

Service Manual

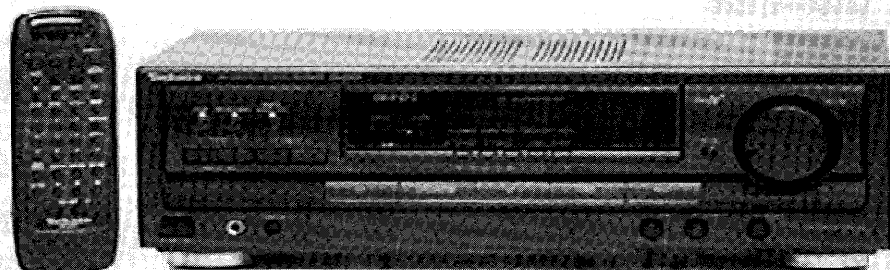
AV Control Stereo Receiver

Receiver

SA-EX100

Colour

(K) Black Type



Area

Suffix for Model No.	Area	Colour
(E)	Continental Europe	(K)
(EB)	Great Britain	
(EG)	Germany and Italy	

Specifications

Amplifier Section

Power output (at 240V)	
DIN 1kHz (T.H.D. 1%)	2 x 100W (4Ω)
40Hz – 20kHz continuous power output both channels driven	2 x 80W (8Ω)
Total harmonic distortion	
Rate power at 40Hz – 20kHz	0.5% (8Ω)
Half power at 1kHz	0.03% (8Ω)
Load impedance	4 – 16Ω
Intermodulation distortion	
rated power at 60Hz:7kHz 4:1, SMPTE	0.5% (8Ω)
Power bandwidth	
both channels driven, –3dB	10Hz – 40kHz (8Ω)
Damping factor	40 (8Ω)
Frequency response	
PHONO	RIAA standard curve (30Hz – 15kHz) ±0.8dB
CD, VCR, TAPE	10Hz – 40kHz, ±3dB
Input sensitivity and impedance	
PHONO	3mV / 47kΩ
CD, VCR, TAPE	200mV / 22kΩ
S/N at rated power (8Ω)	
PHONO	70dB (IHF, A: 80dB)
CD, VCR, TAPE	75dB (IHF, A: 88dB)
Tone control	
BASS	50Hz, +10 to –10dB
TREBLE	20kHz, +10 to –10dB
Output voltage	
VCR1 OUT, TAPE REC (OUT)	200mV
Channel balance (250Hz – 6.3kHz)	±1dB
Channel separation	55dB
Headphones output level and impedance	430mV / 330Ω

FM Tuner Section

Frequency range	87.50 – 108.00MHz
Sensitivity	
S/N 30dB	1.5μV / 75Ω
S/N 26dB	1.3μV / 75Ω
S/N 20dB	1.2μV / 75Ω
Usable sensitivity	1.5μV / 75Ω (IHF '58)
46dB stereo quieting sensitivity	22μV / 75Ω
Total harmonic distortion	
MONO	0.2%
STEREO	0.3%
S/N	
MONO	60dB (75dB, IHF)
STEREO	58dB (71dB, IHF)
Frequency response	20Hz – 15 kHz (+1dB, –2dB)
Alternate channel selectivity	65dB (±400kHz)
Capture ratio	1dB
Image rejection at 98MHz	40dB
IF rejection at 98MHz	70dB
Spurious response rejection at 98MHz	70dB
AM suppression	50dB
Stereo separation (1 kHz)	40dB
Carrier leak	
19kHz	–30dB (–35dB, IHF)
38kHz	–50dB (–55dB, IHF)
Channel balance (250Hz – 6.3kHz)	±1.5dB
Limiting point	1.2μV
Bandwidth	
IF amplifier	180kHz
FM demodulator	1000kHz
Antenna terminal(s)	75Ω (unbalanced)

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.

Technics®

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■ AM Tuner Section

Frequency range	
AM (...EG) / MW (...E,EB)	522 — 1611kHz (9kHz steps) 530 — 1620kHz (10kHz steps) 144 — 288kHz
LW ... (E,EB)	
Sensitivity	
AM (...EG) / MW (...E,EB)	20 μ V, 330 μ V/m
LW ... (E,EB)	45 μ V
Selectivity	
AM (...EG) / MW (...E,EB)	(at 999kHz) 55dB
LW ... (E,EB)	(at 252kHz) 55dB
Image rejection	
AM (...EG) / MW (...E,EB)	(at 999kHz) 40dB
LW ... (E,EB)	(at 252kHz) 40dB
IF rejection	
AM (...EG) / MW (...E,EB)	(at 999kHz) 55dB
LW ... (E,EB)	(at 252kHz) 55dB

■ General

Power consumption	190W (standby condition : 3W)
Power supply	
for E,EB	AC 230 – 240V, 50Hz
for EG	AC 230V, 50Hz
Dimensions (W x H x D)	430 x 136 x 309mm
Weight	7.0kg

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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■ Before Repair and Adjustment

Disconnect AC power, discharge four Power Supply Capacitors (C703 to C706) through a 10 Ω , 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.

For E, EB : Current consumption at 230V – 240V, 50Hz in NO SIGNAL mode should be between 120mA to 350mA.

For EG : Current consumption at 230V, 50Hz in NO SIGNAL mode should be between 130mA to 380mA.

■ 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.

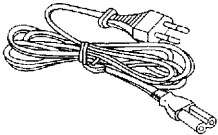
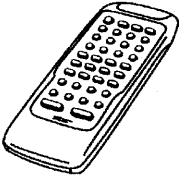
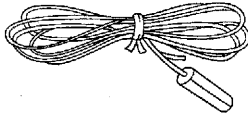
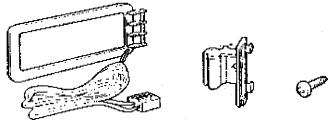
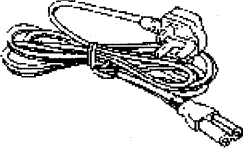

If this occurs, follow the procedure outlines below:

- Turn off the power.
- Determine the cause of the problem and correct it.
- 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.

■ Accessories

			
AC power supply cord (RJA0019-2K .. E,EG) ... 1 pc	Remote control unit (EUR642175) 1 pc	FM indoor antenna (RSA0007) 1 pc	AM loop antenna set (RSA0010) 1 set
			
AC power supply cord (VJA0733 .. EB) ... 1 pc	Attachment plug (SJP9009 .. EB) ... 1 pc		

■ Operation Checks and Main Component Replacement Procedures

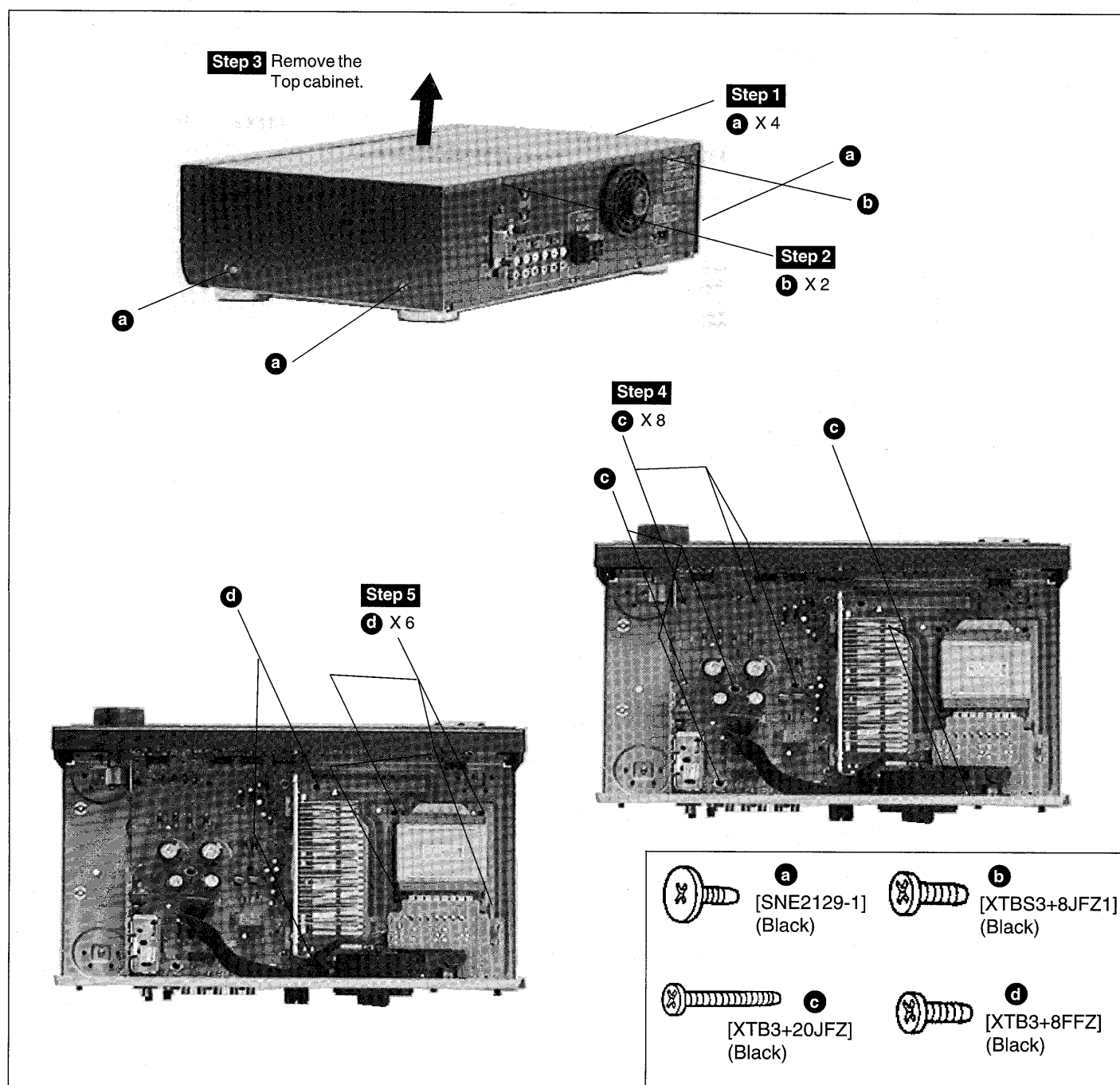
"ATTENTION SERVICER" Some chassis components may have sharpe edges. Be careful when disassembling and serving.

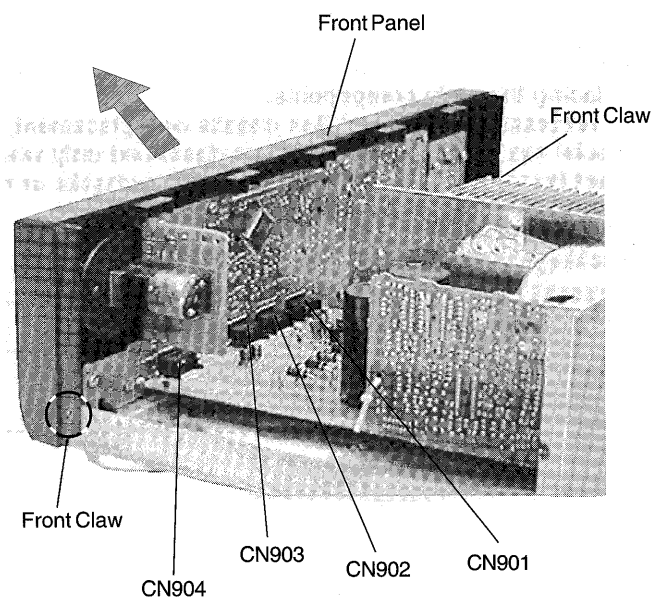
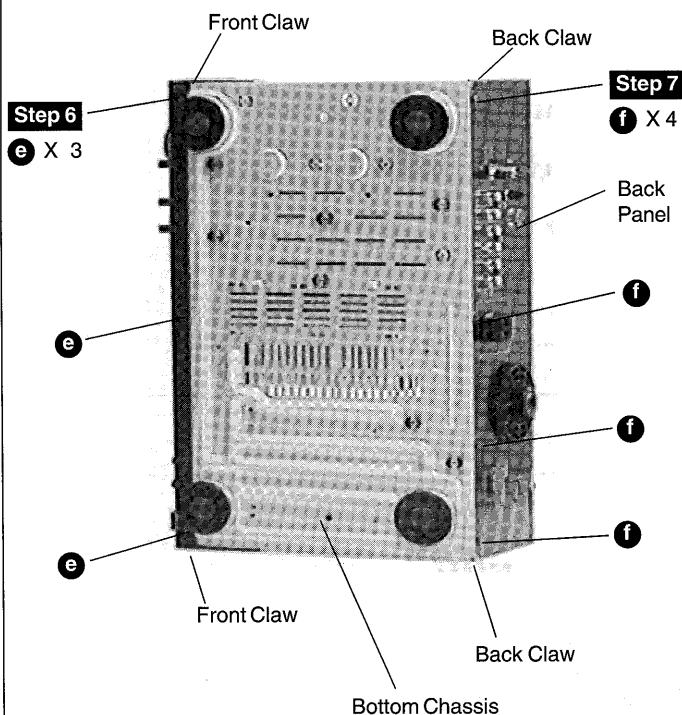
1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures.
Special reassembly procedures are described only when required.
3. Select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

• Contents

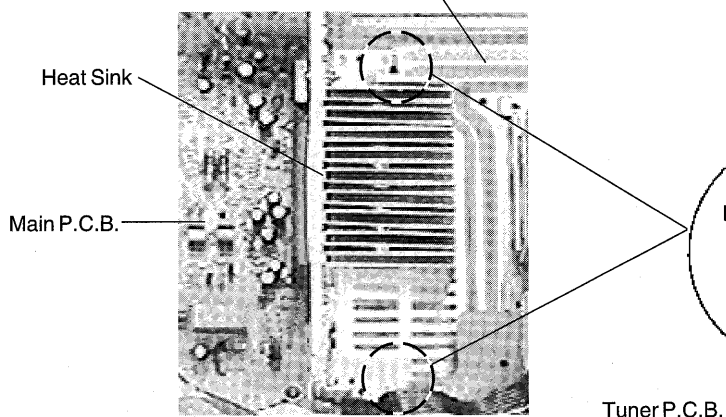
• Checking Procedure for Major P.C.B.	page 3 ~ 4
• Replacement of Power IC and Regulator Transistor	5 ~ 6
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■ Checking Procedure for Major P.C.B.

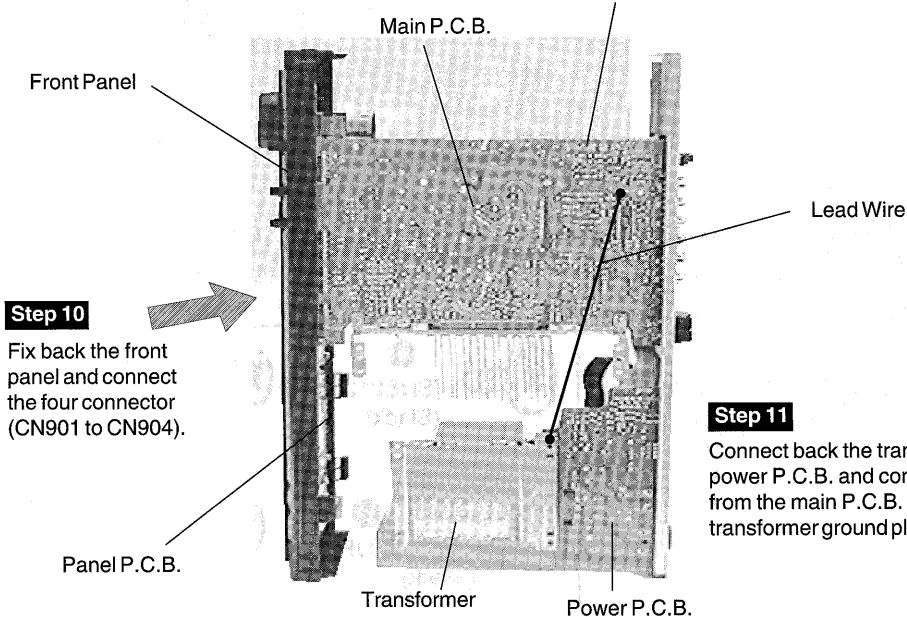




Step 8 Release the two front claws and pull out the front panel as shown above.
Take note of the connectors as you remove the front panel. (CN901 to CN904)

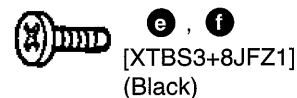


Step 9 Release the two back claws and the hooks of the heat sink.
Slide out the bottom chassis from the main P.C.B. and the back panel.

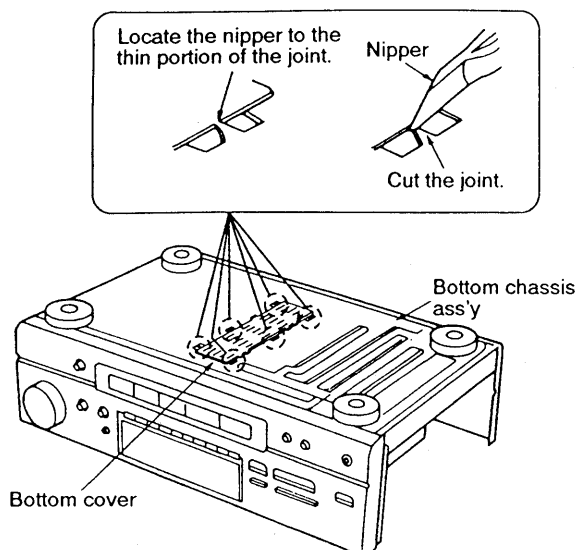


Step 11
Connect back the transformer to the power P.C.B. and connect a lead wire from the main P.C.B. ground to the transformer ground plate.

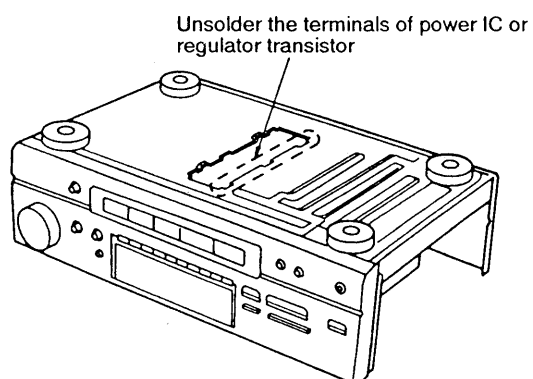
Step 12
Check the Main P.C.B., Panel P.C.B., Tuner P.C.B. and the Power P.C.B. as shown on the left.



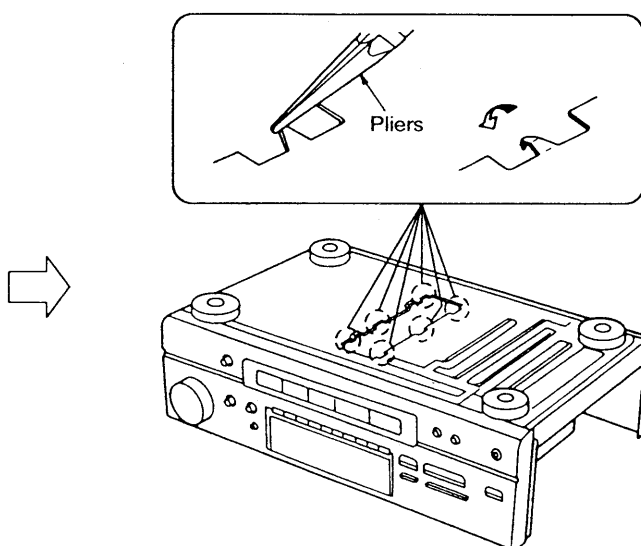
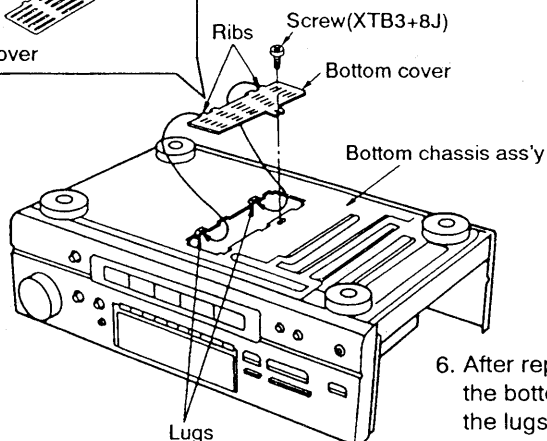
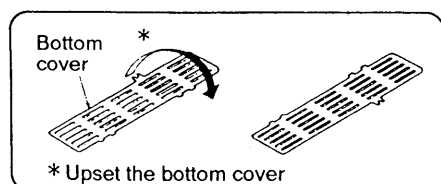
■ Replacement of Power IC and Regulator Transistor



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



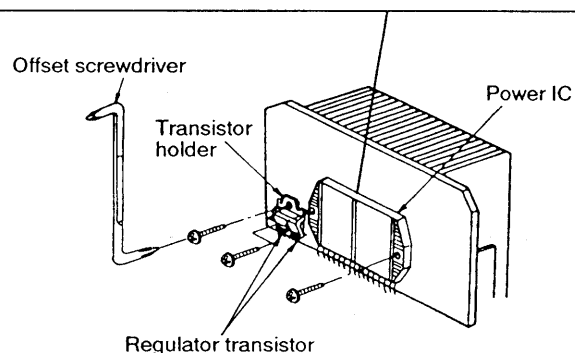
3. When replacing the power IC or regulator transistor, unsolder the terminals of power IC or regulator transistor on the soldered surface.



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 after replacing the power IC or regulator transistors. Otherwise, the heat radiation works little.

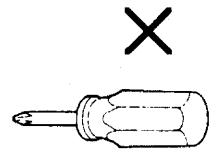


4. Then remove the screws fixed to the power IC or transistor holder.
5. When installing or removing the power IC or transistor holder, be sure to use an offset screwdriver.

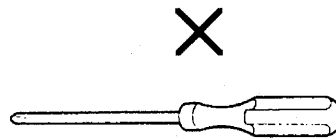
6. After replacing the power IC or regulator transistor, upset the bottom cover and align the ribs of the bottom cover to the lugs on the bottom chassis ass'y.
7. After mounting the bottom cover on the bottom chassis ass'y, fix it with a screw(XTB3+8J).

CAUTION

1. After replacing the power IC or regulator transistor, apply a sufficient quantity of compound grease (RFKX0002/SZZ0L15) between the heat sink and the power IC or regulator transistor (Radiation of power IC).
 2. Tighten enough the screws. Otherwise, the heat radiation works little.
 3. When installing or removing the power IC or transistor holder, be sure to use an offset screwdriver.
- A long straight screwdriver cannot be used for removing or mounting the screws since its long grip interferes with the neighbouring P.C.B. (See Fig.1)
 - 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)



A short straight screwdriver

Fig.2

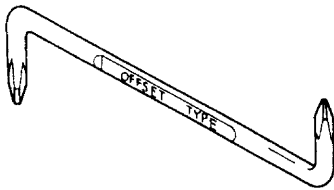
A short straight screwdriver

Fig.1

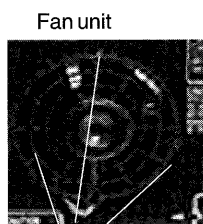
- Insufficient tightening will cause poor heat dissipation from the power IC and regulator transistor and, in the worst case, may lead to their thermal breakdown.

—OFFSET SCREWDRIVER—

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

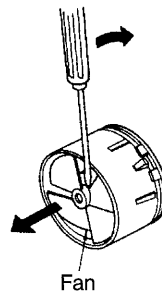


No.		
34 1/4	1 & 2	4 3/4"

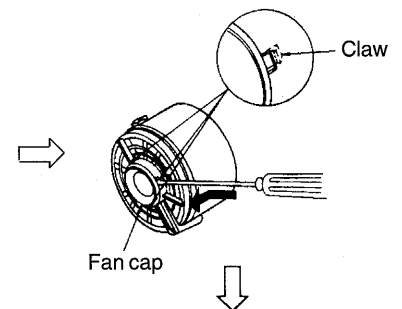
■ Replacement of the Fan Motor

Step 1
Release the 3 claws.

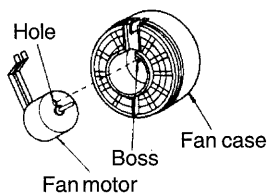
Step 2
Put a screwdriver at the root of the fan and remove it.



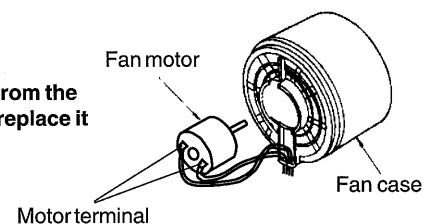
Step 3
Remove the fan cap.

**NOTE**

When replacing the fan motor, align the boss of the fan case with the hole of the fan motor.



Step 4
Desolder the wires from the motor terminal and replace it with a new one.



■ Caution for AC Mains Lead


[For [EB] area.]

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.

A 5-ampere fuse is fitted in this plug.

Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark  or the BSI mark  on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.

If you lose the fuse cover, the plug must not be used until a replacement cover is obtained.

A replacement fuse cover can be purchased from your local dealer.

CAUTION !

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OFF SAFELY.

THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted, please observe the wiring code as shown below.

If in any doubt please consult a qualified electrician.

IMPORTANT

The wires in this lead are coloured in accordance with the following code:

Blue: Neutral

Brown: Live

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

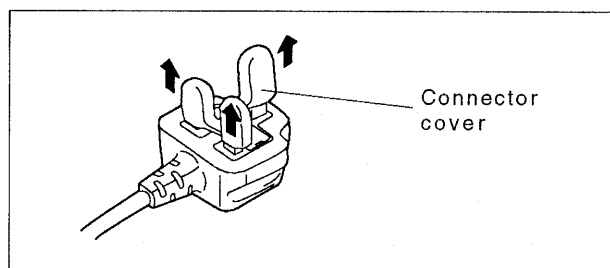
The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

Under no circumstances should either or these wires be connected to the earth terminal of the three pin plug, marked with the letter E or the Earth symbol \perp .

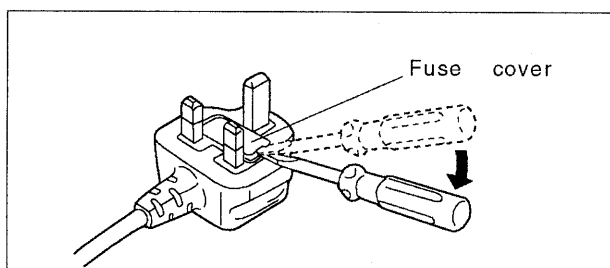
Before use

Remove the connector cover as follows.

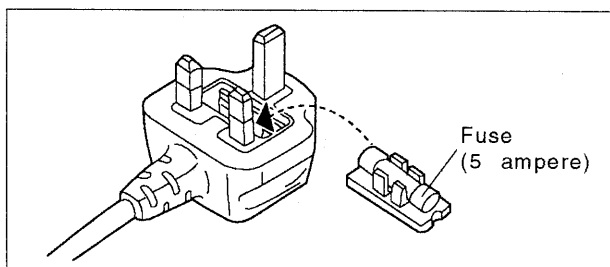


How to replace the fuse

1. Remove the fuse cover with a screwdriver.



2. Replace the fuse and attach the fuse cover.

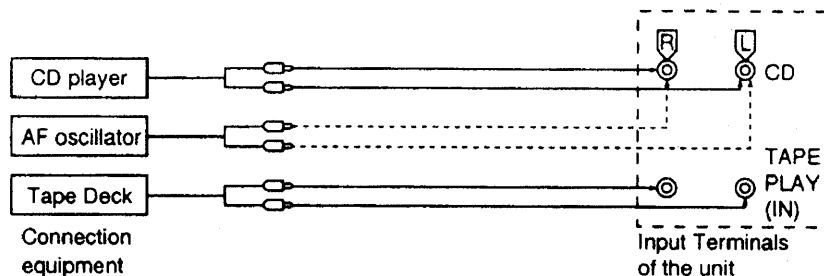


Troubleshooting

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

CONNECTION

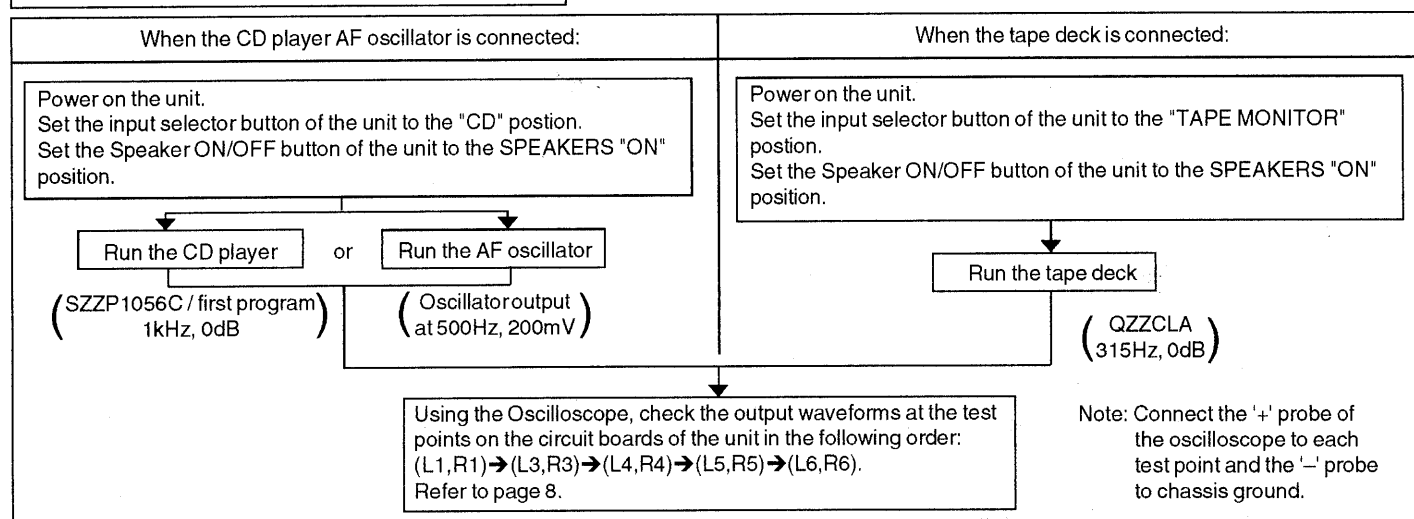
Connect either a CD player, tape deck or AF oscillator to the input terminals of the unit.



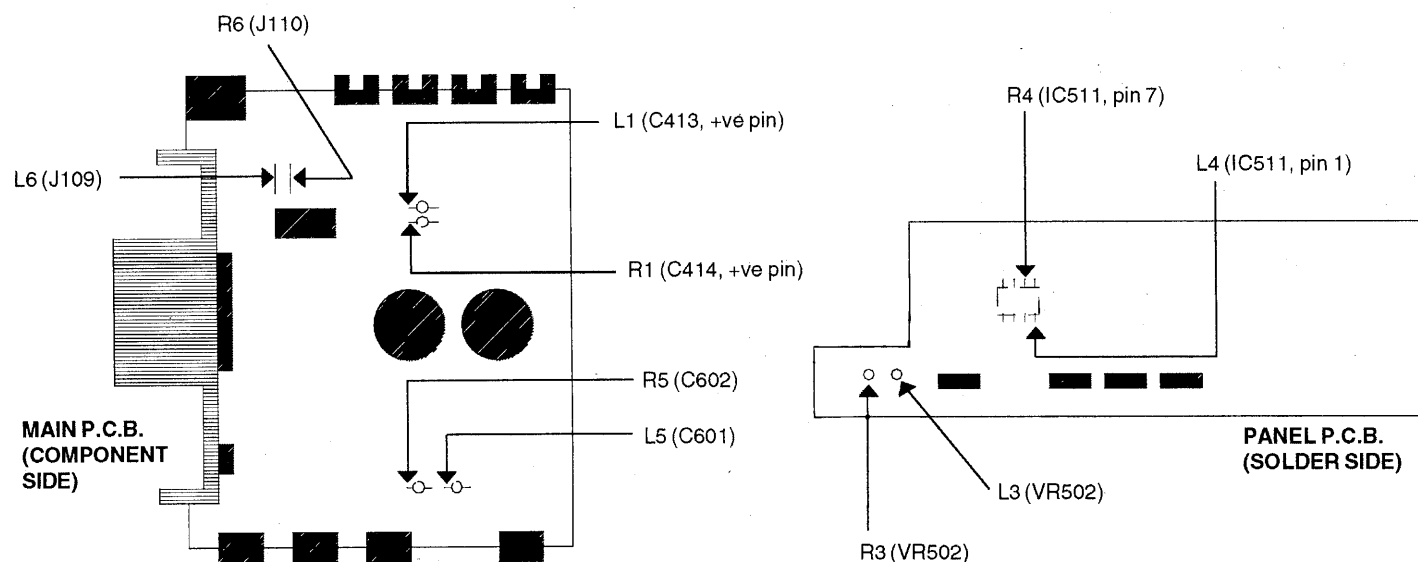
REQUIRED ITEMS

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.

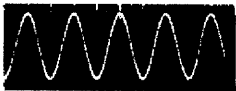

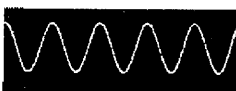
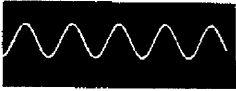

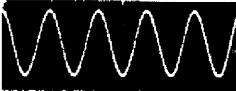

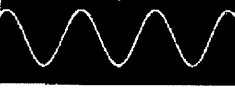
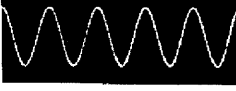


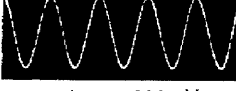


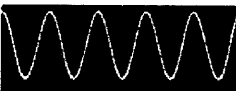
TEST PROCEDURE FOR AMPLIFIER CIRCUIT



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

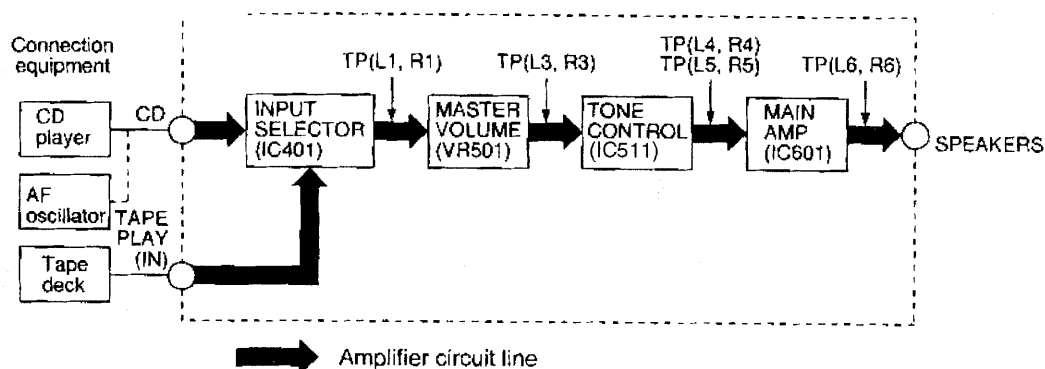
Measurement conditions. Volume control (VR501), Tremble control (VR512) and Bass control (VR511) positions: ○

*Volume control position (VR501) for these test

○

CIRCUIT BLOCKS

CIRCUIT BLOCKS OF THE MAIN UNIT



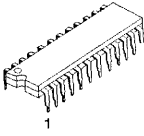
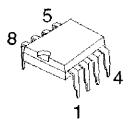
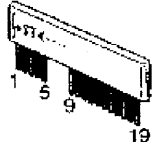
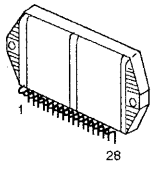
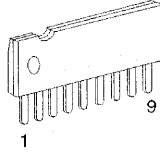
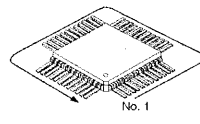
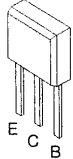
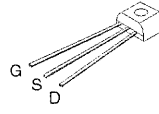
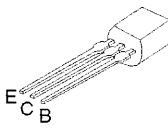
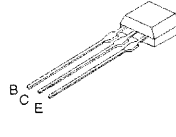
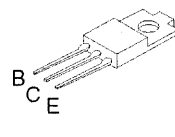
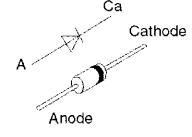
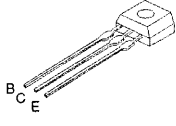
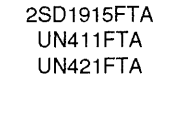
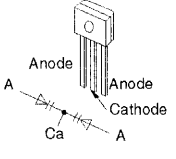
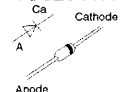
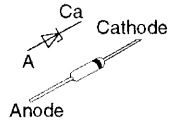
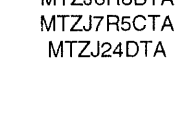
Terminal Functions Of ICs

• IC901 (UPD78043D047) 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	I	RDS detect terminal
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	—	Not used
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
36~39	SFC1~SFC4	—	Not used
40	RDS DT	I	RDS data signal
41	TNR_CE	O	Chip enable signal
42	SEL/TNR_DT	O	Serial data signal
43	SEL/TNR_CK	O	Serial clock signal
44	RDS ST	O	RDS start signal
45	RDS CLK	O	RDS clock signal
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	—	Not used
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

LA1832A(24P) LC7218(24P) TC9163N(28P) 	AN6558-F M5218AP UPC4570C 	STK311-010 	RSN3305-P 	BA6218 	UPD78043D036(80P) 
2SC3311ARTA 	2SK544F-AC 	2SA1534AQRTA 2SC3940AQSTA 	RVTDT144YST 2SA933SSTA 	2SB1548PQAU 2SD2374PQAU 	1N5402BM21 SB360L6508 
2SC2785FETA 2SC2786MTA 	2SC2787FL1TA 2SC2787LTA 2SA1309ARTA 2SD1915FTA UN411FTA UN421FTA 	SVC211SPA-AL 	RVD1SS133TA MTZJ5R1BTA 1SR35200TB MA700ATA 1SS291TA 	MTZJ16CTA MTZJ3R9ATA 	MTZJ4R7BTA MTZJ6R2BTA MTZJ6R8BTA MTZJ7R5CTA MTZJ24DTA 

■ Schematic Diagram

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

Note :

< for Headphone Jack circuit and Operation circuit > (Page 11)

< for Tuner circiut > (Page 12 ~ 15)

< for Main circuit > (Page 16 ~ 17)

< for Power Supply circuit, Transformer circuit, Panel circuit and Volume circuit > (Page 18 ~ 20)

• S946	:	Power switch	• S962	:	Tape select switch
• S947	:	Phono select switch	• S964	:	VCR select switch
• S948	:	Muting switch	• S970	:	Search select switch
• S950	:	FM Auto/ Mono switch	• S971	:	Enhanced other network select switch
• S951	:	Band select switch	• S972	:	Program type increase switch
• S952	:	Tuning decrease switch	• S973	:	Program type decrease switch
• S953	:	Tuning increase switch	• S974	:	Display mode select switch
• S954	:	Memory manual/auto switch	• S980	:	Speakers on/off switch
• S956	:	Preset decrease switch	• VR501-1 ~ VR501-2	:	Volume control
• S957	:	Preset increase switch	• VR502	:	Balance control
• S960	:	Tuner select switch	• VR511-1 ~ VR511-2	:	Bass control
• S961	:	CD select switch	• VR512-1 ~ VR512-2	:	Treble control

- **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:

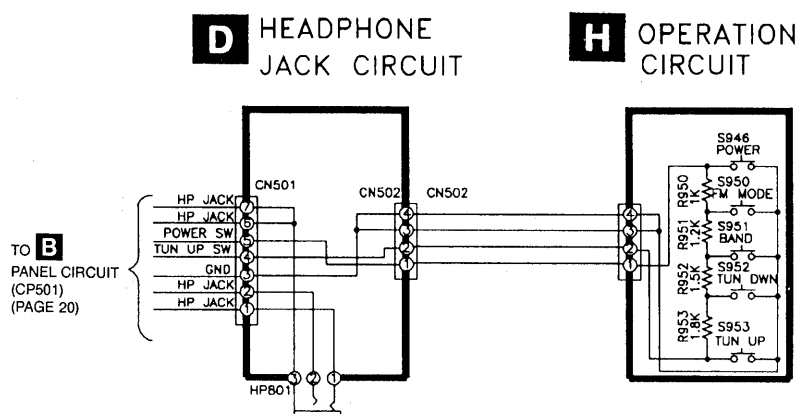
Components identified by  mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified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

Caution !

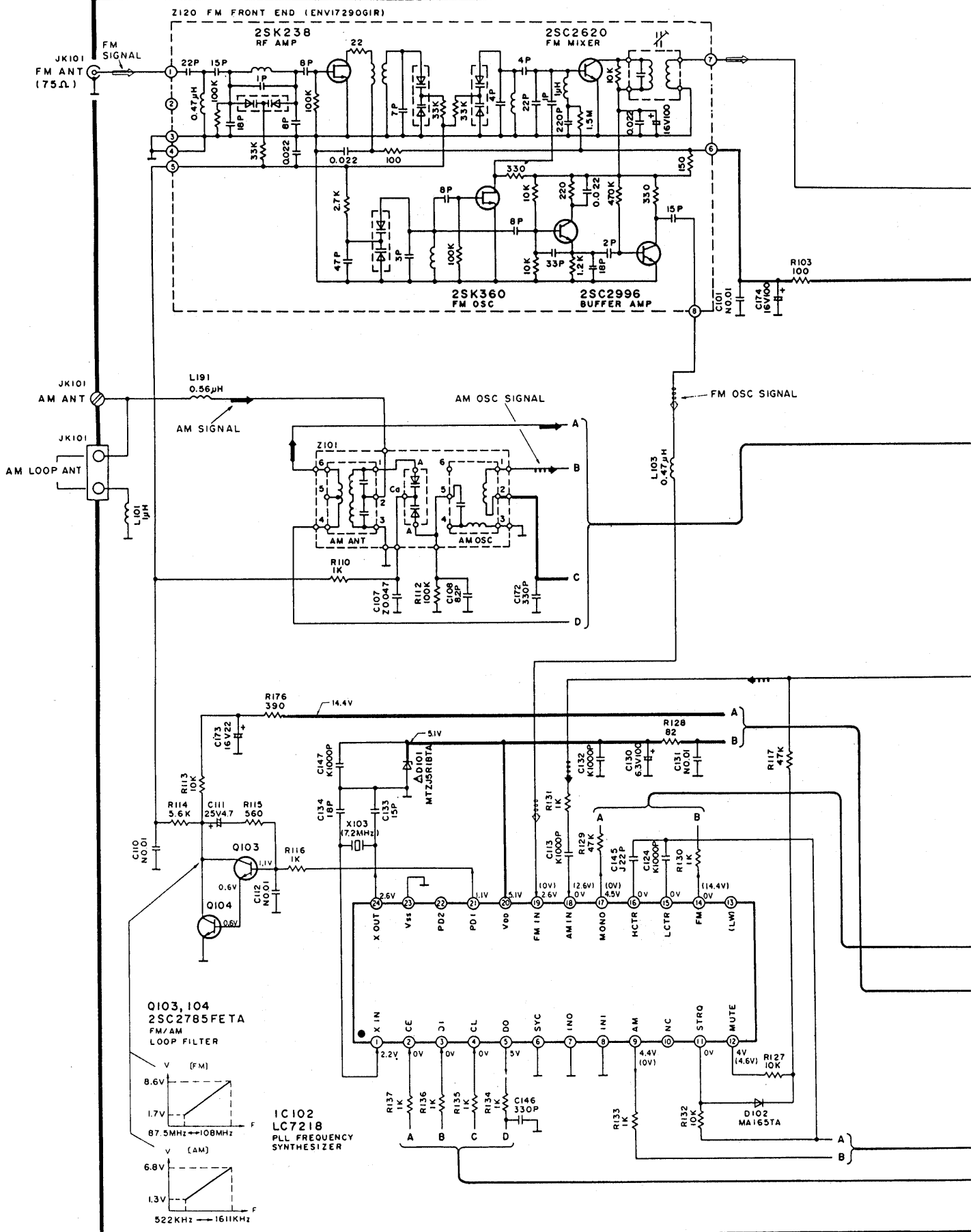
IC, LSI and VLSI are sensitive to static electricity.

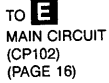
Secondary trouble can be prevented by taking care during repair.

- 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.



A TUNER CIRCUIT For (EG) area

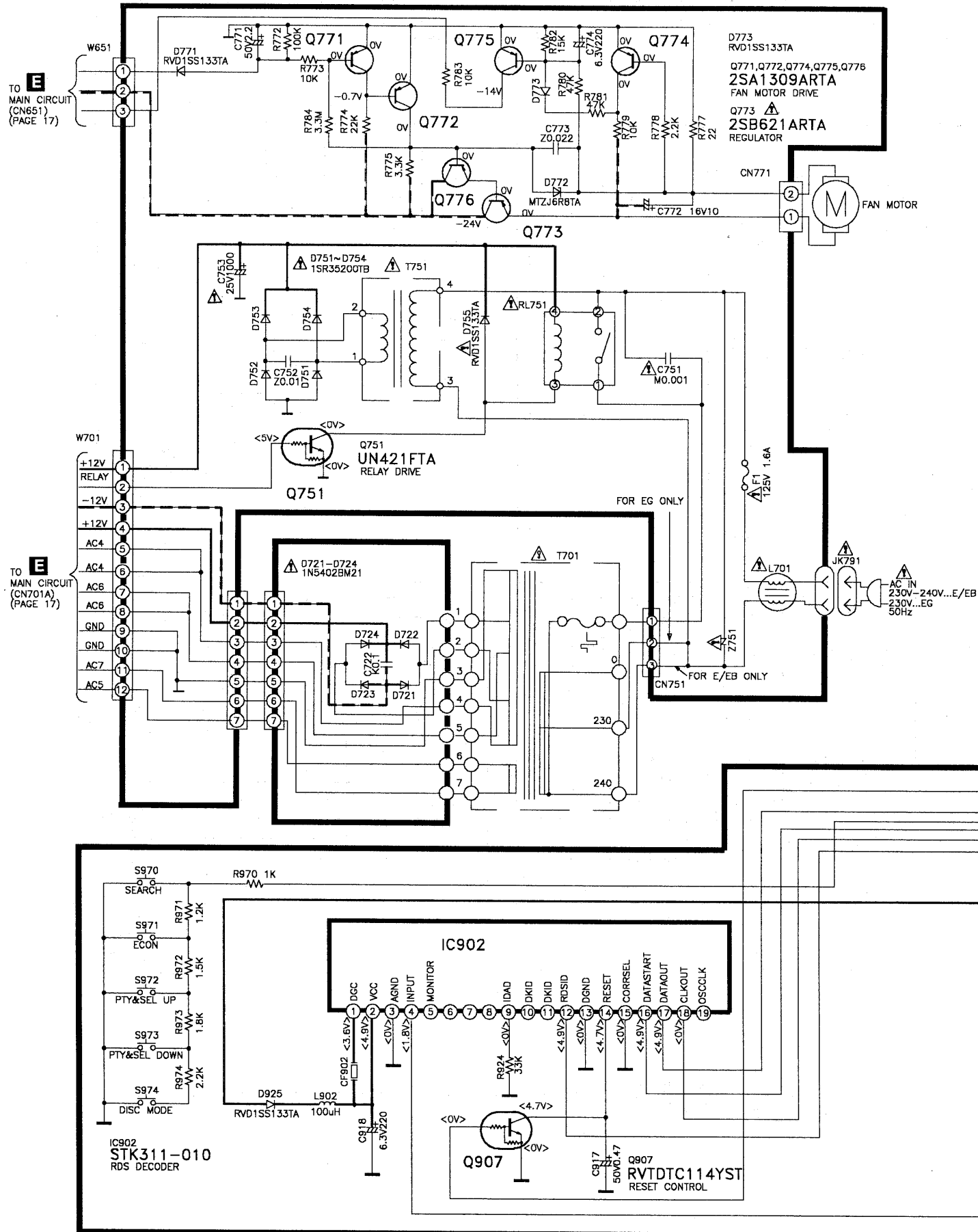






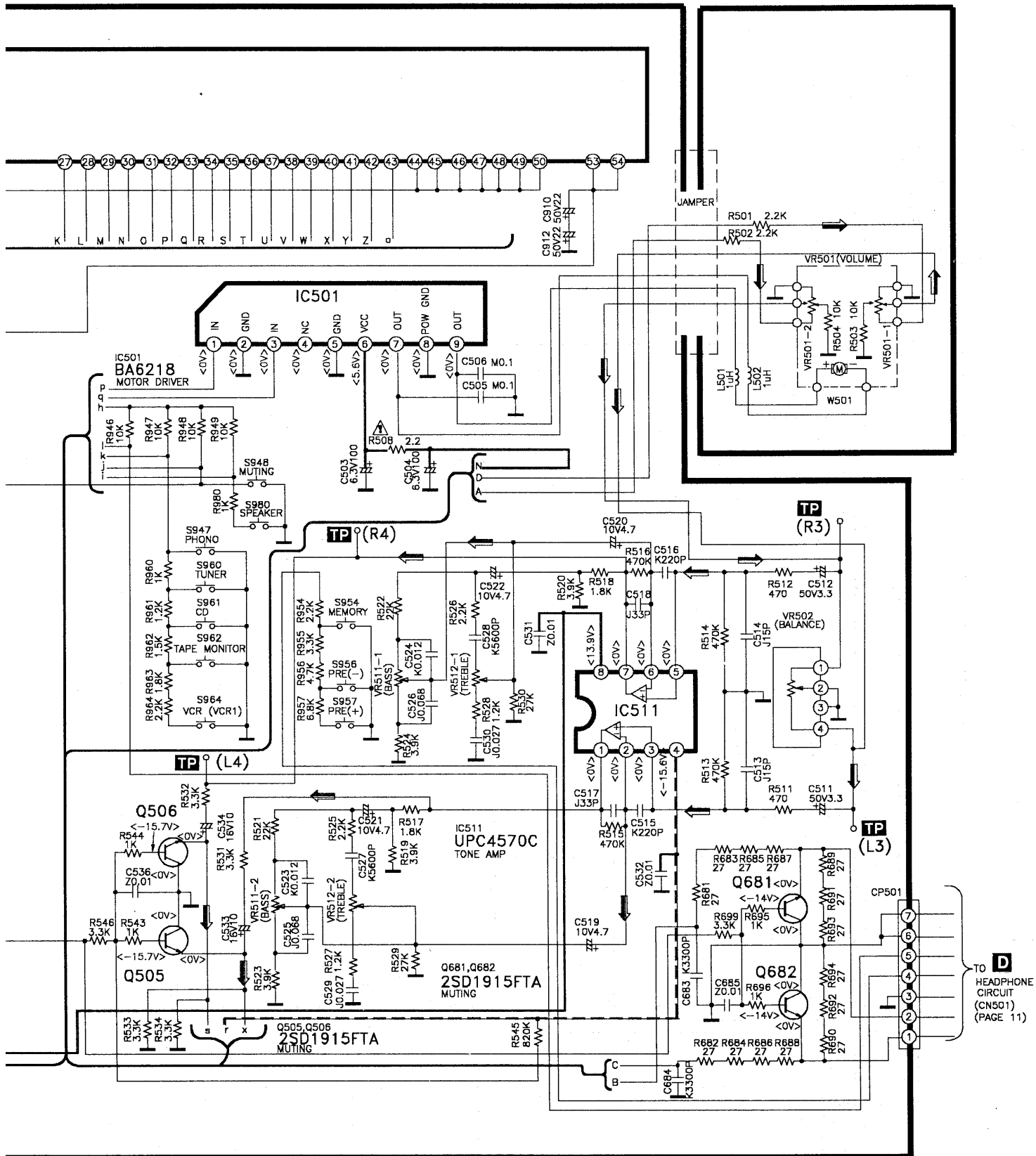


F POWER CIRCUIT

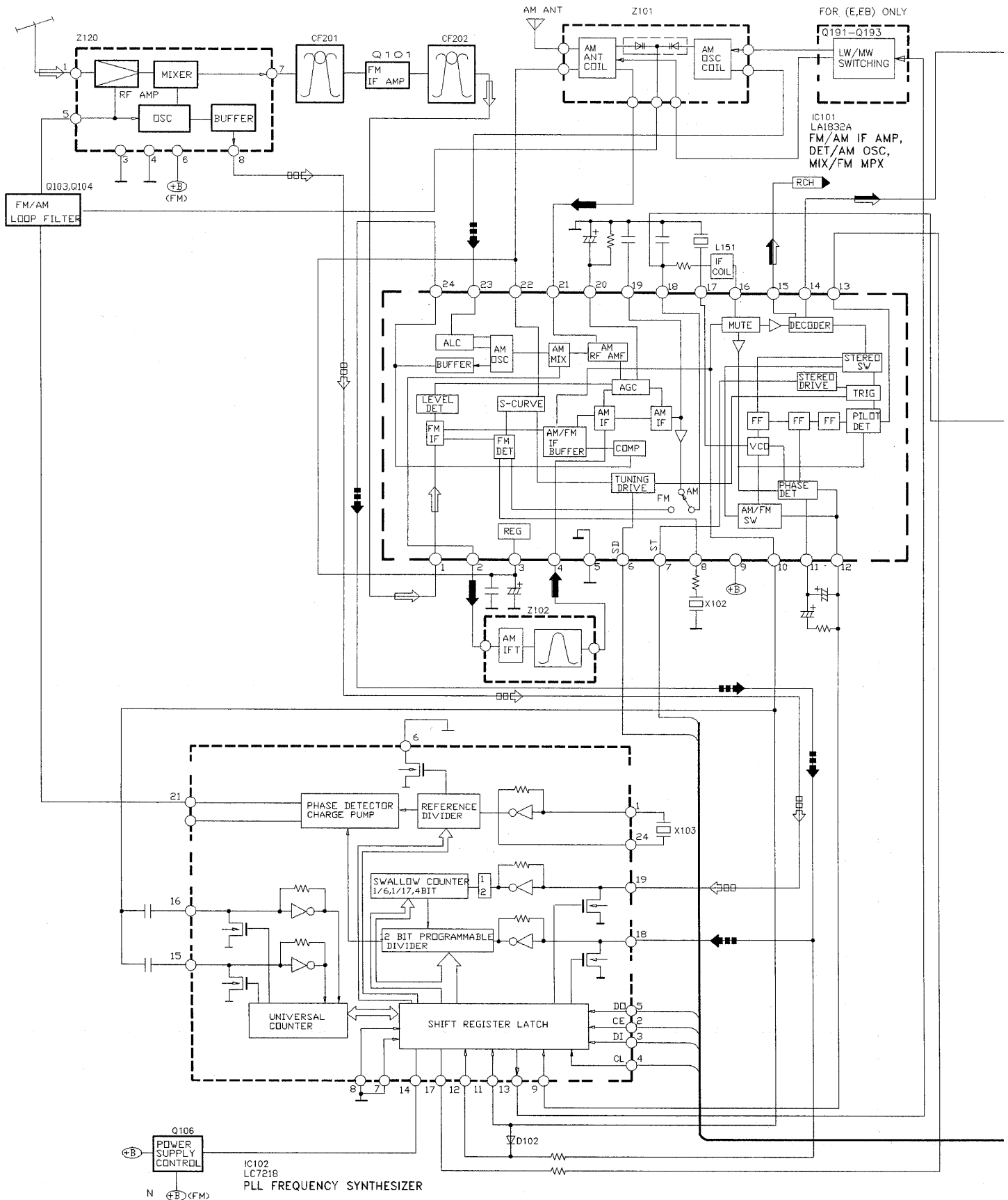


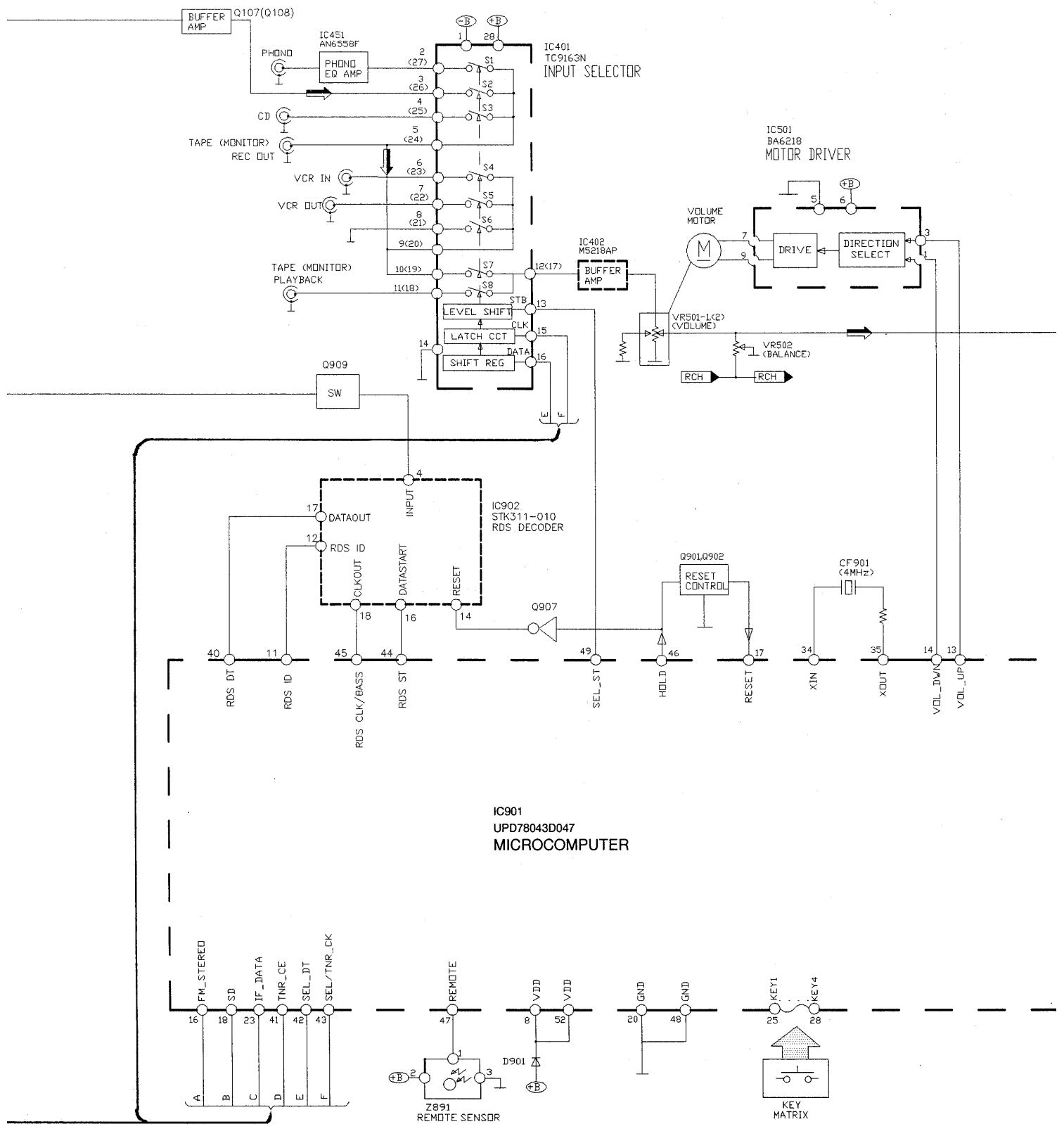


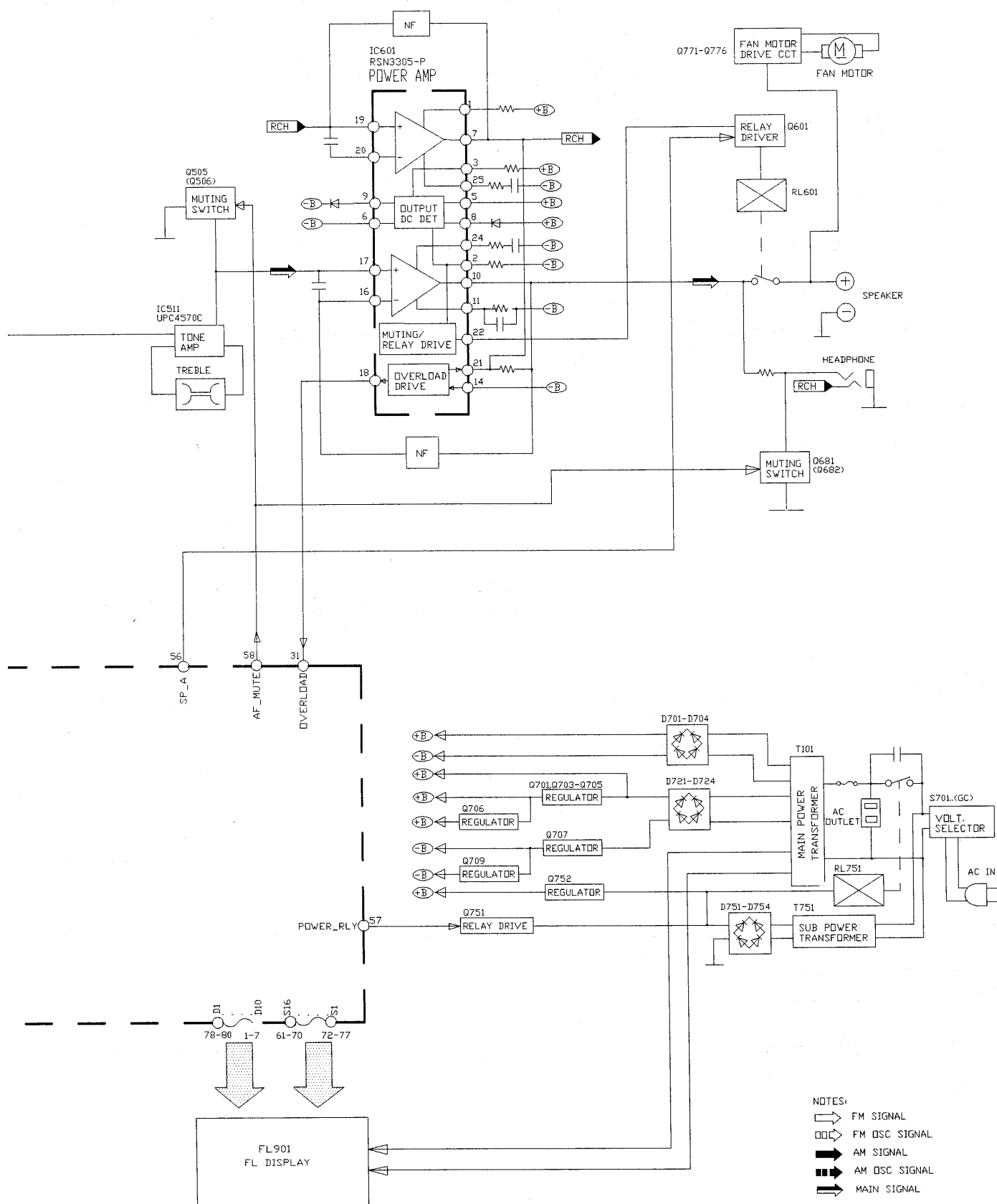
C VOLUME CIRCUIT



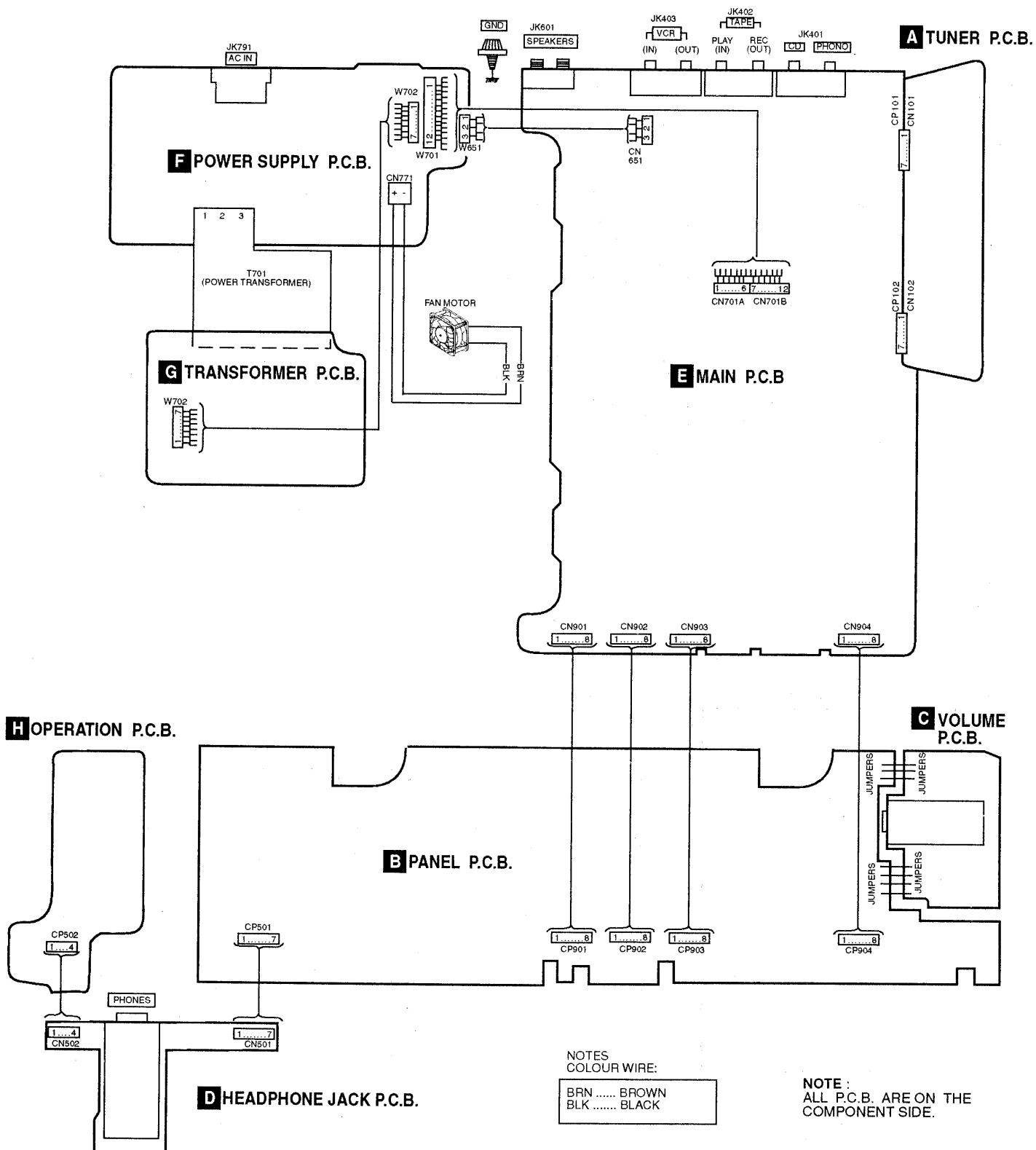
Block Diagram





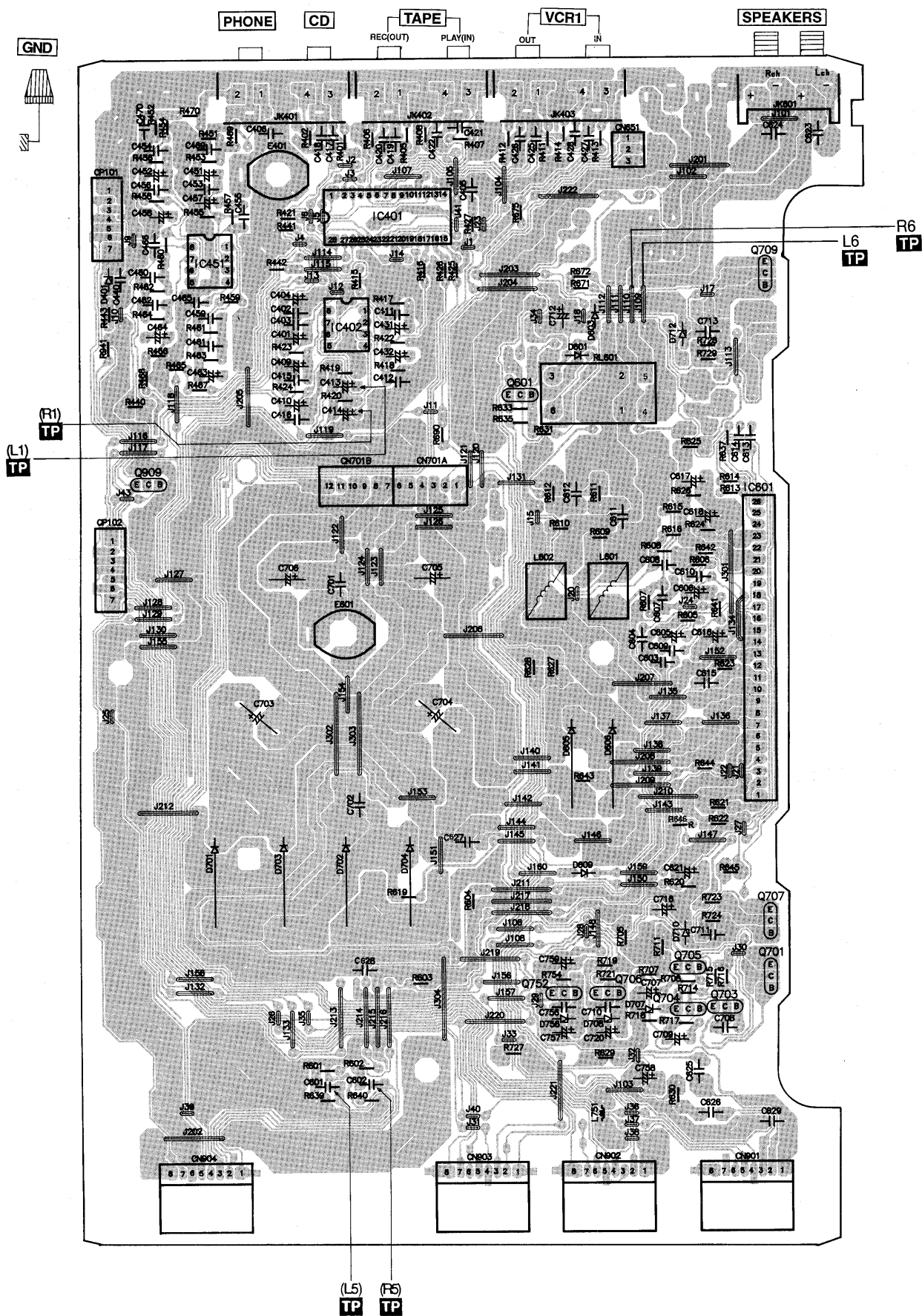


Wiring Connection Diagram

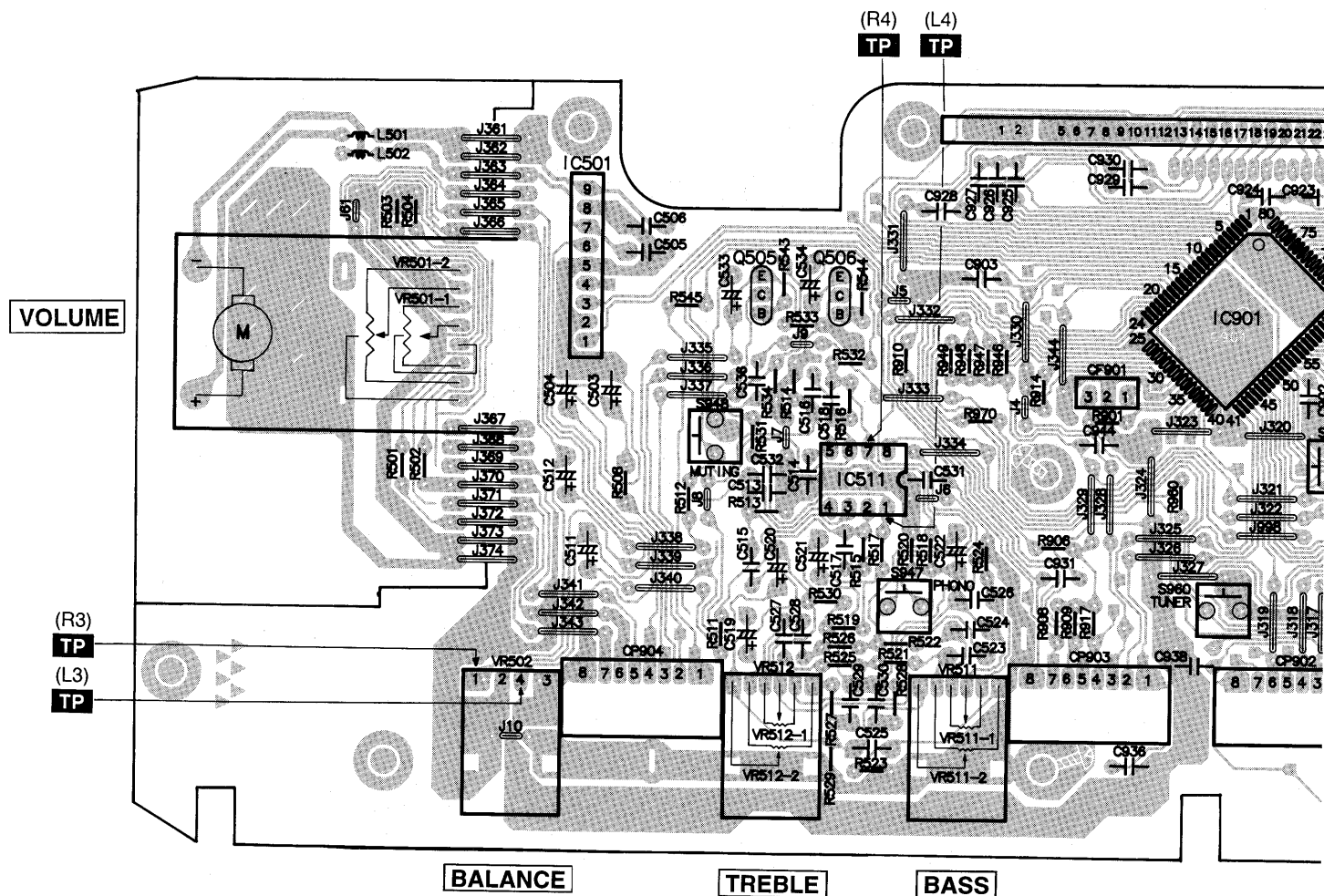


■ Printed Circuit Board

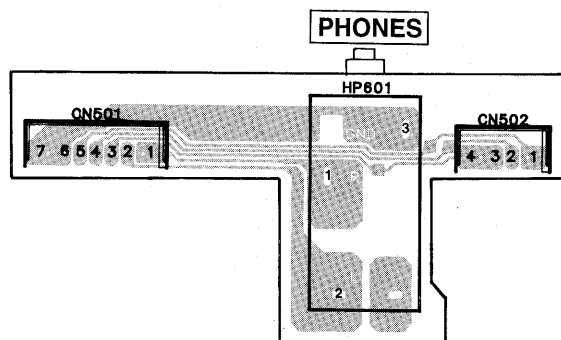
■ MAIN P.C.B. (REP2251B-M)



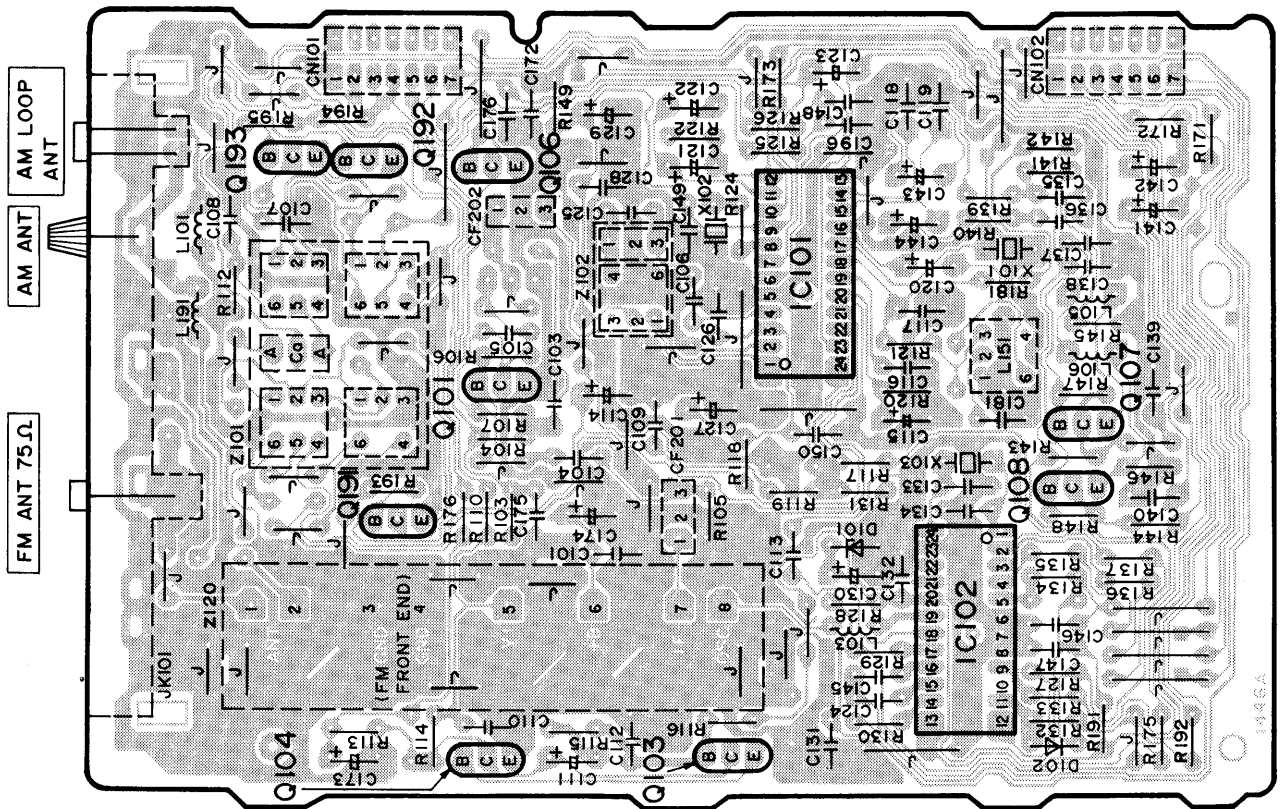
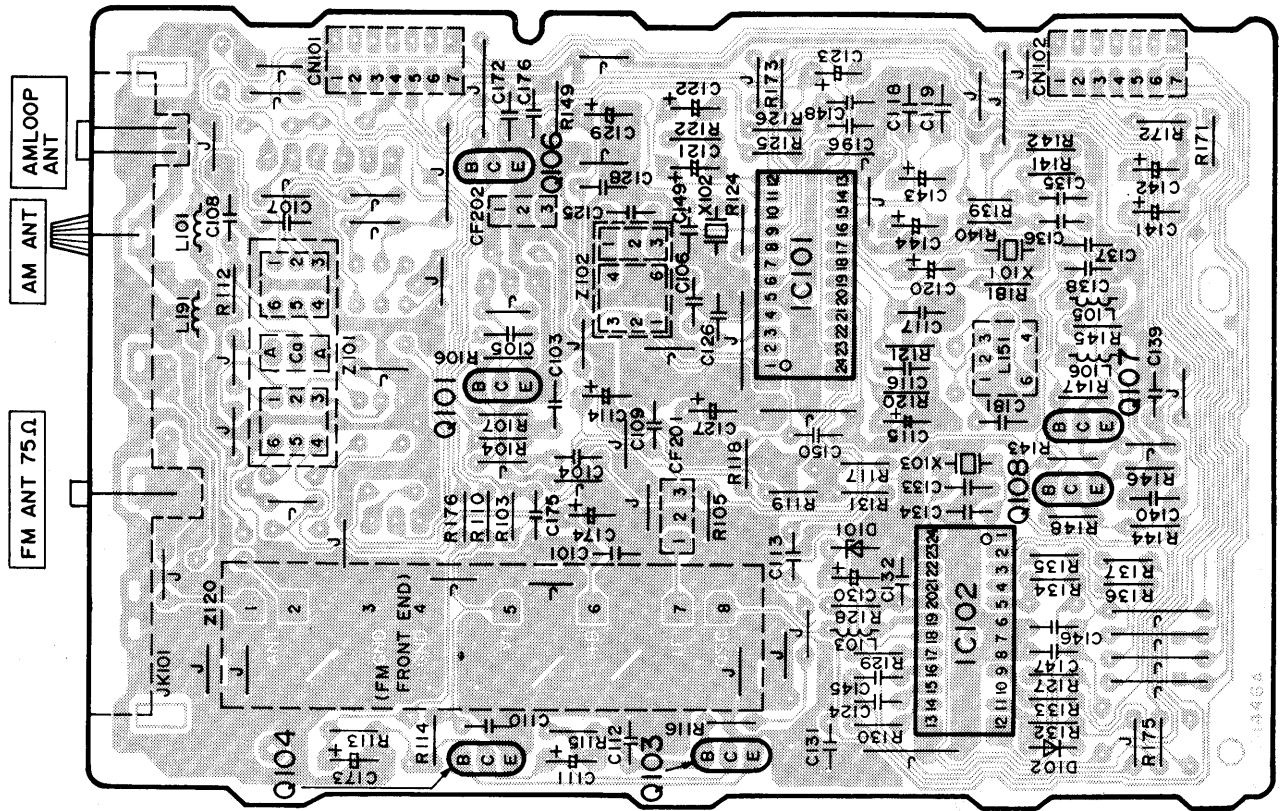
C VOLUME P.C.B. (REP2252B-S .. E,EB) (REP2252C-S .. EG)



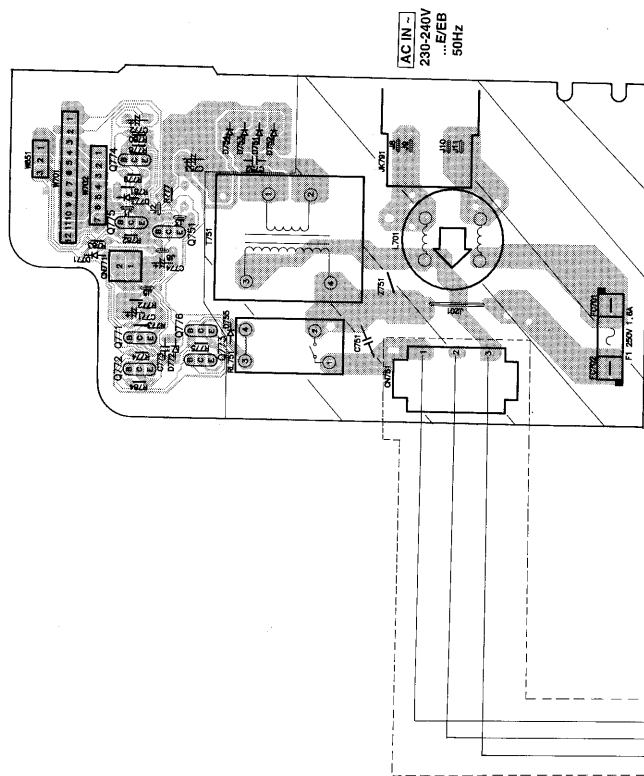
D HEADPHONES JACK P.C.B. (REP2252B-S .. E,EB) (REP2252C-S .. EG)



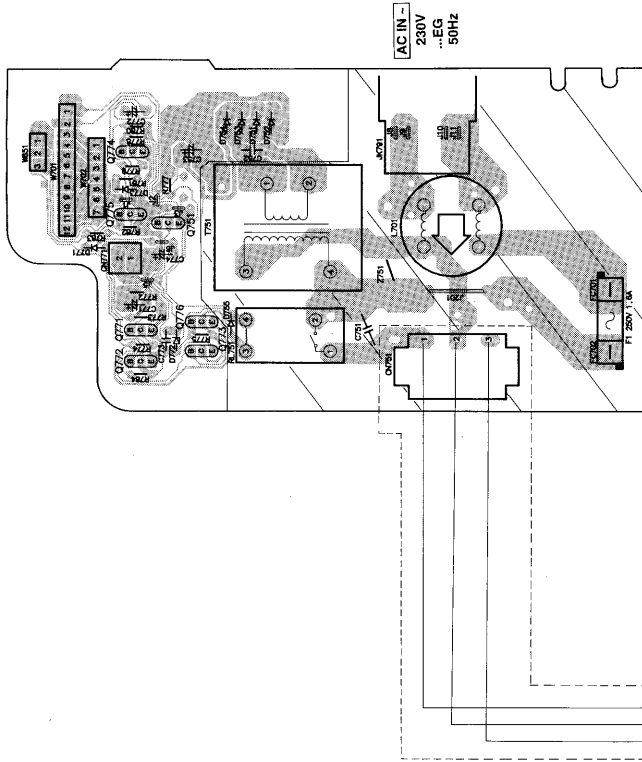


A TUNER P.C.B. (REP2158B-T .. E,EB)**A** TUNER P.C.B. (REP2158A-T .. EG)

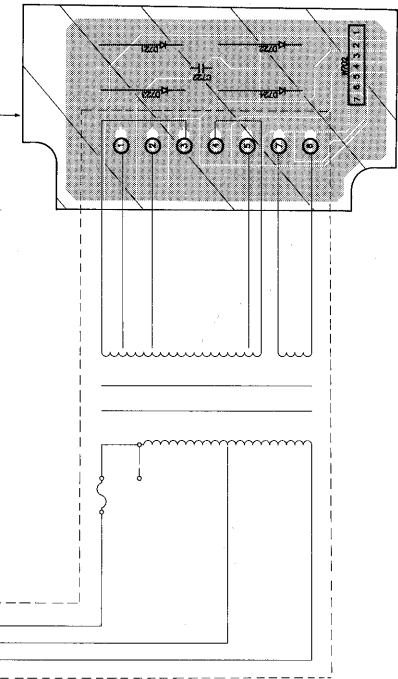
F POWER SUPPLY P.C.B. (REP2253B-P .. E,EB)



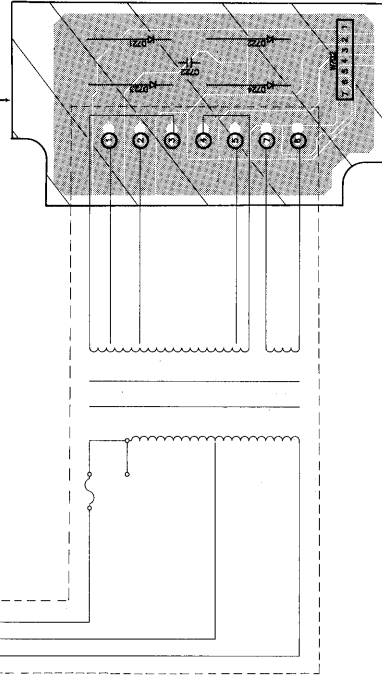
F POWER SUPPLY P.C.B. (REP2253C-P .. EG)



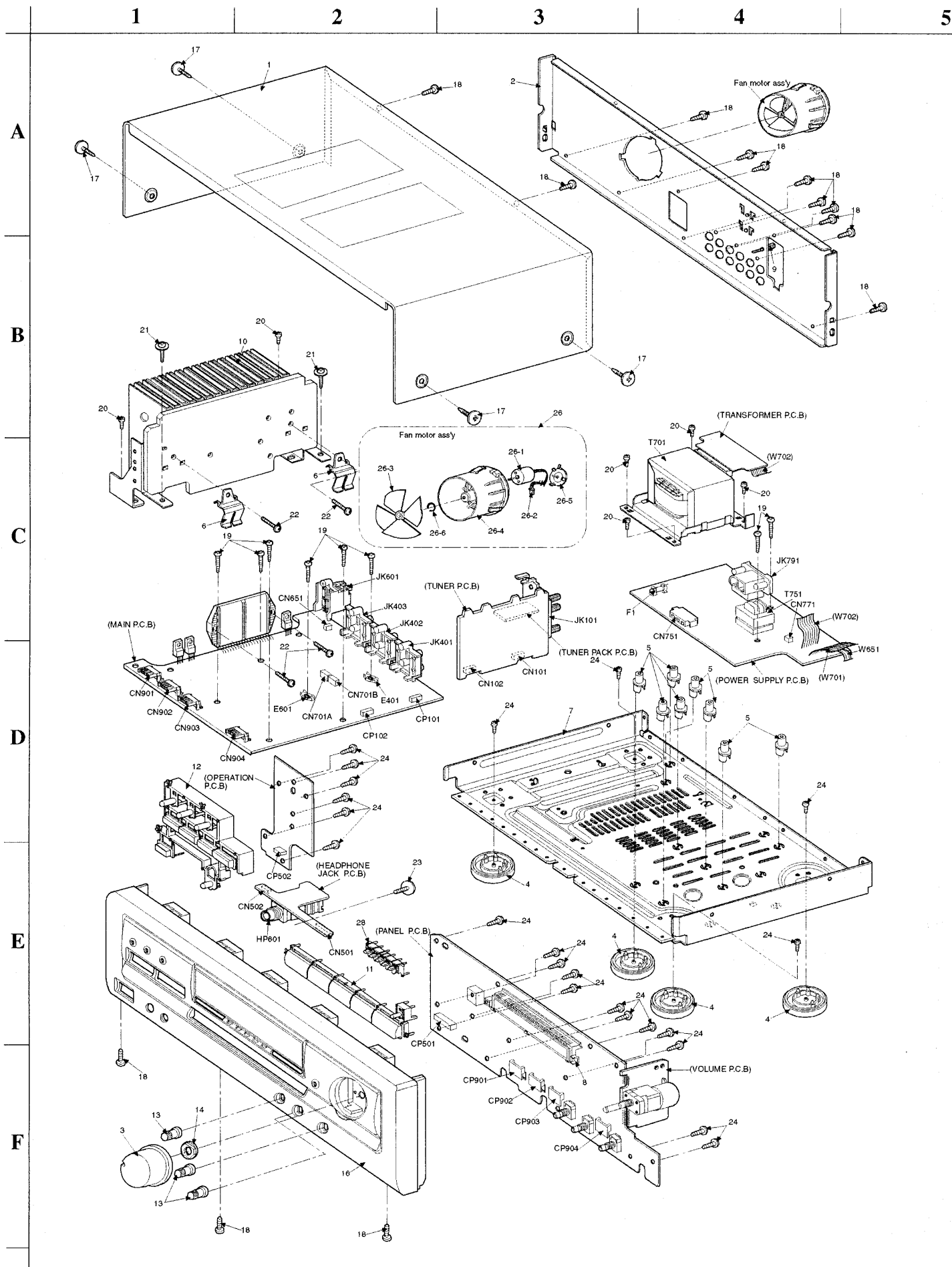
G TRANSFORMER P.C.B. (REP2253B-P ..E,EB)



G TRANSFORMER P.C.B. (REP2253C-P ..EG)




Cabinet Parts Location



■ Replacement Parts List

Notes: * Important 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.

* 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.


* [MAV] in Remarks column indicates parts that are supplied by MAV.

Ref No.	Part No.	Part Name & Description	Remarks	Ref No.	Part No.	Part Name & Description	Remarks	Ref No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS		IC102	LC7218	IC, PLL		Q775	2SA1309ARTA	TRANSISTOR	
				IC401	TC9163N	IC, SELECTOR		Q776	2SA1309ARTA	TRANSISTOR	
1	RKM0260B-KJ	TOP CABINET	[M]	IC402	M5218AP	IC, BUFFER AMP		Q901	RVTDTTC114YST	TRANSISTOR	
2	RGR0178F-B1	REAR PANEL	[MAV](E)	IC451	AN6558-F	IC, PHONO EQ AMP	[M]	Q902	2SA933SSTA	TRANSISTOR	
2	RGR0178F-C	REAR PANEL	[MAV](EB)	IC501	BA6218	IC, MOTOR DRIVER		Q907	RVTDTTC114YST	TRANSISTOR	
2	RGR0178F-A	REAR PANEL	[MAV](EG)	IC511	UPC4570C	IC, TONE CONTROL		Q909	2SC3311ARTA	TRANSISTOR	
3	RGW0243A-K	VOLUME KNOB	[MAV]	IC601	RSN3305-P	IC, HIC	[MAV] 				
4	RKA0079-A	FOOT	[MAV]	IC901	UPD78043A047	IC, MICRO COMPUTER	[MAV]			DIODES	
5	RKQ0089	PCB SUPPORT		IC902	STK311-010	IC, RDS DECODER	[M]				
6	RMC0158-S	TR FIXTURE	[M]					D101	MTZJ5R1BTA	DIODE	
7	RMK0276	BOTTOM CHASSIS	[M]			TRANSISTORS		D102	MA165TA	DIODE	
8	RMN0372	FL HOLDER	[MAV]					D401	MTZJ7R5CTA	DIODE	
9	SNE2123	EARTH TERMINAL		Q101	2SC2787LTA	TRANSISTOR		D601	RVD1SS133TA	DIODE	
10	RXX0169	HEAT SINK UNIT	[MAV]	Q103	2SC2785FETA	TRANSISTOR		D603	MA700ATA	DIODE	
11	RGU1349-K	SELECTOR BUTTON	[MAV]	Q104	2SC2785FETA	TRANSISTOR		D605	SB360L6508	DIODE	
12	RGU1350-K	MODE BUTTON	[MAV]	Q106	UN411FTA	TRANSISTOR		D606	SB360L6508	DIODE	
13	RGW0244-K	BASS TREBLE KNOB	[MAV]	Q107	2SC3311ARTA	TRANSISTOR		D609	RVD1SS133TA	DIODE	
14	RHN90001	M9 NUT		Q108	2SC3311ARTA	TRANSISTOR		D701	1N5402BM21	DIODE	
16	RFKGEX100EK	FRONT PANEL ASS'Y	[MAV]	Q191	2SC3311ARTA	TRANSISTOR		D702	1N5402BM21	DIODE	
17	SNE2129-1	SCREW (CABINET)		Q192	2SC3311ARTA	TRANSISTOR		D703	1N5402BM21	DIODE	
18	XTBS3+8JFZ1	SCREW (MAIN PCB)		Q193	2SC3311ARTA	TRANSISTOR		D704	1N5402BM21	DIODE	
19	XTB3+20JFZ	SCREW (TRNFM/H SINK)		Q505	2SD1915FTA	TRANSISTOR		D707	MTZJ6R2BTA	DIODE	
20	XTB3+8JFZ	SCREW (REAR PANEL)		Q506	2SD1915FTA	TRANSISTOR		D708	MTZJ6R2BTA	DIODE	
21	XTWS3+8T	SCREW (HEAT SINK)		Q601	2SA1309ARTA	TRANSISTOR		D710	MTZJ24DTA	DIODE	
22	XTW3+15T	SCREW (HEAT SINK)		Q681	2SD1915FTA	TRANSISTOR		D712	MTZJ16CTA	DIODE	
23	RHD26016	SCREW (PANEL)		Q682	2SD1915FTA	TRANSISTOR		D721	1N5402BM21	DIODE	
24	XTBS26+10J	SCREW		Q701	2SD2374PQAU	TRANSISTOR		D722	1N5402BM21	DIODE	
26	RYQ0173-K	FAN UNIT	[MAV]	Q703	2SC3311ARTA	TRANSISTOR		D723	1N5402BM21	DIODE	
26-1	MDN-4RB4MRC	MOTOR		Q704	2SC3311ARTA	TRANSISTOR		D724	1N5402BM21	DIODE	
26-2	REX0811	CONNECTOR UNIT	[MAV]	Q705	2SC3311ARTA	TRANSISTOR		D751	1SR35200TB	DIODE	
26-3	SHE232-1	64MM PROPELLER		Q706	2SC3940AQSTA	TRANSISTOR		D752	1SR35200TB	DIODE	
26-4	SHE233-1	FAN CASE		Q707	2SB1548PQAU	TRANSISTOR		D753	1SR35200TB	DIODE	
26-5	SHE234	FAN CASE COVER		Q709	2SB1548PQAU	TRANSISTOR		D754	1SR35200TB	DIODE	
26-6	SUS271	MOTOR SPRING		Q751	UN421FTA	TRANSISTOR		D755	RVD1SS133TA	DIODE	
28	RGU1352D-K	DOLBY BUTTON	[MAV]	Q752	2SC3940AQSTA	TRANSISTOR		D756	MTZJ6R8BTA	DIODE	
				Q771	2SA1309ARTA	TRANSISTOR		D771	RVD1SS133TA	DIODE	
		INTEGRATED CIRCUITS		Q772	2SA1309ARTA	TRANSISTOR		D772	MTZJ6R8BTA	DIODE	
				Q773	2SB621ARTA	TRANSISTOR		D773	RVD1SS133TA	DIODE	
IC101	LA1832A	IC, IF/MPX		Q774	2SA1309ARTA	TRANSISTOR		D901	1SS291TA	DIODE	

Ref No.	Part No.	Part Name & Description	Remarks	Ref No.	Part No.	Part Name & Description	Remarks	Ref No.	Part No.	Part Name & Description	Remarks
D903	MTZJ4R7BTA	DIODE		CN771	SJT3213	CONNECTOR (2 P)		Z751	ERZV10V511CS	ZNR	⚠
D905	RVD1SS133TA	DIODE		CN901	RJU003K008M1	CONNECTOR (8 P)		Z891	RCDSPS4242N	REMOTE SENSOR	
D921	RVD1SS133TA	DIODE		CN902	RJU003K008M1	CONNECTOR (8 P)					
D923	RVD1SS133TA	DIODE		CN903	RJU003K008M1	CONNECTOR (8 P)				OSCILLATORS	
D924	MTZJ3R9ATA	DIODE		CN904	RJU003K008M1	CONNECTOR (8 P)					
D925	RVD1SS133TA	DIODE		CP101	RJT057W007-1	CONNECTOR (7 P)		X101	RSXZ456KM07M	CERAMIC OSCILLATOR	
D929	LN846RPH	DIODE		CP102	RJT057W007-1	CONNECTOR (7 P)		X102	RLFDTGTD01I	FM REZONATOR	
				CP501	RJT100W07	CONNECTOR (7 P)	[MAV]	X103	SVQ49U722T-S	CRYSTAL OSCILLATOR	
		VARIABLE RESISTORS		CP502	RJT100W04	CONNECTOR (4 P)	[MAV]				
				CP901	RJT003K008M1	CONNECTOR (8 P)				DISPLAY TUBE	
VR501	EUWMGB026B15	VR, VOLUME	[MAV]	CP902	RJT003K008M1	CONNECTOR (8 P)					
VR502	EVJ02QF01G15	VR, BALANCE		CP903	RJT003K008M1	CONNECTOR (8 P)		FL901	RSL0213-F	FL DISPLAY	[MAV]
VR511	EVJYA1F01C15	VR, BASS		CP904	RJT003K008M1	CONNECTOR (8 P)					
VR512	EVJYA1F01C15	VR, TREBLE								EARTH TERMINAL	
		SWITCHES				COILS, TRANSFORMERS					
								E401	SNE1004-2	EARTH TERMINAL	
S946	EVQ21405R	SW, POWER		L101	ELESNR68MA	CHOKE COIL	(E,EB)	E601	SNE1004-2	EARTH TERMINAL	
S947	EVQ21405R	SW, PHONO		L101	ELESNR100MA	CHOKE COIL	(EG)				
S948	EVQ21405R	SW, MUTING		L103	ELEXT47MA9	CHOKE COIL				RELAYS	
S950	EVQ21405R	SW, FM AUTO/MONO		L105	RLQZB822KT-D	TAPING COIL					
S951	EVQ21405R	SW, BAND		L106	RLQZB822KT-D	TAPING COIL		RL601	RSY0013M-0	24V RELAY	
S952	EVQ21405R	SW, TUNING (-)		L151	SLM1B10-1M	COIL		RL751	RSY0019M-0	12V TV-5 RELAY	⚠
S953	EVQ21405R	SW, TUNING (+)		L191	ELESNR68MA	CHOKE COIL	(E,EB)				
S954	EVQ21405R	SW, MEMORY		L191	ELESNR56MA	CHOKE COIL	(EG)			FUSES	
S956	EVQ21405R	SW, PRESET (-)		L501	RLQZP1R0KT-Y	AXIAL COIL					
S957	EVQ21405R	SW, PRESET (+)		L502	RLQZP1R0KT-Y	AXIAL COIL		F1	XBA2C16TB0	FUSE	⚠
S960	EVQ21405R	SW, TUNER		L601	RLQYR73M	CHOKE COIL				FUSE CLIPS	
S961	EVQ21405R	SW, CD		L602	RLQYR73M	CHOKE COIL					
S962	EVQ21405R	SW, TAPE		L701	SLQZ650MH49	AC LINE COIL	⚠				
S964	EVQ21405R	SW, VCR		L751	ELESNR101KA	CHOKE COIL		FC701	RJR0169T	FUSE HOLDER	[M]
S970	EVQ21405R	SW, SEARCH		L901	RLQB101KTA-Y	CHOKE COIL		FC702	RJR0169T	FUSE HOLDER	[M]
S971	EVQ21405R	SW, EON		L902	RLQZP101KT-Y	AXIAL COIL					
S972	EVQ21405R	SW, PTY SEL A		T701	RTP1N5B022	POWER TRANSFORMER	[MAV] ⚠			JACKS	
S973	EVQ21405R	SW, PTY SEL V		T751	RTP115E003-V	POWER TRANSFORMER	⚠				
S974	EVQ21405R	SW, DISPLAY MODE						JK101	RJH4202	JK, ANT TERMINAL	
S980	EVQ21405R	SW, SPEAKER				CERAMIC FILTERS		JK401	SJF3069N	JK, PHONO/CD	
								JK402	SJF3069N	JK, TAPE (MONITOR)	
		CONNECTORS		CF201	RLFFETNGD01L	CERAMIC FILTER		JK403	SJF3069N	JK, VCR IN/OUT	
				CF202	RLFFETMGD01L	CERAMIC FILTER		JK601	RJR0054	JK, SP TERMINAL	
CN101	RJU057W007	CONNECTOR (7 P)		CF901	RVBBCST4R00MT	CERAMIC OSCILLATOR		JK791	SJS9236	JK, AC INLET	⚠
CN102	RJU057W007	CONNECTOR (7 P)		CF902	RSXZ456KM07M	CERAMIC OSCILLATOR		HP601	RJJ63TS01	HEADPHONES JACK	
CN501	RJU100W07	CONNECTOR (7 P)	[MAV]								
CN502	RJU100W04	CONNECTOR (4 P)	[MAV]			COMP. COMBINATION					
CN651	RJS1A6603	CONNECTOR (3P)									
CN701A	RJS1A6606	CONNECTOR (6 P)		Z101	RLA6Z005M-T	AM ANT/OSC	(E,EB)				
CN701B	RJS1A6606	CONNECTOR (6 P)		Z101	RLA2Z002M-T	AM ANT. COIL	(EG)				
CN751	SJS305-1	CONNECTOR (3 P)		Z102	RLI2Z006M-T	AM IFT					
				Z120	ENV17290G1R	FM TUNER PACK					

Resistors & Capacitors

Notes : * Important 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.

* 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.





* Capacitor values are in microfarad (μF) 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)

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

* [MAV] in Remarks column indicates parts that are supplied by MAV.

Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks
	RESISTORS		R143	ERDS2TJ222T	2.2K 1/4W	R423	ERDS2TJ102T	1K 1/4W	R515	ERDS2TJ474T	470K 1/4W
			R144	ERDS2TJ222T	2.2K 1/4W	R424	ERDS2TJ102T	1K 1/4W	R516	ERDS2TJ474T	470K 1/4W
			R145	ERDS2TJ102T	1K 1/4W (E,EB)	R425	ERDS2TJ103T	10K 1/4W	R517	ERDS2TJ182T	1.8K 1/4W
R103	ERDS2TJ101T	100 1/4W	R145	ERDS2TJ561T	560 1/4W (EG)	R426	ERDS2TJ103T	10K 1/4W	R518	ERDS2TJ182T	1.8K 1/4W
R104	ERDS2TJ102T	1K 1/4W	R146	ERDS2TJ102T	1K 1/4W (E,EB)	R427	ERDS2TJ103T	10K 1/4W	R519	ERDS2TJ392T	3.9K 1/4W
R105	ERDS2TJ471T	470 1/4W	R146	ERDS2TJ561T	560 1/4W (EG)	R440	ERDS1FVJ820T	82 1/2W 	R520	ERDS2TJ392T	3.9K 1/4W
R106	ERDS2TJ224T	220K 1/4W	R147	ERDS2TJ474T	470K 1/4W	R441	ERDS2TJ473T	47K 1/4W	R521	ERDS2TJ223T	22K 1/4W
R107	ERDS2TJ471T	470 1/4W	R148	ERDS2TJ474T	470K 1/4W	R442	ERDS2TJ473T	47K 1/4W	R522	ERDS2TJ223T	22K 1/4W
R110	ERDS2TJ102T	1K 1/4W	R149	ERDS2TJ680T	68 1/4W	R443	ERDS2TJ330T	33 1/4W	R523	ERDS2TJ392T	3.9K 1/4W
R112	ERDS2TJ104T	100K 1/4W	R171	ERDS2TJ102T	1K 1/4W	R451	ERDS2TJ224T	220K 1/4W	R524	ERDS2TJ392T	3.9K 1/4W
R113	ERDS2TJ103T	10K 1/4W	R172	ERDS2TJ102T	1K 1/4W	R452	ERDS2TJ224T	220K 1/4W	R525	ERDS2TJ222T	2.2K 1/4W
R114	ERDS2TJ562T	5.6K 1/4W	R173	ERDS2TJ471T	470 1/4W	R453	ERDS2TJ391T	390 1/4W	R526	ERDS2TJ222T	2.2K 1/4W
R115	ERDS2TJ561T	560 1/4W	R175	ERDS2TJ102T	1K 1/4W	R454	ERDS2TJ391T	390 1/4W	R527	ERDS2TJ122T	1.2K 1/4W
R116	ERDS2TJ102T	1K 1/4W	R176	ERDS2TJ391T	390 1/4W	R455	ERDS2TJ563T	56K 1/4W	R528	ERDS2TJ122T	1.2K 1/4W
R117	ERDS2TJ473T	47K 1/4W	R181	ERDS2TJ332T	3.3K 1/4W	R456	ERDS2TJ563T	56K 1/4W	R529	ERDS2TJ273T	27K 1/4W
R118	ERDS2TJ562T	5.6K 1/4W	R191	ERDS2TJ103T	10K 1/4W	R457	ERDS2TJ271T	270 1/4W	R530	ERDS2TJ273T	27K 1/4W
R119	ERDS2TJ183T	18K 1/4W	R192	ERDS2TJ122T	1.2K 1/4W	R458	ERDS2TJ271T	270 1/4W	R531	ERDS2TJ332T	3.3K 1/4W
R120	ERDS2TJ473T	47K 1/4W	R193	ERDS2TJ182T	1.8K 1/4W	R459	ERDS2TJ680T	68 1/4W	R532	ERDS2TJ332T	3.3K 1/4W
R121	ERDS2TJ332T	3.3K 1/4W	R194	ERDS2TJ122T	1.2K 1/4W	R460	ERDS2TJ680T	68 1/4W	R533	ERDS2TJ332T	3.3K 1/4W
R122	ERDS2TJ272T	2.7K 1/4W	R195	ERDS2TJ222T	2.2K 1/4W	R461	ERDS2TJ184T	180K 1/4W	R534	ERDS2TJ332T	3.3K 1/4W
R124	ERDS2TJ271T	270 1/4W	R401	ERDS2TJ102T	1K 1/4W	R462	ERDS2TJ184T	180K 1/4W	R543	ERDS2TJ102T	1K 1/4W
R125	ERDS2TJ472T	4.7K 1/4W	R402	ERDS2TJ102T	1K 1/4W	R463	ERDS2TJ123T	12K 1/4W	R544	ERDS2TJ102T	1K 1/4W
R126	ERDS2TJ472T	4.7K 1/4W	R405	ERDS2TJ102T	1K 1/4W	R464	ERDS2TJ123T	12K 1/4W	R545	ERDS2TJ824T	820K 1/4W
R127	ERDS2TJ103T	10K 1/4W	R406	ERDS2TJ102T	1K 1/4W	R465	ERDS2TJ563T	56K 1/4W	R546	ERDS2TJ332T	3.3K 1/4W
R128	ERDS2TJ820T	82 1/4W	R407	ERDS2TJ102T	1K 1/4W	R466	ERDS2TJ563T	56K 1/4W	R601	ERDS2TJ221T	220 1/4W
R129	ERDS2TJ473T	47K 1/4W	R408	ERDS2TJ102T	1K 1/4W	R467	ERDS2TJ102T	1K 1/4W	R602	ERDS2TJ221T	220 1/4W
R130	ERDS2TJ102T	1K 1/4W	R411	ERDS2TJ102T	1K 1/4W	R468	ERDS2TJ102T	1K 1/4W	R603	ERDS2TJ563T	56K 1/4W
R131	ERDS2TJ102T	1K 1/4W	R412	ERDS2TJ102T	1K 1/4W	R469	ERDS2TJ102T	1K 1/4W	R604	ERDS2TJ563T	56K 1/4W
R132	ERDS2TJ103T	10K 1/4W	R413	ERDS2TJ102T	1K 1/4W	R470	ERDS2TJ102T	1K 1/4W	R605	ERDS2TJ182T	1.8K 1/4W
R133	ERDS2TJ102T	1K 1/4W	R414	ERDS2TJ102T	1K 1/4W	R501	ERDS2TJ222T	2.2K 1/4W	R606	ERDS2TJ182T	1.8K 1/4W
R134	ERDS2TJ102T	1K 1/4W	R415	ERDS2TJ102T	1K 1/4W	R502	ERDS2TJ222T	2.2K 1/4W	R607	ERDS2TJ563T	56K 1/4W
R135	ERDS2TJ102T	1K 1/4W	R416	ERDS2TJ102T	1K 1/4W	R503	ERDS2TJ103T	10K 1/4W	R608	ERDS2TJ563T	56K 1/4W
R136	ERDS2TJ102T	1K 1/4W	R417	ERDS2TJ473T	47K 1/4W	R504	ERDS2TJ103T	10K 1/4W	R609	ERDS2TJ100T	10 1/4W
R137	ERDS2TJ102T	1K 1/4W	R418	ERDS2TJ473T	47K 1/4W	R508	ERDS1FVJ2R2T	2.2 1/2W 	R610	ERDS2TJ100T	10 1/4W
R139	ERDS2TJ272T	2.7K 1/4W	R419	ERDS2TJ104T	100K 1/4W	R511	ERDS2TJ471T	470 1/4W	R611	ERDS1FVJ100T	10 1/2W 
R140	ERDS2TJ272T	2.7K 1/4W	R420	ERDS2TJ104T	100K 1/4W	R512	ERDS2TJ471T	470 1/4W	R612	ERDS1FVJ100T	10 1/2W 
R141	ERDS2TJ102T	1K 1/4W	R421	ERDS2TJ104T	100K 1/4W	R513	ERDS2TJ474T	470K 1/4W	R613	ERDS2TJ102T	1K 1/4W
R142	ERDS2TJ102T	1K 1/4W	R422	ERDS2TJ104T	100K 1/4W	R514	ERDS2TJ474T	470K 1/4W	R614	ERDS2TJ102T	1K 1/4W

Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks
R615	ERDS2TJ184T	180K 1/4W	R707	ERDS2TJ332T	3.3K 1/4W	R948	ERDS2TJ103T	10K 1/4W	C124	ECBT1H102KB5	1000P 50V
R616	ERDS2TJ154T	150K 1/4W	R708	ERDS2TJ102T	1K 1/4W	R949	ERDS2TJ103T	10K 1/4W	C125	ECBT1H150JC5	15P 50V
R619	ERDS2TJ684T	680K 1/4W	R711	ERD25FVJ221T	220 1/4W	R950	ERDS2TJ102T	1K 1/4W	C126	ECBT1H104ZF5	0.1 50V
R620	ERDS2TJ473T	47K 1/4W	R714	ERDS2TJ472T	4.7K 1/4W	R951	ERDS2TJ122T	1.2K 1/4W	C127	ECEA1CKA220B	22 16V
R621	ERD25FVJ180T	18 1/4W	R715	ERDS2TJ1R5T	1.5 1/4W	R952	ERDS2TJ152T	1.5K 1/4W	C128	ECBT1C103NS5	0.01 16V
R622	ERD25FVJ180T	18 1/4W	R716	ERDS2TJ1R5T	1.5 1/4W	R953	ERDS2TJ182T	1.8K 1/4W	C129	ECEA0JKA101B	100 6.3V
R623	ERDS2TJ684T	680K 1/4W	R717	ERDS2TJ752T	7.5K 1/4W	R954	ERDS2TJ222T	2.2K 1/4W	C130	ECEA0JKA101B	100 6.3V
R624	ERDS2TJ154T	150K 1/4W	R718	ERDS2TJ682T	6.8K 1/4W	R955	ERDS2TJ332T	3.3K 1/4W	C131	ECBT1C103NS5	0.01 16V
R625	ERD2FCVJ470T	47 1/4W	R719	ERD2FCVJ6R8T	6.8 1/4W	R956	ERDS2TJ472T	4.7K 1/4W	C132	ECBT1H102KB5	1000P 50V
R626	ERDS2TJ473T	47K 1/4W	R721	ERDS2TJ182T	1.8K 1/4W	R957	ERDS2TJ682T	6.8K 1/4W	C133	ECBT1H150JC5	15P 50V
R627	ERG1SJ101E	100 1W 	R723	ERD2FCVJ4R7T	4.7 1/4W	R960	ERDS2TJ102T	1K 1/4W	C134	ECBT1H180JC5	18P 50V
R628	ERG1SJ101E	100 1W 	R724	ERDS2TJ122T	1.2K 1/4W	R961	ERDS2TJ122T	1.2K 1/4W	C135	ECBT1C103MS5	0.01 16V
R629	ERG1SJ101E	100 1W 	R727	ERD25FVJ180T	18 1/4W	R962	ERDS2TJ152T	1.5K 1/4W	C136	ECBT1C103MS5	0.01 16V
R630	ERG1SJ101E	100 1W 	R728	ERD2FCVJ4R7T	4.7 1/4W	R963	ERDS2TJ182T	1.8K 1/4W	C137	ECBT1H561KB5	560P 50V
R631	ERDS2TJ223T	22K 1/4W	R729	ERDS2TJ152T	1.5K 1/4W	R964	ERDS2TJ222T	2.2K 1/4W	C138	ECBT1H561KB5	560P 50V
R633	ERDS2TJ103T	10K 1/4W	R754	ERDS2TJ102T	1K 1/4W	R970	ERDS2TJ102T	1K 1/4W	C139	ECQB1H682JF3	6800P 50V
R635	ERDS2TJ102T	1K 1/4W	R772	ERDS2TJ104T	100K 1/4W	R971	ERDS2TJ122T	1.2K 1/4W	C140	ECQB1H682JF3	6800P 50V
R637	ERDS2TJ472T	4.7K 1/4W	R773	ERDS2TJ103T	10K 1/4W	R972	ERDS2TJ152T	1.5K 1/4W	C141	ECEA1HKA010B	1 50V
R639	ERDS2TJ474T	470K 1/4W	R774	ERDS2TJ223T	22K 1/4W	R973	ERDS2TJ182T	1.8K 1/4W	C142	ECEA1HKA010B	1 50V
R640	ERDS2TJ474T	470K 1/4W	R775	ERDS2TJ332T	3.3K 1/4W	R974	ERDS2TJ222T	2.2K 1/4W	C143	ECEA1HKA010B	1 50V
R641	ERDS2TJ221T	220 1/4W	R777	ERDS2TJ220T	22 1/4W	R980	ERDS2TJ102T	1K 1/4W	C144	ECEA1HKA010B	1 50V
R642	ERDS2TJ221T	220 1/4W	R778	ERDS2TJ222T	2.2K 1/4W				C145	ECBT1H220JC5	22P 50V
R643	ERDS2TJ124T	120K 1/4W	R779	ERDS2TJ103T	10K 1/4W		CAPACITORS		C146	ECBT1H331KB5	330P 50V
R644	ERDS2TJ124T	120K 1/4W	R780	ERDS2TJ473T	47K 1/4W				C147	ECBT1H102KB5	1000P 50V
R645	ERDS2TJ473T	47K 1/4W	R781	ERDS2TJ473T	47K 1/4W	C1	ECKR1H473ZF5	0.047 50V	C148	ECBT1C103NS5	0.01 16V
R646	ERDS2TJ274T	270K 1/4W	R782	ERDS2TJ153T	15K 1/4W	C101	ECBT1C103NS5	0.01 16V	C149	ECBT1C103NS5	0.01 16V
R671	ERDS2TJ223T	22K 1/4W	R783	ERDS2TJ103T	10K 1/4W	C103	ECBT1C103NS5	0.01 16V	C150	ECBT1H104ZF5	0.1 50V
R672	ERDS2TJ223T	22K 1/4W	R784	ERDS2TJ335T	3.3M 1/4W	C104	ECBT1H102KB5	1000P 50V	C172	ECBT1H331KB5	330P 50V
R675	ERDS2TJ682T	6.8K 1/4W	R901	ERDS2TJ102T	1K 1/4W	C105	ECBT1H470J5	47P 50V	C173	ECEA1CKA220B	22 16V
R681	ERDS2TJ270T	27 1/4W	R906	ERDS2TJ104T	100K 1/4W	C106	ECBT1C103NS5	0.01 16V	C174	ECEA1CKA101B	100 16V
R682	ERDS2TJ270T	27 1/4W	R907	ERDS2TJ104T	100K 1/4W	C107	ECBT1H473ZF5	0.047 50V	C175	ECBT1C103NS5	0.01 16V
R683	ERDS2TJ270T	27 1/4W	R908	ERDS2TJ104T	100K 1/4W	C108	ECBT1H100JC5	10P 50V(E,EB)	C176	ECBT1C103NS5	0.01 16V
R684	ERDS2TJ270T	27 1/4W	R909	ERDS2TJ104T	100K 1/4W	C108	ECBT1H8R2KC5	8.2P 50V (EG)	C181	ECBT1H471KB5	470P 50V
R685	ERDS2TJ270T	27 1/4W	R910	ERDS2TJ102T	1K 1/4W	C109	ECBT1C103NS5	0.01 16V	C196	ECBT1H102KB5	1000P 50V
R686	ERDS2TJ270T	27 1/4W	R911	ERDS2TJ104T	100K 1/4W	C110	ECBT1C103NS5	0.01 16V	C401	ECEA1VKA4R7B	4.7 10V
R687	ERDS2TJ270T	27 1/4W	R912	ERDS2TJ103T	10K 1/4W	C111	ECEA1EKA4R7B	4.7 25V	C402	ECBT1E103ZF5	0.01 25V
R688	ERDS2TJ270T	27 1/4W	R914	ERDS2TJ274T	270K 1/4W	C112	ECBT1C103NS5	0.01 16V	C403	ECBT1E103ZF5	0.01 25V
R689	ERDS2TJ270T	27 1/4W	R917	ERDS2TJ103T	10K 1/4W	C113	ECBT1H102KB5	1000P 50V	C404	ECEA1VKA4R7B	4.7 10V
R690	ERDS2TJ223T	22K 1/4W	R920	ERDS2TJ271T	270 1/4W	C114	ECEA1HKA3R3B	3.3 50V	C405	ECBT1H101KB5	100P 50V
R690	ERDS2TJ270T	27 1/4W	R921	ERDS2TJ121T	120 1/4W	C115	ECEA1EKA4R7B	4.7 25V	C406	ECBT1H102KB5	1000P 50V
R691	ERDS2TJ270T	27 1/4W	R922	ERDS2TJ472T	4.7K 1/4W	C116	ECBT1C822MS5	8200P 16V	C409	ECEA1CU220B	22 16V
R692	ERDS2TJ270T	27 1/4W	R924	ERDS2TJ333T	33K 1/4W	C117	ECQB1H471JF3	470P 50V	C410	ECEA1CU220B	22 16V
R693	ERDS2TJ270T	27 1/4W	R927	ERDS2TJ181T	180 1/4W	C118	ECQB1H103JF3	0.01 50V	C411	ECBT1H101KB5	100P 50V
R694	ERDS2TJ270T	27 1/4W	R929	ERDS2TJ101T	100 1/4W	C119	ECQB1H103JF3	0.01 50V	C412	ECBT1H101KB5	100P 50V
R695	ERDS2TJ102T	1K 1/4W	R930	ERDS2TJ101T	100 1/4W	C120	ECEA1HKA010B	1 50V	C413	ECEA1CU100B	10 16V
R696	ERDS2TJ102T	1K 1/4W	R941	ERDS2TJ472T	4.7K 1/4W	C121	ECEA1HKA010B	1 50V	C414	ECEA1CU100B	10 16V
R699	ERDS2TJ332T	3.3K 1/4W	R946	ERDS2TJ103T	10K 1/4W	C122	ECEA1HKA2R2B	2.2 50V	C415	ECBT1E103ZF5	0.01 25V
R705	ERD2FCVJ4R7T	4.7 1/4W	R947	ERDS2TJ103T	10K 1/4W	C123	ECEA1HKA010B	1 50V	C416	ECBT1E103ZF5	0.01 25V

Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks	Ref No.	Part No.	Values & Remarks
C417	ECBT1H101KB5	100P 50V	C524	ECFR1E123KR	0.012 25V	C708	ECKR1H103ZF5	0.01 50V	C938	ECBT1H101KB5	100P 50V
C418	ECBT1H101KB5	100P 50V	C525	ECQV1H683JZ3	0.068 50V	C709	ECEA1CU330B	33 16V	C944	ECBT1H101KB5	100P 50V
C419	ECBT1H331KB5	330P 50V	C526	ECQV1H683JZ3	0.068 50V	C710	ECBT1E103ZF5	0.01 25V			
C420	ECBT1H331KB5	330P 50V	C527	ECBT1C562KR5	5600P 16V	C711	ECKR1H103ZF5	0.01 50V			
C421	ECBT1H331KB5	330P 50V	C528	ECBT1C562KR5	5600P 16V	C712	ECEA1HU470B	47 50V			
C422	ECBT1H331KB5	330P 50V	C529	ECQB1H273JF3	0.027 50V	C713	ECKR1H103ZF5	0.01 50V			
C425	ECBT1H101KB5	100P 50V	C530	ECQB1H273JF3	0.027 50V	C716	ECEA2AU100B	10 100V			
C426	ECBT1H101KB5	100P 50V	C531	ECBT1E103ZF5	0.01 25V	C720	ECEA1EU220B	22 25V			
C427	ECBT1H221KB5	220P 50V	C532	ECBT1E103ZF5	0.01 25V	C722	ECQE2104KF3	0.1 250V			
C428	ECBT1H221KB5	220P 50V	C533	ECEA1CKA100B	10 16V	C751	ECKWRS102MBC 	0.001 400VAC[MAV]			
C431	ECEA1CU100B	10 16V	C534	ECEA1CKA100B	10 16V	C752	ECKR1H103ZF5	0.01 50V			
C432	ECEA1CU100B	10 16V	C536	ECBT1E103ZF5	0.01 25V	C753	ECA1EM102B	1000 25V 			
C440	ECBT1E103ZF5	0.01 25V	C601	ECEA1HN2R2SB	2.2 50V	C756	ECBT1E103ZF5	0.01 25V			
C451	ECEA1VKA4R7B	4.7 10V	C602	ECEA1HN2R2SB	2.2 50V	C757	ECEA1CU470B	47 16V			
C452	ECEA1VKA4R7B	4.7 10V	C603	ECBT1H561KB5	560P 50V	C758	ECEA1AU101B	100 10V			
C453	ECBT1H100JC5	10P 50V	C604	ECBT1H561KB5	560P 50V	C759	ECEA1EU220B	22 25V			
C454	ECBT1H100JC5	10P 50V	C605	ECA1JM330B	33 6.3V	C771	ECEA1HU2R2B	2.2 50V			
C455	ECBT1H102KB5	1000P 50V	C606	ECA1JM330B	33 6.3V	C772	ECEA1CU100B	10 16V			
C456	ECBT1H102KB5	1000P 50V	C607	ECCR1H100K5	10P 50V	C773	ECBT1E223ZF5	0.022 25V			
C457	ECEA1AU330B	33 10V	C608	ECCR1H100K5	10P 50V	C774	ECEA0JU221B	220 6.3V			
C458	ECEA1AU330B	33 10V	C609	ECBT1H151KB5	150P 50V	C901	ECEA0JU102B	1000 6.3V			
C459	ECFR1E223KR	0.022 25V	C610	ECBT1H151KB5	150P 50V	C902	ECBT1E223ZF5	0.022 25V			
C460	ECFR1E223KR	0.022 25V	C611	ECQV1H473JZ3	0.047 50V	C903	ECBT1E103ZF5	0.01 25V			
C461	ECFR1E682KR	6800P 25V	C612	ECQV1H473JZ3	0.047 50V	C904	ECEA0JU102B	1000 6.3V			
C462	ECFR1E682KR	6800P 25V	C613	ECBT1H681KB5	680P 50V	C906	ECEA0JKA101B	100 6.3V			
C463	ECEA1VKA4R7B	4.7 10V	C614	ECBT1H681KB5	680P 50V	C908	ECBT1E103ZF5	0.01 25V			
C464	ECEA1VKA4R7B	4.7 10V	C615	ECEA2AN2R2SB	2.2 100V	C909	ECEA1HKA220B	22 50V			
C465	ECBT1E103ZF5	0.01 25V	C616	ECEA2AU100B	10 100V	C910	ECEA1HKA220B	22 50V			
C466	ECBT1E103ZF5	0.01 25V	C617	ECEA1HU470B	47 50V	C911	ECEA1HKA220B	22 50V			
C469	ECBT1H181KB5	180P 50V	C618	ECEA2AU100B	10 100V	C912	ECEA1HKA220B	22 50V			
C470	ECBT1H181KB5	180P 50V	C621	ECEA2AU100B	10 100V	C913	ECEA1VKA100B	10 10V			
C503	ECEA0JKA101B	100 6.3V	C623	ECKR1H223ZF5	0.022 50V	C914	ECEA1VKA100B	10 10V			
C504	ECEA0JKA101B	100 6.3V	C624	ECKR1H223ZF5	0.022 50V	C916	ECEA1HKA010B	1 50V			
C505	ECFR1C104MR	0.1 16V	C625	ECEA1HN100SB	10 50V	C917	ECEA1HKAR47B	0.47 50V			
C506	ECFR1C104MR	0.1 16V	C626	ECEA1HN100SB	10 50V	C918	ECEA0JKA221B	220 6.3V			
C511	ECEA1HKA3R3B	3.3 50V	C627	ECKR2H101KB5	100P 500V	C920	ECEA1HKA010B	1 50V			
C512	ECEA1HKA3R3B	3.3 50V	C628	ECBT1H101KB5	100P 50V	C921	ECBT1H331KB5	330P 50V			
C513	ECBT1H150J5	15P 50V	C629	ECBT1E223ZF5	0.022 25V	C922	ECBT1H331KB5	330P 50V			
C514	ECBT1H150J5	15P 50V	C683	ECBT1C332KR5	3300P 16V	C923	ECBT1H331KB5	330P 50V			
C515	ECBT1H221KB5	220P 50V	C684	ECBT1C332KR5	3300P 16V	C924	ECBT1H331KB5	330P 50V			
C516	ECBT1H221KB5	220P 50V	C685	ECBT1E103ZF5	0.01 25V	C925	ECBT1H331KB5	330P 50V			
C517	ECBT1H330J5	33P 50V	C701	ECBT1E103ZF5	0.01 25V	C926	ECBT1H331KB5	330P 50V			
C518	ECBT1H330J5	33P 50V	C702	ECQE2104KF3	0.1 250V	C927	ECBT1H331KB5	330P 50V			
C519	ECEA1VKA4R7B	4.7 10V	C703	ECOS1JP472BB 	4700 63V[MAV]	C928	ECBT1H331KB5	330P 50V			
C520	ECEA1VKA4R7B	4.7 10V	C704	ECOS1JP472BB 	4700 63V[MAV]	C929	ECBT1H331KB5	330P 50V			
C521	ECEA1VKA4R7B	4.7 10V	C705	ECEA1HMB32EV 	3300 50V [M]	C930	ECBT1H331KB5	330P 50V			
C522	ECEA1VKA4R7B	4.7 10V	C706	ECEA1HMB32EV 	3300 50V [M]	C931	ECBT1H101KB5	100P 50V			
C523	ECFR1E123KR	0.012 25V	C707	ECEA1VU101B	100 10V	C934	ECBT1H101KB5	100P 50V			

■ Packaging

Notes: * Important 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.

* 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**.

* [MAV] in Remarks column indicates parts that are supplied by **MAV**.

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

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

* [VRD] indicates in Remarks column parts that are supplied by **Video Recorder Division**.

Ref No.	Part No.	Part Name & Description	Remarks	Ref No.	Part No.	Part Name & Description	Remarks	Ref No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS				ACCESSORIES		A3	VJA0733	AC-CORD [VRD] (SF) (EB) ⚠	
								A4	RSA0007	FM ANT	
P1	SPSD152	ACCESSORY BOX		A1	EUR642175	REMOTE CONTROL	[MAV]	A5	RFKSEX100EK	INSTR MNL ASS'Y	[MAV](E)
P2	RPG2988	PACKING CASE	[MAV]	A1-1	UR64EC1371S4	BATTY COVER (R C)	[MAV]	A5	RFKSEX100EBK	INSTR MNL ASS'Y	[MAV](EB)
P3	RPN0865	POLYFOAM	[M]	A2	RSA0010	AM LOOP ANT		A5	RFKSEX100EGK	INSTR MNL ASS'Y	[MAV](EG)
P4	RPF0005	MIRAMAT SHEET	[M]	A3	RJA0019-2K	AC CORD (SF) (E,EG) ⚠		A6	SJP9009	ANT ADAPTER	(EB) ⚠

P1 (SPSD152) : ACCESSORY BOX

A1 (EUR642175)	: REMOTE CONTROL UNIT
A2 (RSA0010)	: AM LOOP ANT
A3 (RJA0019-2A ... E,EG)	: AC CORD
A3 (VJA00733 ... EB)	: AC CORD
A4 (RSA0007)	: FM ANT
A5 (RFKSEX100EK ... E)	: INSTRUCTION MNL ASS'Y
A5 (RFKSEX100EBK ... EB)	: INSTRUCTION MNL ASS'Y
A6 (RFKSEX100EGK ... EG)	: INSTRUCTION MNL ASS'Y
A6 (SJP9009 ... EB)	: ANTENNA ADAPTER

