

Service Manual

Stereo Amplifier

Amplifier

SE-CA1080

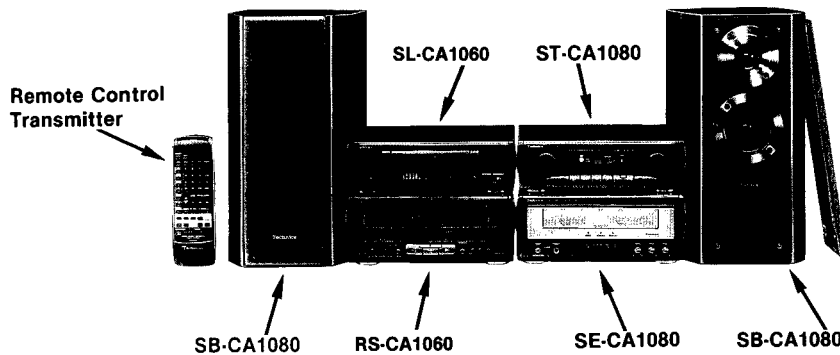
Colour

(K) ... Black Type

Area

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

System: SC-CA1080



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

■ SPECIFICATIONS

■ STEREO AMPLIFIER

Power output	
DIN 1 kHz, THD 1%, both channel driven	2 × 60 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
SURROUND	4–8 Ω
CENTER	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	198 W
Power supply	
[For (E, EG) areas.]	230 V, AC 50/60 Hz
[For (EB) area.]	230–240 V, AC 50/60 Hz
Dimensions (W × H × D)	280 × 1185 × 331.5 mm
Weight	5.9 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-CA1080	ST-CA1080	SL-CA1060	SE-CA1080	RS-CA1060	*SB-CA1080

*Main in PAES

Technics®

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Note: Refer to the Installation and Connections and Concerning the remote control and Quick referenc of remote control operations of Service manual for Model No. ST-CA1080 (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 destroy solid state devices. After repairs are completed, restore power gradually using a variac, to avoid overcurrent.

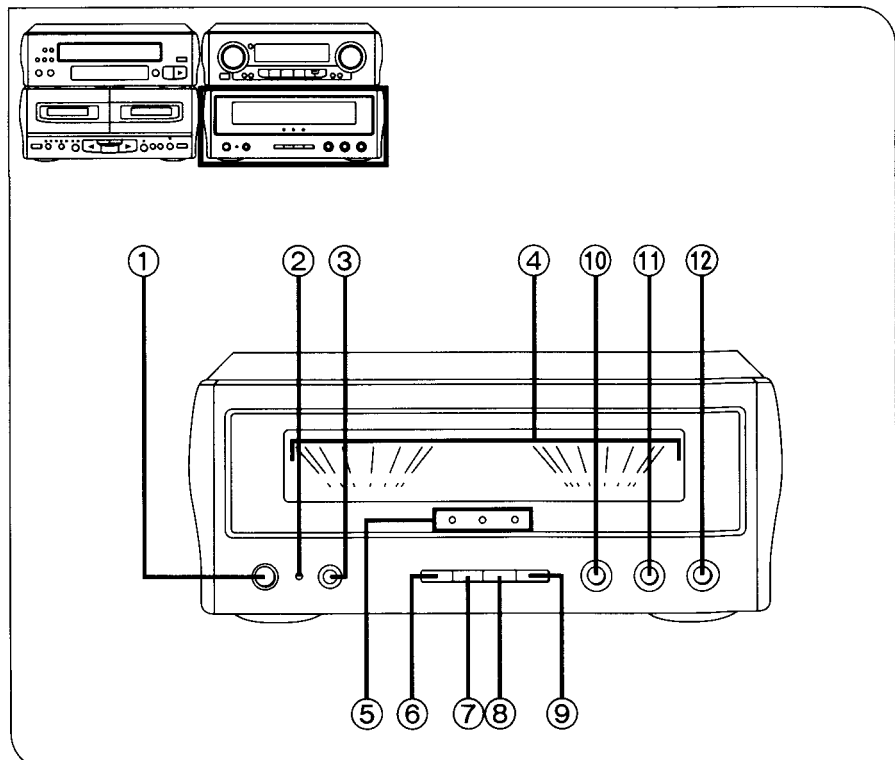
Current consumption at 50Hz/60Hz in NO SIGNAL mode should be shown below with respect to supply voltage 230V/240V/110-127V/220-240V.

Power supply voltage	AC 230V		AC 240V	
	50Hz	110~250mA	50Hz	100~240mA
Consumed current 50/60Hz	60Hz	88~200mA	60Hz	80~192mA

LOCATION OF CONTROLS

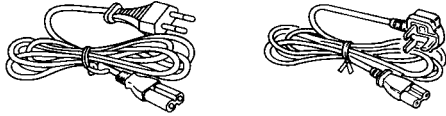
Stereo amplifier section

- 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
- ⑤ Dolby Pro-Logic center mode indicators
- ⑥ Dolby Pro-Logic OFF/ON button
- ⑦ Dolby Pro-Logic center mode select button
- ⑧ Delay time adjustment button
- ⑨ Test signal transmission button
- ⑩ S. BASS control
- ⑪ BASS control
- ⑫ TREBLE control

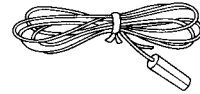


■ ACCESSORIES

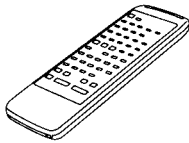
AC power supply cord 1 pc.
[RJA0019-2A (E, EG)] [VJA0733 (EB)]



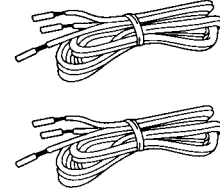
FM indoor antenna 1 pc.
(RSA0007)



Remote control transmitter 1 pc.
(RAK-CH729WH)



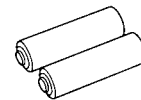
Speaker cords 2 pcs.
(REE0393)



Flat cable (long) 1 pc.
(REX0511)



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

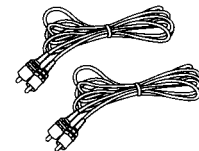


Note: There are available on sale route.

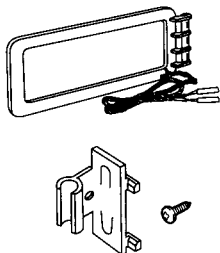
Flat cable (short) 1 pc.
(REX0608)



Surround speaker cords 2 pcs.
(RJL1P005B99)



AM loop antenna (RSA0012) 1 pc.
• Antenna holder (RMN0244) 1 pc.
• Screw (XTN3 + 12AFZ) 1 pc.



Attachment plug 1 pc.
[SJP9009 (EB)]



■ OPERATION CHECKS AND MAIN COMPONENT REPLACEMENT PROCEDURES

NOTE

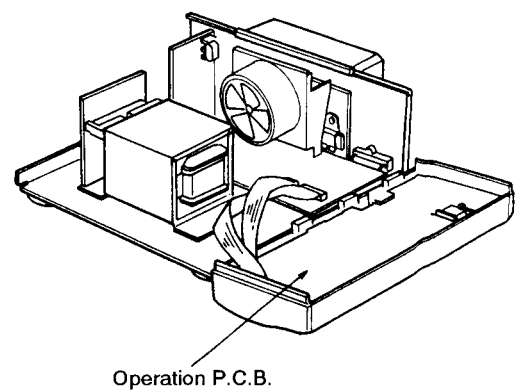
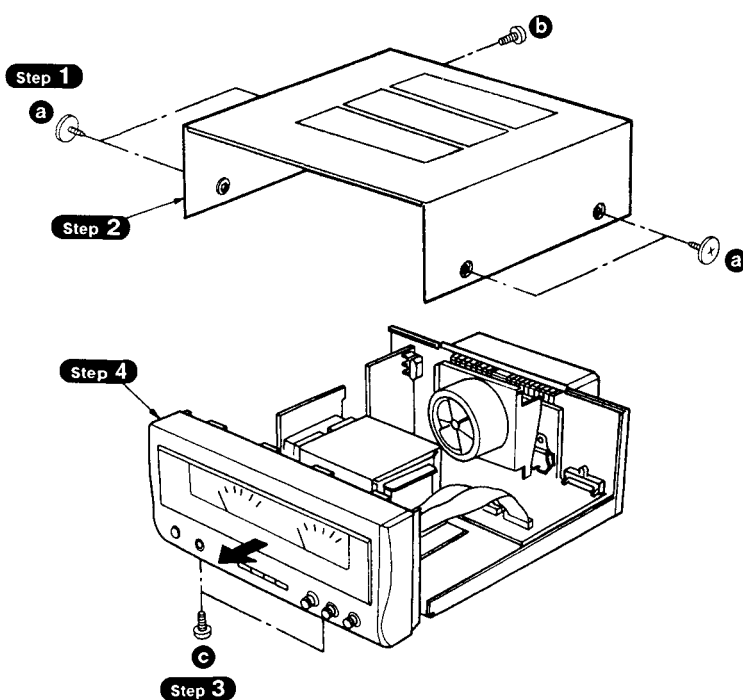
1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.
3. Select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

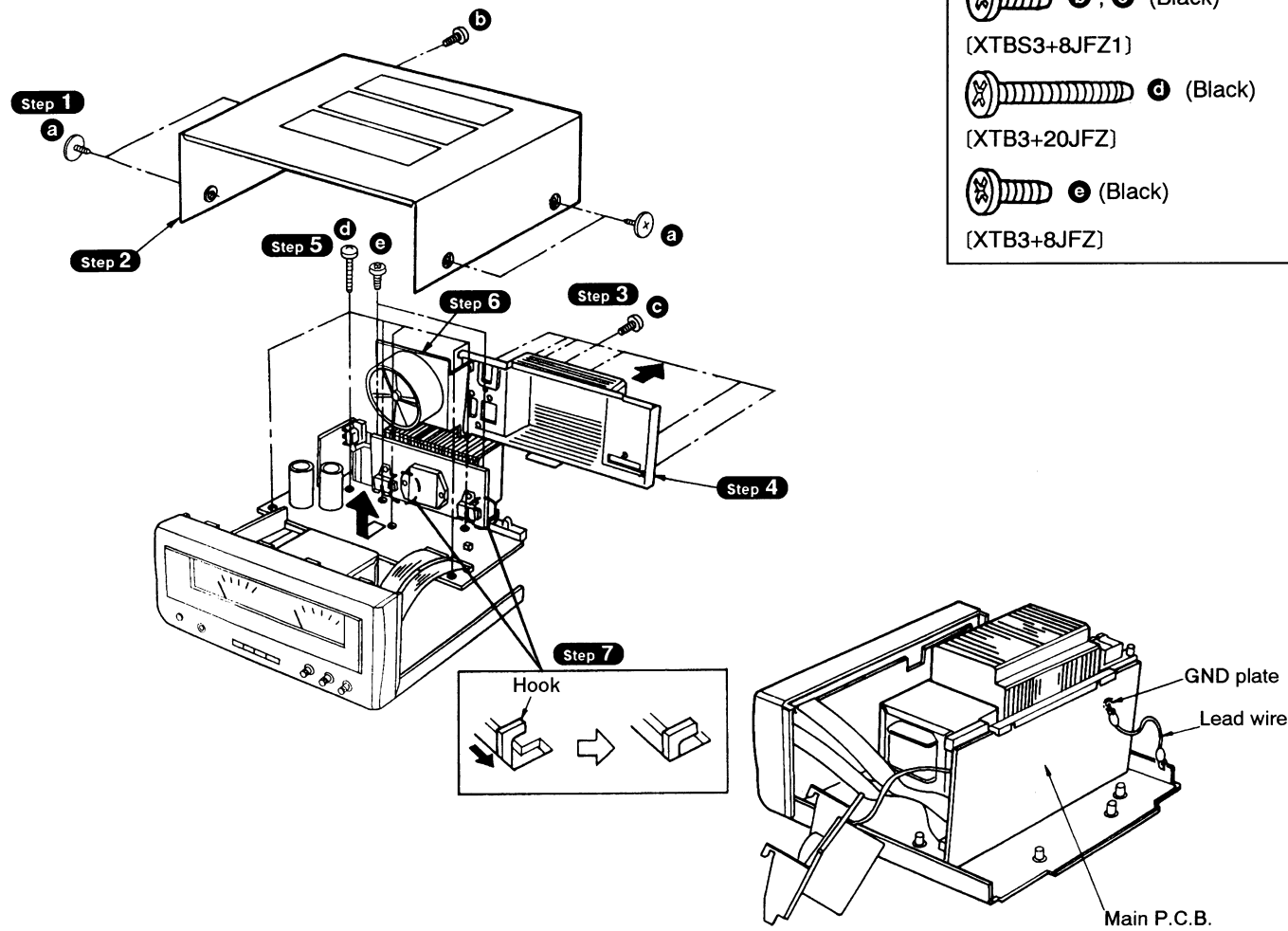
1. Checking for the operation P.C.B.



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

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

-  **a** (Black)
[RHD30007]
-  **b, c** (Black)
[XTBS3+8JFZ1]
-  **d** (Black)
[XTB3+20JFZ]
-  **e** (Black)
[XTB3+8JFZ]



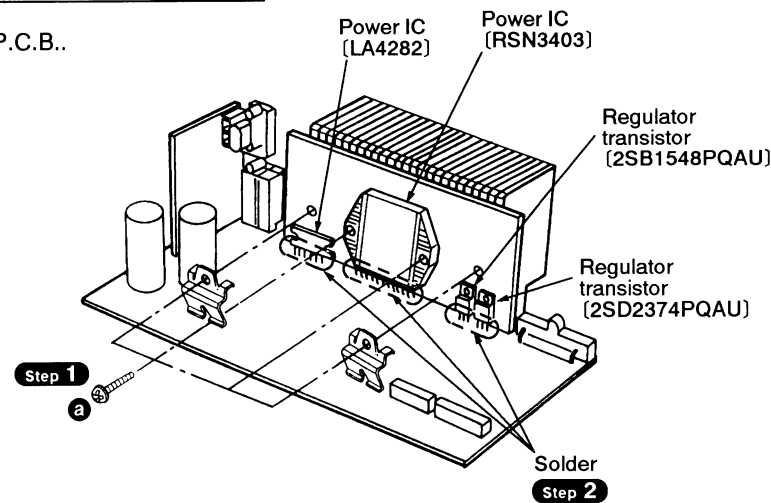
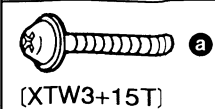
Main Component Replacement Procedures

1. Replacement for the power IC and regulator transistor

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

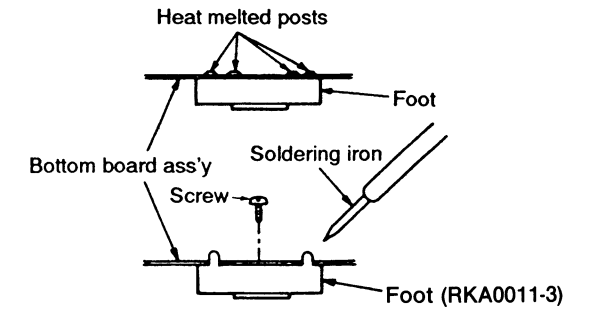
NOTE

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

- Remove the 4 heat melted posts on the Bottom board ass'y with a pair of nippers or similar tool.
- 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).

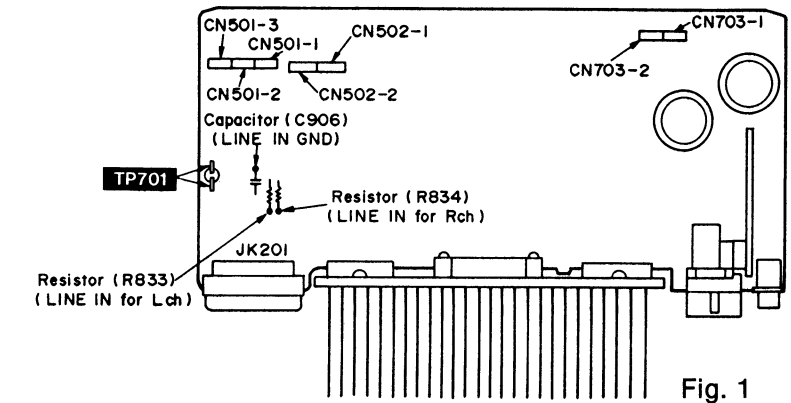


POWER SOURCE ON/OFF OF THIS UNIT SE-CA1080

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

• Operation Check

- Set this unit to power ON mode.
- 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).
- Connect the speaker to the speaker terminals and check if it sounds from the speaker.



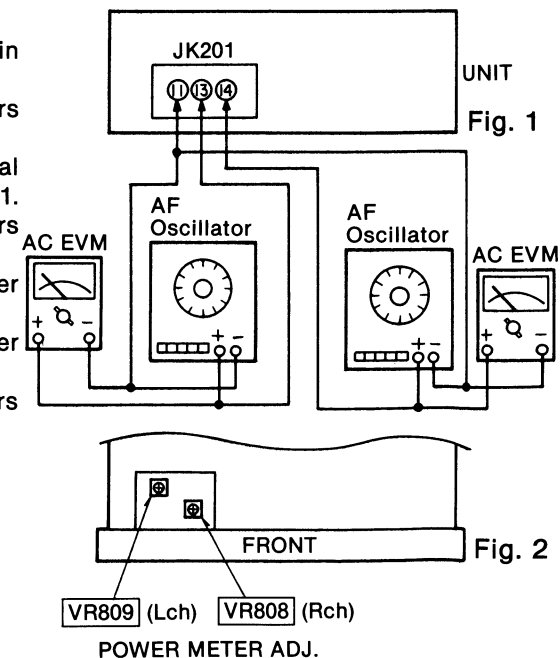
MEASUREMENTS AND ADJUSTMENTS

Control positions and equipment used.

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

• POWER METER ADJUSTMENT

- Connect an AF oscillator and AC to the amplifier, as shown in Fig. 1.
- Set the power meter input level to 0 and confirm the meters on both amplifiers, L-ch and R-ch, show -60dB.
- 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 $\pm 5mV$.
- Adjust VR808 (R-ch) and VR809 (L-ch) so that the power meter indicates 1W.
- Increase the input level by 10dB and confirm that the power meter indicates 10W ($\pm 1W$).
- 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 17~20.)

(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)
- **S802** : Dolby Pro-Logic OFF/ON switch.
- **S803** : Dolby Pro-Logic center mode select switch.
- **S804** : Delay time adjustment switch.
- **S805** : Test signal transmission switch.
- 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.

Caution!

IC and LSI are sensitive to static electricity. Secondary trouble can be prevented by taking care during repair.

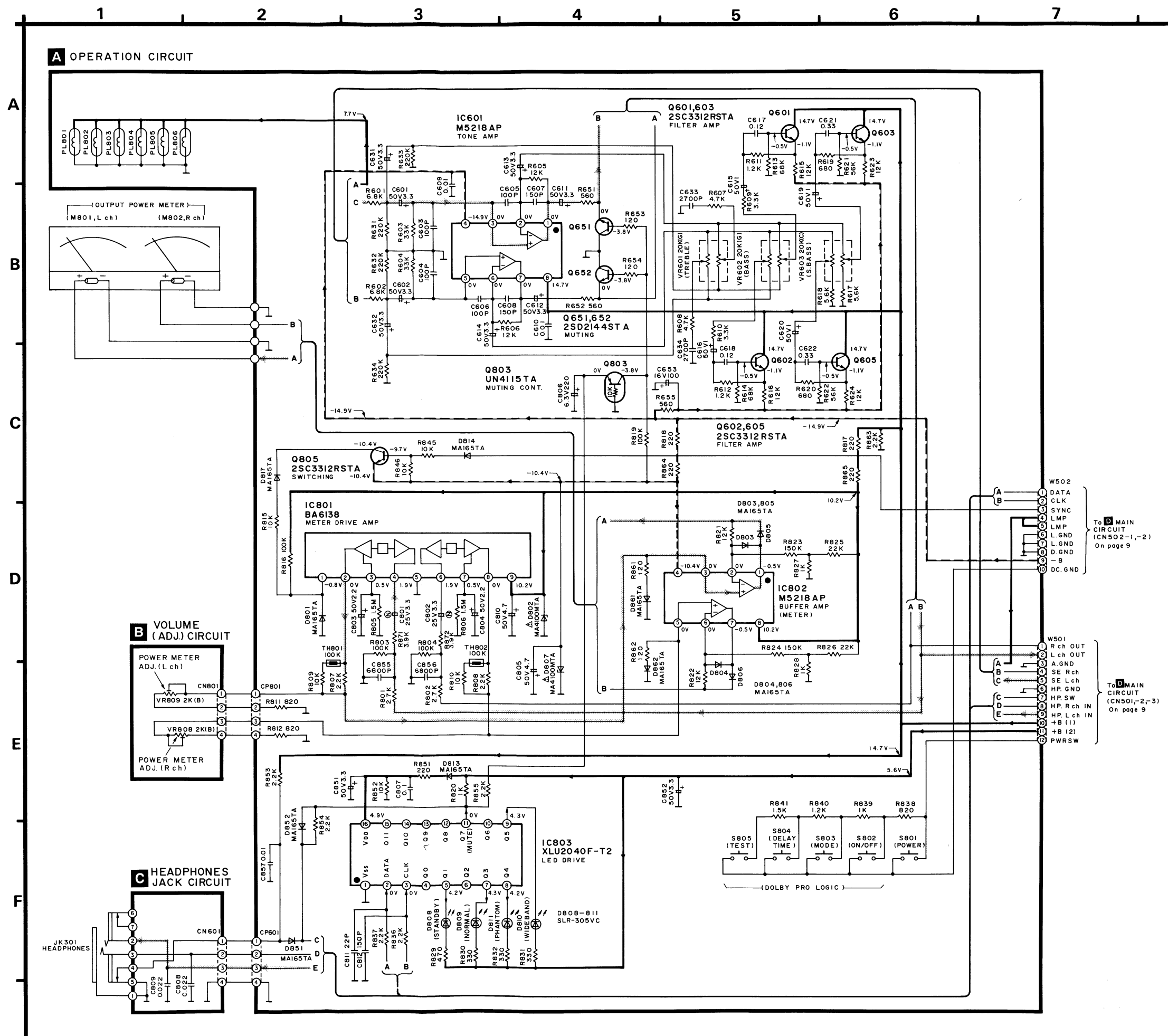
- Cover the parts boxes made of plastics with aluminum foil.
- Ground the soldering iron.
Put a conductive mat on the work table.
- Do not touch the legs of IC or LSI with the fingers directly.

Voltage and signal line

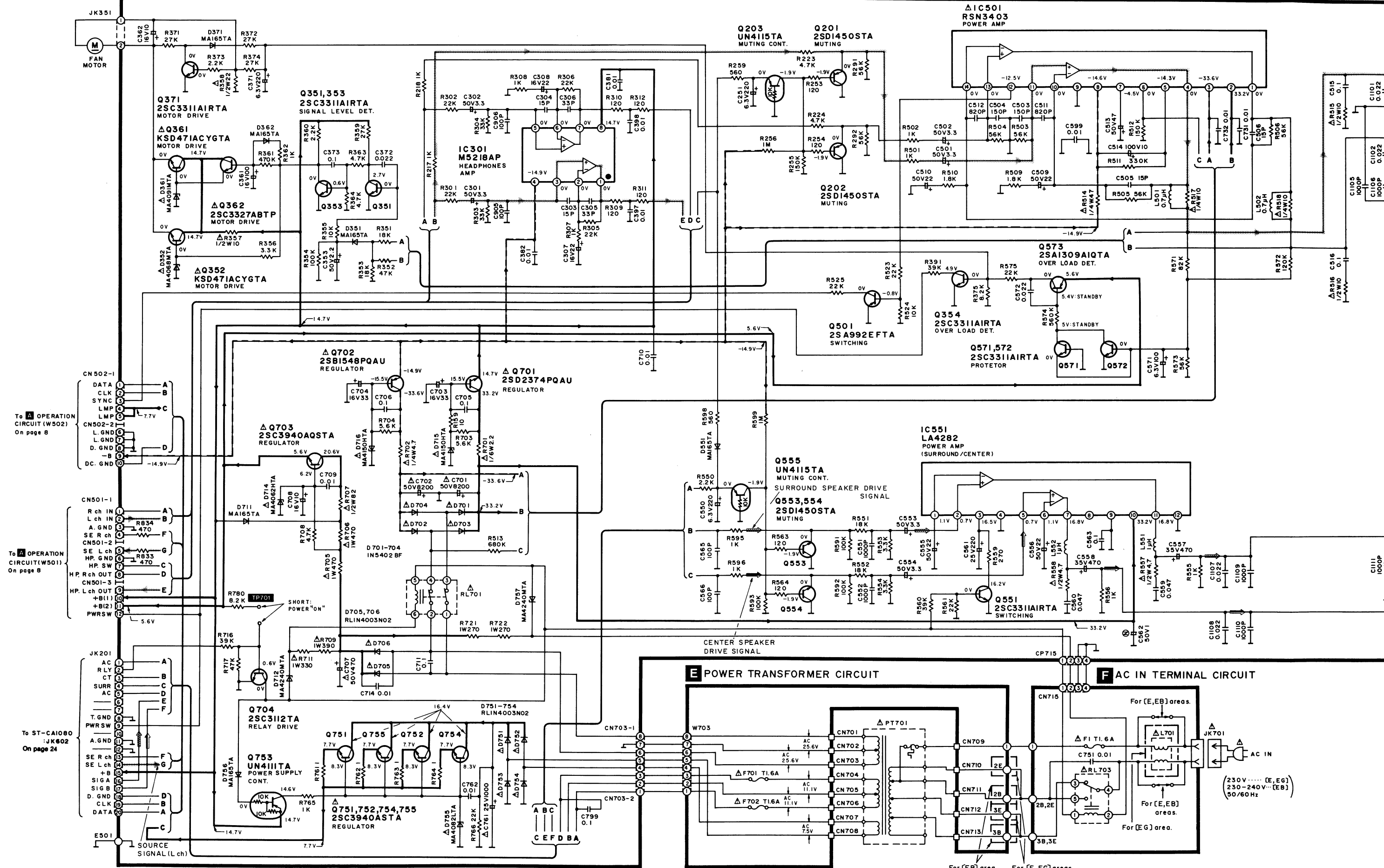
- : Positive voltage line
- - - : Negative voltage line
- : Source signal line
- : Surround speaker drive signal line
- : Center speaker drive signal line

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

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



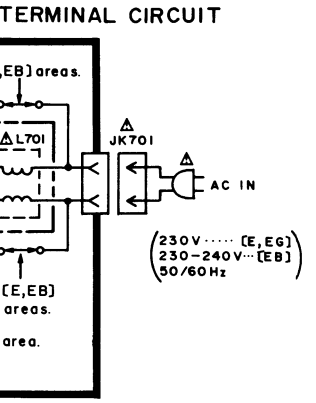
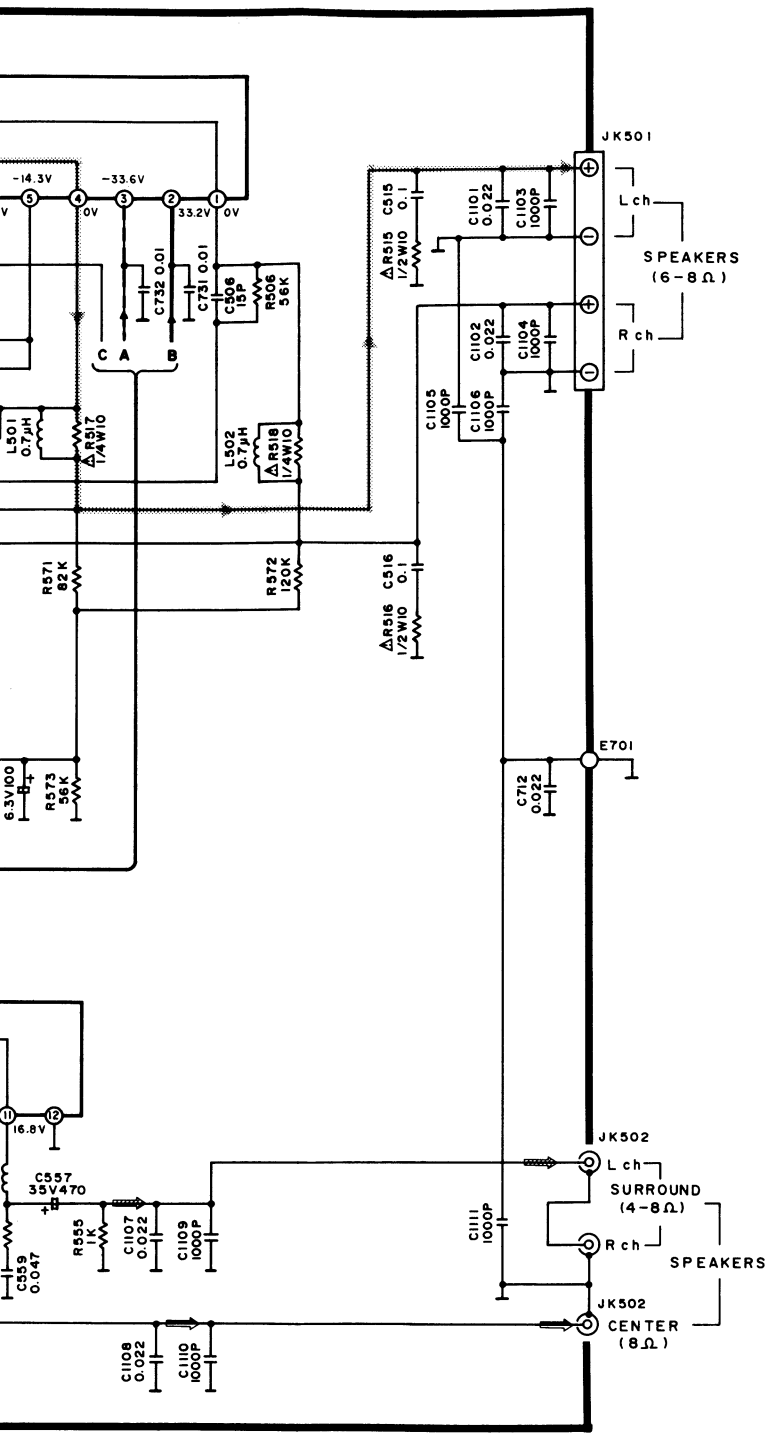
D MAIN CIRCUIT (H.PHONES AMP/POWER AMP/MUTING/REGULATOR/FAN MOTOR DRIVE)



To OPERATION CIRCUIT (W502) On page 8

To OPERATION CIRCUIT (W501) On page 8

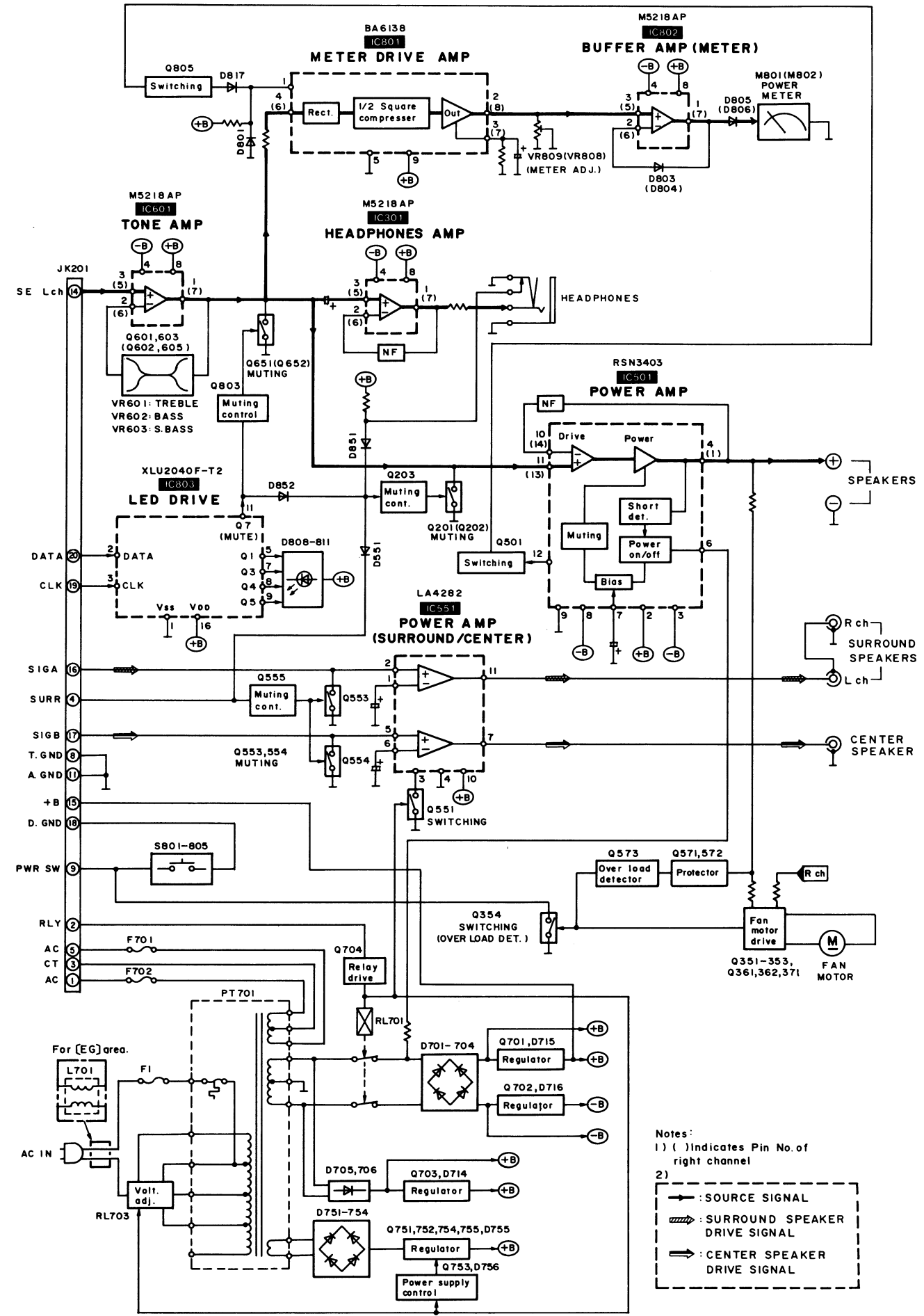
To ST-CA1080 JK602 On page 24



• Terminal guide of IC's, transistors and diodes

XLU2040F-T2 	BA6138 	RSN3403
M5218AP 	LA4282 	2SB1548PQAU 2SD2374PQAU
2SC3940AQSTA 2SC3940ASTA 	KSD471ACYGTA 2SA992EFTA 2SC3112TA 2SC3312RSTA 	
2SC3327ABTP 	2SD2144STA 	MA165TA Cathode Anode
	UN4111TA UN4115TA 2SA1309AIQTA 2SC3311AIRTA 2SD1450STA 	1N5402BF RL1N4003N02 Cathode Anode
	MA4100MTA MA4150HTA MA4240MTA 	SLR-305VC Anode Cathode Anode
	MA4062HTA MA4068MTA MA4082LTA MA4091MTA 	 Cathode Anode

■ BLOCK DIAGRAM

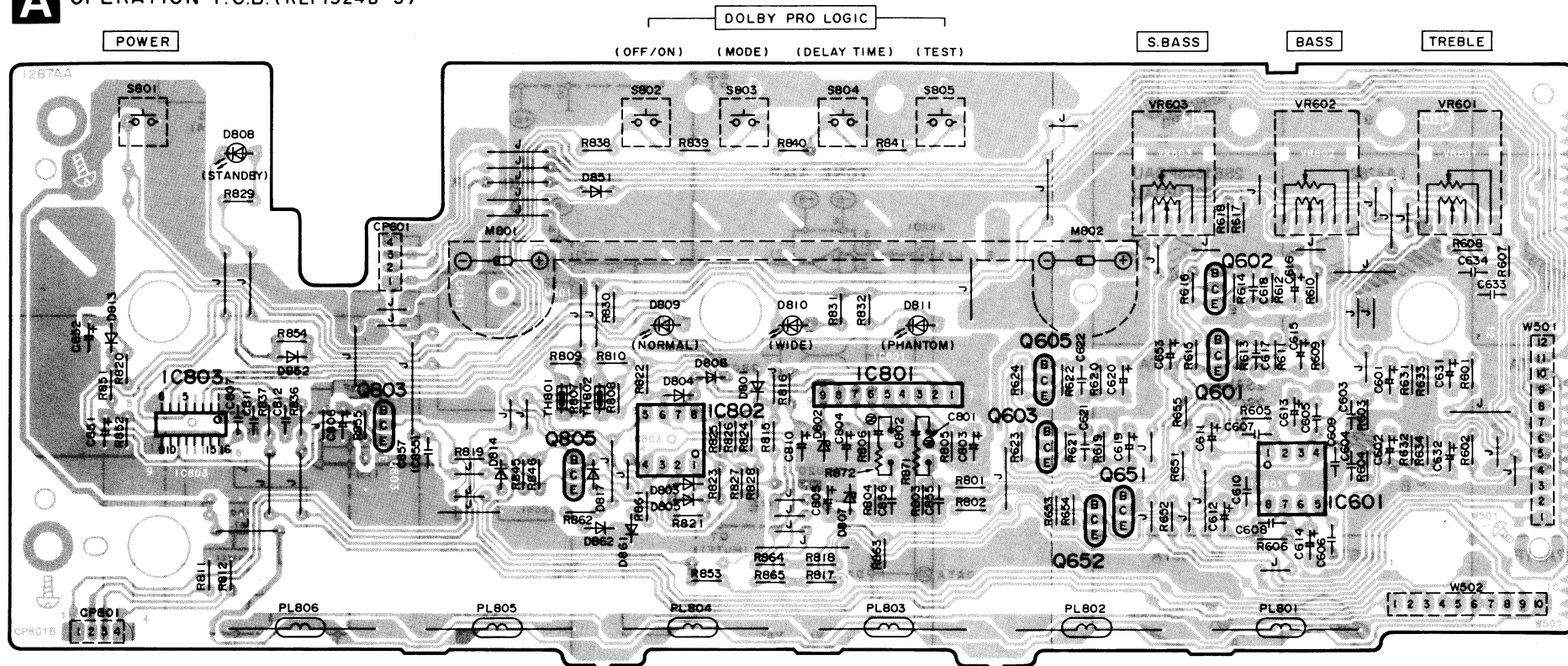


Notes:
 1) () Indicates Pin No. of right channel
 2)
 → : SOURCE SIGNAL
 ⇄ : SURROUND SPEAKER DRIVE SIGNAL
 ⇨ : CENTER SPEAKER DRIVE SIGNAL

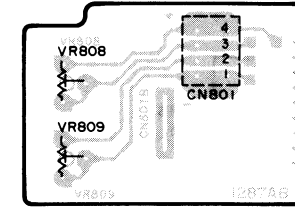
1 2 3 4 5 6 7 8 9 10

PRINTED CIRCUIT BOARDS

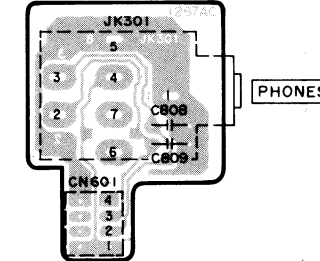
A OPERATION P.C.B. (REPI924B-S)



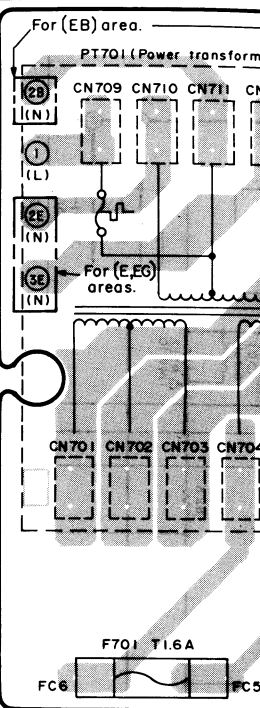
B VOLUME (ADJ.) P.C.B. (REPI924B-S)



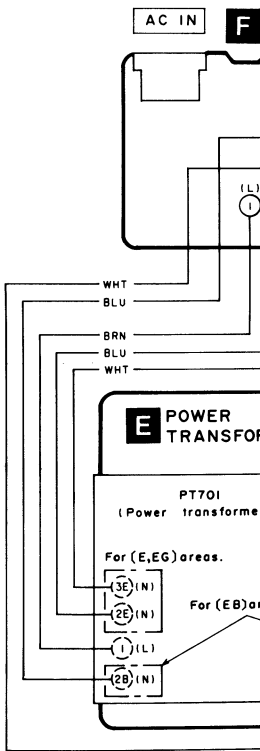
C HEADPHONES JACK P.C.B. (REPI924B-S)



E POWER TRANSFORMER

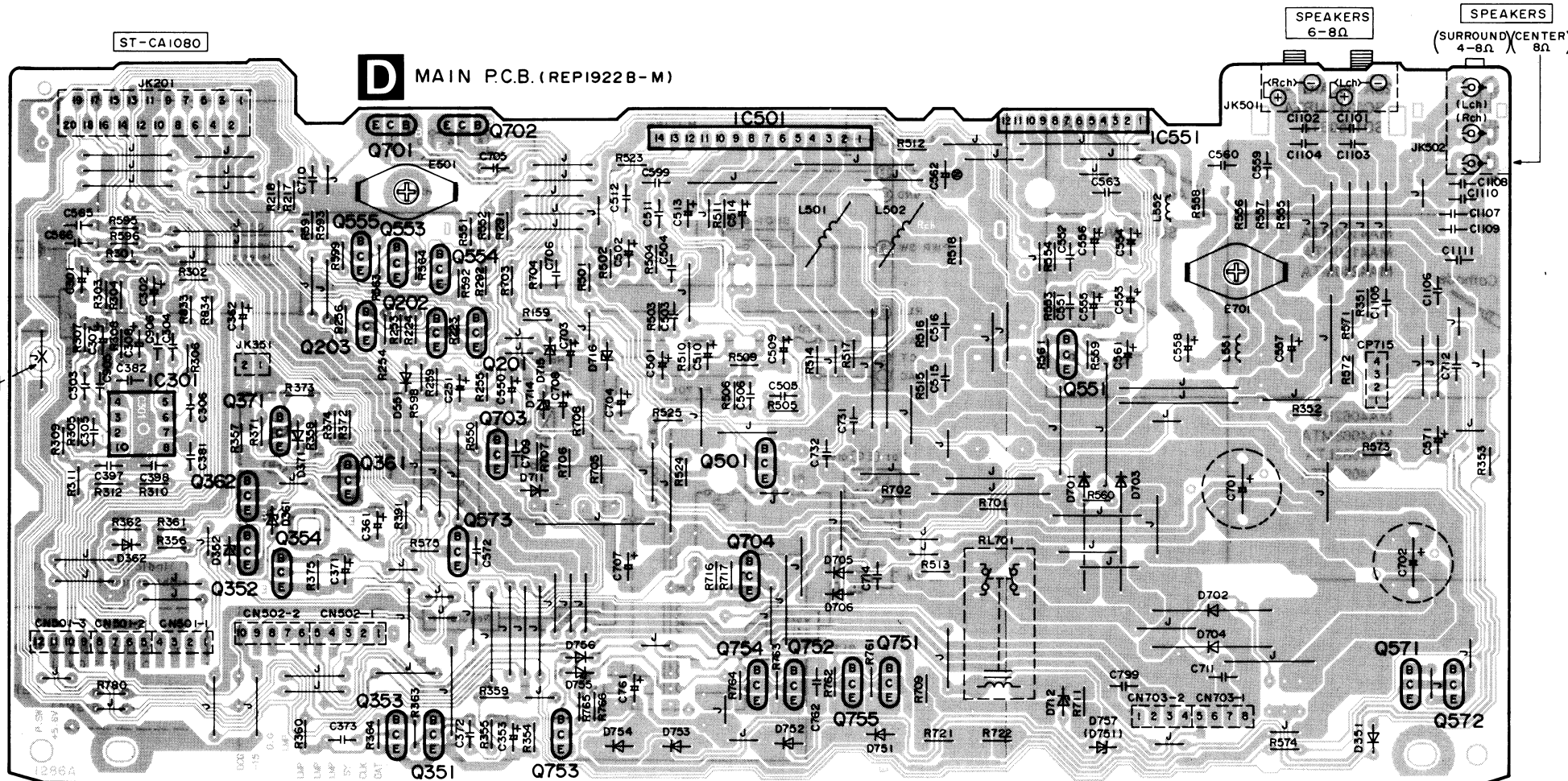


WIRING CONNECTIONS

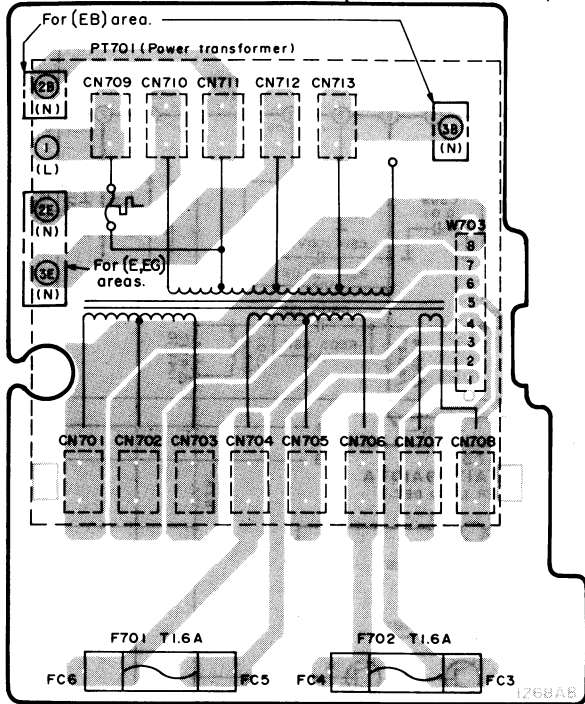


NOTE:
 BLU...Blue
 BRN...Brown
 WHT...White
 GRN...Gray

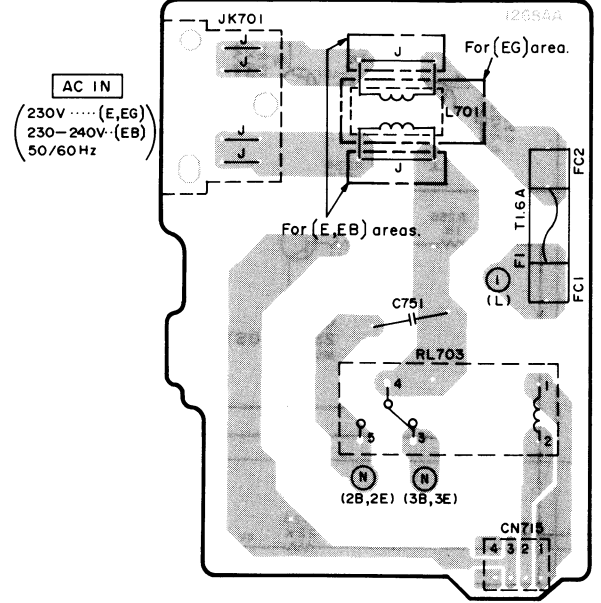
D MAIN P.C.B. (REPI922B-M)



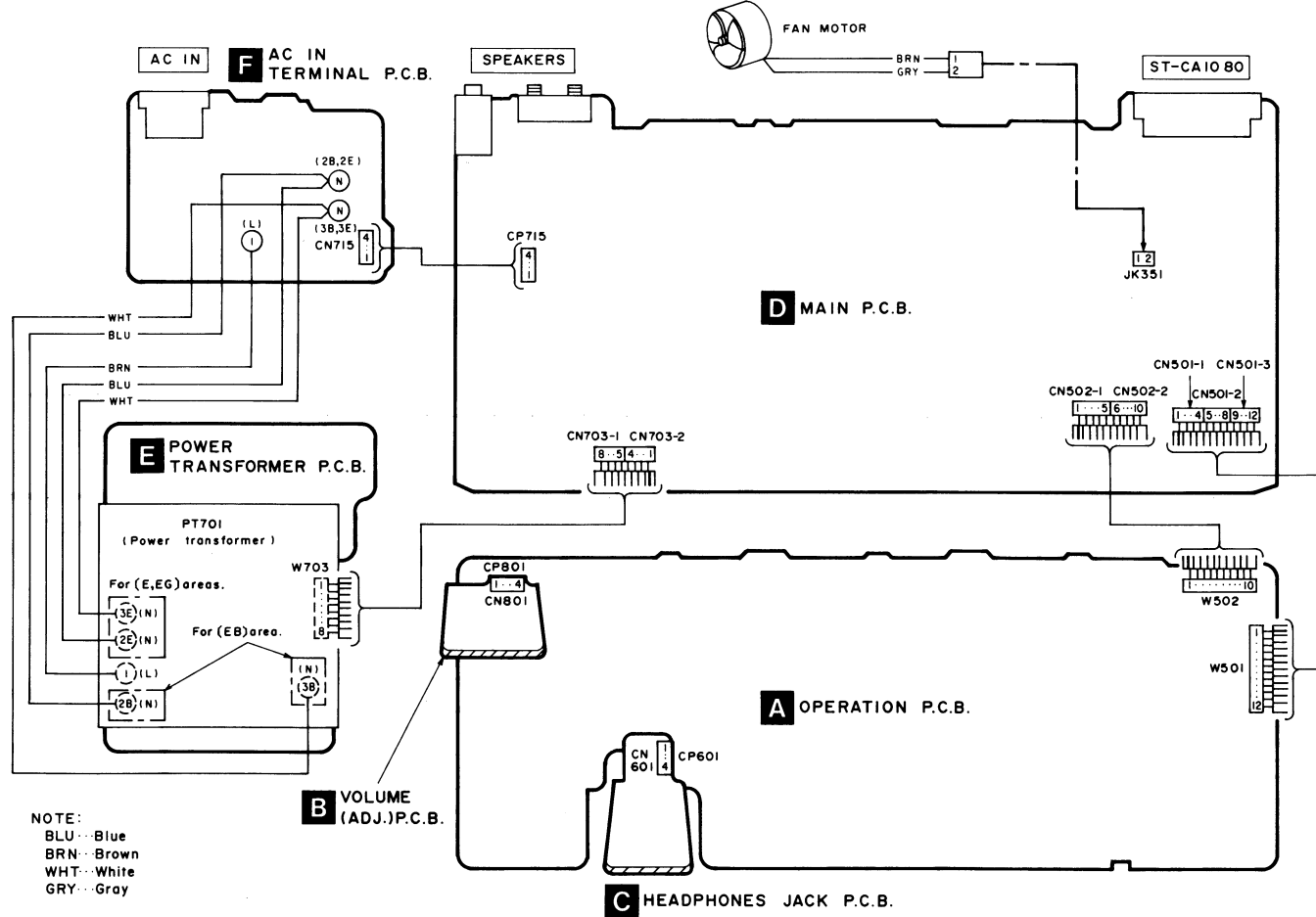
E POWER TRANSFORMER P.C.B. (REPI925A-P... (E)
REPI925B-P... (EG)
REPI925C-P... (EB))



F AC IN TERMINAL P.C.B. (REPI925A-P... (E)
REPI925B-P... (EG)
REPI925C-P... (EB))

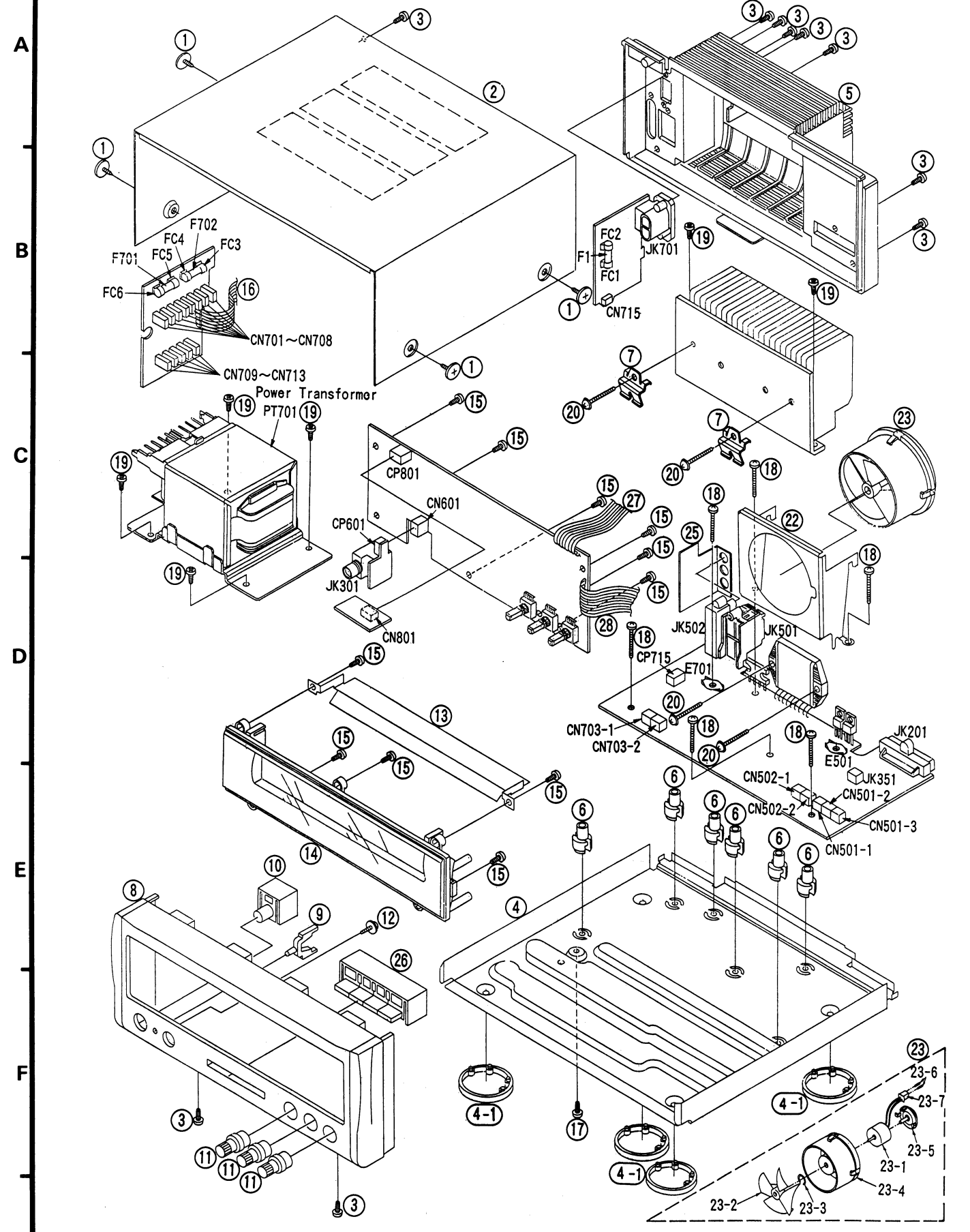


WIRING CONNECTION DIAGRAM



NOTE:
BLU - Blue
BRN - Brown
WHT - White
GRY - Gray

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	RKM0202A-2K	CABINET		IC501	RSN3403	POWER AMP	Δ
3	XTBS3+8JFZ1	SCREW		IC551	LA4282	POWER AMP	
4	RFKJE1060EK	BOTTOM BOARD ASS'Y		IC601	M5218AP	TONE AMP	
4-1	RKA0011-3	FOOT		IC801	BA6138	METER DRIVE AMP	
5	RFKHE1080EK	REAR GRILL ASS'Y	(E)	IC802	M5218AP	BUFFER AMP	
5	RFKHE1080EBK	REAR GRILL ASS'Y	(EB)	IC803	XLU2040F-T1	LED DRIVE	
5	RFKHE1080EGK	REAR GRILL ASS'Y	(EG)			TRANSISTOR (S)	
6	RKQ0089	P. C. B. SPACER		Q201, 202	2SD1450RTA	TRANSISTOR	
7	RM0158	TRANSISTOR HOLDER		Q203	UN4115	TRANSISTOR	
8	RFKGECA1080E	FRONT PANEL ASS'Y		Q351	2SC3311AIRTA	TRANSISTOR	
9	RGLO230-Q	READING LIGHT PANEL		Q352	KSD471ACYGTA	TRANSISTOR	Δ
10	RGU1062-S	BUTTON, POWER		Q353, 354	2SC3311AIRTA	TRANSISTOR	
11	RGW0205-S	S. BASS, BASS, TREBLE KNOB		Q361	KSD471ACYGTA	TRANSISTOR	Δ
12	RHD26016	SCREW		Q362	2SC3327-A	TRANSISTOR	Δ
13	RM0072	CONDUCTION PLATE		Q371	2SC3311AIRTA	TRANSISTOR	
14	RSE0005A	METER UNIT		Q501	2SA992EFTA	TRANSISTOR	
15	XTBS26+8J	SCREW		Q551	2SC3311AIRTA	TRANSISTOR	
16	RWJ1808150XX	FLAT CABLE (W703) (8P)		Q553, 554	2SD1450RTA	TRANSISTOR	
17	XTB3+10JFZ	SCREW		Q555	UN4115	TRANSISTOR	
18	XTB3+20JFZ	SCREW		Q571, 572	2SC3311AIRTA	TRANSISTOR	
19	XTB3+8JFZ	SCREW		Q573	2SA1309A1QTA	TRANSISTOR	
20	XTW3+15T	SCREW		Q601-603	2SC3312RSTA	TRANSISTOR	
22	RM0282	FAN ANGLE		Q605	2SC3312RSTA	TRANSISTOR	
23	SYE1128-2	FAN ASS'Y		Q651, 652	2SD2144S	TRANSISTOR	
23-1	MDN-4RB4MRC	MOTOR		Q701	2SD2374PQAU	TRANSISTOR	Δ
23-2	SHE232	FAN		Q702	2SB1548PQAU	TRANSISTOR	Δ
23-3	SUS271	SPRING		Q703	2SC3940AQSTA	TRANSISTOR	Δ
23-4	SHE233	FAN CASE		Q704	2SC3112TA	TRANSISTOR	
23-5	SHE234	CAP		Q751, 752	2SC3940ASTA	TRANSISTOR	Δ
23-6	SJT783	TERMINAL		Q753	UN4111	TRANSISTOR	
23-7	SJS5215	SOCKET (2P)		Q754, 755	2SC3940ASTA	TRANSISTOR	Δ
25	RM0078	CONDUCTION PLATE	Δ	Q803	UN4115	TRANSISTOR	
26	RGU1063-K	BUTTON, PRO LOGIC		Q805	2SC3312RSTA	TRANSISTOR	
27	RWJ1810220QC	FLAT CABLE (W502) (10P)				DIODE (S)	
28	RWJ1812210QC	FLAT CABLE (W501) (12P)		D351	MA165	DIODE	
				D352	MA4068M	DIODE	Δ
				D361	MA4091-M	DIODE	Δ
				D362	MA165	DIODE	
				D371	MA165	DIODE	

Ref.No.	Part No.	Part Name & Description	Remarks	Ref.No.	Part No.	Part Name & Description	Remarks
D551	MA165	DIODE					
D701-704	1N5402BF	DIODE	△	S801	EVQ21405R	POWER	
D705, 706	RL1N4003N02	DIODE	△	S802	EVQ21405R	ON/OFF	
D711	MA165	DIODE		S803	EVQ21405R	MODE	
D712	MA4240H	DIODE		S804	EVQ21405R	DELAY TIME	
D714	MA4062-H	DIODE	△	S805	EVQ21405R	TEST	
D715, 716	MA4150M	DIODE	△			RELAY (S)	
D751-754	RL1N4003N02	DIODE	△				
D755	MA4082LTA	DIODE	△	RL701	RSY0013M-0	RELAY	△
D756	MA165	DIODE		RL703	RSY0011-0		△
D757	MA4240H	DIODE				CONNECTOR(S) AND SOCKET(S)	
D801	MA165	DIODE					
D802	MA4100MTA	DIODE	△	CN501-1-3	RJS1A6604	CONNECTOR(4P)	
D803-806	MA165	DIODE		CN502-1, 2	RJS1A6605	CONNECTOR(5P)	
D807	MA4100MTA	DIODE	△	CN601	RJU057W004	SOCKET(4P)	
D808-811	SLR-305VC	L. E. D.		CN701-713	RJS1A1101T1	SOCKET(1P)	
D813, 814	MA165	DIODE		CN703-1, 2	RJS1A6604	CONNECTOR(4P)	
D817	MA165	DIODE		CN715	RJU057W004	SOCKET(4P)	
D851, 852	MA165	DIODE		CN801	RJU057W004	SOCKET(4P)	
D861, 862	MA165	DIODE		CP601	RJT057W004-1	CONNECTOR(4P)	
		VARIABLE RESISTOR(S)		CP715	RJT057W004-1	CONNECTOR(4P)	
				CP801	RJT057W004-1	CONNECTOR(4P)	
VR601	EVJYV1F03G24	TREBLE				JACK(S)	
VR602	EVJYV1F03G24	BASS					
VR603	EVJY91F03C24	S. BASS					
VR808, 809	EVNDXAA00B23	OUTPUT POWER METER					
		THERMISTOR(S)		JK201	RJT065K20	CONNECTOR(20P)	
				JK301	RJJ67TA02	HEADPHONES JACK	
				JK351	SJT3213	CONNECTOR(2P)	
TH801, 802	ERTD2ZHL104T	THERMISTOR		JK501	RJR0054	SPEAKER TERMINAL (MAIN)	
		COIL (S)		JK502	RJH2301MS	SPEAKER TERMINAL (SURROUND)	
				JK701	SJS9236	AC INLET	△
						EARTH TERMINAL (S)	
L501, 502	SLQY07G-40	COIL		E501	SNE1004-2	GND PLATE	
L551, 552	ELEY1R0KA	COIL		E701	SNE1004-2	GND PLATE	
L701	RLQZ271M	COIL	(EG)△			FUSE HOLDER(S)	
		TRANSFORMER (S)					
				FC1-6	EYF52BC	FUSE HOLDER	
PT701	RTP1N5B019-W	POWER TRANSFORMER	△				
		LAMP (S)					
PL801-806	XAMR131	LAMP					
		FUSE (S)					
F1	XBA2C16TB0	FUSE, 250V T1. 6A	△				
F701, 702	XBA2C16TB0	FUSE, 250V T1. 6A	△				
		SWITCH(ES)					

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, 1 K=1,000 (OHM), 1 M=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	R555, 556	ERDS2TJ102	1/4W 1K	R807, 808	ERDS2TJ222	1/4W 2.2K
R217, 218	ERDS2TJ102	1/4W 1K	R557, 558	ERDS1FVJ4R7T	1/2W 4.7 Δ	R809, 810	ERDS2TJ103	1/4W 10K
R223, 224	ERDS2TJ472	1/4W 4.7K	R559	ERDS2TJ271	1/4W 270	R811, 812	ERDS2TJ821	1/4W 820
R253, 254	ERDS2EJ121	1/4W 120	R560	ERDS2TJ393	1/4W 39K	R815	ERDS2TJ103	1/4W 10K
R255	ERDS2TJ154	1/4W 150K	R561	ERDS2TJ223	1/4W 22K	R816	ERDS2TJ104	1/4W 100K
R256	ERDS2TJ105T	1/4W 1M	R563, 564	ERDS2EJ121	1/4W 120	R817, 818	ERDS2TJ221	1/4W 220
R259	ERDS2TJ561	1/4W 560	R571	ERDS2TJ823T	1/4W 82K	R819	ERDS2TJ104	1/4W 100K
R291, 292	ERDS2TJ563	1/4W 56K	R572	ERDS2TJ124T	1/4W 120K	R820	ERDS2TJ102	1/4W 1K
R301, 302	ERDS2TJ223	1/4W 22K	R573	ERDS2TJ563	1/4W 56K	R821, 822	ERDS2TJ123	1/4W 12K
R303, 304	ERDS2TJ333	1/4W 33K	R574	ERDS2TJ564	1/4W 560K	R823, 824	ERDS2TJ154	1/4W 150K
R305, 306	ERDS2TJ223	1/4W 22K	R575	ERDS2TJ223	1/4W 22K	R825, 826	ERDS2TJ223	1/4W 22K
R307, 308	ERDS2TJ102	1/4W 1K	R591-593	ERDS2TJ104	1/4W 100K	R827, 828	ERDS2TJ102	1/4W 1K
R309-312	ERDS2EJ121	1/4W 120	R595, 596	ERDS2TJ102	1/4W 1K	R829	ERDS2TJ471	1/4W 470
R351	ERDS2TJ183T	1/4W 18K	R598	ERDS2TJ561	1/4W 560	R830-832	ERDS2TJ331	1/4W 330
R352	ERDS2TJ473	1/4W 47K	R599	ERDS2TJ105T	1/4W 1M	R833, 834	ERDS2TJ471	1/4W 470
R353	ERDS2TJ183T	1/4W 18K	R601, 602	ERDS2TJ682T	1/4W 6.8K	R836, 837	ERDS2TJ222	1/4W 2.2K
R354	ERDS2TJ104	1/4W 100K	R603, 604	ERDS2TJ333	1/4W 33K	R838	ERDS2TJ821	1/4W 820
R355	ERDS2TJ103	1/4W 10K	R605, 606	ERDS2TJ123	1/4W 12K	R839	ERDS2TJ102	1/4W 1K
R356	ERDS2TJ332	1/4W 3.3K	R607, 608	ERDS2TJ472	1/4W 4.7K	R840	ERDS2TJ122	1/4W 1.2K
R357	ERDS1FVJ100T	1/2W 10 Δ	R609, 610	ERDS2TJ332	1/4W 3.3K	R841	ERDS2TJ152	1/4W 1.5K
R358	ERDS1FVJ220T	1/2W 22 Δ	R611, 612	ERDS2TJ122	1/4W 1.2K	R845, 846	ERDS2TJ103	1/4W 10K
R359	ERDS2TJ273	1/4W 27K	R613, 614	ERDS2TJ683	1/4W 68K	R851	ERDS2TJ221	1/4W 220
R360	ERDS2TJ222	1/4W 2.2K	R615, 616	ERDS2TJ123	1/4W 12K	R852	ERDS2TJ103	1/4W 10K
R361	ERDS2TJ474	1/4W 470K	R617, 618	ERDS2TJ562	1/4W 5.6K	R853-855	ERDS2TJ222	1/4W 2.2K
R362	ERDS2TJ102	1/4W 1K	R619, 620	ERDS2TJ681	1/4W 680	R861, 862	ERDS2EJ121	1/4W 120
R363, 364	ERDS2TJ472	1/4W 4.7K	R621, 622	ERDS2TJ563	1/4W 56K	R863	ERDS2TJ222	1/4W 2.2K
R371, 372	ERDS2TJ273	1/4W 27K	R623, 624	ERDS2TJ123	1/4W 12K	R864, 865	ERDS2TJ221	1/4W 220
R373	ERDS2TJ222	1/4W 2.2K	R631-634	ERDS2TJ224T	1/4W 220K	R871, 872	ERDS2TJ392T	1/4W 3.9K
R374	ERDS2TJ273	1/4W 27K	R651, 652	ERDS2TJ561	1/4W 560			
R375	ERDS2TJ822	1/4W 8.2K	R653, 654	ERDS2EJ121	1/4W 120			CAPACITORS
R391	ERDS2TJ393	1/4W 39K	R655	ERDS2TJ561	1/4W 560			
R501, 502	ERDS2TJ102	1/4W 1K	R701	ERQ16NKW2R2E	1/6W 2.2 Δ	C251	ECEA0JKA221B	6.3V 220U
R503-506	ERDS2TJ563	1/4W 56K	R702	ERD2FCVJ4R7T	1/4W 4.7 Δ	C301, 302	ECEA1HKA3R3B	50V 3.3U
R509, 510	ERDS2TJ182	1/4W 1.8K	R703, 704	ERDS2TJ562	1/4W 5.6K	C303, 304	ECBT1H150J5	50V 15P
R511	ERDS2TJ334	1/4W 330K	R705, 706	ERGSJ471E	1W 470 Δ	C305, 306	ECBT1H330J5	50V 33P
R512	ERDS2TJ154	1/4W 150K	R707	ERDS1FVJ820T	1/2W 82 Δ	C307, 308	ECEA1CKA220B	16V 22U
R513	ERDS2TJ684	1/4W 680K	R708	ERDS2TJ472	1/4W 4.7K	C353	ECEA1HKA2R2B	50V 2.2U
R514	ERD25FJ470	1/4W 47 Δ	R709	ERGSJ391E	1W 390 Δ	C361	ECEA1CKA101B	16V 100U
R515, 516	ERDS1FVJ100T	1/2W 10 Δ	R711	ERGSJ331E	1W 330 Δ	C362	ECEA1CKA100B	16V 10U
R517, 518	ERD25FVJ100T	1/4W 10 Δ	R716	ERDS2TJ393	1/4W 39K	C371	RCE0JKA221BV	6.3V 220U
R523	ERDS2TJ223	1/4W 22K	R717	ERDS2TJ473	1/4W 47K	C372	ECBT1E2232F	25V 0.22U
R524	ERDS2TJ103	1/4W 10K	R721, 722	ERGSJ271E	1W 270	C373	ECBT1H1042F5	50V 0.1U
R525	ERDS2TJ223	1/4W 22K	R761-764	ERDS2TJ1R0	1/4W 1.0	C381, 382	ECBT1E1032F	25V 0.01U
R550	ERDS2TJ222	1/4W 2.2K	R765	ERDS2TJ102	1/4W 1K	C397, 398	ECBT1E1032F	25V 0.01U
R551, 552	ERDS2TJ183T	1/4W 18K	R766	ERDS2TJ223	1/4W 22K	C501, 502	ECA1HAP3R3B	50V 3.3U
R553, 554	ERDS2TJ332	1/4W 3.3K	R780	ERDS2TJ822	1/4W 8.2K	C503, 504	ECBT1H151KB5	50V 150P
			R801, 802	ERDS2TJ272T	1/4W 2.7K	C505, 506	ECBT1H150J5	50V 15P
			R803, 804	ERDS2TJ104	1/4W 100K	C509, 510	ECA1HAP220B	50V 22U
			R805, 806	ERDS2TJ155	1/4W 1.5M	C511, 512	ECBT1H821KB5	50V 820P

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
C513	ECA1HM470B	50V 47U	C611-614	ECEA1HKA3R3B	50V 3.3U	C762	ECBT1E103ZF	25V 0.01U
C514	ECA2AAP100B	100V 10U	C615, 616	ECEA1HKA010B	50V 1U	C799	ECBT1H104ZF5	50V 0.1U
C515, 516	ECBT1H104ZF5	50V 0.1U	C617, 618	ECQV1H124JM3	50V 0.12U	C801, 802	ECEA1EKN3R3B	25V 3.3U
C550	RCE0JKA221BV	6.3V 220U	C619, 620	ECEA1HKA010B	50V 1U	C803, 804	ECEA1HKA2R2B	50V 2.2U
C551, 552	ECBT1H102KB5	50V 1000P	C621, 622	ECQV1H334JM3	50V 0.33U	C805	ECEA1HKA4R7B	50V 4.7U
C553, 554	ECEA1HKA3R3B	50V 3.3U	C631, 632	ECEA1HKA3R3B	50V 3.3U	C806	ECEA0JKA221B	6.3V 220U
C555, 556	ECEA1HKA220B	50V 22U	C633, 634	ECQB1H272JF3	50V 2700P	C807	ECBT1H104ZF5	50V 0.1U
C557, 558	ECA1VM471B	35V 470U	C653	ECEA1CKA101B	16V 100U	C808, 809	ECBT1E223ZF	25V 0.022U
C559, 560	ECQV1H473JM3	50V 0.047U	C701, 702	ECES1H822VNG	50V 8200U Δ	C810	ECEA1HKA4R7B	50V 4.7U
C561	RCE1EM221BV	25V 220U	C703, 704	ECEA1CKA330B	16V 33U	C811	ECBT1H220J5	50V 22P
C562	ECEA1HKA010B	50V 1U	C705, 706	ECBT1H104ZF5	50V 0.1U	C812	ECBT1H151KB5	50V 150P
C563	ECQV1H104JM3	50V 0.1U	C707	ECA1HM471B	50V 470U Δ	C851, 852	ECEA1HKA3R3B	50V 3.3U
C565, 566	ECBT1H101KB5	50V 100P	C708	ECEA1CKA100B	16V 10U	C855, 856	ECBT1C682KR5	16V 6800P
C571	ECEA0JKA101B	6.3V 100U	C709, 710	ECBT1E103ZF	25V 0.01U	C857	ECBT1E103ZF	25V 0.01U
C572	ECBT1E223ZF	25V 0.022U	C711	ECQE1104KF3	100V 0.1U	C905, 906	ECBT1H101KB5	50V 100P
C599	ECBT1C103MS5	16V 0.01U	C712	ECBT1E223ZF	25V 0.022U	C1101, 1102	ECBT1E223ZF	25V 0.022U
C601, 602	ECEA1HKA3R3B	50V 3.3U	C714	ECKR1H103ZF5	50V 0.01U	C1103-1106	ECBT1H102KB5	50V 1000P
C603-606	ECBT1H101KB5	50V 100P	C731, 732	ECKR1H103ZF5	50V 0.01U	C1107, 1108	ECBT1E223ZF	25V 0.022U
C607, 608	ECBT1H151KB5	50V 150P	C751	ECKWNS103ZVS	400V 0.01U	C1109-1111	ECBT1H102KB5	50V 1000P
C609, 610	ECBT1E103ZF	25V 0.01U	C761	ECA1EM102B	25V 1000U			

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.

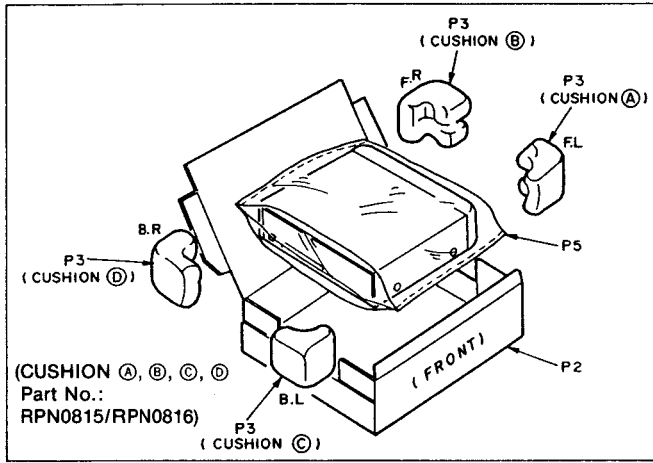
*Remote Control Ass'y: Supply period for three years from termination of production.

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

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
				A1	RAK-CH729WH	REMOTE CONTROL TRANSMITTER	
		PACKING MATERIALS		A1-1	RKK0020-K	BATTERY COVER	
				A2	REED0393	SPEAKER CORD	
P1	RPG2130-1	PACKING CASE (SYSTEM)	(E, EG)	A3	REX0511	FLAT CABLE (LONG) (15P)	
P1	RPG2144	PACKING CASE (SYSTEM)	(EB)	A4	REX0608	FLAT CABLE (SHORT) (20P)	
P2	RPG2230	PACKING CASE (AMPLIFIER)		A5	RJA0019-2A	AC POWER SUPPLY CORD	(E, EG) Δ (SF)
P2	RPG2231	PACKING CASE (DECK)		A5	VJA0733	AC POWER SUPPLY CORD	(EB) Δ (SF)
P2	RPG2232	PACKING CASE (TUNER/CD)		A6	RFKSECA1060E	INSTRUCTION MANUAL ASS'Y	(E)
P3	RPNO814	CUSHION (AMPLIFIER)		A6	RFKSCA1060EB	INSTRUCTION MANUAL ASS'Y	(EB)
P3	RPNO815	CUSHION (DECK)		A6	RQT2554-2E	INSTRUCTION MANUAL	(EG)
P3	RPNO816	CUSHION (TUNER/CD)		A7	RQA0013	WARRANTY CARD	
P4	RPQ0458	SPACER		A8	RQC00169	SERVICENTER LIST	
P5	SPP740	PROTECTION BAG (UNIT)		A9	RSA0007	FM INDOOR ANTENNA	
P6	RPQF0047	ACCESSORIES BOX		A10	RSA0012	AM LOOP ANTENNA	
P7	XZB25X34C03Y	3PROTECTION BAG (F. B., ACC.)		A10-1	RMNO244	ANTENNA HOLDER	
		ACCESSORIES		A10-2	XTN3+12AFZ	SCREW	
				A11	SJP9009	ATTACHMENT PLUG	(EB) Δ
				A12	RJL1P005B99	SURROUND SPEAKER CABLE	

PACKAGING

- ST-CA1080: Stereo Tuner
- SL-CA1060: Compact Disc Player
- RS-CA1060: Cassette Deck



- SE-CA1080: Stereo Amplifier

