Service Manual

Stereo Control Amplifier

SU-C2000

Colour

(K) ... Black Type

Area

Suffix for Model No.	Area	Colour
(EG)	Europe.	
(EB)	Great Britain.	40
(G)	Asia, Latin America, Middle Near East and Africa.	(K)



SPECIFICATIONS (DIN 45 500)

Total harmonic distortion (VOL. Max. 20 Hz-20 kHz) PHONO MM 0.002% MC 0.003% **TUNER, CD, AUX, TAPE 1, TAPE 2** (DIRECT ON) 0.001% (DIRECT OFF) 0.003% Input sensitibity/impedance PHONO MM $2.5~\text{mV/47}~\text{k}\Omega$ 0.15 mV/220 Ω TUNER, CD, AUX, TAPE 1, TAPE 2 200 mV/27 kΩ Phono maximum input voltage (IHF '66, 1 kHz, RMS) MM 100 mV MC 6.5 mV S/N PHONO MM 79 dB (88 dB, IHF '66) MC 71 dB (68 dB, IHF '66) **TUNER, CD, AUX, TAPE 1, TAPE 2** (DIRECT ON) 97 dB (107 dB, IHF '66) (DIRECT OFF) 96 dB (104 dB, IHF '66) Frequency response PHONO MM RIAA standard curve ±0.2 dB (20 Hz-20 kHz) TUNER, CD, AUX, TAPE 1, TAPE 2 (DIRECT ON) 1 Hz-150 kHz (-3 dB) +0 dB, -0.2 dB (20 Hz-20 kHz) (DIRECT OFF) 1 Hz-120 kHz (-3 dB) ±0.5 dB (20 Hz-20 kHz)

■ GENERAL

Power consumption 10 W

Power supply

For (EG) area. AC 50 Hz/60 Hz, 230 V

For (EB) area. AC 50 Hz/60 Hz, 230-240 V

For (G) area. AC 50 Hz/60 Hz, 110-127/220-240 V

Dimensions (W × H × D) 448 × 129 × 344 mm

Weight 8 kg

Notes

 Design and specifications are subject to change without notice.

Weight and dimensions are approximate.

Total harmonic distortion is measured by the digital spectrum analyzer.

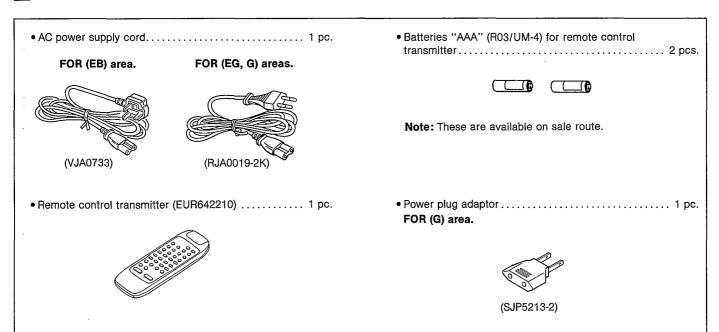
Technics

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ACCESSORIES



■ BEFORE REPAIR AND ADJUSTMENT

Disconnect AC power, Discharge both Power Supply Capacitors C701 \sim C704 through a 10 Ω , 5W resistor to ground. DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdrive 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/240V/110-127V/220-240V.

Power supply voltage AC 230V		AC 240V		AC 120V (AC 110-127V)		AC 240V (AC 220-240V)		
Consumed ourrent E0/60 Hz	50 Hz	12~60mA	50 Hz	12~60mA	50 Hz	20~100mA	50 Hz	12~60 mA
Consumed current 50/60 Hz	60 Hz	9.6~48mA	60 Hz	9.6~48mA	60Hz	16~80mA	60 Hz	9.6~48mA

■ CAUTION FOR AC MAINS LEAD

(For (EB) area.)

For your safety, please read the following text carefully.

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

A 5-ampere fuse is fitted in this plug.

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

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

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

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

CAUTION!

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

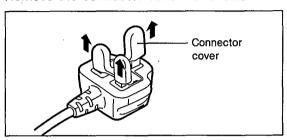
The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.

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 .

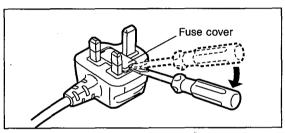
Before use

Remove the connector cover as follows.

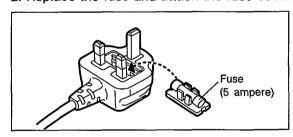


How to replace the fuse

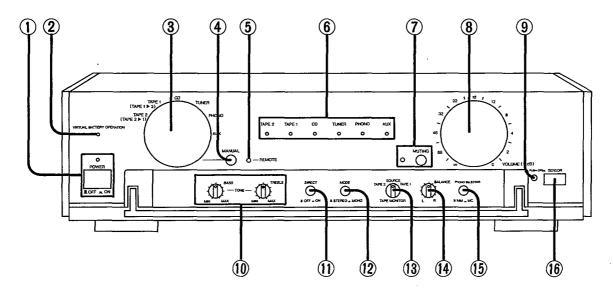
1. Remove the fuse cover with a screwdriver.



2. Replace the fuse and attach the fuse cover.



FRONT PANEL CONTROLS AND FUNCTIONS



- (1) Power switch/indicator (POWER)
- ② Virtual battery operation indicator (VIRTUAL BATTERY OPERATION)
- (3) Input selector

This selector is used to select the sound source to be heard, such as a disc, radio broadcast, etc.

(4) Manual mode select button (MANUAL)

This button is used to select the manual operation mode for the input selector.

(REMOTE)

This indicator illuminates when the input selector on this unit is set to the remote control operation mode.

(6) Input indicators

These will illuminate, indicating the selected input source.

Muting button/indicator (MUTING)

This button is used to switch off the sound output temporarily.

8 Volume control (VOLUME)

Panel cover open button (PUSH OPEN)

Press this button to open the panel cover on the front of this unit.

Push up the panel by hand to close it.

(10) Tone controls (BASS/TREBLE)

The bass control is used to adjust the low-frequency sound range, and the treble control is used to adjust the highfrequency sound range.

(1) Source direct button (DIRECT)

This button is used to enjoy high quality sound playback such as that from a CD.

(12) Mode selector (MODE)

This selector is used to select stereo or mono operation.

(13) Tape-monitor selector (TAPE MONITOR)

This selector is used to select the tape monitor function during recording.

(4) Balance control (BALANCE)

This control is used to adjust the left/right volume balance.

(5) Phono cartridge selector (PHONO SELECTOR)

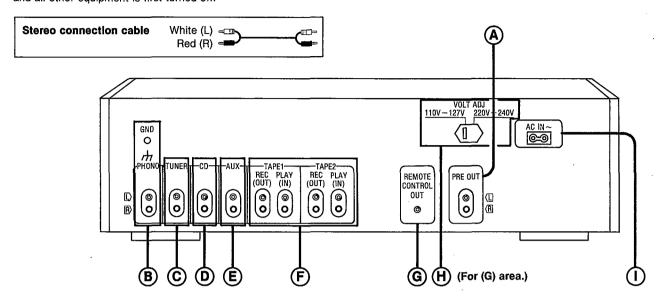
This selector should be set to the position which corresponds to the type of cartridge used on the turntable.

(6) Remote control signal receptor (SENSOR)

Receives the signals from the remote control.

■ CONNECTIONS

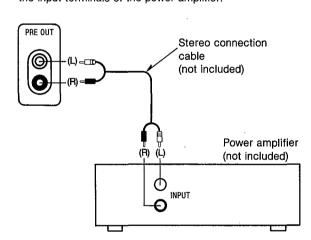
Before making connections, be sure that the power to this unit and all other equipment is first turned off.



To connect to the power amplifier

(A) "PRE OUT" terminals

Use a stereo connection cable (not included) to connect to the input terminals of the power amplifier.



Stereo connection cables

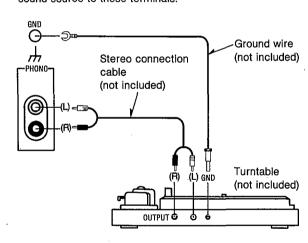
(not included)

If a graphic equalizer is connected

To connect to other equipment

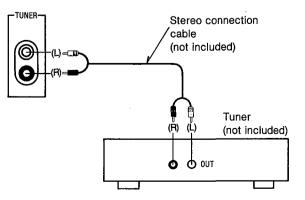
(B) "PHONO" terminals

Connect to a turntable only. Do not connect any other sound source to these terminals.



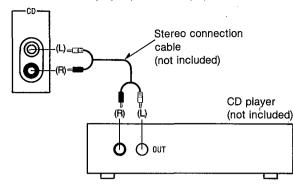
© "TUNER" terminals

Connect to a tuner.



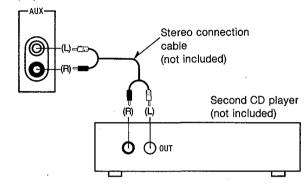
(D) "CD" terminals

Connect to a CD player (or CD changer).



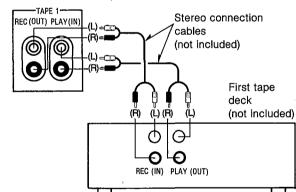
(E) "AUX" terminals

Connect to a further component such as a second CD player, etc.



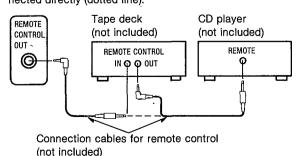
(F) "TAPE 1" and "TAPE 2" terminals

Connect to a first tape deck and/or second tape deck.



(G) "REMOTE CONTROL OUT" terminal

Connect the connection cable for the remote control to a Technics tape deck and/or CD player which has the appropriate remote control terminal as shown below. If a tape deck is not being used, the CD player can be connected directly (dotted line).



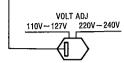
For a compact disc player with a remote control sensor, the above connection is not necessary.

To set the power voltage

(For (G) area.)

(H) Voltage selector (VOLT ADJ)

Set the voltage selector to "110 V - 127 V" or "220 V - 240 V" according to the area in which the unit will be used. [Use a minus (-) screwdriver]



Not

Note that this unit will be seriously damaged if this setting is not made correctly.

To connect the AC power supply cord

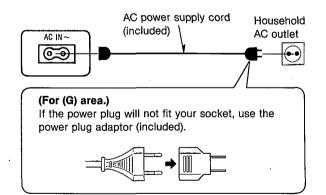
For (EB) area.

BE SURE TO READ THE CAUTION FOR THE AC MAINS LEAD ON PAGE 3 BEFORE MAKING THE FOLLOWING CONNECTION.

(I) AC IN socket (AC IN)

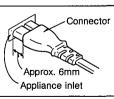
Connect the AC power supply cord (included) after all other cables and cords are connected.

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. However there is no problem using the unit.

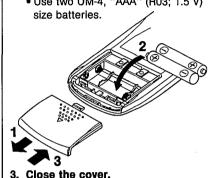


■ REMOTE CONTROL OPERATION

Before operating the remote control

■ Battery installation

- 1. Open the cover.
- 2. Insert the batteries.
- Be sure to insert according to the (+) and (-) indications in the battery compartment.
- Use two UM-4, "AAA" (R03: 1.5 V)



Battery life

Battery life is about one year. (Battery life may vary depending upon the frequency of use and other conditions of use.)

The batteries should be replaced if the unit cannot be operated even when the remote control transmitter is brought close to the

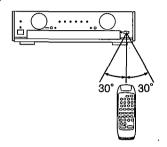
Battery notes

- · Be sure that batteries are inserted so that they are placed correctly with respect to the (+) and (-) indications in the battery compartment. If the batteries are not inserted correctly, they may leak and damage the remote control transmitter.
- Do not use rechargeable (nickel-cadmium) type batteries.
- · Do not mix old and new batteries, or batteries of different types (carbon and alkaline, etc.)
- If the remote control transmitter is not to be used for a long period of time, take out the Other notes batteries and store them in a cool, dark 1. Do not expose the receptor (on this unit)
- Remove and dispose of worn-out batteries.
- Never attempt to recharge or short-circuit the batteries, and do not disassemble them 2. Do not use a remote control transmitter or expose them to excessive heat or throw them into a fire.
- If a battery leaks, remove both batteries and dispose of them, and then thoroughly clean the battery compartment before inserting new batteries.

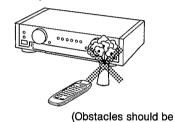
■ Operation notes

Face about 7 meters in front of the sen-

(This actual range will depend on the angle at which the remote control is us-



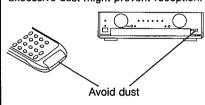
Face it toward the remote control signal receptor of this unit.



avoided.)

Be sure the transmitter part of the remote control transmitter and the receptor part of this unit are free from

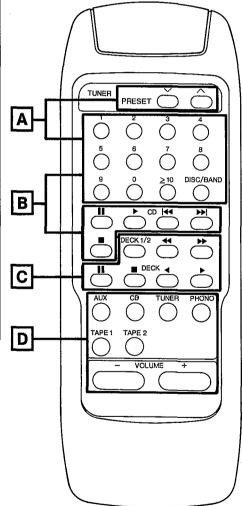
Excessive dust might prevent reception.



- to direct sunlight or other strong light, because to do so might result in incorrect operation.
- for a TV set, a VCR or other video component at the same time as this remote control transmitter is being used, because to do so might result in incorrect operation.
- doors, the glass door's thickness or color might make it necessary to use the remote control transmitter a shorter distance from the unit.

Operation

- This remote control transmitter can be used to operate Technics CD players and tape decks which are equipped with remote control terminals or remote control sensors, or to operate Technics tuners which are equipped with remote control sensors. Consult your dealer for details.
- For detailed information concerning operation
- steps, etc., please refer to the appropriate page for each unit and the respective operating in-
- Make sure that the power of each unit is set to the "ON" position, before beginning the operations.



NOTE

To operate the main unit, or any other unit attached to it, by means of a remote control cable (see page 5), face this remote control transmitter towards the main unit.

To operate any other unit, face this remote control transmitter toward

To operate the amplifier

(D in the diagram on the left)

To select an input source

AUX	Ö	TUNER	PHONO
TAPE 1	TAPE 2		

To adjust the volume level



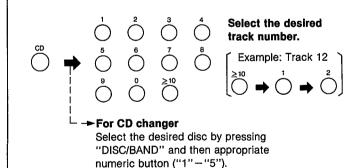
To operate the compact disc player

(B and D in the diagram on the left)

To start play



To start play from the desired track



Note: When you want to select further tracks, you do not have to press the "CD" button again.

To stop play	
To stop play temporarily	Press to resume play.
To skip a track	*

To operate the tuner

(A and D in the diagram on the left)

To select the desired channel sequentially

,	~ .	\sim
PRESET (\supset	\supset

To select the desired channel directly

Ó	Ó	Ö	Ô	preset channel.
9	° °	⁷ ≥10	å	Example: Channel 12 $\stackrel{\geq 10}{\bigcirc}$ \Rightarrow $\stackrel{1}{\bigcirc}$ \Rightarrow $\stackrel{2}{\bigcirc}$

Note: When you want to select further channels, you do not have to press the "TUNER" button again.

To select the desired band

TUNER	DISC/BAND	The band changes each time the button is pressed.
Madas Milas		non the band way do not have to proce the

Note: When you want to change the band, you do not have to press the "TUNER" button again.

To operate the tape deck

(C in the diagram on the left)

To select the tape deck (DECK 1 or DECK 2)

(Only when using a double cassette deck)

DECK 1/2	The remote control indicator of the cassette deck is
	changed over each time the button is pressed.

To start play

Ò	
Reverse)	(Forward)

To stop play

To stop Press or to resume playback temporarily

To fast-forward or rewind the tape

Press one of these buttons to select the desired tune while the unit is in the play mode. (Only applicable to a Technics tape deck with the "music select" functions.)

DESCRIPTION OF TECHNICAL FEATURES

New Power Supply Circuit—Virtual Battery Operation

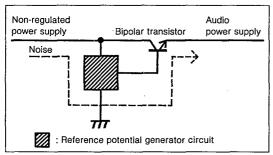
When power supplied in the home is used, the noise generated by other devices and equipment leaks into the power supply of the audio circuitry. The ideal source of supplying power to safeguard against this is the battery. What Technics has done is develop a virtual battery operated power supply circuit which gives rein to the characteristics of the FET. This circuit enables the reproduction of a full-bodied bass and clear mid-range and treble sound which is in no way inferior to that produced by battery-driven operation.

■ Conventional bipolar transistor operation and its problems

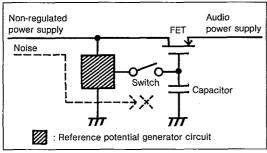
With conventional operation, the problem is that noise from the power supply can find its way to the transistor. This noise is then transmitted when the reference potential (from the reference potential generator circuit) energizes the bipolar transistor. (See Fig. 1)

■ Advantages of using FET

If the switch is closed, and then reopened after the capacitor has been charged, this charge will drive the FET. Consequently, no noise flows to the gate, thus preventing noise interference from the power supply. (See Fig. 2)



[Fig.1] Conventional power supply circuit



[Fig.2] Virtual battery operated power supply.circuit (General outline)

High-performance, high-sound-quality volume control

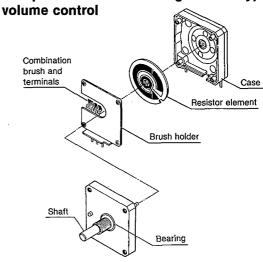
Volume control, which is the function of a control amplifier, is also very important from the aspect of sound quality. The volume control on this control amplifier is not simply an improved version of past designs, but was developed based on a totally new concept.

First, we began by examining how the sound quality of the volume control could be improved within the system comprised of: CD player to volume control to power amplifier to speakers. We investigated the effect that each of the components of the volume control — the resistor, the brush, the terminals, the case, and the other parts — have on the sound quality, and asked ourselves how improvements could be made. As a result, we began working on re-designing the construction of the volume control itself.

Up until now, volume controls have been constructed so that the rotation of the brush across the surface of the resistor provided the desired audio signal. In this new volume control construction, however, the brush is held stationary and the resistor is rotated. As a result, there are fewer locations where different metals are joined together, something which previously caused deterioration of the sound quality, and consequently the sound quality has been greatly improved.

In addition, of all the components of the volume control, the one that has the greatest effect on sound quality is the resistor. Thus, this new volume control features a resistor for which distortion has been drastically reduced by using a special compound of fine-particle carbon. Furthermore, in order to prevent vibrations from being transmitted to the brush, the resistor is placed inside a heavy die-cast zinc case. These and other measures have succeeded in greatly improving the sound quality of the volume control

Composition of the rotating-resistor type

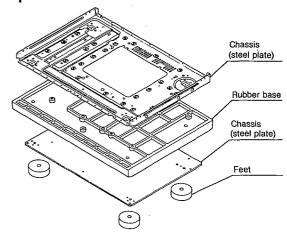


Anti-vibration THCB for support of circuitry components

THCB: Technics Hybrid Construction Base

Because a control amplifier deals with very low level signals, it can be easily affected by internal and external vibration. In order to solve this problem, the chassis of this control amplifier features a three-layer anti-vibration construction — which has been used for many years on Technics analog disc players — in which a hard rubber base core is sandwiched between two sheets of steel plate.

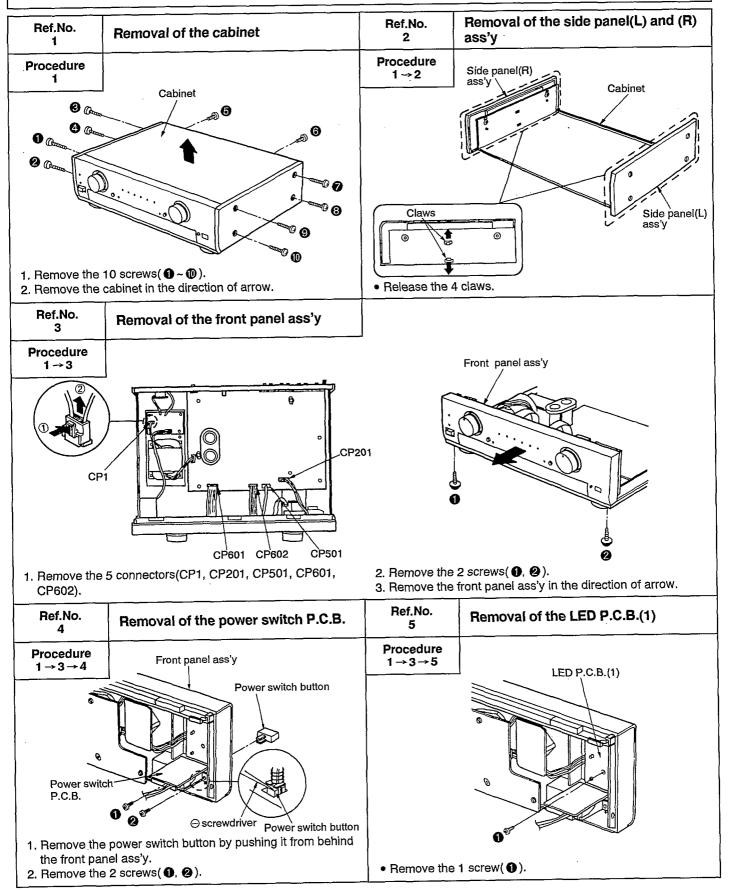
Composition of the THCB

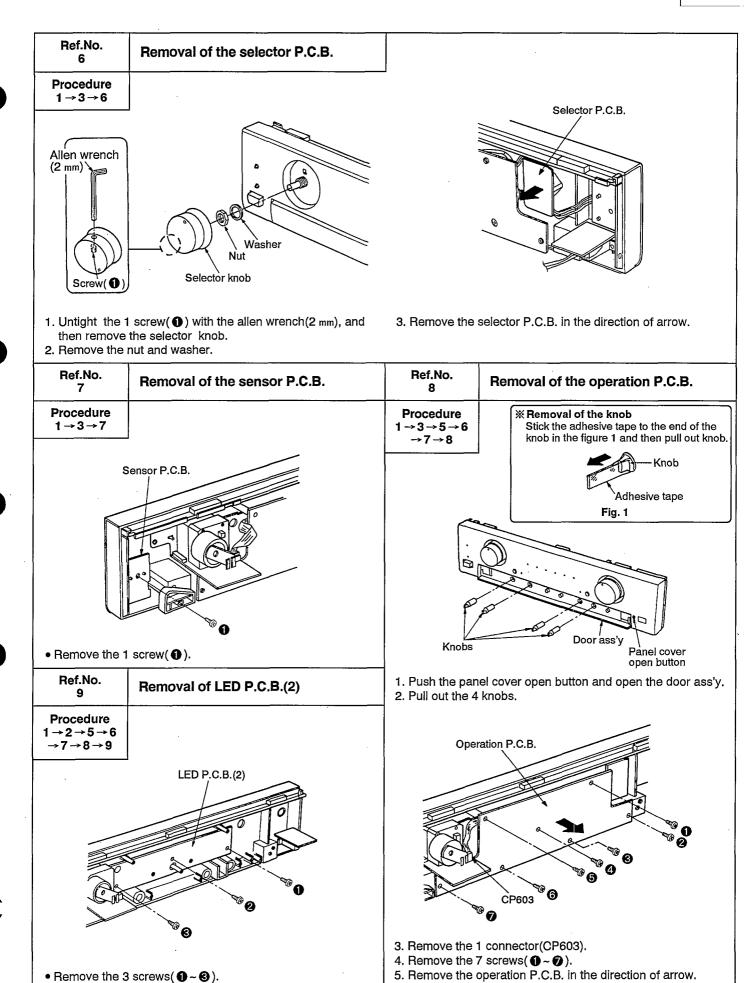


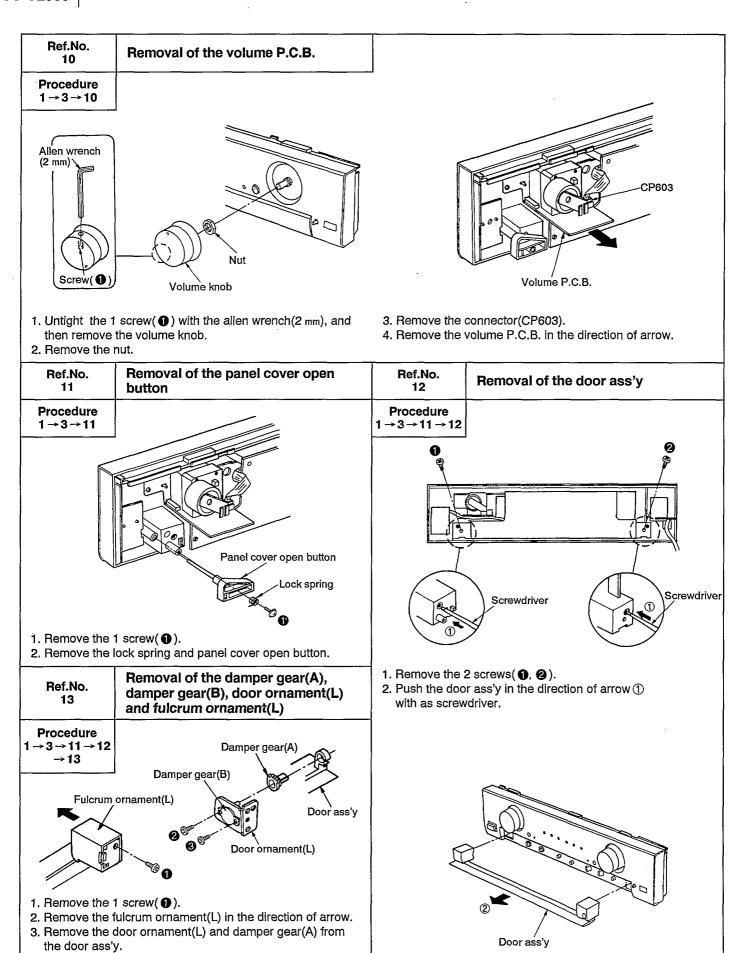
DISASSEMBLY INSTRUCTIONS

"ATTENTION SERVICER"

Some chassis components may have sharp edges. Be careful when disassembling and servicing.



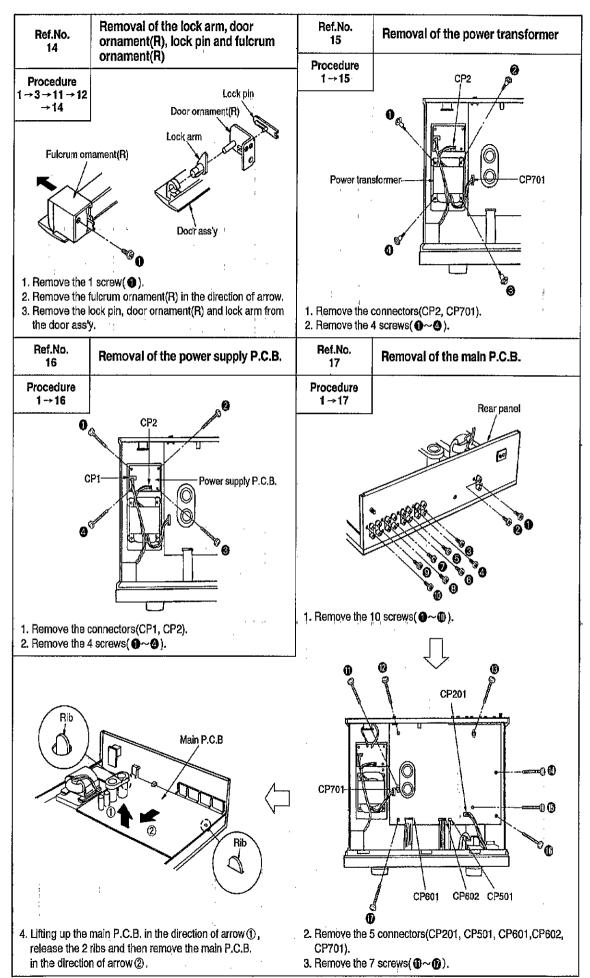


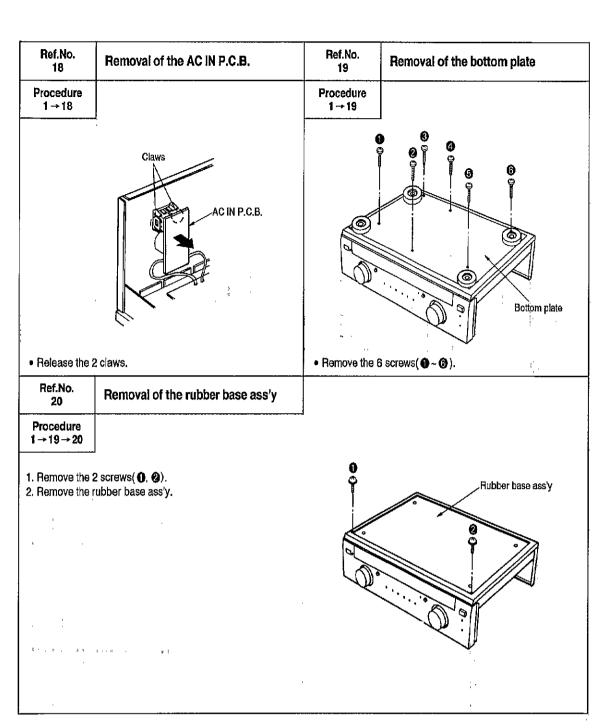


3. Draw the door ass'y in the direction of arrow 2.

4. Remove the 2 screws(2, 3), and then remove the

damper gear(B).





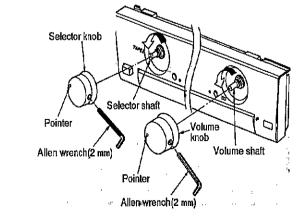
■ INSTALLATION OF THE VOLUME KNOB AND SELECTOR KNOB

Selector knob

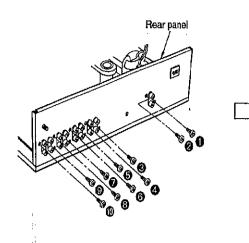
- Turn the selector shaft fully in the direction of arrow.
 Align the pointer of the selector knob to the indication "TAPE2" and tighten the screw.

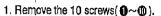
• Volume knob

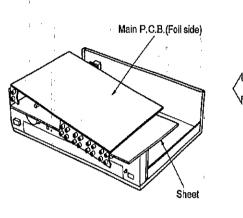
- 1. Turn the volume shaft fully in the direction of arrow.
- 2. Align the pointer of the volume knob to the indication " ∞ " and tighten the screw.



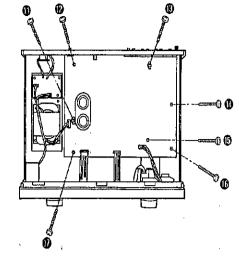
HOW TO CHECK THE MAIN P.C.B.



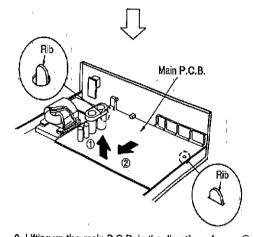




4. Check the main P.C.B. (foil side) as shown above.

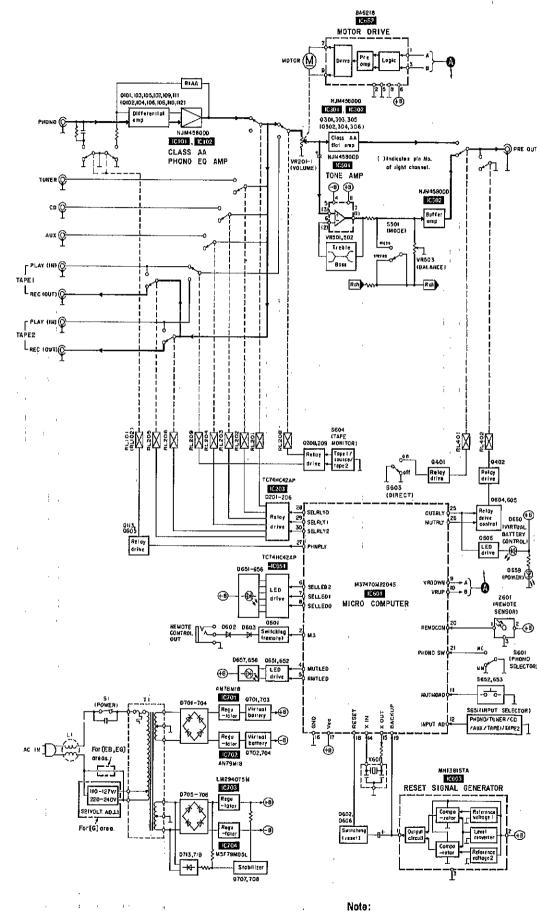


2. Remove the 7 screws($lacktriangle \sim lacktriangle$)

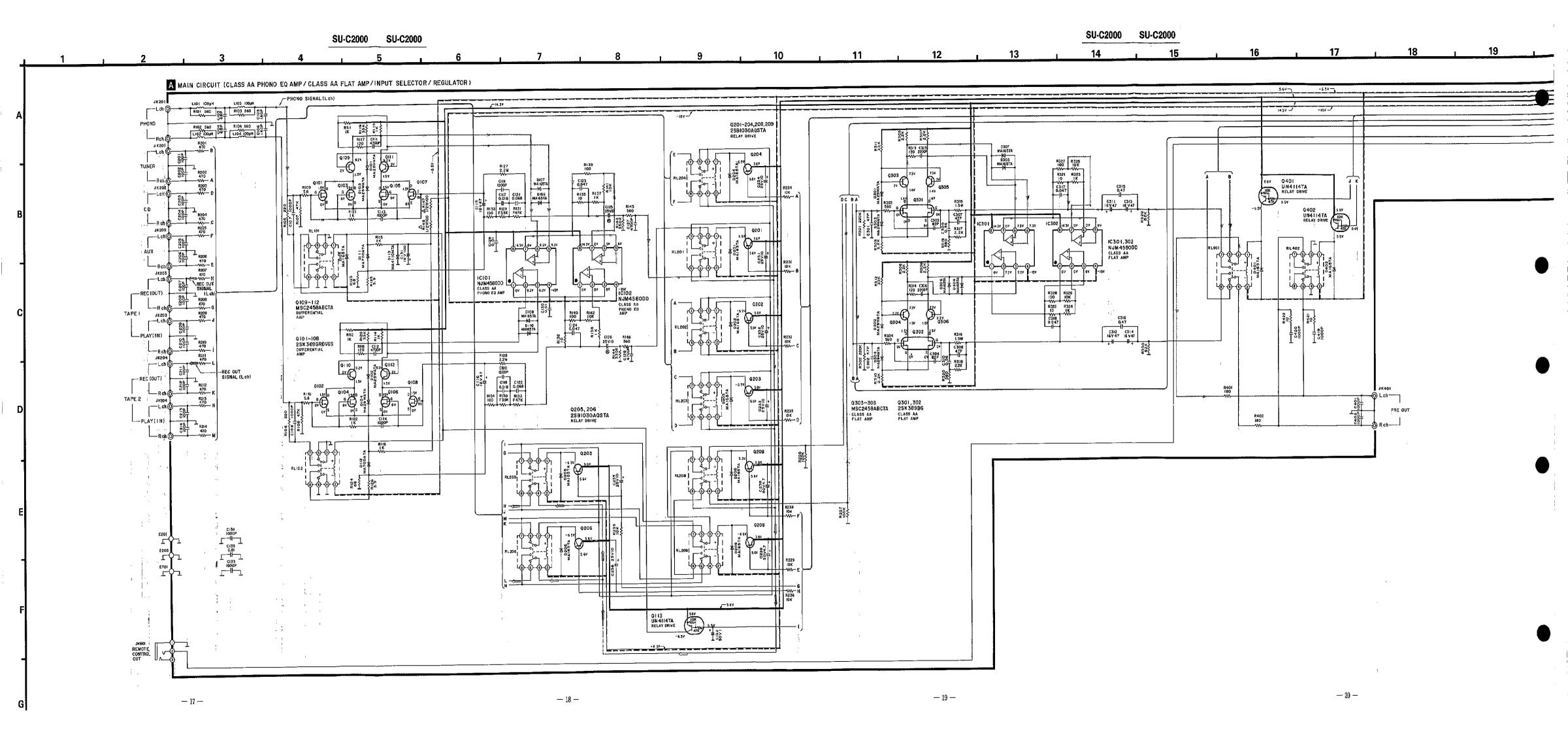


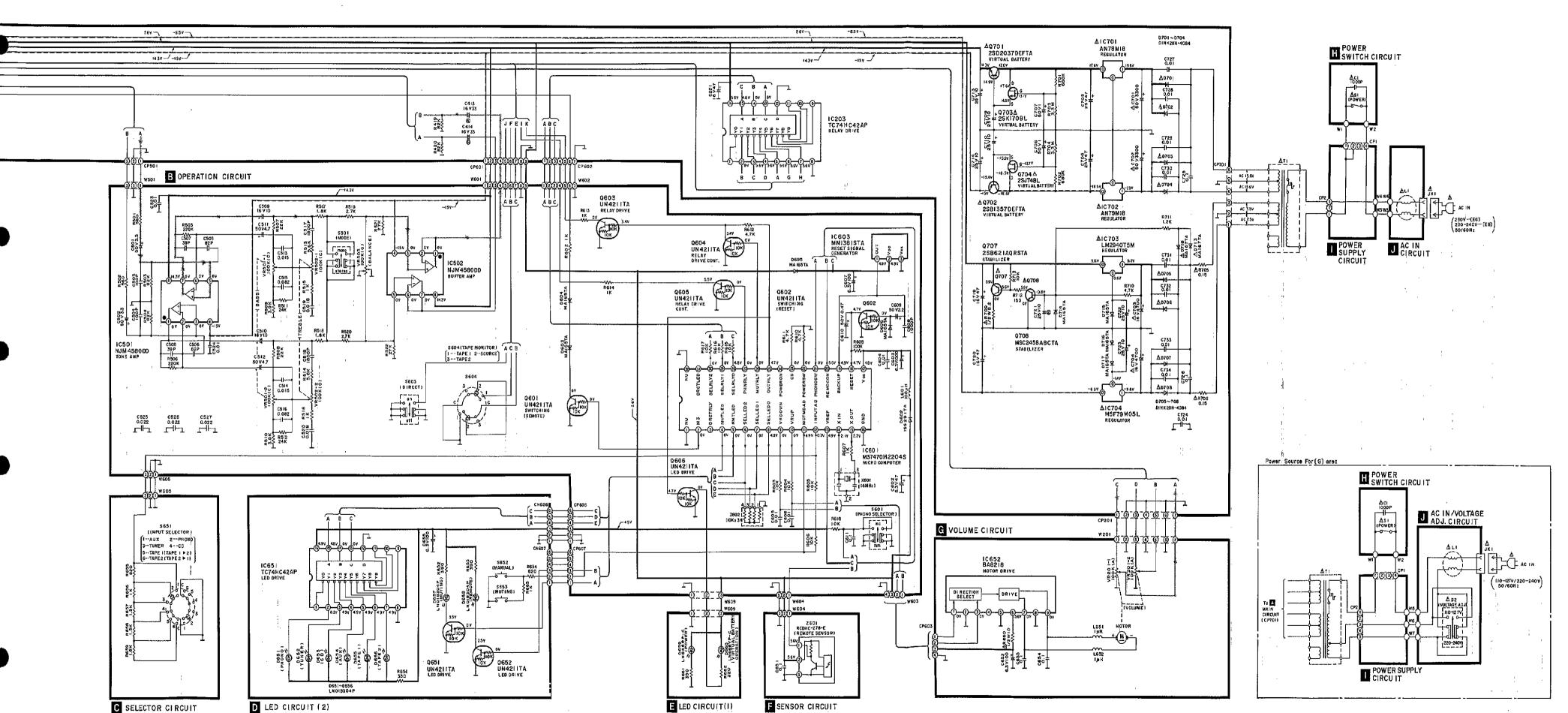
3. Lifting up the main P.C.B. in the direction of arrow ①, release the 2 ribs and remove the main P.C.B. in the direction of arrow (2).

BLOCK DIAGRAM



Phono/Recording output signal





-23 -

— 22 —

-21-

SCHEMATIC DIAGRAM

(Parts list on pages 35~37.)

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

Note 1:

- : Power (POWER) switch.
- : Voltage adjustment switch in "220V~240V"

 - (110V~127V ↔ 220V~240V)
 - [For (G) area.]
- : Mode selector (MODE) switch.
- : Phono cartridge selector (PHONO SELECTOR) switch.
- : Source direct (DIRECT) switch. • S603
- : Tape-monitor selector (TAPE MONITOR) • S604
- S651 : Input selector switch.
- S652 : Manual mode select (MANUAL) switch.
- S653 Muting (MUTING) switch.
- The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis. Accordingly, there may arise some error in
- voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit. • Signal line
- : Phono signal
 : Recording output signal
- : +B line
- ---- ! -B (ine
- Important safety notice

Components identified by A 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 as occation calls. When replacing any of components, be sure to use only

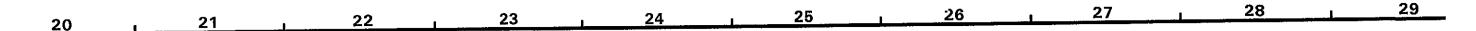
manufacturer's specified parts shown in the parts list. • The supply part number is described alone in the replacement parts.

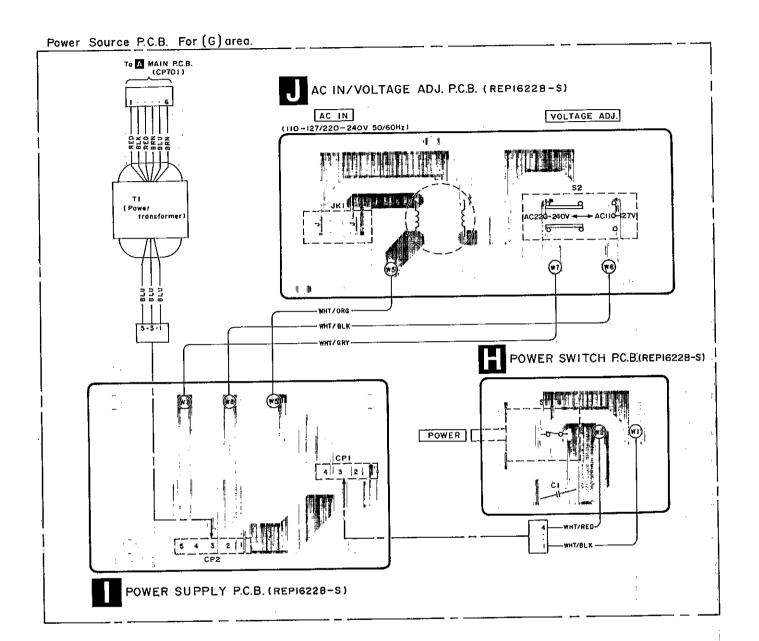
Part No.	Production Part No.	Supply Part No.
IC703	LM2940T5M	LM2940T5
Z601	RCDHC-278-E	RCDHC-278

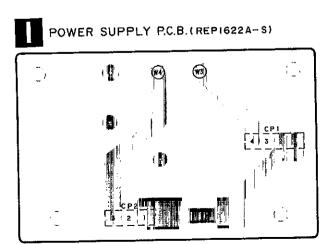
• Caution!

— 24 —

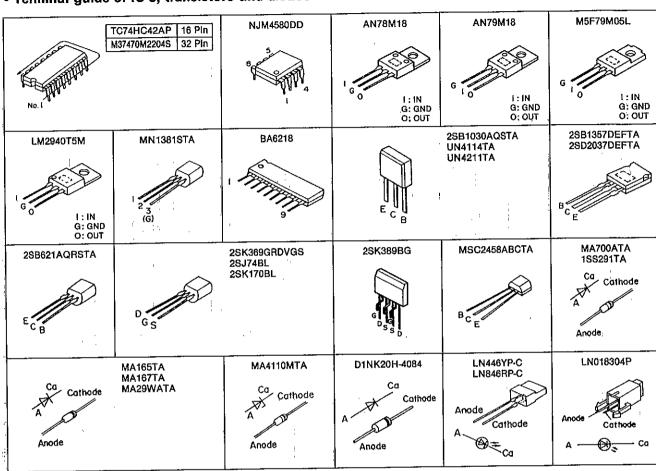
- IC and LSI are sensitive to static electricity.
- Secondary trouble can be prevented by taking care during repair.
- · Cover the parts boxes made of plastics with alminum
- Ground the soldering iron,
- Put a conductive mat on the work table.
- . Do not touch the legs of IC or LSI with the fingers directly.

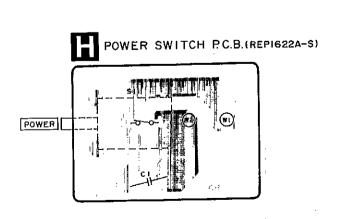


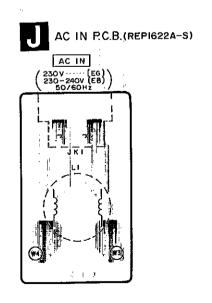




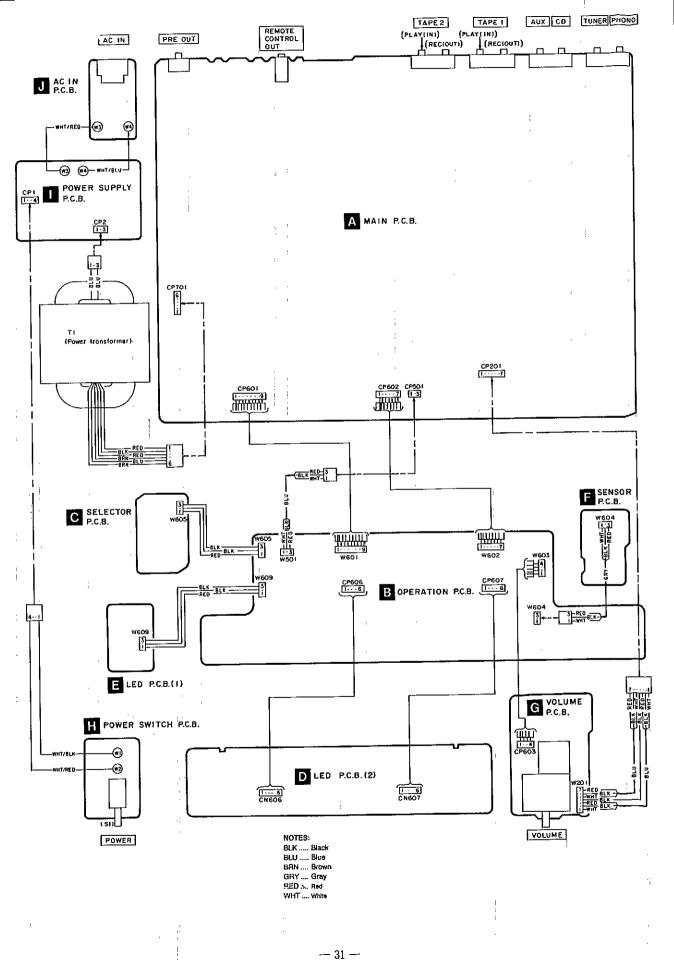
• Terminal guide of IC's, transistors and diodes







■ WIRING CONNECTION DIAGRAM



CABINET PARTS LOCATION For (G)area. E201 E204

■ REPLACEMENT PARTS LIST

Notes: *Important safety notice:
Components identified by △ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of lire-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.

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

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
				43	XTBS3+20FFZ1	SCREW	-
		CABINET AND CHASSIS		44	XTB3+20J	SCREW	
	<u></u>			45	XTWS3+8T	SCREW	
1		SIDE PANEL(L) ASS'Y		46	XTW3+15T	SCREW	-
2	RFKNC2000EGB	SIDE PANEL (R) ASS Y		47	XTW3+8T	SCREW	
3	RGWO180-K	VOLUME/SELECTOR KNOB		48	X₩D12A	WASHER	
4	RHD30034	SCREW		49	XTB2+5F	SCREW	
5	RKMO216-K	CABINET		50	RSC0334	SHIELD PLATE	
6	SJPA11-1	SHORT PIN		51	RSC0341	SHIELD PLATE	
7	XTBS3+8JFZ1	SCREW		52	SHW47L30	SPACER	
8	XTB3+8JFZ	SCREW		53	REX0524	CONNECTOR ASS' Y (7P)	
9	RDG0222	DAMPER GEAR (A)		54	REX0525	CONNECTOR ASS' Y (3P)	
10,	RDG0229	DAMPER GEAR(B)		55	REX0526	CONNECTOR ASS' Y(3P)	
11	RDK0021	LOCK ARM		56	REXD529	CONNECTOR ASS' Y (4P)	
12	RGK0525-K	FULCRUM ORNAMENT (L)		57	REX0530	CONNECTOR ASS' Y (9P)	
13	RGK0526-K	FULCRUM ORNAMENT (R)		58	REX0531	CONNECTOR ASS' Y(7P)	
14	RGR0173A-A	REAR PANEL	(EG)	59	REX0532	CONNECTOR ASS' Y(4P)	
14	RGRO173A-B	RERA PANEL	(EB)	60	REX0527	CONNECTOR ASS' Y (3P)	
14	RGRO173B-A	REAR PANEL	(G)	61	REXO528	CONNECTOR ASS' Y (3P)	
15	RGU0609-K	PUSH KNOB		62	XTBS3+8JF21	SCREW	(G)
16	RGU0830-K	PANEL COVER OPEN BUTTON					
17	RGU0890-K	POWER SWITCH BUTTON				PACKING MATERIAL	
18	RGW0105-K	KNOB			- 		
19	RHD30011	SCREW		P1	RPG1585	PACKING CASE	(EG, G)
20	RHN90001	NUT		P1	RPG1586-1	PACKING CASE	(EB)
21	RFKNC2000EGC	DOOR ASS' Y		P2	RPN0688	CUSHION	
22	RFKJUC2000EG	RUBBER BASE ASS Y		P3	RPQ0164	PAD	(EG, G)
	RMAO 628A	BOTTOM PLATE		P3	RPQ0281	PAD	(E8)
	RMA0631A	TRANSFORMER BASE		P4	RPH0100	PROTECTION SHEET	
25	RMA0651	DOOR ORNAMENT(L)		PS	RPH0101	KRAFT PAPER	
26	RMA0652	DOOR ORNAMENT (R)		P6	SPP730	PROTECTION BAG	
27	RMA0700	VOLUME ORNAMENT					
8	RMB0301	LOCK SPRING				ACCESSORIES	
9	RMF0050	CAPACITOR HOLDER RUBBER					
0	RMG0013A-K	TRANSFORMER RUBBER		A1	RFKSUC2000EG	INSTRUCTION MANUAL ASS'Y	(EG)
1	RMK0191	CHASSIS		A1		INSTRUCTION MANUAL	(EB)
2	RMRO623-N	LOCK PIN		Al		INSTRUCTION MANUAL ASS'Y	(G)
3	RMX0084	RUBBER BASE SPACER		A2	 	REMOTE CONTROL TRANSMITTER	··· ′
4	RFKGUC2000EG	FRONT PANEL ASS'Y		A2-1		BATTERY COVER	FOR R/C TRANSMITTER
5	RGU0936-K	MUTING BUTTON		A3		AC POWER SUPPLY CORD	(EG, G) ⚠ (SF)
6	SHE187-2	P. C. B. SUPPORT		A3		AC POWER SUPPLY CORD	(EB) △ (SF)
7	SHR8006	SPACER		A4		WARRANTY CARD	(EG, EB)
8	SJS9231A	AC INLET COVER		A5		SERVICENTER LIST	
9	SKL306	F00T		A6	,	CAUTION LABEL	
0	SNE2123	GND TERMINAL		l-		VOLTAGE CAUTION LABEL	(G)
1	XNS12	NUT				POWER PLUG ADAPTOR	(G) <u>∆</u>
2	XTBS26+8J	SCREW					

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
				D701-708	D1NK20H-4084	DIODE	Δ
		INTEGRATED CIRCUIT (S)		D713	MA167	DIODE	Δ
				D714-717	MA165	DIODE	
IC101, 102	NJM4580DD	CLASS AA PHONO EQ AMP		D718	MA167	DIODE	Δ
IC203	TC74HC42AP	RELAY DRIVE		1			
IC301, 302	NJM4580DD	CLASS AA FLAT AMP				VARIABLE RESISTOR(S)	
IC501, 502	NJM4580DD	TONE/BUFFER AMP					
IC601	M37470M2204S	MICROCOMPUTER		VR201	EWCPXC010A15	VOLUME	
IC603	MN1381STA	RESET SIGNAL GENERATOR		VR501, 502	EVJYA1FA2C15	TONE CONTROLS	
IC651	TC74HC42AP	LED DRIVE		VR503	EVJ02QFA2G15	BALANCE	
IC652	BA6218	VOLUME MOTOR DRIVE		1			
IC701	AN78M18	REGULATOR	Δ	1		COMPONENT COMBINATION (S)	
IC702	AN79M18	REGULATOR	Δ	1			
IC703	l	REGULATOR	Δ	Z601	RCDHC-278	REMOTE SENSOR	
IC704	M5F79M05L	REGULATOR	Δ	Z602	EXBF4E103J	COMPONENT COMBINATION	
					_		
		TRANSISTOR(S)		1		COIL(S)	
				╢		10012 (2)	
Q101-108	2SK369GRDVGS	TRANSISTOR			SLQZ650MH49	COIL	Δ
Q109-112	MSC2458ABCTA	TRANSISTOR		L101-104	ELEXT101KA9	COIL	
Q113	UN4114TA	TRANSISTOR		L601	ELEXT101KA9	COIL	
Q201-206		TRANSISTOR		L651, 652	ELEXT101KA9	COIL	
Q208, 209		TRANSISTOR		1001, 002	LDEATTROIDES		
Q301, 302	2SK389BG	TRANSISTOR				TRANSFORMER(S)	
Q303-306	MSC2458ABCTA	TRANSISTOR		1		Transforment (b)	
Q401, 402	UN4114TA	TRANSISTOR		T1	RTP7B4B002-W	POWER TRANSFORMER	(EG, EB) ⚠
Q601-606	UN4211	TRANSISTOR		T1	RTP7B4E002-W	POWER TRANSFORMER	(G) <u>∧</u>
Q651, 652	UN4211	TRANSISTOR		ऻऻऀ	IIII ID IBOOD "	TOWN TIEBROT OTHERS	(4) 23
Q701	2SD2037DEFTA	TRANSISTOR	Δ	1	<u> </u>	OSCILLATOR (S)	-
Q702		TRANSISTOR	\triangle	 		00011111101(0)	
Q703	2SK170BLV	TRANSISTOR	<u>A</u>	X601	EFOEC4004T4	OSCILLATOR (4MHz)	
Q704	2SJ74BL	TRANSISTOR	<u>A</u>	1 1001	EL 0F040414	CONTENTION (ADDIE)	
Q704 Q707		TRANSISTOR .	<u>A</u>	┨┠		SWITCH(ES)	
Q708		TRANSISTOR	<u>A</u>		_	DH11011(LO)	
Q700	MSU24JOADUTA	TRANSISION	<u>A</u>	S1	ESB8279V	POWER	<u> </u>
		DIODE (S)		S2 ·	ESD26200A	VOLTAGE ADJ.	(G) <u>A</u>
		DIODE (3)		S501	ESB68137	MODE	(0)/15
D101-104	MA29WA	DIODE		S601	ESB68137	PHONO SELECTOR	
D105		DIODE		S603	ESB68137	DIRECT	_
D107-110		DIODE		S604	RSR3B003-A	TAPE MONITOR	
D111, 112				S651	· -	INPUT SELECTOR	
D111, 112 D113		DIODE		S652	RSR6B003-J EVQ21405R	MANUAL	
				- I			
D201-206 D208, 209		DIODE	<u> </u>	S653	EVQ21405R	MUTING	
D208, 209 D301-304				1	-	CONNECTOR(S) AND SOCKET(S)	
		DIODE	<u> </u>	-	 -	COMMECTOR (S) AND SUCKET (S)	
D305-308		DIODE		CNEDE COR	Diffuscrios	COCVET/CD\	
D401, 402		DIODE		CN606, 607	RJU066H06	SOCKET (6P)	
D602		DIODE		CP1	RJP1A4204	CONNECTOR (4P)	(FC ED)
D603-606		DIODE		CP2	RJP1A4103	CONNECTOR (3P)	(EG, EB)
D651-658		L. E. D.		CP2	RJP1A4205	CONNECTOR (5P)	(G)
D659		L. E. D.		CP201	SJT3709	CONNECTOR (7P)	
D660	LN446YP	L. E. D.		CP501	SJT3319	CONNECTOR (3P)	

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
CP601	SJT3907	CONNECTOR (9P)		RL101, 102	RSY0014M-0	RELAY	
CP602	SJT3709	CONNECTOR (7P)		RL201-206	RSY0014M-0	RELAY	
CP603	SJT3415	CONNECTOR (4P)	<u> </u>	RL208, 209	RSY0014M-0	RELAY	
CP606, 607	RJT066H06	CONNECTOR (6P)		RL401, 402	RSY0014M-0	RELAY	
CP701	SJT3611	CONNECTOR (6P)					
						JACK(S)	
		GND AND SHIELD PLATE(S)					
				JK1	SJS9231-1B	AC INLET	Δ
E201	SNE1004-1	GND PLATE		JK201	SJF3431-9A	PHONO/TUNER	
E202, 203	SJT75-1	SHIELD PLATE		JK202	SJF3431-9A	CD/AUX	
E204	SMC1077	SHIELD PLATE		JK203	SJF3431-9A	REC/P. B. (TAPE1)	
E205	SNE1004-1	GND PLATE		JK204	SJF3431-9A	REC/P. B. (TAPE2)	
E701	SNE1004-1	GND PLATE		JK401	SJF3225-5A	PRE OUT	
				JK601	RJJ33TR01	REMOTE CONTROL OUT	
		RELAY(S)					

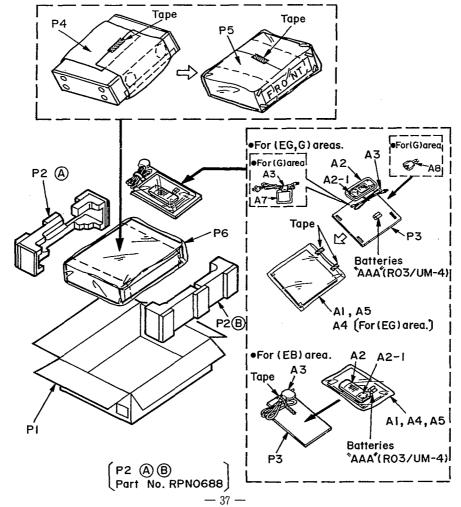
RESISTORS AND CAPACITORS

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.	Val	ues & Ren	narke	Ref. No.	Part No.	Val	ues & Remarks	Ref. No.	Part No.	Val	ues & I	Remarks
	1 41 6 1101	141						-					
_					R231-236	ERDAS3G103T	1/4W	10K	R521, 522	ERDAS3G273T	1/4W	27K	
		RESIST	ORS		R238, 239	ERDAS3G103T	1/4W	10K	R602	ERDS2TJ102	1/4W	1K	
					R301, 302	ERDAS3G224	1/4W	220K	R603-606	ERDS2TJ103	1/4W	10K	
R101-104	ERDAS3G561	1/4₩	560		R303, 304	ERDLS2VJ561T	1/4W	560	R607	ERDS2TJ102	1/4W	1K	
R105, 106	ERDAS3G221T	1/4₩	220		R305-310	ERDAS3G222T	1/4W	2. 2K	R608	ERDS2TJ104	1/4₩	100K	
R107, 108	ERDAS3G473	1/4W	47K		R311, 312	ERDAS3G333	1/4W	33K	R610-612	ERDS2TJ472	1/4W	4.7K	
R109, 110	ERDS2TJ5R6	1/4W	5. 6		R313, 314	ERDAS3G121	1/4W	120	R613, 614	ERDS2TJ102	1/4W	1K	
R111-116	ERDAS3G102T	1/4W	1K		R315, 316	ERDS2TJ155	1/4W	1. 5M	R615-618	ERDS2TJ103	1/4W	10K	
R117, 118	ERDS2EJ121	1/4W	120		R317, 318	ERDLS2VJ222T	1/4W	2. 2K	R651	ERDS2TJ331	1/4W	330	
R119, 120	ERDAS3G333	1/4₩	33K		R319, 320	ERDLS2VJ561T	1/4W	560	R652, 653	ERDS2TJ391	1/4W	390	
R121, 122	ERDS2TJ102	1/4₩	1K		R321, 322	ERDAS3G100T	1/4W	10	R654, 655	ERDS2TJ821	1/4W	820	
R123, 124	ERDAS3G680T	1/4W	68		R323, 324	ERDAS3G102T	1/4W	1K	R656	ERDS2TJ102	1/4W	1K	
R125, 126	ERDS2TJ3R9T	1/4₩	3. 9		R325, 326	ERDAS3G103T	1/4W	10K	R657	ERDS2TJ122	1/4W	1. 2K	
R127, 128	ERDS2TJ225	1/4W	2. 2M		R327, 328	ERDAS3G101T	1/4W	100	R658	ERDS2TJ152	1/4W	1.5K	
R129, 130	EROS2TKF3901	1/4W	3. 9K		R329, 330	ERDAS3G823T	1/4W	82K	R659	ERDS2TJ182	1/4₩	1. 8K	
R131, 132	EROS2CKF4702	1/4W	47K		R401, 402	ERDLS2VJ181T	1/4W	180	R660	ERDS1FVJ100T	1/2W	10	Δ
R133, 134	ERDAS3G101T	1/4W	100		R419, 420	ERDAS3G823T	1/4W	82K	R661	ERDS2TJ391	1/4W	390	
R135, 136	ERDAS3G100T	1/4W	10		R421, 422.	ERDAS3G100T	1/4W	10	R662	ERDS2TJ221	1/4W	220	
R137, 138	ERDAS3G102T	1/4W	1K		R501, 502	ERDAS3G561	1/4W	560	R663	ERDS2TJ102	1/4₩	1K	
R139, 140	ERDAS3G101T	1/4₩	100		R503, 504	ERDAS3G823T	1/4W	82K	R701, 702	ERDS2TJ684	1/4W	680K	
R141, 142	ERDAS3G103T	1/4W	10K		R505, 506	ERDAS3G224	1/4W	220K	R703, 704	ERDS2TJ335T	1/4W	3. 3M	
R143, 144	ERDAS3G334T	1/4W	330K		R507, 508	ERDAS3G223T	1/4W	22K	R705, 706	ERQ16NKWR15E	1W	0. 15	Δ
R145, 146	ERDAS3G561	1/4W	560		R509, 510	ERDAS3G392T	1/4₩	3. 9K	R709	ERDS1FVJ8R2T	1/2₩	8. 2	\triangle
R147, 148	ERDS1FVJ101T	1/2W	100 🔏	7	R511, 512	ERDS2TJ243T	1/4W	24K	R710	ERDS2TJ472	1/4W	4. 7K	
R201, 202	ERDAS3G471T	1/4W	470		R513, 514	ERDAS3G562T	1/4W	5. 6K	R711	ERDS2TJ122	1/4W	1. 2K	
R203, 204	ERDLS2VJ471T	1/4W	470		R515, 516	ERDAS3G102T	1/4W	1K	R712	ERDS2TJ151	1/4W	150	
R205-214	ERDAS3G471T	1/4W	470		R517, 518	ERDAS3G182	1/4W	1. 8K	R713	ERDS2TJ103	1/4W	10K	
R227, 228	ERDAS3G104	1/4W	100K		R519, 520	ERDAS3G272T	1/4₩	2. 7K					

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
		CAPACITORS	C301, 302	ECCR1H470JC5	50V 47P	C603	ECEAOJU102	6. 3V 1000U
			C303, 304	ECCR1H820JC5	50V 82P	C604-606	ECKR1H103ZF5	50V 0.01U
C1	ECKWNS102MBM	400V 1000P ⚠	C305, 306	ECHR1H222JZ3	50V 2200P	C607	ECEAOJKA101B	6. 3V 100U
C103, 104	ECCD1H680KC	50V 68P	C307, 308	ECCR1H470JC5	50V 47P	C608	ECKR1H102ZF5	50V 1000P
C105, 106	ECCR1H181K5	50V 180P	C309, 310	ECQV1H564JM3	50V 0.56U	C609	ECEA1HKA2R2B	50V 2. 2U
C107, 108	ECQB1H102JF3	50V 1000P	C311-314	ECA1CPXS470B	16V 47U	C610	ECEA1HKAR47B	50V 0. 47U
C111, 112	ECQB1H472JF3	50V 4700P	C315, 316	ECQV1H474JM3	50V 0.47U	C611	ECQV1H1O4JM3	50V 0. 1U
C113, 114	ECKR1H102MD5	50V 1000P	C317, 318	ECQV1H473JM3	50V 0. 047U	C651	ECQV1H104JM3	50V 0.1U
C115, 116	ECA1CPXS470B	16V 47U	C401, 402	ECHR1H102JZ3	50V 1000P	C652	ECEAOJKA101B	6. 3V 100U
C117, 118	ECQP1183GZW	100V 0.018U	C413, 414	ECA1CBX330B	16V 33U	C653, 654	ECQV1H104JM3	50V 0.1U
C119, 120	ECHR1H122JZ3	50V 1200P	C419, 420	ECHR1H102JZ3	50V 1000P	C655	ECEAOJKA101B	6. 3V 100U
C121, 122	ECQP1683GZW	100V 0.068U	C501, 502	ECA1HPXS3R3B	50V 3. 3U	C701, 702	ECESX1H332UX	50V 3300U <u>∧</u>
C123, 124	ECQV1H473JM3	50V 0.047U	C503, 504	ECCR1H101JC5	50V 100P	C703, 704	ECA1CPXS472E	16V 4700U ⚠
C125, 126	ECA1EBX100B	25V 10U	C505, 506	ECCR1H820JC5	50V 82P	C705, 706	ECA1EPXS470B	25V 47U
C127, 128	ECQB1H472JF3	50V 4700P	C507, 508	ECCR1H390JC5	50V 39P	C707, 708	ECA1HPXS010B	50V 1U
C129, 130	ECKR1H103ZF5	50V 0.01U	C509, 510	ECA1CPXS100B	16V 10U	C709, 710	ECA1EPXS100B	25V 10U
C131	ECA1CPXS101B	16V 100U	C511, 512	ECA1HPXS4R7B	50V 4. 7U	C713, 714	ECA1EPXS100B	25V 10U
C132	ECA1HPXS010B	50V 1U	C513, 514	ECQB1H153JF3	50V 0. 015U	C719, 720	ECA1CPXS470B	16V 47U
C133, 134	ECKR1H102MD5	50V 1000P	C515, 516	ECQV1H823JM3	50V 0. 082U	C721	ECA1EBX100B	25V 10U
C135	ECKR1H103ZF5	50V 0. 01U	C517, 518	ECQB1H182JF3	50V 1800P	C722, 723	ECA1EPXS100B	25V 10U
C201-214	ECCR1H101J5	50V 100P	C519, 520	ECQB1H183JF3	50V 0. 018U	C724	ECKR1H103ZF5	50V 0. 01U
C221	ECA1CPXS470B	16V 47U	C523, 524	ECKR1H103ZF5	50V 0.01U	C725, 726	ECQV1H104JM3	50V 0.1U
C231-236	ECA1EPXS100B	25V 10U	C525-527	ECKT1H223ZF	50V 0. 022U	C727-734	ECKR1H103ZF5	50V 0. 01U
C238, 239	ECA1HPXS4R7B	50V 4.7U	C602	ECEAOJKA470B	6. 3V 47U			

PACKAGING



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