Stereo Integrated Amplifier

SU-A700M

Colour (K) Black Type



Areas

(E)	Europe
(EB)	Great Britain
(EG)	Germany and Italy
(EM)	Switzerland

Specifications (DIN 45 500)

20 Hz - 20 kHz continuous power output both channels driven 2 × 45 W (8 ohm)

1 kHz continuous power output both channels driven (THD: 1%) 2 × 55 W (8 ohm), 2 × 80 W (4 ohm)

63 Hz - 12.5 kHz continuous power output both channels driven (THD: 0.7%)

 2×50 W (8 ohm), 2×70 W (4 ohm)

Total harmonic distortion rated power at 20 Hz - 20 kHz 0.01% (8 ohm)

Intermodulation distortion (50 Hz: 7 kHz = 4:1, SMPTE)

rated power

0.007% (8 ohm) Residual hum and noise

1 mV

Damping factor

60 (8 ohm), 30 (4 ohm)

Headphones output level/impedance

540 mV/330 ohm

Load impedance

A or B, 4 – 16 ohm **A and B, 8** – 16 ohm

Input sensitivity/impedance

PHONO MM, 2.5 mV/47 k ohm

TUNER, CD, AUX, TAPE 1, TAPE 2/DCC, 150 mV/22 k ohm

Phono maximum input voltage (1 kHz, RMS)

MM, 150 mV (150 mV, IHF '66)

S/N (rated power, 4 ohm)

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 ohm)

PHONO MM, 68 dB

TUNER, CD, AUX, TAPE 1, TAPE 2/DCC, 70 dB

S/N at 50 mW power (4 ohm)

PHONO MM, 64 dB

TUNER, CD, AUX, TAPE 1, TAPE 2/DCC, 64 dB

Frequency response

PHONO MM, RIAA standard curve +1 to -1 dB (30 Hz - 15 kHz)

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

3 Hz - 80 kHz (+0, -3 dB)

20 Hz - 20 kHz (+0, -0.3 dB)

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 to -1 dB

Channel separation (AUX 1 kHz), 50 dB

GENERAL

Power consumption, 200 W

Power supply

For (E), (EG), and (EM) areas, 50 Hz AC, 230 V

For (EB) area, 50 Hz AC, 230 V - 240 V

Dimensions, 430 (Wide)/ 125 (High)/ 318 (Depth) mm

Weight, 6.7 kg

Notes:

1. Specifications are subject to change without notice. Weight and dimensions are approximate.

2. Total harmonic distortion is measured by the digital spectrum analyzer.

∆WARNING

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

Technics

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■ Before Repair

- (1) Turn off the power supply. Using a 10Ω , 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 Hz in NO SIGNAL mode should be shown below with respect to supply voltage 230 V 240 V.

Power supply voltage : AC 230 V ⇔ 50~250 mA (Consumed current 50Hz)
Power supply voltage : AC 240 V ⇔ 40~240 mA (Consumed current 50Hz)

■ 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

Caution for AC Mains Lead

("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:

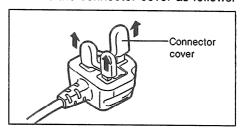
The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.

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 \perp .

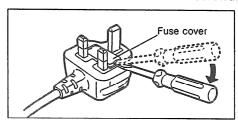
Before use

Remove the connector cover as follows.

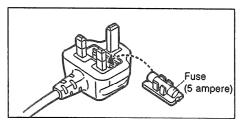


How to replace the fuse

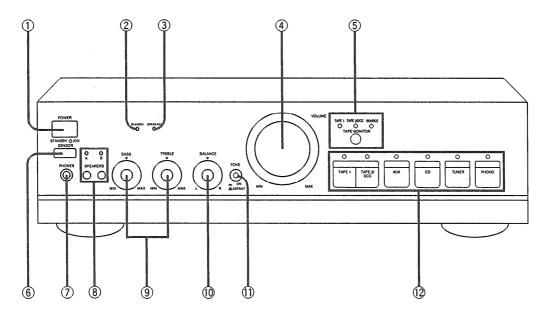
1. Remove the fuse cover with a screwdriver.



2. Replace the fuse and attach the fuse cover.



Front Panel Controls

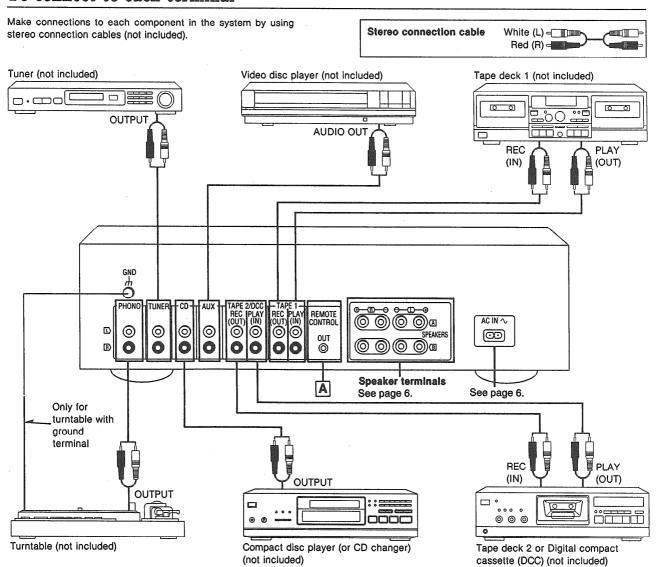


No	Name	Ref. page
1	Power "STANDBY & /ON" switch (POWER, STANDBY & /ON)	7
	Press to switch the unit from on to standby mosa. In standby mode, the unit is still constamount of power.	
2	"STANDBY" indicator (STANDBY)	_
	When the unit is connected to the AC mains dicator lights up in standby mode and goes ou is turned on.	
3	Operation indicator (OPERATION)) —
	When the power is switched ON, this indica after about 3 seconds when the unit is in the o tion.	
	If an abnormal condition in the circuitry is del DC voltage appearing in the output or a sho positive (+) and negative (-) wires from the minals, the protection circuit functions and the not illuminate.	rt-circuit of the ie speaker ter
4	Volume control (VOLUME)	7
<u></u>	Tape-monitor button/indicators (TAPE MONITOR)	7, 9

No	. Name	Ref. page
6	SU-A700MK3 only	
	Remote control signal sensor	
	(SENSOR)	_
	Receives the signals from the remote control.	
7	Headphones jack (PHONES)	8
(8)	Speaker select buttons/indicators	
Ŭ	(SPEAKERS)	7
9	Tone controls (BASS/TREBLE)	8
100	Palance control (PALANCE)	8
10	Balance control (BALANCE)	· · ·
11)	Tone control button (TONE)	8
12	Input select buttons/indicators	7, 9

Connections

To connect to each terminal



A "REMOTE CONTROL OUT" terminal

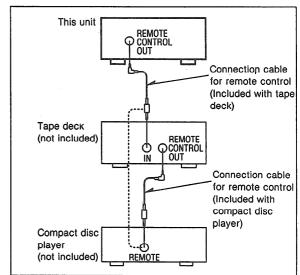
SU-A700MK3 only

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.

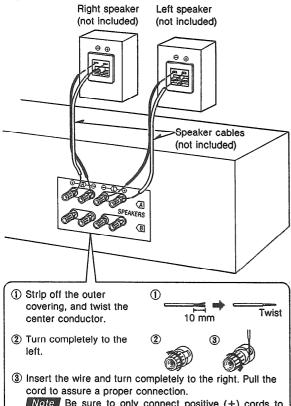
If a tape deck is not being used, the CD player (or CD changer) can be connected directly (dotted line).

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



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.

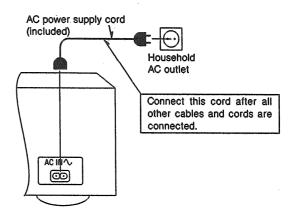
Speaker impedance

- 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.) Cooling fan

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.

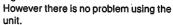


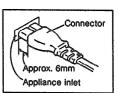
Note

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

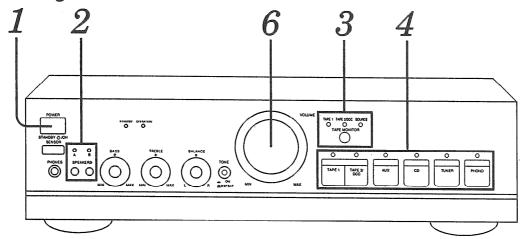
Insertion of Connector

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.

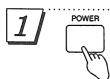




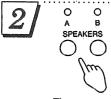
Listening to Sound



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



Press POWER to switch on the power.



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

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

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

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.)





© SOURCE Press TAPE MONITOR so that the "SOURCE" in-

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.





Press to select the desired source.

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

TAPE 1: To listen to tape (TAPE 1).

TAPE 2/DCC: To listen to tape (TAPE 2) or digital compact cassette (DCC).

AUX: To listen to equipment connected to the "AUX" terminals.

CD: To listen to compact discs.

TUNER: To listen to radio broadcasts.

PHONO: To listen to phono discs.

5

Start the desired source.

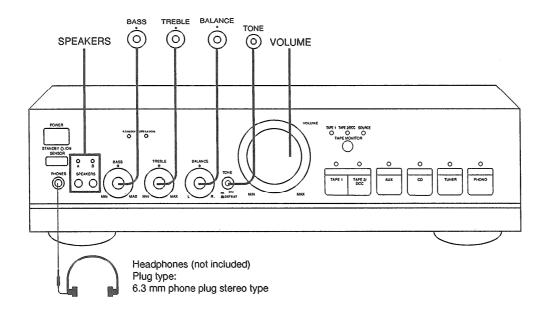
(Refer to the appropriate operating instructions for details.)



VOLUME Turn VOLUME to adjust the volume level.

After listening is finished

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

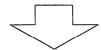


To adjust the tone quality

TONE
ON
DEFEAT

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.



Turn TREBLE to adjust the high-frequency sound.

To adjust the sound 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.

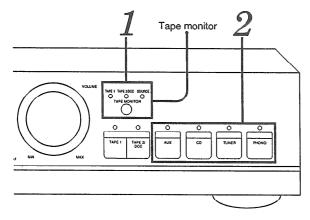
Note

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.



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



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.



Begin recording.

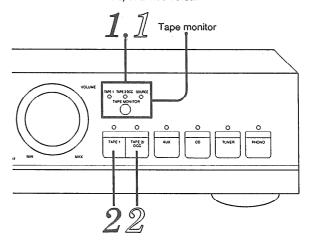
Follow your tape deck's or DCC's operating instructions.



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

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



Press "TAPE 2/DCC".



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

To record from tape deck 1 to 2

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

Press "TAPE 1".

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.



TAPE 1 TAPE 2000C SOURCE 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

■ Troubleshooting Guide

Before requesting service for this unit, check the chart below for a possible cause of the problem you are experiencing. Some simple checks or a minor adjustment on your part may eliminate the problem and restore proper operation.

Problem	Probable cause(s)	Suggested remedy		
Problems noted at	all times			
No sound is heard when the power is switched ON.	The power cord plug is not completely inserted.	 Confirm that the power cord plug is connected completely. 		
power to outline to the	Connections to the speakers, etc. are incomplete or incorrect.	 Check to be sure that all connection wires are correctly connected. 		
	The input selector setting is incorrect.	 Check to be sure that the selection of the desired sound source is made correctly. 		
	The speaker selector is set incorrectly.	Set it to the correct position.		
	The tape monitor function is on. (TAPE 1 or TAPE 2/DCC indicator is illuminated)	 When listening to a source other than a tape or DCC, press TAPE MONITOR so that the "SOURCE" indicator illuminates. 		
When listening to stereo sound, the sound lacks depth (i.e. thin bass, tinny sound).	One of the speakers is connected out of phase $[(+)\rightarrow(-), (-)\rightarrow(+)]$.	 Reconnect the speakers maintaining proper polarity [i.e., (+)→(+), (-)→(-)]. 		
When listening to stereo sound, the left and right sounds are reversed.	The left and right speaker connections, source connections, or graphic equalizer connections are reversed.	Check all connections and correct them if necessary.		
A low-pitched noise ("hum" or "buzz") is heard.	The power cord or a fluorescent light, etc., is near the connection wires.	 Try separating this unit as far as possible from the electric appliance. 		
Sound is not heard from one of the speakers.	The speaker wires are disconnected.	Check and correct the connections of the speaker wires.		
one or the openiors.	The balance control is set too far to one side.	 Set so that sounds are heard at the center, between the speakers. 		
Sound stops during a performance, or no sound is heard when the power is switched ON.	The protection circuitry has functioned because the positive and negative speaker connection wires are "shorted", speakers with an impedance less than the indicated rated impedance of the amplifier are used, or DC voltage appears in the output, causing the protection circuitry to function.	Turn the unit OFF, and, after determining and correcting the cause, turn the unit ON once again. Use the speakers of the proper impedance rating.		

Operation Check and Main Component Replacement Procedures

NOTE

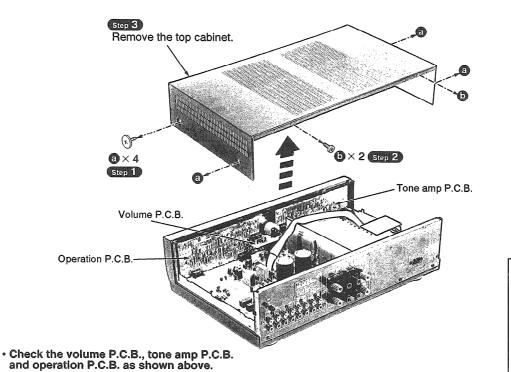
- 1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
- 2. For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.
- 3. Select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

Contents

•Checking Procedure for each P.C.B. 1.Checking for the volume P.C.B., tone amp P.C.B. and operation P.C.B • • • • • • • • • • • • • • • • • •	
•Main Component Replacement Procedures 1.Replacement for the power IC. • • • • • • • • • • • • • • • • • • •	•••14.

Checking Procedure for each P.C.B.

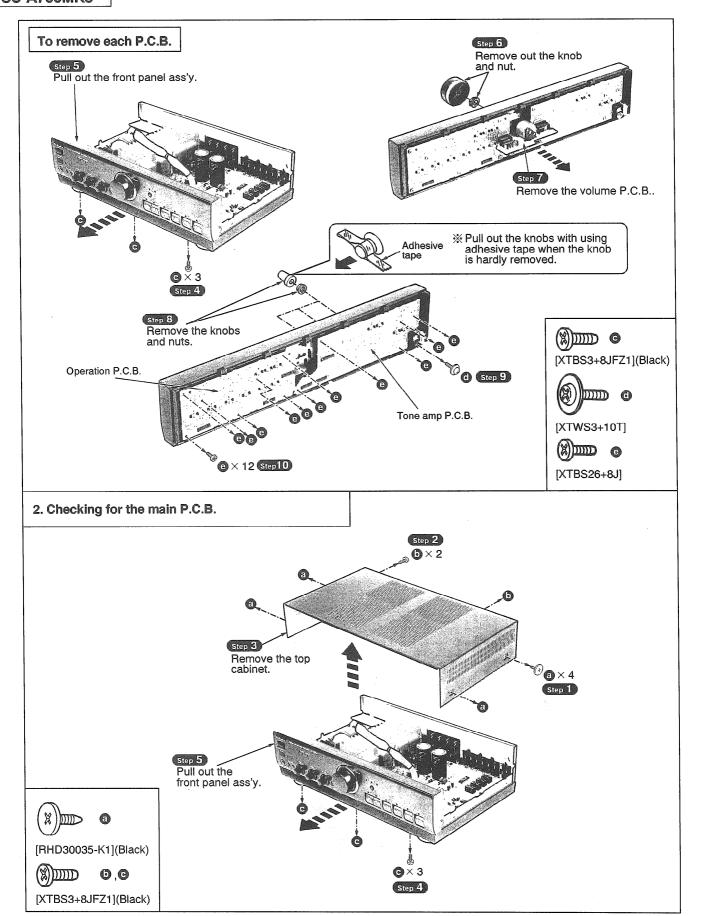
1. Checking for the volume P.C.B., tone amp P.C.B. and operation P.C.B.

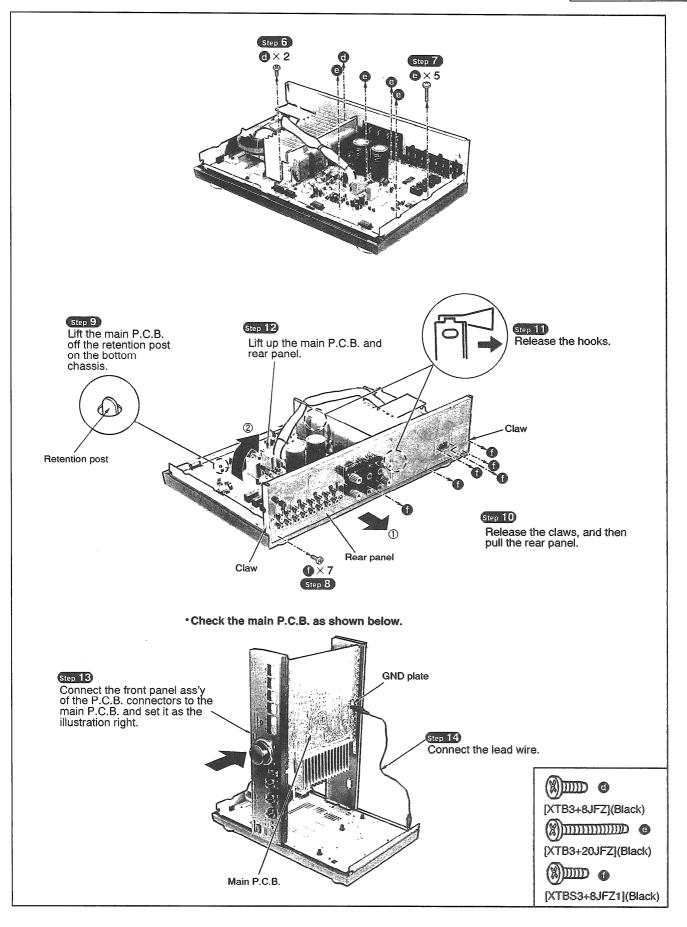


X DID

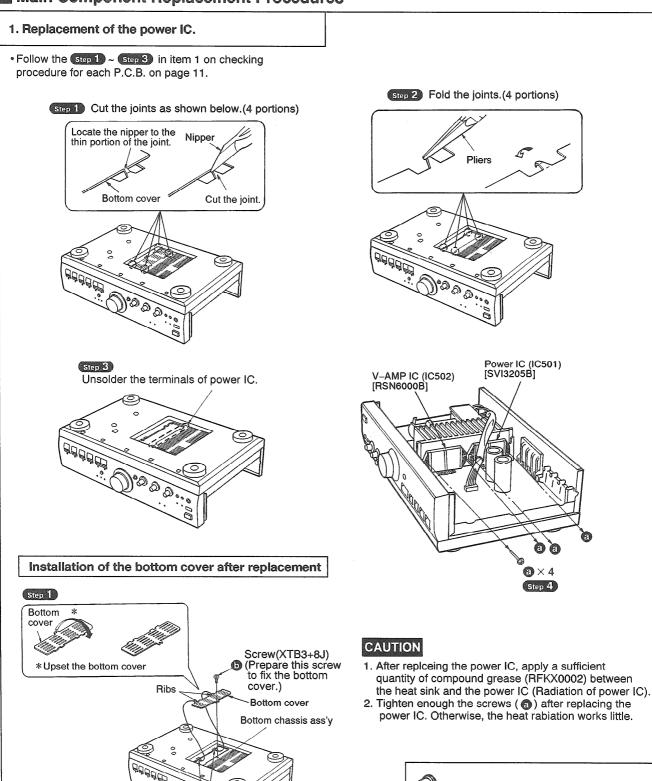
[RHD30035-K1] (Black)

[XTBS3+8JFZ1] (Black)





Main Component Replacement Procedures



Align the ribs of bottom cover with lugs.

(XTW3+15T)

[XTB3+8J](Black)

(Prepare this screw to fix the bottom cover.)

Schematic Diagram

Notes:

- \$204: TONE control switch (ON/DEFEAT).
- \$801: TAPE MONITOR switch.
- \$802: Input selector switch (TAPE 1).
- \$803: Input selector switch (TAPE 2/DCC).
- \$804: Input selector switch (AUX).
- \$805: Input selector switch (CD).
- \$806: Input selector switch (TUNER).
- \$807: Input selector switch (PHONO).
- \$810: Speaker select switch (SPEAKER A).
- \$811: 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:

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.

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

- : Negative voltage line.

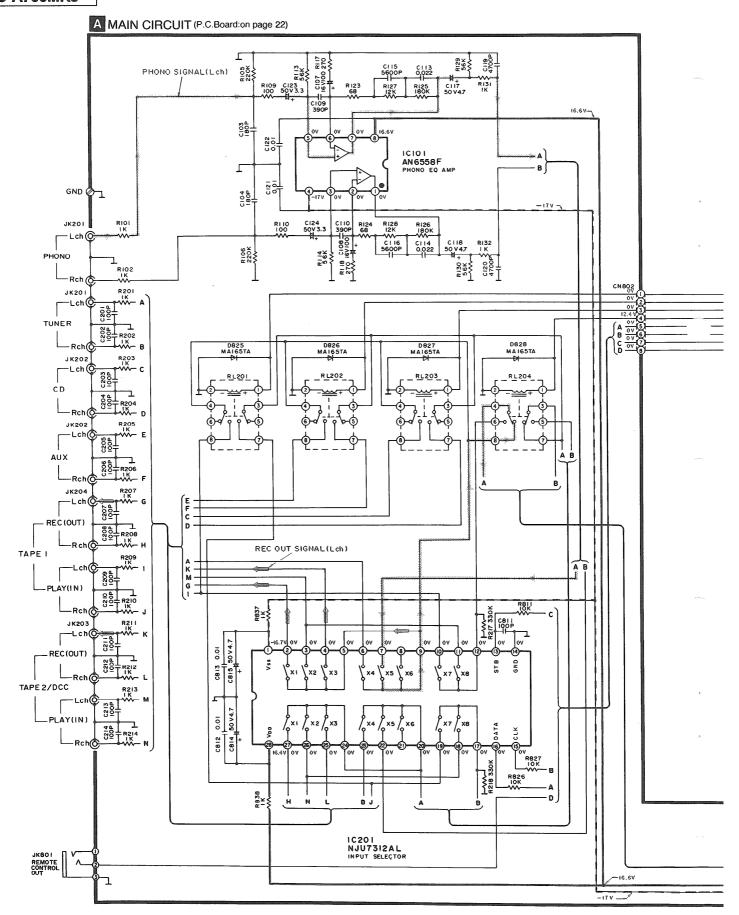
. Positive voltage line.

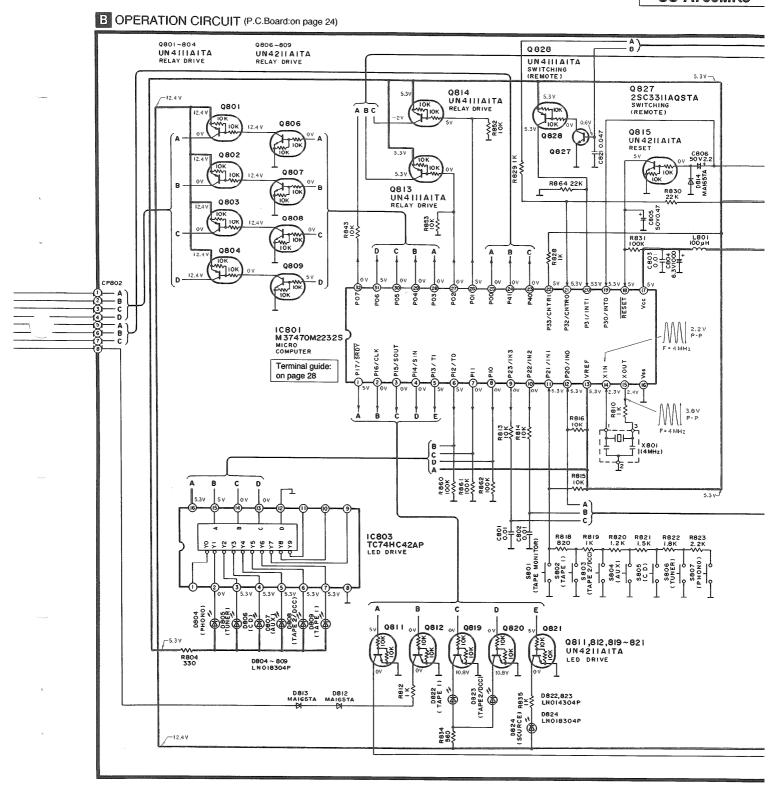
: Phono signal line.

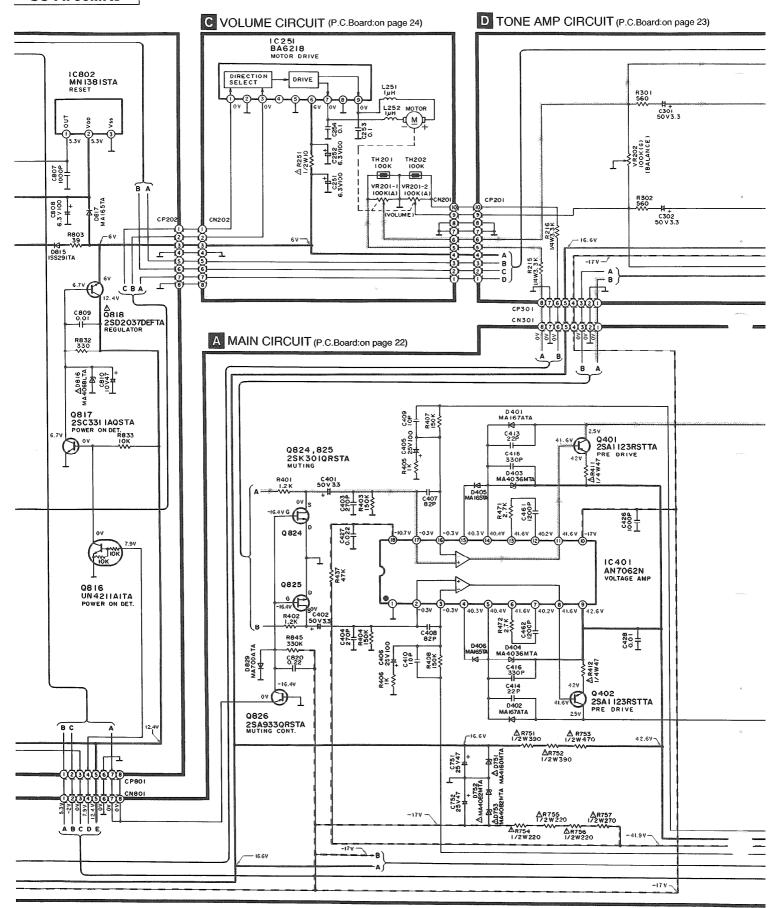
: Recording output signal line.

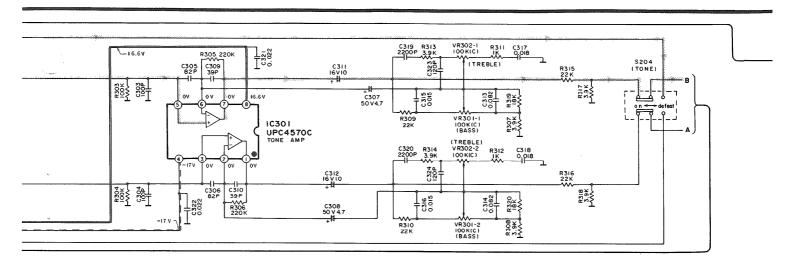
• The supply part number is described alone in the replacement parts list.

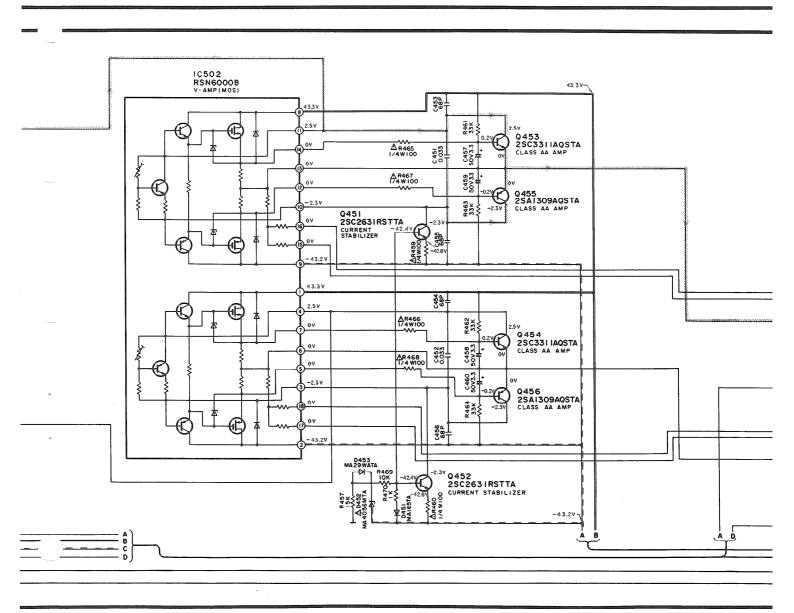
Part No.	Production Part No.	Supply Part No.
IC502	RSN6000B	RSN6000A
Z801	RCDHC-237-E	RCDHC-237

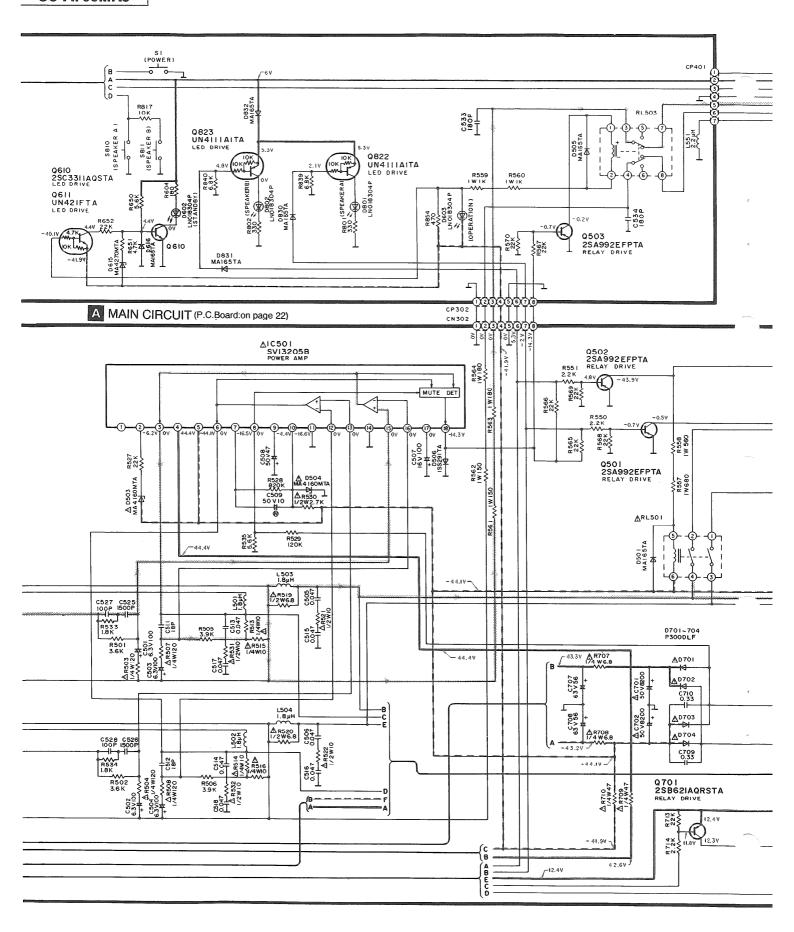


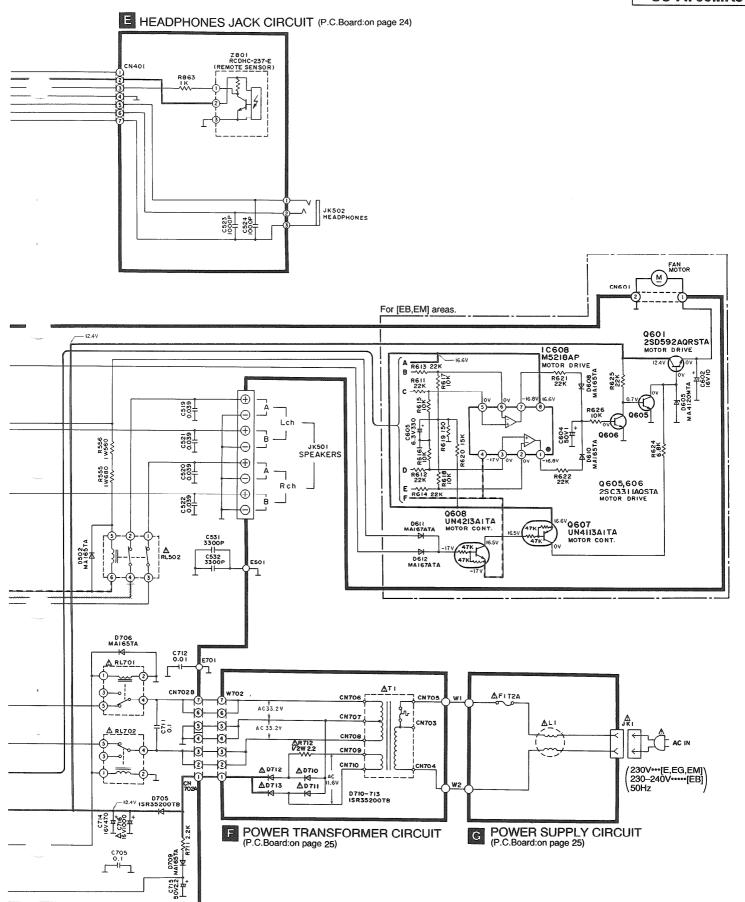




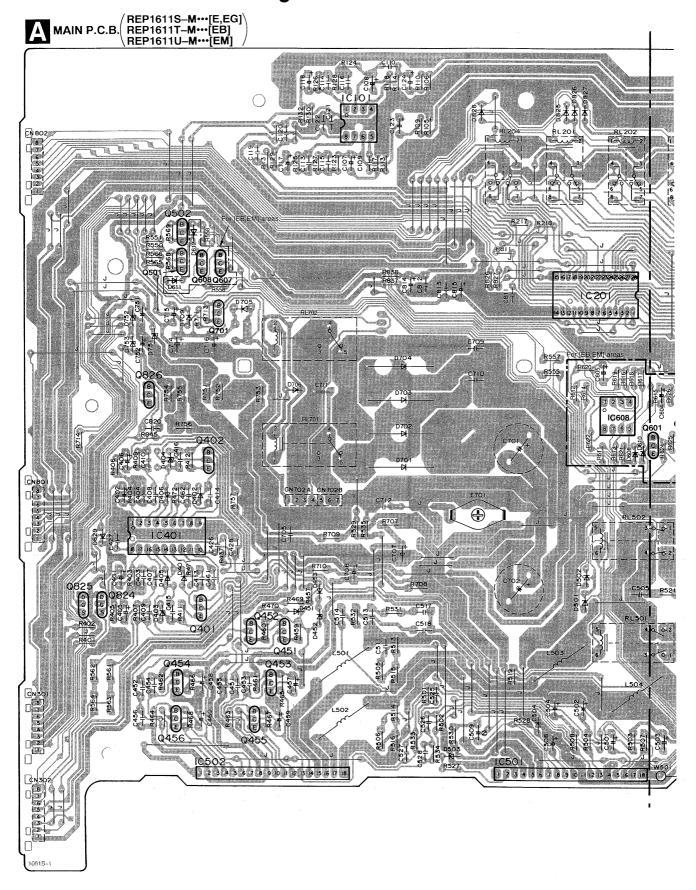


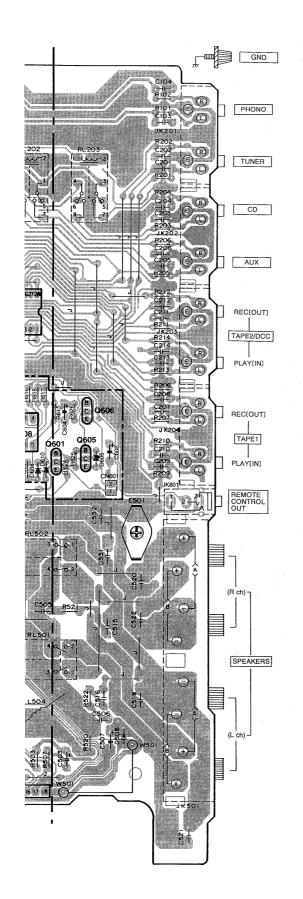


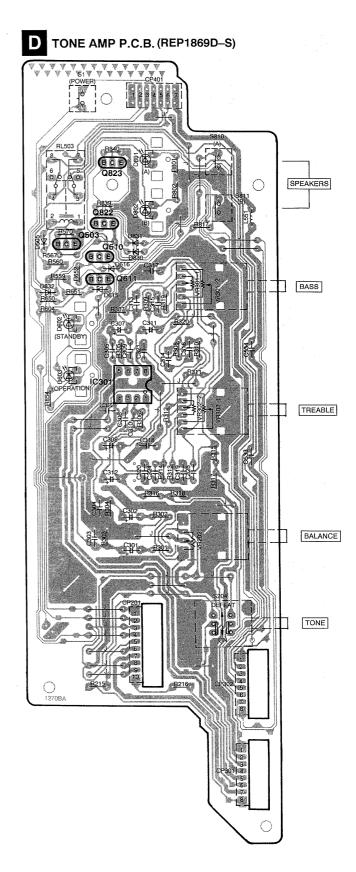


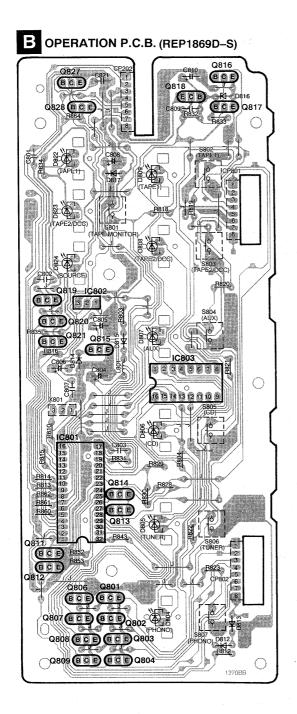


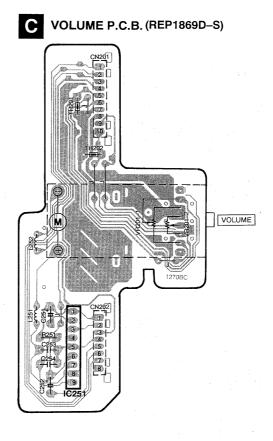
■ Printed Circuit Board Diagram





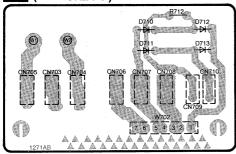


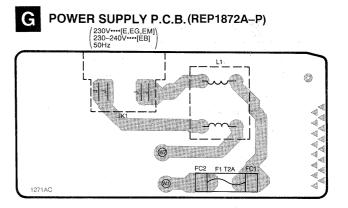






POWER TRANSFORMER P.C.B. (REP1872A-P)

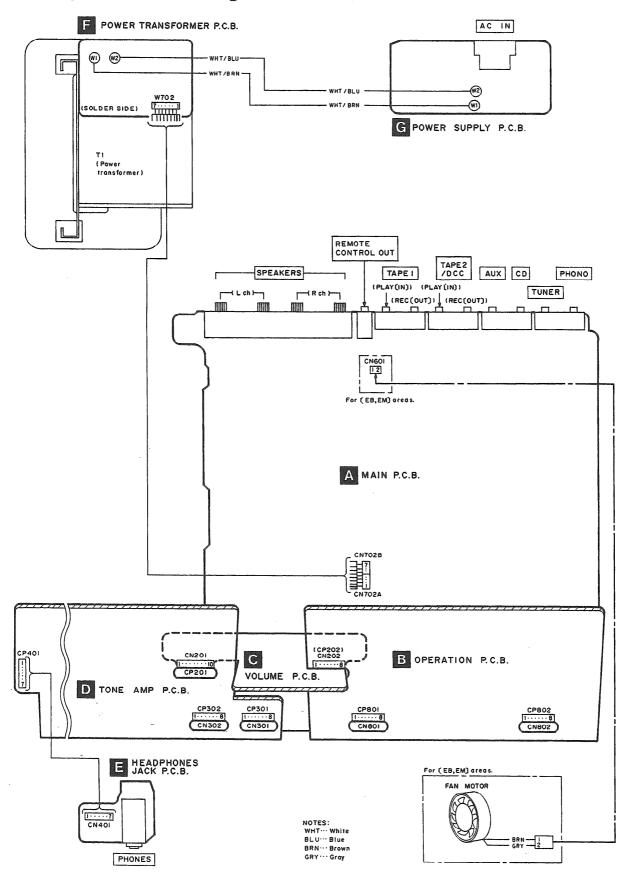




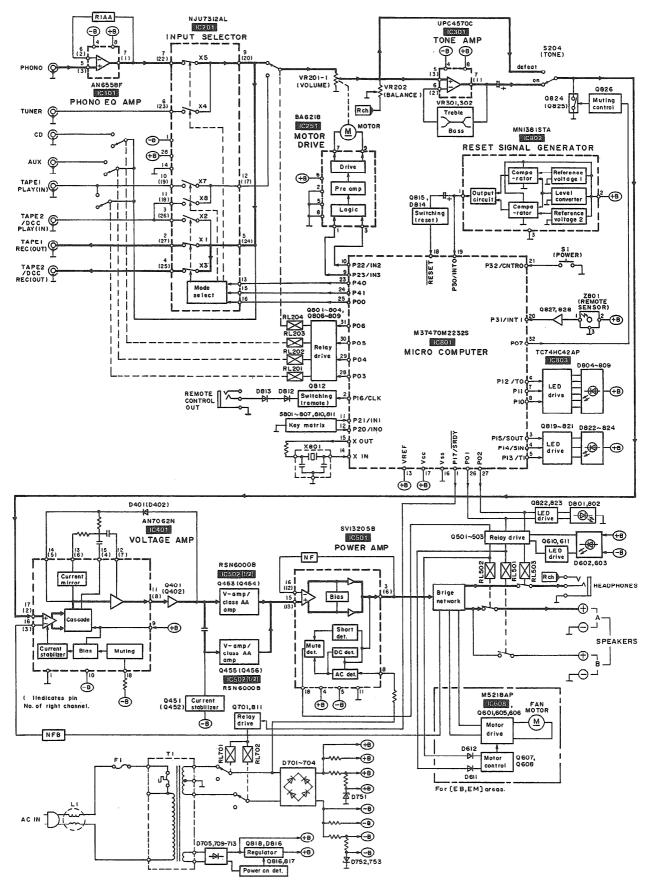
• Terminal guide of IC's, Transistors and Diodes

RSN6000A SVI3205B	AN6558F	M5218AP	NO.1	UPC4570C 8PIN AN7062N 18PIN NJU7312AL 28PIN	BA6218
	TC74HC42AP 8PIN M37470M2232S 32PIN	MN1381STA	E _{C B}	2SA933QRSTA 2SA992EFPTA 2SA1123RSTTA 2SB621AQRSTA 2SC2631RSTTA 2SD592AQRSTA	2SK301QRSTA
E _{C B}	2SA933QRSTA 2SA992FEPTA 2SA1123RSTTA 2SB621AQRSTA 2SC2631RSTTA 2SD592AQRSTA		2SA1309AQSTA 2SC3311AQSTA JN4111AITA JN4211AITA JN421FTA	P300DLF Ca Cathode Anode	MA4160MTA MA4270MTA Ca Cathode A
Ca Catho	MA165TA MA167ATA MA29WATA MA700ATA 1SS291TA 1SR35200TB	Ca Cat	MA4036MTA MA4056MTA hode MA4068LTA MA4082MTA	LN014304P LN018304P Anode Cathode	

■ Wiring Connection Diagram



■ Block Diagram



■ Function of IC Terminals

IC801 (M37470M2232S)

1000	1C801 (M37470M2232S)						
Pin No.	Terminal Name	I/O	Function				
1	P17/SRDY	0	Relay (Power SW) drive signal output.				
2	P16/CLK	0	Remote control signal output.				
3	P15/SOUT	0	LED (TAPE 1) drive signal output.				
4	P14/SIN	0	LED (TAPE 2) drive signal output.				
5	P13/TI	0	LED (SOURCE) drive signal output.				
6	P12/TO	0					
7	P11	0	Input select LED drive signal output.				
8	P10	0					
9	P23/IN3	0	Make (all all all all all all all all all a				
10	P22/IN2	0	Motor (volume control) drive signal output.				
11	P21/IN1	ı	Input select switch signal input.				
12	P20/IN0	1	Switch (POWER, SPEAKER A/B) signal input.				
13	VREF	ı	Reference voltage input.				
14	XIN	ı	Oscillator signal I/O terminal // MUL-				
15	XOUT	0	Oscillator signal I/O terminal. (4 MHz)				
16	vss	_	GND terminal.				

Pin No.	Terminal Name	I/O	Function
17	vcc	1	Power supply (+5V).
18	RESET	ı	System reset signal input.
19	P30/INTO	1	Back-up detect signal input.
20	P31/INTI	ı	Remote control receive signal input.
21	P32/CNRO	ı	Power SW signal input.
22	P33/CNRI	_	No used. Connected to GND.
23	P40	0	Strobe signal input for Input Selector IC (IC201).
24	P41	0	Clock signal input for Input Selector IC (IC201).
25	P00	o	Data signal input for Input Selector IC (IC201).
26	P01	0	SPEAKER A select signal output.
27	P02	0	SPEAKER B select signal output.
28	P03	0	
29	P04	0	
30	P05	0	Selector Relay drive signal output.
31	P06	0	
32	P07	0	Audio muting control signal output.

■ Replacement Parts List

Notes: *Important safety notice:

Components identified by \(\triangle \) 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 manufacture'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.

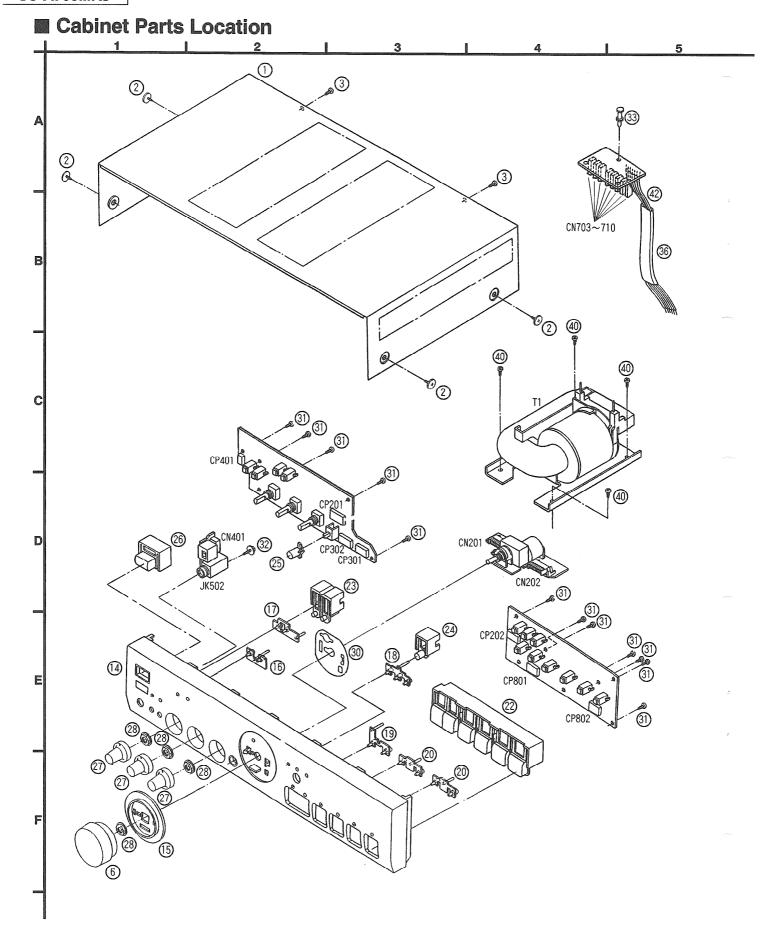
*The *(SF)* mark denotes the standard part.

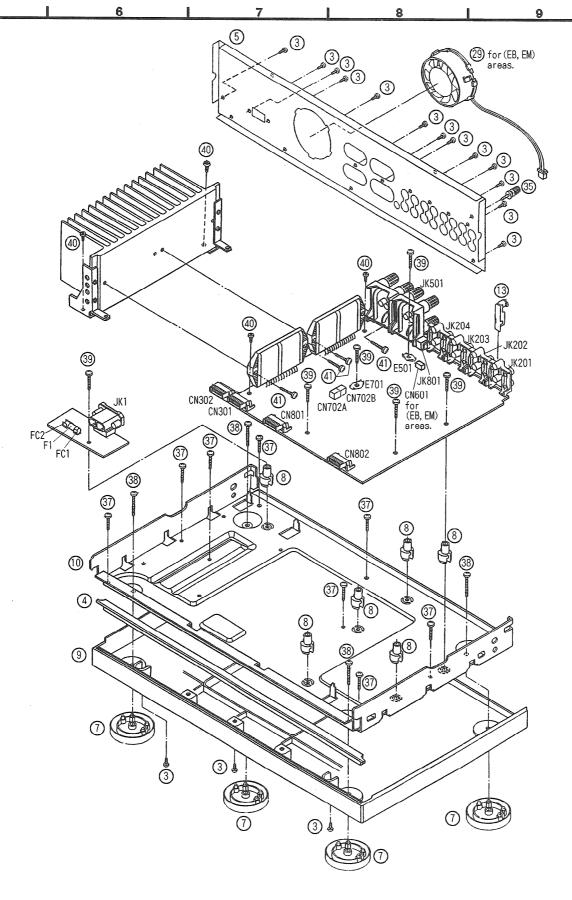
Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
				D403, 404	MA4036MTA	DIODE	
		INTEGRATED CIRCUIT (S)		D405, 406	MA165	DIODE	
				D451	MA165	DIODE	
IC101	AN6558F	IC, PHONO EQ AMP.		D452	MA4056MTA	DIODE	Δ
IC201	NJU7312AL	IC, INPUT SELECTOR		D453	MA29WA	DIODE	
IC251	BA6218	IC, VOLUME MOTOR DRIVE		D501, 502	MA165	DIODE	
IC301	UPC4570C	IC, TONE AMP.		D503, 504	MA4160M	DIODE	Δ
IC401	AN7062N	IC, VOLTAGE AMP.		D505	MA165	DIODE	
IC501	SV13205B	IC, POWER AMP.	Δ	D506	1SS291TA	DIODE	
IC502	RSN6000A	IC, V-AMP (MOS)		D602, 603	LN018304P	L. E. D.	
IC608	M5218AP	IC, MOTOR DRIVE	(EB, EM)	D605	MA4120MTA	DIODE	(EB, EM)
IC801	M37470M2232S	IC, MICRO COMPUTER		D608	MA165	DIODE	(EB, EM)
IC802	MN1381STA	IC, RESET		D610	MA165	DIODE	(EB, EM)
IC803	TC74HC42AP	IC, LED DRIVE		D611, 612	MA167ATA	DIODE	(EB, EM)
				D615	MA4270	DIODE	
		TRANSISTOR(S)		D616	MA165	DIODE	
				D701-704	P300DLF	DIODE	Δ
Q401, 402	2SA1123RSTTA	TRANSISTOR		D705	1SR35200TB	DIODE	
Q451, 452	2SC2631RSTTA	TRANSISTOR		D706	MA165	DIODE	
Q453, 454	2SC3311A-Q	TRANSISTOR		D709	MA165	DIODE	
Q455, 456	2SA1309A-R	TRANSISTOR		D710-713	1SR35200TB	DIODE	Δ
Q501-503	2SA992EFPTA	TRANSISTOR		D751	MA4160M	DIODE	Δ
Q601	2SD592AQRSTA	TRANSISTOR	(EB, EM)	D752, 753	MA4082MTA	DIODE	Δ
Q605, 606	2SC3311AQSTA	TRANSISTOR	(EB, EM)	D801, 802	LN018304P	L. E. D.	
Q607	UN4113	TRANSISTOR	(EB, EM)	D804-809	LN018304P	L. E. D.	
Q608	UN4213AITA	TRANSISTOR	(EB, EM)	D812-814	MA165	DIODE	
Q610	2SC3311A-Q	TRANSISTOR		D815	1SS291TA	DIODE	
Q611	UN421FTA	TRANSISTOR		D816	MA4068L	DIODE	Δ
Q701	2SB621A-R	TRANSISTOR		D817	MA165	DIODE	
Q801-804	UN4111	TRANSISTOR		D822, 823	LN014304P	L. E. D.	
Q806-809	UN4211	TRANSISTOR		D824	LN018304P	L. E. D.	<u> </u>
Q811, 812	UN4211	TRANSISTOR		D825-828	MA165	DIODE	
2813, 814	UN4111	TRANSISTOR		D829	MA700	DIODE	
Q815, 816	UN4211	TRANSISTOR		D830-832	MA165	DIODE	
Q817	2SC3311A-Q	TRANSISTOR					
Q818	2SD2037DEFTA	TRANSISTOR	Δ			VARIABLE RESISTOR(S)	
Q819-821	UN4211	TRANSISTOR					
Q822, 823	UN4111	TRANSISTOR		VR201	EUWMGEF20A15	V. R, MAIN VOLUME	
Q82 4, 825	2SK301QRS	TRANSISTOR		VR202		V. R, BALANCE	
Q826	2SA933QRSTA	TRANSISTOR		VR301	····	V. R, BASS	
Q827	2SC3311A-Q	TRANSISTOR	V-1980- S	VR302		V. R, TREBLE	
Q828	UN4111	TRANSISTOR					
						THERMISTOR (S)	
	 	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	Λ	E501	SNE1004-2	GND PLATE	
L251, 252	ELEXT1ROKA9	COIL		E701	SNE1004-2	GND PLATE	
L501-504	SLQY18G-10	COIL					
L551	ELEPK2R2MA	COIL				FUSE HOLDER(S)	
L801	ELEXT101KA9	COIL					
				FC1, 2	EYF52BC	FUSE HOLDER	
		TRANSFORMER (S)					
						RELAY (S)	
T1	RTP7K5E009-W	POWER TRANSFORMER	⚠ (E, EG, EM)				
T1	RTP7K5B005-W	POWER TRANSFORMER	⚠ (EB)	RL201-204	RSY0020M-R	RELAY	
				RL501, 502	RSY0013M-0	RELAY	Δ
		OSCILLATOR(S)		RL503	RSY0020M-R	RELAY	
				RL701, 702	RSY0019-0	RELAY	Δ
X801	EFOGC4004A4	OSCILLATOR(4 MHz)					
						JACK(S)	
		FUSE (S)		1			
				JK1	SJS9236	AC INLET	Δ
F1	XBA2C2OTBO	FUSE, 250V, T2A	\triangle	JK201	SJF3069N	INPUT TERMINAL (PHONO/TUNER)	
				JK202	SJF3069N	INPUT TERMINAL (CD/AUX)	
		SWITCH(ES)		JK203	SJF3069N	IN/OUTPUT (TAPE 2/DCC)	
				JK204	SJF3069N	IN/OUTPUT (TAPE 1)	
S1	EVQ21405R	SW, POWER		JK501	RJH4801M-1	SPEAKER TERMINAL	(E, EG, EM)
S204	ESB68046	SW, TONE CONTROL		JK501	RJH4801M-2	SPEAKER TERMINAL	(EB)
S801	EVQ21405R	SW, TAPE MONITOR		JK502	RJJ63TA01	HEADPHONES JACK	
S802	EVQ21405R	SW, TAPE 1		JK801	RJJ33TR01	REMOTE CONT. (OUT)	
S803	EVQ21405R	SW, TAPE 2/DCC					
S804	EVQ21405R	SW, AUX					
S805	EVQ21405R	SW, CD		1			
S806	EVQ21405R	SW. TUNER					
S807	EVQ21405R	SW, PHONO					
S810	EVQ21405R	SW, SPEAKER A					
S811	EVQ21405R	SW, SPEAKER B					
					-		
		CONNECTORS					
CN201	RJU003K010M1	SOCKET (10P)	1				
CN202	RJU003K008M1	SOCKET (8P)					
CN301, 302	RJU003K008M1	SOCKET (8P)					
CN401	RJU057W007	SOCKET (7P)		1			
CN601	SJT3213	CONNECTOR (2P)	(EB, EM)	1			
CN702A	RJS1A6604	CONNECTOR (4P)					
CN702B	RJS1A6603	CONNECTOR (3P)					
CN703-710	RJS1A1101T1	CONNECTOR (1P)			+		
CN801, 802	RJU003K008M1	SOCKET (8P)			-		
CP201	RJT003K010-1	CONNECTOR (10P)					
CP202	RJT003K010-1	CONNECTOR (8P)	 				
VI 202	140 10031000-1	OOMITEOTOR (OF)	1	I		<u> </u>	

Note: The reference number SA represent the grease and tool used for this unit.

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS				PACKING MATERIALS	
	RKM0114A-K	TOP CABINET	(E, EG)	P1	RPG3042	PACKING CASE	
		TOP CABINET	(EB, EM)	P2	RPN0684-2	PAD	
		SCREW	(ED, EM)	- P2 P3	ļ		
		***************************************			RPQ0164	ACCESSORY PAD	
<u> </u>		SCREW		P4	SPP756	PROTECTION COVER	
<u> </u>		ORNAMENT		P5	RPF0139	PROTECTION COVER	
<u> </u>		REAR PANEL	(E, EG)	P6	RPH0032	PROTECTION SHEET	(EB)
<u> </u>		REAR PANEL	(EB)				
i		REAR PANEL	(EM)			ACCESORIES	
	RGW0202-K	KNOB, VOLUME					
	RKA0053-A	FOOT		A1	RAK-SU129WH	REMOTE CONTROL TRANSMITTER	
1	RKQ0089	P. C. B. SUPPORT		A1-1	RKK0057-K	BATTERY COVER	
1	RKU0049-K	BOTTOM BASE		A2	RJA0019-2K	AC POWER SUPPLY CORD	⚠ (SF) (E, EG, EM)
0	RMK0202-2	BOTTOM CHASSIS		A2	RJA0049-K	AC POWER SUPPLY CORD	⚠ (EB)
3	RSC0105-2	SHIELD PLATE		A3	RQA0117	WARRANTY CARD	
4	RFKGUA700MK3	FRONT PANEL ASS' Y		A4	RQCB0169	SERVICE CENTER LIST	
15	RGK0549-S1	ORNAMENT RING		A5	RFKSA700MK3E	INSTRUCTION MANUAL ASS'Y	(E, EM)
16	RGL0184-Q1	PANEL LIGH A		A5	RFKSA700MK3B	INSTRUCTION MANUAL ASS'Y	(EB)
.7	RGL0185-Q	PANEL LIGH B		A5	RFKSA700MK3G	INSTRUCTION MANUAL ASS'Y	(EG)
18		PANEL LIGH C		11			
19	 	PANEL LIGH D				GREASE OR JIG/TOOL	
20	RGL0188-Q	PANEL LIGH E	 			0.0.00	
22	ļ	BUTTON, SELECTOR		SA1	RFKX0002	COMPOUND GREASE	
23	RGU0887-K	BUTTON, SPEAKER			14 100002	Oom oon diense	
24	RGU0888-K	BUTTON, TAPE MONITOR			1		
24 25	RGU0889-K	BUTTON, TONE			<u> </u>		
26	RGU1042-K	BUTTON, POWER					
27	RGW0177A-K	KNOB, TONE			ļ		
28	RHN90001	NUT					
29	 	FAN	(EB, EM)		ļ		
30	RSC0323	SHIELD PLATE					
31	XTBS26+8J	SCREW		_			
32	XTWS3+10T	SCREW					
33	SHR8006	RIVET					
35	SNE2123	GND SCREW					
36	RWZ120UNW240	PROTECTION TUBE					
37	XTB3+10G	SCREW					
38	XTB3+16CFN	SCREW					
39	XTB3+20JFZ	SCREW					
40	XTB3+8JFZ	SCREW					
11	XTW3+15T	SCREW		1			
12		FLAT CABLE (7P) (W702)			+		
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■ Resistors and Capacitors

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.	Val	ues & F	Remarks	Ref. No.	Part No.	Val	ues & Remarks
			R519, 520∆	ERDS1FVJ6R8T	1/2W	6.8		R820	ERDS2TJ122	1/4W	1. 2K
		RESISTORS	R521, 522 △	ERDS1FVJ100T	1/2W	10		R821	ERDS2TJ152	1/4W	1. 5K
			R527	ERDS2TJ223	1/4W	22K		R822	ERDS2TJ182	1/4W	1. 8K
R101, 102	ERDS2TJ102	1/4W 1K	R528	ERDS2TJ824	1/4W	820K		R823	ERDS2TJ222	1/4W	2. 2K
R105, 106	ERDS2TJ224T	1/4W 220K	R529	ERDS2TJ124T	1/4W	120K		R826, 827	ERDS2TJ103	1/4W	10K
R109, 110	ERDS2TJ101	1/4W 100	R530 ⚠	ERDS1FVJ272T	1/2W	2. 7K		R828, 829	ERDS2TJ102	1/4W	1K
R113, 114	ERDS2TJ563	1/4W 56K	R531, 532 △	ERDS1FVJ100T	1/2W	10		R830	ERDS2TJ223	1/4W	22K
R117, 118	ERDS2TJ271	1/4W 270	R533, 534	ERDS2TJ182	1/4W	1. 8K		R831	ERDS2TJ104	1/4W	100K
R123, 124	ERDS2TJ680T	1/4W 68	R535	ERDS2TJ562	1/4W	5. 6K		R832	ERDS2TJ331	1/4W	330
R125, 126	ERDS2TJ184T	1/4W 180K	R550, 551	ERDS2TJ222	1/4W	2. 2K		R833	ERDS2TJ103	1/4W	10K
R127, 128	ERDS2TJ123	1/4W 12K	R555	ERG1SJ681E	1W	680		R834	ERDS2TJ561	1/4W	560
R129, 130	ERDS2TJ563	1/4W 56K	R556	ERG1SJ561E	1W	560		R835	ERDS2TJ102	1/4W	1K
R131, 132	ERDS2TJ102	1/4W 1K	R557	ERG1SJ681E	1W	680		R837, 838	ERDS2TJ102	1/4W	1K
R201-206	ERDAS3G102T	1/4W 1K	R558	ERG1SJ561E	1W	560		R839, 840	ERDS2TJ682T	1/4W	6. 8K
R207, 208	ERDS2TJ102	1/4W 1K	R559, 560	ERG1SJ102E	1W	1K		R843	ERDS2TJ103	1/4W	10K
R209, 210	ERDAS3G102T	1/4W 1K	R561, 562	ERG1SJ151E	1W	150		R845	ERDS2TJ334	1/4W	330K
R211, 212	ERDS2TJ102	1/4W 1K	R563, 564	ERG1SJ181E	1W	180		R852, 853	ERDS2TJ103	1/4W	10K
R213, 214	ERDAS3G102T	1/4W 1K	R565-570	ERDS2TJ223	1/4W	22K		R854	ERDS2TJ471	1/4W	470
R215, 216	ERDLS2VJ332T	1/4W 3.3K	R604	ERDS2TJ181T	1/4W	180		R860-862	ERDS2TJ104	1/4W	100K
R217, 218	ERDS2TJ334	1/4W 330K	R611-614	ERDS2TJ223T	1/4W	22K	(EB, EM)	R863	ERDS2TJ102	1/4W	1K
R251 <u>∧</u>	ERDS1FVJ100T	1/2W 10	R615-618	ERDS2TJ103T	1/4W	10K	(EB, EM)	R864	ERDS2TJ223	1/4W	22K
R301, 302	ERDAS3G561	1/4W 560	R619	ERDS2TJ151T	1/4W	150	(EB, EM)	1			
R303, 304	ERDS2TJ104	1/4W 100K	R620	ERDS2TJ153T	1/4W	15K	(EB, EM)			CAPAC I'	TORS
R305, 306	ERDS2TJ224T	1/4W 220K	R621, 622	ERDS2TJ223T	1/4W	22K	(EB, EM)				
R307, 308	ERDS2TJ392T	1/4W 3.9K	R624	ERDS2TJ682T	1/4W	6. 8K	(EB, EM)	C103, 104	ECBT1H181KB5	50V	180P
R309, 310	ERDS2TJ223	1/4W 22K	R625	ERDS2TJ223T	1/4W	22K	(EB, EM)	C107, 108	ECEA1CKA101B	16V	100U
R311, 312	ERDS2TJ102	1/4W 1K	R626	ERDS2TJ103T	1/4W	10K	(EB, EM)	C109, 110	ECBT1H391KB5	50V	390P
R313, 314	ERDS2TJ392T	1/4W 3.9K	R650	ERDS2TJ562	1/4W	5. 6K		C113, 114	ECQB1H223JF3	50V (0. 022U
R315, 316	ERDS2TJ223	1/4W 22K	R651	ERDS2TJ472	1/4W	4. 7K		C115, 116	ECQB1H562JF3	50V	5600P
R317, 318	ERDS2TJ392T	1/4W 3.9K	R652	ERDS2TJ223	1/4W	22K		C117, 118	ECEA1HKA4R7B	50V	4. 7U
R319, 320	ERDS2TJ183T	1/4W 18K	R707, 708△	ERDAF2VJ6R8T	1/4W	6.8		C119, 120	ECQB1H472JF3	50V	4700P
R401, 402	ERDAS3G122	1/4W 1.2K	R709, 710△	ERDAF2VJ470T	1/4W	47		C121, 122	ECBT1C103NS5	16V	0. 01U
R403, 404	ERDAS3G154T	1/4W 150K	R711	ERDS2TJ222	1/4W	2. 2K		C123, 124	RCE1HKA3R3BG	50V	3. 3U
R405, 406	ERDAS3G102T	1/4W 1K	R712 ⚠	ERDS1FVJ2R2T	1/2W	2. 2		C201-214	ECKT1H101KB	50V	100P
R407, 408	ERDAS3G154T	1/4W 150K	R713	ERDS2TJ223	1/4W	22K	···	C251, 252	ECEAOJKA101B	6. 3V	100U
R411, 412∕∆	ERDAF2VJ470T	1/4W 47	R714	ERDS2TJ222	1/4W	2. 2K		C253, 254	ECQV1H104JM3	50V	0. 1U
R437	ERDS2TJ473	1/4W 47K	R751, 752▲	ERDS1FVJ391T	1/2W	390		C301, 302	ECA1HPXS3R3B	50V	3. 3U
R457	ERDAS3G153T	1/4W 15K	R753 ⚠	ERDS1FVJ471T	1/2W	470		C303, 304	ECCR1H101K5	50V	100P
R459, 460∆\	ERDAF2VJ101T	1/4W 100	R754-756△	ERDS1FVJ221T	1/2W	220		C305, 306	ECBT1H820KB5	50V	82P
R461-464	ERDS2TJ333	1/4W 33K	R757 ⚠	ERDS1FVJ271T	1/2W	270		C307, 308	ECA1HPXS4R7B	50V	4. 7U
R465-468∕∆	ERDAF2VJ101T	1/4W 100	R801, 802	ERDS2TJ331	1/4W	330		C309, 310	ECBT1H390J5	50V	39P
R469	ERDAS3G103T	1/4W 10K	R803	ERDS2TJ390	1/4W	39		C311, 312	ECA1CPXS100B	16V	10U
R470	ERDAS3G102T	1/4W 1K	R804	ERDS2TJ331	1/4W	330		C313, 314	ECQV1H823JM3), 082U
R471, 472	ERDAS3G272T	1/4W 2.7K	R810	ERDS2TJ102	1/4W	1K		C315, 316	ECQB1H153JF3). 015U
R501, 502	ERDS2TJ362T	1/4W 3.6K	R811	ERDS2TJ103	1/4W	10K	·	C317, 318	ECQB1H183JF3). 018U
R503, 504 <u>/</u> \	ERDAF2VJ121T	1/4W 120	R812	ERDS2TJ102	1/4W	1K		C319, 320	ECQB1H222JF3		2200P
R505, 506	ERDS2TJ392T	1/4W 3.9K	R813-817	ERDS2TJ103	1/4W	10K		C321, 322	ECBT1E223ZF). 022U
R507, 508△	ERDAF2VJ121T	1/4W 120	R818	ERDS2TJ821	1/4W	820		C323, 324	ECBT1H121KB5	50V	120P
	ERDAF2VJ100T	1/4W 10	R819	ERDS2TJ102	1/4W	1K		C401, 402	ECA1HBX3R3B	50V	3. 3U

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Ref. No.	Part No.	Values & Remarks					
C403, 404	ECCR1H271K5	50V 270P					
C405, 406	ECA1EPXS101B	25V 100U		 			
C407, 408	ECBT1H820KB5	50V 82P					
C409, 410	ECCR2H100K5	500V 10P					
C413, 414	ECCR2H220J5	500V 22P					
C415, 416	ECKR1H331KB5	50V 330P					
C426	ECBT1H102KB5	50V 1000P					
C427	ECBT1E223ZF	25V 0. 022U					
C428	ECHR1H103JZ3	50V 0.01U					
	ECKR1H333ZF5	50V 0.033U					
C453-456	ECCV2H680K	500V 68P					
C457-460	RCE1HKA3R3BG	50V 3.3U					
	ECQB1H122JF3	50V 1200P					
	ECAOJPXS101B	6. 3V 100U					
	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	ECBT1H102KB5	50V 1000P		 			
C525, 526	ECBT1C152JR5	16V 1500P					
C527, 528	ECBT1H101KB5	50V 100P					
C531, 532	ECBT1C332KR5	16V 3300P		 · · · · · · · · · · · · · · · · · · ·			
C533, 534	ECBT1H181KB5	50V 180P					
C602 C604	RCE1CKA100BG	16V 10U (EB, EM)					
	ECEA1HKA010B	50V 1U (EB, EM)					
C605 C701, 702∆	ECEAOJKA331B ECESX1H822UM	6. 3V 330U (EB, EM)					
C701, 7022IS	ECQV1H104JM3	50V 8200U					
C707, 708	ECQVINIO43M3 ECA1JPXH560E	50V 0.1U 63V 56U		 			
C707, 708	ECQE2334KF3	250V 0. 33U					
C711	ECQE2334KF3	250V 0. 330					
C711	ECBT1C103NS5	16V 0.01U					
C714	ECA1CM471B	16V 470U		 			
C715	ECEA1HKA2R2B	50V 2. 2U			<u> </u>		
C716 △	RCE1CM102BV	16V 1000U					
C751, 752	ECA1EPX470TB	25V 47U			-		
C801-803	ECBT1C103NS5	16V 0.01U		 	ļ		
C804	ECAOJM102B	6. 3V 1000U					
C805	RCE1HKAR47BG	50V 0. 47U			-		
C806	ECEA1HKA2R2B	50V 2. 2U			ļ		
C807	ECBT1H102KB5	50V 1000P					
C808	ECEAOJKA101B	6. 3V 100U					
C809	ECBT1C103NS5	16V 0.01U		 			
C810	RCE1AKA470BG	10V 47U					
C811	ECBT1H101KB5	50V 100P					
C812, 813	ECKR1H103ZF5	50V 0.01U		 			
C814, 815	ECA1HPXS4R7B	50V 4.7U		 7001 7001 7001 700			
C820	ECQV1H224JM3	50V 0. 22U					
C821	ECQV1H473JM3	50V 0. 047U					
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Packaging

