

Service Manual

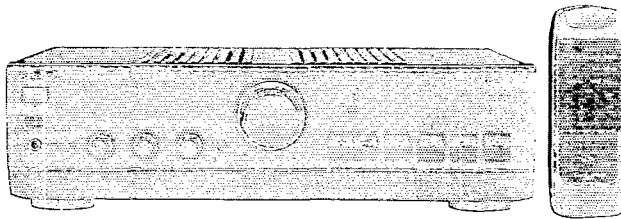
Stereo Integrated Amplifier

SU-A700MK2

Amplifier

Colour

(K) Black Type



Areas

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

Specifications (DIN 45 500)

20 Hz – 20 kHz continuous power output both channels driven	2 × 45 W (8 Ω)
1 kHz continuous power output both channels driven (THD: 1%)	2 × 55 W (8 Ω) 2 × 80 W (4 Ω)
63 Hz – 12.5 kHz continuous power output both channels driven (THD: 0.7%)	2 × 50 W (8 Ω) 2 × 70 W (4 Ω)
Total harmonic distortion rated power at 20 Hz – 20 kHz	0.01% (8 Ω)
Intermodulation distortion (50 Hz: 7 kHz = 4:1, SMPTE) rated power	0.007% (8 Ω)
Residual hum and noise	1 mV
Damping factor	60 (8 Ω) 30 (4 Ω)
Headphones output level/impedance	540 mV/330 Ω
Load impedance	
A or B	4 – 16 Ω
A and B	8 – 16 Ω
Input sensitivity/impedance	
PHONO MM	2.5 mV/47 kΩ
TUNER, CD, AUX, TAPE 1, TAPE 2/DCC	150 mV/22 kΩ
Phono maximum input voltage (1 kHz, RMS)	
MM	150 mV (150 mV, IHF '66)
S/N (rated power, 4 Ω)	
PHONO MM	76 dB (78 dB, IHF '66)
TUNER, CD, AUX, TAPE 1, TAPE 2/DCC	91 dB (99 dB, IHF '66)
S/N at –26 dB power (4 Ω)	
PHONO MM	68 dB
TUNER, CD, AUX, TAPE 1, TAPE 2/DCC	70 dB
S/N at 50 mW power (4 Ω)	
PHONO MM	64 dB
TUNER, CD, AUX, TAPE 1, TAPE 2/DCC	64 dB

Frequency response

PHONO MM

RIAA standard curve ±1 dB
(30 Hz – 15 kHz)

TUNER, CD, AUX, TAPE 1, TAPE 2/DCC

3 Hz – 80 kHz (+0, –3 dB)
+0 dB, –0.3 dB (20 Hz – 20 kHz)

Tone controls

BASS

50 Hz, +10 to –10 dB

TREBLE

20 kHz, +10 to –10 dB

Output voltage

TAPE 1, TAPE 2/DCC REC OUT

150 mV

Channel balance (AUX 250 Hz – 6.3 kHz)

±1 dB

Channel separation (AUX 1 kHz)

50 dB

GENERAL

Power consumption

200 W

Power supply

For (E), (EG), and (EO) areas

50 Hz/60 Hz AC, 230 V

For (EB) area

50 Hz/60 Hz AC, 230 V – 240 V

Dimensions (W × H × D)

430 × 125 × 318 mm

Weight

6.7 kg

Notes:

- Specifications are subject to change without notice.
Weight and dimensions are approximate.
- Total harmonic distortion is measured by the digital spectrum analyzer.
- For areas except Europe
The specification values given have been measured while using a 240 V power supply.

For (EB) area only

This apparatus was produced to BS 800.

Technics

■ Contents

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■ Before Repair

- (1) Turn off the power supply. Using a 10 Ω, 10 W resistor, connect both ends of power supply capacitors (C701, C702) in order to discharge the voltage.
 (2) Before turning the power supply on, after completion of repair, slowly apply the primary voltage by using a power supply voltage controller to make sure that the consumed current at 50/60 Hz in NO SIGNAL mode should be shown below with respect to supply voltage 230 V—240 V.

Power supply voltage	AC 230 V	AC 240 V
Consumed current 50Hz	50~250 mA	40~240 mA

■ Protection circuitry

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

- * No sound is heard when the power is switched ON.
- * Sound stops during a performance.

The functions 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 this unit are used.

If this occurs, follow the procedure outlined below:

1. Switch OFF the power.
2. Determine the cause of the problem and correct it.
3. Switch ON the power once again.

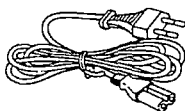
Note:

When the protection circuitry functions, the unit will not operate unless the power is first switched OFF and then ON again.

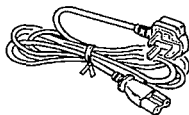
■ Accessories

- AC power supply cord

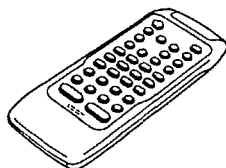
for (E), (EG) and (EO) areas : (RJA0019-2K)



for (EB) area : (VJA0733)



- Remote control transmitter
(RAK-SU129WH)



- Batteries
(UM-4, "AAA", R03)



Note: These are available on sales route.



■ Caution for AC Mains Lead (For United Kingdom)

("EB" area code model only)

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 OF 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 mains 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:

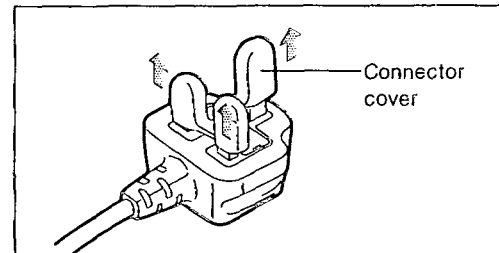
The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.

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 of these wires be connected to the earth terminal of the three pin plug, marked with the letter E or the Earth Symbol .

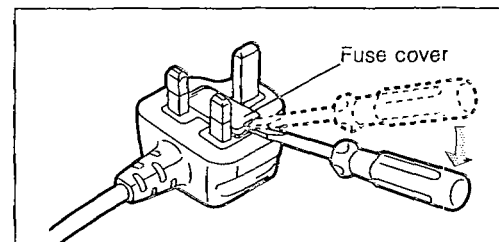
Before use

Remove the connector cover as follows.

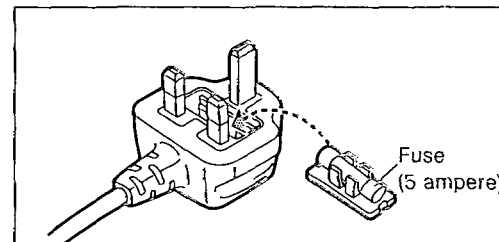


How to replace the fuse

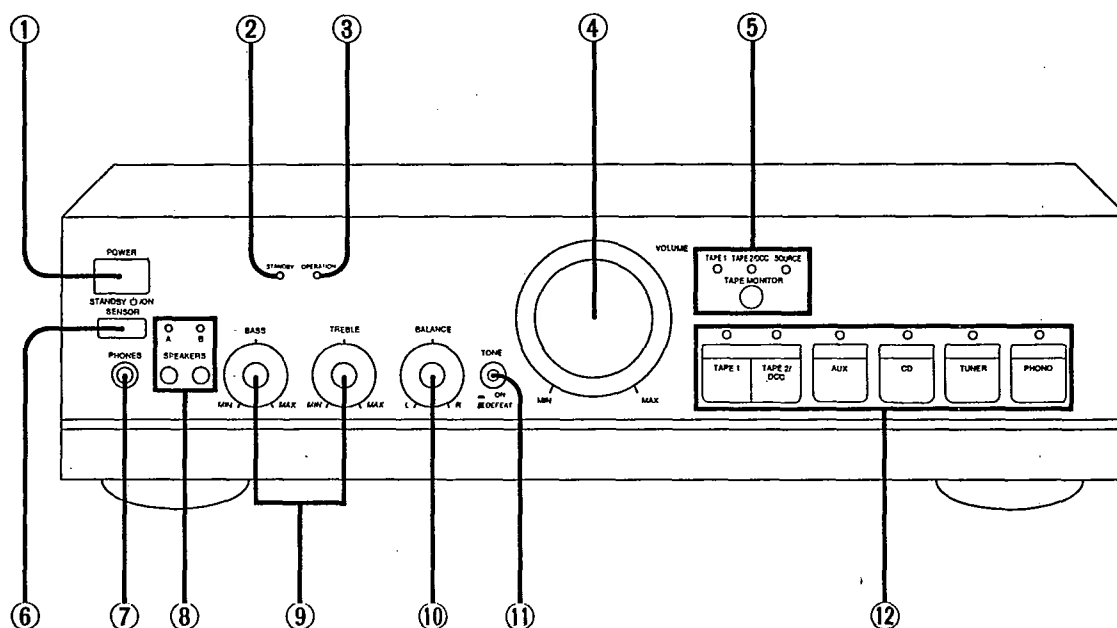
1. Remove the fuse cover with a screwdriver.



2. Replace the fuse and attach the fuse cover.



■ Front Panel Controls



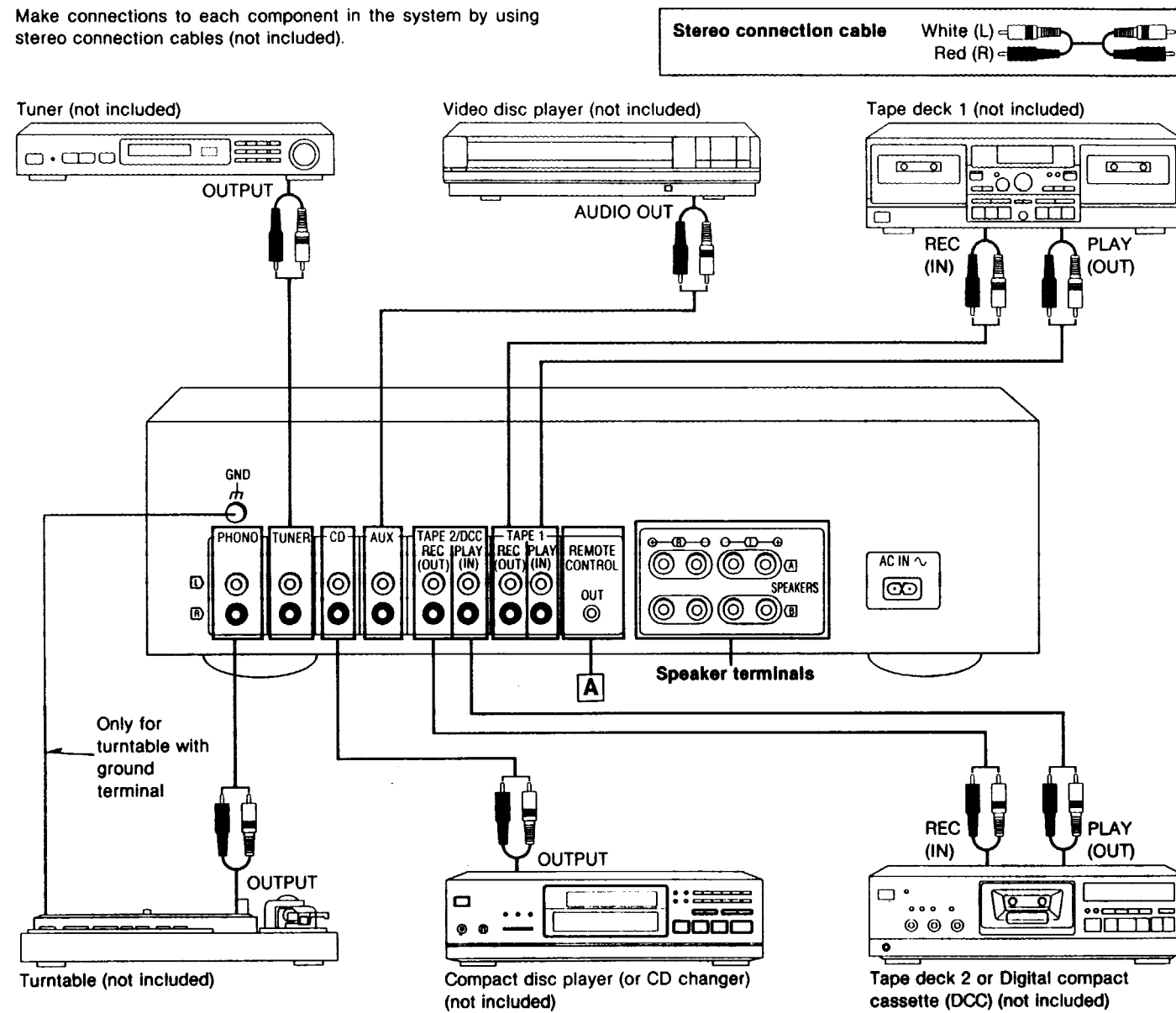
No.	Name
①	Power "STANDBY ON" switch (POWER, STANDBY ON) Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
②	"STANDBY" indicator (STANDBY) When the unit is connected to the AC mains supply, this indicator lights up in standby mode and goes out when the unit is turned on.
③	Operation indicator (OPERATION) When the power is switched ON, this indicator illuminates after about 3 seconds when the unit is in the operating condition. If an abnormal condition in the circuitry is detected, such as DC voltage appearing in the output or a short-circuit of the positive (+) and negative (-) wires from the speaker terminals, the protection circuit functions and this indicator will not illuminate.
④	Volume control (VOLUME)
⑤	Tape-monitor button/indicators (TAPE MONITOR)

No.	Name
⑥	Remote control signal receptor (SENSOR) Receives the signals from the remote control.
⑦	Headphones jack (PHONES)
⑧	Speaker select buttons/indicators (SPEAKERS)
⑨	Tone controls (BASS/TREBLE)
⑩	Balance control (BALANCE)
⑪	Tone control button (TONE)
⑫	Input select buttons/indicators

Connections

To connect to each terminal

Make connections to each component in the system by using stereo connection cables (not included).



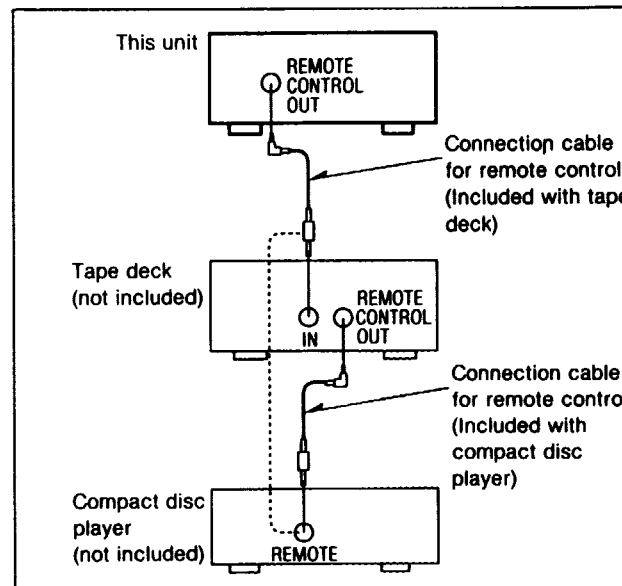
A "REMOTE CONTROL OUT" terminal

Connect the connection cable for the remote control to a Technics tape deck and/or CD player (or CD changer) which has the appropriate remote control terminal as shown at the right.

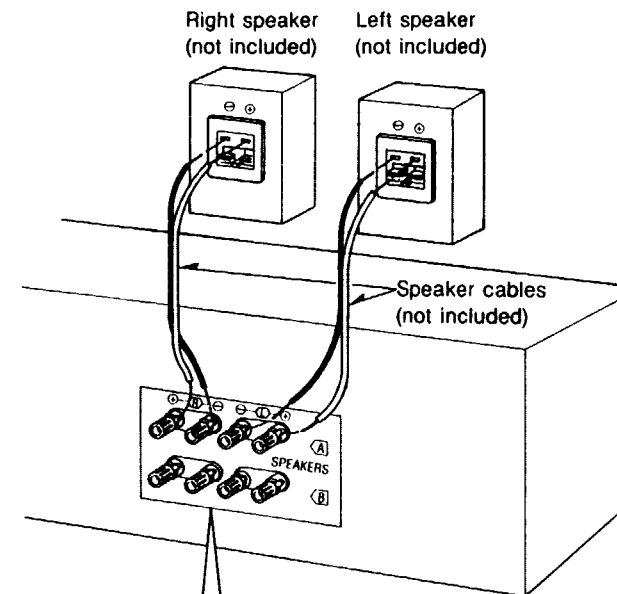
If a tape deck is not being used, the CD player (or CD changer) can be connected directly (dotted line).

Note

For a tape deck and/or CD player (or CD changer) with a remote control sensor, this connection is not necessary.



To connect the speakers



- Strip off the outer covering, and twist the center conductor. 10 mm Twist
 - Turn completely to the left. 2
 - Insert the wire and turn completely to the right. Pull the cord to assure a proper connection. 3
- Note** Be sure to only connect positive (+) cords to positive (+) terminals, and negative (-) cords to negative (-) terminals.
- Note** To prevent damage to circuitry, never short-circuit the positive (+) and negative (-) speaker wires.

"B" terminals

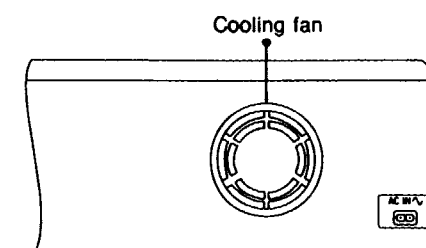
For connection to a second pair of speakers.

Speaker impedance

- When only the "A" or only the "B" terminals are used: 4-16 ohms
- When both the "A" and the "B" terminals are used simultaneously: 8-16 ohms

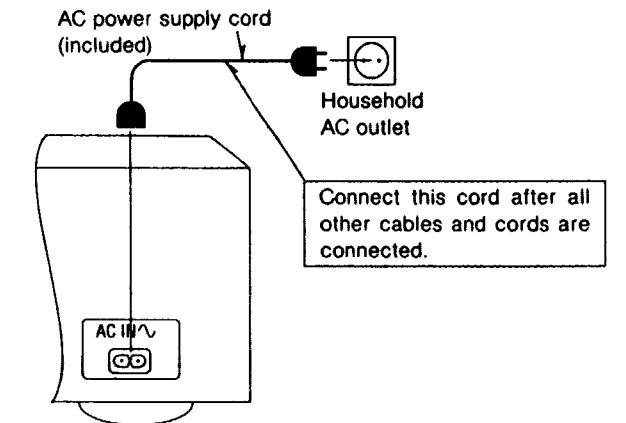
About the cooling fan

The cooling fan operates at high power output levels only. (There is no cooling fan for some countries.)



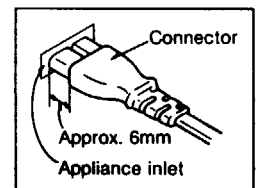
To connect the AC power supply cord

FOR UNITED KINGDOM ONLY
BE SURE TO READ THE CAUTION FOR THE AC POWER SUPPLY CORD ON PAGE 3 BEFORE CONNECTING THE AC POWER SUPPLY CORD.



Insertion of Connector

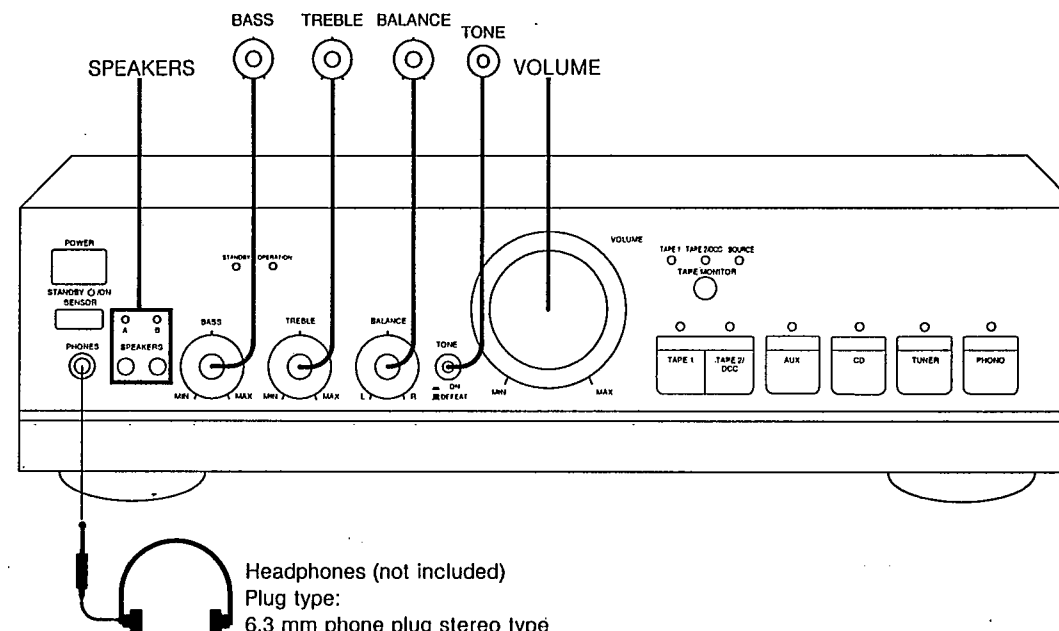
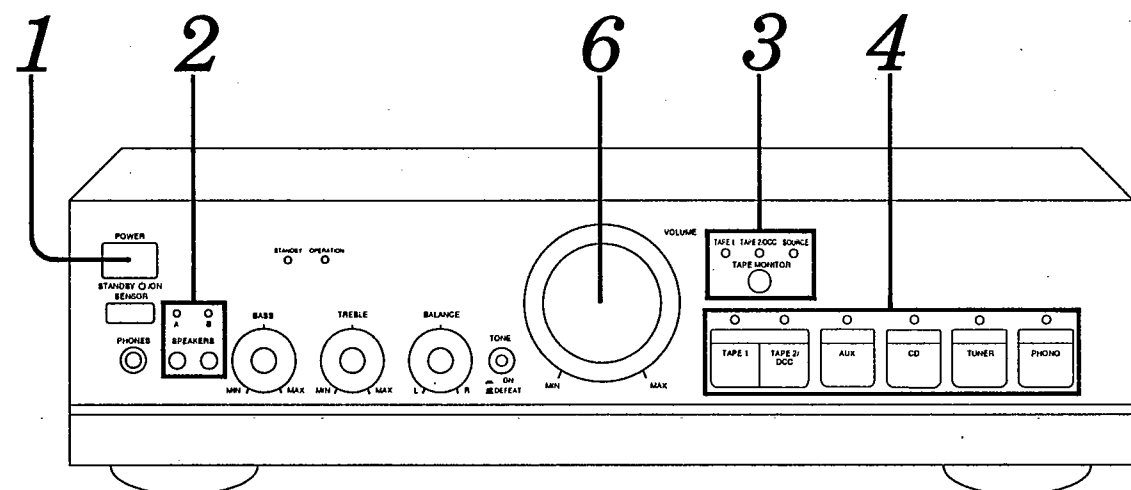
Even when the connector is perfectly inserted, depending on the type of inlet used, the front part of the connector may jut out as shown in the drawing. However there is no problem using the unit.



Note

The configuration of the AC power supply cord differs according to area.

■ Listening to Sound



Before operation, set VOLUME to the "MIN" position.

1 **POWER** Press **POWER** to switch on the power.

4 Press to select the desired source.

2 Press **A** and/or **B** to select the speaker system(s) to be used.

The corresponding indicator above will illuminate to indicate which button is selected.

A and **B** refer to the speaker terminals at the rear of the unit.

A: Sound can be heard from the speakers connected to the "A" terminals.

B: Sound can be heard from the speakers connected to the "B" terminals.

A and B: Sound can be heard simultaneously from the speakers connected to the "A" terminals and the "B" terminals.

off: No sound will be heard from the speakers. (Both indicators will turn off.)

5 **Start the desired source.** (Refer to the appropriate operating instructions for details.)

3 Press **TAPE MONITOR** so that the "SOURCE" indicator illuminates.

6 Turn **VOLUME** to adjust the volume level.

Note

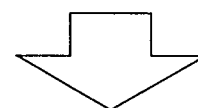
When a graphic equalizer connected to the "TAPE 1" or "TAPE 2/DCC" terminals is used, set the selector to the "TAPE 1" or "TAPE 2/DCC" position.

After listening is finished

Be sure to reduce the volume level, and switch the power to the standby condition by pressing **POWER**.

To adjust the tone quality

TONE Set **TONE** to the "ON" position. If set to the "DEFEAT" position, tone controls have no effect.



BASS Turn **BASS** to adjust the low-frequency sound.

TREBLE Turn **TREBLE** to adjust the high-frequency sound.

To adjust the sound balance

BALANCE Turn **BALANCE** to adjust the left/right sound balance.

When listening through headphones

Use **VOLUME** to reduce the volume level, and connect the headphones.

If sound from speakers is not wanted, press **SPEAKERS (A)** and/or **(B)** to turn off the speaker select indicators.

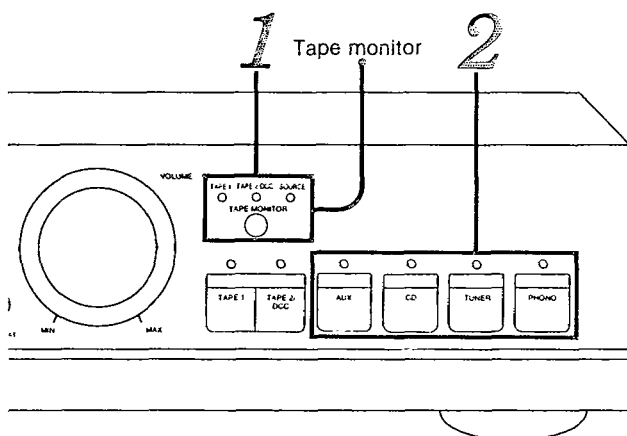
Note

Avoid listening for prolonged periods of time to prevent hearing damage.

Recording

To record from compact discs, etc.

It is possible to record from units which are connected to the rear "AUX", "CD", "TUNER" or "PHONO" terminals to cassette tape decks or DCC decks which are connected to the "TAPE 1" or "TAPE 2/DCC" terminals.



Before recording, prepare the tape deck or DCC for recording (recording level adjustment, etc.).

See the tape deck's or DCC's operating instructions for details.

1 Press TAPE MONITOR so that the "SOURCE" indicator illuminates.

2 Select the program source to be recorded.

AUX: To record from equipment connected to the "AUX" terminals.

CD: To record from compact discs.

TUNER: To record from radio broadcasts.

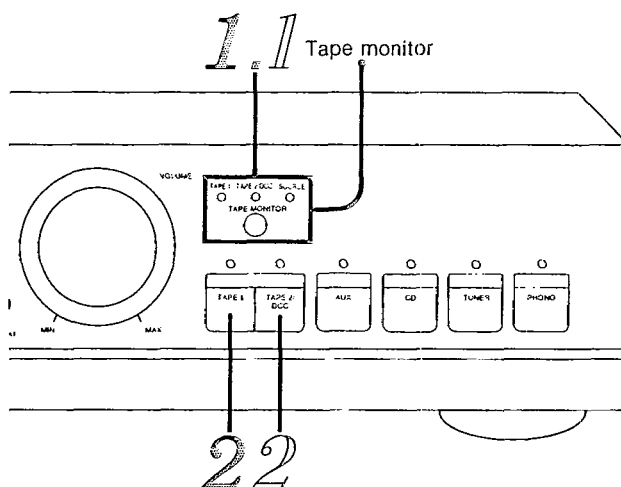
PHONO: To record from phono discs.

3 Begin recording.
Follow your tape deck's or DCC's operating instructions.

4 Begin the source to be recorded.

Tape-to-tape recording

It is possible to record from tape deck 1 (the cassette tape deck which is connected to the "TAPE 1" terminals) to tape deck 2 (the cassette tape deck or DCC deck which is connected to the "TAPE 2/DCC" terminals) and vice versa.



Preparation

- Before recording, prepare the tape deck or DCC for recording (recording level adjustment, etc.). See the tape deck's or DCC's operating instructions for details.
- Load tapes which have been advanced to the end of the leader tape into both decks.

To record from tape deck 2 to 1

1 Press TAPE MONITOR so that the "SOURCE" indicator illuminates.

2 Press "TAPE 2/DCC".

3 Begin tape deck 1 for recording and tape deck 2 for playback.

To record from tape deck 1 to 2

1 Press TAPE MONITOR so that the "SOURCE" indicator illuminates.

2 Press "TAPE 1".

3 Begin tape deck 2 for recording and tape deck 1 for playback.

To check the sound recorded while recording is being made

If a cassette tape deck with 3 heads is connected to the "TAPE 1" or "TAPE 2/DCC" terminals, it is possible to check the sound being recorded onto the tape.

Press TAPE MONITOR to select the deck (tape deck 1 or 2) and set the monitor switch on the tape deck to "TAPE".



TAPE 1: when recording on tape deck 1
TAPE 2/DCC: when recording on tape deck 2

■ Operation Check and Main Component Replacement Procedures

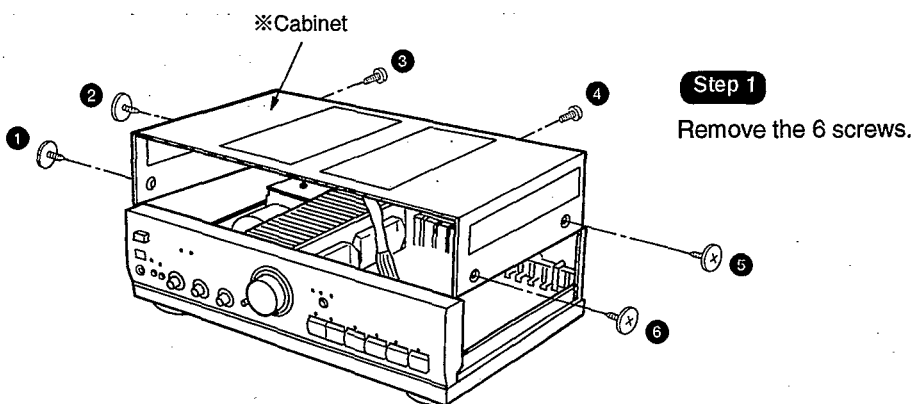
NOTE

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.
4. Illustrated screws are equivalent to actual size.
5. [] indicates parts No.

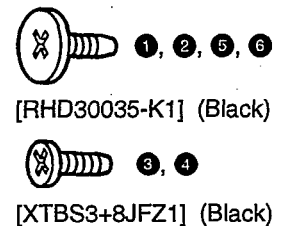
● Contents

	Page
1. Checking for the Volume P.C.B. /Operation P.C.B. /Tone AMP P.C.B.	11.
2. Checking for the Main P.C.B.	12.
3. Replacement for power IC.	13.

1. Common disassembly procedures (Follow this procedure prior to other disassembly.)

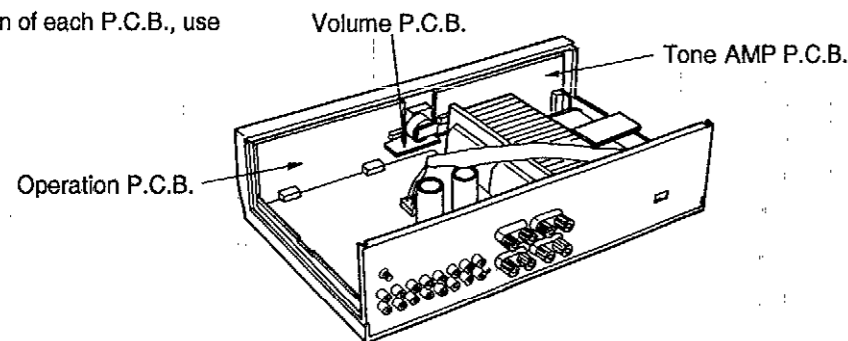


※ (E, EG) : RKM0114A-K
 ※ (EB, EO) : RKM0114B-K



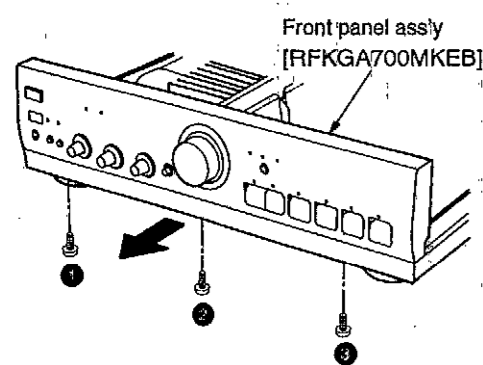
2. Checking for the Volume P.C.B. / Operation P.C.B. / Tone AMP P.C.B.

To check the operation of each P.C.B., use item 1 of page 10.

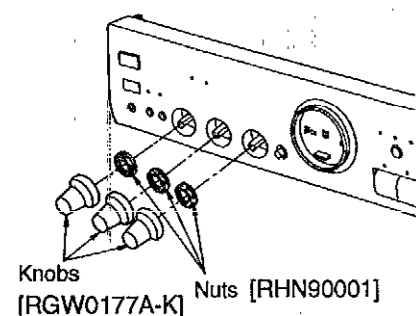


To remove each P.C.B.

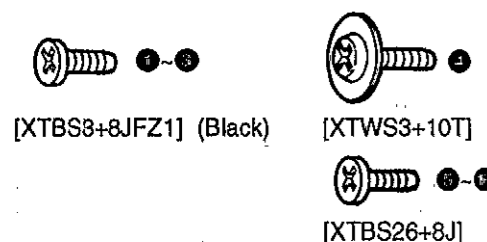
Step 1 Remove the 3 screws.



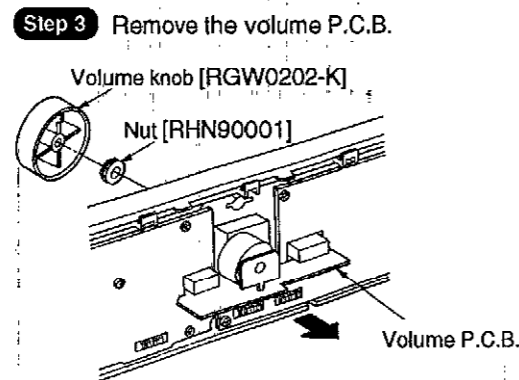
Step 4 Remove the knobs and nuts.



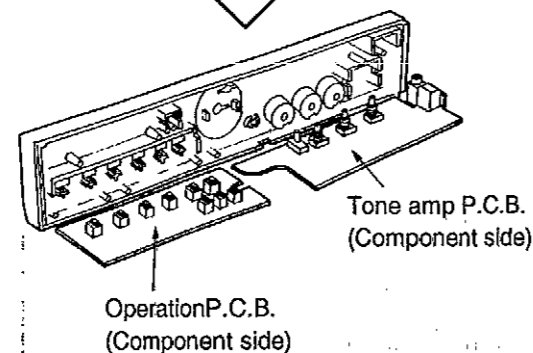
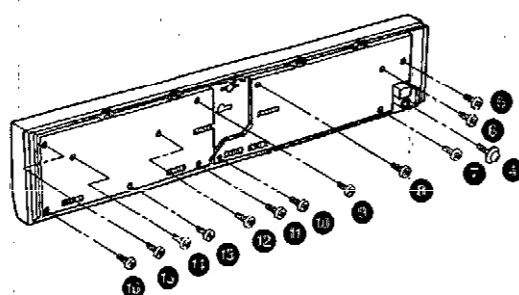
※Pull out the knobs with using adhesive tape when the knob is hardly removed.



Step 2 Remove the knob and nut.

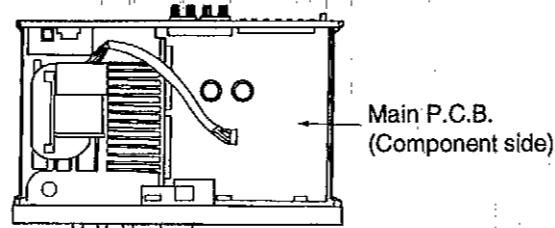


Step 5 Remove the 13 screws.

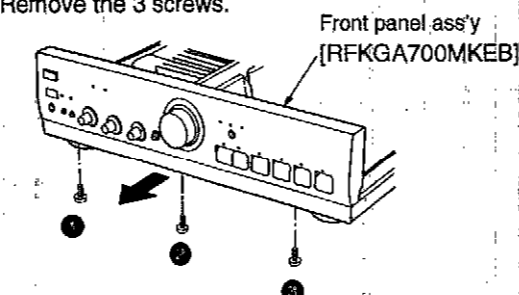


3. Checking for the Main P.C.B.

Step 1 Follow the disassembly procedure described in item 1 on page 10.

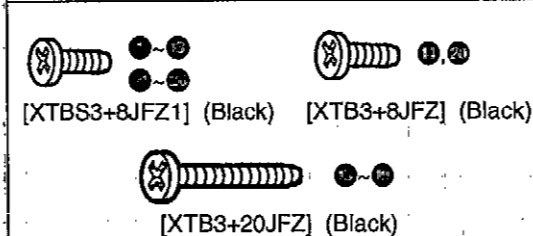
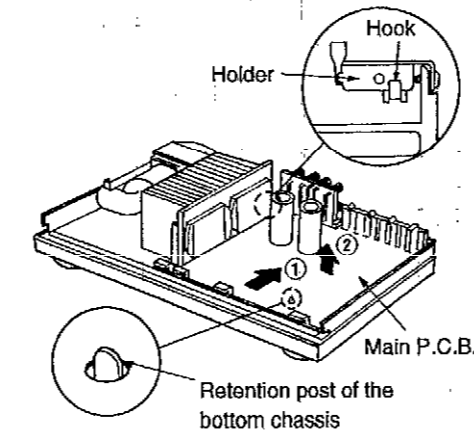


Step 3 Remove the 3 screws.



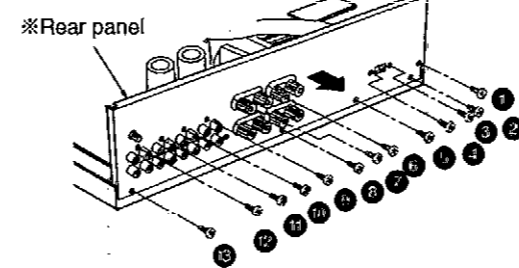
Step 5 Lift the main P.C.B. off the retention post on the bottom chassis.

Step 6 Remove the main P.C.B. in the direction of arrow ①, ②.

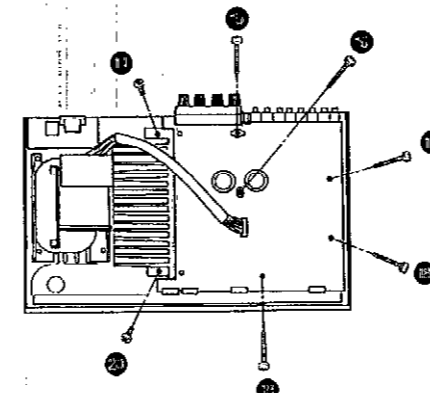


※ (E, EG) : RGR0170A-CB
 ※ (EO) : RGR0170H-BB
 ※ (EB) : RGR0170B-BB

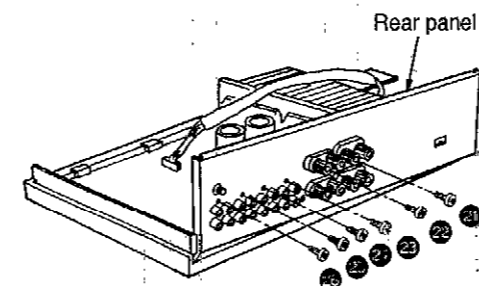
Step 2 Remove the 13 screws.



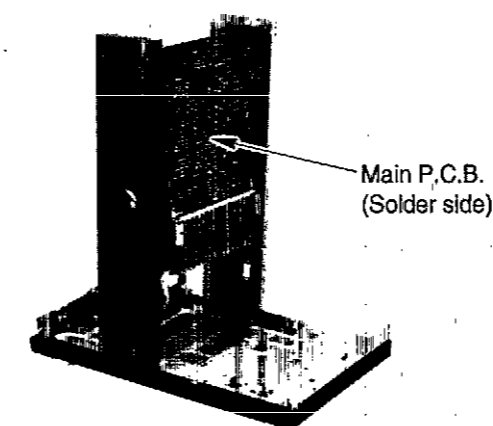
Step 4 Remove the 7 screws.



Step 7 Install the rear panel temporarily on the main P.C.B. again.



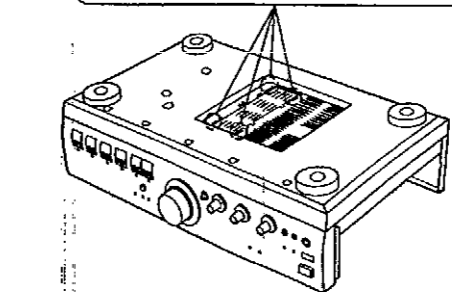
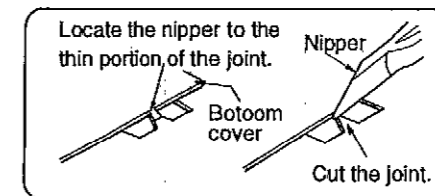
Step 8 Connect the front panel ass'y of the P.C.B. connectors to the main P.C.B. and set it as the illustration below.



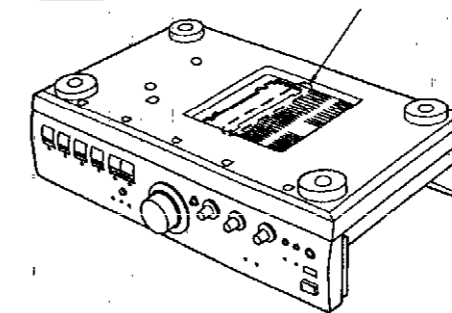
4. Replacement for power IC.

Step 1 Follow the disassembly procedure described in item 1 on page 10.

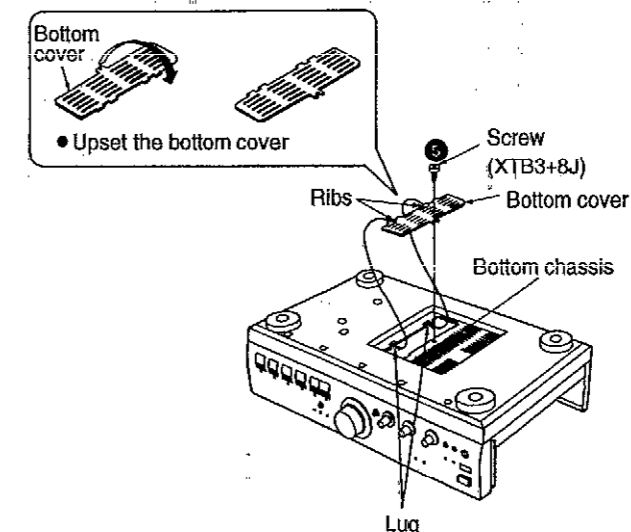
Step 2 Cut the joints as shown below. (4 portions)



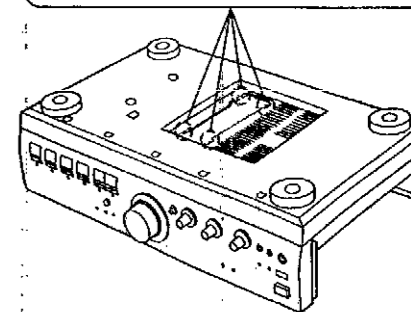
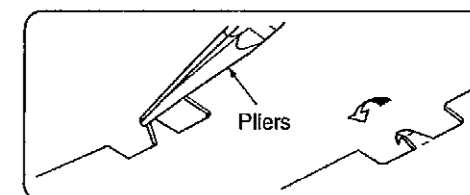
Step 4 Remove the solder of power IC.



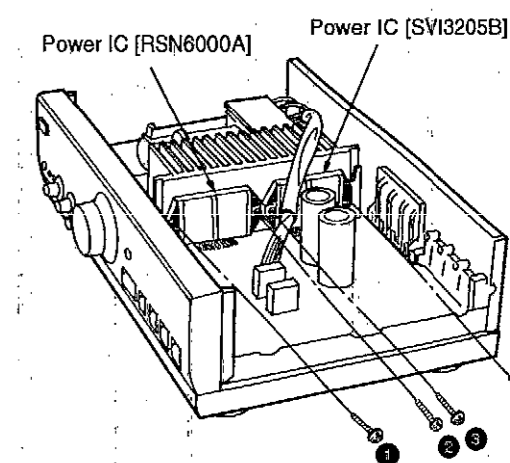
Step 6 Fix the bottom cover with screw.



Step 3 Fold the joints. (4 portions)

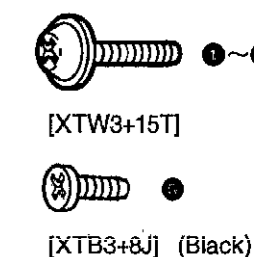


Step 5 Remove the 4 screws.

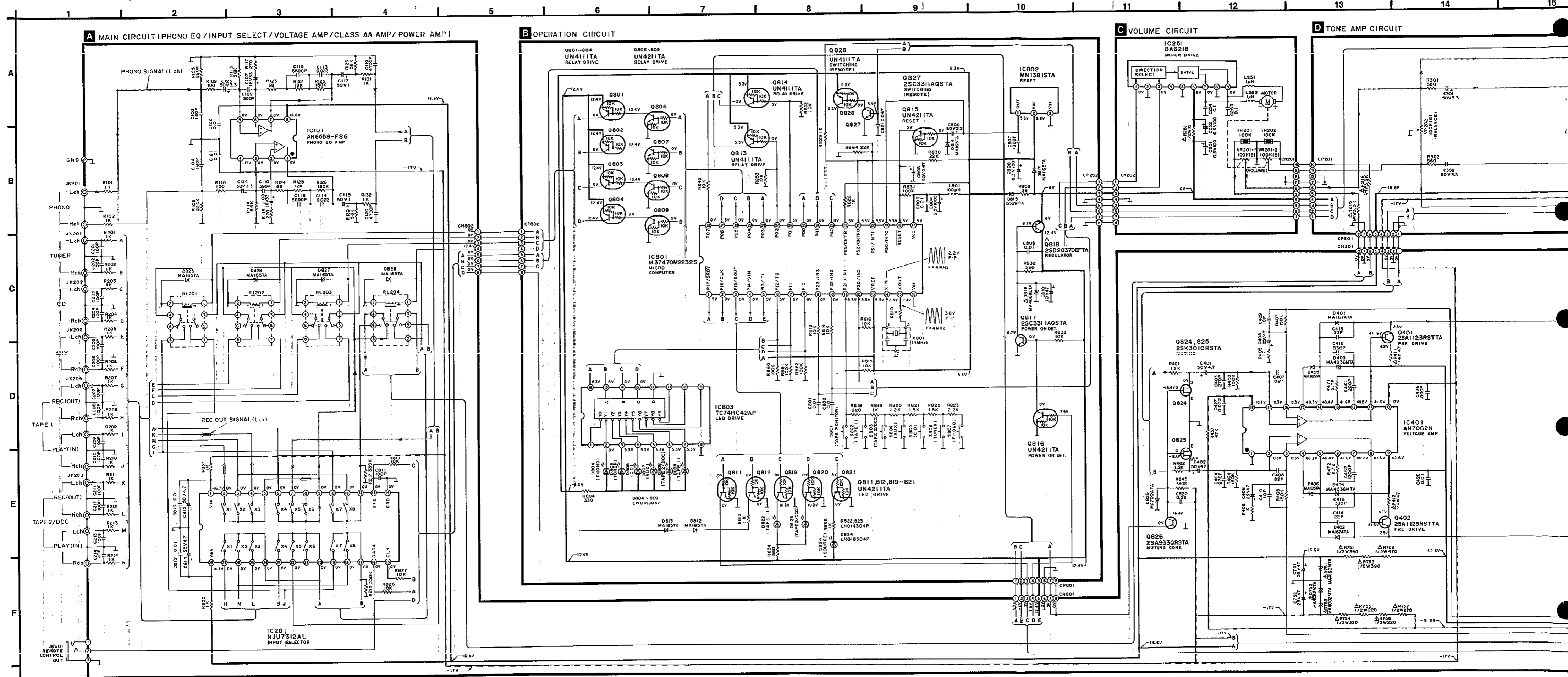


CAUTION

- After replacing the power IC, apply a sufficient quantity of compound grease (RFKX0002/SZZ0L15) between the heat sink and the power IC (Radiation of power IC).
- Tighten enough the screws (1~4) after replacing the power IC. Otherwise, the heat radiation works little.



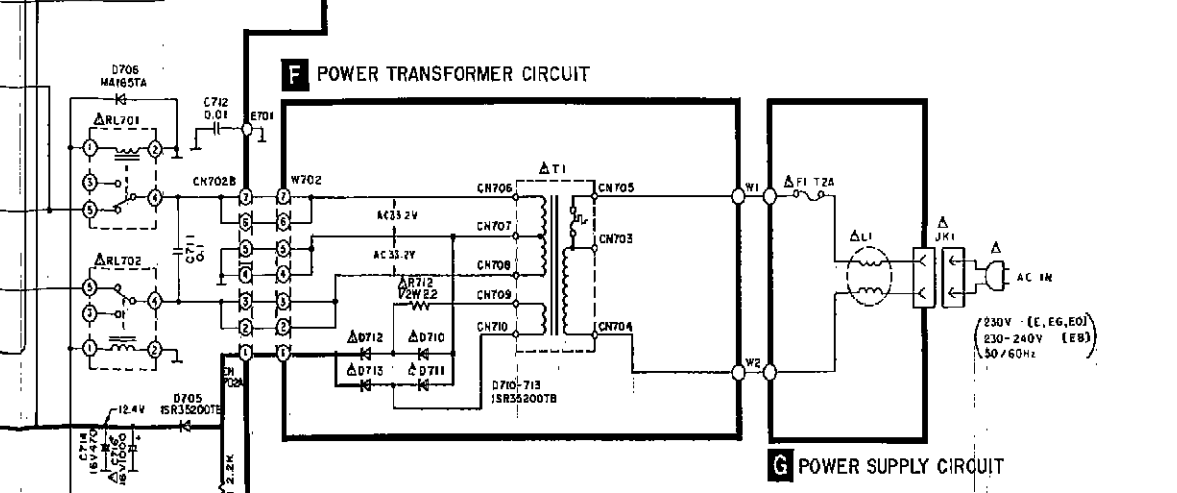
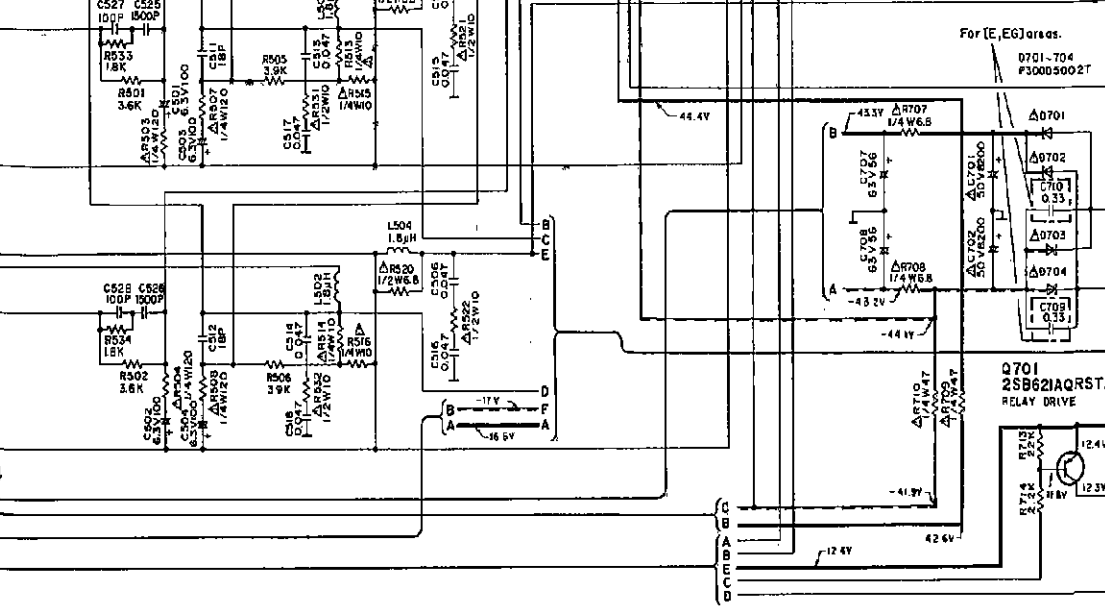
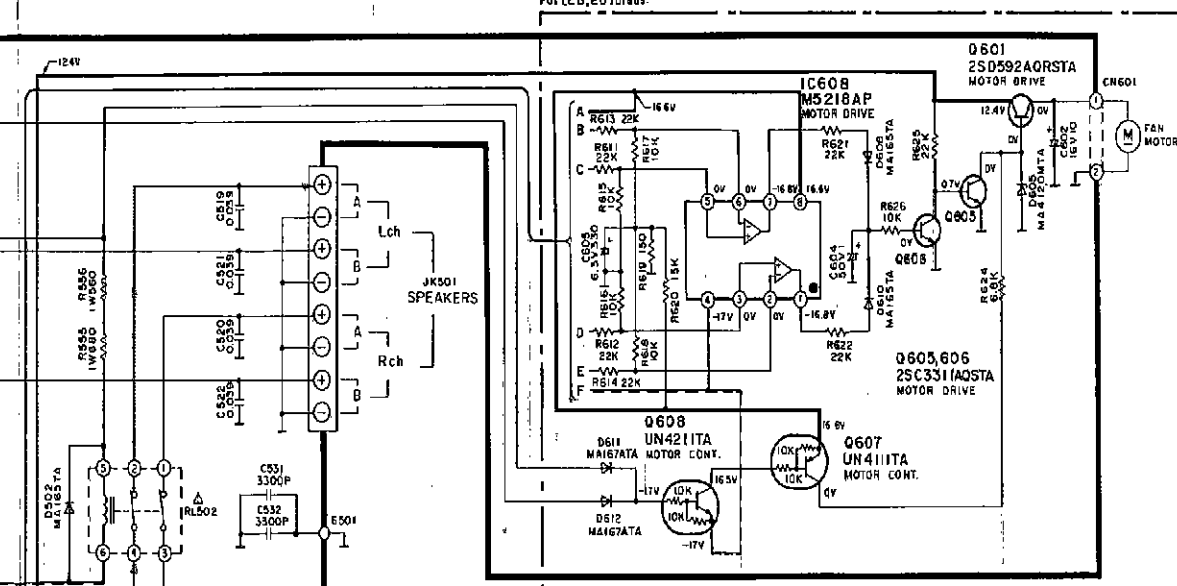
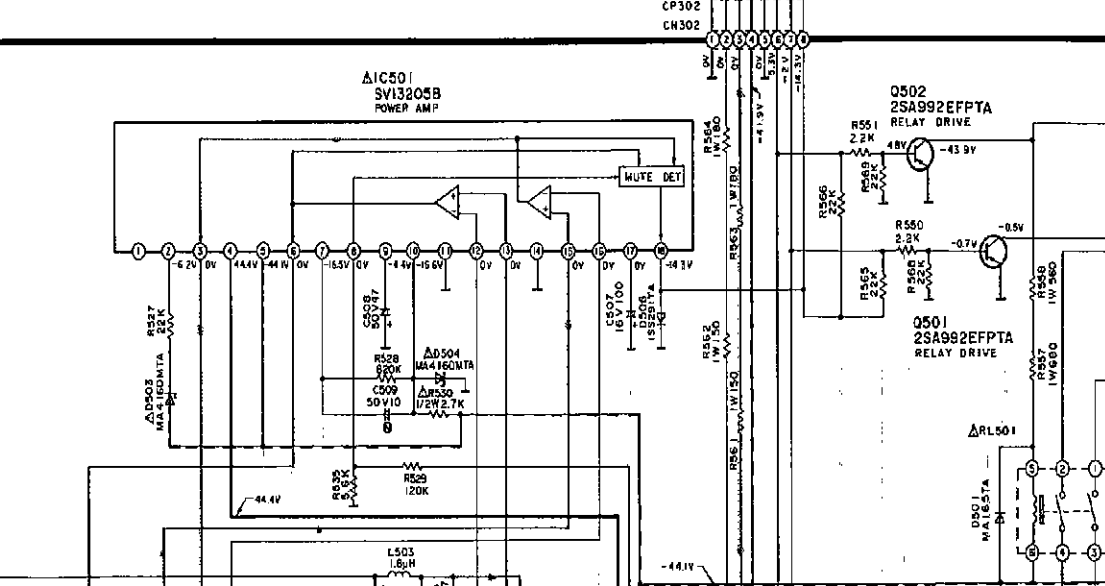
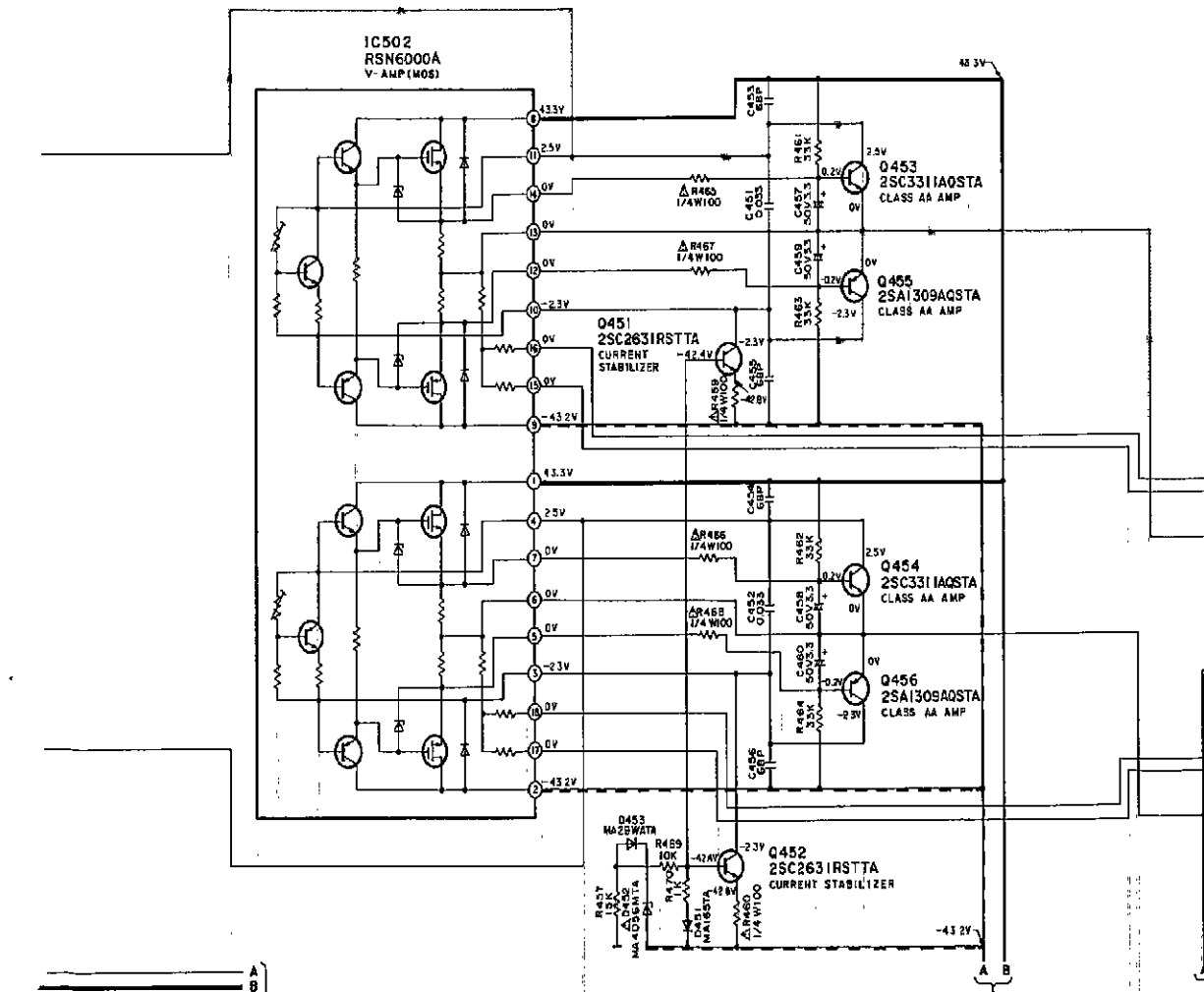
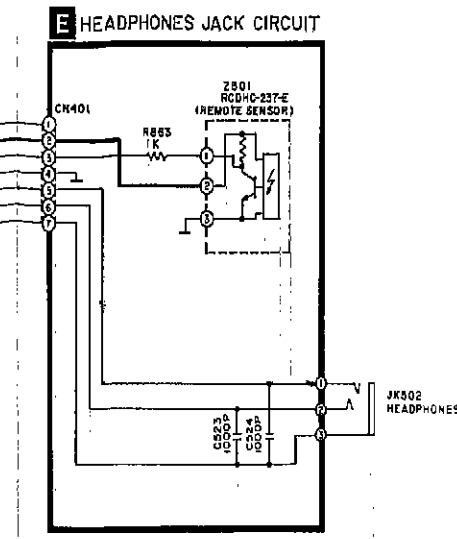
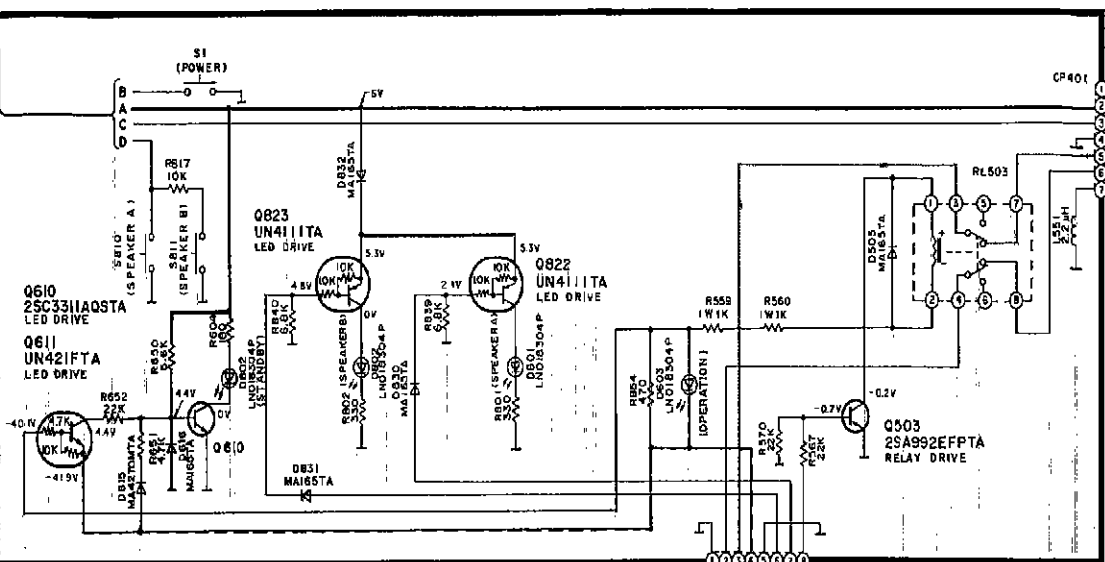
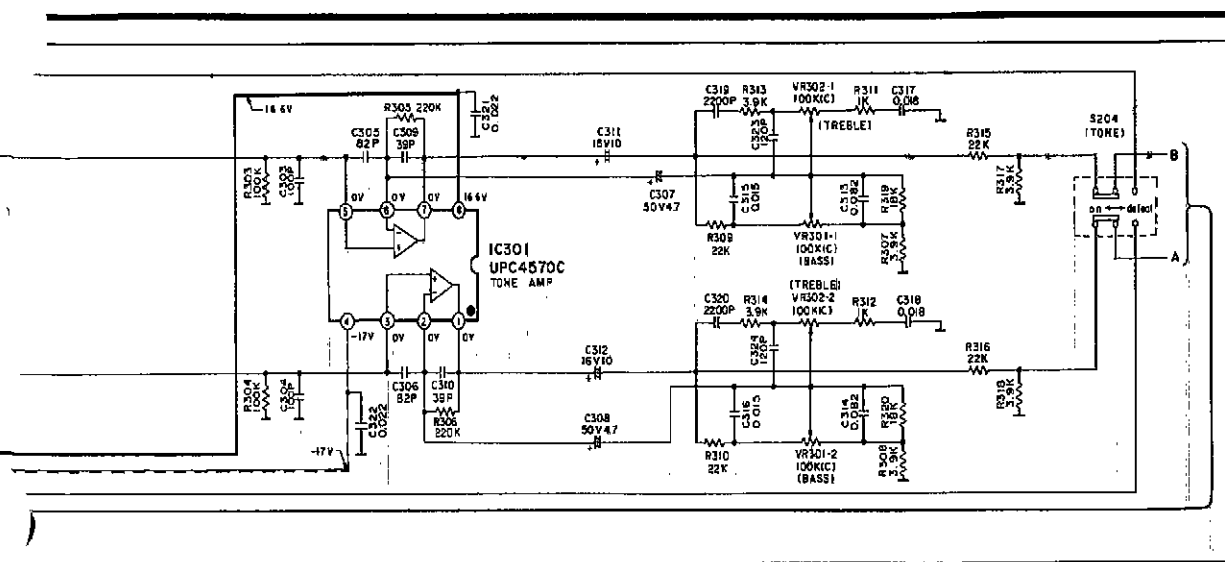
Schematic Diagram • Main/Operation/Volume/Tone Amp. Circuit (Parts list on page 28~34.)



● Power Switch/Headphones Jack/Power Supply/Power Transformer Circuit

(Parts list on page 28~34.)

16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35



- Notes:
- S1 : Power Standby (ON) switch.
 - S204: TONE control switch (ON/DEFEAT).
 - S801: TAPE MONITOR switch.
 - S802: input selector switch (TAPE 1).
 - S803: input selector switch (TAPE 2/DCC).
 - S804: input selector switch (AUX).
 - S805: input selector switch (CD).
 - S806: input selector switch (TUNER).
 - S807: input selector switch (PHONO).
 - S810: Speaker select switch (SPEAKER A).
 - S811: Speaker select switch (SPEAKER B).
- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester. No mark: Power ON
- Important safety notice:
Components identified by Δ 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.

● This schematic diagram may be modified at any time with the development of new technology.

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

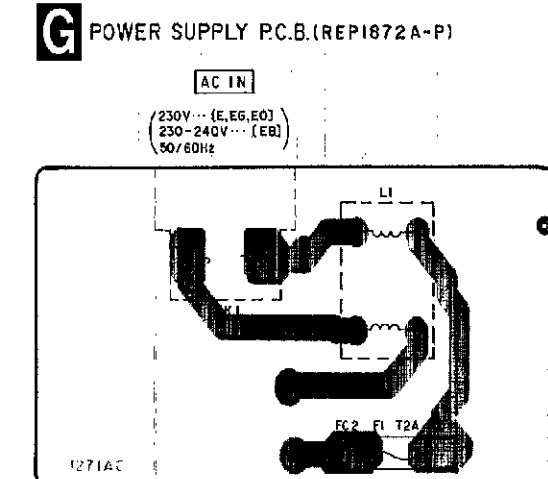
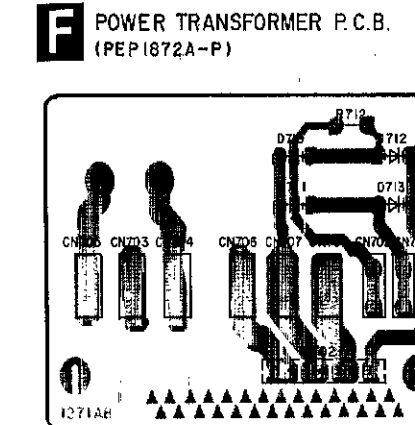
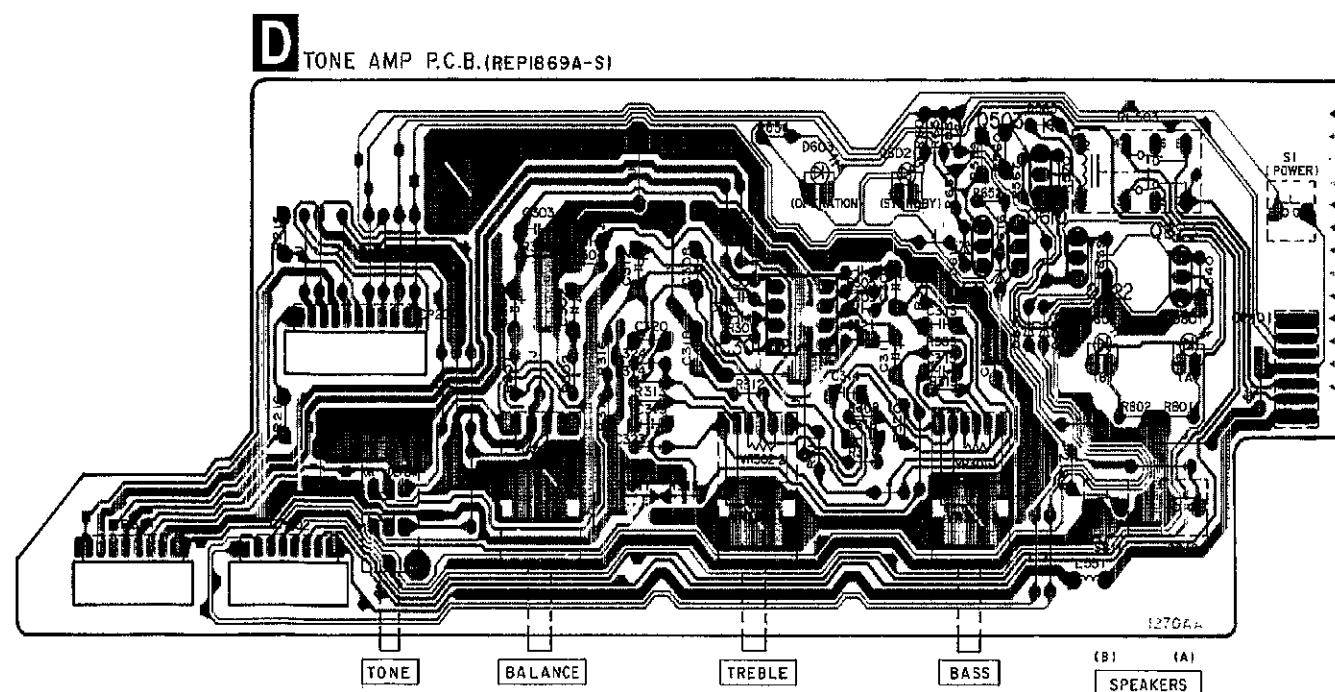
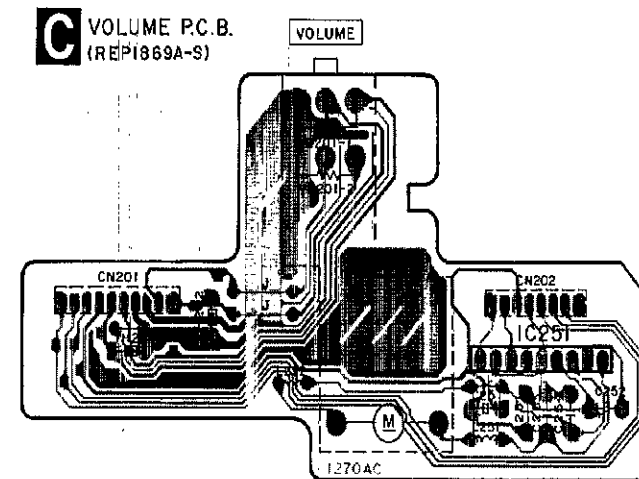
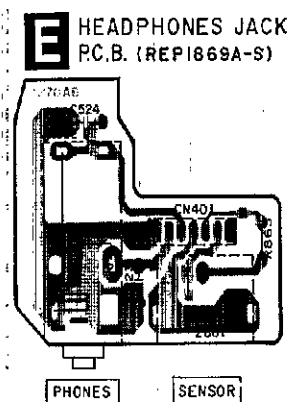
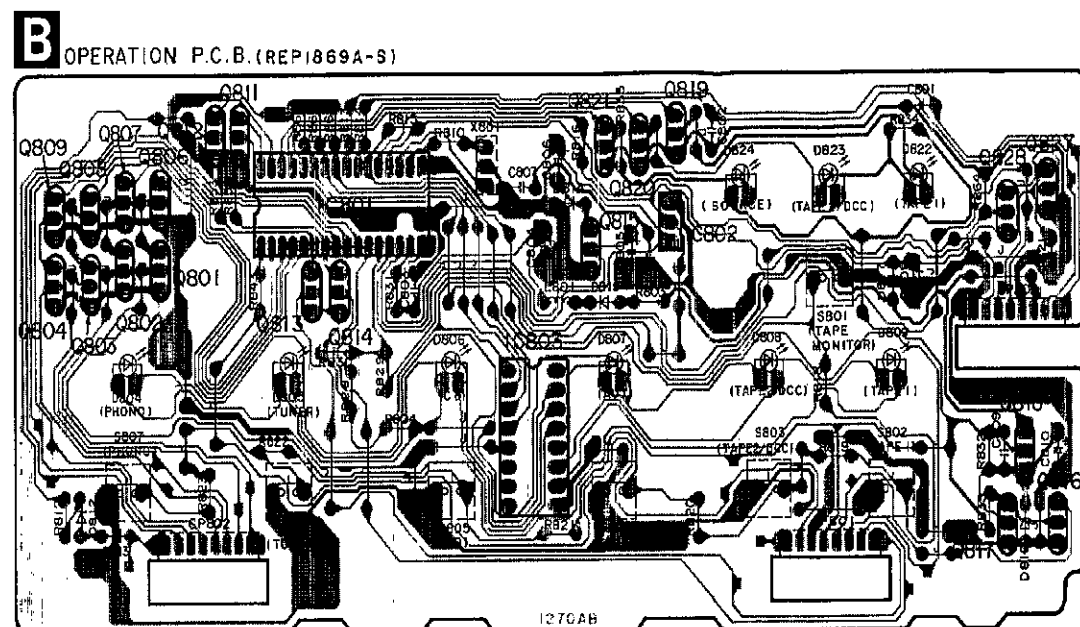
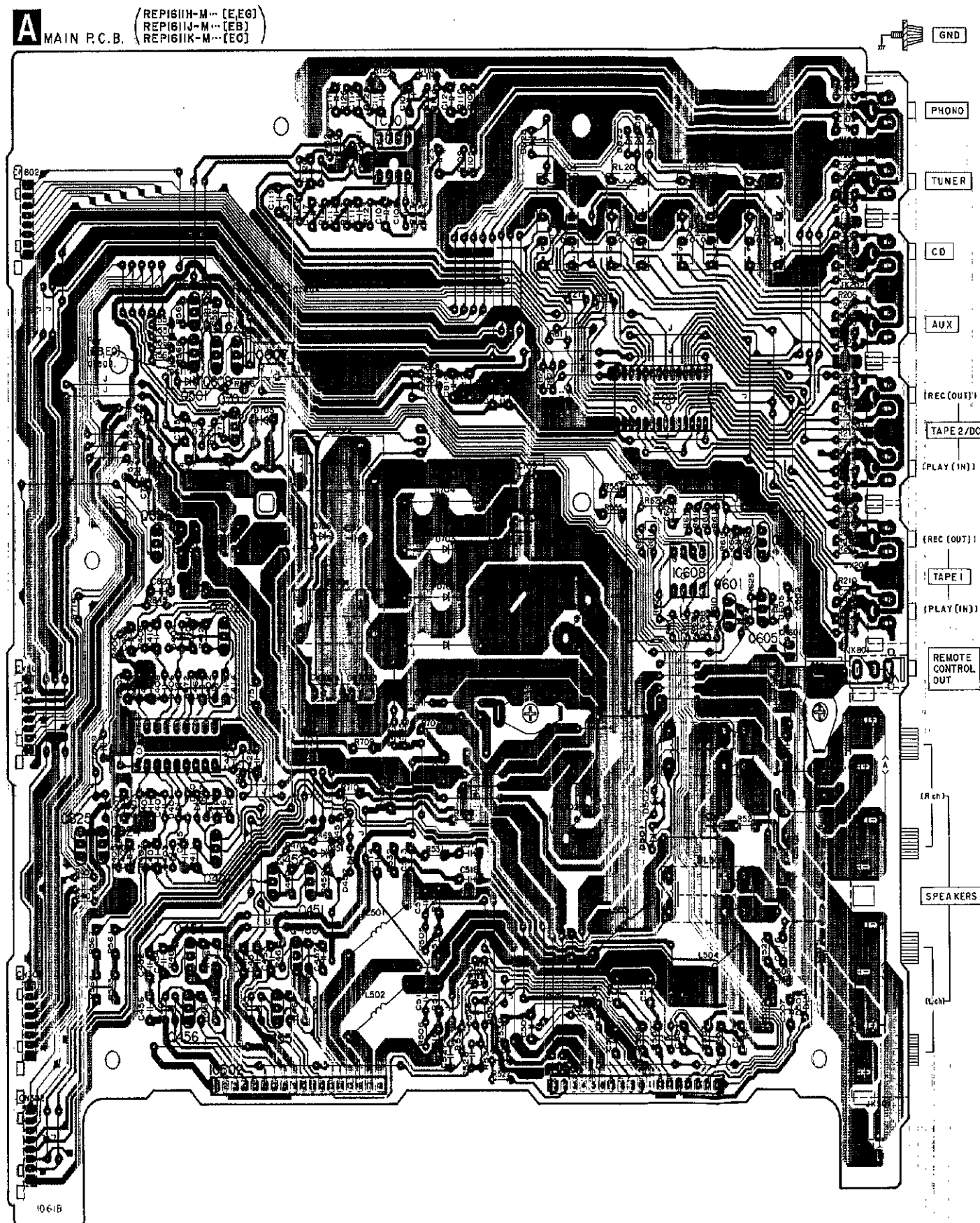
- Voltage and signal line
- : Positive voltage line.
 - - - : Negative voltage line.
 - ~ : Phono signal line.
 - : Recording output signal line.

● The supply part number is described alone in the replacement parts list.

Part No.	Production Part No.	Supply Part No.
Z801	RCDHC-237-E	RCDHC-237

Printed Circuit Board Diagram

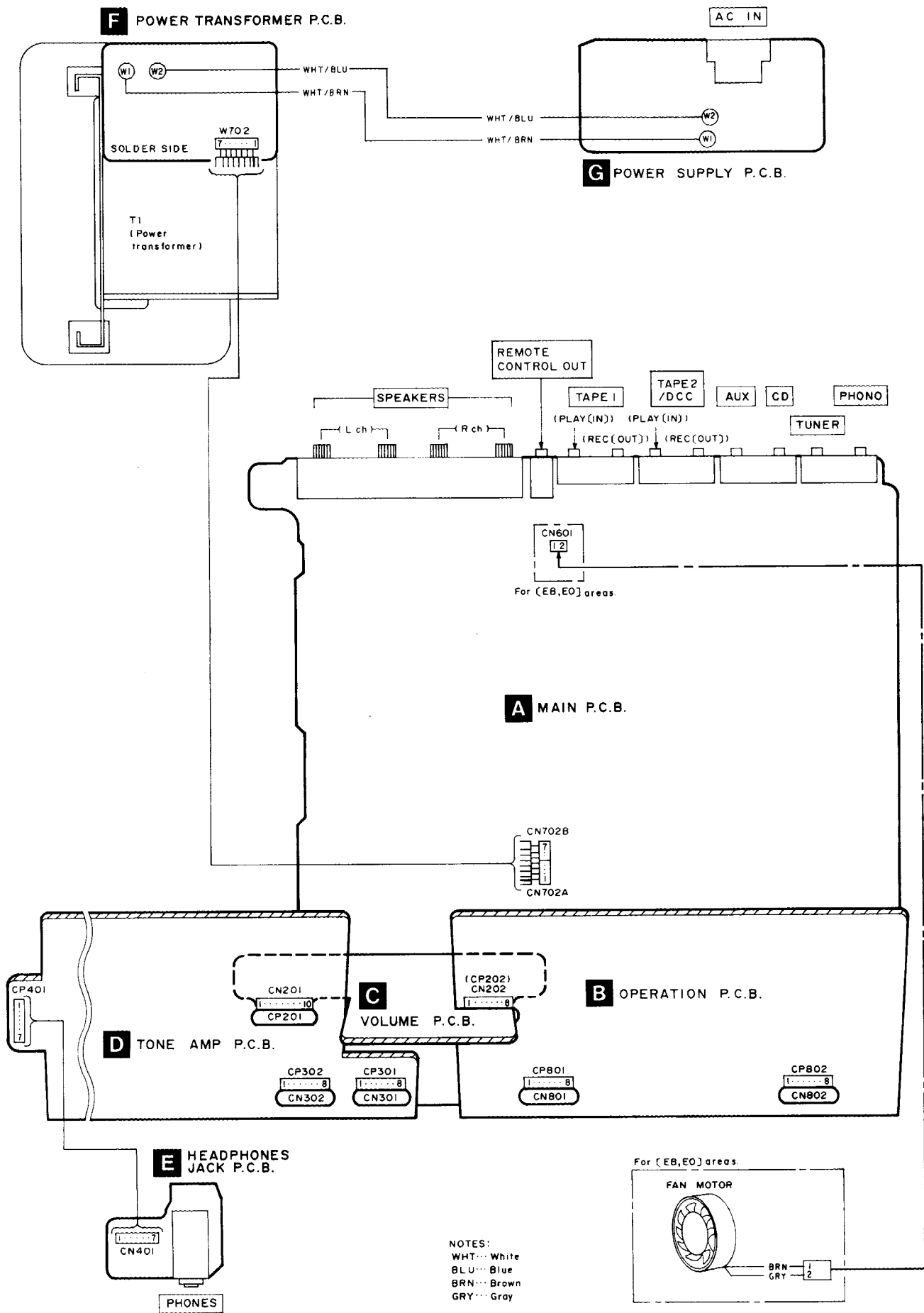
This circuit board diagram may be modified at any time with the development of new technology.



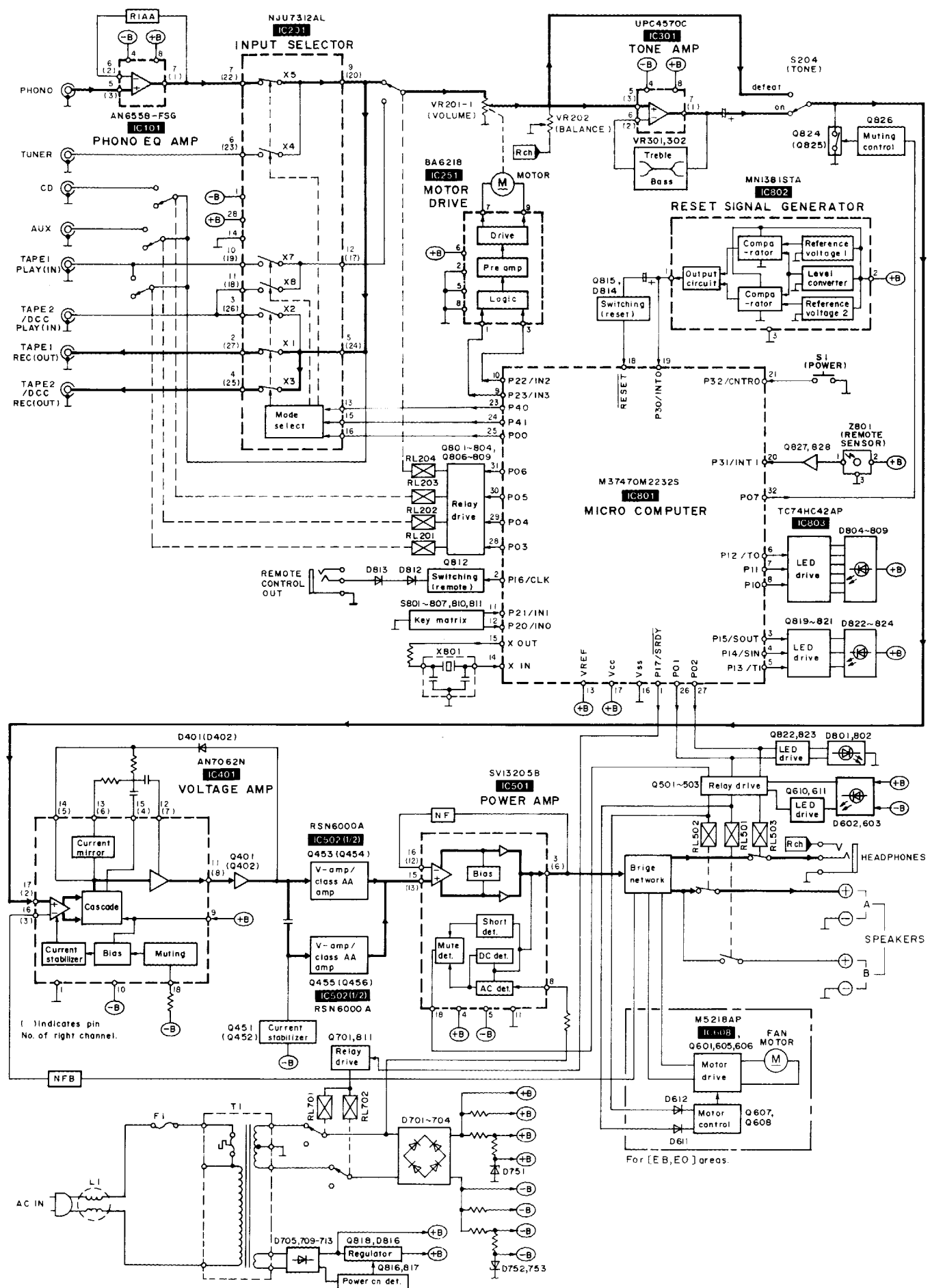
Terminal guide of IC's, transistors and diodes

M5218AP 	AN8558-FSG 	UPC4570C 8 Pin AN7062N 18Pin NJU7312AL 26Pin	TC74HC42AP 16Pin MS7470M2282S 32Pin
BA6218 	RSN6000A SV13205B 	MN1381STA 	2SA933QRSTA 2SA992EFFPTA 2SA1123RSTTA 2SB21A-R 2SC2631RSTTA 2SD592ANCO
2SA1309A-R 2SC3311A-Q UN421FTA UN4111 UN4211 	2SD2037DEFTA 	MA165 MA167 MA29WA MA700 1SS291TA 1SR35200TB 	P300D5002T
MA4036MTA MA4056MTA MA406BL MA4082MTA 	MA4160M MA4120 MA4270 	LN014304P LN018304P 	

■ Wiring Connection Diagram



■ Block Diagram



Function of IC Terminals

IC801 (M37470M2232S)

Pin No.	Terminal Name	I/O	Function
1	P17/SRDY	O	Relay (Power SW) drive signal output.
2	P16/CLK	O	Remote control signal output.
3	P15/SOUT	O	LED (TAPE 1) drive signal output.
4	P14/SIN	O	LED (TAPE 2) drive signal output.
5	P13/TI	O	LED (SOURCE) drive signal output.
6	P12/TO	O	Input select LED drive signal output.
7	P11	O	
8	P10	O	
9	P23/IN3	O	Motor (volume control) drive signal output.
10	P22/IN2		
11	P21/IN1	I	Input select switch signal input.
12	P20/IN0	I	Switch (POWER, SPEAKER A, SPEAKER B) signal input.
13	VREF	I	Reference voltage input.
14	XIN	I	Oscillator signal I/O terminal. (4 MHz)
15	XOUT	O	
16	VSS	—	GND terminal.
17	VCC	I	Power supply (+5V).

Pin No.	Terminal Name	I/O	Function
18	RESET	I	System reset signal input.
19	P30/INTO	I	Back-up detect signal input.
20	P31/INTI	I	Remote control receive signal input.
21	P32/CNRO	I	Power SW signal input.
22	P33/CNRI	—	No used. Connected to GND.
23	P40	O	Strobe signal input for Input Selector IC (IC201).
24	P41	O	Clock signal input for Input Selector IC (IC201).
25	P00	O	Data signal input for Input Selector IC (IC201).
26	P01	O	SPEAKER A select signal output.
27	P02		SPEAKER B select signal output.
28	P03	O	Selector Relay drive signal output.
29	P04		
30	P05		
31	P06		
32	P07	O	Audio muting control signal output.

Replacement Parts List

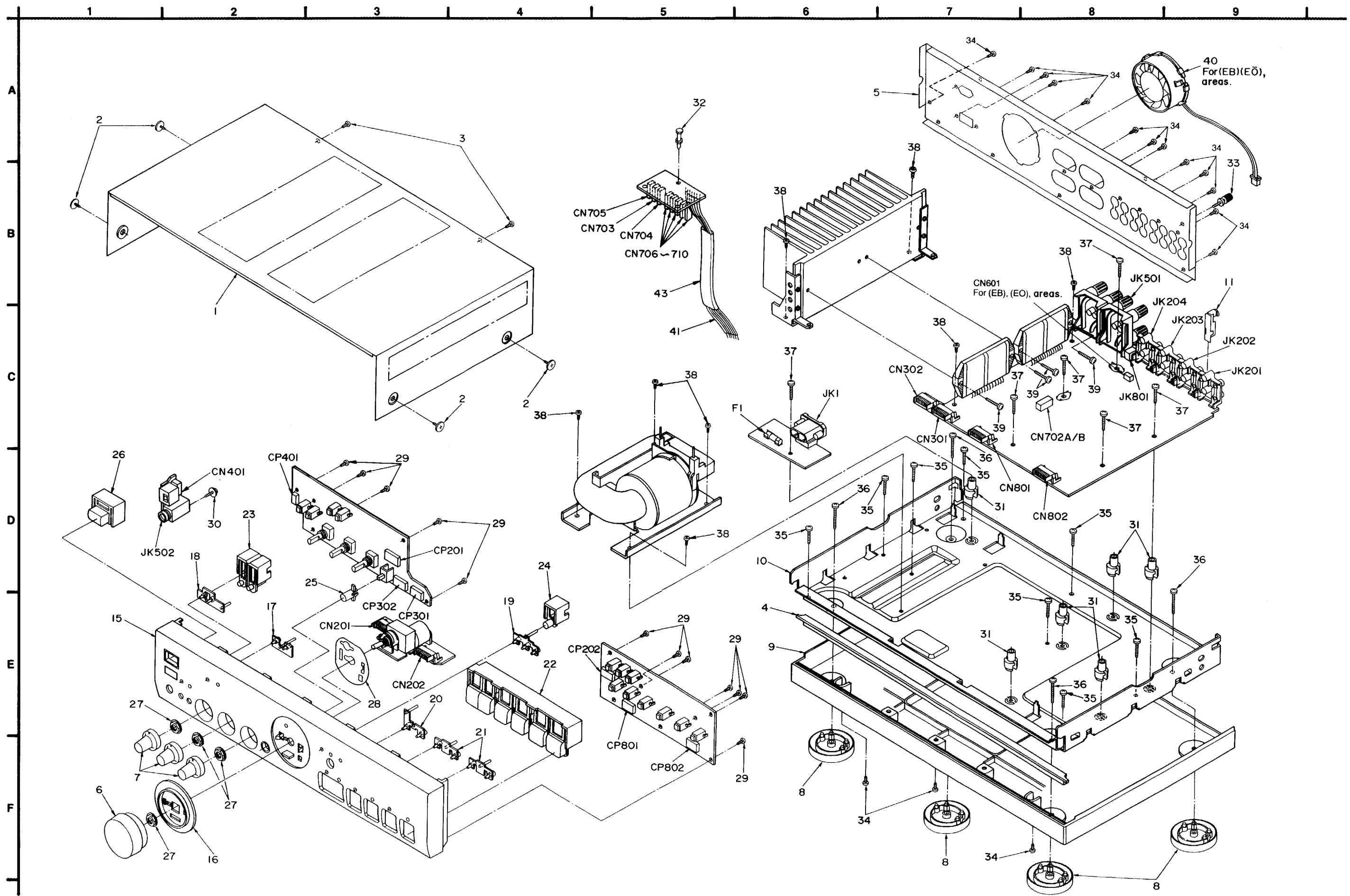
Notes: *Important safety notice:
 Components identified by Δ mark have special characteristics important for safety.
 Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
 When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
 *The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
 Parts without these indications can be used for all areas.
 *Remote Control Assy: Supply period for three years from termination 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
		INTEGRATED CIRCUIT (S)		D403, 404	MA4036MTA	DIODE	
				D405, 406	MA165	DIODE	
				D451	MA165	DIODE	
IC101	AN6558-FSG	I. C. PHONO EQ AMP.		D452	MA4056MTA	DIODE	Δ
IC201	NJU7312AL	I. C. INPUT SELECTOR		D453	MA29WA	DIODE	
IC251	BA6218	I. C. VOLUME MOTOR DRIVE		D501, 502	MA165	DIODE	
IC301	UPC4570C	I. C. TONE AMP.		D503, 504	MA4160M	DIODE	Δ
IC401	AN7062N	I. C. VOLTAGE AMP.		D505	MA165	DIODE	
IC501	SV13205B	I. C. POWER AMP.	Δ	D506	1SS291TA	DIODE	
IC502	RSN6000A	I. C. V-AMP.		D602, 603	LN018304P	L. E. D.	
IC608	M5218AP	I. C. FUN MOTOR DRIVE	(EB, EO)	D605	MA4120	DIODE	(EB, EO)
IC801	M37470M2232S	I. C. MICRO COMPUTER		D608	MA165	DIODE	(EB, EO)
IC802	MN1381STA	I. C. RESET		D610	MA165	DIODE	(EB, EO)
IC803	TC74HC42AP	I. C. LED DRIVE		D611, 612	MA167	DIODE	(EB, EO)
		TRANSISTOR (S)		D615	MA4270	DIODE	
				D616	MA165	DIODE	
Q401, 402	2SA1123RSTTA	TRANSISTOR		D701-704	P300D5002T	DIODE	Δ
Q451, 452	2SC2631RSTTA	TRANSISTOR		D705	1SR35200TB	DIODE	
Q453, 454	2SC3311A-Q	TRANSISTOR		D706	MA165	DIODE	
Q455, 456	2SA1309A-R	TRANSISTOR		D709	MA165	DIODE	
Q501-503	2SA992EFPTA	TRANSISTOR		D710-713	1SR35200TB	DIODE	Δ
Q601	2SD592ANCQ	TRANSISTOR	(EB, EO)	D751	MA4160M	DIODE	Δ
Q605, 606	2SC3311A-Q	TRANSISTOR	(EB, EO)	D752, 753	MA4082MTA	DIODE	Δ
Q607	UN4111	TRANSISTOR	(EB, EO)	D801, 802	LN018304P	L. E. D.	
Q608	UN4211	TRANSISTOR	(EB, EO)	D804-809	LN018304P	L. E. D.	
Q610	2SC3311A-Q	TRANSISTOR		D812-814	MA165	DIODE	
Q611	UN421FTA	TRANSISTOR		D815	1SS291TA	DIODE	
Q701	2SB621A-R	TRANSISTOR		D816	MA4068L	DIODE	
Q801-804	UN4111	TRANSISTOR		D817	MA165	DIODE	
Q806-809	UN4211	TRANSISTOR		D822, 823	LN014304P	L. E. D.	
Q811, 812	UN4211	TRANSISTOR		D824	LN018304P	L. E. D.	
Q813, 814	UN4111	TRANSISTOR		D825-828	MA165	DIODE	
Q815, 816	UN4211	TRANSISTOR		D829	MA700	DIODE	
Q817	2SC3311A-Q	TRANSISTOR		D830-832	MA165	DIODE	
Q818	2SD2037DEFTA	TRANSISTOR	Δ			VARIABLE RESISTOR (S)	
Q819-821	UN4211	TRANSISTOR		VR201	RRV16B03B15A	V. R. MAIN VOLUME	
Q822, 823	UN4111	TRANSISTOR		VR202	EVJ02QF04G15	V. R. BALANCE	
Q824, 825	2SK301QRS	TRANSISTOR		VR301	EVJYA1F04C15	V. R. BASS	
Q826	2SA933QRSTA	TRANSISTOR		VR302	EVJYA1F04C15	V. R. TREBLE	
Q827	2SC3311A-Q	TRANSISTOR				THERMISTOR (S)	
Q828	UN4111	TRANSISTOR					
		DIODE (S)		TH201, 202	ERTD2ZHL104T	THERMISTOR	
D401, 402	MA167	DIODE					

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		COMPONENT COMBINATION (S)		CP301, 302	RJT003K008-1	CONNECTOR (8P)	
				CP401	RJT057W007-1	CONNECTOR (7P)	
Z801	RCDHC-237	REMOTE SENSOR		CP801, 802	RJT003K008-1	CONNECTOR (8P)	
		COIL (S)				EARTH TERMINAL	
L1	RLQZ271M	COIL	△	E501	SNE1004-2	GND PLATE	
L251, 252	ELEXT1R0KA9	COIL		E701	SNE1004-2	GND PLATE	
L501-504	SLQY18G-10	COIL				FUSE	
L551	ELEPK2R2MA	COIL					
L801	ELEXT101KA9	COIL		FC1, 2	EYF52BC	FUSE HOLDER	
		TRANSFORMER (S)				RELAY (S)	
T1	RTP7K5B005-W	POWER TRANSFORMER	△ (EB)	RL201-204	RSY0020M-R	RELAY	
T1	RTP7K5E009-W	POWER TRANSFORMER	△ (E, EG, EO)	RL501, 502	RSY0013M-0	RELAY	△
		OSCILLATOR (S)		RL503	RSY0020M-R	RELAY	
X801	EFOGC4004A4	OSCILLATOR (4MHz)		RL701, 702	RSY0012M-0	RELAY	△
		FUSE (S)				JACK (S)	
F1	XBA2C20TB0	FUSE, 250V, 2A	△	JK1	SJS9236	AC INLET	△
		SWITCH (ES)		JK201	SJF3069N	INPUT TERMINAL (PHONO/TUNER)	
S1	EVQ21405R	SW, POWER		JK202	SJF3069N	INPUT TERMINAL (CD/AUX)	
S204	ESB68046	SW, TONE CONTROL		JK203	SJF3069N	IN/OUTPUT TERMINAL	
S801	EVQ21405R	SW, TAPE MONITOR		JK204	SJF3069N	IN/OUTPUT TERMINAL	
S802	EVQ21405R	SW, TAPE 1		JK501	RJH4801M-2	SPEAKERS TERMINAL	(EB)
S803	EVQ21405R	SW, TAPE 2/DCC		JK501	RJH4801M-1	SPEAKERS TERMINAL	(E, EG, EO)
S804	EVQ21405R	SW, AUX		JK502	RJJ63TA01	HEADPHONE JACK	
S805	EVQ21405R	SW, CD		JK801	RJJ33TR01	REMOTE CONTROL JACK	
S806	EVQ21405R	SW, TUNER					
S807	EVQ21405R	SW, PHONO					
S810	EVQ21405R	SW, SPEAKER A					
S811	EVQ21405R	SW, SPEAKER B					
		CONNECTOR (S)					
CN201	RJU003K010M1	SOCKET (10P)					
CN202	RJU003K008M1	SOCKET (8P)					
CN301, 302	RJU003K008M1	SOCKET (8P)					
CN401	RJU057W007	SOCKET (7P)					
CN601	SJT3213	CONNECTOR (2P)	(EB, EO)				
CN703-710	RJS1A1101T1	SOCKET (1P)					
CN801, 802	RJU003K008M1	SOCKET (8P)					
CN702A	RJS1A6604	CONNECTOR (4P)					
CN702B	RJS1A6603	CONNECTOR (3P)					
CP201	RJT003K010-1	CONNECTOR (10P)					
CP202	RJT003K008-1	CONNECTOR (8P)					

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS	
1	RKMD114B-K	CABINET	(EB, EO)
1	RKMD114A-K	CABINET	(E, EG)
2	RHD30035-K1	SCREW	
3	XTBS3+8JFZ1	SCREW	
4	RGK0550-T	ORNAMENT RUBBER	
5	RGR0170A-CB	REAR PANEL	(E, EG)
5	RGR0170H-BB	REAR PANEL	(EO)
5	RGR0170B-BB	REAR PANEL	(EB)
6	RGW0202-K	KNOB, VOLUME	
7	RGW0177A-K	KNOB, TONE	
8	RKA0053-A	FOOT	
9	RKU0049-K	CHASSIS BASE	
10	RMK0202-2	BOTTOM CHASSIS	
11	RSC0105-2	SHIELD PLATE (PHONO)	
15	RFKGA700MKEB	FRONT PANEL ASS' Y	
16	RGK0549-S	ORNAMENT RING	
17	RGL0184-Q1	PANEL LIGHT (A)	
18	RGL0185-Q	PANEL LIGHT (B)	
19	RGL0186-Q	PANEL LIGHT (C)	
20	RGL0187-Q	PANEL LIGHT (D)	
21	RGL0188-Q	PANEL LIGHT (E)	
22	RGU0886A-K	BUTTON, SELECT	
23	RGU0887-K	BUTTON, SPEAKER	
24	RGU0888-K	BUTTON, TAPE MONITOR	
25	RGU0889-K	BUTTON, TONE	
26	RGU1042-K	BUTTON, POWER	
27	RHN90001	NUT	
28	RSC0323	SHIELD PLATE (VOLUME)	
29	XTBS26+8J	SCREW	
30	XTWS3+10T	SCREW	
31	RKQ0089	P. C. B. SUPPORT	
32	SHR8006	SPACER	
33	SNE2123	GND SCREW	
34	XTBS3+8JFZ1	SCREW	
35	XTB3+10G	SCREW	
36	XTB3+16CFN	SCREW	
37	XTB3+20JFZ	SCREW	
38	XTB3+8JFZ	SCREW	
39	XIW3+15T	SCREW	
40	REM0040	FAN MOTOR	(EB, EO)
41	RWJ3907290QQ	FLAT CABLE (7P)	
43	RWZ120UNW240	TUBE	

■ Cabinet Parts Location



■ Packaging

Notes : * Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)
 * Resistance 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
		RESISTORS						
R101, 102	ERDS2TJ102	1/4W 1K	R519, 520△	ERDS1FVJ6R8T	1/2W 6.8	R820	ERDS2TJ122	1/4W 1.2K
R105, 106	ERDS2TJ224T	1/4W 220K	R521, 522△	ERDS1FVJ100T	1/2W 10	R821	ERDS2TJ152	1/4W 1.5K
R109, 110	ERDS2TJ101	1/4W 100	R527	ERDS2TJ223	1/4W 22K	R822	ERDS2TJ182	1/4W 1.8K
R113, 114	ERDS2TJ563	1/4W 56K	R528	ERDS2TJ824	1/4W 820K	R823	ERDS2TJ222	1/4W 2.2K
R117, 118	ERDS2TJ271	1/4W 270	R529	ERDS2TJ124T	1/4W 120K	R826, 827	ERDS2TJ103	1/4W 10K
R123, 124	ERDS2TJ680T	1/4W 68	R530 △	ERDS1FVJ272T	1/2W 2.7K	R828, 829	ERDS2TJ102	1/4W 1K
R125, 126	ERDS2TJ184T	1/4W 180K	R531, 532△	ERDS1FVJ100T	1/2W 10	R830	ERDS2TJ223	1/4W 22K
R127, 128	ERDS2TJ123	1/4W 12K	R533, 534	ERDS2TJ182	1/4W 1.8K	R831	ERDS2TJ104	1/4W 100K
R129, 130	ERDS2TJ563	1/4W 56K	R535	ERDS2TJ562	1/4W 5.6K	R832	ERDS2TJ331	1/4W 330
R131, 132	ERDS2TJ102	1/4W 1K	R550, 551	ERDS2TJ222	1/4W 2.2K	R833	ERDS2TJ103	1/4W 10K
R201-206	ERDAS3G102T	1/4W 1K	R555	ERG1SJ681E	1W 680	R834	ERDS2TJ561	1/4W 560
R207, 208	ERDS2TJ102	1/4W 1K	R556	ERG1SJ561E	1W 560	R835	ERDS2TJ102	1/4W 1K
R209, 210	ERDAS3G102T	1/4W 1K	R557	ERG1SJ681E	1W 680	R837, 838	ERDS2TJ102	1/4W 1K
R211, 212	ERDS2TJ102	1/4W 1K	R558	ERG1SJ561E	1W 560	R839, 840	ERDS2TJ682T	1/4W 6.8K
R213, 214	ERDAS3G102T	1/4W 1K	R559, 560	ERG1SJ102E	1W 1K	R843	ERDS2TJ103	1/4W 10K
R215, 216△	ERDL52VJ332T	1/4W 3.3K	R561, 562	ERG1SJ151E	1W 150	R845	ERDS2TJ334	1/4W 330K
R217, 218	ERDS2TJ334	1/4W 330K	R563, 564	ERG1SJ181E	1W 180	R852, 853	ERDS2TJ103	1/4W 10K
R251 △	ERDS1FVJ100T	1/2W 10	R565-570	ERDS2TJ223	1/4W 22K	R854	ERDS2TJ471	1/4W 470
R301, 302	ERDAS3G561	1/4W 560	R604	ERDS2TJ181T	1/4W 180	R860-862	ERDS2TJ104	1/4W 100K
R303, 304	ERDS2TJ104	1/4W 100K	R611-614	ERDS2TJ223	1/4W 22K (EB, EO)	R863	ERDS2TJ102	1/4W 1K
R305, 306	ERDS2TJ224T	1/4W 220K	R615-618	ERDS2TJ103	1/4W 10K (EB, EO)	R864	ERDS2TJ223	1/4W 22K
R307, 308	ERDS2TJ392T	1/4W 3.9K	R619	ERDS2TJ151	1/4W 150 (EB, EO)			CAPACITORS
R309, 310	ERDS2TJ223	1/4W 22K	R620	ERDS2TJ153	1/4W 15K (EB, EO)			
R311, 312	ERDS2TJ102	1/4W 1K	R621, 622	ERDS2TJ223	1/4W 22K (EB, EO)	C103, 104	ECBT1H181K85	50V 180P
R313, 314	ERDS2TJ392T	1/4W 3.9K	R624	ERDS2TJ682T	1/4W 6.8K (EB, EO)	C107, 108	ECEA1CKA330B	16V 33U
R315, 316	ERDS2TJ223	1/4W 22K	R625	ERDS2TJ223	1/4W 22K (EB, EO)	C109, 110	ECBT1H391K85	50V 390P
R317, 318	ERDS2TJ392T	1/4W 3.9K	R626	ERDS2TJ103	1/4W 10K (EB, EO)	C113, 114	ECQB1H223JF3	50V 0.022U
R319, 320	ERDS2TJ183T	1/4W 18K	R650	ERDS2TJ562	1/4W 5.6K	C115, 116	ECQB1H562JF3	50V 5600P
R401, 402	ERDAS3G122	1/4W 1.2K	R651	ERDS2TJ472	1/4W 4.7K	C117, 118	ECEA1HKA010B	50V 1U
R403, 404	ERDS2TJ154	1/4W 150K	R652	ERDS2TJ223	1/4W 22K	C119, 120	ECQB1H472JF3	50V 4700P
R405, 406	ERDAS3G102T	1/4W 1K	R707, 708△	ERDAF2VJ6R8T	1/4W 6.8	C121, 122	ECBT1C103NS5	16V 0.01U
R407, 408	ERDAS3G154T	1/4W 150K	R709, 710△	ERDAF2VJ470T	1/4W 4.7	C123, 124	ECEA1HKA3R3B	50V 3.3U
R411, 412△	ERDAF2VJ470T	1/4W 47	R711	ERDS2TJ222	1/4W 2.2K	C201-214	ECBT1H101K85	50V 100P
R437	ERDS2TJ473	1/4W 47K	R712 △	ERDS1FVJ2R2T	1/2W 2.2	C251, 252	ECEA0JKA101B	6.3V 100U
R457	ERDAS3G153T	1/4W 15K	R713	ERDS2TJ223	1/4W 22K	C253, 254	ECQV1H104JM3	50V 0.1U
R459, 460△	ERDAF2VJ101T	1/4W 100	R714	ERDS2TJ222	1/4W 2.2K	C301, 302	ECA1HPXS3R3B	50V 3.3U
R461-464	ERDS2TJ333	1/4W 33K	R751, 752△	ERDS1FVJ391T	1/2W 390	C303, 304	ECCR1H101K5	50V 100P
R465-468△	ERDAF2VJ101T	1/4W 100	R753 △	ERDS1FVJ471T	1/2W 470	C305, 306	ECBT1H820K85	50V 82P
R469	ERDAS3G103T	1/4W 10K	R754-756△	ERDS1FVJ221T	1/2W 220	C307, 308	ECA1HPXS4R7B	50V 4.7U
R470	ERDAS3G102T	1/4W 1K	R757 △	ERDS1FVJ271T	1/2W 270	C309, 310	ECBT1H390J5	50V 39P
R471, 472	ERDS2TJ272T	1/4W 2.7K	R801, 802	ERDS2TJ331	1/4W 330	C311, 312	ECA1GPKS100B	16V 10U
R501, 502	ERDS2TJ362T	1/4W 3.6K	R803	ERDS2TJ390	1/4W 39	C313, 314	ECQV1H823JM3	50V 0.082U
R503, 504△	ERDAF2VJ121T	1/4W 120	R804	ERDS2TJ331	1/4W 330	C315, 316	ECQB1H153JF3	50V 0.015U
R505, 506	ERDS2TJ392T	1/4W 3.9K	R810	ERDS2TJ102	1/4W 1K	C317, 318	ECQB1H183JF3	50V 0.018U
R507, 508△	ERDAF2VJ121T	1/4W 120	R811	ERDS2TJ103	1/4W 10K	C319, 320	ECQB1H222JF3	50V 2200P
R513-516△	ERDAF2VJ100T	1/4W 10	R812	ERDS2TJ102	1/4W 1K	C321, 322	ECBT1E223ZF	25V 0.022U
			R813-817	ERDS2TJ103	1/4W 10K	C323, 324	ECBT1H121K85	50V 120P
			R818	ERDS2TJ821	1/4W 820	C401, 402	ECEA1HB24R7B	50V 4.7U
			R819	ERDS2TJ102	1/4W 1K			

Ref. No.	Part No.	Values & Remarks
C403, 404	ECCR1H271K5	50V 270P
C405, 406	RCELEAS470B	25V 47U
C407, 408	ECBT1H820K85	50V 82P
C409, 410	ECCR2H100K5	500V 10P
C413, 414	ECCR2H220J5	500V 22P
C415, 416	ECKR1H331K85	50V 330P
C426	ECBT1H102K85	50V 1000P
C427	ECBT1E223ZF	25V 0.022U
C428	ECKR1H103ZF5	50V 0.01U
C451, 452	ECKR1H333ZF5	50V 0.033U
C453-456	ECCV2H680K	500V 68P
C457-460	ECEA1HKA3R3B	50V 3.3U
C461, 462	ECKT1H122K85	50V 1200P
C501-504	ECA0JPKS101B	6.3V 100U
C505, 506	ECQV1H473JM3	50V 0.047U
C507	ECEA1CKA101B	16V 100U
C508	ECA1HM470B	50V 47U
C509	ECEA1HN100SB	50V 10U
C511, 512	ECBT1H180J5	50V 18P
C513-518	ECQV1H473JM3	50V 0.047U
C519-522	ECQB1H393JF3	50V 0.039U
C523, 524	ECBT1H102K85	50V 1000P
C525, 526	ECBT1C152JR5	16V 1500P
C527, 528	ECBT1H101K85	50V 100P
C531, 532	ECBT1C332KR5	16V 3300P
C602	ECEA1CKA100B	16V 10U (EB, EO)
C604	ECEA1HKA010B	50V 1U (EB, EO)
C605	ECEA0JKA331B	6.3V 330U (EB, EO)
C701, 702△	ECES1H822VUE	50V 8200U
C705	ECQV1H104JM3	50V 0.1U
C707, 708	ECA1JPKS560B	63V 56U
C709, 710	ECQE2334KF3	250V 0.33U (E, EG)
C711	ECQE2104KF3	250V 0.1U
C712	ECBT1C103NS5	16V 0.01U
C714	ECA1CM471B	16V 470U
C715	ECEA1HKA2R2B	50V 2.2U
C716 △	ECA1CM102B	16V 1000U
C751, 752	ECA1EPXS470B	25V 47U
C801-803	ECBT1C103NS5	16V 0.01U
C804	ECA0JM102B	6.3V 1000U
C805	ECEA1HKA47B	50V 0.47U
C806	ECEA1HKA2R2B	50V 2.2U
C807	ECBT1H102K85	50V 1000P
C808	ECEA0JKA101B	6.3V 100U
C809	ECBT1C103NS5	16V 0.01U
C810	ECEA1AKA470B	10V 47U
C811	ECBT1H101K85	50V 100P
C812, 813	ECKR1H103ZF5	50V 0.01U
C814, 815	ECA1HPXS4R7B	50V 4.7U
C820	ECQV1H224JM3	50V 0.22U
C821	ECQV1H473JM3	50V 0.047U

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RP62029	PACKING CASE	(EB)
P1	RP62028	PACKING CASE	(E, EG, EO)
P2	RPN0684-1	PAD	
P3	XZB50X65A02Z	PROTECTION COVER	
P4	RPQ0164	ACCESSORY PAD	
P5	XZB24X34C04	PROTECTION COVER	
P6	RPID032	PROTECTION SHEET	
		ACCESSORIES	
A1	VJA0733	AC POWER SUPPLY CORD	△ (EB) (SF)
A1	RJAD019-2K	AC POWER SUPPLY CORD	△ (E, EG, EO) (SF)
A2	RQA0013	WARRANTY CARD	
A3	RQCB0169	SERVICE CENTER LIST	
A4	RFKSA700MKEB	INSTRUCTION MANUAL	(EB)
A4	RFKSA700MKEE	INSTRUCTION MANUAL	(E)
A4	RFKSA700MKEG	INSTRUCTION MANUAL	(EG)
A4	RFKSA700MKEO	INSTRUCTION MANUAL	(EO)
A5	RAK-SU129WH	REMOTE CONTROL TRANSMITTER	
A5-1	RKK0057-K	BATTERY COVER	

