANADA]

AMPLIFIER SECTION:

RATED POWER OUTPUT, MINIMUM CONTINUOUS AVERAGE POWER	
PER CHANNEL, BOTH CHANNELS DRIVEN	88 W
POWER BAND	20 Hz to 20 kHz
TOTAL HARMONIC DISTORTION	0.05%
LOAD IMPEDANCE	4 OHMS
RATED POWER OUTPUT, MINIMUM CONTINUOUS AVERAGE POWER	
PER CHANNEL, BOTH CHANNELS DRIVEN	70 W
POWER BAND	20 Hz to 20 kHz
TOTAL HARMONIC DISTORTION	0.025%
LOAD IMPEDANCE	8 OHMS

I.M. Distortion

(I.H.F. method, 60 Hz and 7 kHz mixed 4:1 at rated power output)	
at 8 ohm load impedance	0.025%
at 4 ohm load impedance	0.05%
Damping Factor (at 20 Hz)	50

PREAMPLIFIER SECTION:

Phono

Input Overload at 1 kHz	225 mV
Equivalent Input Noise ("A" Weighted)	0.2 μ V
Dynamic Range	
(Dynamic Range is the ratio of input overload to equivalent input noise)	127 dB
Input Sensitivity	2.7 mV
Input Impedance	47 k ohms
Input Capacitance	100 pF
Frequency Response, RIAA 20 Hz to 20 kHz	\pm 0.2 dB
Signal-to-Noise Ratio ("A" Weighted)	
(at rated output and 10 mV input)	90 dB
High Level (Aux and Tape)	
Input Sensitivity	160 mV
Input Impedance	20 k ohms
Frequency Response	
(includes power amp)	10 Hz to 70 kHz \pm 1.0 dB
Signal-to-Noise Ratio ("A" Weighted)	
(ref. to rated output and 775 mV input)	98 dB
Output Levels	
Tape Out (ref. 10 mV at Phono inputs)	580 mV
Output Impedance	
Tape Out	220 ohms

FM TUNER SECTION:

Sensitivity

IHF Usable	9.8 dBf (1.7 μ V)
IHF 50 dB Quieting (Mono)	13.2 dBf (2.5 μ V)
(Stereo)	36.1 dBf (35 μ V)
Quieting Slope (Mono)	
RF Input for 30 dB Quieting	7.2 dBf (1.3 μ V)
Quieting at:	
20 dBf (5.5 μ V)	55 dB
25 dBf (10 μ V)	60 dB
40 dBf (55 μ V)	74 dB
65 dBf (1000 μ V)	80 dB

Quieting Slope (Stereo)

Quieting at:	
30 dBf (17 μ V)	42 dB
40 dBf (55 μ V)	54 dB
50 dBf (173 μ V)	64 dB
65 dBf (1000 μ V)	72 dB
Distortion (Mono) at 65 dBf (1000 μ V)	
100 Hz	0.2%
1000 Hz	0.15%
6000 Hz	0.2%
Distortion (Stereo) at 65 dBf (1000 μ V)	
100 Hz	0.25%
1000 Hz	0.2%
6000 Hz	0.3%
Frequency Response	
30 Hz to 15 KHz	

Mono and Stereo	+0.5 dB, -1.0 dB
Capture Ratio at 65 dBf (1000 μ V)	1.0 dB
Alternate Channel Selectivity	65 dB
Spurious Response Rejection	90 dB
Image Response Rejection	55 dB
I.F. Rejection (Balanced)	90 dB
A.M. Suppression	55 dB
Stereo Separation at 1 KHz	45 dB
Subcarrier Rejection	65 dB

AM TUNER SECTION:

IHF Usable Sensitivity	20 μ V
Signal-to-Noise Ratio	50 dB
Alternate Channel Selectivity	45 dB
Image Rejection	45 dB
Spurious Response Rejection	55 dB
I.F. Rejection	40 dB

GENERAL:

Power Requirements	120 VAC, 60 Hz
Power Consumption at rated output, both channels operating	300 W
Rating Power (Volume Control at zero)	32 W
Dimensions:	
Panel Width	466 mm (18-3/8")
Panel Height	140 mm (5-1/2")
Depth	353 mm (13-7/8")
Weight:	
Unit alone	10.5 kg (23.1 lbs)
Packed for Shipment	12.5 kg (27.5 lbs)

[FOR EUROPE]

AUDIO SECTION

POWER OUTPUT, DIN, 4 OHM, PER CHANNEL	129 W
POWER OUTPUT, FTC AMERICAN STANDARDS, 4 OHM, PER CHANNEL	88 W
TOTAL HARMONIC DISTORTION AT RATED POWER OUTPUT	0.06%
I.M. DISTORTION AT RATED POWER OUTPUT	
(250 Hz AND 8 KHz MIXED, AMPLITUDE RATIO 4:1)	0.06%
POWER OUTPUT, DIN, 8 OHM, PER CHANNEL	91 W
POWER OUTPUT, FTC AMERICAN STANDARDS, 8 OHM, PER CHANNEL	70 W
TOTAL HARMONIC DISTORTION AT RATED POWER OUTPUT	0.03%
I.M. DISTORTION AT RATED POWER OUTPUT	
(250 Hz AND 8 KHz MIXED, AMPLITUDE RATIO 4:1)	0.03%
POWER BANDWIDTH	10 Hz ~ 40 KHz
	(40 Hz) (1 KHz) (12.5 KHz)
DAMPING FACTOR 8 OHM	65 65 60

DAMPING FACTOR 8 OHM

Frequency Response	
Phone (RIAA)	\pm 0.5 dB
Aux (\pm 1 dB)	10 Hz ~ 40 KHz
Signal-to-Noise Ratio	
Phono	72 dB
Aux	80 dB

Input Terminals	
Phono: Input Impedance	47 k ohms
Input Capacitance	100 pF
Input Sensitivity	2.7 mV
Overload Margin	40 dB
Aux: Input Impedance	20 k ohms
Input Sensitivity	160 mV

Phono Equivalent Input Noise	1.2 μ V
Phono Dynamic Range (Ratio of input overload to equivalent input noise)	107 dB
Channel Balance (0 to -40 dB/40 Hz ~ 16 KHz)	
Phono	2.0 dB
Aux	1.5 dB
Interchannel Crosstalk	
Phono 1 KHz	35 dB
Aux 1 KHz	50 dB
Tape 1 KHz	50 dB
Intersource Crosstalk (Worst Point)	
1 KHz	50 dB
Output Voltage, 1 KHz	
Tape out	450 mV
Output Impedance, 1 KHz	
Tape Out	500 ohms
Headphone Jack Load Impedance	8 ohms

FM TUNER SECTION

Frequency Range	87.5 ~ 108 MHz
Usable Sensitivity 40 KHz Deviation, 98 MHz (75 ohms)	
Mono, S/N 26 dB	0.8 μ V
Stereo, S/N 46 dB	21 mV
Alternate Channel Selectivity, 98 MHz \pm 300 KHz	70 dB
Image Response Rejection, 98 MHz	60 dB
I.F. Rejection, 98 MHz	100 dB
Spurious Response Rejection, 98 MHz	98 dB
AM Suppression, 98 MHz	60 dB

Signal-to-Noise Ratio, 98 MHz

Unweighted: Mono	72 dB
Stereo	65 dB
Weighted: Mono	62 dB
Stereo	55 dB
Pilot Signal & Subcarrier Rejection	
19 kHz	65 dB
38 kHz	70 dB
Total Harmonic Distortion, 98 MHz	
Mono	0.08%
Stereo	0.15%
Frequency Response	
30 Hz ~ 15 kHz	+0.3 dB, -1.0 dB
Separation	
Stereo	48 dB
Channel Balance	0.5 dB
Output Voltage, 1 kHz	600 mV
Output Impedance, 1 kHz	1 k ohms
Acceptable Load Impedance, 1 kHz	47 k ohms
Antenna Terminals	
Balanced	300 ohms
Unbalanced	75 ohms

AM TUNER SECTION

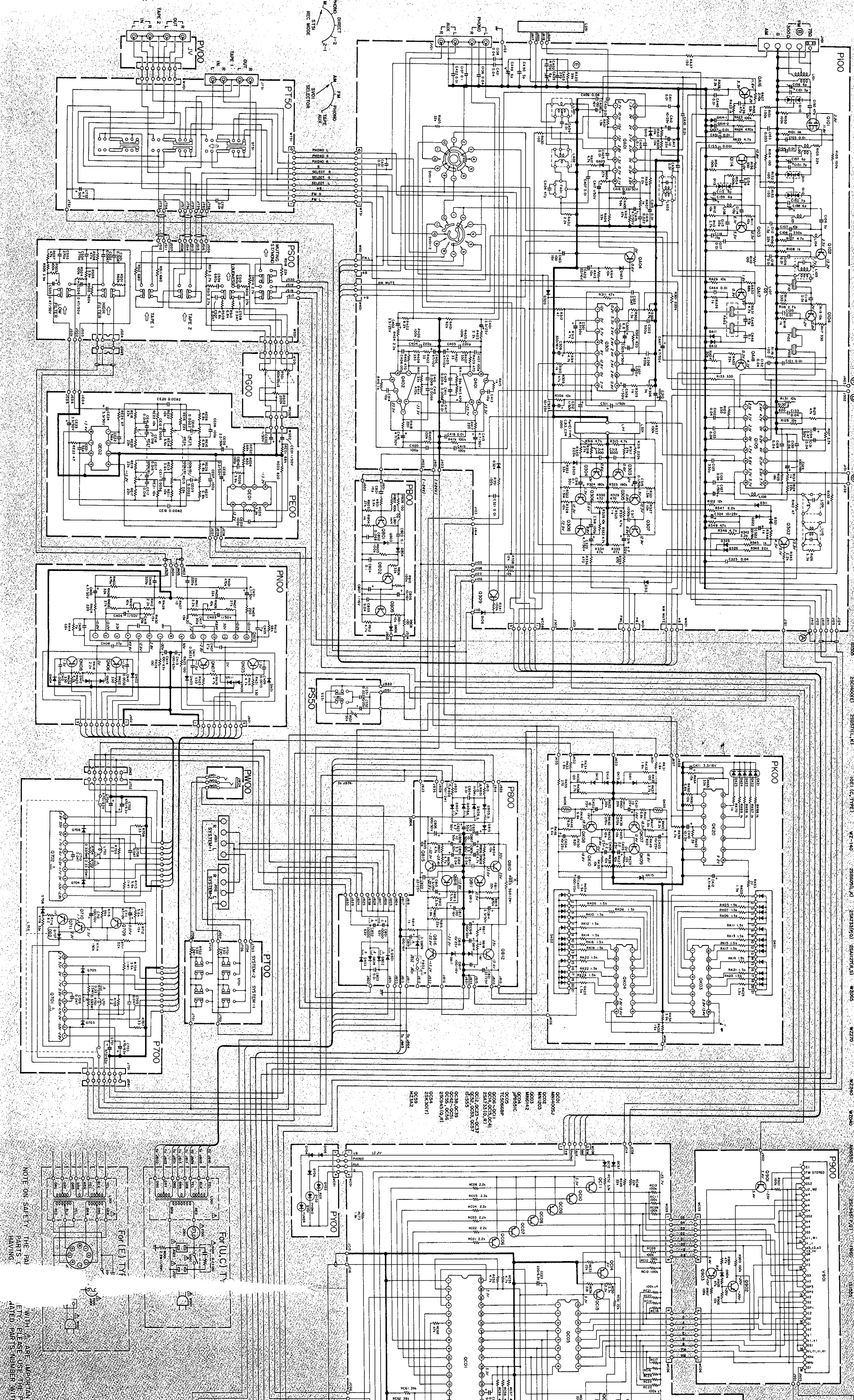
Frequency Range	515 ~ 1650 kHz
Usable Sensitivity (26 dB S/N 30% Mod., 1 MHz)	15 μ V
Selectivity, 1 MHz \pm 9 kHz	46 dB
Image Rejection, 1 MHz	50 dB
IF Rejection, 1 MHz	45 dB
Spurious Response Rejection, 1 MHz	60 dB
Signal-to-Noise Ratio, 1 MHz	55 dB
Frequency Response, 1 MHz \pm 3 dB	35 Hz ~ 1.8 kHz
Total Harmonic Distortion, 1 MHz	0.5%

GENERAL

Power Requirements	220 V AC, 50 Hz
(N version is featuring an external voltage selector for use on 110/120/240 V.)	
Power Consumption at Rated Output, Both Channels Operating	300 W
Other versions can be converted by a qualified technician to operate on 110/120/240 V.)	
Idle Power	32 W
Semiconductor Complement	
Integrated Circuits	12
Transistors	29
Diodes	39
Field Effect Transistors	1
Dimensions	
Panel Width	18-3/8" (466 mm)
Panel Height	5-1/2" (140 mm)
Depth	13-7/8" (353 mm)
Weight	
Unit alone	23.1 lbs (10.5 kg)
Packed for shipment	27.5 lbs (12.5 kg)

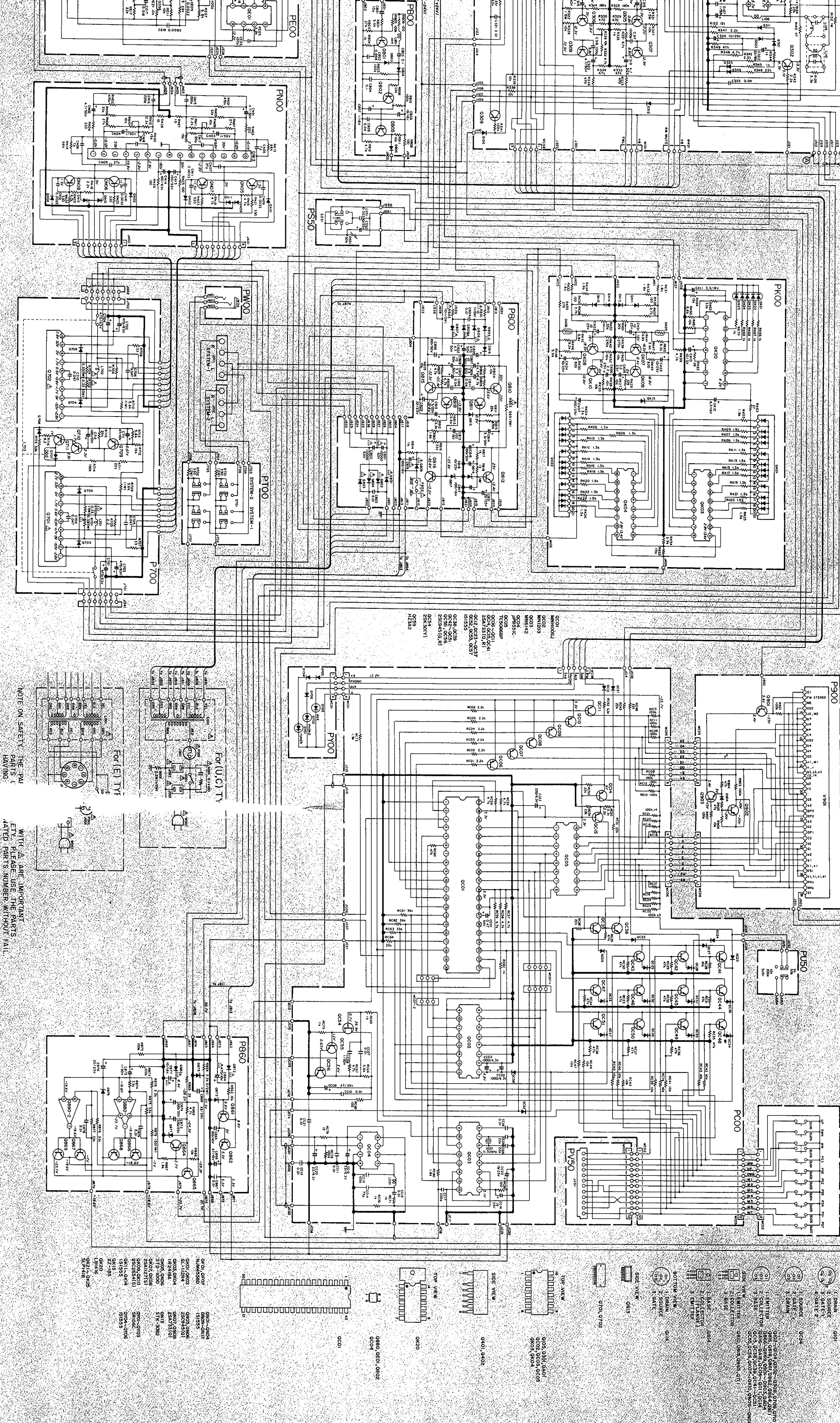
SCHEMATIC DIAGRAM

0101	0102	0103	0104	0105	0106	0107	0108	0109	0110	0111	0112	0113	0114	0115	0116	0117	0118	0119	0120	0121	0122	0123	0124	0125	0126	0127	0128	0129	0130	0131	0132	0133	0134	0135	0136	0137	0138	0139	0140	0141	0142	0143	0144	0145	0146	0147	0148	0149	0150	0151	0152	0153	0154	0155	0156	0157	0158	0159	0160	0161	0162	0163	0164	0165	0166	0167	0168	0169	0170	0171	0172	0173	0174	0175	0176	0177	0178	0179	0180	0181	0182	0183	0184	0185	0186	0187	0188	0189	0190	0191	0192	0193	0194	0195	0196	0197	0198	0199	0200
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NOTE: ON SAFETY THE PARTS ARE IMPORTANT. PLEASE USE THE PARTS LISTED PARTS NUMBER WITHOUT FAULT.

- Q300-Q306 Q307-Q308 Q309 Q40-Q42 Q43-Q45 Q46-Q48 Q49-Q51 Q52-Q54 Q55-Q57 Q58-Q60 Q61-Q63 Q64-Q66 Q67-Q69 Q70-Q72 Q73-Q75 Q76-Q78 Q79-Q81 Q82-Q84 Q85-Q87 Q88-Q90 Q91-Q93 Q94-Q96 Q97-Q99 Q100-Q102 Q103-Q105 Q106-Q108 Q109-Q111 Q112-Q114 Q115-Q117 Q118-Q120 Q121-Q123 Q124-Q126 Q127-Q129 Q130-Q132 Q133-Q135 Q136-Q138 Q139-Q141 Q142-Q144 Q145-Q147 Q148-Q150 Q151-Q153 Q154-Q156 Q157-Q159 Q160-Q162 Q163-Q165 Q166-Q168 Q169-Q171 Q172-Q174 Q175-Q177 Q178-Q180 Q181-Q183 Q184-Q186 Q187-Q189 Q190-Q192 Q193-Q195 Q196-Q198 Q199-Q201 Q202-Q204 Q205-Q207 Q208-Q210 Q211-Q213 Q214-Q216 Q217-Q219 Q220-Q222 Q223-Q225 Q226-Q228 Q229-Q231 Q232-Q234 Q235-Q237 Q238-Q240 Q241-Q243 Q244-Q246 Q247-Q249 Q250-Q252 Q253-Q255 Q256-Q258 Q259-Q261 Q262-Q264 Q265-Q267 Q268-Q270 Q271-Q273 Q274-Q276 Q277-Q279 Q280-Q282 Q283-Q285 Q286-Q288 Q289-Q291 Q292-Q294 Q295-Q297 Q298-Q300 Q301-Q303 Q304-Q306 Q307-Q309 Q310-Q312 Q313-Q315 Q316-Q318 Q319-Q321 Q322-Q324 Q325-Q327 Q328-Q330 Q331-Q333 Q334-Q336 Q337-Q339 Q340-Q342 Q343-Q345 Q346-Q348 Q349-Q351 Q352-Q354 Q355-Q357 Q358-Q360 Q361-Q363 Q364-Q366 Q367-Q369 Q370-Q372 Q373-Q375 Q376-Q378 Q379-Q381 Q382-Q384 Q385-Q387 Q388-Q390 Q391-Q393 Q394-Q396 Q397-Q399 Q400-Q402 Q403-Q405 Q406-Q408 Q409-Q411 Q412-Q414 Q415-Q417 Q418-Q420 Q421-Q423 Q424-Q426 Q427-Q429 Q430-Q432 Q433-Q435 Q436-Q438 Q439-Q441 Q442-Q444 Q445-Q447 Q448-Q450 Q451-Q453 Q454-Q456 Q457-Q459 Q460-Q462 Q463-Q465 Q466-Q468 Q469-Q471 Q472-Q474 Q475-Q477 Q478-Q480 Q481-Q483 Q484-Q486 Q487-Q489 Q490-Q492 Q493-Q495 Q496-Q498 Q499-Q501 Q502-Q504 Q505-Q507 Q508-Q510 Q511-Q513 Q514-Q516 Q517-Q519 Q520-Q522 Q523-Q525 Q526-Q528 Q529-Q531 Q532-Q534 Q535-Q537 Q538-Q540 Q541-Q543 Q544-Q546 Q547-Q549 Q550-Q552 Q553-Q555 Q556-Q558 Q559-Q561 Q562-Q564 Q565-Q567 Q568-Q570 Q571-Q573 Q574-Q576 Q577-Q579 Q580-Q582 Q583-Q585 Q586-Q588 Q589-Q591 Q592-Q594 Q595-Q597 Q598-Q600 Q601-Q603 Q604-Q606 Q607-Q609 Q610-Q612 Q613-Q615 Q616-Q618 Q619-Q621 Q622-Q624 Q625-Q627 Q628-Q630 Q631-Q633 Q634-Q636 Q637-Q639 Q640-Q642 Q643-Q645 Q646-Q648 Q649-Q651 Q652-Q654 Q655-Q657 Q658-Q660 Q661-Q663 Q664-Q666 Q667-Q669 Q670-Q672 Q673-Q675 Q676-Q678 Q679-Q681 Q682-Q684 Q685-Q687 Q688-Q690 Q691-Q693 Q694-Q696 Q697-Q699 Q700-Q702 Q703-Q705 Q706-Q708 Q709-Q711 Q712-Q714 Q715-Q717 Q718-Q720 Q721-Q723 Q724-Q726 Q727-Q729 Q730-Q732 Q733-Q735 Q736-Q738 Q739-Q741 Q742-Q744 Q745-Q747 Q748-Q750 Q751-Q753 Q754-Q756 Q757-Q759 Q760-Q762 Q763-Q765 Q766-Q768 Q769-Q771 Q772-Q774 Q775-Q777 Q778-Q780 Q781-Q783 Q784-Q786 Q787-Q789 Q790-Q792 Q793-Q795 Q796-Q798 Q799-Q801 Q802-Q804 Q805-Q807 Q808-Q810 Q811-Q813 Q814-Q816 Q817-Q819 Q820-Q822 Q823-Q825 Q826-Q828 Q829-Q831 Q832-Q834 Q835-Q837 Q838-Q840 Q841-Q843 Q844-Q846 Q847-Q849 Q850-Q852 Q853-Q855 Q856-Q858 Q859-Q861 Q862-Q864 Q865-Q867 Q868-Q870 Q871-Q873 Q874-Q876 Q877-Q879 Q880-Q882 Q883-Q885 Q886-Q888 Q889-Q891 Q892-Q894 Q895-Q897 Q898-Q899 Q900-Q902 Q903-Q905 Q906-Q908 Q909-Q911 Q912-Q914 Q915-Q917 Q918-Q920 Q921-Q923 Q924-Q926 Q927-Q929 Q930-Q932 Q933-Q935 Q936-Q938 Q939-Q941 Q942-Q944 Q945-Q947 Q948-Q950 Q951-Q953 Q954-Q956 Q957-Q959 Q960-Q962 Q963-Q965 Q966-Q968 Q969-Q971 Q972-Q974 Q975-Q977 Q978-Q980 Q981-Q983 Q984-Q986 Q987-Q989 Q990-Q992 Q993-Q995 Q996-Q998 Q999-Q1000



NOTE ON SAFETY: THE PA PARTS (HAVING WITH A ARE IMPORTANT ETC.). PLEASE USE THE PARTS (HAVING WITH A) AND PARTS NUMBER WITHOUT FAIL.

- Q101-Q102 Q103-Q104 Q105-Q106 Q107-Q108 Q109-Q110 Q111-Q112 Q113-Q114 Q115-Q116 Q117-Q118 Q119-Q120 Q121-Q122 Q123-Q124 Q125-Q126 Q127-Q128 Q129-Q130 Q131-Q132 Q133-Q134 Q135-Q136 Q137-Q138 Q139-Q140 Q141-Q142 Q143-Q144 Q145-Q146 Q147-Q148 Q149-Q150 Q151-Q152 Q153-Q154 Q155-Q156 Q157-Q158 Q159-Q160 Q161-Q162 Q163-Q164 Q165-Q166 Q167-Q168 Q169-Q170 Q171-Q172 Q173-Q174 Q175-Q176 Q177-Q178 Q179-Q180 Q181-Q182 Q183-Q184 Q185-Q186 Q187-Q188 Q189-Q190 Q191-Q192 Q193-Q194 Q195-Q196 Q197-Q198 Q199-Q200 Q201-Q202 Q203-Q204 Q205-Q206 Q207-Q208 Q209-Q210 Q211-Q212 Q213-Q214 Q215-Q216 Q217-Q218 Q219-Q220 Q221-Q222 Q223-Q224 Q225-Q226 Q227-Q228 Q229-Q230 Q231-Q232 Q233-Q234 Q235-Q236 Q237-Q238 Q239-Q240 Q241-Q242 Q243-Q244 Q245-Q246 Q247-Q248 Q249-Q250 Q251-Q252 Q253-Q254 Q255-Q256 Q257-Q258 Q259-Q260 Q261-Q262 Q263-Q264 Q265-Q266 Q267-Q268 Q269-Q270 Q271-Q272 Q273-Q274 Q275-Q276 Q277-Q278 Q279-Q280 Q281-Q282 Q283-Q284 Q285-Q286 Q287-Q288 Q289-Q290 Q291-Q292 Q293-Q294 Q295-Q296 Q297-Q298 Q299-Q300 Q301-Q302 Q303-Q304 Q305-Q306 Q307-Q308 Q309-Q310 Q311-Q312 Q313-Q314 Q315-Q316 Q317-Q318 Q319-Q320 Q321-Q322 Q323-Q324 Q325-Q326 Q327-Q328 Q329-Q330 Q331-Q332 Q333-Q334 Q335-Q336 Q337-Q338 Q339-Q340 Q341-Q342 Q343-Q344 Q345-Q346 Q347-Q348 Q349-Q350 Q351-Q352 Q353-Q354 Q355-Q356 Q357-Q358 Q359-Q360 Q361-Q362 Q363-Q364 Q365-Q366 Q367-Q368 Q369-Q370 Q371-Q372 Q373-Q374 Q375-Q376 Q377-Q378 Q379-Q380 Q381-Q382 Q383-Q384 Q385-Q386 Q387-Q388 Q389-Q390 Q391-Q392 Q393-Q394 Q395-Q396 Q397-Q398 Q399-Q400 Q401-Q402 Q403-Q404 Q405-Q406 Q407-Q408 Q409-Q410 Q411-Q412 Q413-Q414 Q415-Q416 Q417-Q418 Q419-Q420 Q421-Q422 Q423-Q424 Q425-Q426 Q427-Q428 Q429-Q430 Q431-Q432 Q433-Q434 Q435-Q436 Q437-Q438 Q439-Q440 Q441-Q442 Q443-Q444 Q445-Q446 Q447-Q448 Q449-Q450 Q451-Q452 Q453-Q454 Q455-Q456 Q457-Q458 Q459-Q460 Q461-Q462 Q463-Q464 Q465-Q466 Q467-Q468 Q469-Q470 Q471-Q472 Q473-Q474 Q475-Q476 Q477-Q478 Q479-Q480 Q481-Q482 Q483-Q484 Q485-Q486 Q487-Q488 Q489-Q490 Q491-Q492 Q493-Q494 Q495-Q496 Q497-Q498 Q499-Q500 Q501-Q502 Q503-Q504 Q505-Q506 Q507-Q508 Q509-Q510 Q511-Q512 Q513-Q514 Q515-Q516 Q517-Q518 Q519-Q520 Q521-Q522 Q523-Q524 Q525-Q526 Q527-Q528 Q529-Q530 Q531-Q532 Q533-Q534 Q535-Q536 Q537-Q538 Q539-Q540 Q541-Q542 Q543-Q544 Q545-Q546 Q547-Q548 Q549-Q550 Q551-Q552 Q553-Q554 Q555-Q556 Q557-Q558 Q559-Q560 Q561-Q562 Q563-Q564 Q565-Q566 Q567-Q568 Q569-Q570 Q571-Q572 Q573-Q574 Q575-Q576 Q577-Q578 Q579-Q580 Q581-Q582 Q583-Q584 Q585-Q586 Q587-Q588 Q589-Q590 Q591-Q592 Q593-Q594 Q595-Q596 Q597-Q598 Q599-Q600 Q601-Q602 Q603-Q604 Q605-Q606 Q607-Q608 Q609-Q610 Q611-Q612 Q613-Q614 Q615-Q616 Q617-Q618 Q619-Q620 Q621-Q622 Q623-Q624 Q625-Q626 Q627-Q628 Q629-Q630 Q631-Q632 Q633-Q634 Q635-Q636 Q637-Q638 Q639-Q640 Q641-Q642 Q643-Q644 Q645-Q646 Q647-Q648 Q649-Q650 Q651-Q652 Q653-Q654 Q655-Q656 Q657-Q658 Q659-Q660 Q661-Q662 Q663-Q664 Q665-Q666 Q667-Q668 Q669-Q670 Q671-Q672 Q673-Q674 Q675-Q676 Q677-Q678 Q679-Q680 Q681-Q682 Q683-Q684 Q685-Q686 Q687-Q688 Q689-Q690 Q691-Q692 Q693-Q694 Q695-Q696 Q697-Q698 Q699-Q700 Q701-Q702 Q703-Q704 Q705-Q706 Q707-Q708 Q709-Q710 Q711-Q712 Q713-Q714 Q715-Q716 Q717-Q718 Q719-Q720 Q721-Q722 Q723-Q724 Q725-Q726 Q727-Q728 Q729-Q730 Q731-Q732 Q733-Q734 Q735-Q736 Q737-Q738 Q739-Q740 Q741-Q742 Q743-Q744 Q745-Q746 Q747-Q748 Q749-Q750 Q751-Q752 Q753-Q754 Q755-Q756 Q757-Q758 Q759-Q760 Q761-Q762 Q763-Q764 Q765-Q766 Q767-Q768 Q769-Q770 Q771-Q772 Q773-Q774 Q775-Q776 Q777-Q778 Q779-Q780 Q781-Q782 Q783-Q784 Q785-Q786 Q787-Q788 Q789-Q790 Q791-Q792 Q793-Q794 Q795-Q796 Q797-Q798 Q799-Q800 Q801-Q802 Q803-Q804 Q805-Q806 Q807-Q808 Q809-Q810 Q811-Q812 Q813-Q814 Q815-Q816 Q817-Q818 Q819-Q820 Q821-Q822 Q823-Q824 Q825-Q826 Q827-Q828 Q829-Q830 Q831-Q832 Q833-Q834 Q835-Q836 Q837-Q838 Q839-Q840 Q841-Q842 Q843-Q844 Q845-Q846 Q847-Q848 Q849-Q850 Q851-Q852 Q853-Q854 Q855-Q856 Q857-Q858 Q859-Q860 Q861-Q862 Q863-Q864 Q865-Q866 Q867-Q868 Q869-Q870 Q871-Q872 Q873-Q874 Q875-Q876 Q877-Q878 Q879-Q880 Q881-Q882 Q883-Q884 Q885-Q886 Q887-Q888 Q889-Q890 Q891-Q892 Q893-Q894 Q895-Q896 Q897-Q898 Q899-Q900 Q901-Q902 Q903-Q904 Q905-Q906 Q907-Q908 Q909-Q910 Q911-Q912 Q913-Q914 Q915-Q916 Q917-Q918 Q919-Q920 Q921-Q922 Q923-Q924 Q925-Q926 Q927-Q928 Q929-Q930 Q931-Q932 Q933-Q934 Q935-Q936 Q937-Q938 Q939-Q940 Q941-Q942 Q943-Q944 Q945-Q946 Q947-Q948 Q949-Q950 Q951-Q952 Q953-Q954 Q955-Q956 Q957-Q958 Q959-Q960 Q961-Q962 Q963-Q964 Q965-Q966 Q967-Q968 Q969-Q970 Q971-Q972 Q973-Q974 Q975-Q976 Q977-Q978 Q979-Q980 Q981-Q982 Q983-Q984 Q985-Q986 Q987-Q988 Q989-Q990 Q991-Q992 Q993-Q994 Q995-Q996 Q997-Q998 Q999-Q1000