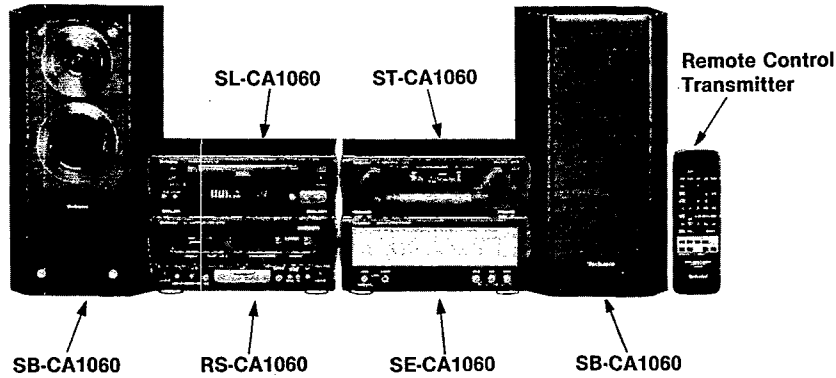


Service Manual

Stereo Amplifier

Amplifier

SE-CA1060



Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

Colour

(K) ... Black Type

Area

Suffix for Model No.	Area	Colour
(E)	Europe.	(K)
(EB)	Great Britain.	
(EG)	Germany and Italy.	
(GC)	Asia, Latin America, Middle Near East and Africa.	
(GN)	Oceania.	

System: SC-CA1060

■ SPECIFICATIONS

■ POWER AMPLIFIER

Power output	
DIN 1 kHz, THD 1%, both channel driven	2 × 40 W (6 Ω)
Total harmonic distortion	
Rated power at 1 kHz	0.9% (6 Ω)
Half power at 1 kHz	0.009% (6 Ω)
Load impedance	
MAIN	6–8 Ω
S/N (rated power)	
MAIN	90 dB
Tone	
BASS	80 Hz (±6 dB)
TREBLE	20 kHz (±6 dB)
V.BASS	60 Hz (0–8 dB)

■ General

Power consumption	165 W
Power supply	
[For (E, EG) areas.]	230 V, AC 50/60 Hz
[For (EB, GN) areas.]	230–240 V, AC 50/60 Hz
[For (GC) area.]	110/127/220/240 V, AC 50/60 Hz
Dimensions (W × H × D)	280 × 118.5 × 331.5 mm
Weight	
[For (E, EB, EG, GN) areas.]	4.5 kg
[For (GC) area.]	4.7 kg

Notes:

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

System	Stereo Tuner	Compact Disc Player	Stereo Amplifier	Cassette Deck	Speakers
SC-CA1060	ST-CA1060	SL-CA1060	SE-CA1060	RS-CA1060	*SB-CA1060

*Made in PAES.

Technics®

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COMPONENT REPLACEMENT PROCEDURE	4, 5	REPLACEMENT PARTS LIST	18, 19, 22
REPLACEMENT OF THE FOOT	6	PACKAGING	20
POWER SOURCE ON/OFF OF THIS UNIT SE-CA1060	6	RESISTORS AND CAPACITORS	21, 22
MEASUREMENTS AND ADJUSTMENTS	6		

Note: Refer to the placement Installation and Connections and Concerning the remote control and Quick referenc of remote control operation of Service manual for Model No. ST-CA1060 (E, EG), Order No. AD9406153C2.

PROTECTION CIRCUITRY

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

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

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

If this occurs, follow the procedure outlines below:

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

Note:

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

BEFORE REPAIR AND ADJUSTMENT

Disconnect AC power, Discharge both Power Supply Capacitors C701 and C702 through a 10Ω, 5W resistor to ground. DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may distroy solid state devices. After repairs are completed, restore power gradually using a variac, to avoid overcurrent.

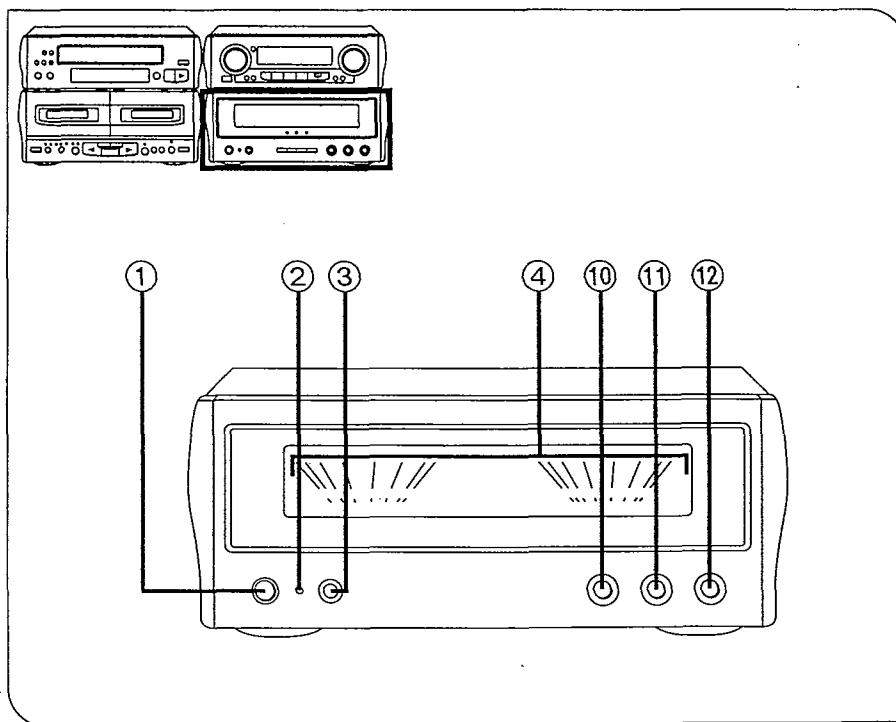
Current consumption at 50Hz/60Hz in NO SIGNAL mode should be shown below with respect to supply voltage 230V/240VV/110-127V/220-240V.

Power supply voltage	AC 230V		AC 240V		AC 110-127V		AC 220-240V	
	50Hz	60~180mA	50Hz	50~170mA	50Hz	100~360mA	50Hz	50~180mA
Consumed current 50/60Hz	60Hz	48~144mA	60Hz	40~136mA	60Hz	80~288mA	60Hz	40~144mA

LOCATION OF CONTROLS

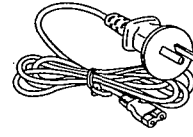
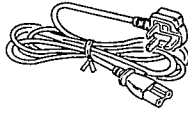
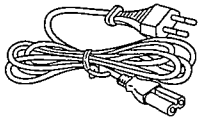
Stereo amplifier section

- 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 Headphones jack
- ④ Output power meters
- ⑩ S. BASS control
- ⑪ BASS control
- ⑫ TREBLE control

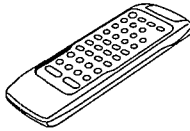


ACCESSORIES

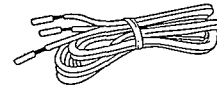
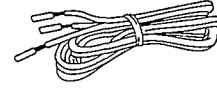
AC power supply cord 1 pc.
 [RJA0019-2K (E, EG, GC)] [VJA0733 (EB)] [RJA0036-K (GN)]



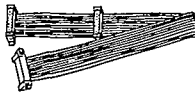
Remote control transmitter 1 pc.
 (RAK-CH143WH)



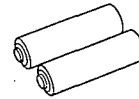
Speaker cords 2 pcs.
 (REE0393)



Flat cable (long) 1 pc.
 (REX0511)



Batteries for remote control transmitter 2 pcs.
 (UM-4, "AAA", R03)



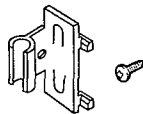
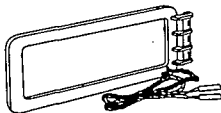
Flat cable (short) 1 pc.
 (REX0608)



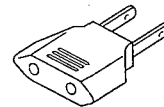
Attachment plug 1 pc.
 [SJP9009 (EB)]



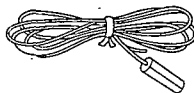
AM loop antenna (RSA0012) 1 pc.
 • Antenna holder (RMA0244) 1 pc.
 • Screw (XTN3+12AFZ) 1 pc.



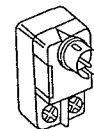
Power plug adaptor 1 pc.
 [SJP5213-1 (GC)]



FM indoor antenna 1 pc.
 (RSA0007)



Antenna plug 1 pc.
 [RFE0014 (GC, GN)]



■ OPERATION CHECKS AND MAIN COMPONENT REPLACEMENT PROCEDURES

NOTE

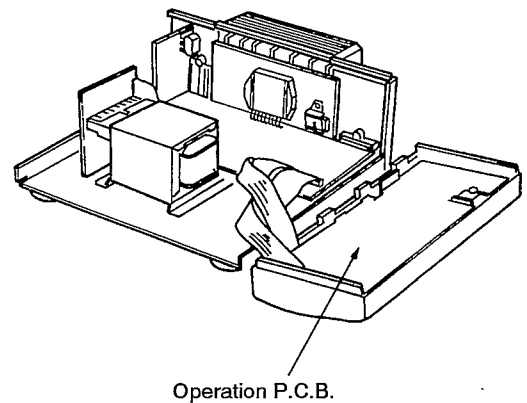
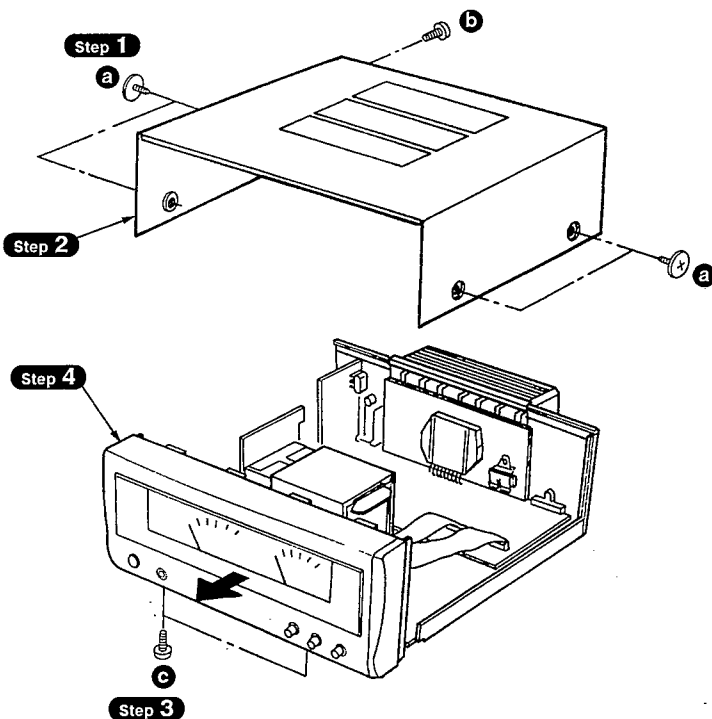
1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.
3. Select items from the following index when checks or replacement are required.
4. Illustrated screws are equivalent to actual size.
5. Refer the parts No. on the page of "Main component Replacement Procedures", if necessary.

● Contents

•Checking Procedure for each P.C.B.	page.
1. Checking for the operation P.C.B.	4.
2. Checking for the main P.C.B.	5.
•Main Component Replacement Procedures	
1. Replacement for the power IC and regulator transistor	5.

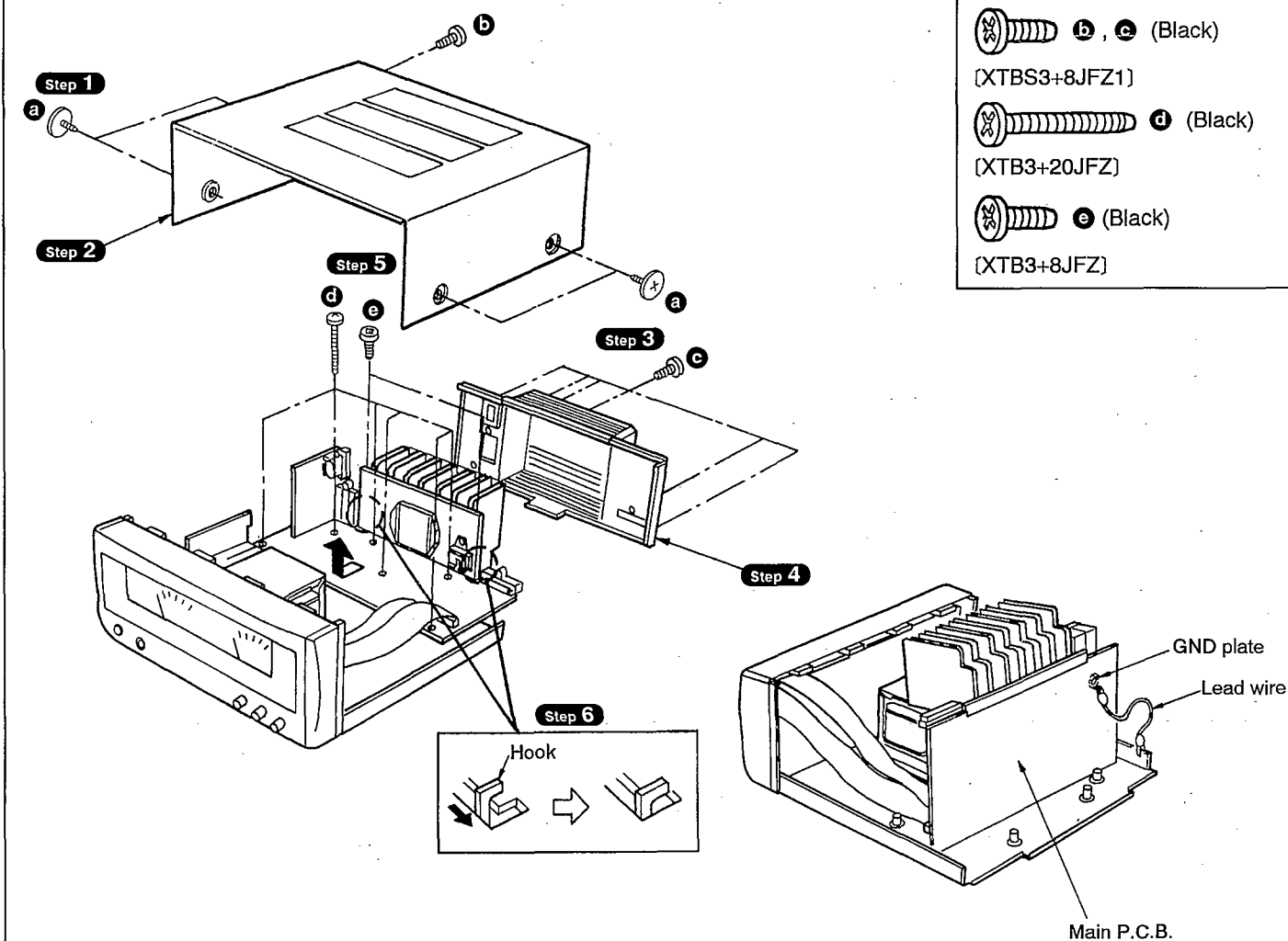
■ Checking Procedure for each P.C.B.

1. Checking for the operation P.C.B.



- a** (Black)
[RHD30007]
- b**, **c** (Black)
[XTBS3+8JFZ1]

2. Checking for the main P.C.B.

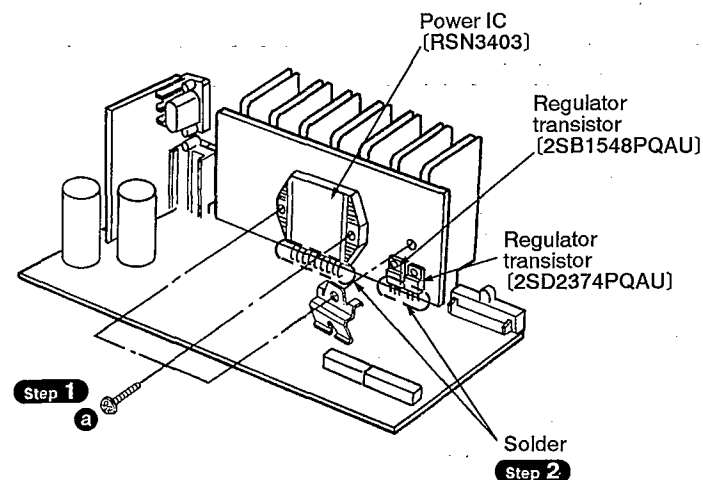
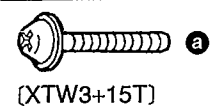


Main Component Replacement Procedures

1. Replacement for the power IC and regulator transistor

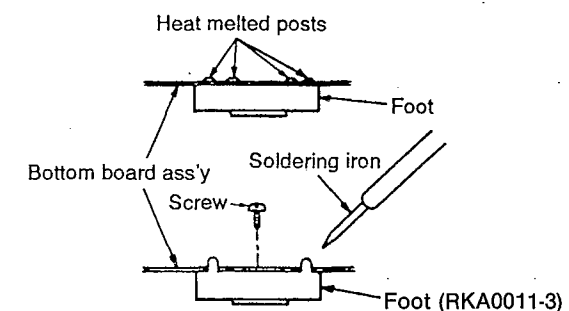
• Follow the item 2 in checking procedure for each P.C.B..

NOTE
When mounting the power IC or regulator transistor, apply silicone compound (RFKX0002) to the rear side of power IC or regulator transistors.



REPLACEMENT OF THE FOOT

1. Remove the 4 heat melted posts on the Bottom board ass'y with a pair of nippers or similar tool.
2. To replace the foot (RKA0011-3) on the Bottom board ass'y melt the 4 posts with a soldering iron or install it with a screw (XTB3+6J).



POWER SOURCE ON/OFF OF THIS UNIT SE-CA1060

1. Connect the AC power cord of this unit to an AC outlet and turn it on. (This unit comes to stand-by mode.)
2. Make test point TP701 (TP701) short as shown in Fig. 1. POWER indicator lights and this unit comes to power ON mode.

• Operation Check

1. Set this unit to power ON mode.
2. Input a signal (1 kHz, 100 mV) to the section between the resistor R833 (LINE IN for Lch) and the capacitor (C906) (LINE IN GND) as well as the section between the resistor R834 (LINE IN for Rch) and the capacitor (C906) (LINE IN GND).
3. Connect the speaker to the speaker terminals and check if it sounds from the speaker.

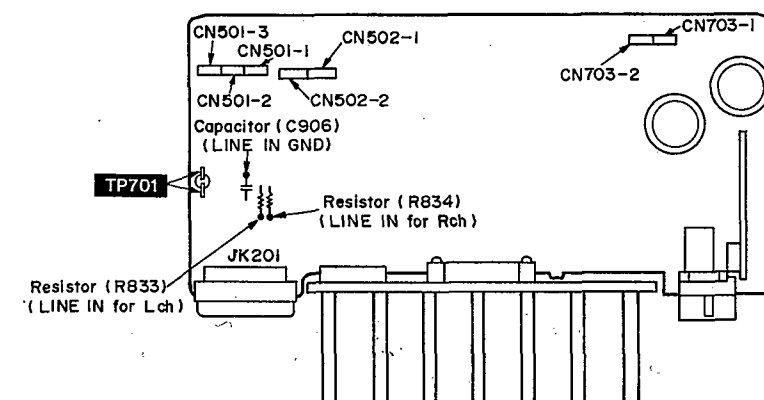


Fig. 1

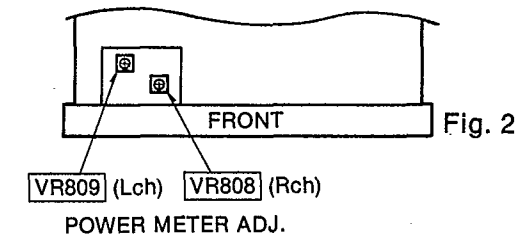
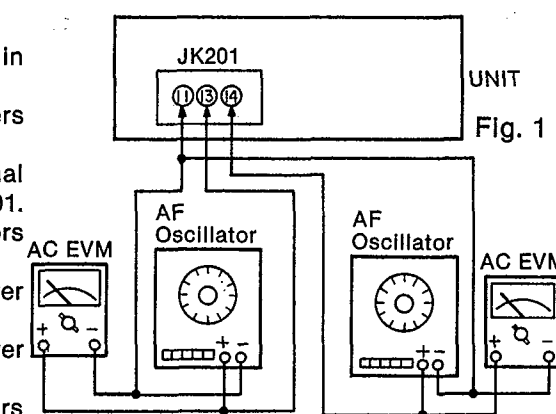
MEASUREMENTS AND ADJUSTMENTS

Control positions and equipment used.

- S. BASS knob..... Minimum
- BASS, TREBLE knob..... Center
- AF Oscillator
- AC electronic voltmeter (EVM)

• POWER METER ADJUSTMENT

1. Connect an AF oscillator and AC to the amplifier, as shown in Fig. 1.
2. Set the power meter input level to 0 and confirm the meters on both amplifiers, L-ch and R-ch, show -60dB.
3. Turn on power to the unit and apply a 1kHz, 88mV signal from pin 11 (GND) to pin 13 (R-ch) and pin 14 (L-ch) of JK201. With this input level applied, check the AC EVM monitors are within the range of $\pm 5\text{mV}$.
4. Adjust VR808 (R-ch) and VR809 (L-ch) so that the power meter indicates 1W.
5. Increase the input level by 10dB and confirm that the power meter indicates 10W ($\pm 1\text{W}$).
6. Set the input level back to 0 and check the meter indicators do not return to -60dB too quickly or unevenly.



SCHEMATIC DIAGRAM

(Parts list of pages 18, 19, 21, 22.)

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

Notes:

- **S801** : Power "STANDBY ϕ /ON" switch.
(POWER, STANDBY ϕ /ON)
- 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 value, 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.

Voltage and signal line

- : Positive voltage line
- - - : Negative voltage line
- : Source signal line

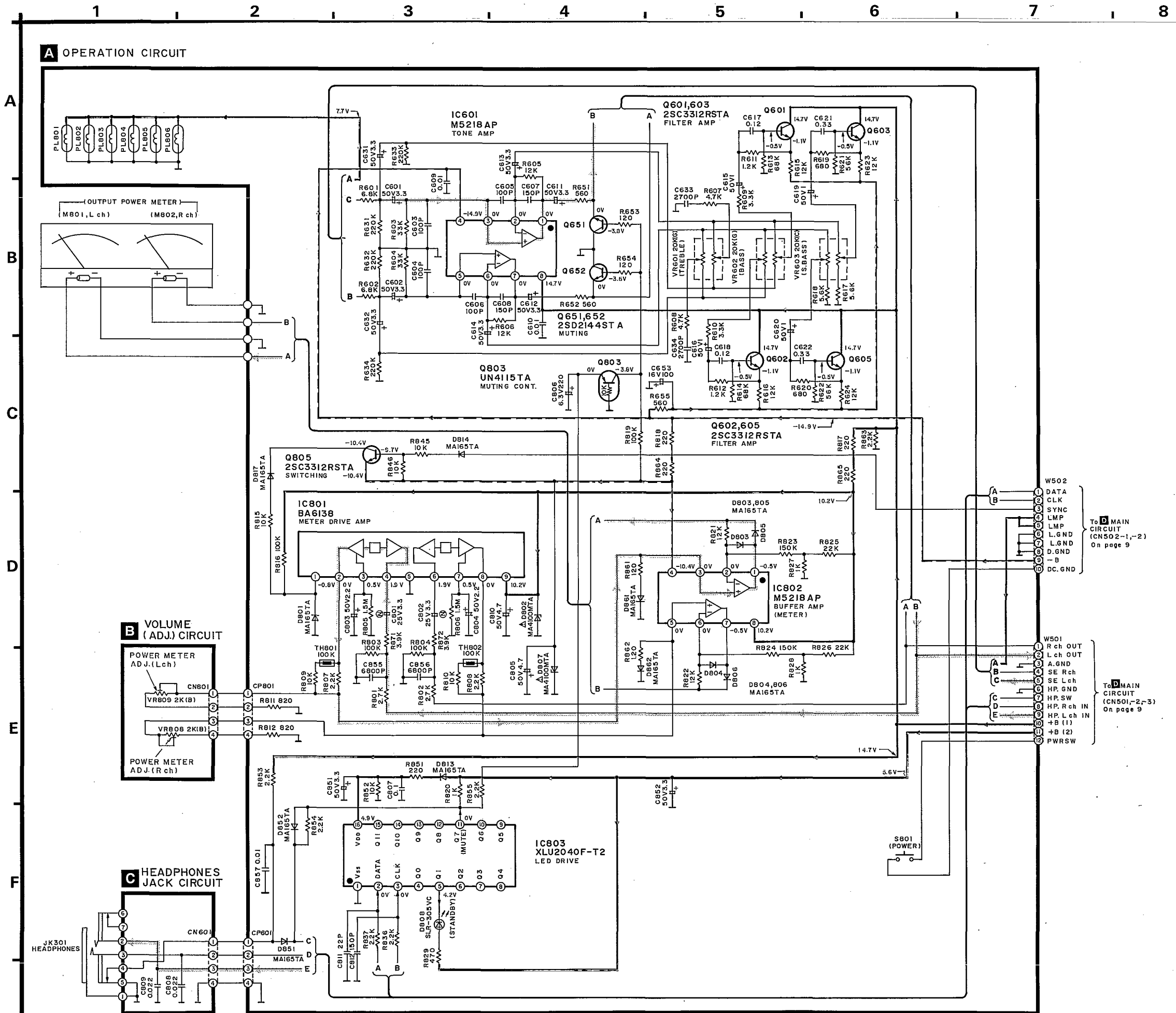
- The supply part number is described alone in the replacement parts.

Part No.	Production Part No.	Supply Part No.
IC803	XLU2040F-T2	XLU2040F-T1

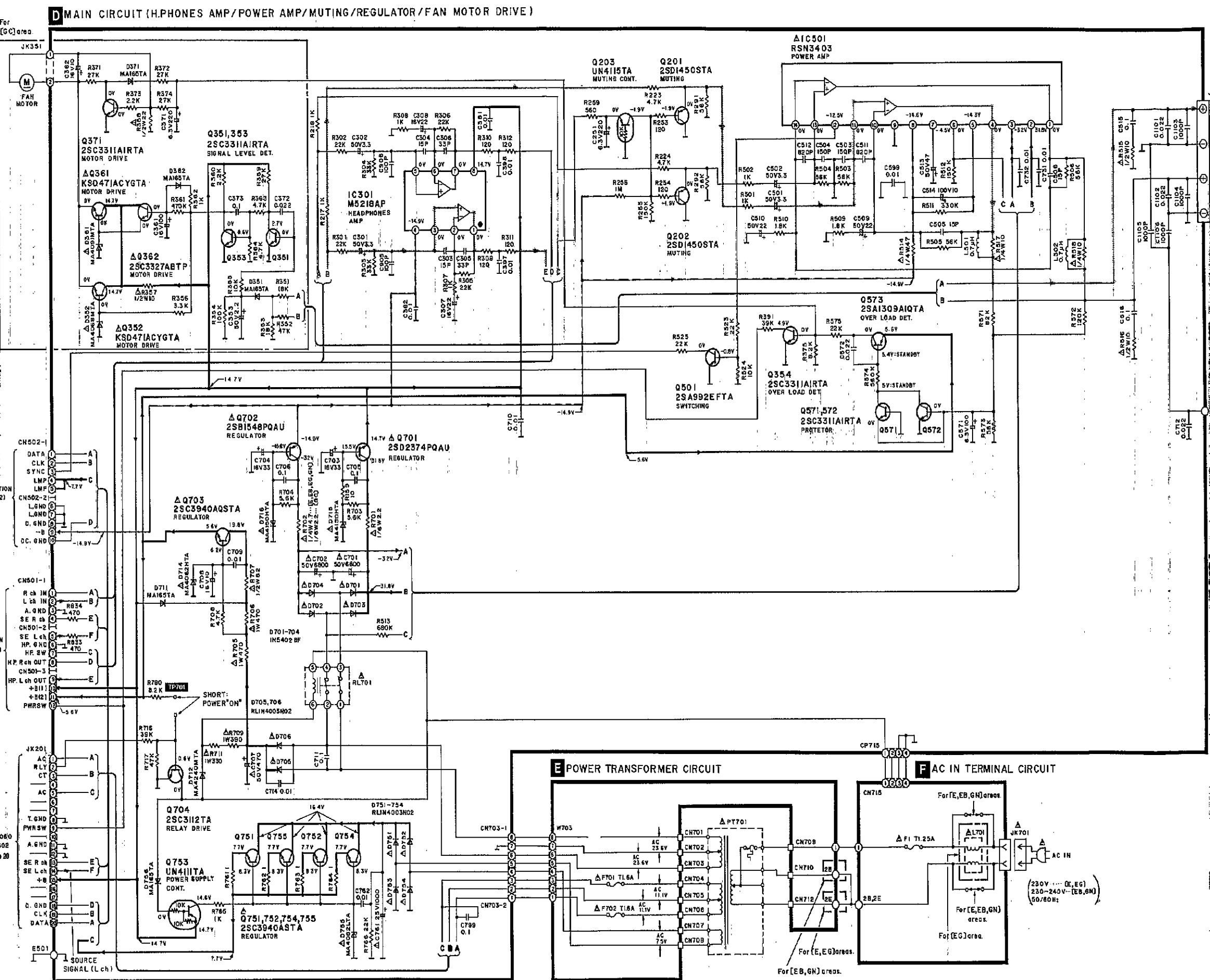
Caution!

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.



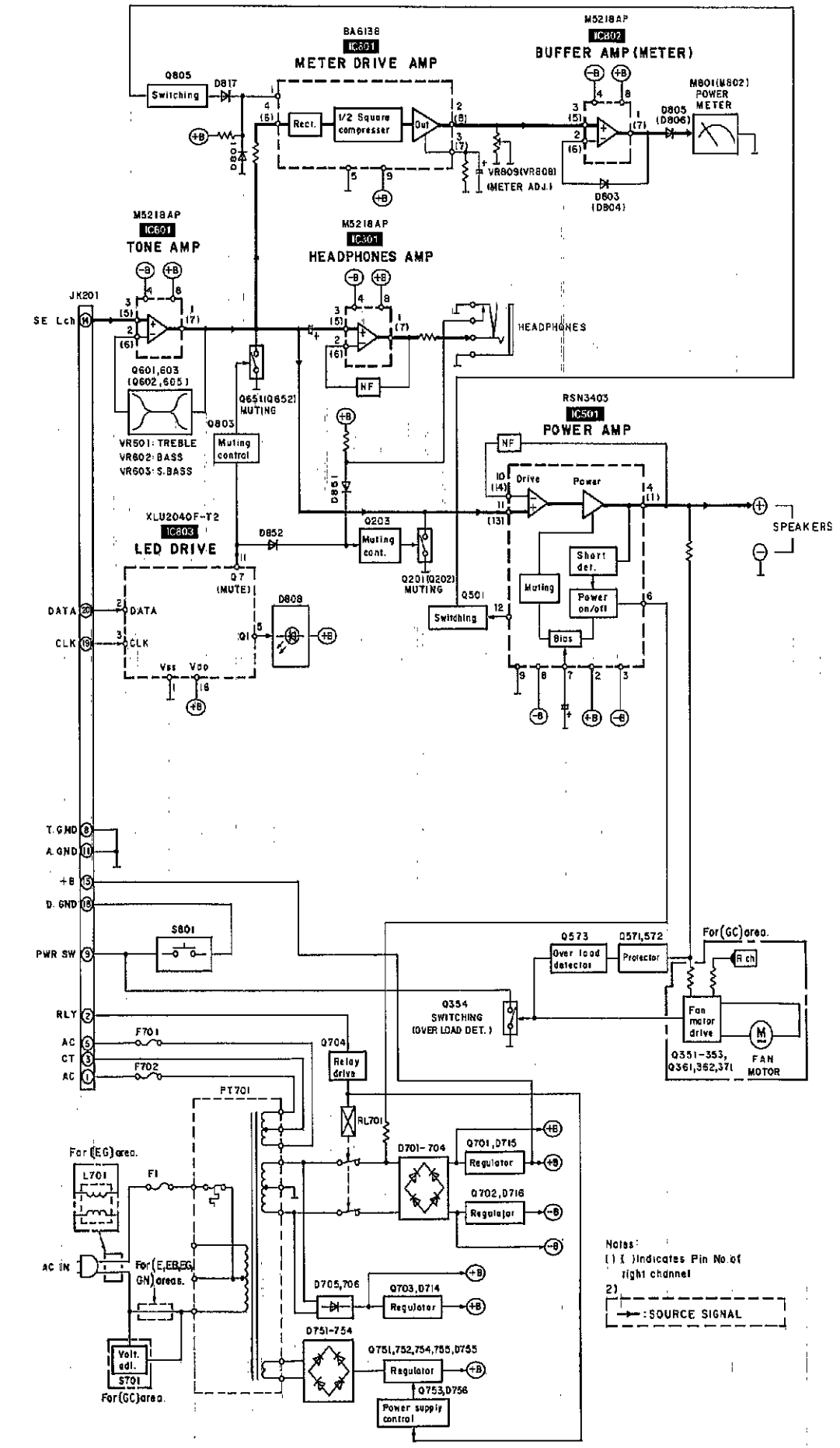
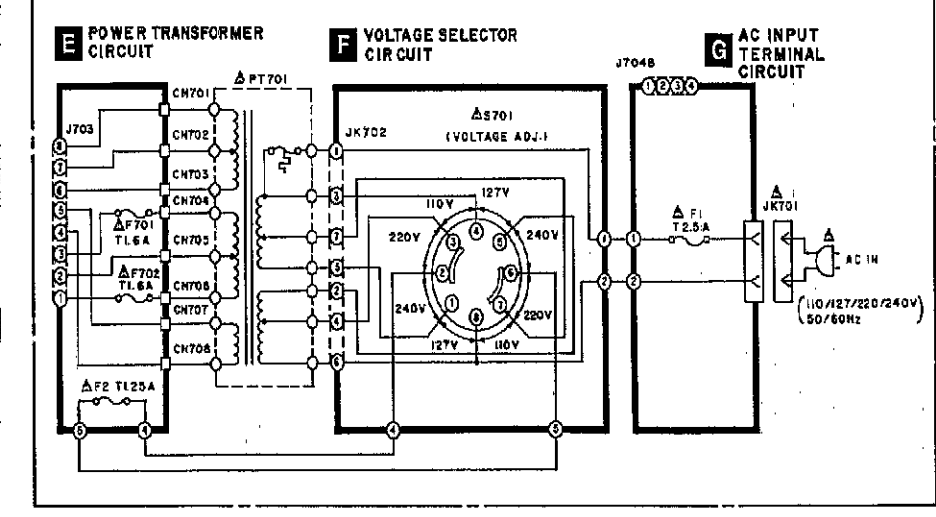
■ BLOCK DIAGRAM



• Terminal guide of IC's, transistors and diodes

XLU2040F-T2 	BA6138 	RSN3403 	M5218AP
2SB1548PQAU 2SD2374PQAU 	KSD471ACYGTA 2SA992EFTA 2SC3112TA 2SC3312RSTA 	2SC3940AQSTA 2SC3940ASTA 	2SD2144ASTA MA185TA
UN4111TA UN4115TA 2SA1308AIQTA 2SC3311AIRTA 2SD1450STA 	1N6402BF RL1N4003N02 	SLR-305VC 	MA4100MTA MA4160HTA MA4240MTA
MA4062HTA MA4068MTA MA4082LTA MA4091MTA 			

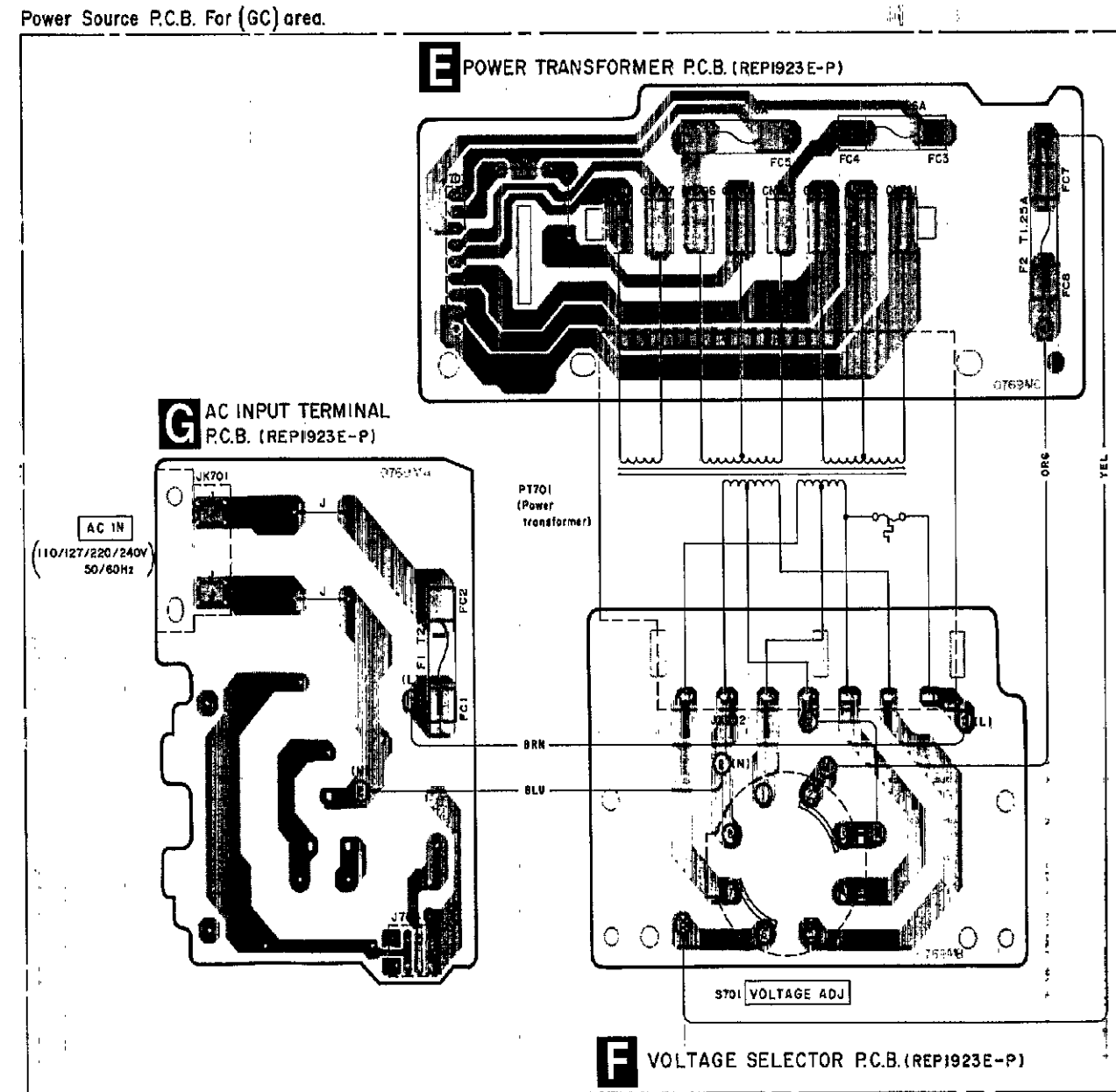
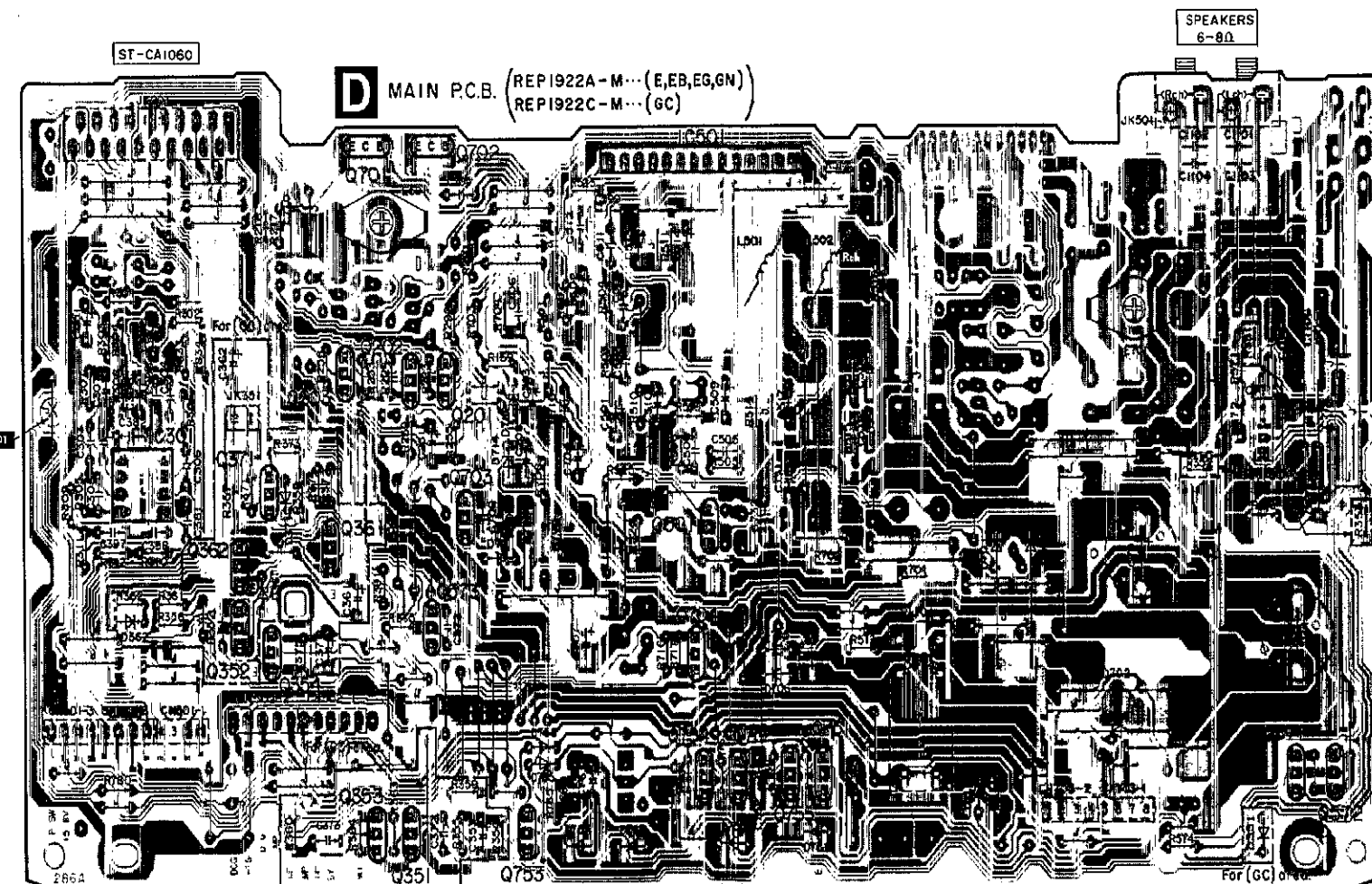
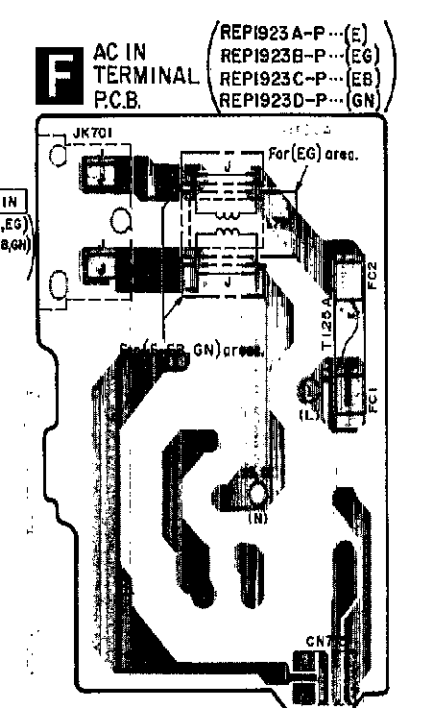
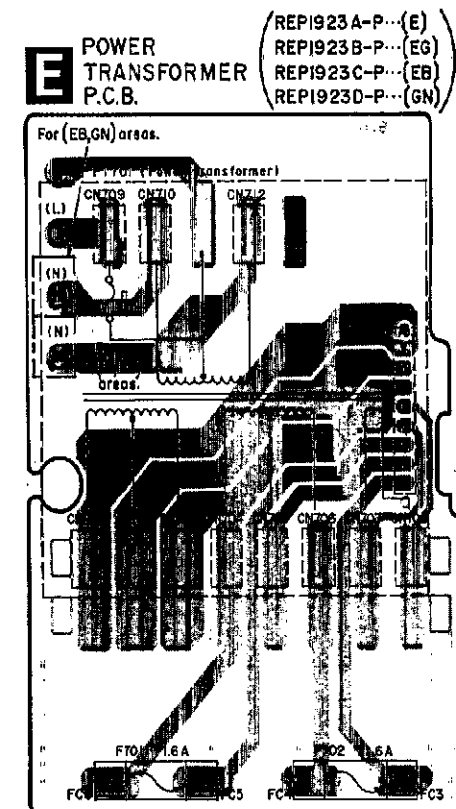
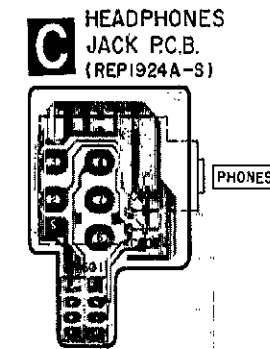
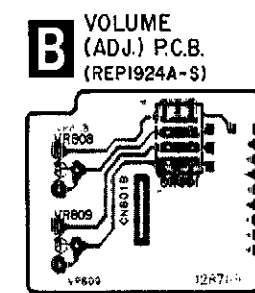
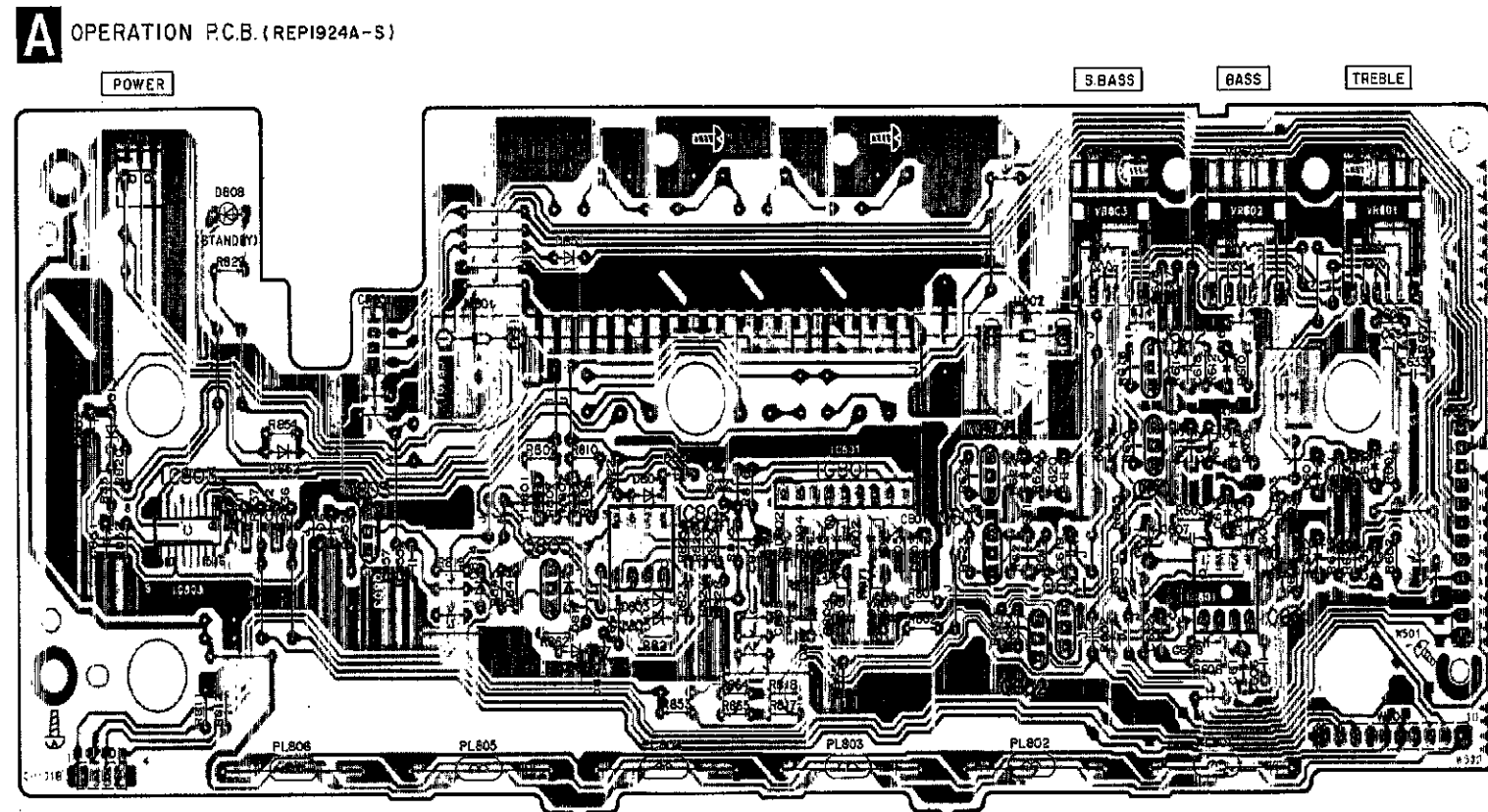
Power Source For [G] area.



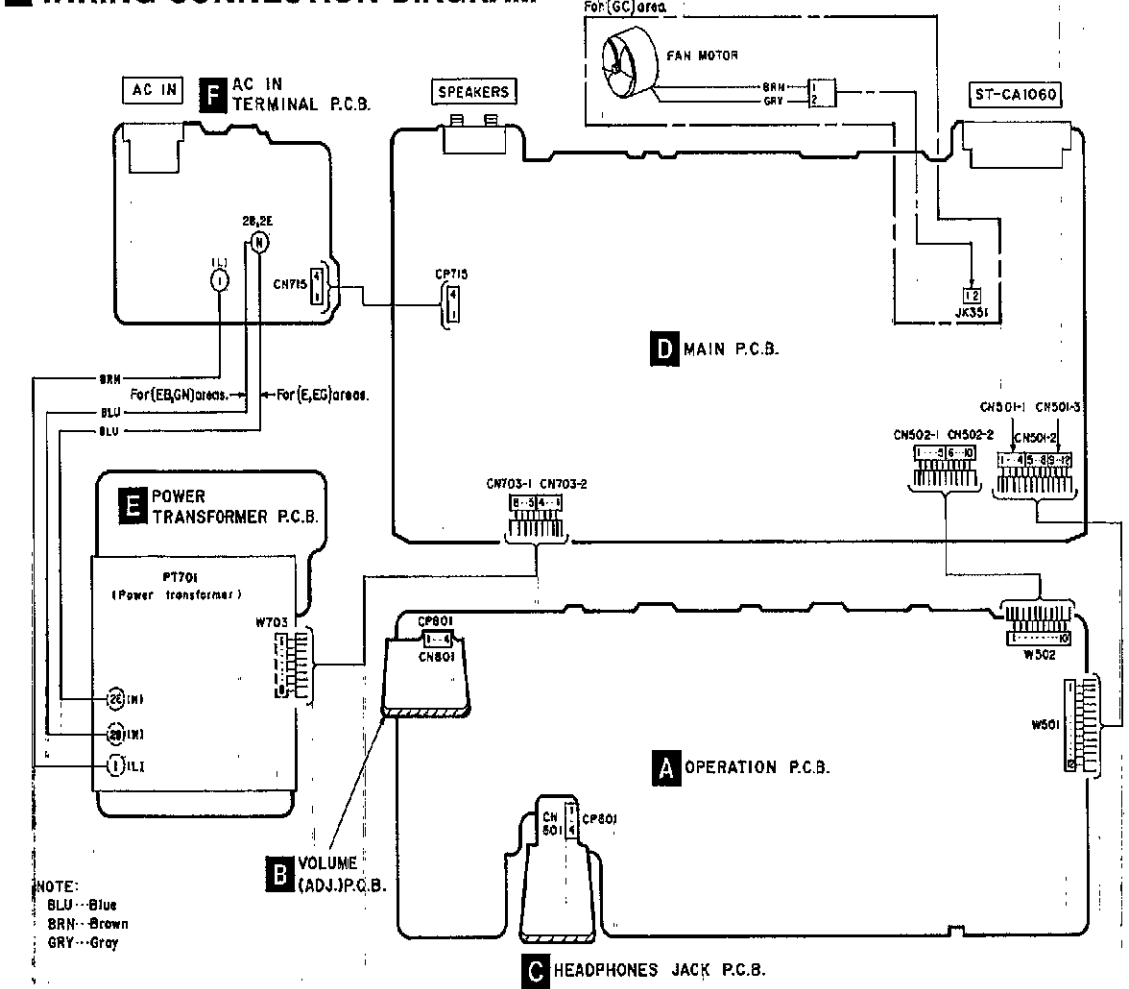
Notes:
1) 1 indicates Pin No of right channel
2) SOURCE SIGNAL

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

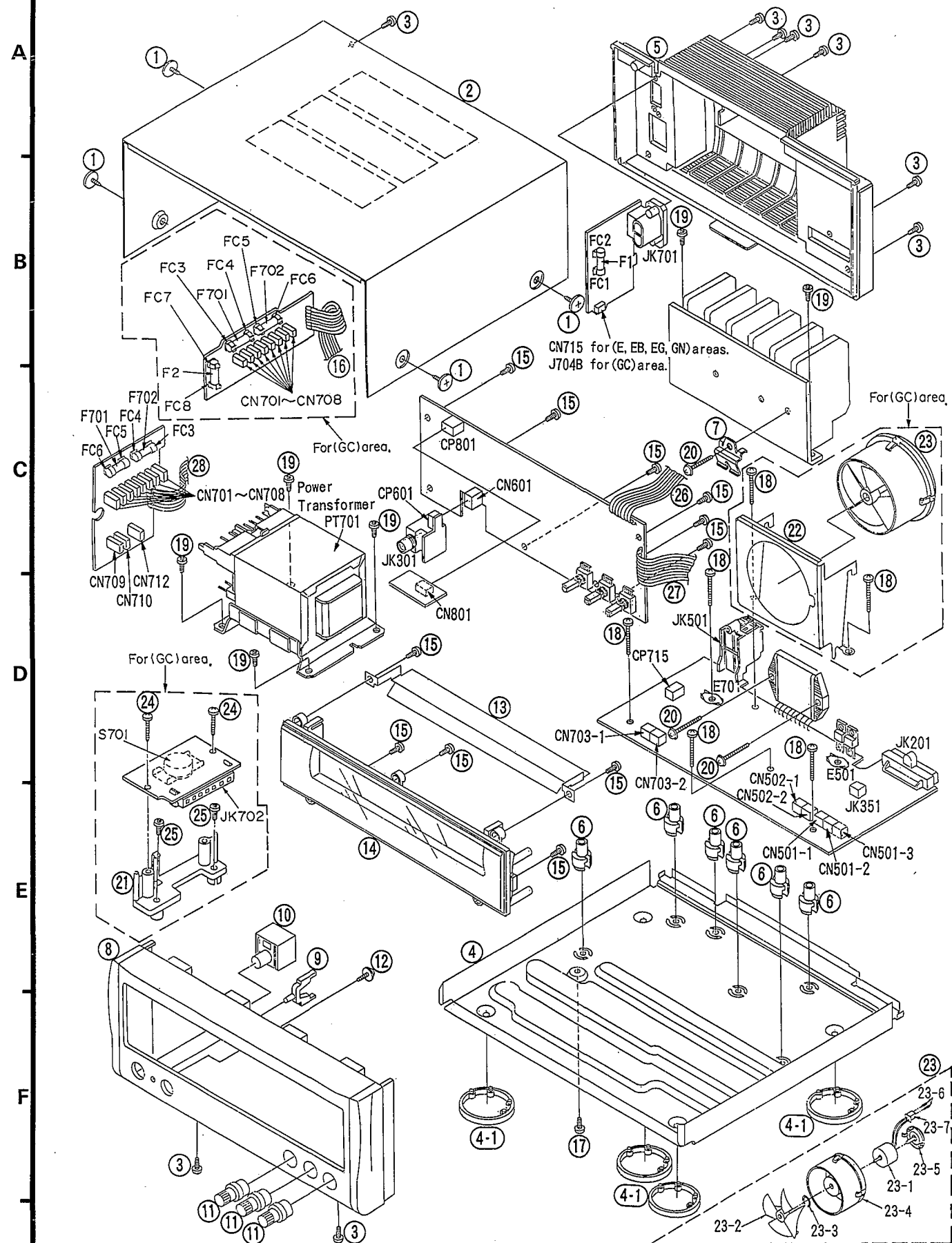
PRINTED CIRCUIT BOARDS



WIRING CONNECTION DIAGRAM



CABINET PARTS LOCATION



REPLACEMENT PARTS LIST

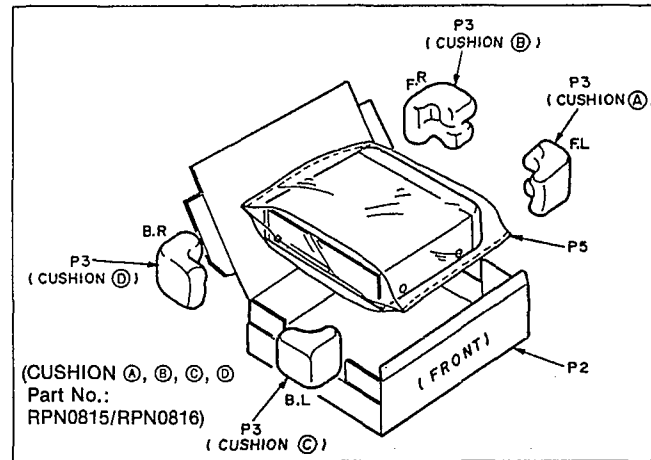
Notes: *Important safety notice:
 Components identified by Δ mark have special characteristics important for safety.
 Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
 When replacing any of components, 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.

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
CABINET PARTS LIST				INTEGRATED CIRCUIT (S)			
1	RHD30007	SCREW		IC301	M5218AP	HEADPHONE AMP	
2	RKMO202A-2K	CABINET		IC501	RSN3403	POWER AMP	Δ
3	XTBS3+8JFZ1	SCREW		IC601	M5218AP	TONE AMP	
4	RFKJE1060EK	BOTTOM BOARD ASS'Y	(E, EB, EG, GN)	IC801	BA6138	METER DRIVE AMP	
4	RFKJE1060GCK	BOTTOM BOARD ASS'Y	(GC)	IC802	M5218AP	BUFFER AMP	
4-1	RKA0011-3	FOOT		IC803	XLU2040F-T1	LED DRIVE	
5	RKF0376-K	REAR GRILL	(E)				
5	RFKJE1060EBK	REAR GRILL ASS'Y	(EB, GN)				TRANSISTOR(S)
5	RFKJE1060EGK	REAR GRILL ASS'Y	(EG)				
5	RFKJE1060GCK	REAR GRILL ASS'Y	(GC)	Q201, 202	2SD1450RTA	TRANSISTOR	
6	RKQ0089	P. C. B. SPACER		Q203	UN4115	TRANSISTOR	
7	RMCO158	TRANSISTOR HOLDER		Q351	2SC3311AIRTA	TRANSISTOR	(GC)
8	RFKGECA1060E	FRONT PANEL ASS'Y		Q352	KSD471ACYGTA	TRANSISTOR	(GC) Δ
9	RGL0230-Q	READING LIGHT PANEL		Q353	2SC3311AIRTA	TRANSISTOR	(GC)
10	RGU1062-S	BUTTON, POWER		Q354	2SC3311AIRTA	TRANSISTOR	
11	RGW0205-S	S. BASS, BASS, TREBLE KNOB		Q361	KSD471ACYGTA	TRANSISTOR	(GC) Δ
12	RHD26016	SCREW		Q362	2SC3327-A	TRANSISTOR	(GC) Δ
13	RMV0072	CONDUCTION PLATE		Q371	2SC3311AIRTA	TRANSISTOR	(GC)
14	RSE0005	METER UNIT		Q501	2SA992EFTA	TRANSISTOR	
15	XTBS26+8J	SCREW		Q571, 572	2SC3311AIRTA	TRANSISTOR	
16	RWJ1808110XX	FLAT CABLE (J703) (8P)	(GC)	Q573	2SA1309AIQTA	TRANSISTOR	
17	XTB3+10JFZ	SCREW		Q601-603	2SC3312RSTA	TRANSISTOR	
18	XTB3+20JFZ	SCREW		Q605	2SC3312RSTA	TRANSISTOR	
19	XTB3+8JFZ	SCREW		Q651, 652	2SD2144S	TRANSISTOR	
20	XTW3+15T	SCREW		Q701	2SD2374PQAU	TRANSISTOR	Δ
21	RMNO190	P. C. B. SPACER	(GC)	Q702	2SB1548PQAU	TRANSISTOR	Δ
22	RMNO282	FAN ANGLE	(GC)	Q703	2SC3940AQSTA	TRANSISTOR	Δ
23	SYE1128-2	FAN ASS'Y	(GC)	Q704	2SC3112TA	TRANSISTOR	
23-1	MDN-4RB4MRC	MOTOR	(GC)	Q751, 752	2SC3940ASTA	TRANSISTOR	Δ
23-2	SHE232	FAN	(GC)	Q753	UN4111	TRANSISTOR	
23-3	SUS271	SPRING	(GC)	Q754, 755	2SC3940ASTA	TRANSISTOR	Δ
23-4	SHE233	FAN CASE	(GC)	Q803	UN4115	TRANSISTOR	
23-5	SHE234	CAP	(GC)	Q805	2SC3312RSTA	TRANSISTOR	
23-6	SJT783	TERMINAL	(GC)				DIODE (S)
23-7	SJS5215	SOCKET (2P)	(GC)				
24	XTB3+12JFZ	SCREW	(GC)	D351	MA165	DIODE	(GC)
25	XTB3+8JFZ	SCREW	(GC)	D352	MA4068M	DIODE	(GC) Δ
26	RWJ1810220QC	FLAT CABLE (W502) (10P)		D361	MA4091-M	DIODE	(GC) Δ
27	RWJ1812210QC	FLAT CABLE (W501) (12P)		D362	MA165	DIODE	(GC)
28	RWJ1808150XX	FLAT CABLE (W703) (8P)	(E, EB, EG, GN)	D371	MA165	DIODE	(GC)
				D701-704	1N5402BF	DIODE	Δ
				D705, 706	RL1N4003N02	DIODE	Δ
				D711	MA165	DIODE	

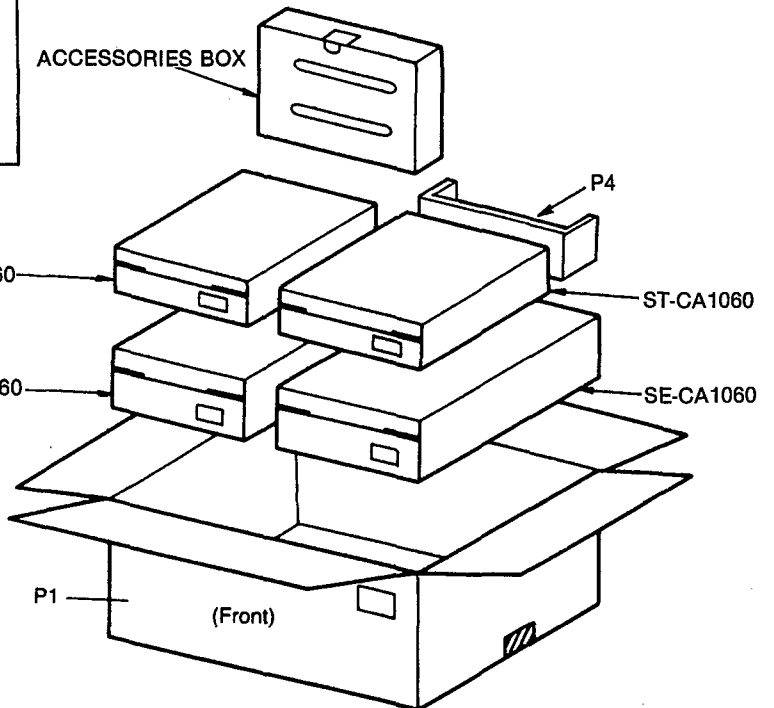
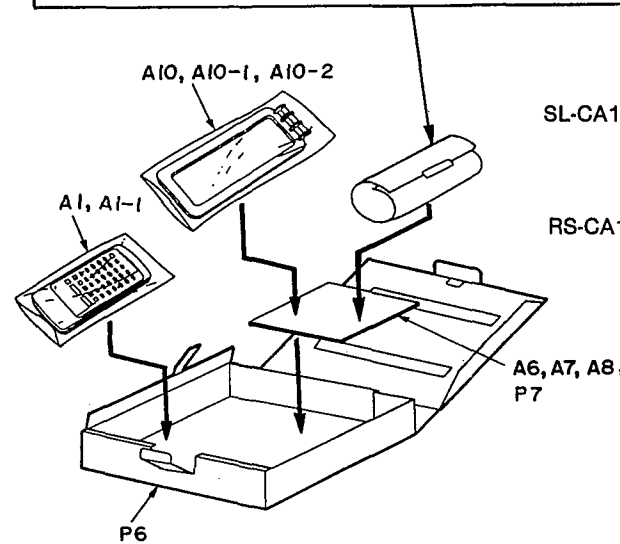
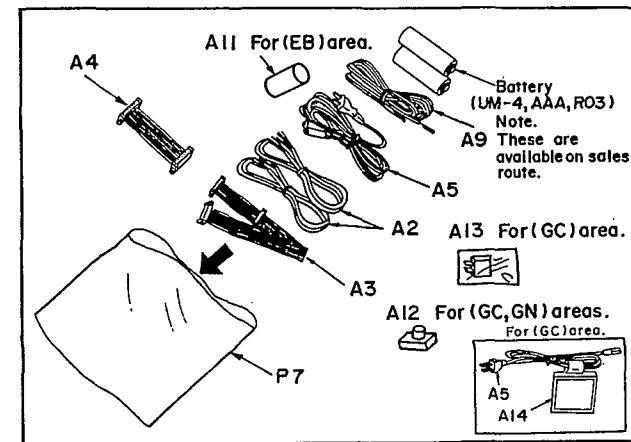
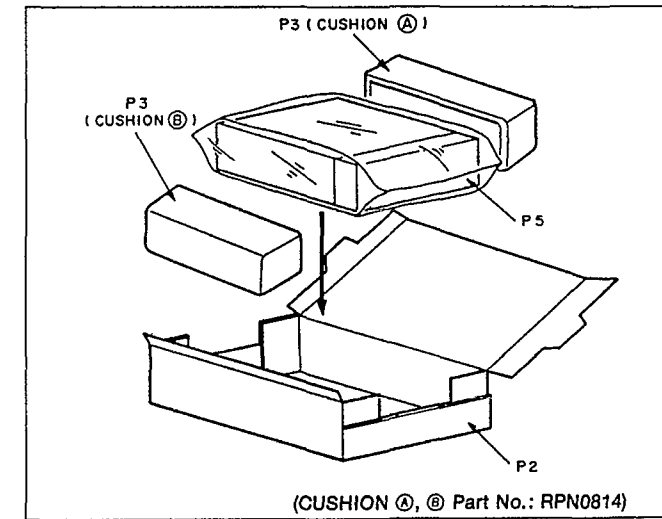
Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
D712	MA4240H	DIODE					
D714	MA4062-H	DIODE	△			SWITCH(ES)	
D715, 716	MA4150M	DIODE	△				
D751-754	RL1N4003N02	DIODE	△	S701	ESE37263	VOLTAGE ADJ.	(GC) △
D755	MA4082LTA	DIODE	△	S801	EVQ21405R	POWER	
D756	MA165	DIODE				RELAY(S)	
D801	MA165	DIODE					
D802	MA4100MTA	DIODE	△	RL701	RSY0013M-0	RELAY	△
D803-806	MA165	DIODE				CONNECTOR(S) AND SOCKET(S)	
D807	MA4100MTA	DIODE	△				
D808	SLR-305VC	L. E. D.		CN501-1-3	RJS1A6604	CONNECTOR (4P)	
D813, 814	MA165	DIODE		CN502-1, 2	RJS1A6605	CONNECTOR (5P)	
D817	MA165	DIODE		CN601	RJU057W004	SOCKET (4P)	
D851, 852	MA165	DIODE		CN701-708	RJS1A1101T1	SOCKET (1P)	
D861, 862	MA165	DIODE		CN703-1, 2	RJS1A6604	CONNECTOR (4P)	
		VARIABLE RESISTOR(S)		CN709, 710	RJS1A1101T1	SOCKET (1P)	(E, EB, EG, GN)
VR601	EVJYV1F03G24	TREBLE		CN712	RJS1A1101T1	SOCKET (1P)	(E, EB, EG, GN)
VR602	EVJYV1F03G24	BASS		CN715	RJU057W004	SOCKET (4P)	(E, EB, EG, GN)
VR603	EVJY91F03G24	S. BASS		CN801	RJU057W004	SOCKET (4P)	
VR808, 809	EVNDXAA00B23	OUTPUT POWER METER		CP601	RJT057W004-1	CONNECTOR (4P)	
		THERMISTOR(S)		CP715	RJT057W004-1	CONNECTOR (4P)	
				CP801	RJT057W004-1	CONNECTOR (4P)	
TH801, 802	ERTD2ZHL104T	THERMISTOR		J704B	RJU057W004	SOCKET (4P)	(GC)
		COIL(S)				JACK(S)	
				JK201	RJT065K20	CONNECTOR (20P)	
L501, 502	SLQV07G-40	COIL		JK301	RJJ67TA02	HEADPHONES JACK	
L701	RLQZ271M	COIL	(EG) △	JK351	SJT3213	CONNECTOR (2P)	(GC)
		TRANSFORMER(S)		JK501	RJR0054	SPEAKER TERMINAL	
PT701	RTP2M5B004	POWER TRANSFORMER	(E, EB, EG, GN) △	JK701	SJS9236	AC INLET	(E, EB, EG, GC) △
PT701	RTP2M5G003	POWER TRANSFORMER	(GC) △	JK701	SJS016	AC INLET	(GN) △
				JK702	SJS702-1	CONNECTOR (7P)	(GC)
		LAMP(S)				EARTH TERMINAL(S)	
PL801-806	XAMR131	LAMP		E501	SNE1004-2	GND PLATE	
		FUSE(S)		E701	SNE1004-2	GND PLATE	
						FUSE HOLDER(S)	
F1	XBA2C12TB0S	FUSE, 250V T1. 25A	(E, EB, EG, GN) △	FC1-6	EYF52BC	FUSE HOLDER	
F1	XBA2C25TBO	FUSE, 250V T2. 5A	(GC) △	FC7, 8	EYF52BC	FUSE HOLDER	(GC)
F2	XBA2C12TB0S	FUSE, 250V T1. 25A	(GC) △				
F701, 702	XBA2C16TBO	FUSE, 250V T1. 6A	△				

PACKAGING

- ST-CA1060: Stereo Tuner
- SL-CA1060: Compact Disc Player
- RS-CA1060: Cassette Deck



- SE-CA1060: Stereo Amplifier



RESISTORS AND CAPACITORS

Notes : * Capacity values are in microfarads (μF) 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						
R159	ERDS2TJ100	1/4W 10	R574	ERDS2TJ564	1/4W 560K	R829	ERDS2TJ471	1/4W 470
R217, 218	ERDS2TJ102	1/4W 1K	R575	ERDS2TJ223	1/4W 22K	R833, 834	ERDS2TJ471	1/4W 470
R223, 224	ERDS2TJ472	1/4W 4.7K	R601, 602	ERDS2TJ682T	1/4W 6.8K	R836, 837	ERDS2TJ222	1/4W 2.2K
R253, 254	ERDS2EJ121	1/4W 120	R603, 604	ERDS2TJ333	1/4W 33K	R845, 846	ERDS2TJ103	1/4W 10K
R255	ERDS2TJ154	1/4W 150K	R605, 606	ERDS2TJ123	1/4W 12K	R851	ERDS2TJ221	1/4W 220
R256	ERDS2TJ105T	1/4W 1M	R607, 608	ERDS2TJ472	1/4W 4.7K	R852	ERDS2TJ103	1/4W 10K
R259	ERDS2TJ561	1/4W 560	R609, 610	ERDS2TJ332	1/4W 3.3K	R853-855	ERDS2TJ222	1/4W 2.2K
R291, 292	ERDS2TJ563	1/4W 56K	R611, 612	ERDS2TJ122	1/4W 1.2K	R861, 862	ERDS2EJ121	1/4W 120
R301, 302	ERDS2TJ223	1/4W 22K	R613, 614	ERDS2TJ683	1/4W 68K	R863	ERDS2TJ222	1/4W 2.2K
R303, 304	ERDS2TJ333	1/4W 33K	R615, 616	ERDS2TJ123	1/4W 12K	R864, 865	ERDS2TJ221	1/4W 220
R305, 306	ERDS2TJ223	1/4W 22K	R617, 618	ERDS2TJ562	1/4W 5.6K	R871, 872	ERDS2TJ392T	1/4W 3.9K
R307, 308	ERDS2TJ102	1/4W 1K	R619, 620	ERDS2TJ681	1/4W 680			CAPACITORS
R309-312	ERDS2EJ121	1/4W 120	R621, 622	ERDS2TJ563	1/4W 56K			
R351	ERDS2TJ183T	1/4W 18K (GC)	R623, 624	ERDS2TJ123	1/4W 12K	C251	ECEA0JKA221B	6.3V 220U
R352	ERDS2TJ473	1/4W 47K (GC)	R631-634	ERDS2TJ224T	1/4W 220K	C301, 302	ECEA1HKA3R3B	50V 3.3U
R353	ERDS2TJ183T	1/4W 18K (GC)	R651, 652	ERDS2TJ561	1/4W 560	C303, 304	ECBT1H150J5	50V 15P
R354	ERDS2TJ104	1/4W 100K (GC)	R653, 654	ERDS2EJ121	1/4W 120	C305, 306	ECBT1H330J5	50V 33P
R355	ERDS2TJ103	1/4W 10K (GC)	R655	ERDS2TJ561	1/4W 560	C307, 308	ECEA1CKA220B	16V 22U
R356	ERDS2TJ332	1/4W 3.3K (GC)	R701	ERQ16NKW2R2E	1/6W 2.2 Δ	C353	ECEA1HKA2R2B	50V 2.2U (GC)
R357	ERDS1FVJ100T	1/2W 10 (GC) Δ	R702	ERD2FCVJ4R7T	1/4W 4.7 (E, EB, EG, GN) Δ	C361	ECEA1CKA101B	16V 100U (GC)
R358	ERDS1FVJ220T	1/2W 22 (GC) Δ	R702	ERQ16NKW2R2E	1/6W 2.2 (GC) Δ	C362	ECEA1CKA100B	16V 10U (GC)
R359	ERDS2TJ273	1/4W 27K (GC)	R703, 704	ERDS2TJ562	1/4W 5.6K	C371	RCE0JKA221BV	6.3V 220U (GC)
R360	ERDS2TJ222	1/4W 2.2K (GC)	R705, 706	ERG1SJ471E	1W 470 Δ	C372	ECBT1E223ZF	25V 0.022U (GC)
R361	ERDS2TJ474	1/4W 470K (GC)	R707	ERDS1FVJ820T	1/2W 82 Δ	C373	ECBT1H104ZF5	50V 0.1U (GC)
R362	ERDS2TJ102	1/4W 1K (GC)	R708	ERDS2TJ472	1/4W 4.7K	C381, 382	ECBT1E103ZF	25V 0.01U
R363, 364	ERDS2TJ472	1/4W 4.7K (GC)	R709	ERG1SJ391E	1W 390 Δ	C397, 398	ECBT1E103ZF	25V 0.01U
R371, 372	ERDS2TJ273	1/4W 27K (GC)	R711	ERG1SJ331E	1W 330 Δ	C501, 502	ECA1HAP3R3B	50V 3.3U
R373	ERDS2TJ222	1/4W 2.2K (GC)	R716	ERDS2TJ393	1/4W 39K	C503, 504	ECBT1H151KB5	50V 150P
R374	ERDS2TJ273	1/4W 27K (GC)	R717	ERDS2TJ473	1/4W 47K	C505, 506	ECBT1H150J5	50V 15P
R375	ERDS2TJ822	1/4W 8.2K	R761-764	ERDS2TJ1R0	1/4W 1.0	C509, 510	ECA1HAP220B	50V 22U
R391	ERDS2TJ393	1/4W 39K	R765	ERDS2TJ102	1/4W 1K	C511, 512	ECBT1H821KB5	50V 820P
R501, 502	ERDS2TJ102	1/4W 1K	R766	ERDS2TJ223	1/4W 22K	C513	ECA1H470B	50V 47U
R503-506	ERDS2TJ563	1/4W 56K	R780	ERDS2TJ822	1/4W 8.2K	C514	ECA2AAP100B	100V 10U
R509, 510	ERDS2TJ182	1/4W 1.8K	R801, 802	ERDS2TJ272T	1/4W 2.7K	C515, 516	ECBT1H104ZF5	50V 0.1U
R511	ERDS2TJ334	1/4W 330K	R803, 804	ERDS2TJ104	1/4W 100K	C571	ECEA0JKA101B	6.3V 100U
R512	ERDS2TJ154	1/4W 150K	R805, 806	ERDS2TJ155	1/4W 1.5M	C572	ECBT1E223ZF	25V 0.022U
R513	ERDS2TJ684	1/4W 680K	R807, 808	ERDS2TJ222	1/4W 2.2K	C599	ECBT1C103MS5	16V 0.01U
R514	ERD25FJ470	1/4W 47 Δ	R809, 810	ERDS2TJ103	1/4W 10K	C601, 602	ECEA1HKA3R3B	50V 3.3U
R515, 516	ERDS1FVJ100T	1/2W 10 Δ	R811, 812	ERDS2TJ821	1/4W 820	C603-606	ECBT1H101KB5	50V 100P
R517, 518	ERD25FVJ100T	1/4W 10 Δ	R815	ERDS2TJ103	1/4W 10K	C607, 608	ECBT1H151KB5	50V 150P
R523	ERDS2TJ223	1/4W 22K	R816	ERDS2TJ104	1/4W 100K	C609, 610	ECBT1E103ZF	25V 0.01U
R524	ERDS2TJ103	1/4W 10K	R817, 818	ERDS2TJ221	1/4W 220	C611-614	ECEA1HKA3R3B	50V 3.3U
R525	ERDS2TJ223	1/4W 22K	R819	ERDS2TJ104	1/4W 100K	C615, 616	ECEA1HKA010B	50V 1U
R571	ERDS2TJ823T	1/4W 82K	R820	ERDS2TJ102	1/4W 1K	C617, 618	ECQV1H124JM3	50V 0.12U
R572	ERDS2TJ124T	1/4W 120K	R821, 822	ERDS2TJ123	1/4W 12K	C619, 620	ECEA1HKA010B	50V 1U
R573	ERDS2TJ563	1/4W 56K	R823, 824	ERDS2TJ154	1/4W 150K	C621, 622	ECQV1H334JM3	50V 0.33U
			R825, 826	ERDS2TJ223	1/4W 22K	C631, 632	ECEA1HKA3R3B	50V 3.3U
			R827, 828	ERDS2TJ102	1/4W 1K	C633, 634	ECQB1H272JF3	50V 2700P

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
C653	ECEA1CKA101B	16V 100U	C731, 732	ECKR1H103ZF5	50V 0.01U	C810	ECEA1HKA4R7B	50V 4.7U
C701, 702	ECES1H682VNG	50V 6800U Δ	C761	ECA1EM102B	25V 1000U Δ	C811	ECBT1H220J5	50V 22P
C703, 704	ECEA1CKA330B	16V 33U	C762	ECBT1E103ZF	25V 0.01U	C812	ECBT1H151KB5	50V 150P
C705, 706	ECBT1H104ZF5	50V 0.1U	C799	ECBT1H104ZF5	50V 0.1U	C851, 852	ECEA1HKA3R3B	50V 3.3U
C707	ECA1HM471B	50V 470U Δ	C801, 802	ECEA1EKN3R3B	25V 3.3U	C855, 856	ECBT1C682KR5	16V 6800P
C708	ECEA1CKA100B	16V 10U	C803, 804	ECEA1HKA2R2B	50V 2.2U	C857	ECBT1E103ZF	25V 0.01U
C709, 710	ECBT1E103ZF	25V 0.01U	C805	ECEA1HKA4R7B	50V 4.7U	C905, 906	ECBT1H101KB5	50V 100P
C711	ECQE1104KF3	100V 0.1U	C806	ECEADJKA221B	6.3V 220U	C1101, 1102	ECBT1E223ZF	25V 0.022U
C712	ECBT1E223ZF	25V 0.022U	C807	ECBT1H104ZF5	50V 0.1U	C1103-1106	ECBT1H102KB5	50V 1000P
C714	ECKR1H103ZF5	50V 0.01U	C808, 809	ECBT1E223ZF	25V 0.022U			

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 Ass'y: 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
				A2	REED393	SPEAKER CORD	
		PACKING MATERIALS		A3	REX0511	FLAT CABLE (LONG) (15P)	
				A4	REX0608	FLAT CABLE (SHORT) (20P)	
P1	RPG2129-1	PACKING CASE (SYSTEM)	(E, EG)	A5	RJAO019-2A	AC POWER SUPPLY CORD	(E, EG, GC) Δ
P1	RPG2131	PACKING CASE (SYSTEM)	(EB)	A5	VJAO733	AC POWER SUPPLY CORD	(EB) Δ (SF)
P1	RPG2132	PACKING CASE (SYSTEM)	(GC)	A5	RJAO036-K	AC POWER SUPPLY CORD	(GN) Δ (SF)
P1	RPG2133	PACKING CASE (SYSTEM)	(GN)	A6	RFKSECA1060E	INSTRUCTION MANUAL ASS'Y	(E)
P2	RPG2230	PACKING CASE (AMPLIFIER)		A6	RFKSCA1060EB	INSTRUCTION MANUAL ASS'Y	(EB)
P2	RPG2231	PACKING CASE (DECK)		A6	RQT2552-B	INSTRUCTION MANUAL	(GN)
P2	RPG2232	PACKING CASE (TUNER/CD)		A6	RQT2554-2E	INSTRUCTION MANUAL	(EG)
P3	RPN0814	CUSHION (AMPLIFIER)		A6	RQT2553-2G	INSTRUCTION MANUAL	(GC)
P3	RPN0815	CUSHION (DECK)		A7	RQA0013	WARRANTY CARD	(E, EB, EG)
P3	RPN0816	CUSHION (TUNER/CD)		A7	RQX7433ZA	WARRANTY CARD	(GN)
P4	RPQ0458	SPACER		A8	RQCBO169	SERVICENTER LIST	
P5	SPP740	PROTECTION BAG (UNIT)		A9	RSA0007	FM INDOOR ANTENNA	
P6	RPQF0047	ACCESSORIES BOX		A10	RSA0012	AM LOOP ANTENNA	
P7	XZB25X34C03Y	PROTECTION BAG (F. B., ACC.)		A10-1	RMND244	ANTENNA HOLDER	
		ACCESSORIES		A10-2	XTN3+12AFZ	SCREW	
				A11	SJP9009	ATTACHMENT PLUG	(EB) Δ
				A12	RFE0014	ANTENNA PLUG	(GC, GN)
A1	RAK-CH143WH	REMOTE CONTROL TRANSMITTER		A13	SJP5213-1	POWER PLUG ADAPTOR	(GC) Δ
A1-1	RKK0057-K	BATTERY COVER		A14	RQLA0134	VOLTAGE CAUTION LABEL	(GC)