

# Service Manual

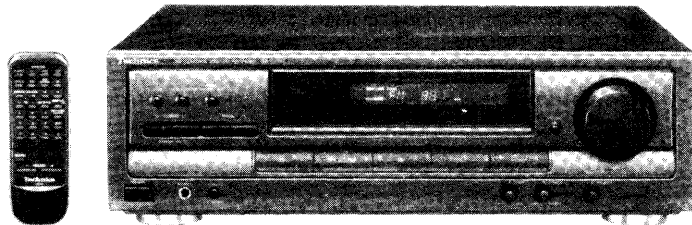
AV Control Stereo Receiver

Receiver

## SA-EX110

Colour

(K) . . . . . Black Type



Area

Suffix for Model No.	Area	Colour
(P)	U.S.A.	(K)
(PC)	Canada	(K)

### ■ Specifications

#### ■ FM Tuner Section

Frequency range	87.9 — 107.9MHz
Sensitivity	11.2dBf (2μV, IHF '58)
50dB quieting Sensitivity	
MONO	18.3dBf (4.5μV, IHF '58)
STEREO	38.3dBf (45μV, IHF '58)
Total harmonic distortion	
MONO	0.2%
STEREO	0.3%
S/N	
MONO	75dB
STEREO	70dB
Frequency response	20Hz — 15 kHz (+1dB, -2dB)
Alternate channel selectivity	65dB
Capture ratio	1dB
Image rejection at 98MHz	44dB
IF rejection at 98MHz	80dB
Spurious response rejection at 98MHz	75dB
AM suppression	50dB
Stereo separation	
1 kHz	40dB
10kHz	30dB
Carrier leak	
19kHz	-35dB
38kHz	-50dB
Antenna terminal(s)	75Ω (unbalanced)

#### ■ AM Tuner Section

Frequency range	530 — 1710kHz
Sensitivity	20μV, 330μV/m
Selectivity	55dB
Image rejection at 1000kHz	40 dB
IF rejection at 1000kHz	60dB

#### ■ Amplifier Section

Rated minimum sine wave RMS power output	
40 Hz-20 kHz both channels driven	
0.8% total harmonic distortion	100W per channel (8Ω)
1 kHz continuous power output, both channels driven 0.8% total harmonic distortion	103W per channel (8Ω)
Total harmonic distortion	
Rate power at 40 Hz — 20kHz	0.8% (8Ω)
Half power at 1 kHz	0.07% (8Ω)
Dynamic headroom	2dB (8Ω)
SMPTE intermodulation distortion	0.3% (8Ω)
Low frequency damping factor	30 (8Ω)
Low impedance	8Ω
Frequency response	RIAA standard curve ± 0.8dB
PHONO	10Hz — 70kHz, ± 3dB
CD, VCR, TV, TAPE	
Input sensitivity	
PHONO	0.4mV (3mV, IHF '66)
CD, VCR, TV, TAPE	27mV (200mV, IHF '66)
S/N (IHF A)	
PHONO	70dB (78dB, IHF '66)
CD, VCR, TV, TAPE	75dB (83dB, IHF '66)
Input impedance	
PHONO	47kΩ
CD, VCR, TV, TAPE	22kΩ
Tone control	
BRASS	50Hz, +10 to -10dB
TREBLE	20kHz, +10 to -10dB

#### ■ General

Power consumption	155W (standby condition : 2W)
Power supply	AC 120V, 60Hz
Dimensions (W x H x D)	430 x 136 x 309mm (16 <sup>15</sup> / <sub>16</sub> " x 5 <sup>11</sup> / <sub>32</sub> " x 12 <sup>5</sup> / <sub>32</sub> " )
Weight	6.4 kg (14.1 lb.)

#### Notes :

- Specifications are subject to change without notice. Weight and dimensions are approximate.
- Total harmonic distortion is measured by the digital spectrum analyzer.

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# Technics®

**⚠ WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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**■ Safety Precautions** ( This "Safety Precaution" is applied only in U.S.A.)

1. Before servicing, unplug the power cord to prevent an electric shock .
2. When replacing parts, use only manufacturer's recommended components for safety .
3. Check the condition of the power cord. Replace if wear or damage is evident .
4. After servicing ,be sure to restore the lead dress, insulation barriers ,insulation papers ,shields ,etc .
5. Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard .

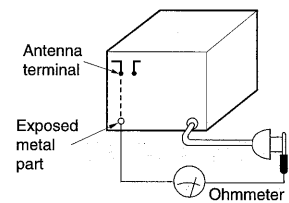


Fig. 1

Resistance =  $3M\Omega - 5.2M\Omega$ **• Insulation Resistance Test**

1. Unplug the power cord and short the two prongs of the plug with a jumper wire .
2. Turn on the power switch .
3. Measure the resistance value with ohmmeter between the jumper AC plug and each exposed metal cabinet part ,such as screwheads, antenna ,control shafts ,handle brackets , etc . Equipment with antenna terminals should read between  $3M\Omega$  and  $5.2M\Omega$  to all exposed parts\* .(Fig. 1 ) Equipment without antenna terminals should read approximately infinity to all exposed parts . (Fig. 2 )  
\*Note :Some exposed parts may be isolated from the chassis by design. These will read infinity .
4. If the measurement is outside the specified limits ,there is a possibility of a shock hazard .The equipment should be repaired and rechecked before it is returned to the customer .

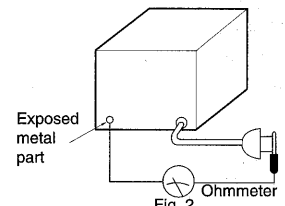


Fig. 2

Resistance = Approx  $\infty$ **■ Before Repair and Adjustment**

Disconnect AC power, discharge four Power Supply Capacitors (C703 to C706) through a  $10\Omega$ , 5W resistor to ground. DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may destroy solid state devices. After repairs are completed, restore power gradually using a variac, to avoid overcurrent. Current consumption at 120V, 50 Hz in NO SIGNAL mode should be less than 1000mA.

**■ Protection Circuitry**

The protection circuitry may have operated if either of the following conditions are noticed:

- No sound is heard when the power is turned on.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of the amplifier are used. If this occurs, follow the procedure outlines below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

**Note:**

When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

## ■ Operation Checks and Main Component Replacement Procedures

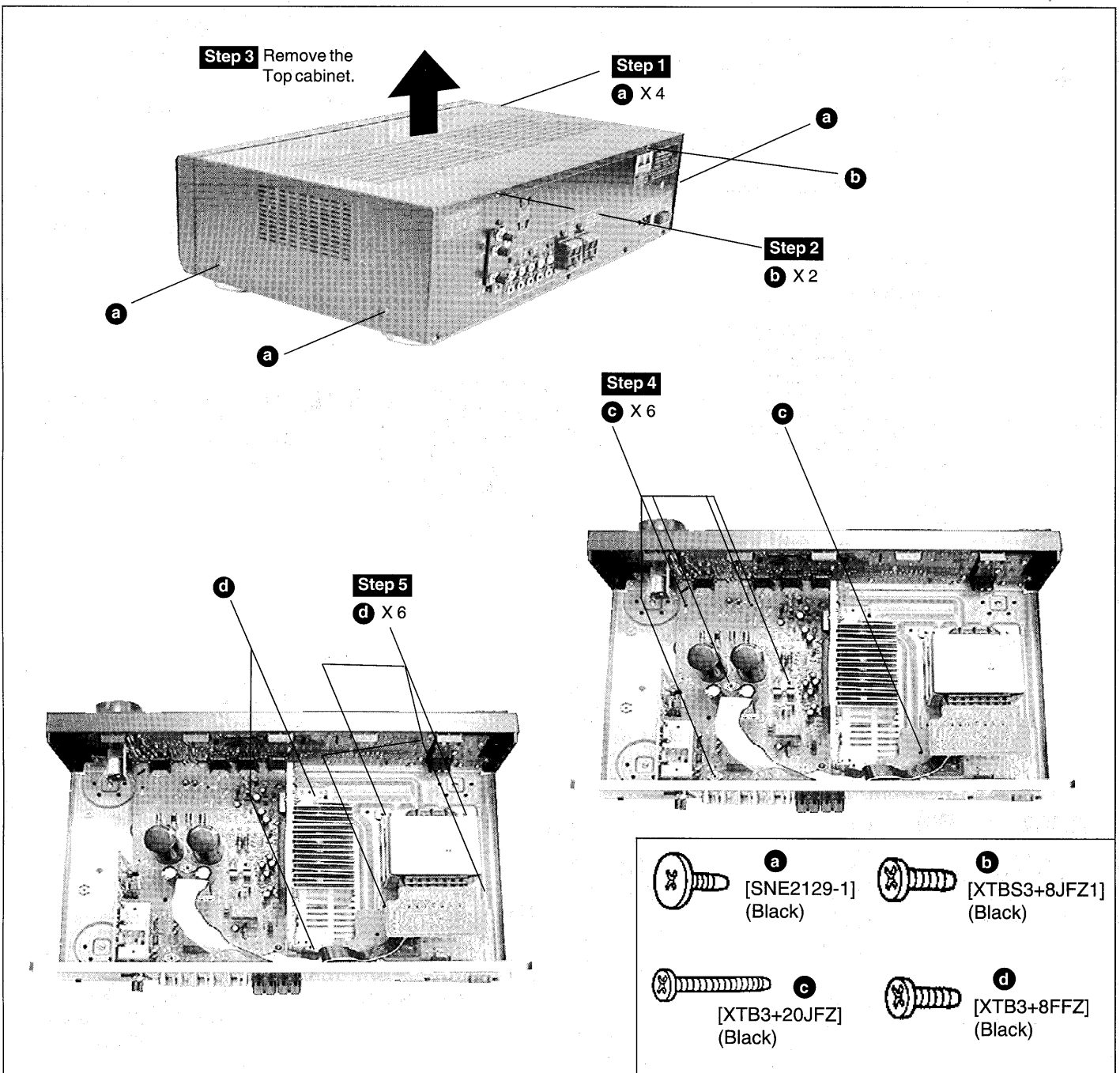
**"ATTENTION SERVICER"** Some chassis components may have sharpe edges. Be careful when disassembling and serving.

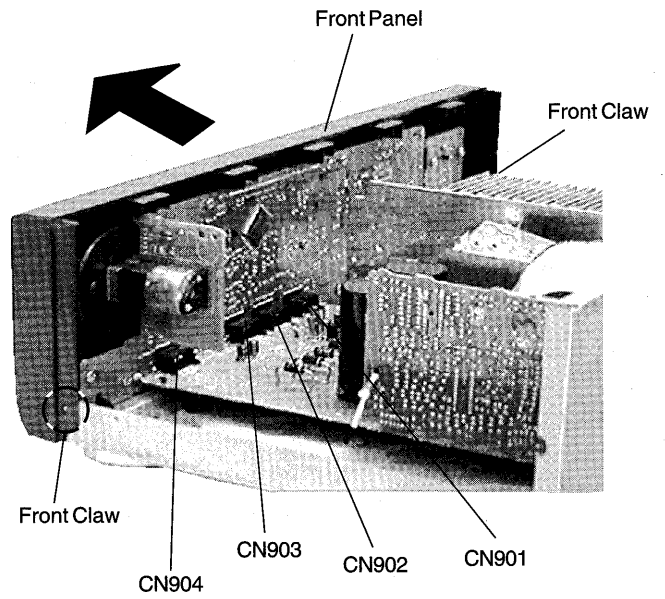
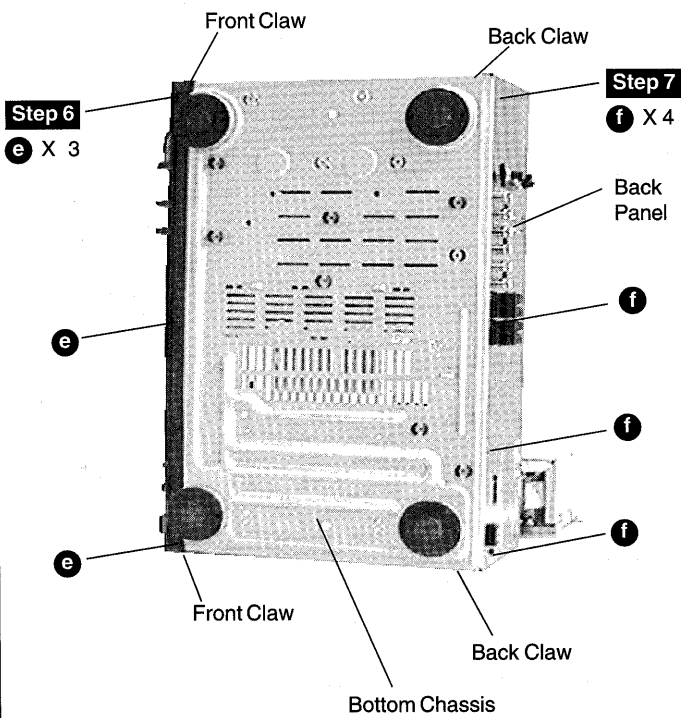
1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures.  
Special reassembly procedures are described only when required.
3. Select items from the following index when checks or replacement are required.

• **Contents**

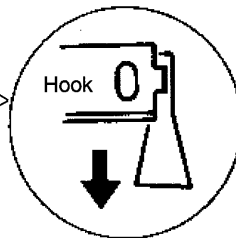
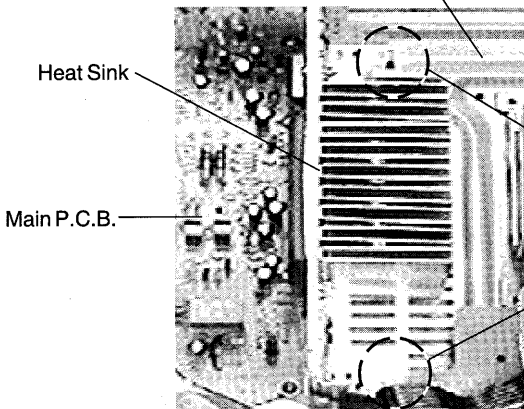
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• Replacement of Power IC and Regulator Transistor .....	5 ~ 6

### ■ Checking Procedure for Major P.C.B.

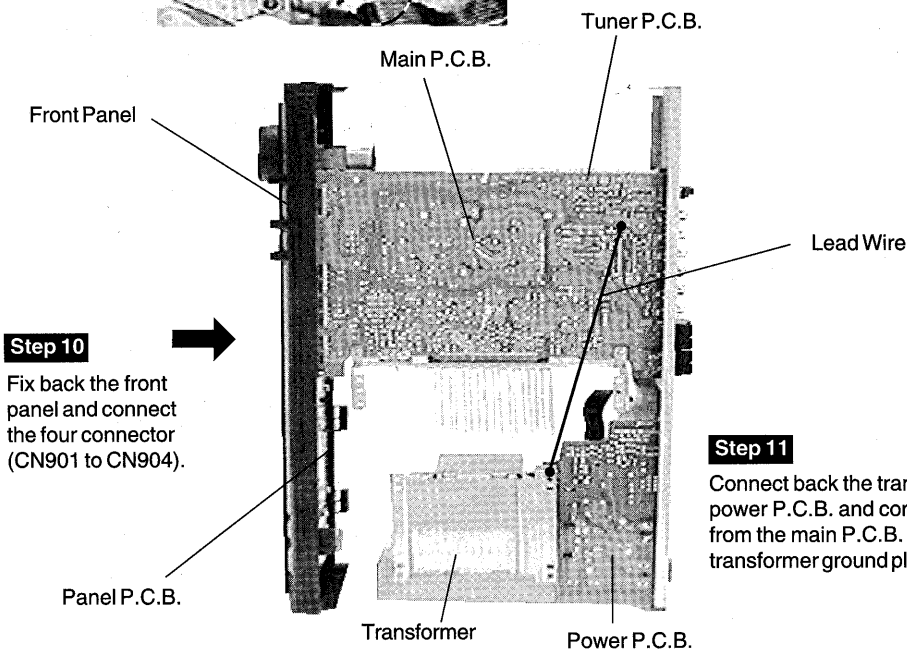




**Step 8** Release the two front claws and pull out the front panel as shown above. Take note of the connectors as you remove the front panel. (CN901 to CN904)



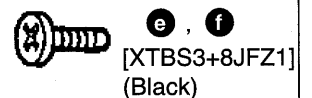
**Step 9** Release the two back claws and the hooks of the heat sink. Slide out the bottom chassis from the main P.C.B. and the back panel.



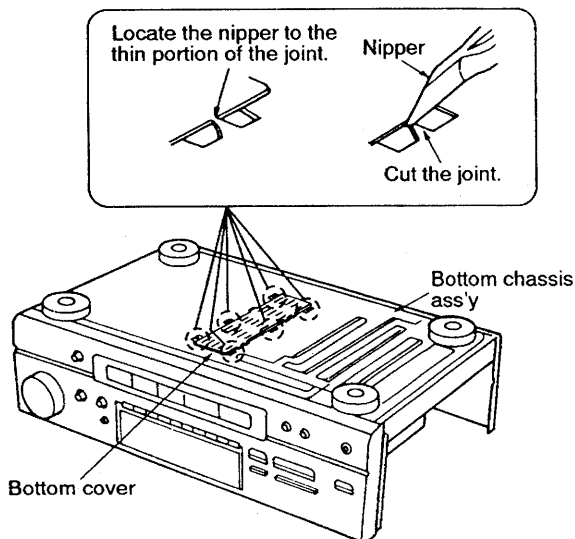
**Step 10**  
Fix back the front panel and connect the four connector (CN901 to CN904).

**Step 11**  
Connect back the transformer to the power P.C.B. and connect a lead wire from the main P.C.B. ground to the transformer ground plate.

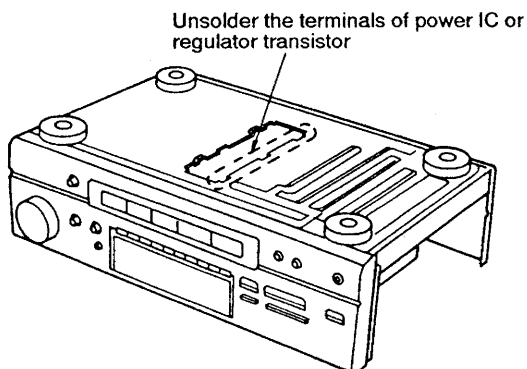
**Step 12**  
Check the Main P.C.B., Panel P.C.B., Tuner P.C.B. and the Power P.C.B. as shown on the left.



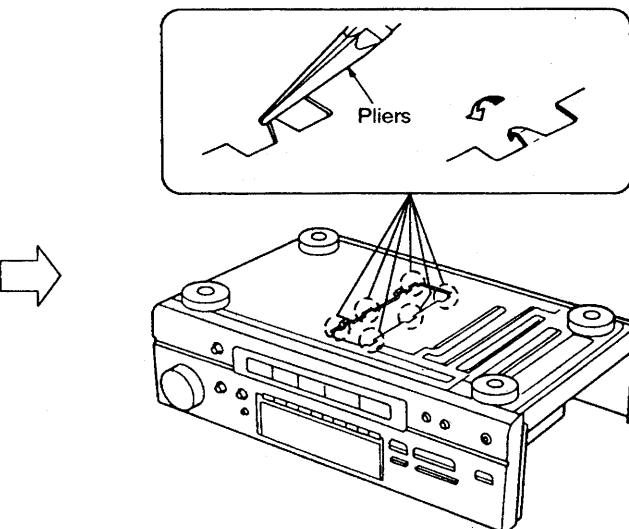
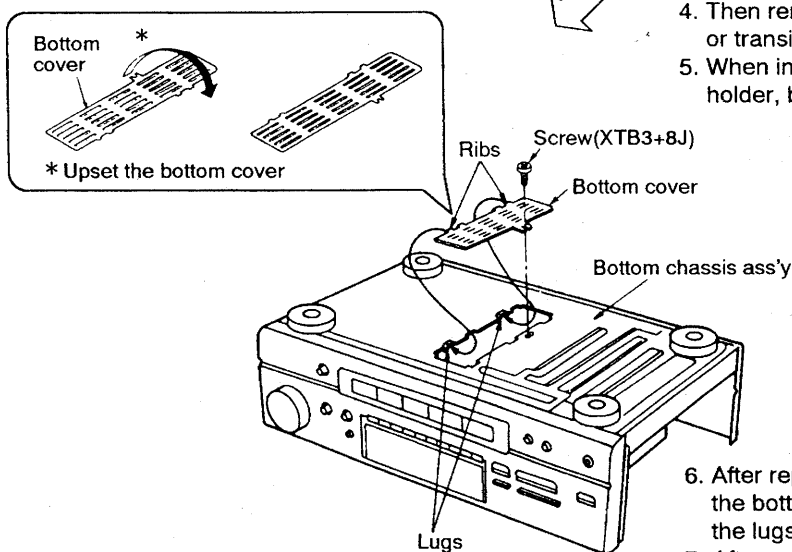
## ■ Replacement of Power IC and Regulator Transistor



1. Cut the joints(6 portions) between bottom cover and bottom chassis ass'y with nipper.



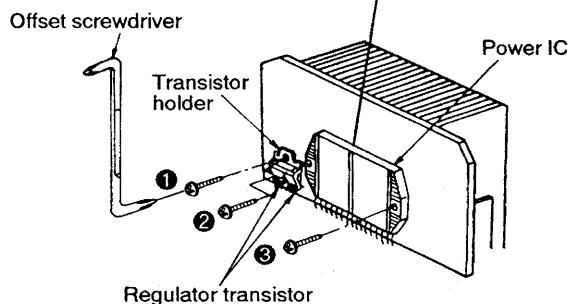
3. When replacing the power IC or regulator transistor, unsolder the terminals of power IC or regulator transistor on the soldered surface.



2. After cutting the joints(6 portions), bend the portions of the bottom chassis ass'y in the direction of arrow with pliers.

### CAUTION

- After replacing the power IC or regulator transistor, apply a sufficient quantity of compound grease (RFKX0002) between the heat sink and the power IC or regulator transistor. (Radiation of power IC & transistor)
- Tighten enough the screws ( ❶ ~ ❸ ) after replacing the power IC or regulator transistor. Otherwise, the heat radiation works little.

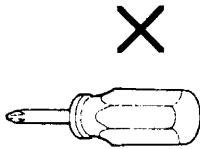


4. Then remove the 3 screws ( ❶ ~ ❸ ) fixed to the power IC or transistor holder.  
5. When installing or removing the power IC or transistor holder, be sure to use an offset screwdriver.

6. After replacing the power IC or regulator transistor, upset the bottom cover and align the ribs of the bottom cover to the lugs on the bottom chassis ass'y.  
7. After mounting the bottom cover on the bottom chassis ass'y, fix it with a screw(XTB3+8J).

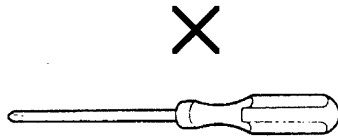
**CAUTION**

- A long straight screwdriver cannot be used for removing or mounting the screws since its long grip interferes with the neighbouring P.C.B. and transformer. (See Fig.1 & 3)
- A short straight screwdriver may be used for removal, but cannot be used for mounting because the limited space in the unit will not allow sufficient tightening torque. (See Fig.2 & 3)
- Insufficient tightening will cause poor heat dissipation from the power IC and regulator transistor and, in the worst case, may lead to their thermal breakdown.



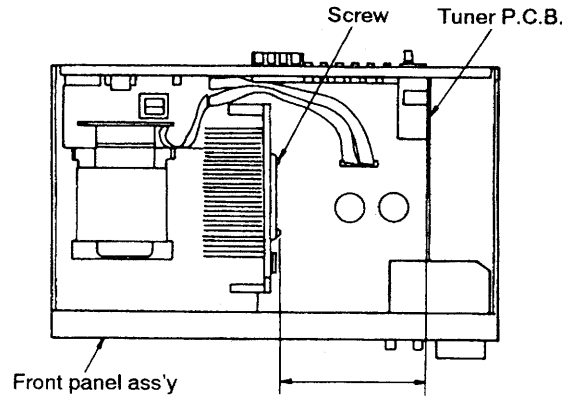
A short straight screwdriver

**Fig.2**



A long straight screwdriver

**Fig.1**

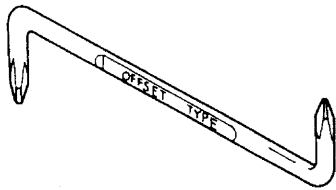


About 14cm  
(A long straight screwdriver cannot be used.)

**Fig.3**

—OFFSET SCREWDRIVER—

- The PROTO offset screwdriver No.34-1/4 is recommended for use in the application above.



No.		
34 1/4	1 & 2	4 3/4"

- The address of PROTO International Sales is as follows.



**International Sales**

International Sales Office  
Stanley-Proto Industrial Tools  
14117 Industrial Park Blvd.  
Covington, GA 30209 U.S.A.  
Fax: 706-786-4387  
Phone: 706-787-3800

Australia, New Zealand &  
South Pacific  
Stanley-Proto Industrial Tools  
P.O.Box 10  
400 Whitehorse Road  
Nunawading 3131  
Victoria, Australia  
Fax: 61-3-894-1173  
Phone: 61-3-878-9244

Singapore, Indonesia,  
Philippines, Korea, Hong  
Kong, Malaysia, China.  
Stanley-Proto Asia Pacific  
12 Gul Drive  
Singapore 2262  
Fax: 65-861-3206  
Phone: 65-862-0883

Thailand  
Stanley-Proto Thailand Ltd.  
1017 Moo 13 Bangkaew  
Amphur Bangplee  
Samutprakarn, Thailand  
Fax: 66-2-316-6071  
Phone: 66-2-316-8655

Japan  
Stanley Works Japan  
2-7-16 Hyakunin-Cho  
Shinjuku-ku  
Tokyo 160 Japan  
Fax: 81-3-3360-8456  
Phone: 81-3-3360-8458

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Apartado Postal 675  
72030 Puebla, Pue, Mexico  
Fax: 52-22-494-4880  
Phone: 52-22-495-300

South & Central America,  
Puerto Rico, The Caribbean  
Stanley Inter-America  
2101 N.W. 84th Ave.  
Miami, Florida 33122  
Fax: 305-594-4261  
Phone: 305-591-3828

Europe  
Stanley-Proto Europe  
Woodside, Sheffield  
539PD  
England  
Fax: 44-742-739-038  
Phone: 44-742-768-888

Canada  
Stanley-Proto Canada  
1100 Corporate Drive  
Burlington, Ontario  
Canada, L7L 5R6  
Fax: 416-335-0075  
Phone: 416-335-0075

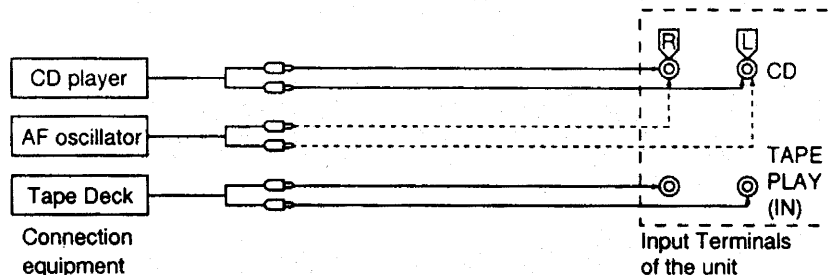
Middel East, Mediterranean  
& Africa  
Stanley-MEMA  
Cory House The Ring  
Bracknell Berkshire  
RG 12 1A2  
England  
Fax: 44-344-485-526  
Phone: 44-344-51813

## Troubleshooting

This unit has test points on each circuit board block for use in troubleshooting.

### CONNECTION

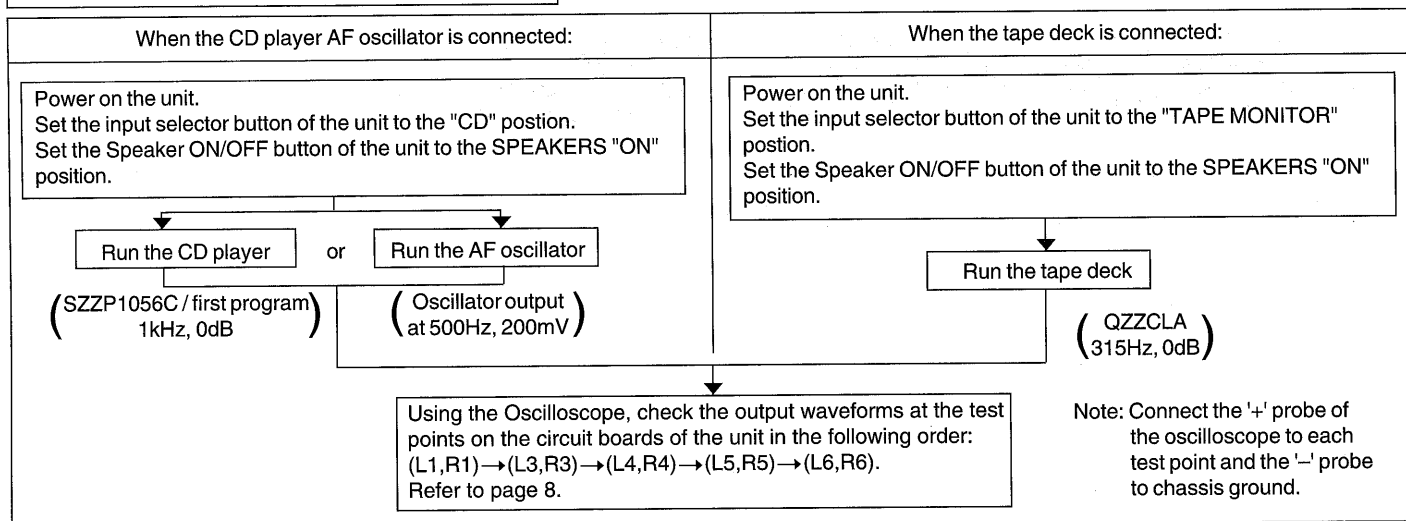
Connect either a CD player, tape deck or AF oscillator to the input terminals of the unit.



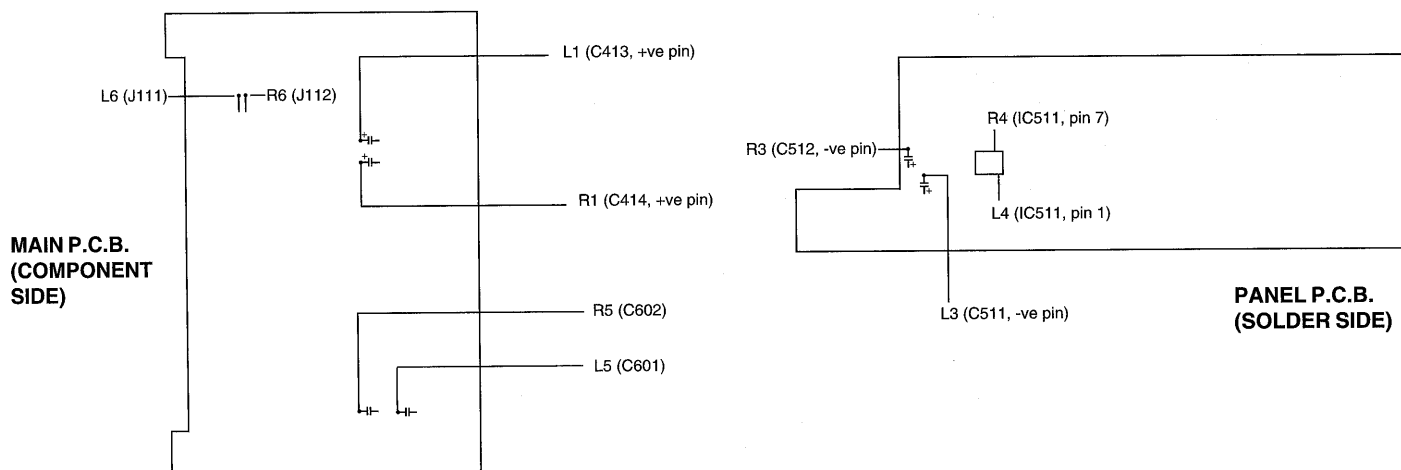
### REQUIRED ITEMS

1. Testing with a CD player ——— Test deck (SZZP1054C / first program, 1kHz, 0dB)
2. Testing with a tape deck ——— Test tape (QZZCLA / 315Hz, 0dB)
3. Testing with a AF oscillator ——— Set the output at 500Hz, 200mV
4. Oscilloscope (min. 10MHz) - - - - - To measure the output waveform at the test points.

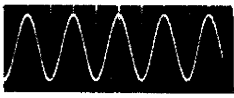
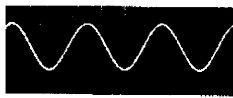

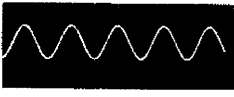
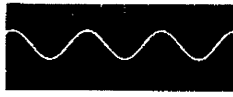

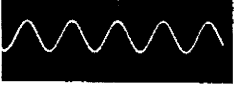
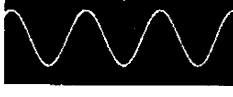
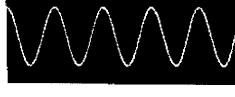
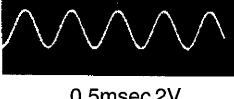
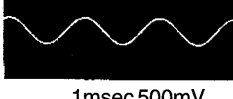
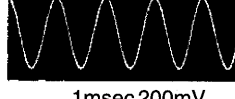

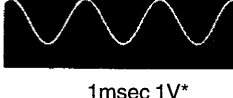
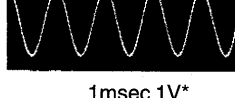
### TEST PROCEDURE FOR AMPLIFIER CIRCUIT





### TEST POINTS POSITIONS OF AMPLIFIER CIRCUIT

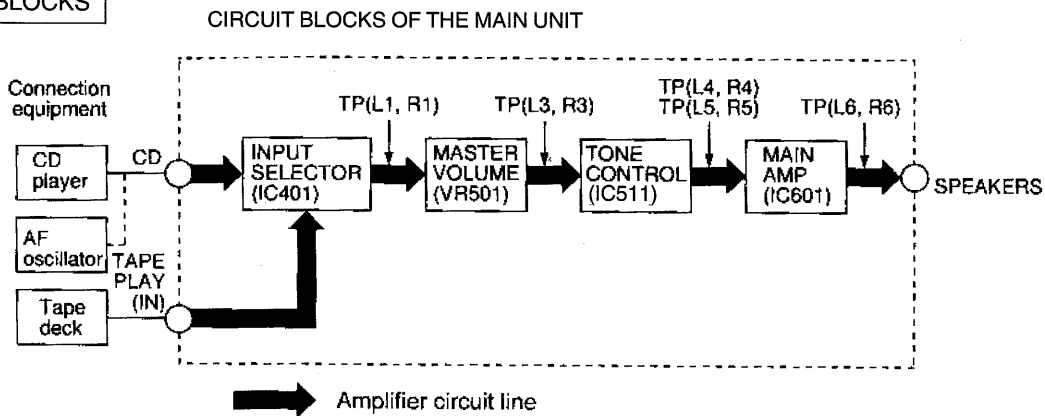


NORMAL WAVEFORMS OF AMPLIFIER CIRCUIT AND LIKELY FAULTY BLOCKS

TP	CD player	Tape deck	AF oscillator	Likely faulty block if the normal waveform shown at the left is not present.
L1/R1	 0.5msec 2V	 1msec 500mV	 1msec 500mV	Input selector block IC401 & area
L3/R3	 0.5msec 0.5mV	 1msec 100mV	 1msec 500mV	Master volume block VR501 & area
L4/R4	 0.5msec 5V	 1msec 500mV	 1msec 500mV	Tone control block IC511 & area
L5/R5	 0.5msec 2V	 1msec 500mV	 1msec 200mV	
L6/R6	 0.5msec 5V*	 1msec 1V*	 1msec 1V*	Main amplifier block IC601 & area

Measurement conditions. Volume control (VR501), Tremble control (VR512) and Bass control (VR511) positions :   
 \*Volume control position (VR501) for these test : 

CIRCUIT BLOCKS





## Terminal Functions Of ICs

• IC901 (UPD78043A054) System Microprocessor

Pin No.	Mark	I/O	Function
1~7	D4~D10	O	Digit signal of FL display
8	VDD	I	Power supply terminal
9	SUR/OSD_CK	-	Not used
10	SUR/OSD_DT	-	Not used
11	VIDEO_DET	-	Not used
12	SUR_CE	-	Not used
13	VOL_UP	O	Rotate control terminal of
14	VOL_DWN	O	volume motor
15	LOUDNESS	-	Not used
16	FM_STEREO	I	Stereo signal detect terminal
17	RESET	I	Reset detect terminal
18	SD	I	Received signal detect terminal
19	OSD_ST	-	Not used
20	GND	-	GND terminal
21	VIDEO_B	-	Not used
22	VIDEO_A	-	Not used
23	IF_DATA	I	Serial data signal
24	THERMAL	O	Thermal mute control terminal
25~28	KEY1~KEY4	I	Key matrix detect terminal
29	AVDD	I	Power supply terminal
30	AVREF	I	Power supply terminal
31	OVERLOAD	I	Over load detect terminal
32	XT2	-	Not used
33	GND	-	GND terminal
34	XIN	I	Crystal oscillator terminal
35	XOUT	O	(4MHz)

Pin No.	Mark	I/O	Function
36~40	SFC1~SFC5	-	Not used
41	TNR_CE	O	Chip enable signal
42	SEL/TNR_DT	O	Serial data signal
43	SEL/TNR_CK	O	Serial clock signal
44	TV/VCR2	-	Not used
45	ADAPTOR	-	Not used
46	HOLD	I	Hold signal input terminal
47	REMOTE	I	Remote control terminal
48	GND	-	Not used
49	SEL_ST	O	Level shift control terminal
50	HELP_LED	-	Not used
51	STANDBY_LED	-	Not used
52	VDD	I	Power supply terminal
53	REC_MUTE	-	Not used
54	S/C_SP	-	Not used
55	SP_B	O	Speaker select control terminal
56	SP_A	O	Speaker select control terminal
57	POWER_RLY	O	Relay control terminal
58	AF_MUTE	O	Muting control terminal
59	LIMITER	-	Not used
60	INIT_IN	-	Not used, connect to resistor
61~70	S16~S7	O	Segment signal of FL display
71	VLOAD	I	Power supply terminal
72~77	S6~S1	O	Segment signal of FL display
78~80	D1~D3	O	Digit signal of FL display

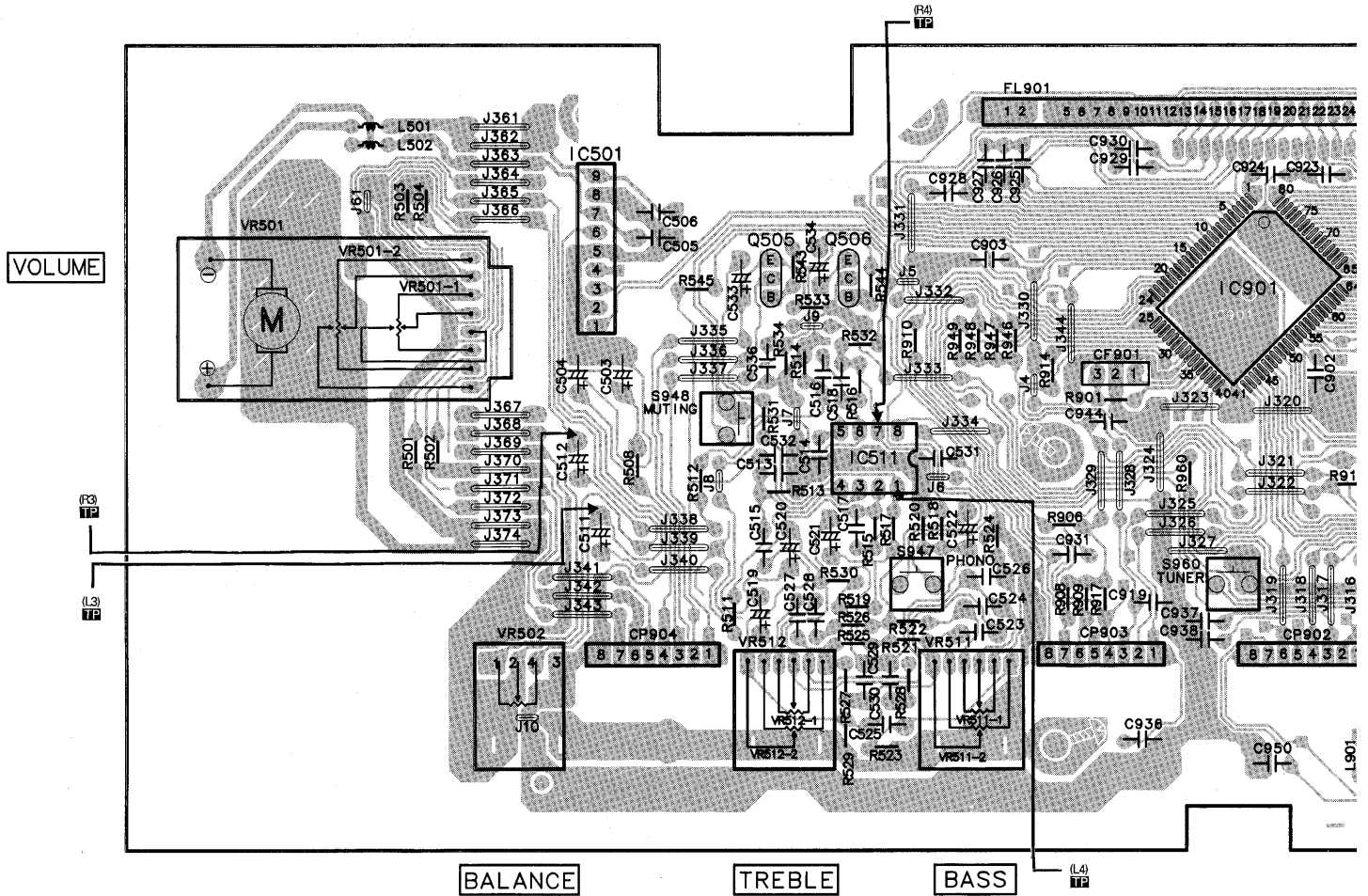
## Terminal Guide of ICs, Transistors and Diodes

<p>LA1832A LC7218</p>	<p>AN6558F M5218AP UPC4570C</p>	<p>TC9163N</p>	<p>RSN3305-P</p>	<p>BA6218</p>	<p>UPD78043A054 (80P)</p>
<p>2SC3311ARTA</p>	<p>2SK544F-AC</p>	<p>2SA1534AQRTA 2SC3940AQSTA</p>	<p>RVTDT144YST RVTDT143XST 2SA933SSTA</p>	<p>2SB1548PQAU 2SD2374PQAU</p>	<p>1N5402BM21 SB360L6508</p>
<p>2SC2785FETA 2SC2786MTA</p>	<p>2SC2787FL1TA 2SC2787LTA 2SC3311AQSTA 2SD1915FTA 2SC1740SSTA</p>	<p>SVC211SPA-AL</p>	<p>RVD1SS133TA MTZJ5R1BTA 1SR35200TB MA700ATA 1SS291TA</p>	<p>MTZJ16CTA MTZJ3R9ATA</p>	<p>MTZJ4R7BTA MTZJ6R2BTA MTZJ6R8BTA MTZJ7R5CTA MTZJ27DTA</p>

■ Printed Circuit Board

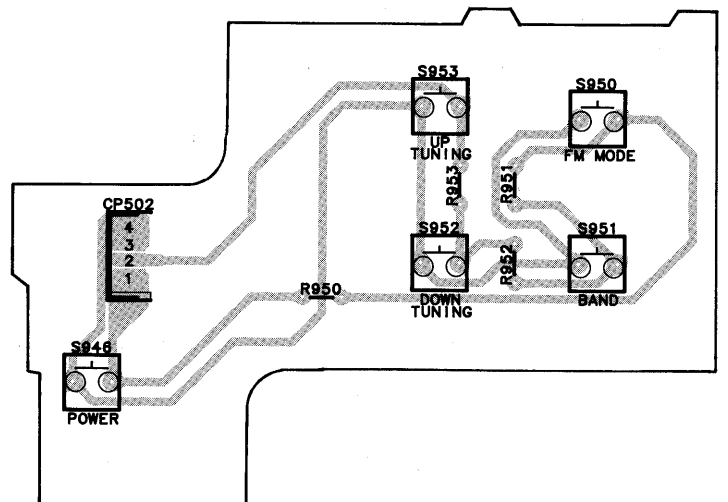
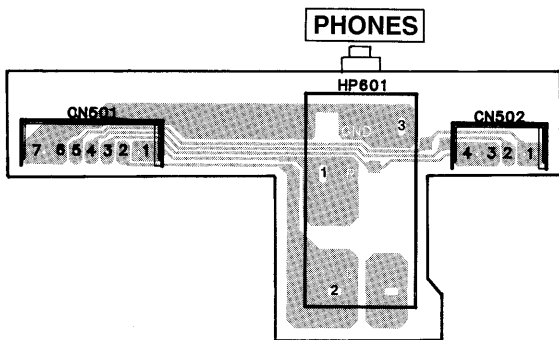
■ VOLUME P.C.B. (REP2484A-S)

■ PANEL P.C.B. (REP2484A-S)



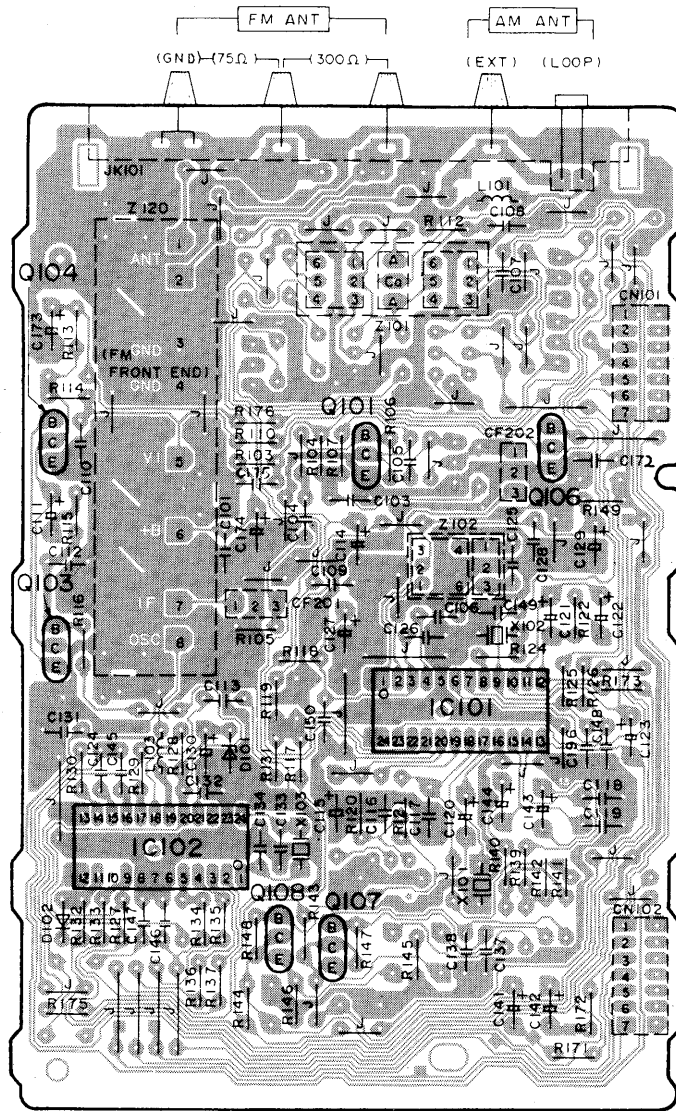
■ HEADPHONES JACK P.C.B. (REP2484A-S)

■ OPERATION P.C.B. (REP2484A-S)

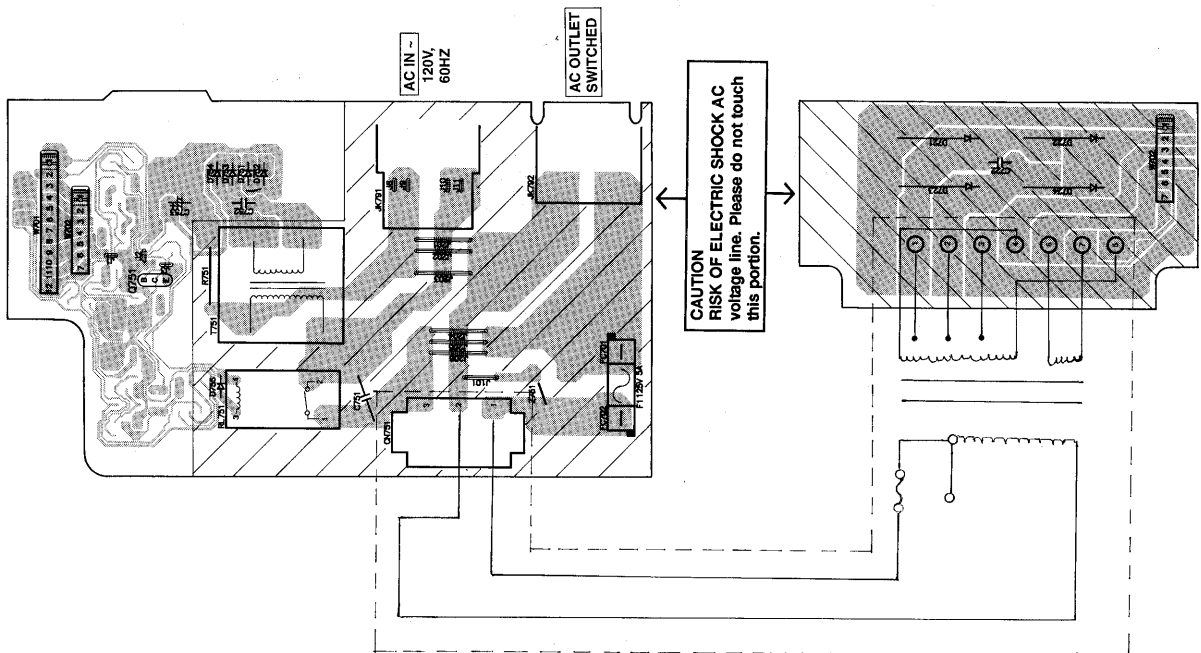




**A** TUNER P.C.B. (REP2254A-T)



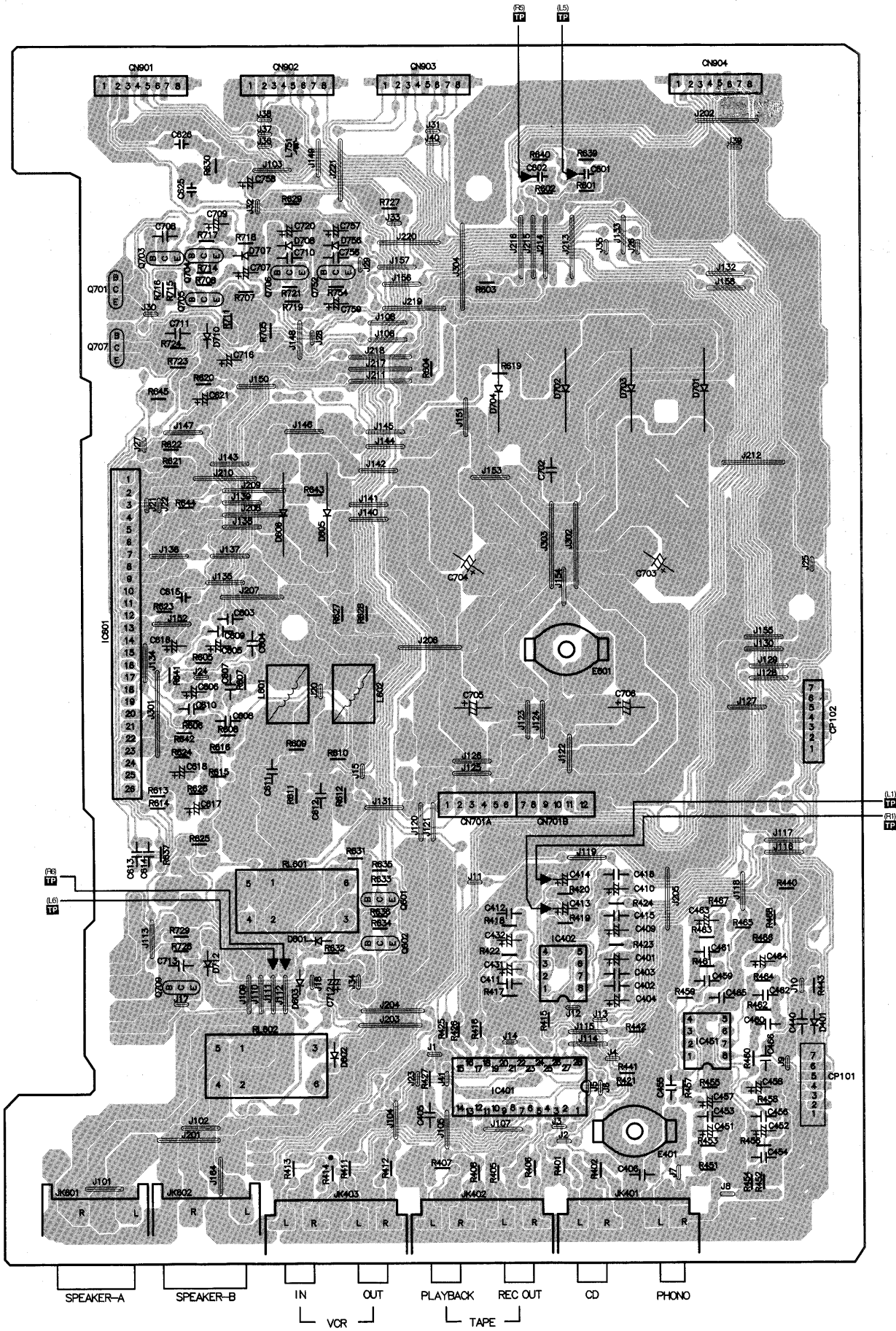
**F** POWER SUPPLY P.C.B. (REP2253A-P)  
(REP2253G-P)



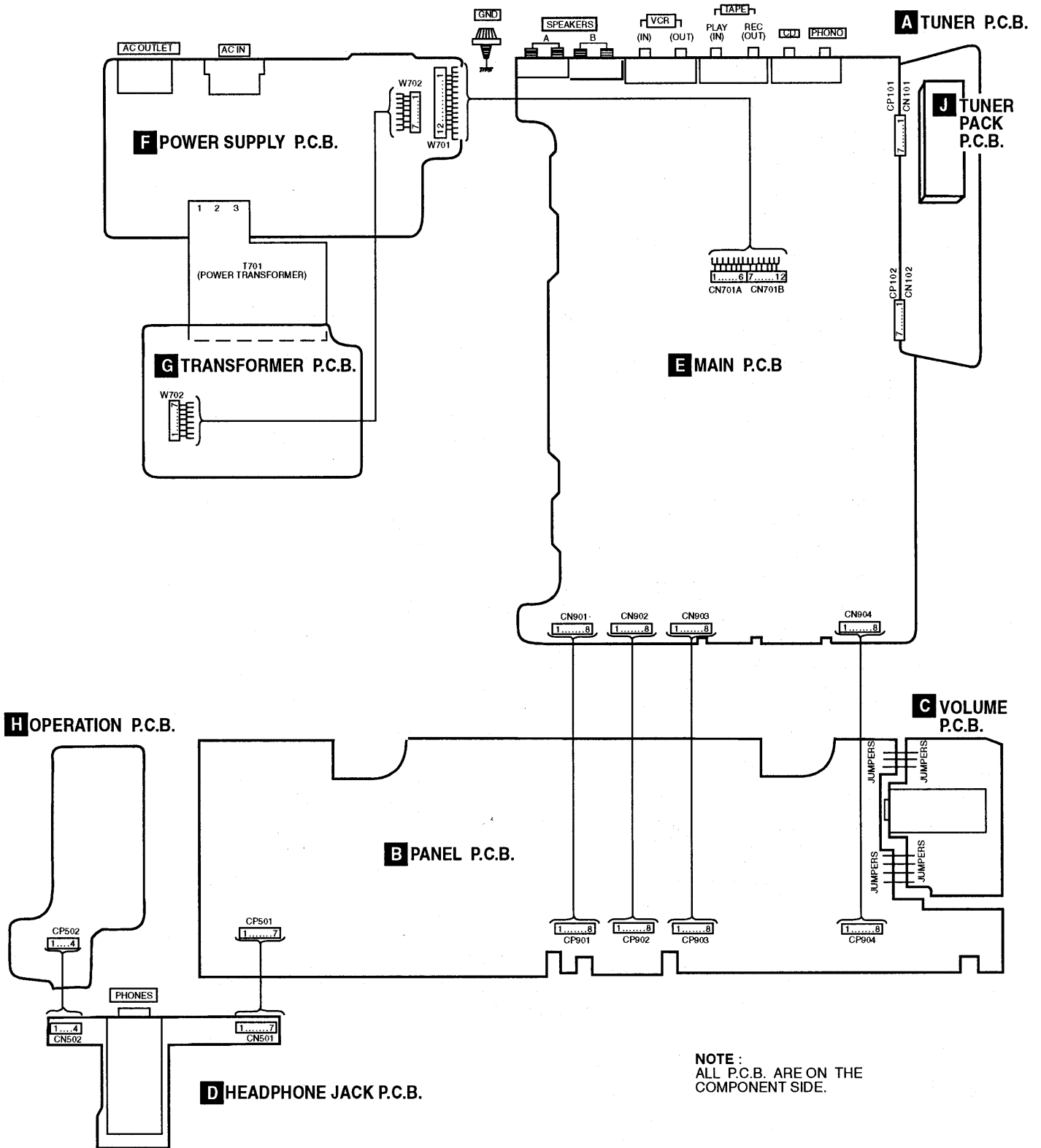
**G** TRANSFORMER P.C.B. (REP2253A-P)  
(REP2253G-P)



**E MAIN P.C.B. (REP2483A-M)**

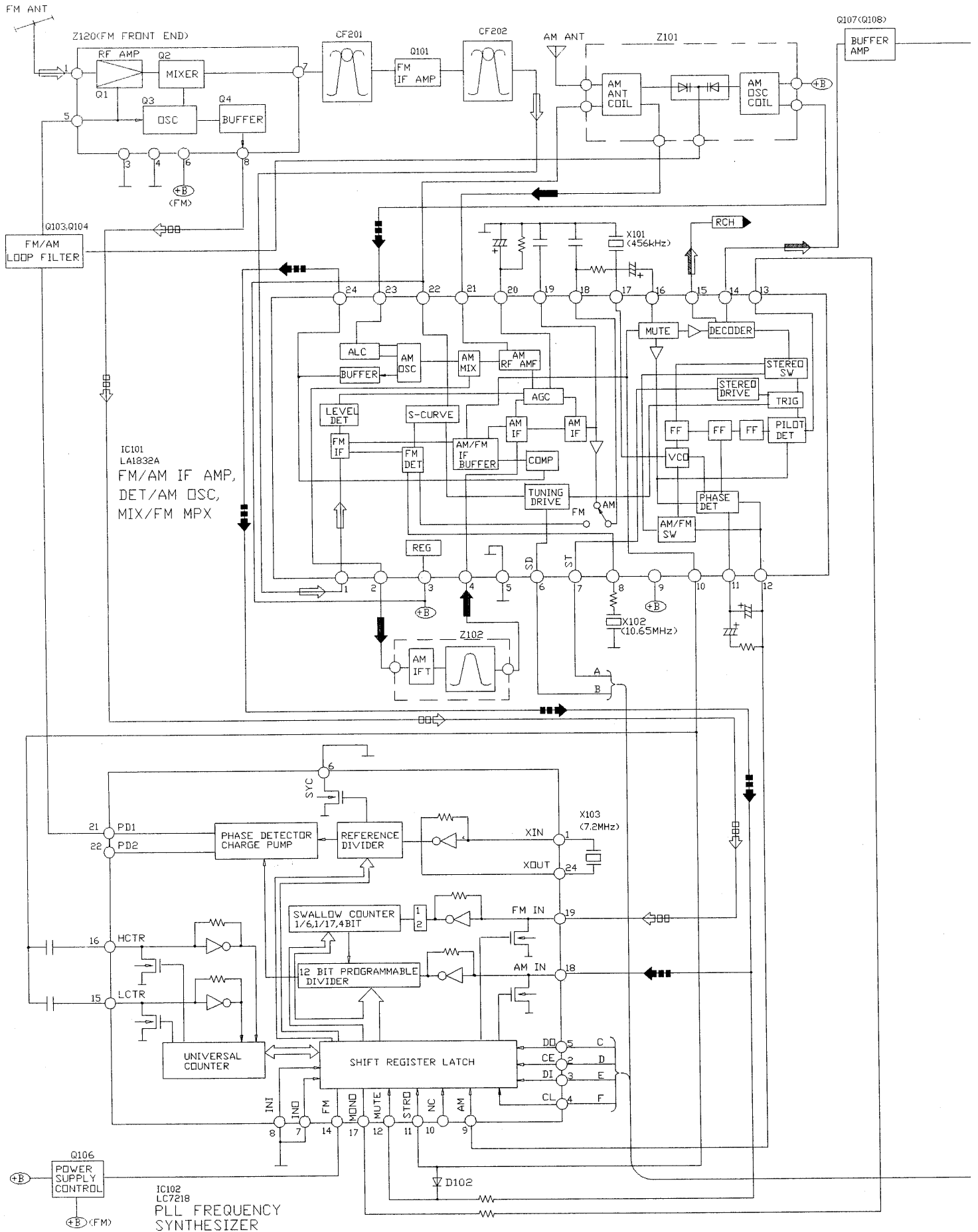


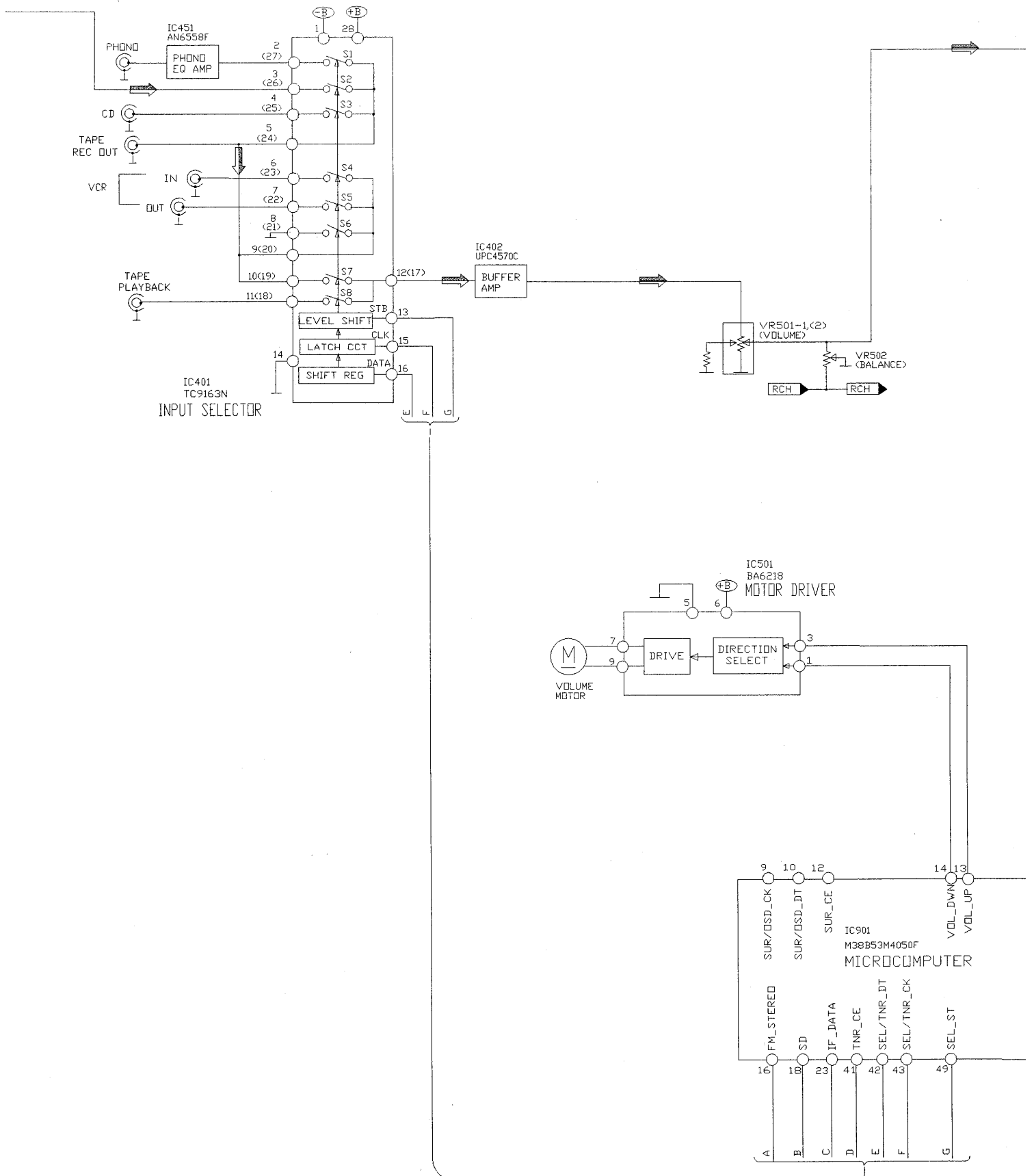
# Wiring Connection Diagram



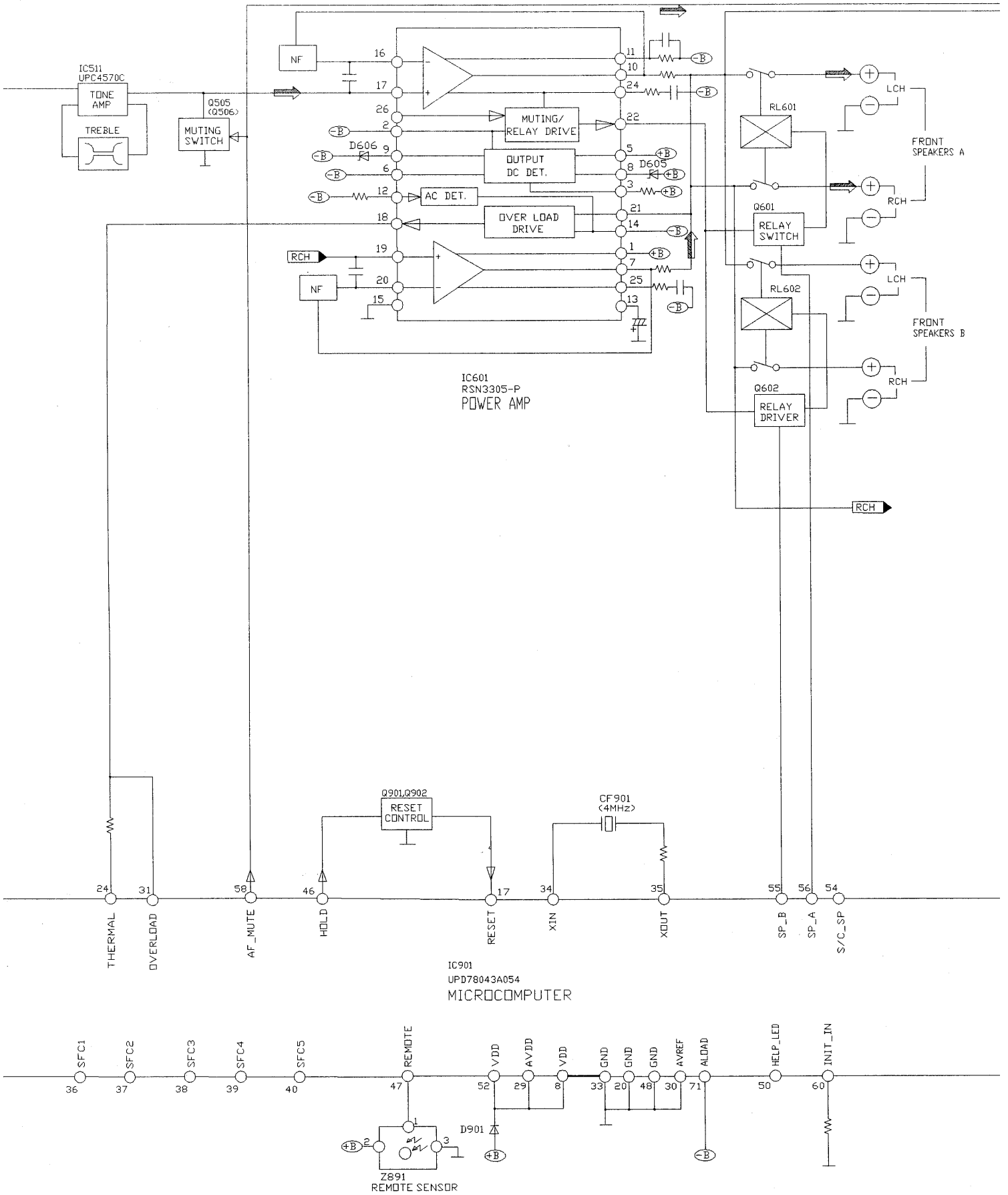
NOTE :  
ALL P.C.B. ARE ON THE  
COMPONENT SIDE.

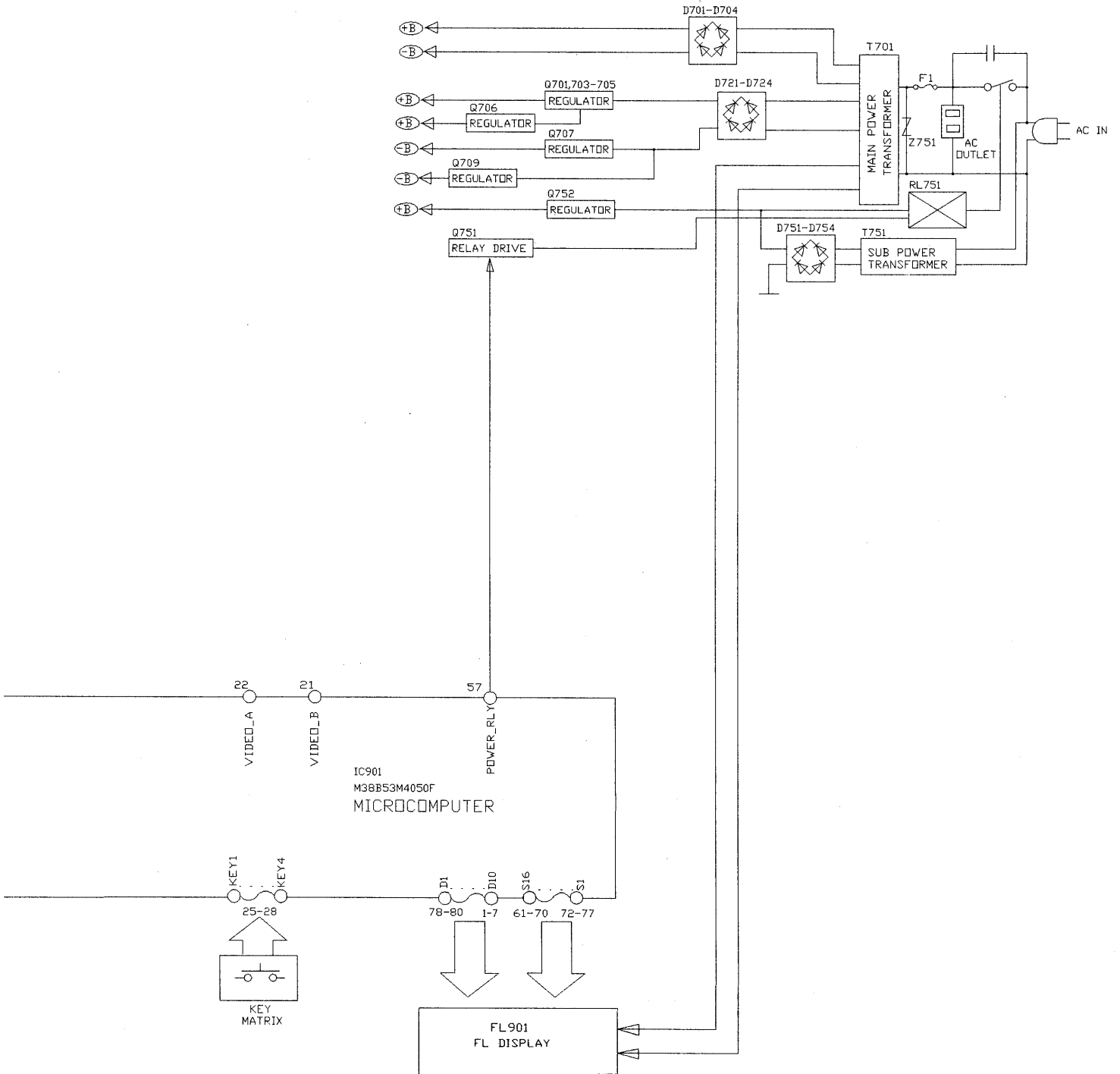
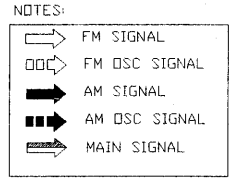
■ Block Diagram











## ■ Schematic Diagram

(All schematic diagrams may be modified at any time with the development of new technology)

Note :

< for Power Supply circuit, Transformer circuit, Headphone Jack circuit and Operation circuit >

- S946 : Power switch
- S950 : FM Auto/ Mono switch
- S951 : Band select switch
- S952 : Tuning decrease switch
- S953 : Tuning increase switch

< for Panel circuit and Volume circuit >

- S947 : Phono select switch
- S948 : Muting switch
- S954 : Memory manual/auto switch
- S956 : Preset decrease switch
- S957 : Preset increase switch
- S960 : Tuner select switch
- S961 : CD select switch
- S962 : Tape select switch
- S964 : VCR select switch
- S980 : Speakers A/B/off switch
- VR501-1 ~ VR501-2 : Volume control
- VR502 : Balance control
- VR511-1 ~ VR511-2 : Bass control
- VR512-1 ~ VR512-2 : Treble control

### • Signal line


	: +B line		: AM signal line
	: Main signal line		: AM OSC signal line
	: FM signal line		: FM OSC signal line

•The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis.  
Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.

( ) ..... AM

< > ..... FM

### •Importance safety notice:

Components identified by  mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

### Caution !


- IC, LSI and VLSI are sensitive to static electricity.  
Secondary trouble can be prevented by taking care during repair.
- Cover the parts boxes made of plastics with aluminium foil.
  - Ground the soldering iron.
  - Do not touch the pins of IC, LSI or VLSI with fingers directly.
  - Put a conductive mat on the work table.


**CAUTION : FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE F1 5.0A 125V FUSE.**



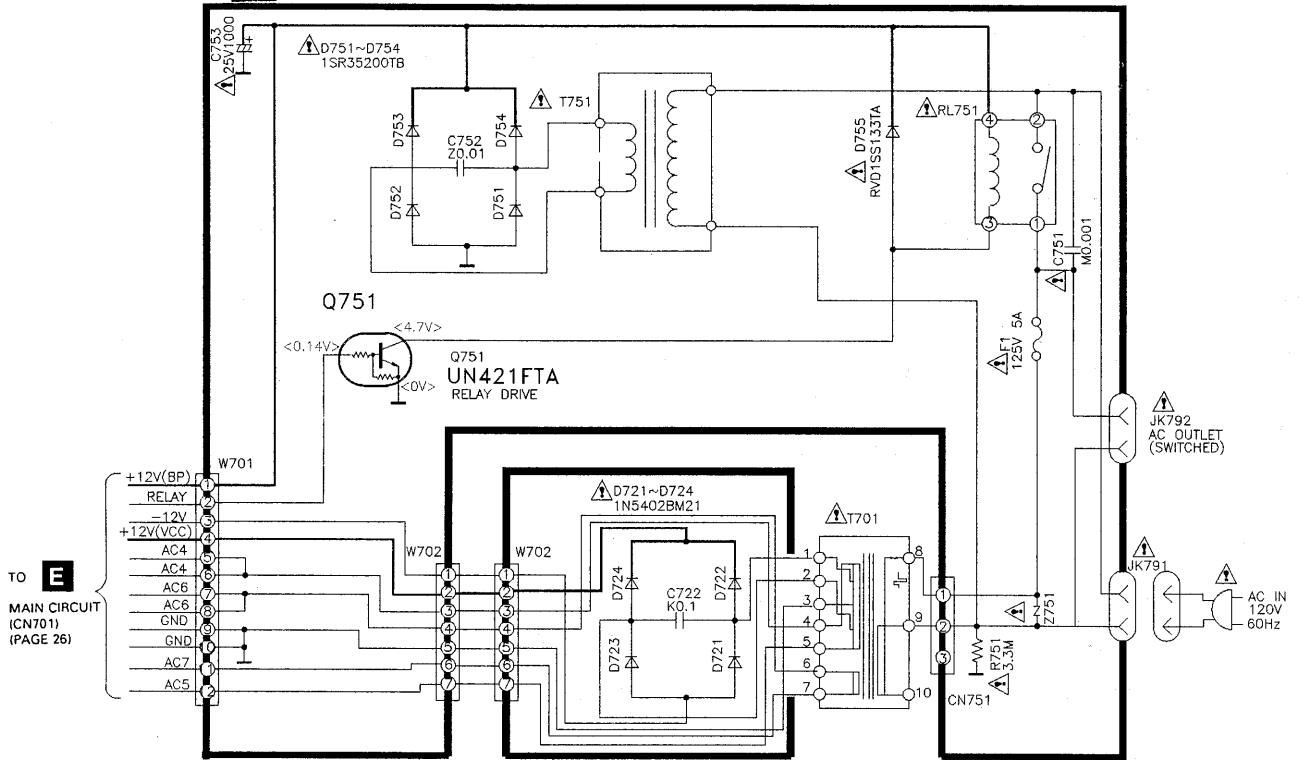
RISK OF FIRE-REPLACE FUSE AS MARKED.

### FUSE CAUTION

 These symbols located near the fuse indicates that the fuse used is a fast operating type. For continued protection against fire hazard, replace with the same type fuse. For fuse rating, refer to the marking adjacent to the symbol.

 Ce symbole indique que le fusible utilisé est à rapide. Pour une protection permanente, n' utiliser que des fusibles de même type. Ce dernier est indiqué là où le présent symbole est apposé.

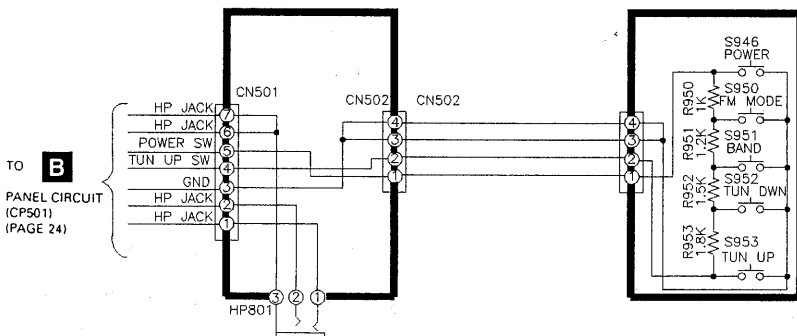
**F** POWER SUPPLY CIRCUIT



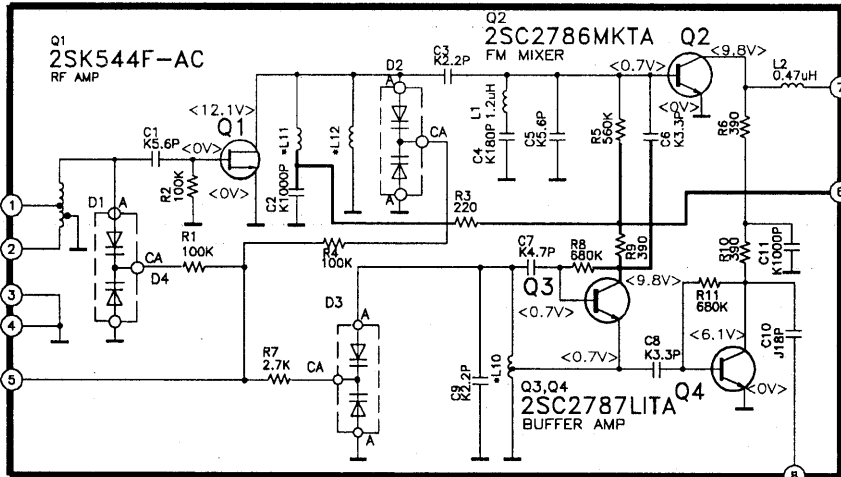
**G** TRANSFORMER CIRCUIT

**D** HEADPHONE JACK CIRCUIT

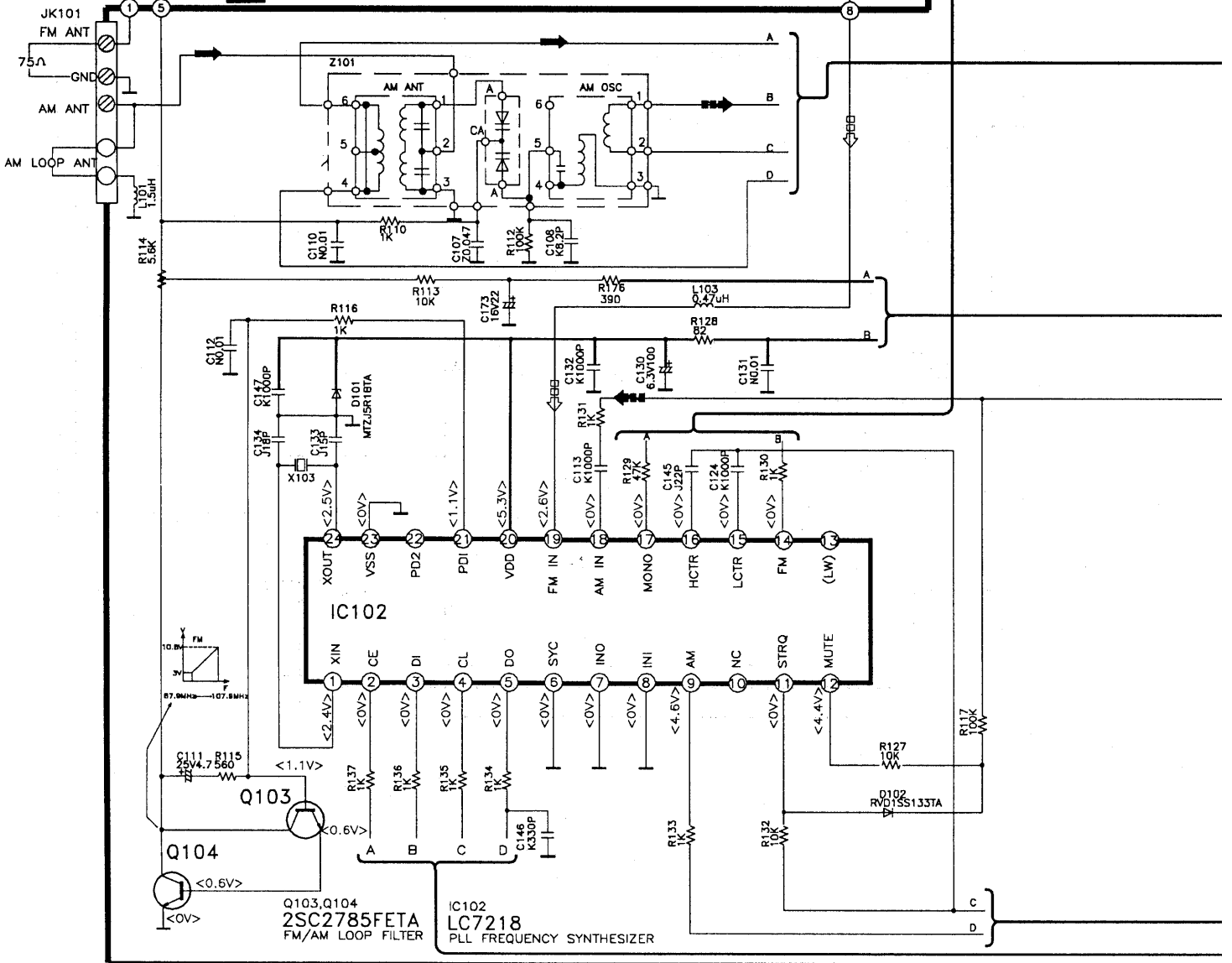
**H** OPERATION CIRCUIT



**J** TUNER PACK CIRCUIT



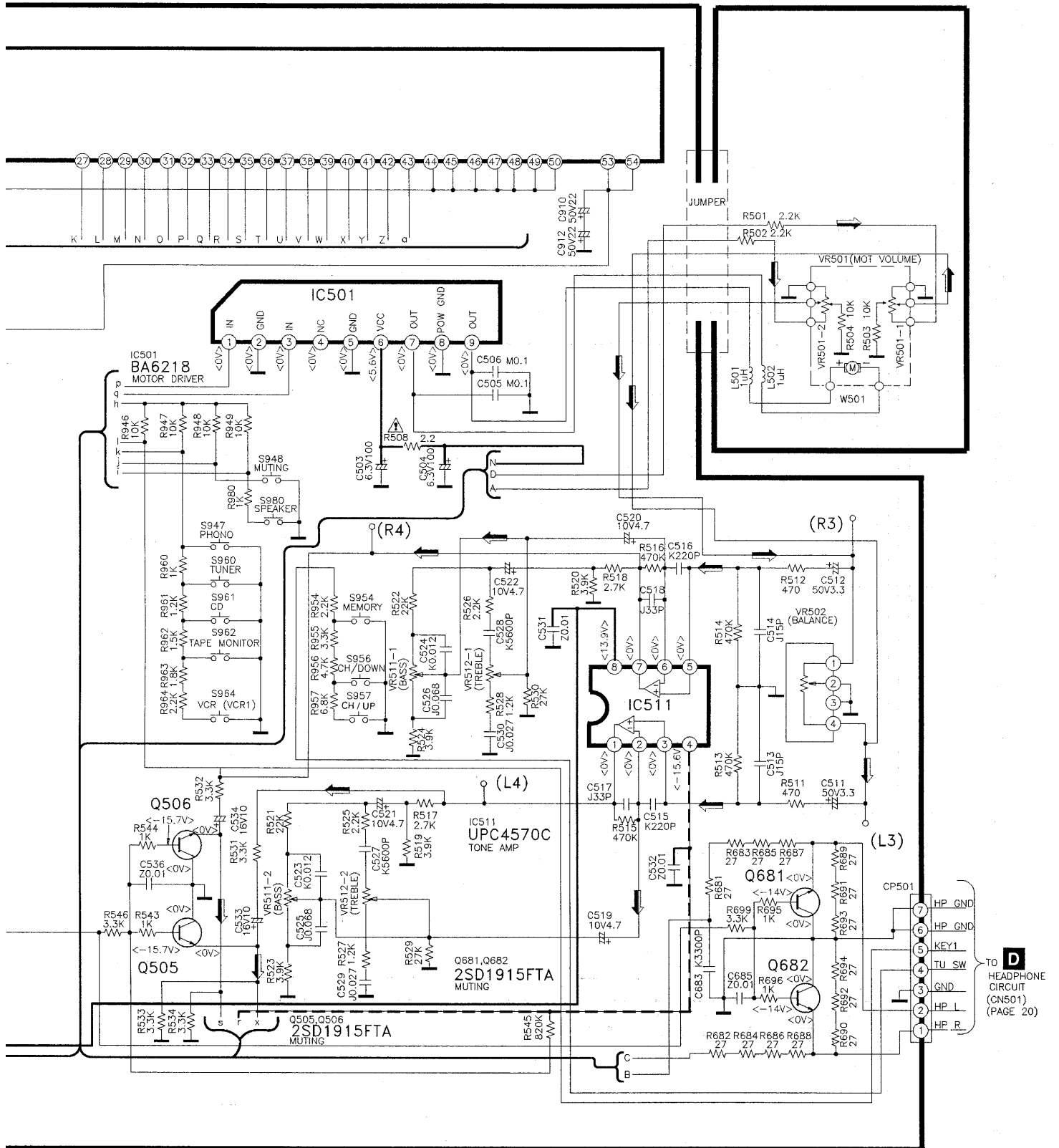
**A** TUNER CIRCUIT







**C** VOLUME CIRCUIT

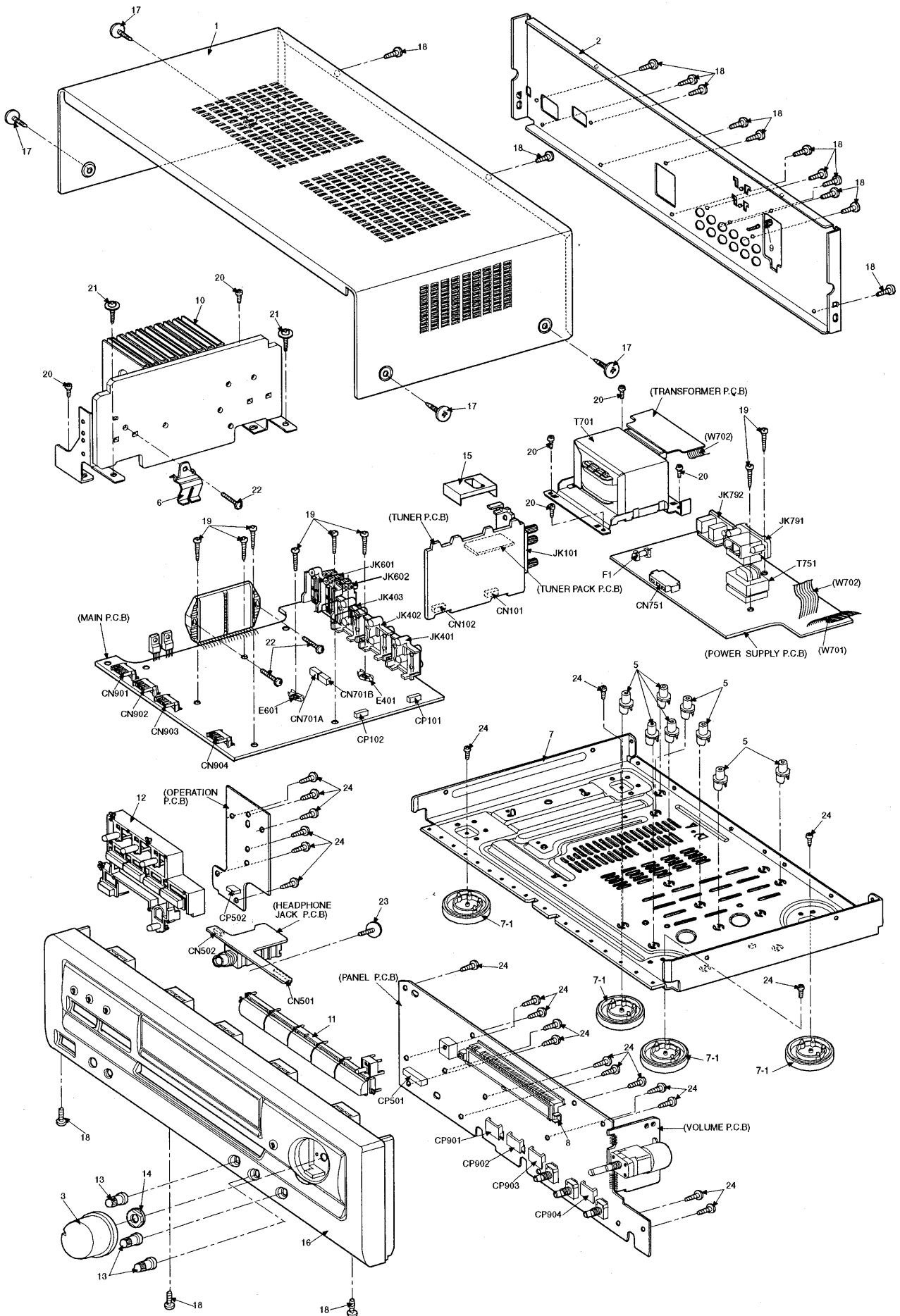








# ■ Cabinet Parts Location



## Replacement Parts List

**Notes:** \* Important safety notice :

 Components identified by  $\Delta$  mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

\* The parenthesized in the Remarks columns specify the areas. (Refer to the cover page for area.)

Parts without these indication can be used for all areas.

\* [M] in Remarks column indicates parts that are supplied by MESA.

\* Remote Control Unit : Supply period for three years from terminal of production.


\* The "(SF)" mark denotes the standard part.

Ref No.	Part No.	Part Name & Description	Remarks	Ref No.	Part No.	Part Name & Description	Remarks	Ref No.	Part No.	Part Name & Description	Remarks
		<b>CABINET AND CHASSIS</b>				<b>TRANSISTORS</b>		D603	MA700ATA	DIODE	[M]
								D605	SB360L6508	DIODE	[M]
1	RKM0260C-K	CABINET	[M]	Q1	2SK544F-AC	TRANSISTOR	[M]	D606	SB360L6508	DIODE	[M]
2	RGR0178J-A	REAR PANEL	[M](P)	Q2	2SC2786MTA	TRANSISTOR	[M]	D701	1N5402BM21	DIODE	[M] $\Delta$
2	RGR0178J-B	REAR PANEL	[M](PC)	Q3	2SC2787FL1TA	TRANSISTOR	[M]	D702	1N5402BM21	DIODE	[M] $\Delta$
3	RGW0243A-K	VOLUME KNOB	[M]	Q4	2SC2787FL1TA	TRANSISTOR	[M]	D703	1N5402BM21	DIODE	[M] $\Delta$
5	RKQ0089	PCB HOLDER	[M]	Q101	2SC2787LTA	TRANSISTOR	[M]	D704	1N5402BM21	DIODE	[M] $\Delta$
6	RMC0158	TRANSISTOR HOLDER	[M]	Q103	2SC2785FETA	TRANSISTOR	[M]	D707	MTZJ6R2BTA	DIODE	[M] $\Delta$
7	RFKJEX110PK	BOTTOM CHASSIS ASS'Y	[M]	Q104	2SC2785FETA	TRANSISTOR	[M]	D708	MTZJ6R2BTA	DIODE	[M] $\Delta$
7-1	RKA0079-A	FOOT	[M]	Q107	2SC3311ARTA	TRANSISTOR	[M]	D710	MTZJ27DTA	DIODE	[M] $\Delta$
8	RMN0372	FL HOLDER	[M]	Q108	2SC3311ARTA	TRANSISTOR	[M]	D712	MTZJ16CTA	DIODE	[M] $\Delta$
9	SNE2123	EARTH TERMINAL	[M]	Q505	2SD1915FTA	TRANSISTOR	[M]	D721	1N5402BM21	DIODE	[M] $\Delta$
10	RXX0169	HEAT SINK UNIT	[M]	Q506	2SD1915FTA	TRANSISTOR	[M]	D722	1N5402BM21	DIODE	[M] $\Delta$
11	RGU1349-K	SELECTOR BUTTON	[M]	Q601	2SA933SSTA	TRANSISTOR	[M]	D723	1N5402BM21	DIODE	[M] $\Delta$
12	RGU1350-K	MODE BUTTON	[M]	Q602	2SA933SSTA	TRANSISTOR	[M]	D724	1N5402BM21	DIODE	[M] $\Delta$
13	RGW0244-K1	BASS TREBLE KNOB	[M]	Q681	2SD1915FTA	TRANSISTOR	[M]	D751	1SR35200TB	DIODE	[M] $\Delta$
14	RHN90001	M9 NUT	[M]	Q682	2SD1915FTA	TRANSISTOR	[M]	D752	1SR35200TB	DIODE	[M] $\Delta$
15	RSC0027-1	SHIELD CASE	[M]	Q701	2SD2374PQAU	TRANSISTOR	[M] $\Delta$	D753	1SR35200TB	DIODE	[M] $\Delta$
16	RFKGEX110PK	FRONT PANEL ASS'Y	[M]	Q703	2SC1740SSSTA	TRANSISTOR	[M] $\Delta$	D754	1SR35200TB	DIODE	[M] $\Delta$
17	SNE2129-1	SCREW (CABINET)	[M]	Q704	2SC1740SSSTA	TRANSISTOR	[M] $\Delta$	D755	RVD1SS133TA	DIODE	[M] $\Delta$
18	XTBS3+8JFZ1	SCREW	[M]	Q705	2SC3311AQSTA	TRANSISTOR	[M] $\Delta$	D756	MTZJ6R8BTA	DIODE	[M] $\Delta$
19	XTB3+20JFZ	SCREW	[M]	Q706	2SC3940AQSTA	TRANSISTOR	[M] $\Delta$	D901	1SS291TA	DIODE	[M]
20	XTB3+8FFZ	SCREW	[M]	Q707	2SB1548PQAU	TRANSISTOR	[M] $\Delta$	D903	MTZJ4R7BTA	DIODE	[M]
21	XTWS3+8T	SCREW	[M]	Q709	2SA1534AQRTA	TRANSISTOR	[M] $\Delta$	D921	RVD1SS133TA	DIODE	[M]
22	XTW3+15T	SCREW	[M]	Q751	RVTDTTC143XST	TRANSISTOR	[M]	D923	RVD1SS133TA	DIODE	[M]
23	RHD26016	SCREW	[M]	Q752	2SC3940AQSTA	TRANSISTOR	[M] $\Delta$	D924	MTZJ3R9ATA	DIODE	[M]
24	XTBS26+10J	SCREW (FRONT)	[M]	Q901	RVTDTTC114YST	TRANSISTOR	[M]				
				Q902	2SA933SSTA	TRANSISTOR	[M]			<b>VARIABLE RESISTORS</b>	
		<b>INTEGRATED CIRCUITS</b>									
						<b>DIODES</b>		VR501	EUWMB026B15	MOTOR VOLUME	[M]
IC101	LA1832A	IF/MPX IC	[M]	D1	SVC211SPA-AL	DIODE	[M]	VR502	EVJ02QF01G15	BALANCE CONTROL VR	[M]
IC102	LC7218	PLL IC	[M]	D2	SVC211SPA-AL	DIODE	[M]	VR511	EVJYA1F01C15	TONE CONTROL VR	[M]
IC401	TC9163AN	SELECTOR IC	[M]	D3	SVC211SPA-AL	DIODE	[M]	VR512	EVJYA1F01C15	TONE CONTROL VR	[M]
IC402	M5218AP	BUFFER AMP	[M]	D101	MTZJ5R1BTA	DIODE	[M]			<b>SWITCHES</b>	
IC451	AN6558F	OP AMP IC	[M]	D102	RVD1SS133TA	DIODE	[M]	S946	EVQ21405R	TACK SWITCH	[M]
IC501	BA6218	MOTOR DRIVER IC	[M]	D401	MTZJ7R5CTA	DIODE	[M]	S947	EVQ21405R	TACK SWITCH	[M]
IC511	UPC4570C	TONE CONTROL IC	[M]	D601	RVD1SS133TA	DIODE	[M]	S948	EVQ21405R	TACK SWITCH	[M]
IC601	RSN3305-P	HIC	[M] $\Delta$	D602	RVD1SS133TA	DIODE	[M]				
IC901	UPD78043A054	MICROCOMPUTER	[M]								

Ref No.	Part No.	Part Name & Description	Remarks	Ref No.	Part No.	Part Name & Description	Remarks	Ref No.	Part No.	Part Name & Description	Remarks
S950	EVQ21405R	TACK SWITCH	[M]			COMPONENT COMBINATION				HEADPHONES	
S951	EVQ21405R	TACK SWITCH	[M]								
S952	EVQ21405R	TACK SWITCH	[M]	Z101	RLA2Z002M-T	AM ANT. COIL	[M]	HP601	RJJ63TS01	HEADPHONES JACK	[M]
S953	EVQ21405R	TACK SWITCH	[M]	Z102	RLI2Z006M-T	AM IFT	[M]				
S954	EVQ21405R	TACK SWITCH	[M]	Z751	ERZV10V511CS	ZNR	[M]▲			EARTH TERMINALS	
S956	EVQ21405R	TACK SWITCH	[M]	Z891	RCDSPS4242N	REMOTE SENSOR	[M]				
S957	EVQ21405R	TACK SWITCH	[M]					E401	SNE1004-2	EARTH TERMINAL	[M]
S960	EVQ21405R	TACK SWITCH	[M]			CERAMIC FILTERS		E601	SNE1004-2	EARTH TERMINAL	[M]
S961	EVQ21405R	TACK SWITCH	[M]								
S962	EVQ21405R	TACK SWITCH	[M]	CF201	RLFFETMGD01L	CERAMIC FILTER	[M]			PACKING MATERIALS	
S964	EVQ21405R	TACK SWITCH	[M]	CF202	RLFFETMGD01L	CERAMIC FILTER	[M]				
S980	EVQ21405R	TACK SWITCH	[M]	CF901	RVBCST4R00MT	CERAMIC OSCILLATOR	[M]	P1	SPSD152	ACCESSORY BOX	[M]
								P2	RPG3289	PACKING CASE	[M]
		CONNECTORS				OSCILLATORS		P3	RPN0865	POLYFOAM	[M]
								P4	RPFX0005	MIRAMAT BAG	[M]
CN101	RJU057W007	7P CONNECTOR	[M]	X101	RSXZ456KM07M	CERAMIC OSCILLATOR	[M]	P5	SPB1061	BAG	[M]
CN102	RJU057W007	7P CONNECTOR	[M]	X102	RLFDGTD01I	FM REZONATOR	[M]				
CN501	RJU100W07	7P CONNECTOR	[M]	X103	SVQ49U722T-S	CRYSTAL 7.2MHZ	[M]			ACCESSORIES	
CN502	RJU100W04	4P CONNECTOR	[M]								
CN701A	RJS1A6606	6PINS STAPING CONNEC	[M]			DISPLAY TUBE		A1	EUR644346	REMOTE CONTROL	[M]
CN751	SJS305-1	3P CONNECTOR	[M]					A1-1	UR64EC1822	REM CON. BATT/COVER	[M]
CN901	RJU003K008M1	BOAD IN CONNECTOR	[M]	FL901	RSL0213-F	FL	[M]	A2	RSA0010	LOOP ANT UNIT	[M]
CN902	RJU003K008M1	BOAD IN CONNECTOR	[M]					A3	SJA172	AC CORD	[M]▲(SF)
CN903	RJU003K008M1	BOAD IN CONNECTOR	[M]			FUSES		A4	RSA0006	FM ANTENNA WIRE	[M]
CN904	RJU003K008M1	BOAD IN CONNECTOR	[M]					A5	RFKSEX110PK	O/I BOOK ASS'Y	[M](P)
CP101	RJT057W007-1	7P CONNECTOR	[M]	F1	XBA1C50NBAL	FUSE	[M]▲	A5	RFKSEX110PCK	O/I BOOK ASS'Y	[M](PC)
CP102	RJT057W007-1	7P CONNECTOR	[M]								
CP501	RJT100W07	7P CONNECTOR	[M]			FUSE CLIPS					
CP502	RJT100W04	4P CONNECTOR	[M]								
CP901	RJT003K008M1	8P CONNECTOR	[M]	FC701	EYF52BC	FUSE HOLDER	[M]				
CP902	RJT003K008M1	8P CONNECTOR	[M]	FC702	EYF52BC	FUSE HOLDER	[M]				
CP903	RJT003K008M1	8P CONNECTOR	[M]								
CP904	RJT003K008M1	8P CONNECTOR	[M]			JACKS					
		COILS & TRANSFORMERS		JK101	RJH4405	ANT TERMINAL	[M]				
				JK401	SJF3069N	LINE IN JACK	[M]				
L1	RLQZP1R2JT-Y	RF CHOKE COIL	[M]	JK402	SJF3069N	LINE IN JACK	[M]				
L2	RLQZPR47KT-Y	RF CHOKE COIL	[M]	JK403	SJF3069N	LINE IN JACK	[M]				
L101	ELESN1R5MA	CHOKE COIL	[M]	JK601	RJR0054	SP TERMINAL	[M]				
L103	ELETR47MA9	CHOKE COIL	[M]	JK602	RJR0054	SP TERMINAL	[M]				
L501	RLQZP1R0KT-Y	AXIAL COIL	[M]	JK791	SJSD16-1	AC INLET	[M]▲				
L502	RLQZP1R0KT-Y	AXIAL COIL	[M]	JK792	RJS1A1602-2S	AC OUTLET	[M]▲				
L601	RLQYR73MW-E	CHOKE COIL	[M]								
L602	RLQYR73MW-E	CHOKE COIL	[M]			RELAYS					
L751	ELESN101KA	CHOKE COIL	[M]	RL601	RSY0013M-0	RELAY	[M]				
L901	RLQB101KTA-Y	CHOKE COIL	[M]	RL602	RSY0013M-0	RELAY	[M]				
T701	RTP1N5C015-X	TRANSFORMER	[M]▲	RL751	RSY0019M-0	12V TV-5 RELAY	[M]▲				
T751	RTP1H5C001-V	TRANSFORMER	[M]▲								

## Resistors & Capacitors





Notes : \* Important safety notice:

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Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

\* Capacitor values are in microfarad ( $\mu\text{F}$ ) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)

\* Resistors values are in ohms, unless specified otherwise, 1k=1,000(OHM), 1M=1,000k(OHM)

Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks
		<b>RESISTORS</b>	R136	ERDS2TJ102T	1K 1/4W [M]	R441	ERDS2TJ473T	47K 1/4W [M]	R527	ERDS2TJ122T	1.2K 1/4W [M]
			R137	ERDS2TJ102T	1K 1/4W [M]	R442	ERDS2TJ473T	47K 1/4W [M]	R528	ERDS2TJ122T	1.2K 1/4W [M]
R1	ERDS2TJ104T	100K 1/4W [M]	R139	ERDS2TJ272T	2.7K 1/4W [M]	R443	ERDS2TJ330T	33 1/4W [M]	R529	ERDS2TJ273T	27K 1/4W [M]
R2	ERDS2TJ104T	100K 1/4W [M]	R140	ERDS2TJ272T	2.7K 1/4W [M]	R451	ERDS2TJ224T	220K 1/4W [M]	R530	ERDS2TJ273T	27K 1/4W [M]
R3	ERDS2TJ221T	220 1/4W [M]	R141	ERDS2TJ103T	10K 1/4W [M]	R452	ERDS2TJ224T	220K 1/4W [M]	R531	ERDS2TJ332T	3.3K 1/4W [M]
R4	ERDS2TJ104T	100K 1/4W [M]	R142	ERDS2TJ103T	10K 1/4W [M]	R453	ERDS2TJ821T	820 1/4W [M]	R532	ERDS2TJ332T	3.3K 1/4W [M]
R5	ERDS2TJ564T	560K 1/4W [M]	R143	ERDS2TJ222T	2.2K 1/4W [M]	R454	ERDS2TJ821T	820 1/4W [M]	R533	ERDS2TJ332T	3.3K 1/4W [M]
R6	ERDS2TJ391T	390 1/4W [M]	R144	ERDS2TJ222T	2.2K 1/4W [M]	R455	ERDS2TJ563T	56K 1/4W [M]	R534	ERDS2TJ332T	3.3K 1/4W [M]
R7	ERDS2TJ272T	2.7K 1/4W [M]	R145	ERDS2TJ102T	1K 1/4W [M]	R456	ERDS2TJ563T	56K 1/4W [M]	R543	ERDS2TJ102T	1K 1/4W [M]
R8	ERDS2TJ684T	680K 1/4W [M]	R146	ERDS2TJ102T	1K 1/4W [M]	R457	ERDS2TJ271T	270 1/4W [M]	R544	ERDS2TJ102T	1K 1/4W [M]
R9	ERDS2TJ391T	390 1/4W [M]	R147	ERDS2TJ474T	470K 1/4W [M]	R458	ERDS2TJ271T	270 1/4W [M]	R545	ERDS2TJ824T	820K 1/4W [M]
R10	ERDS2TJ391T	390 1/4W [M]	R148	ERDS2TJ474T	470K 1/4W [M]	R459	ERDS2TJ680T	68 1/4W [M]	R546	ERDS2TJ332T	3.3K 1/4W [M]
R11	ERDS2TJ684T	680K 1/4W [M]	R149	ERDS2TJ680T	68 1/4W [M]	R460	ERDS2TJ680T	68 1/4W [M]	R601	ERDS2TJ221T	220 1/4W [M]
R103	ERDS2TJ151T	150 1/4W [M]	R171	ERDS2TJ102T	1K 1/4W [M]	R461	ERDS2TJ184T	180K 1/4W [M]	R602	ERDS2TJ221T	220 1/4W [M]
R104	ERDS2TJ102T	1K 1/4W [M]	R172	ERDS2TJ102T	1K 1/4W [M]	R462	ERDS2TJ184T	180K 1/4W [M]	R603	ERDS2TJ563T	56K 1/4W [M]
R105	ERDS2TJ471T	470 1/4W [M]	R173	ERDS2TJ471T	470 1/4W [M]	R463	ERDS2TJ123T	12K 1/4W [M]	R604	ERDS2TJ563T	56K 1/4W [M]
R106	ERDS2TJ224T	220K 1/4W [M]	R175	ERDS2TJ102T	1K 1/4W [M]	R464	ERDS2TJ123T	12K 1/4W [M]	R605	ERDS2TJ182T	1.8K 1/4W [M]
R107	ERDS2TJ471T	470 1/4W [M]	R176	ERDS2TJ391T	390 1/4W [M]	R465	ERDS2TJ563T	56K 1/4W [M]	R606	ERDS2TJ182T	1.8K 1/4W [M]
R110	ERDS2TJ102T	1K 1/4W [M]	R401	ERDS2TJ102T	1K 1/4W [M]	R466	ERDS2TJ563T	56K 1/4W [M]	R607	ERDS2TJ563T	56K 1/4W [M]
R112	ERDS2TJ104T	100K 1/4W [M]	R402	ERDS2TJ102T	1K 1/4W [M]	R467	ERDS2TJ102T	1K 1/4W [M]	R608	ERDS2TJ563T	56K 1/4W [M]
R113	ERDS2TJ103T	10K 1/4W [M]	R405	ERDS2TJ102T	1K 1/4W [M]	R468	ERDS2TJ102T	1K 1/4W [M]	R609	ERDS2TJ100T	10 1/4W [M]
R114	ERDS2TJ562T	5.6K 1/4W [M]	R406	ERDS2TJ102T	1K 1/4W [M]	R501	ERDS2TJ222T	2.2K 1/4W [M]	R610	ERDS2TJ100T	10 1/4W [M]
R115	ERDS2TJ561T	560 1/4W [M]	R407	ERDS2TJ102T	1K 1/4W [M]	R502	ERDS2TJ222T	2.2K 1/4W [M]	R611	ERDS1FVJ100T 	10 1/2W [M]
R116	ERDS2TJ102T	1K 1/4W [M]	R408	ERDS2TJ102T	1K 1/4W [M]	R503	ERDS2TJ103T	10K 1/4W [M]	R612	ERDS1FVJ100T 	10 1/2W [M]
R117	ERDS2TJ104T	100K 1/4W [M]	R411	ERDS2TJ102T	1K 1/4W [M]	R504	ERDS2TJ103T	10K 1/4W [M]	R613	ERDS2TJ102T	1K 1/4W [M]
R118	ERDS2TJ562T	5.6K 1/4W [M]	R412	ERDS2TJ102T	1K 1/4W [M]	R508	ERDS1FVJ2R2T 	2.2 1/2W [M]	R614	ERDS2TJ102T	1K 1/4W [M]
R119	ERDS2TJ822T	8.2K 1/4W [M]	R413	ERDS2TJ102T	1K 1/4W [M]	R511	ERDS2TJ471T	470 1/4W [M]	R615	ERDS2TJ184T	180K 1/4W [M]
R120	ERDS2TJ473T	47K 1/4W [M]	R414	ERDS2TJ102T	1K 1/4W [M]	R512	ERDS2TJ471T	470 1/4W [M]	R616	ERDS2TJ154T	150K 1/4W [M]
R121	ERDS2TJ332T	3.3K 1/4W [M]	R415	ERDS2TJ102T	1K 1/4W [M]	R513	ERDS2TJ474T	470K 1/4W [M]	R619	ERDS2TJ684T	680K 1/4W [M]
R122	ERDS2TJ272T	2.7K 1/4W [M]	R416	ERDS2TJ102T	1K 1/4W [M]	R514	ERDS2TJ474T	470K 1/4W [M]	R620	ERDS2TJ473T	47K 1/4W [M]
R124	ERDS2TJ271T	270 1/4W [M]	R417	ERDS2TJ473T	47K 1/4W [M]	R515	ERDS2TJ474T	470K 1/4W [M]	R621	ERD25FVJ180T	18 1/4W [M]
R125	ERDS2TJ472T	4.7K 1/4W [M]	R418	ERDS2TJ473T	47K 1/4W [M]	R516	ERDS2TJ474T	470K 1/4W [M]	R622	ERD25FVJ180T	18 1/4W [M]
R126	ERDS2TJ472T	4.7K 1/4W [M]	R419	ERDS2TJ104T	100K 1/4W [M]	R517	ERDS2TJ272T	2.7K 1/4W [M]	R623	ERDS2TJ684T	680K 1/4W [M]
R127	ERDS2TJ103T	10K 1/4W [M]	R420	ERDS2TJ104T	100K 1/4W [M]	R518	ERDS2TJ272T	2.7K 1/4W [M]	R624	ERDS2TJ154T	150K 1/4W [M]
R128	ERDS2TJ820T	82 1/4W [M]	R421	ERDS2TJ104T	100K 1/4W [M]	R519	ERDS2TJ392T	3.9K 1/4W [M]	R625	ERD25FVJ220T	22 1/4W [M]
R129	ERDS2TJ473T	47K 1/4W [M]	R422	ERDS2TJ104T	100K 1/4W [M]	R520	ERDS2TJ392T	3.9K 1/4W [M]	R626	ERDS2TJ473T	47K 1/4W [M]
R130	ERDS2TJ102T	1K 1/4W [M]	R423	ERDS2TJ102T	1K 1/4W [M]	R521	ERDS2TJ223T	22K 1/4W [M]	R627	ERG1SJ101E	100 1W [M]
R131	ERDS2TJ102T	1K 1/4W [M]	R424	ERDS2TJ102T	1K 1/4W [M]	R522	ERDS2TJ223T	22K 1/4W [M]	R628	ERG1SJ101E	100 1W [M]
R132	ERDS2TJ103T	10K 1/4W [M]	R425	ERDS2TJ103T	10K 1/4W [M]	R523	ERDS2TJ392T	3.9K 1/4W [M]	R629	ERG1SJ101E	100 1W [M]
R133	ERDS2TJ102T	1K 1/4W [M]	R426	ERDS2TJ103T	10K 1/4W [M]	R524	ERDS2TJ392T	3.9K 1/4W [M]	R630	ERG1SJ101E	100 1W [M]
R134	ERDS2TJ102T	1K 1/4W [M]	R427	ERDS2TJ103T	10K 1/4W [M]	R525	ERDS2TJ222T	2.2K 1/4W [M]	R631	ERDS2TJ223T	22K 1/4W [M]
R135	ERDS2TJ102T	1K 1/4W [M]	R440	ERDS1FVJ820T 	82 1/2W [M]	R526	ERDS2TJ222T	2.2K 1/4W [M]	R632	ERDS2TJ223T	22K 1/4W [M]

Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks
R633	ERDS2TJ103T	10K 1/4W [M]	R901	ERDS2TJ102T	1K 1/4W [M]	C103	ECBT1C103NS5	0.01 16V [M]	C196	ECBT1H102KB5	1000P 50V [M]
R634	ERDS2TJ103T	10K 1/4W [M]	R906	ERDS2TJ104T	100K 1/4W [M]	C104	ECBT1H102KB5	1000P 50V [M]	C401	ECEA1VKA4R7B	4.7 10V [M]
R635	ERDS2TJ102T	1K 1/4W [M]	R907	ERDS2TJ104T	100K 1/4W [M]	C105	ECBT1H102KB5	1000P 50V [M]	C402	ECBT1E103ZF5	0.01 25V [M]
R636	ERDS2TJ102T	1K 1/4W [M]	R908	ERDS2TJ104T	100K 1/4W [M]	C106	ECBT1C103NS5	0.01 16V [M]	C403	ECBT1E103ZF5	0.01 25V [M]
R637	ERDS2TJ472T	4.7K 1/4W [M]	R909	ERDS2TJ104T	100K 1/4W [M]	C107	ECBT1H473ZF5	0.047 50V [M]	C404	ECEA1VKA4R7B	4.7 10V [M]
R639	ERDS2TJ474T	470K 1/4W [M]	R910	ERDS2TJ102T	1K 1/4W [M]	C108	ECBT1H8R2KC5	8.2P 50V [M]	C405	ECBT1H101KB5	100P 50V [M]
R640	ERDS2TJ474T	470K 1/4W [M]	R911	ERDS2TJ104T	100K 1/4W [M]	C109	ECBT1C103NS5	0.01 16V [M]	C406	ECBT1H101KB5	100P 50V [M]
R641	ERDS2TJ221T	220 1/4W [M]	R912	ERDS2TJ103T	10K 1/4W [M]	C110	ECBT1C103NS5	0.01 16V [M]	C409	ECA1CM220B	20 16V [M]
R642	ERDS2TJ221T	220 1/4W [M]	R914	ERDS2TJ274T	270K 1/4W [M]	C111	ECEA1EKA4R7B	4.7 25V [M]	C410	ECA1CM220B	20 16V [M]
R643	ERDS2TJ563T	56K 1/4W [M]	R917	ERDS2TJ103T	10K 1/4W [M]	C112	ECBT1C103NS5	0.01 16V [M]	C411	ECBT1H101KB5	100P 50V [M]
R644	ERDS2TJ563T	56K 1/4W [M]	R920	ERDS2TJ271T	270 1/4W [M]	C113	ECBT1H102KB5	1000P 50V [M]	C412	ECBT1H101KB5	100P 50V [M]
R645	ERDS2TJ473T	47K 1/4W [M]	R921	ERDS2TJ121T	120 1/4W [M]	C114	ECEA1HKA3R3B	3.3 50V [M]	C413	ECA1CM100B	10 16V [M]
R681	ERDS2TJ270T	27 1/4W [M]	R922	ERDS2TJ472T	4.7K 1/4W [M]	C115	ECEA1EKA4R7B	4.7 25V [M]	C414	ECA1CM100B	10 16V [M]
R682	ERDS2TJ270T	27 1/4W [M]	R929	ERDS2TJ101T	100 1/4W [M]	C116	ECBT1C822MS5	8200P 16V [M]	C415	ECBT1E103ZF5	0.01 25V [M]
R683	ERDS2TJ270T	27 1/4W [M]	R930	ERDS2TJ101T	100 1/4W [M]	C117	ECQB1H821JF3	820P 50V [M]	C416	ECBT1E103ZF5	0.01 25V [M]
R684	ERDS2TJ270T	27 1/4W [M]	R946	ERDS2TJ103T	10K 1/4W [M]	C118	ECFR1E183KR	0.018 25V [M]	C431	ECA1CM100B	10 16V [M]
R685	ERDS2TJ270T	27 1/4W [M]	R947	ERDS2TJ103T	10K 1/4W [M]	C119	ECFR1E183KR	0.018 25V [M]	C432	ECA1CM100B	10 16V [M]
R686	ERDS2TJ270T	27 1/4W [M]	R948	ERDS2TJ103T	10K 1/4W [M]	C120	ECEA1HKA010B	1 50V [M]	C440	ECBT1E103ZF5	0.01 25V [M]
R687	ERDS2TJ270T	27 1/4W [M]	R949	ERDS2TJ103T	10K 1/4W [M]	C121	ECEA1HKA010B	1 50V [M]	C451	ECEA1VKA4R7B	4.7 10V [M]
R688	ERDS2TJ270T	27 1/4W [M]	R950	ERDS2TJ102T	1K 1/4W [M]	C122	ECEA1HKA2R2B	2.2 50V [M]	C452	ECEA1VKA4R7B	4.7 10V [M]
R689	ERDS2TJ270T	27 1/4W [M]	R951	ERDS2TJ122T	1.2K 1/4W [M]	C123	ECEA1HKA010B	1 50V [M]	C453	ECBT1H101KB5	100P 50V [M]
R690	ERDS2TJ270T	27 1/4W [M]	R952	ERDS2TJ152T	1.5K 1/4W [M]	C124	ECBT1H102KB5	1000P 50V [M]	C454	ECBT1H101KB5	100P 50V [M]
R691	ERDS2TJ270T	27 1/4W [M]	R953	ERDS2TJ182T	1.8K 1/4W [M]	C125	ECBT1H150JC5	15P 50V [M]	C455	ECBT1H102KB5	1000P 50V [M]
R692	ERDS2TJ270T	27 1/4W [M]	R954	ERDS2TJ222T	2.2K 1/4W [M]	C126	ECBT1H104ZF5	0.1 50V [M]	C456	ECBT1H102KB5	1000P 50V [M]
R693	ERDS2TJ270T	27 1/4W [M]	R955	ERDS2TJ332T	3.3K 1/4W [M]	C127	ECEA1CKA220B	22 16V [M]	C457	ECEA1AU330B	33 10V [M]
R694	ERDS2TJ270T	27 1/4W [M]	R956	ERDS2TJ472T	4.7K 1/4W [M]	C128	ECBT1C103NS5	0.01 16V [M]	C458	ECEA1AU330B	33 10V [M]
R695	ERDS2TJ102T	1K 1/4W [M]	R957	ERDS2TJ682T	6.8K 1/4W [M]	C129	ECEA0JKA101B	100 6.3V [M]	C459	ECFR1E223KR	0.022 25V [M]
R696	ERDS2TJ102T	1K 1/4W [M]	R960	ERDS2TJ102T	1K 1/4W [M]	C130	ECEA0JKA101B	100 6.3V [M]	C460	ECFR1E223KR	0.022 25V [M]
R699	ERDS2TJ332T	3.3K 1/4W [M]	R961	ERDS2TJ122T	1.2K 1/4W [M]	C131	ECBT1C103NS5	0.01 16V [M]	C461	ECFR1E682KR	6800P 25V [M]
R705	ERDS1FVJ6R8T	6.8 1/2W [M]	R962	ERDS2TJ152T	1.5K 1/4W [M]	C132	ECBT1H102KB5	1000P 50V [M]	C462	ECFR1E682KR	6800P 25V [M]
R707	ERDS2TJ332T	3.3K 1/4W [M]	R963	ERDS2TJ182T	1.8K 1/4W [M]	C133	ECBT1H150JC5	15P 50V [M]	C463	ECEA1VKA4R7B	4.7 10V [M]
R708	ERDS2TJ102T	1K 1/4W [M]	R964	ERDS2TJ222T	2.2K 1/4W [M]	C134	ECBT1H180JC5	18P 50V [M]	C464	ECEA1VKA4R7B	4.7 10V [M]
R711	ERD25FVJ221T	220 1/4W [M]	R980	ERDS2TJ102T	1K 1/4W [M]	C137	ECBT1H271KB5	270P 50V [M]	C465	ECBT1E103ZF5	0.01 25V [M]
R714	ERDS2TJ472T	4.7K 1/4W [M]				C138	ECBT1H271KB5	270P 50V [M]	C466	ECBT1E103ZF5	0.01 25V [M]
R715	ERDS2TJ1R5T	1.5 1/4W [M]				C141	ECEA1HKA010B	1 50V [M]	C503	ECEA0JKA101B	100 6.3V [M]
R716	ERDS2TJ1R5T	1.5 1/4W [M]				C142	ECEA1HKA010B	1 50V [M]	C504	ECEA0JKA101B	100 6.3V [M]
R717	ERDS2TJ752T	7.5K 1/4W [M]	C1	ECBT1H5R6KC5	5.6P 50V [M]	C143	ECEA1HKA010B	1 50V [M]	C505	ECFR1C104MR	0.1 16V [M]
R718	ERDS2TJ682T	6.8K 1/4W [M]	C2	RCBS1H102KBY	1000P 50V [M]	C144	ECEA1HKA010B	1 50V [M]	C506	ECFR1C104MR	0.1 16V [M]
R719	ERDS1FVJ220T	22 1/2W [M]	C3	ECBT1H2R2KC5	2.2P 50V [M]	C145	ECBT1H220JC5	22P 50V [M]	C511	ECEA1HKA3R3B	3.3 50V [M]
R721	ERDS2TJ182T	1.8K 1/4W [M]	C4	ECBT1H181KB5	180P 50V [M]	C146	ECBT1H331KB5	330P 50V [M]	C512	ECEA1HKA3R3B	3.3 50V [M]
R723	ERDS1FVJ220T	22 1/2W [M]	C5	ECBT1H5R6KC5	5.6P 50V [M]	C147	ECBT1H102KB5	1000P 50V [M]	C513	ECBT1H150J5	15P 50V [M]
R724	ERDS2TJ472T	4.7K 1/4W [M]	C6	ECBT1H3R3KC5	3.3P 50V [M]	C148	ECBT1C103NS5	0.01 16V [M]	C514	ECBT1H150J5	15P 50V [M]
R727	ERD25FVJ180T	18 1/4W [M]	C7	ECBT1H4R7KC5	4.7P 50V [M]	C149	ECBT1C103NS5	0.01 16V [M]	C515	ECBT1H221KB5	220P 50V [M]
R728	ERDS1FVJ100T	10 1/2W [M]	C8	ECBT1H3R3KC5	3.3P 50V [M]	C150	ECBT1H104ZF5	0.1 50V [M]	C516	ECBT1H221KB5	220P 50V [M]
R729	ERDS2TJ152T	1.5K 1/4W [M]	C9	ECBT1H2R2KC5	2.2P 50V [M]	C172	ECBT1H331KB5	330P 50V [M]	C517	ECBT1H330J5	33P 50V [M]
R751	ERC12UGK335D	3.3M 1/2W[M](PC)	C10	ECBT1H180JC5	18P 50V [M]	C173	ECEA1CKA220B	22 16V [M]	C518	ECBT1H330J5	33P 50V [M]
R751	ERC12ZGK335D	3.3M 1/2W[M](P)	C11	RCBS1H102KBY	1000P 50V [M]	C174	ECEA1CKA100B	10 16V [M]	C519	ECEA1VKA4R7B	4.7 10V [M]
R754	ERDS2TJ102T	1K 1/4W [M]	C101	ECBT1C103NS5	0.01 16V [M]	C175	ECBT1C103NS5	0.01 16V [M]	C520	ECEA1VKA4R7B	4.7 10V [M]

Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks
C521	ECEA1VKA4R7B	4.7 10V [M]	C608	ECCR1H100K5	10P 50V [M]	C709	ECA1CM330B	33 16V [M]	C910	ECEA1HKA220B	22 50V [M]
C522	ECEA1VKA4R7B	4.7 10V [M]	C609	ECBT1H151KB5	150P 50V [M]	C710	ECBT1E103ZF5	0.01 25V [M]	C911	ECEA1HKA220B	22 50V [M]
C523	ECFR1E123KR	0.012 25V [M]	C610	ECBT1H151KB5	150P 50V [M]	C711	ECKR1H103ZF5	0.01 50V [M]	C912	ECEA1HKA220B	22 50V [M]
C524	ECFR1E123KR	0.012 25V [M]	C611	ECQV1H473JM3	0.047 50V [M]	C712	ECA1HM470B	47 50V [M]	C913	ECEA1VKA100B	10 10V [M]
C525	ECQV1H683JZ3	0.068 50V [M]	C612	ECQV1H473JM3	0.047 50V [M]	C713	ECKR1H103ZF5	0.01 50V [M]	C914	ECEA1VKA100B	10 10V [M]
C526	ECQV1H683JZ3	0.068 50V [M]	C613	ECBT1H681KB5	680P 50V [M]	C716	ECEA2AU100B	10 100V [M]	C916	ECEA1HKA010B	1 50V [M]
C527	ECBT1C562KR5	5600P 16V [M]	C614	ECBT1H681KB5	680P 50V [M]	C720	ECA1EM220B	22 25V [M]	C919	ECBT1H101KB5	100P 50V [M]
C528	ECBT1C562KR5	5600P 16V [M]	C615	ECEA2AN2R2SB	2.2 100V [M]	C722	ECQE2104KF3	0.1 250V [M]	C920	ECEA1HKA010B	1 50V [M]
C529	ECQB1H273JF3	0.027 50V [M]	C616	ECEA2AU100B	10 100V [M]	C751	ECKWNS102MBM ⚠	1000P 400V [M]	C921	ECBT1H331KB5	330P 50V [M]
C530	ECQB1H273JF3	0.027 50V [M]	C617	ECA1HM470B	47 50V [M]	C752	ECKR1H103ZF5	0.01 50V [M]	C922	ECBT1H331KB5	330P 50V [M]
C531	ECBT1E103ZF5	0.01 25V [M]	C618	ECEA2AU100B	10 100V [M]	C753	ECA1EM102EV ⚠	1000 25V [M]	C923	ECBT1H331KB5	330P 50V [M]
C532	ECBT1E103ZF5	0.01 25V [M]	C621	ECEA2AU100B	10 100V [M]	C756	ECBT1E103ZF5	0.01 25V [M]	C924	ECBT1H331KB5	330P 50V [M]
C533	ECEA1CKA100B	10 16V [M]	C625	ECEA1HN100SB	10 50V [M]	C757	ECA1CM470B	47 16V [M]	C925	ECBT1H331KB5	330P 50V [M]
C534	ECEA1CKA100B	10 16V [M]	C626	ECEA1HN100SB	10 50V [M]	C758	ECA1AM101B	100 10V [M]	C926	ECBT1H331KB5	330P 50V [M]
C536	ECBT1E103ZF5	0.01 25V [M]	C685	ECBT1E103ZF5	0.01 25V [M]	C759	ECA1EM220B	22 25V [M]	C927	ECBT1H331KB5	330P 50V [M]
C601	ECEA1HN2R2SB	2.2 50V [M]	C702	ECQE2104KF3	0.1 250V [M]	C901	ECA0JM102B ⚠	1000 6.3V [M]	C928	ECBT1H331KB5	330P 50V [M]
C602	ECEA1HN2R2SB	2.2 50V [M]	C703	ECES75V752UX ⚠	7500 75V [M]	C902	ECBT1E223ZF5	0.022 25V [M]	C929	ECBT1H331KB5	330P 50V [M]
C603	ECBT1H561KB5	560P 50V [M]	C704	ECES75V752UX ⚠	7500 75V [M]	C903	ECBT1E103ZF5	0.01 25V [M]	C930	ECBT1H331KB5	330P 50V [M]
C604	ECBT1H561KB5	560P 50V [M]	C705	ECEA1HU222E ⚠	2200 50V [M]	C904	ECA0JM102B ⚠	1000 6.3V [M]	C934	ECBT1H101KB5	100P 50V [M]
C605	ECA1JM330B	33 6.3V [M]	C706	ECEA1HU222E ⚠	2200 50V [M]	C906	ECEA0JKA101B	100 6.3V [M]	C938	ECBT1H101KB5	100P 50V [M]
C606	ECA1JM330B	33 6.3V [M]	C707	ECA1VM101B	100 10V [M]	C908	ECBT1E103ZF5	0.01 25V [M]	C944	ECBT1H101KB5	100P 50V [M]
C607	ECCR1H100K5	10P 50V [M]	C708	ECKR1H103ZF5	0.01 50V [M]	C909	ECEA1HKA220B	22 50V [M]	C950	ECBT1H101KB5	100P 50V [M]

## ■ Packaging

### ACCESSORIES

A1 (EUR644346)	: REMOTE CONTROL UNIT
A2 (RSA0010)	: AM LOOP ANT
A3 (SJA172)	: AC CORD
A4 (RSA0006)	: FM ANT
A5 (RFKSEX110PK)...P	: INSTRUCTION MNL ASS'Y
A5 (RFKSEX110PCK)...PC	: INSTRUCTION MNL ASS'Y

