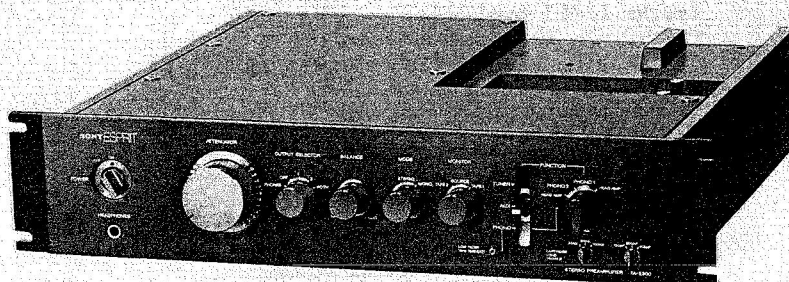


TA-E900

US Model
AEP Model
UK Model



STEREO PREAMPLIFIER

SPECIFICATIONS

Inputs

		Sensitivity	Impedance	Capacitance	Maximum input level (1 kHz)	S/N (A network)		
PHONO 1		2.5 mV	50 k Ω	100 pF	180 mV	84 dB, 80 dB *		
HEAD AMP	40 Ω cartridge	0.2 mV	4 Ω	—	15 mV	72 dB	70 dB *	Equivalent input noise level -158 dBV
	4 Ω cartridge	0.035 mV			2.5 mV	65 dB		
PHONO 2		2.5 mV	25/50/100 k Ω	100/200/400 pF	180 mV	84 dB, 80 dB *		
HEAD AMP	40 Ω cartridge	0.2 mV	4 Ω	—	15 mV	72 dB	70 dB *	Equivalent input noise level -158 dBV
	4 Ω cartridge	0.035 mV			2.5 mV	65 dB		
TUNER, AUX, TAPE 1, 2		150 mV	50 k Ω	—	12 V	102 dB, 115 dB *		

* '78 IHF

— Continued on next page —

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.



SONY®

SERVICE MANUAL

TA-E900

Outputs

	Voltage	Impedance
REC OUT 1, 2	150 mV (max. 12 V)	100 Ω
OUTPUT 1, 2	1.5 V (max. 12 V)	100 Ω

Harmonic distortion
Intermodulation (IM) distortion
(60 Hz : 7kHz = 4 : 1)
Frequency response
Filter (PHONO inputs)
Residual noise

Less than 0.005% (at 8 V output)
Less than 0.005% (at 8 V output)
PHONO 1,2 : RIAA equalization curve ± 0.2 dB
TUNER, AUX, TAPE 1,2 : DC - 300 kHz ± 0 dB
LOW 12 dB/octave attenuation below 15 Hz
12 μ V (A weighting network, IHF)

General System

Head amplifier
Common-base, complementary push-pull amplifier in cascode connection
Equalizer amplifier, Input buffer amplifier, Flat amplifier
1st : Bootstrapped cascode differential amplifier
2nd : Cascode differential amplifier, cascode current-mirror load
Output : Darlington emitter-follower single end push-pull output
(Equalizer amp : NF type)

Power requirements

Power supply : Two regulated power supplies for each channel
US model: 120 V ac, 60 Hz
AEP model: 220 V ac (or 240 V ac adjustable by
authorized Sony personnel), 50 Hz
UK model: 240 V ac (or 220 V ac adjustable by
authorized Sony personnel), 50 Hz
27 watts

Power consumption AC outlets (only for US model)

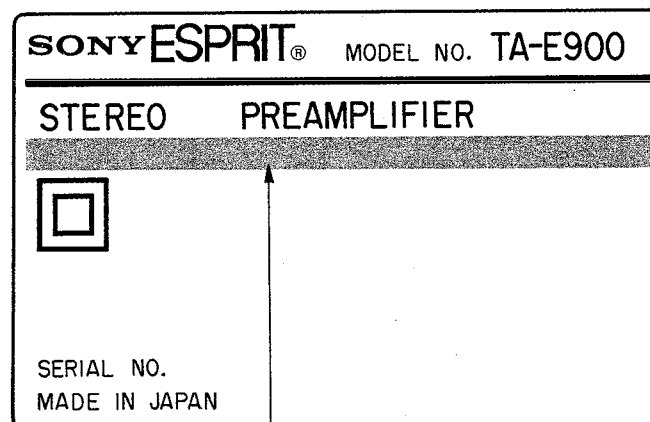
SWITCHED (450 watts capacity)
UNSWITCHED (450 watts capacity)
Approx. 480 $\times$ 105 $\times$ 455 mm (19 $\times$ 4 $\frac{1}{4}$ $\times$ 18 inches) (w/h/d)
Approx. 13 kg (28 lbs 10 oz), net
Approx. 14.5 kg (31 lbs 15 oz), in shipping carton
Shorting plugs (2)
Dust-proof caps (18)

Dimensions Weight

Supplied accessories

MODEL IDENTIFICATION

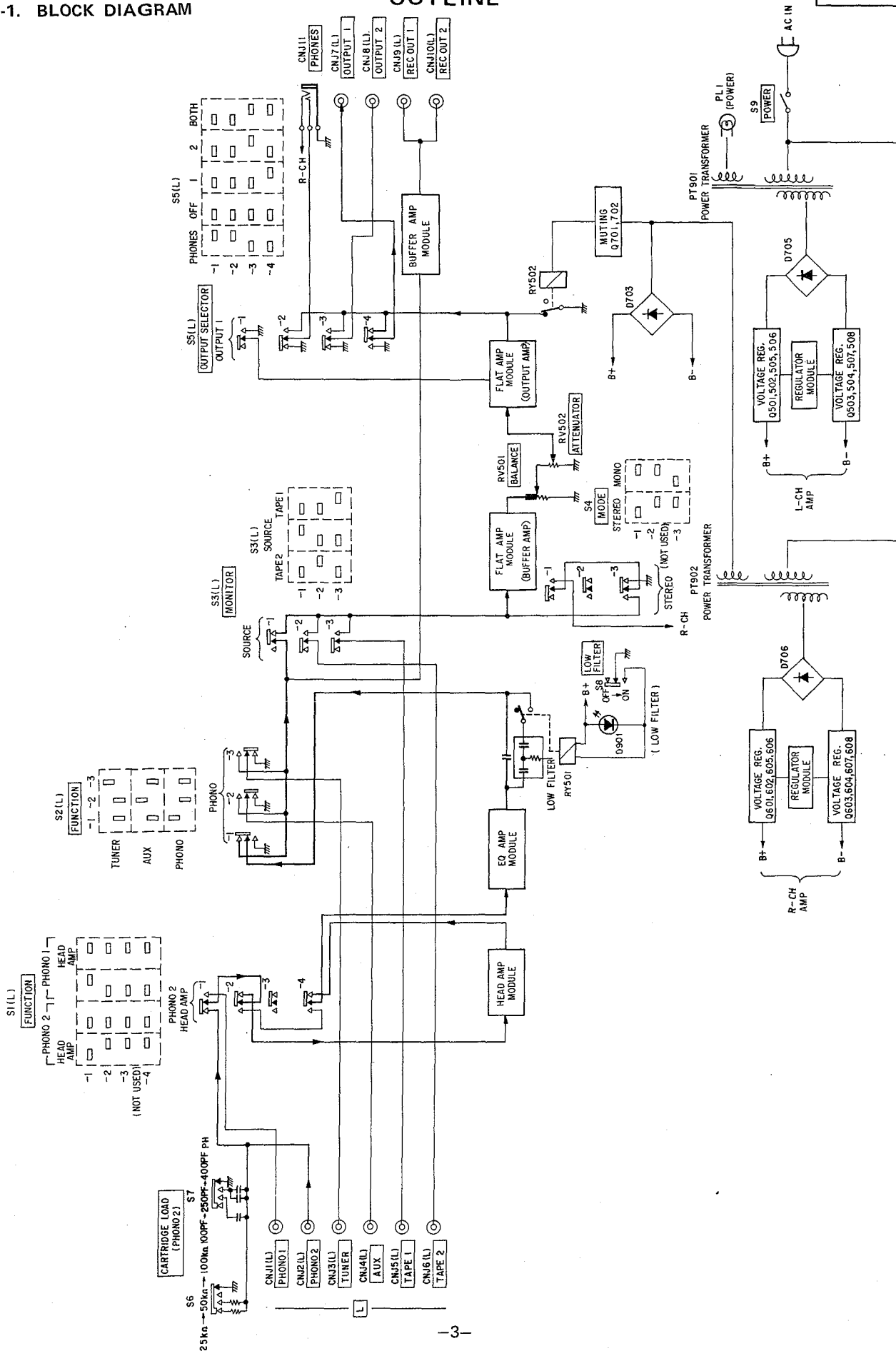
— Specification Label —



UK model: AC 240V~ 50/60Hz 27W
US model: AC 120V~ 60Hz 27W
AEP model: AC 220V~ 50/60Hz 27W

SECTION 1 OUTLINE

1-1. BLOCK DIAGRAM



TA-E900

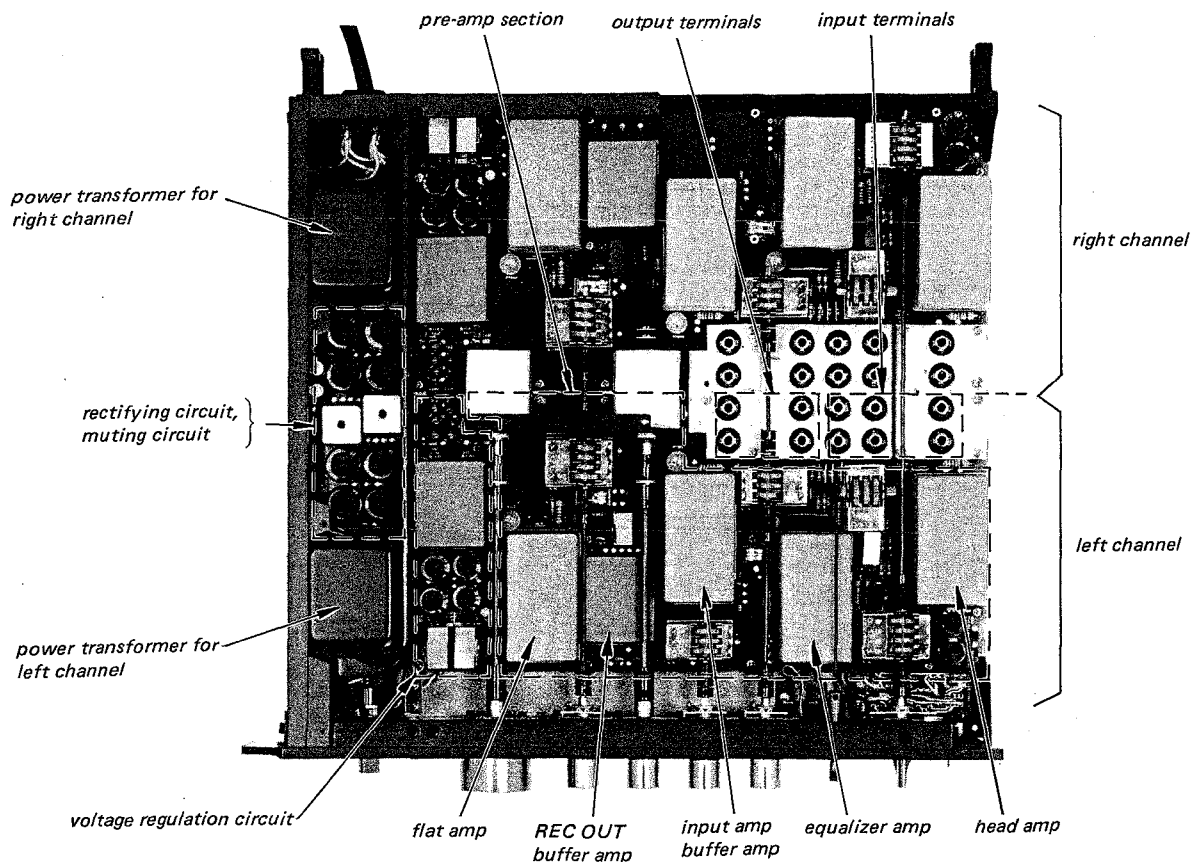
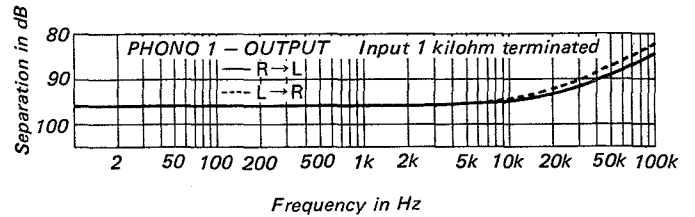
1-2. INTERNAL CONSTRUCTION AND LAYOUT

The TA-E900 consists of two monaural preamplifiers in a single cabinet with a separate power supply for each channel.

Input and output terminals are concentrated so that any potential difference between two channels is eliminated.

Attenuator volume and balance controls are embodied in a case which includes the two channel components with a shield between them. All of these features provide an excellent channel separation. Switches, mechanically linked from the front panel selectors, are located as closely as possible to the signal circuits. This provides a short signal path, keeping the wiring loss as low as possible as well as contributing to the excellent channel separation.

Channel separation



1-3. CIRCUIT DESCRIPTION

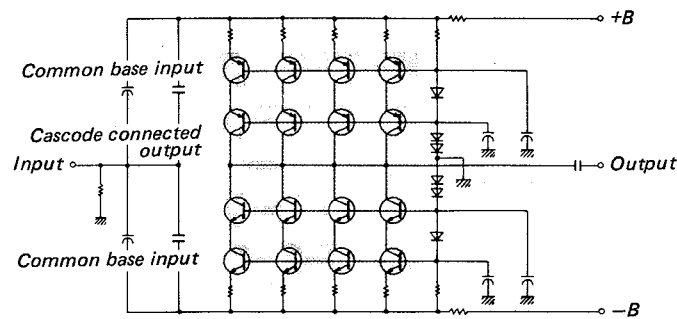
1-3-1. Head Amplifier

There are two ways to boost the low output voltage of a moving-coil cartridge: the use of a step-up transformer, and the use of a head amplifier. The step-up transformer can provide superior signal-to-noise ratio and better reproduction of middle frequencies than most head amps. But head amps can provide wider and more linear frequency response and lower distortion than the step-up transformers. After considering the relative merits of both step-up transformer and head amp, we designed the following circuit for the preamplifier function.

As shown in the figure, the head amplifier of the TA-E900 is a common base push-pull amplifier in cascode connection. The common base amplifier boosts the voltage by changes in its internal resistance.

The current from the power source is only the dc bias current so that it doesn't fluctuate with the input signal. Though common NF type head amplifiers can influence each other via the power sources, as the impedance of the NF circuit is low, this head amplifier has stable characteristics with relation to the power source.

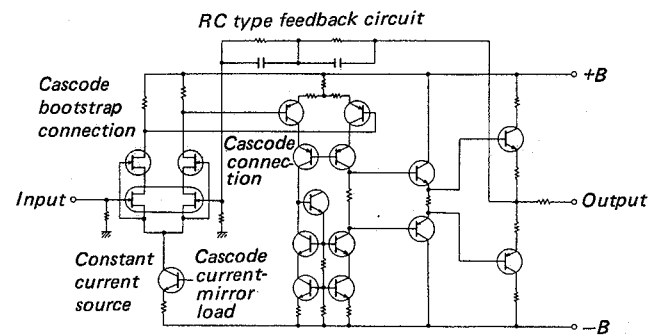
This head amplifier boosts the output voltage without affecting the tonal quality, while providing an excellent signal-to-noise ratio.



1-3-2. Equalizer Amplifier

The first stage of the TA-E900 equalizer amplifier is a dual-FET differential amplifier. The dual-FET has been especially developed for the differential amplifier, which features a remarkably low temperature characteristic and well-balanced electric characteristics, and which has been designed to have high conductance (gm) and low feedback capacitance for high quality sound with excellent signal-to-noise ratio. A cascode bootstrap connection of each component greatly reduces the effects of power supply voltage fluctuation.

In the driving stage, a cascode connection with a PNP transistor differential amplifier reduces the effect of temperature drift and improves linearity. The current-mirror circuit in a cascode connection makes the power consumption of both collectors equal and reduces the temperature drift. The current from the differential circuit is picked up at a single ended output through the current-mirror circuit. The final stage incorporates a Darlington compound emitter-follower push-pull amplifier to enable it to drive load requiring a higher output.



1-3-3. Input Buffer Amplifier and Flat Amplifier

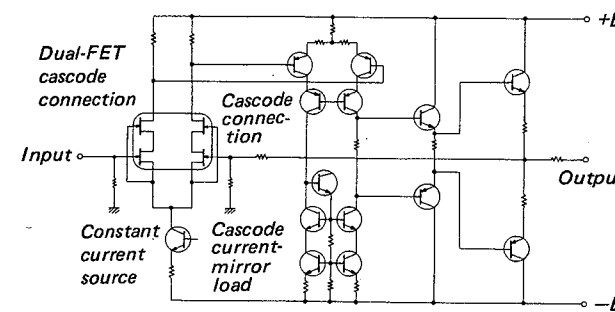
The difference between the construction of the input buffer amplifier and that of the flat amplifier lies in the amount of feedback used, and the resultant effect on the gain. The gain of the input buffer amp is 0dB, and the gain of the flat amp is 20dB.

The construction, except for the feedback circuit and first stage FET of both input buffer and flat amps is almost the same as the equalizer amp.

These amplifiers are dc amp types without coupling capacitors, so that it is necessary to keep the temperature drift of the output as low as possible. Because of this, FETs with extremely low dc drift have been selected from quadruple FETs for the first stage. The input buffer amplifier is so designed, that its input impedance is high and its output impedance is low, so as to drive attenuator and balance controls without any effect on the frequency response or distortion.

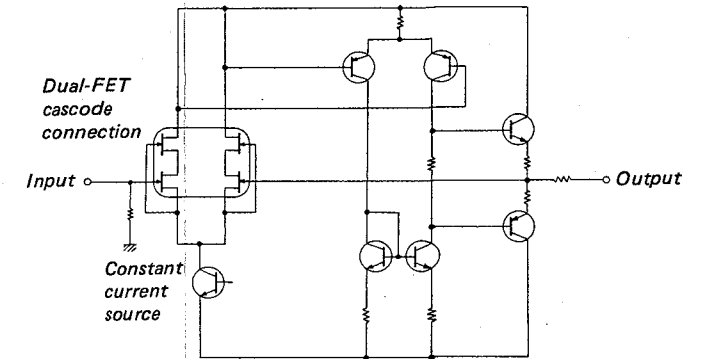
The output of the flat amplifier becomes the output of the TA-E900.

To avoid any degradation of the frequency response by the cable capacitance when the preamplifier is connected to the power amplifier, it is essential that the output impedance be relatively low. The current level of the TA-E900 output stage is designed to be high and the series-impedance is extremely low (100 ohms).



1-3-4. REC OUT Buffer Amplifier

A REC OUT buffer amplifier is incorporated so that the flat amplifier is not adversely influenced by any tape decks connected to the REC OUT jacks, and can furnish its signal flow without distortion. The gain of this buffer amplifier is unity (0dB).

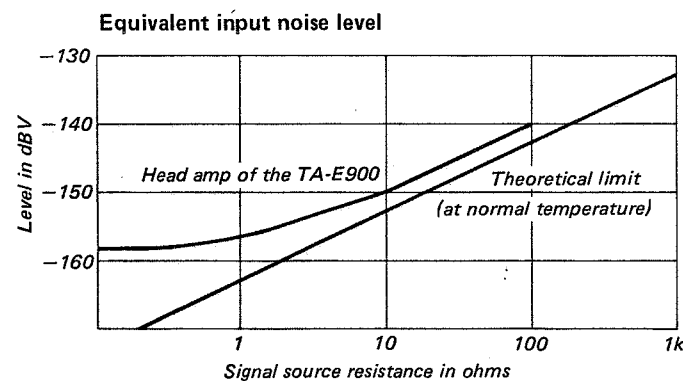
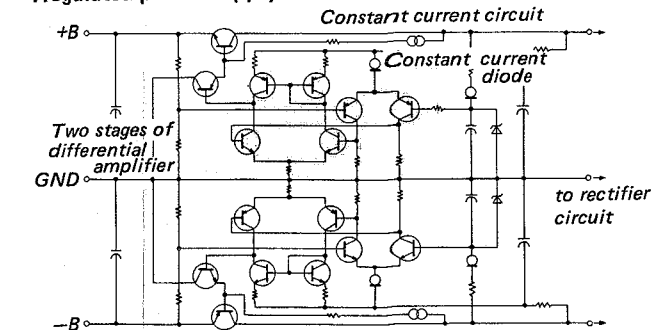


1-3-5. Power Supply Section

The preamplifier stages are powered by a completely separate power supply for each channel, which helps to reduce the interaction between channels. The secondary output of each power is stabilized by its own powerful voltage regulator after being diode rectified.

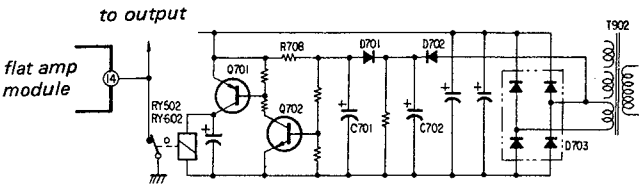
This powering system holds crosstalk down to a minimum and assures a constant voltage supply with low power line hum.

Regulated power supply



1-4. RELAY DRIVE CIRCUIT

Relay drive circuit is the circuit for driving RY502, 602 (relay for the muting) and is composed of Q701, 702 on the power supply board. This circuit is for the muting when power is turned on or off. When the power is on, signal is designed to flow. Figure below illustrates its operation.



1-4-1. Operation When the Power is On:

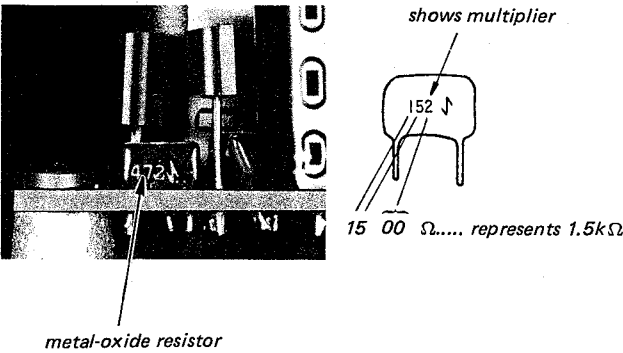
- 1) B+ begins to be generated when the power switch turns on.
- 2) B+ is applied to C701 through R708 and C701 begins to be charged. When charging C701 begins, B+ voltage increases.
- 3) Q702, 701 are off, and RY502, 602 are still off till charging C701 is completed.
- 4) When the power is stable and C701 is charged, Q702, 701 turn on and relay operates and output is output from OUTPUT.

1-4-2. Operation When the Power is Off:

- 1) When the power switch is turned off, D701, though being off because of D702, turns on and C701 discharges through D701, R711.
- 2) To turn Q702, 701 off, RY502, 602 turn off and output is not output from OUTPUT.

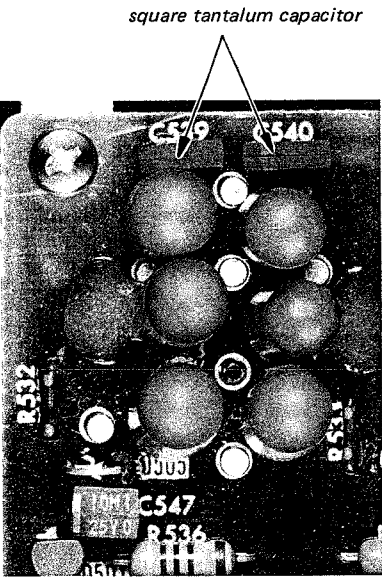
1-5. SMALL RESISTORS

The TA-E900 uses many small resistors, similar to the type shown in the figure below. These resistors are 1/4W metal-oxide with an accuracy of 1%. Note that this accuracy rating has been omitted in the schematic diagrams.



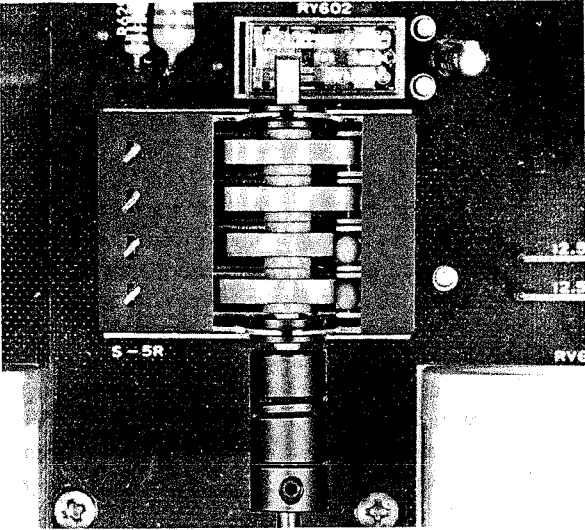
1-6. SQUARE TANTALUM CAPACITORS

The capacitors employed in the TA-E900 (as shown in the figure below) are the same square tantalum capacitors used in pulse circuit power supplies, etc. These capacitors are especially used in the B+ and B- bus where their greater by-pass effect is needed.

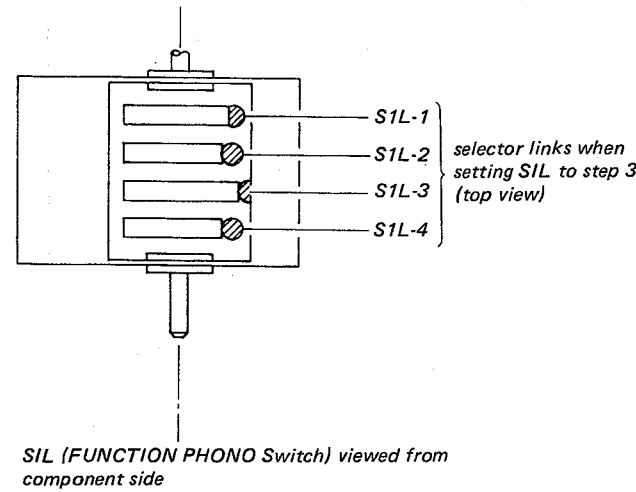
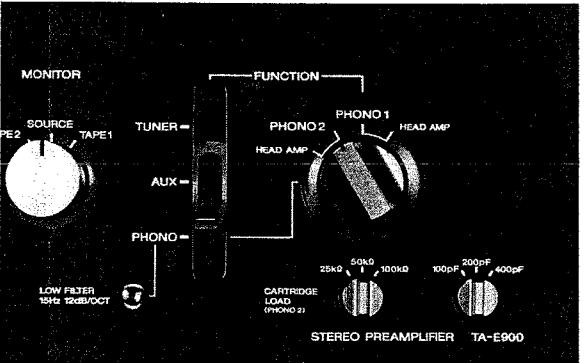


1-7. CAM EQUIPPED SWITCH INDICATION

The selector switches employed in TA-E900 are each equipped with a cam, and a number (3 or 4) of slide switch elements which move in an irregular fashion when the cam rotates.



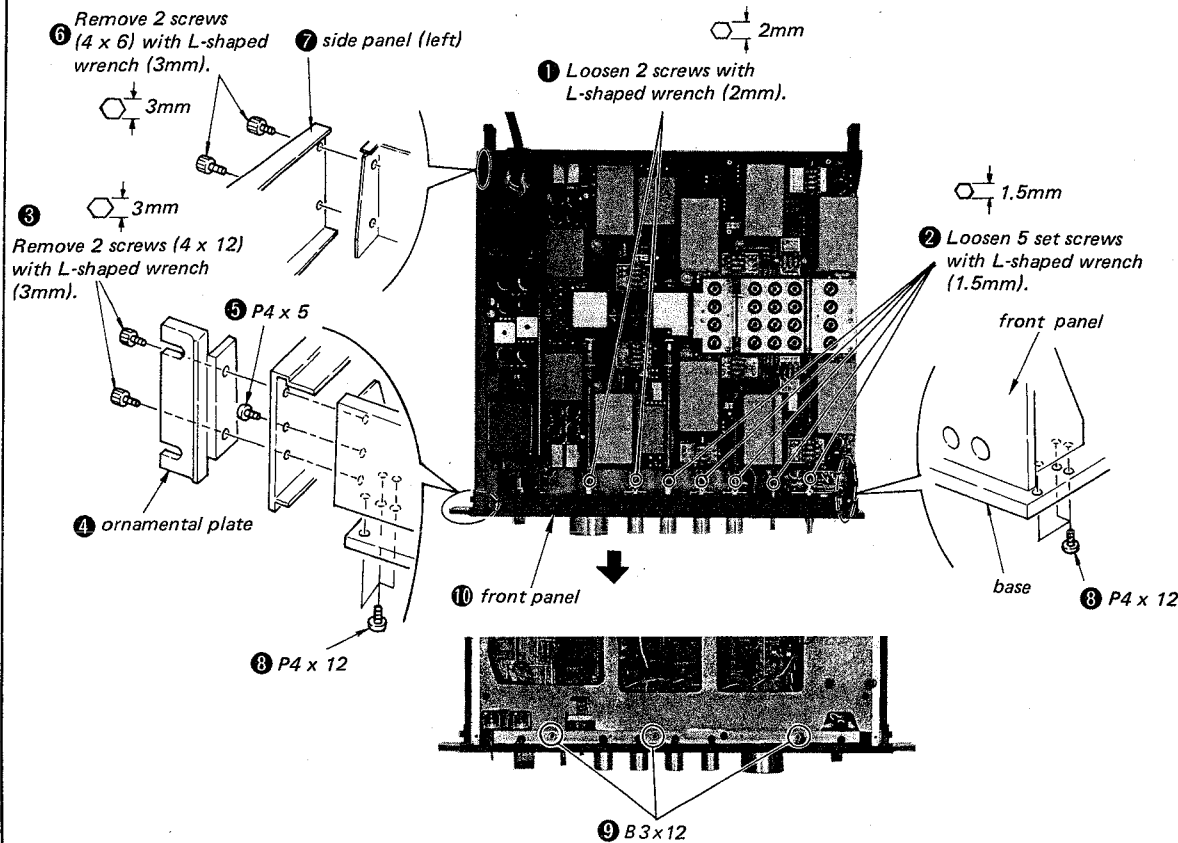
As an example of this arrangement, S1L (FUNCTION PHONO INPUT) is shown in the figure below.



There are a total of ten switches employed in the TA-E900, making it impossible to determine which points are making contact at different select positions. For this reason, both the schematic diagram and the mounting diagram include special charts of the contact patterns for each switch position. Note that these charts indicate the position of the blue switch link heads as viewed from the component side, thereby simplifying checking operations as well.

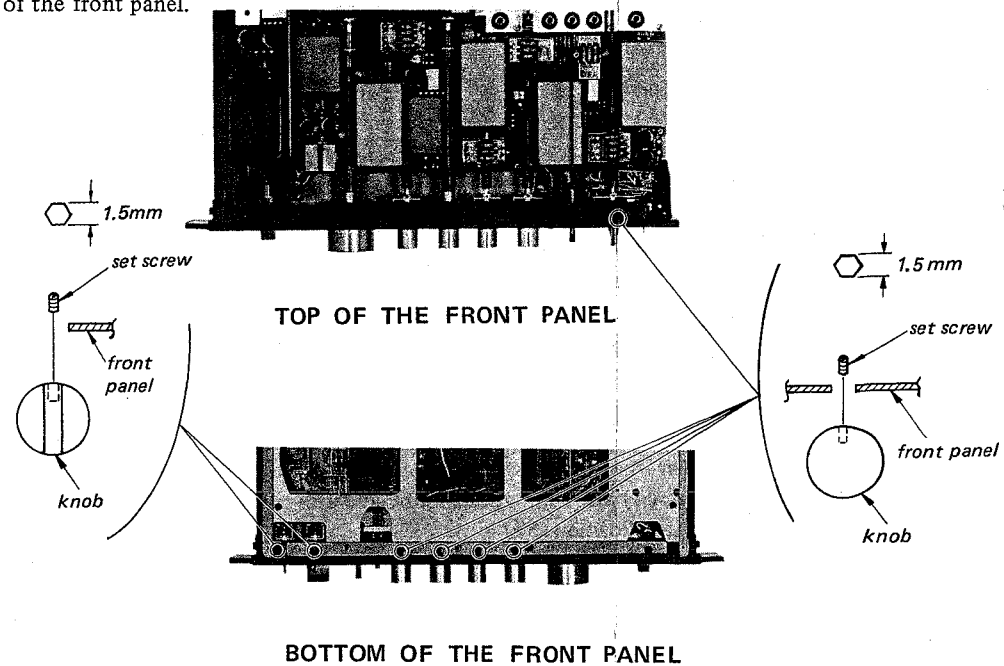
PHONO 2 HEAD AMP 3Ω 40Ω			PHONO 1 HEAD AMP 40Ω 3Ω			
☐	☐	☐	☐	☐	☐	 S1L-1
☐	☐	☐	☐	☐	☐	 S1L-2
☐	☐	☐	☐	☐	☐	 S1L-3
☐	☐	☐	☐	☐	☐	 S1L-4
(step) (1)	(2)	(3)	(4)	(5)	(6)	
movement of switch contacts viewed from component side						

FRONT PANEL REMOVAL



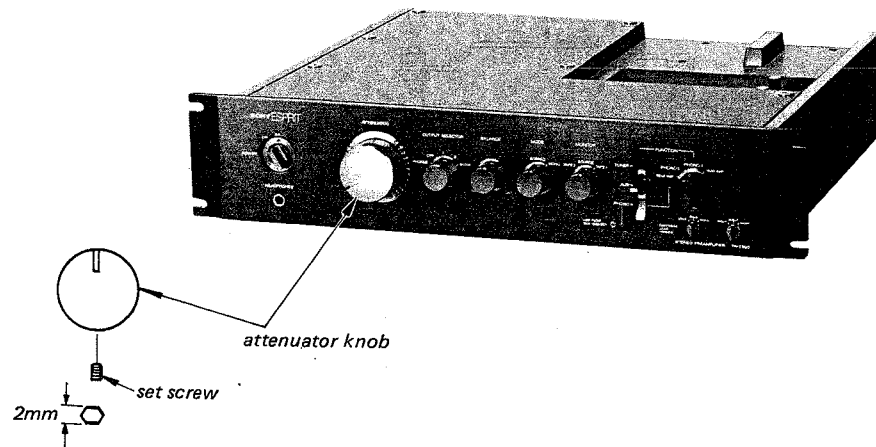
KNOB REMOVAL

Remove knobs by loosening set screws by L-shaped wrench (1.5mm) from the top or bottom of the front panel.



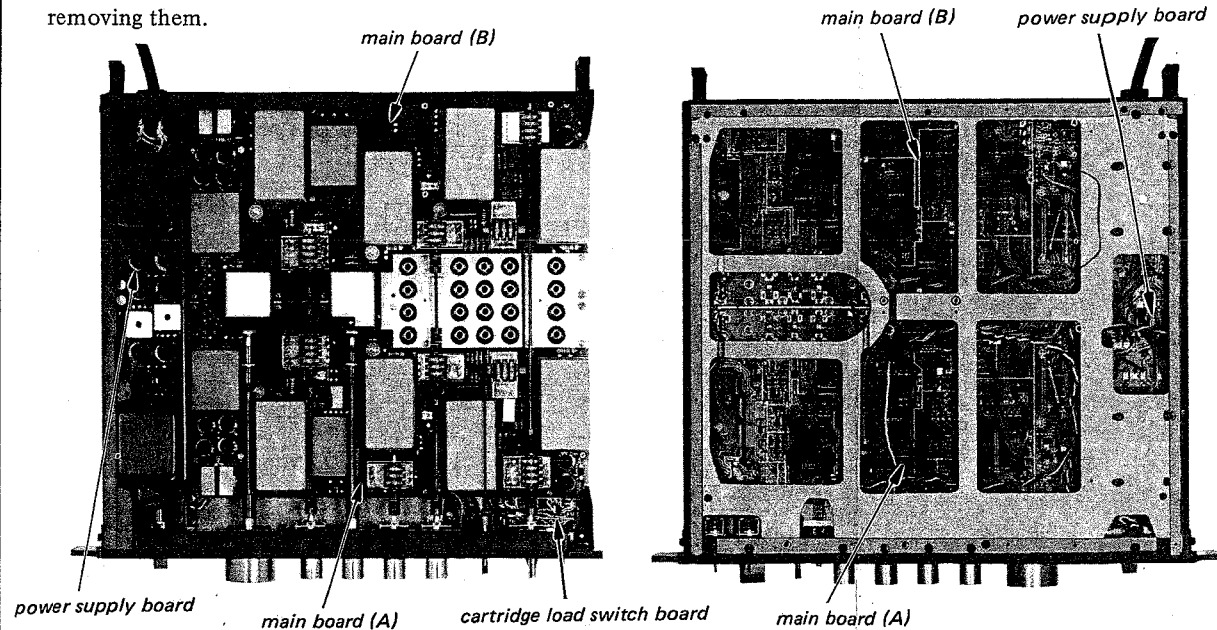
ATTENUATOR KNOB REMOVAL

Remove knob by loosening a set screw with L-shaped wrench (2 mm).

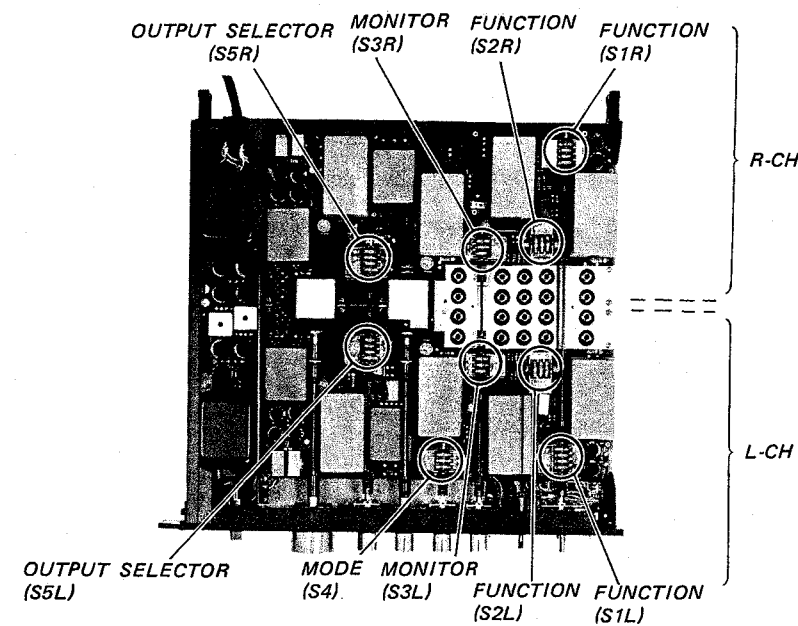


CHECK OF EACH BOARD

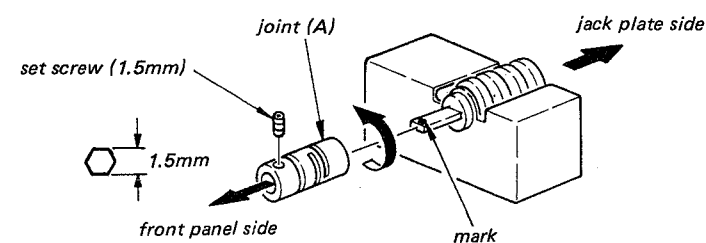
Printed circuit boards can be repaired without removing them.



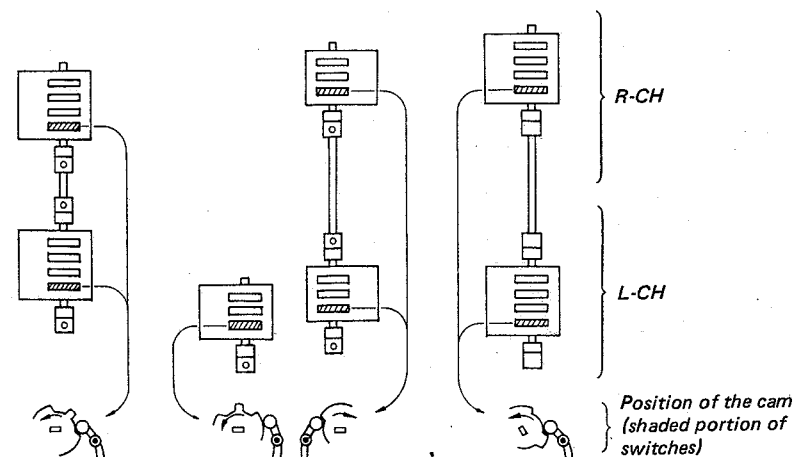
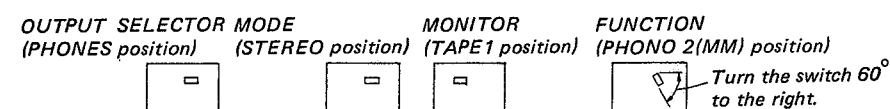
NOTE ON ROTARY SWITCH INSTALLATION



- 1) Turn the shaft as shown below and install the joint (A) and etc. with its mark side up.
 - 2) Switch Position (S3)
- Install S3 with its mark side against the jack plate.

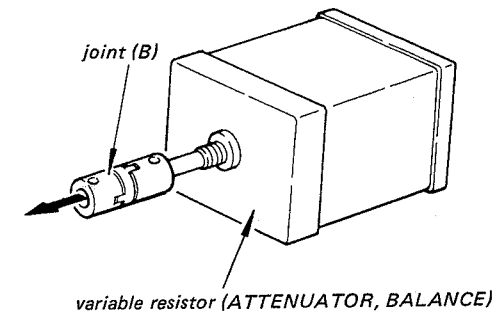


Install knobs as shown below.

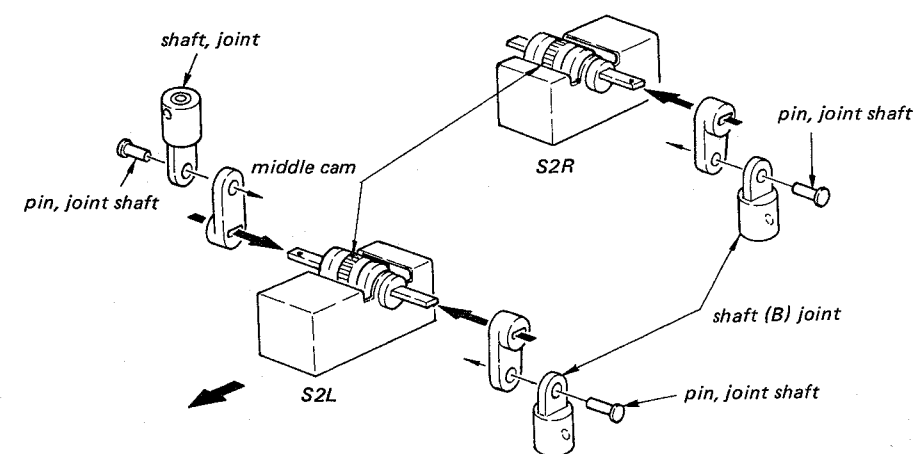


JOINT (B) REMOVAL

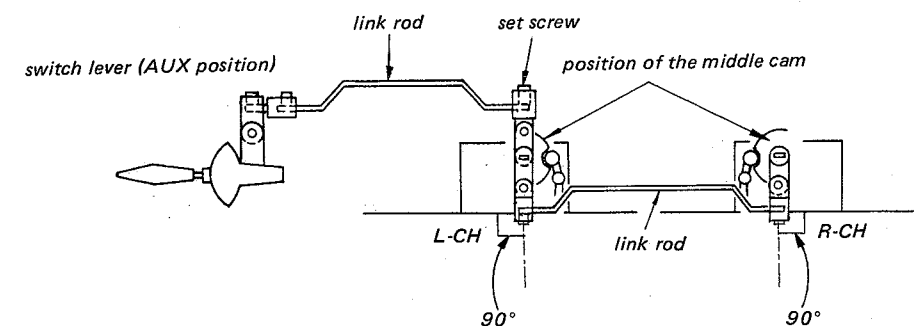
Do not pull the front part of the joint (B) in the direction shown by the arrow, because the front part is combined with the rear part through a spring. Be sure to loosen the set screws and remove the joint (B).



3) Switch Position (S2)



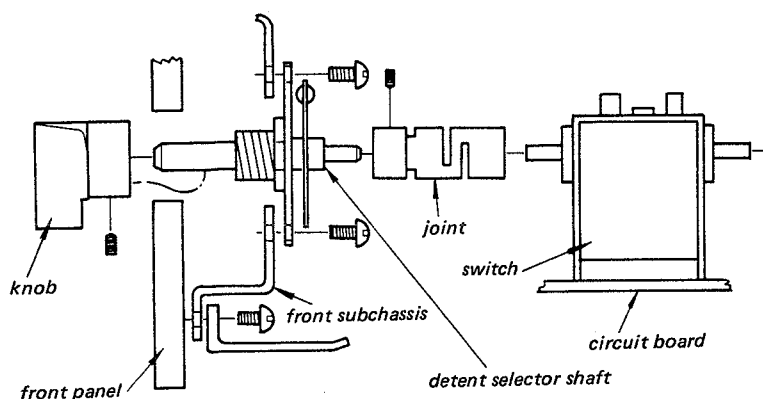
Set the switch lever to the AUX position and install the link rod as shown below.



1-8. ORDER OF PARTS IN SWITCH ASSEMBLIES

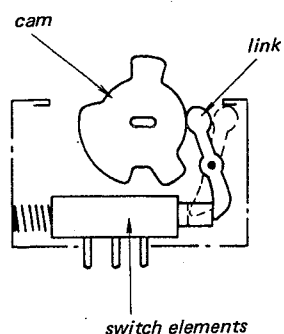
A typical switch assembly, including the switch, the joint, front panel and selector knob, is shown the figure below.

Whenever such switch assemblies are taken apart, the position of parts must be noted, either by marking each part, or by some other method.



1-9. SWITCH ANGLE ALIGNMENT

This switch is turned on or off through the switch links and switch cam. A feature of the switch is the absence of click stops which determine the actual switching position. Therefore, it is necessary to align correctly the selector knob with its corresponding switch position.



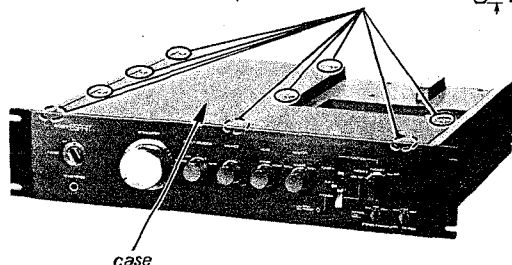
SECTION 2 DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

CASE REMOVAL

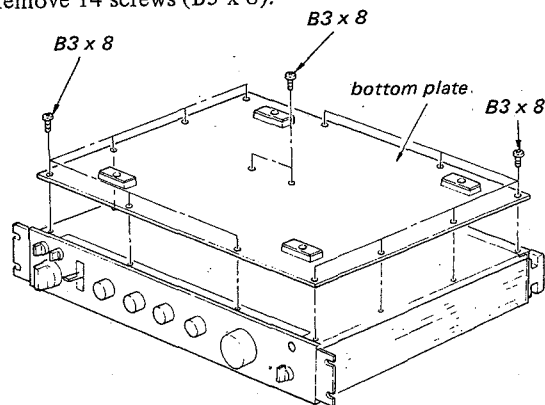
Remove 9 screws (3 x 5)
with an L-shaped wrench
(2.5mm).

2.5mm

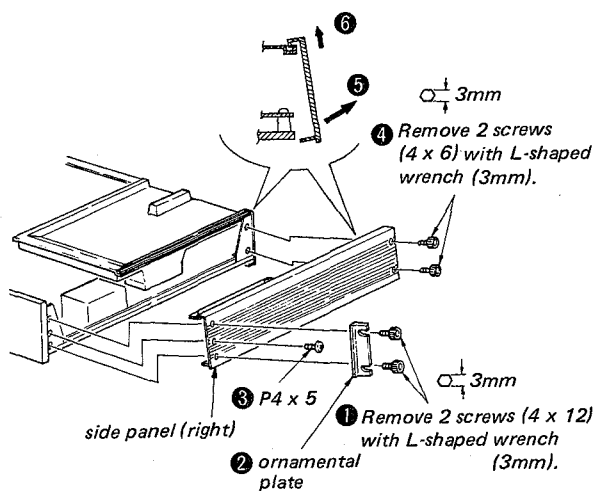


BOTTOM PLATE REMOVAL

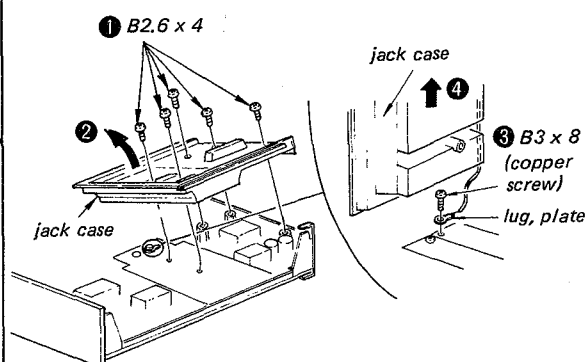
Remove 14 screws (B3 x 8).



SIDE PANEL (RIGHT) REMOVAL



JACK CASE REMOVAL



SECTION 3 ADJUSTMENTS

OFFSET ADJUSTMENT-1 (PHONO EQ AMP)

Setting:

POWER switch : ON
FUNCTION switch (S1) : PHONO 1
FUNCTION switch (S2) : PHONO

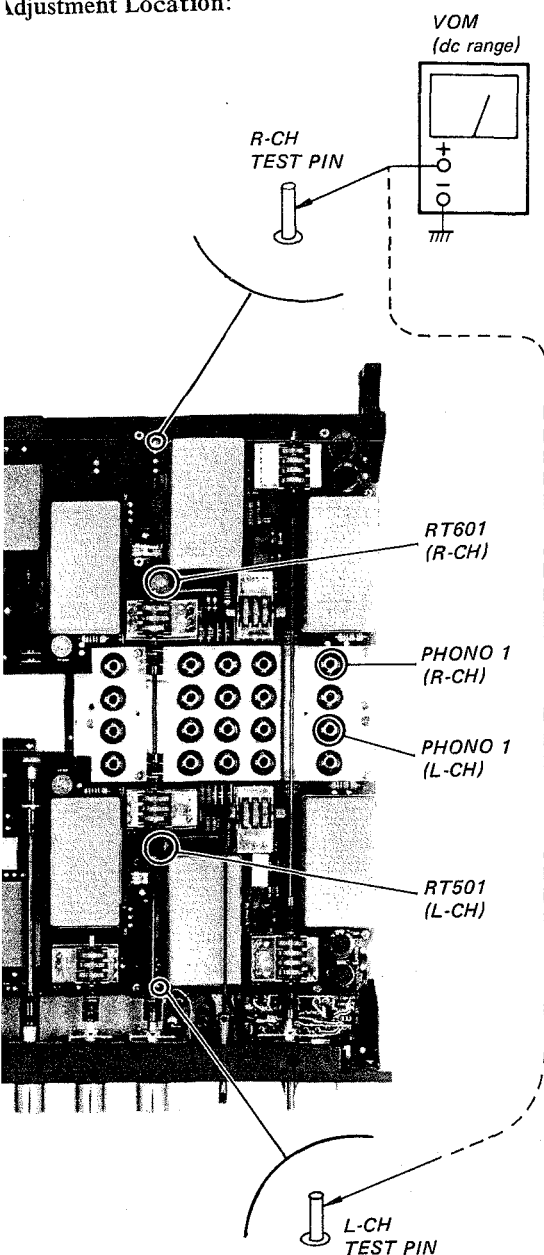
Procedure:

1. Terminate the PHONO 1 jack with a shorting plug.
2. Adjust RT501 (L-CH) and RT601 (R-CH) for 0V reading on VOM.

Specification:

EQ OUT level: $0 \pm 0.1V$

Adjustment Location:



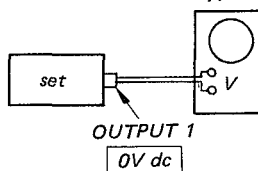
OFFSET ADJUSTMENT-2 (OUTPUT AMP)

Setting:

POWER switch : ON
ATTENUATOR control : fully counter-clockwise
OUTPUT SELECTOR switch : 1

Procedure:

oscilloscope
(dc range, vertical amplifier
sensitivity; 1mV/div or less)

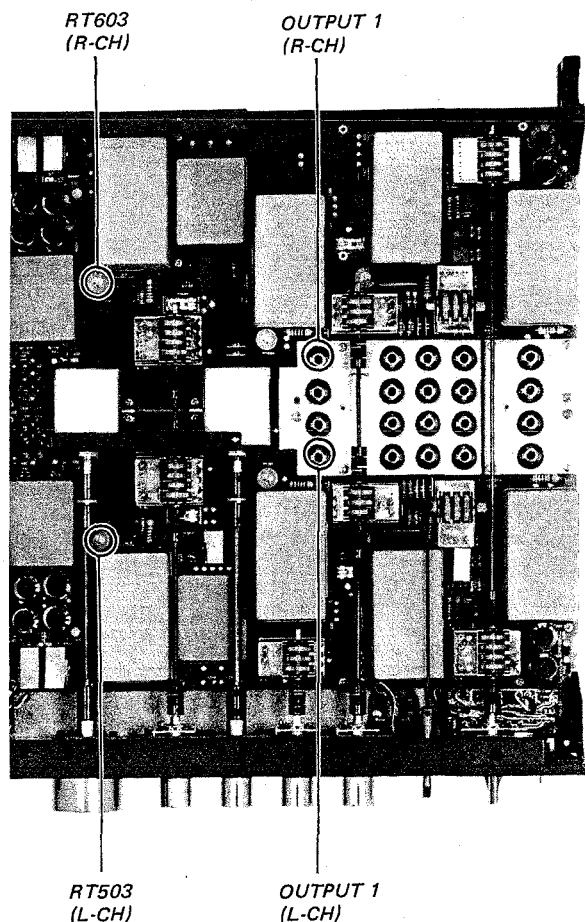


1. Adjust RT503 (L-CH) and RT603 (R-CH) for 0V reading on oscilloscope.

Specification:

OUTPUT 1 level: $0 \pm 0.1mV$

Adjustment Location:



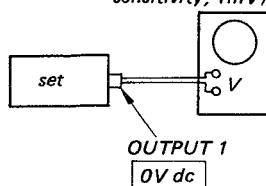
OFFSET ADJUSTMENT-3 (BUFFER AMP)

Setting:

POWER switch	: ON
FUNCTION switch	: TUNER
MONITOR switch	: SOURCE
MODE switch	: STEREO
BALANCE control	: mechanical mid
ATTENUATOR control	: fully clockwise
OUTPUT SELECTOR switch	: 1

Procedure:

*oscilloscope
(dc range, vertical amplifier
sensitivity: 1mV/div or less)*

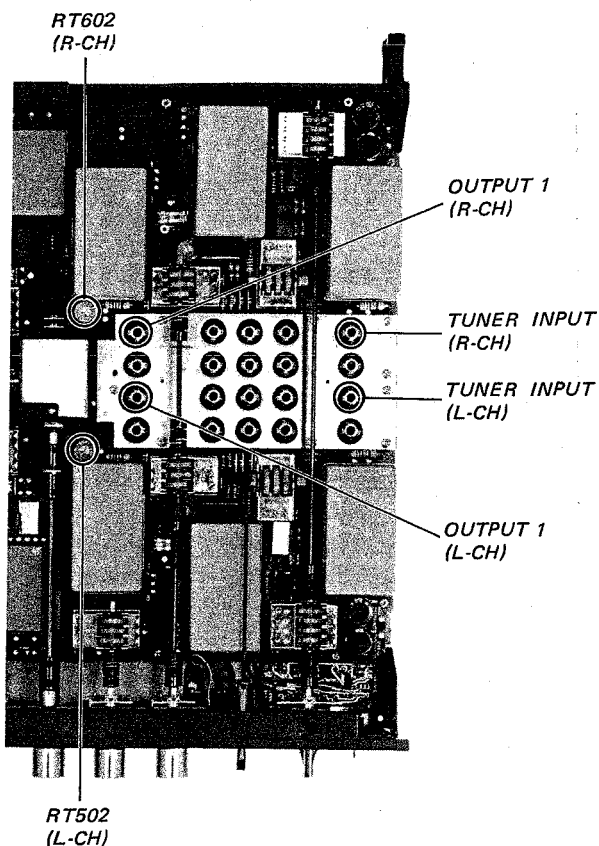


1. Terminate the TUNER jack with a shorting plug.
2. Adjust RT502 (L-CH) and RT602 (R-CH) for 0V reading on oscilloscope.

Specification:

OUTPUT 1 level: $0 \pm 0.1\text{mV}$

Adjustment Location:



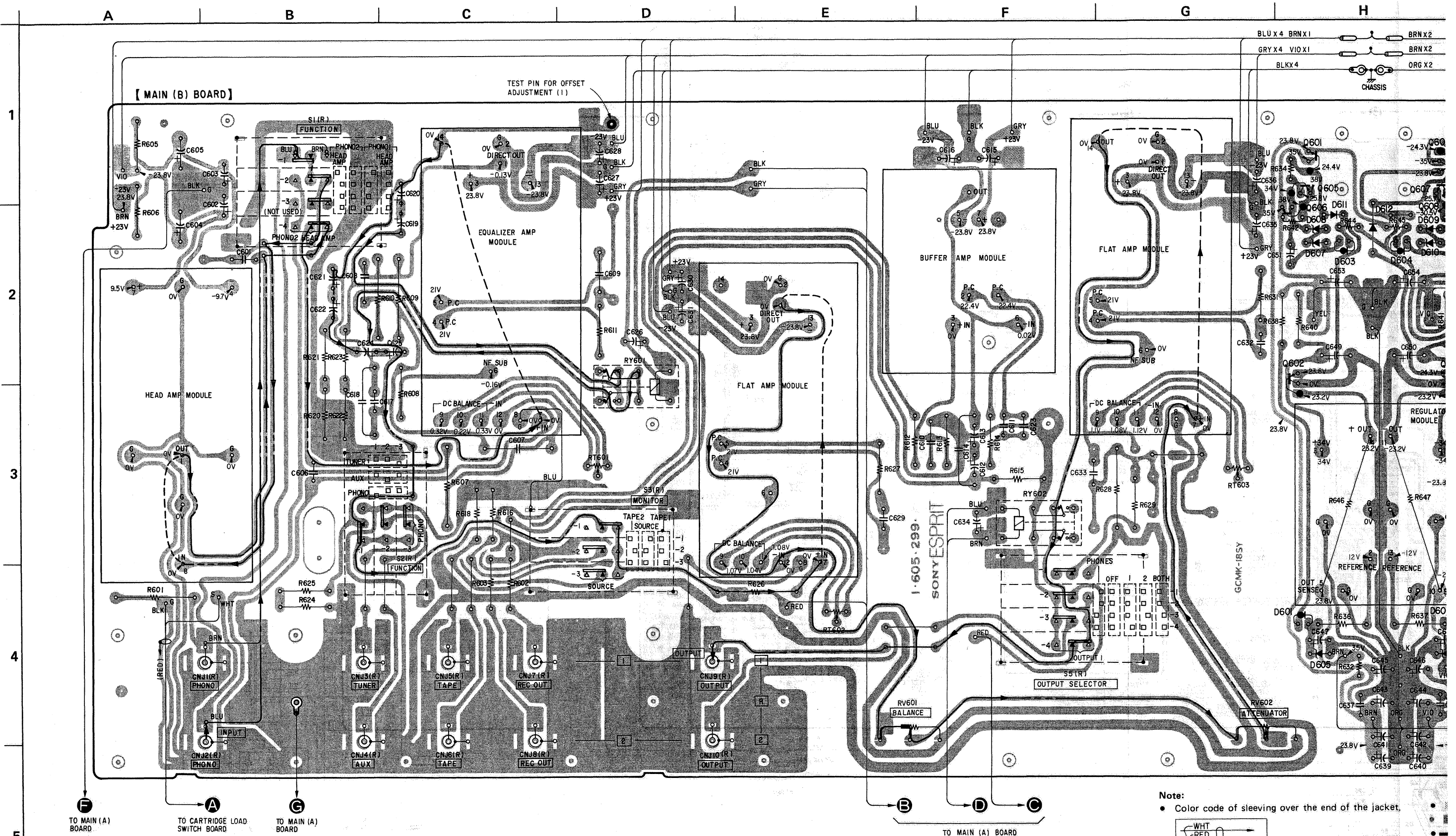
MUTING TIME CHECKING

Confirm the operation of the relays (RY502, 602)

- RY502 and RY602 are energized at about five seconds after the POWER switch is turned ON.
- RY502 and RY602 are released at the moment when the POWER switch is turned OFF.

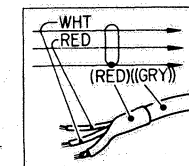
SECTION 4 DIAGRAMS

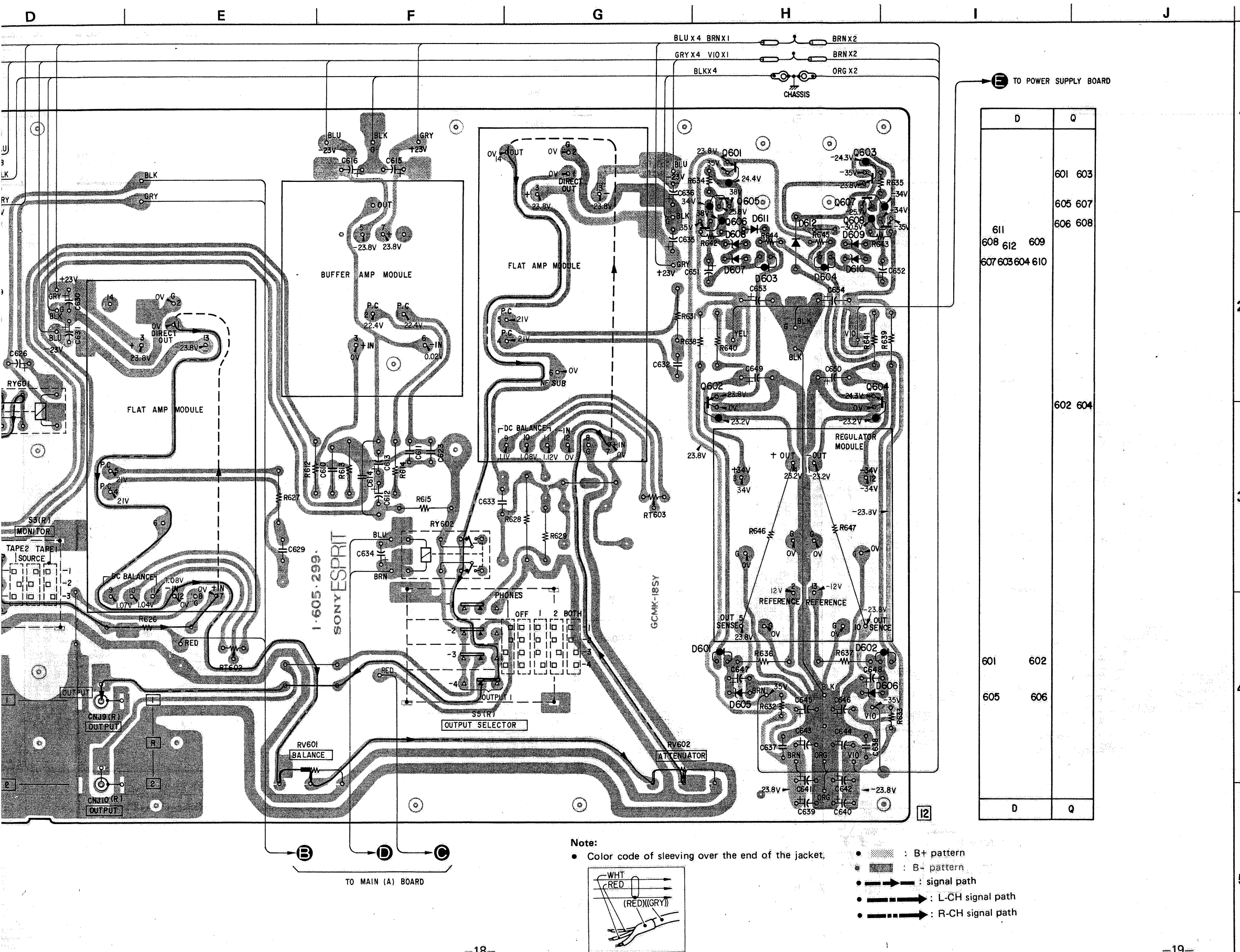
4-1. MOUNTING DIAGRAM



Note:

- Color code of sleeving over the end of the jacket.



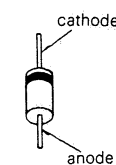


• Semiconductor Lead Layouts

2SB719
2SB720
2SD759
2SD760



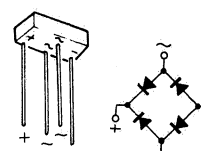
1S1555
10E2
EQA01-12R1
HZ24-2L
HZ24-3L



2SA1138
letter side



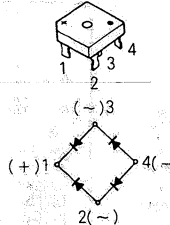
S1RB10



2SB734
2SC2676



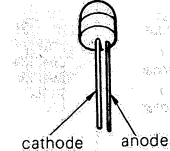
PB102F



2SC1364



SLP114A

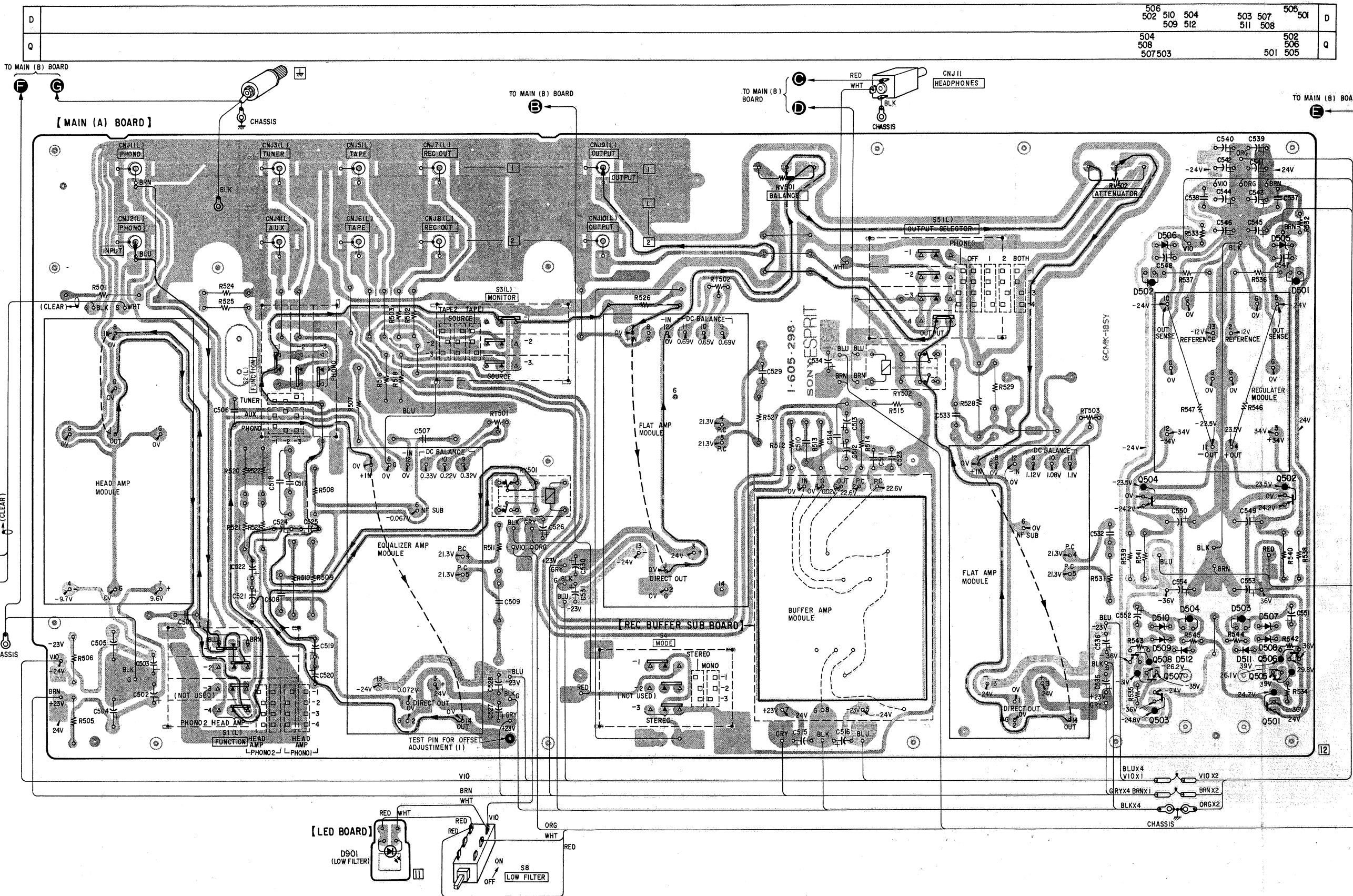


10YG1.1



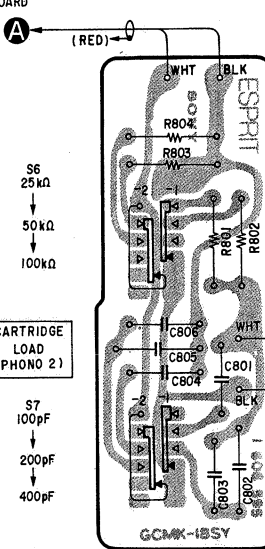
4-2. MOUNTING DIAGRAM

1
2
3
4
5

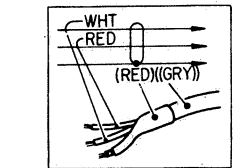


506	510	504	503	507	506	D
502	509	512	511	508		
504					502	Q
508					506	
507	503				501	505

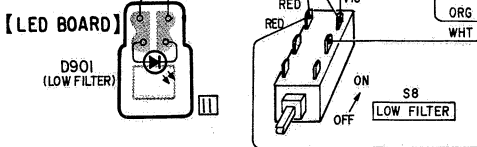
【CARTRIDGE LOAD SWITCH BOARD】



Note:
• Color code of sleeving over the end of the jacket.
• (RED)(GRY)

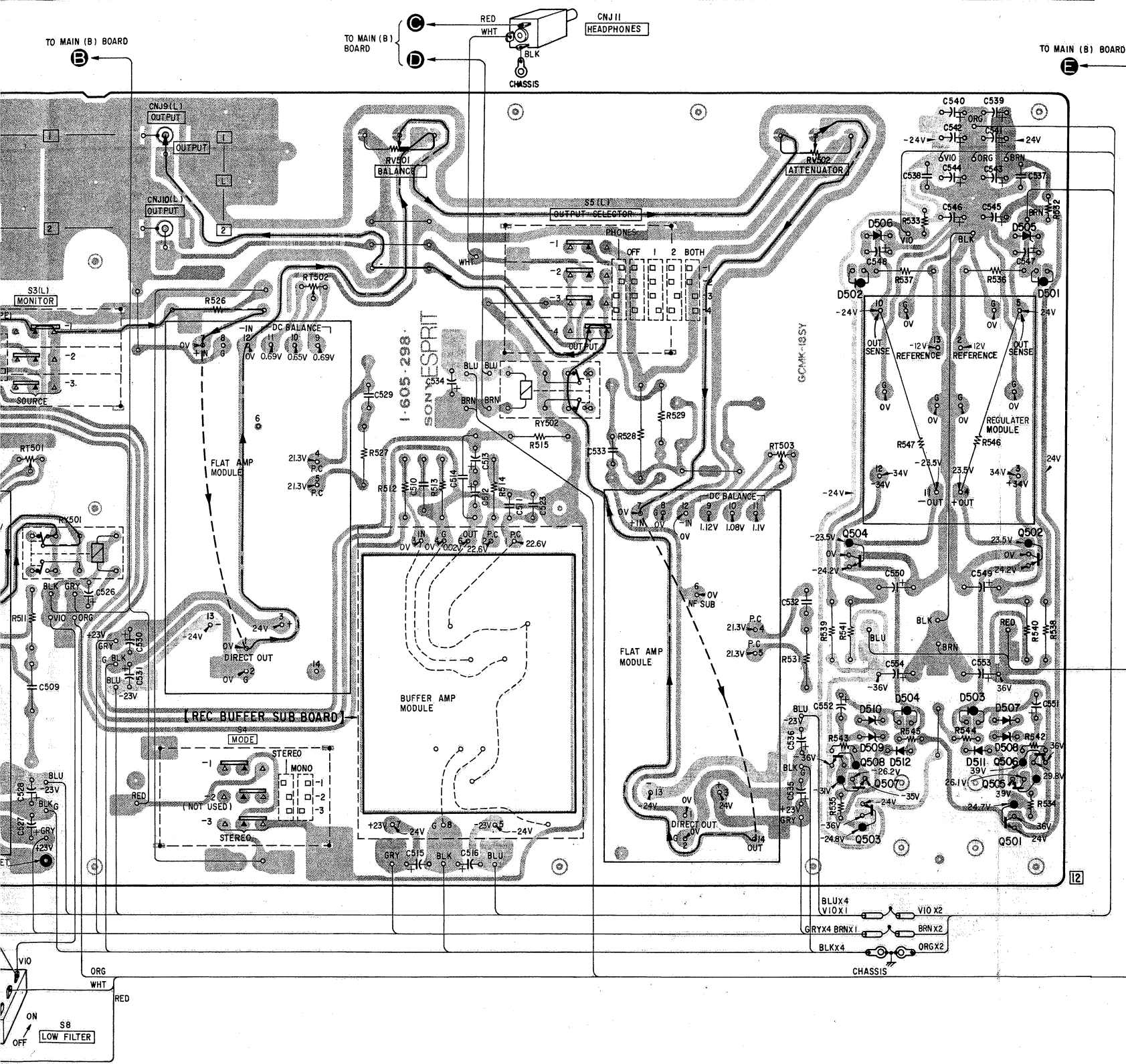


- B + pattern
- B - pattern
- : signal path
- : L-CH signal path
- : R-CH signal path

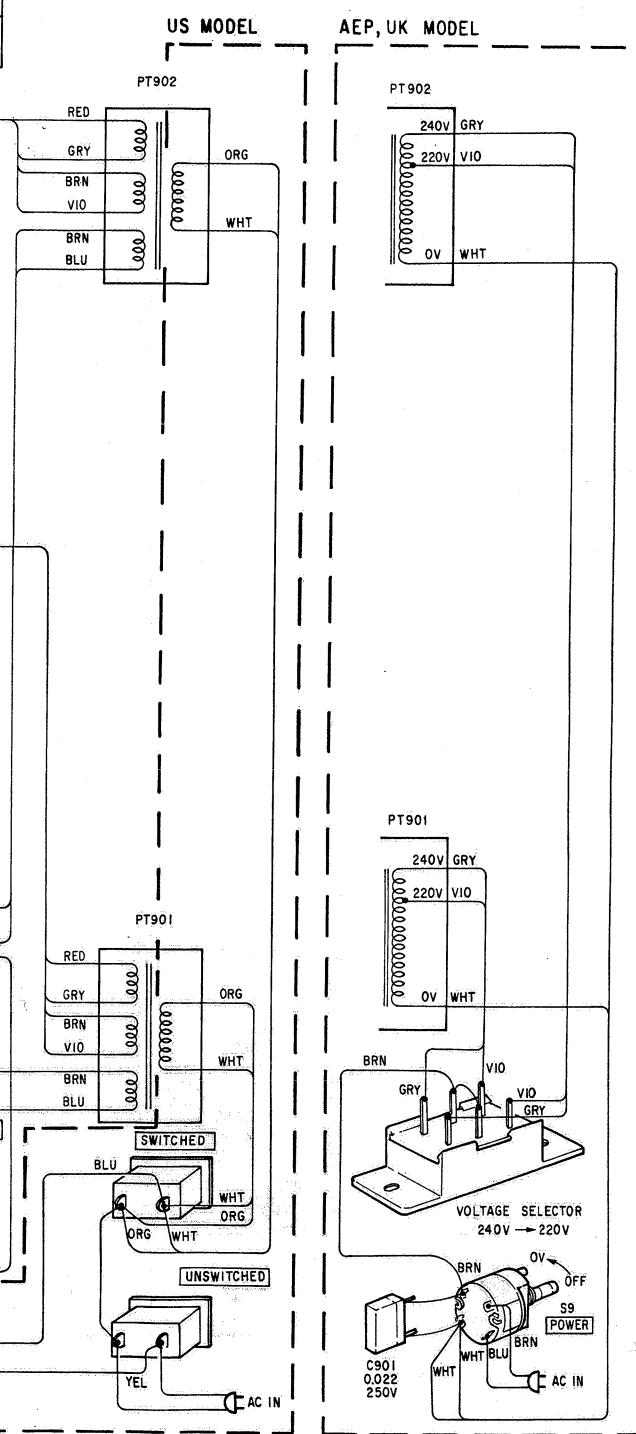
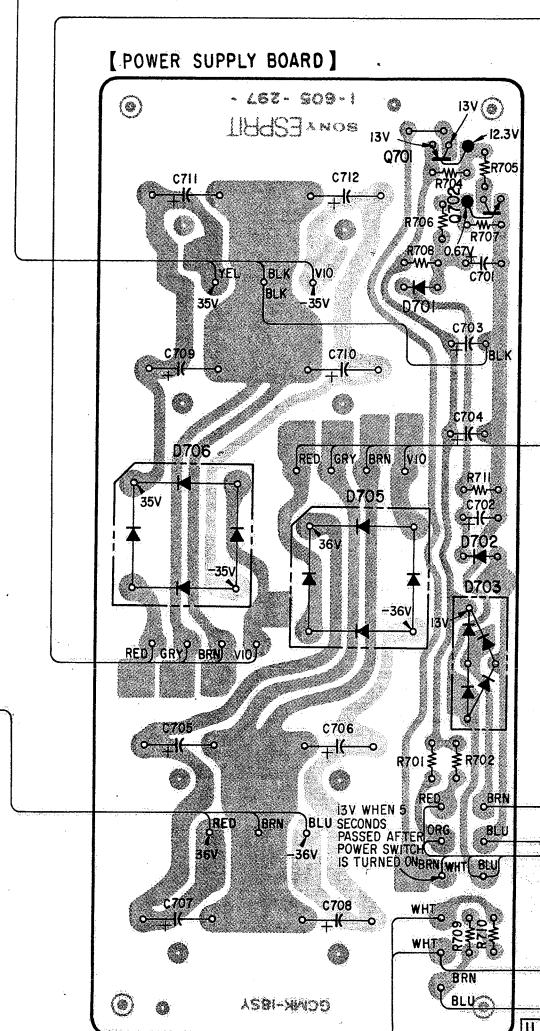


E F G H I J K L

506	510	504	503	505	
502	509	512	511	508	D
504				502	
508				506	Q
507	503		501	505	

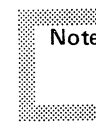


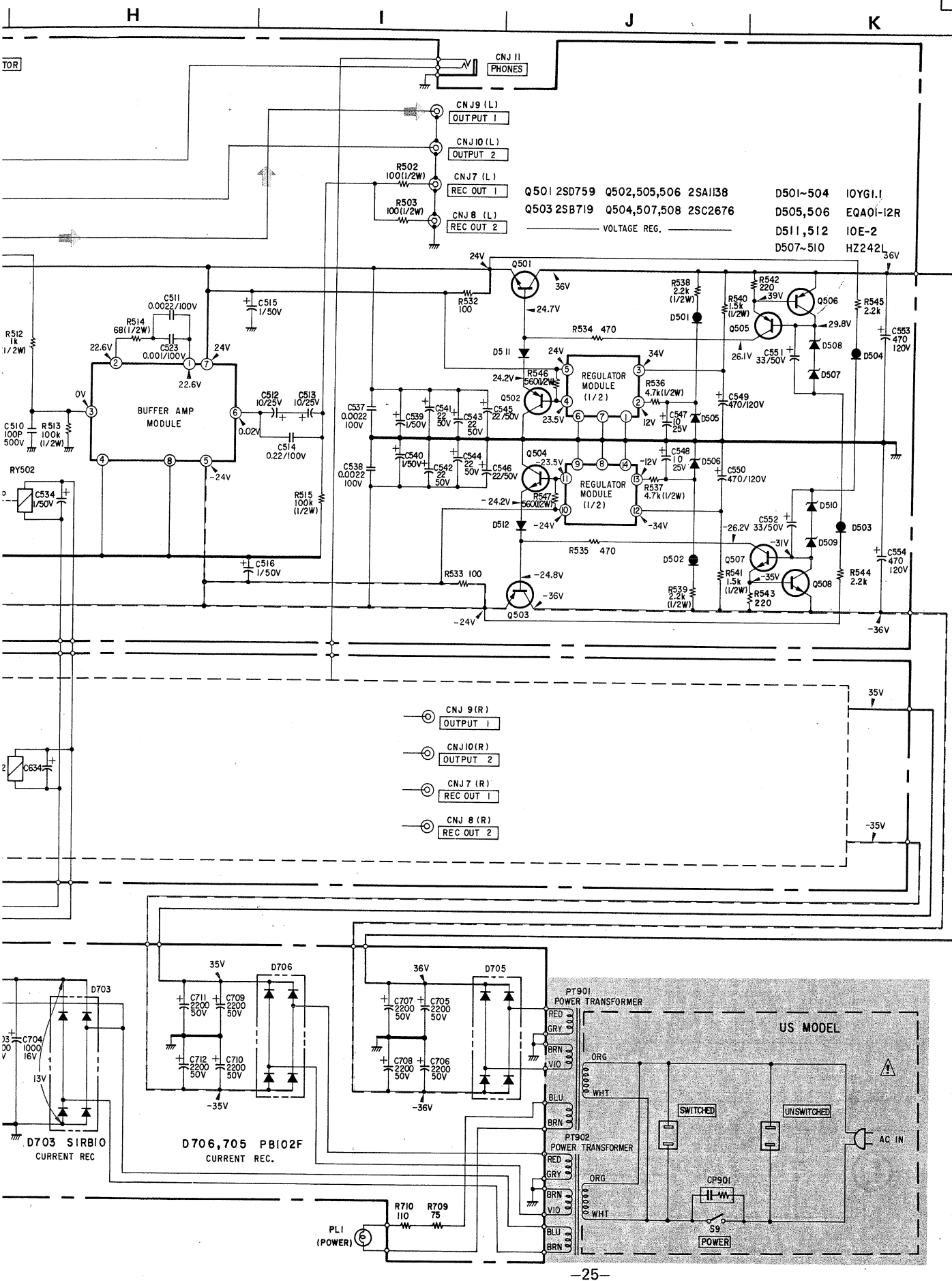
D	706	705	701	702	D
Q			701	702	Q



TA-E900 TA-E900







Note: Exchange each module when module section (head amp, equalizer amp, flat amp, buffer amp, regulator) is out of order.

Note:

- All capacitors are in μF unless otherwise noted. $\text{pF} : \mu\text{F}$ 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, $\frac{1}{4}\text{W}$ unless otherwise noted. $\text{k}\Omega : 1000\Omega$, $\text{M}\Omega : 1000\text{k}\Omega$
- : adjustment for repair.
- : B+ bus.
- : B- bus.
- Readings are taken under no-signal conditions with a VOM (20k Ω /V).
- Switch

Ref. No.	Switch	Position
S1	FUNCTION	PHONO 2
S2	FUNCTION	PHONO
S3	MONITOR	SOURCE
S4	MODE	STEREO
S5	OUTPUT SELECTOR	1
S6	CARTRIDGE LOAD (PHONO 2)	25k Ω
S7	CARTRIDGE LOAD (PHONO 2)	100pF
S8	LOW FILTER	OFF
S9	POWER	OFF

- : signal path

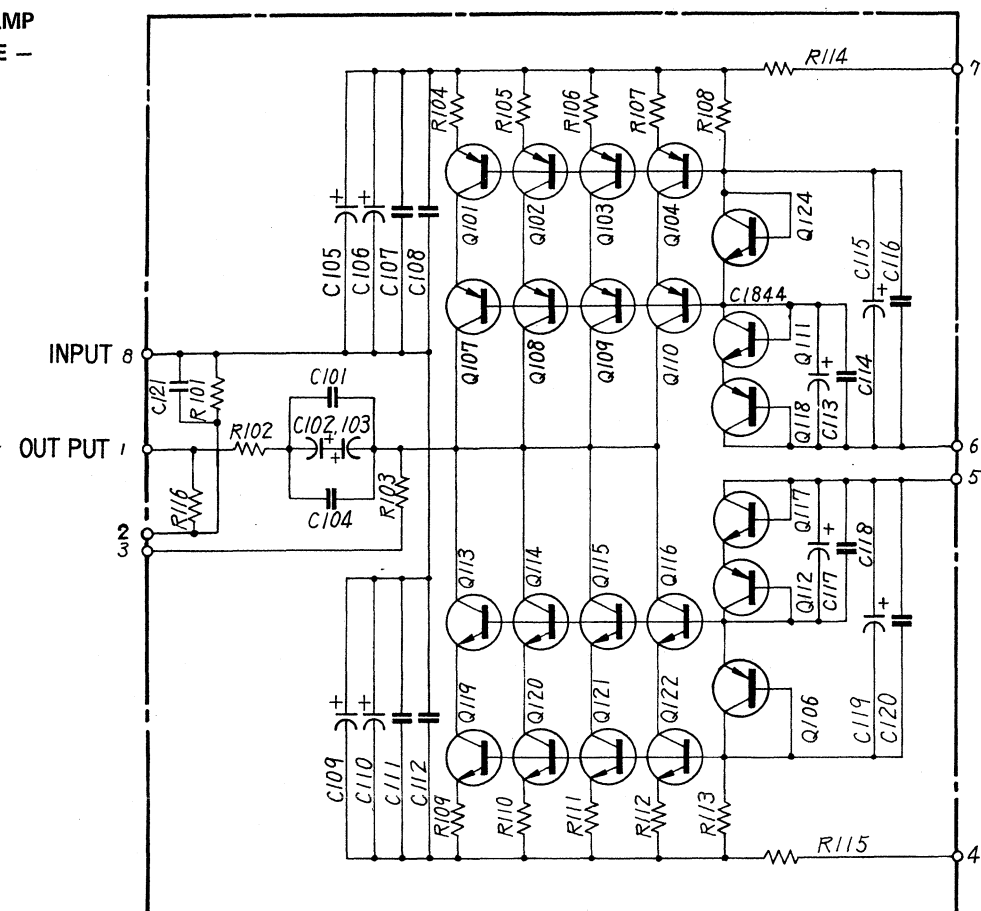
Note: Voltages are measured with a VOM (50k Ω /V).

Note: The components identified by shading and mark  are critical for safety. Replace only with part number specified.

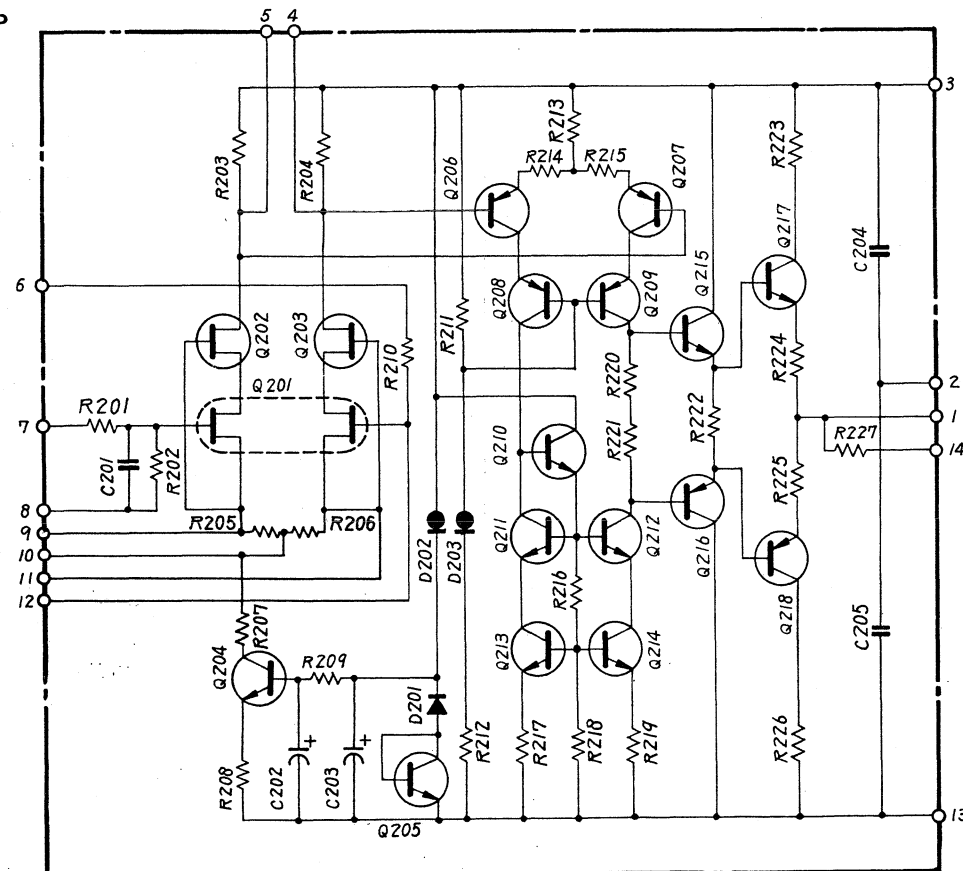
4-4. SCHEMATIC DIAGRAM OF EACH MODULE

TA-E900 TA-E900

— HEAD AMP
MODULE —

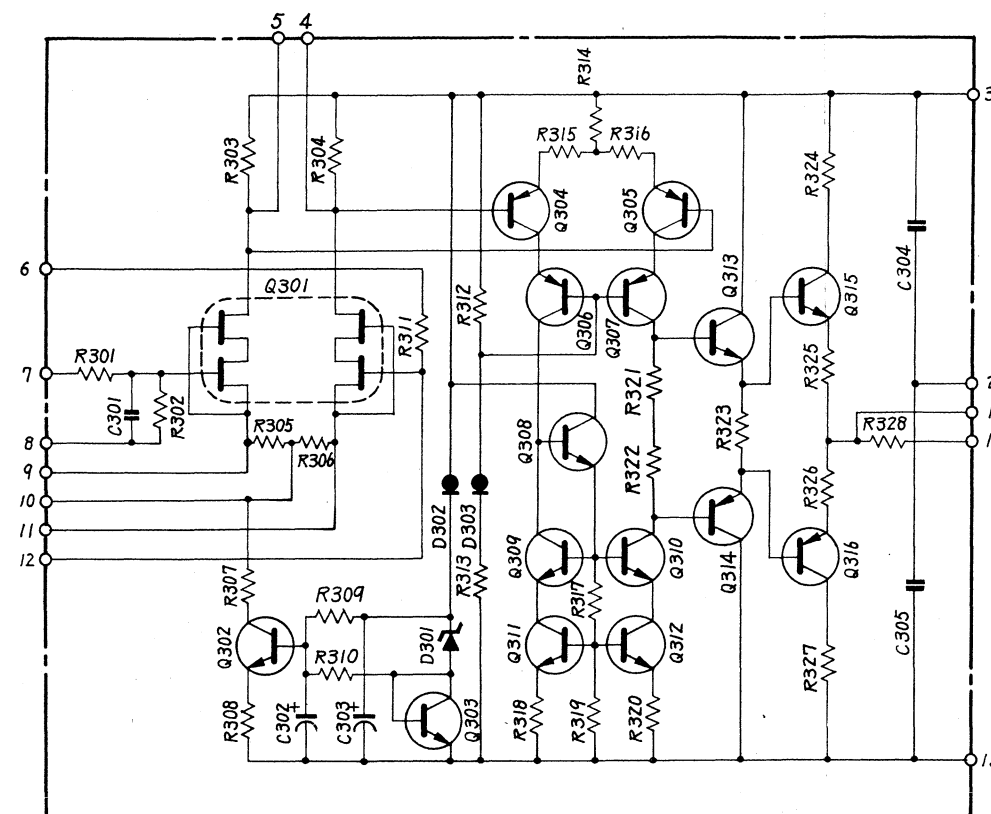


— EQUALIZER AMP
MODULE —

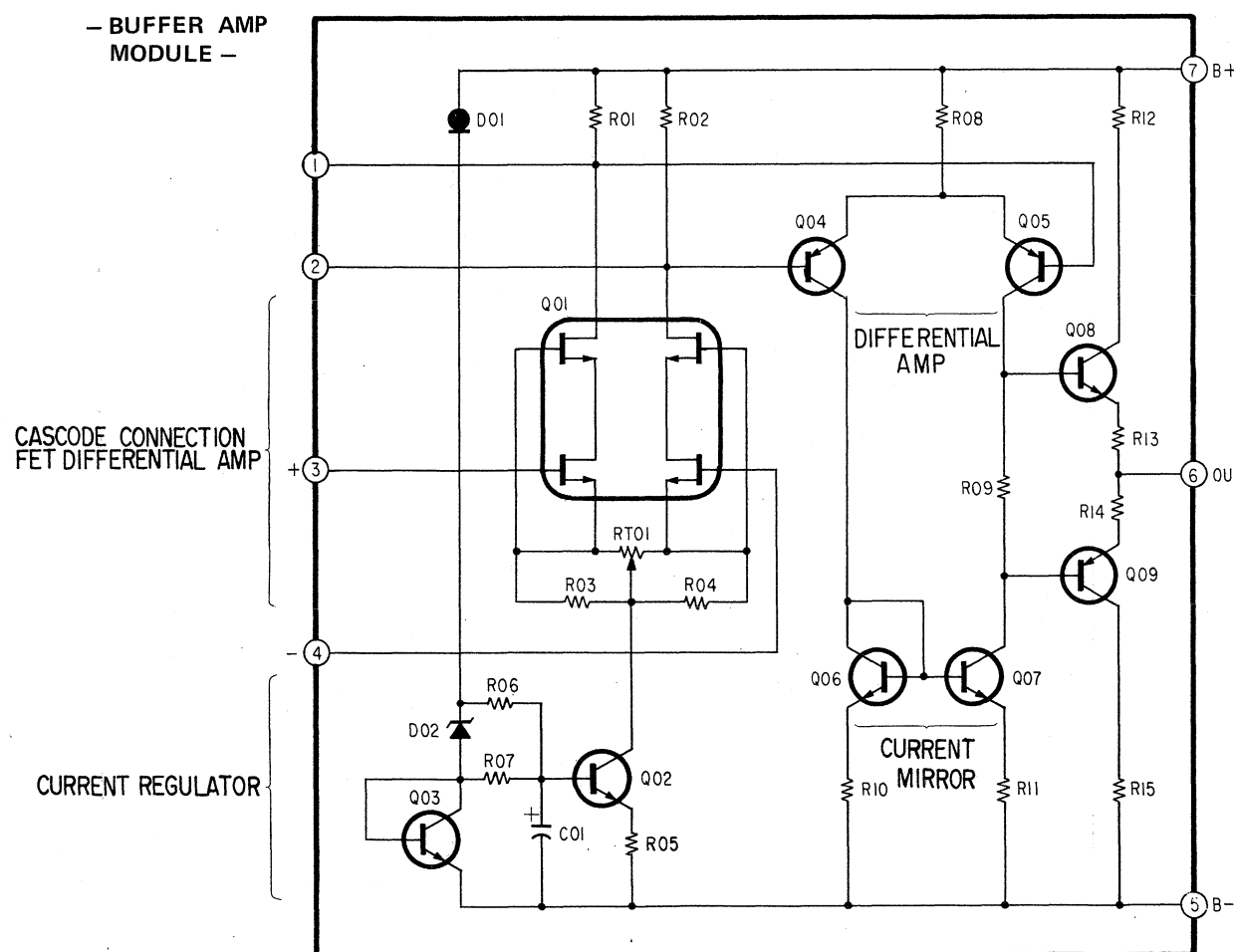


-27-

— FLAT AMP
MODULE —

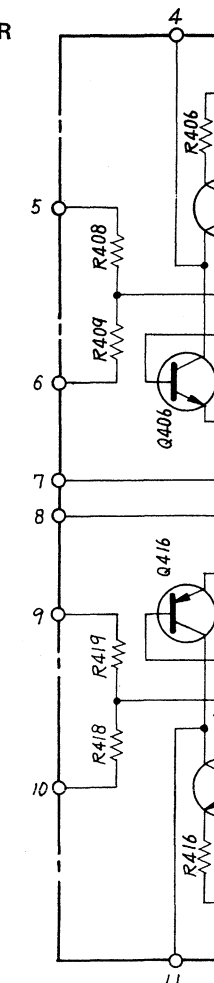


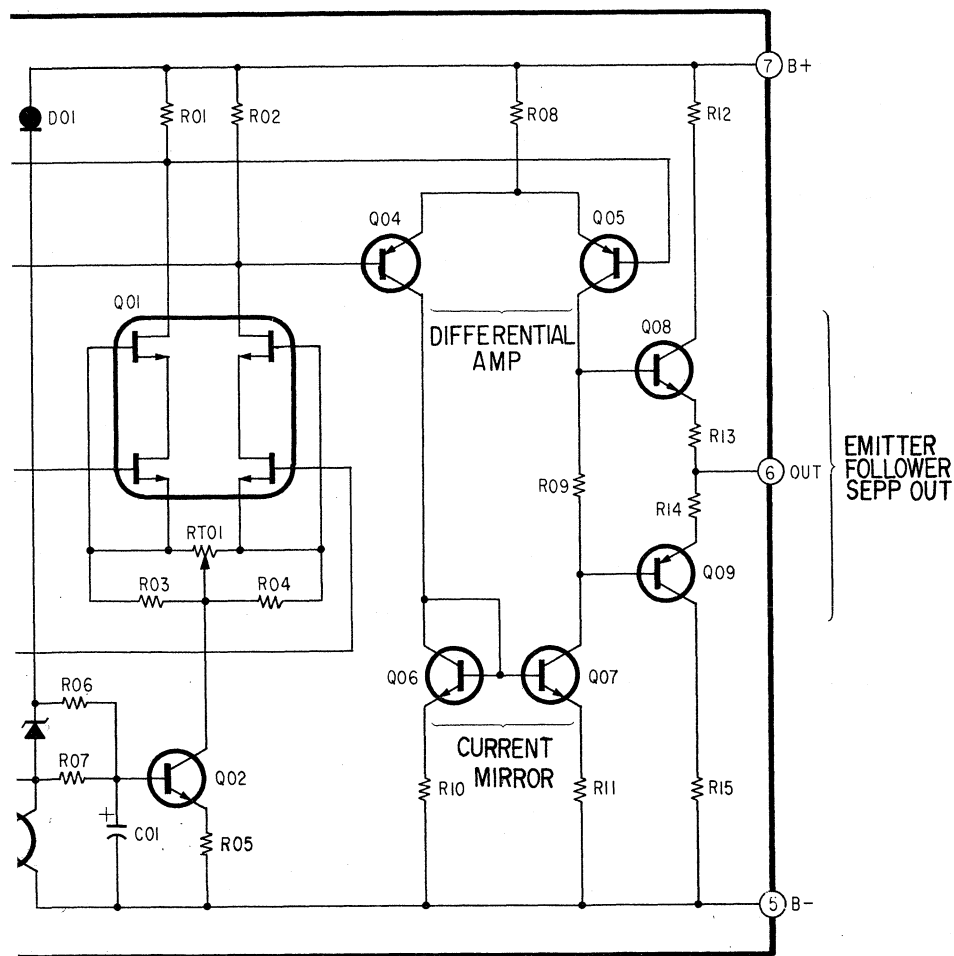
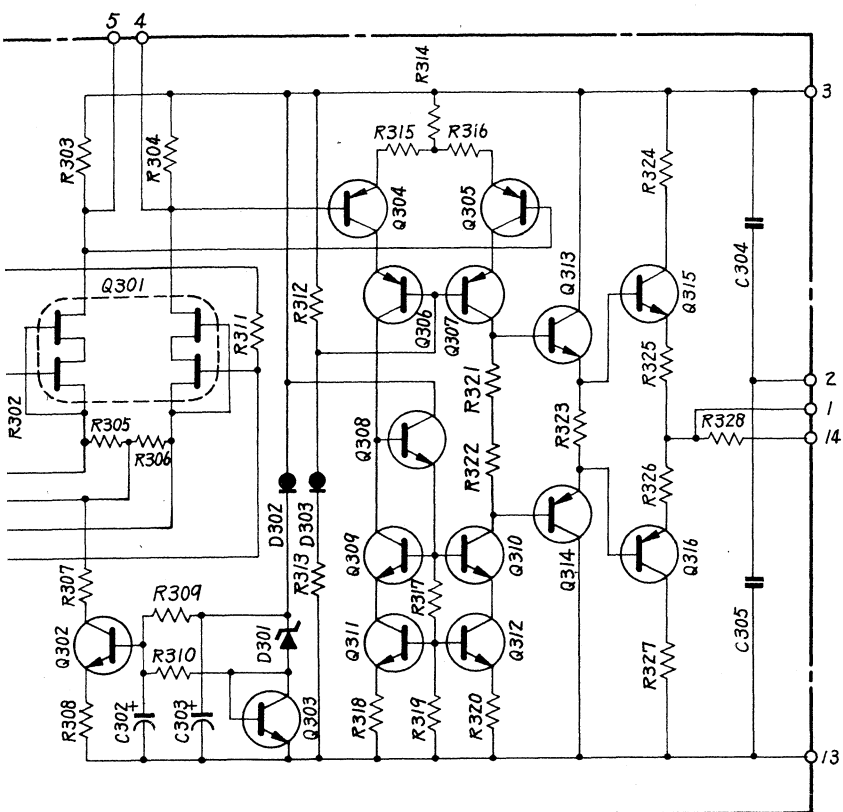
— BUFFER AMP
MODULE —



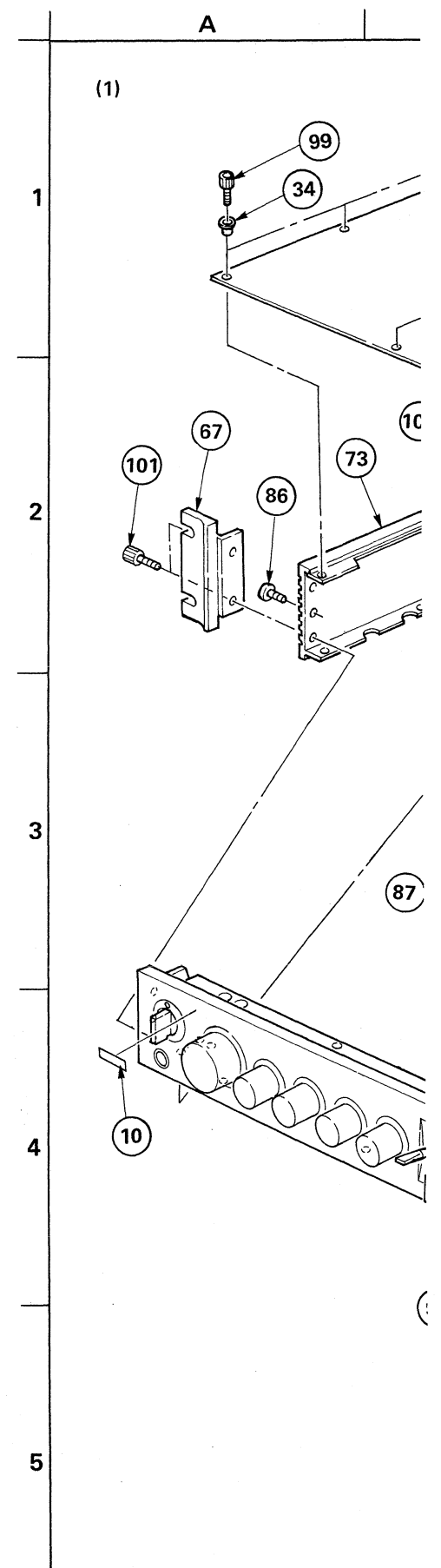
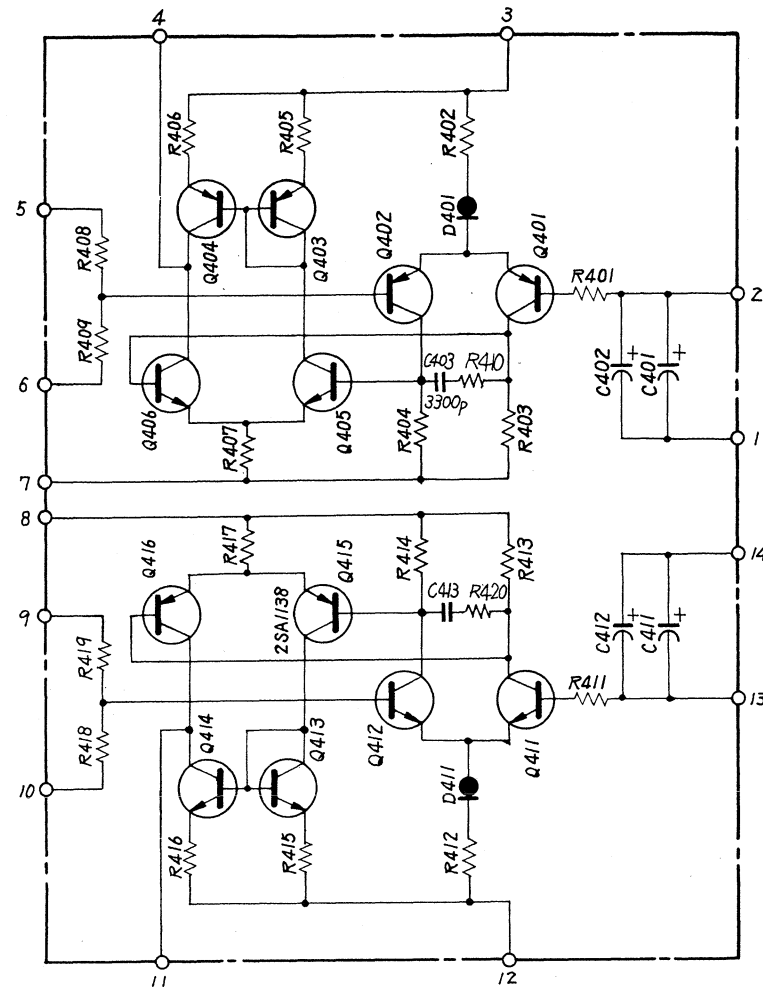
-28-

— REGULATOR
MODULE —

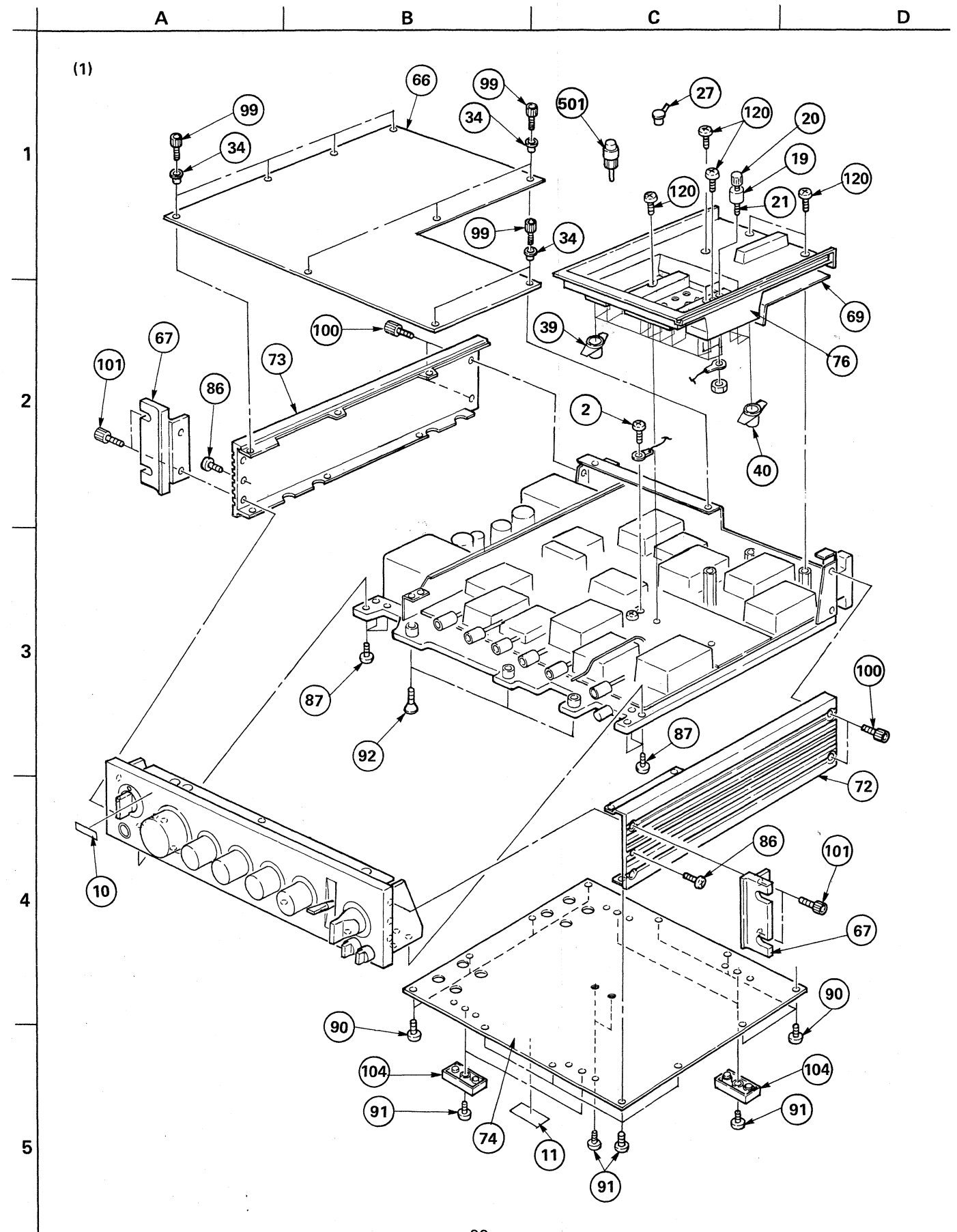
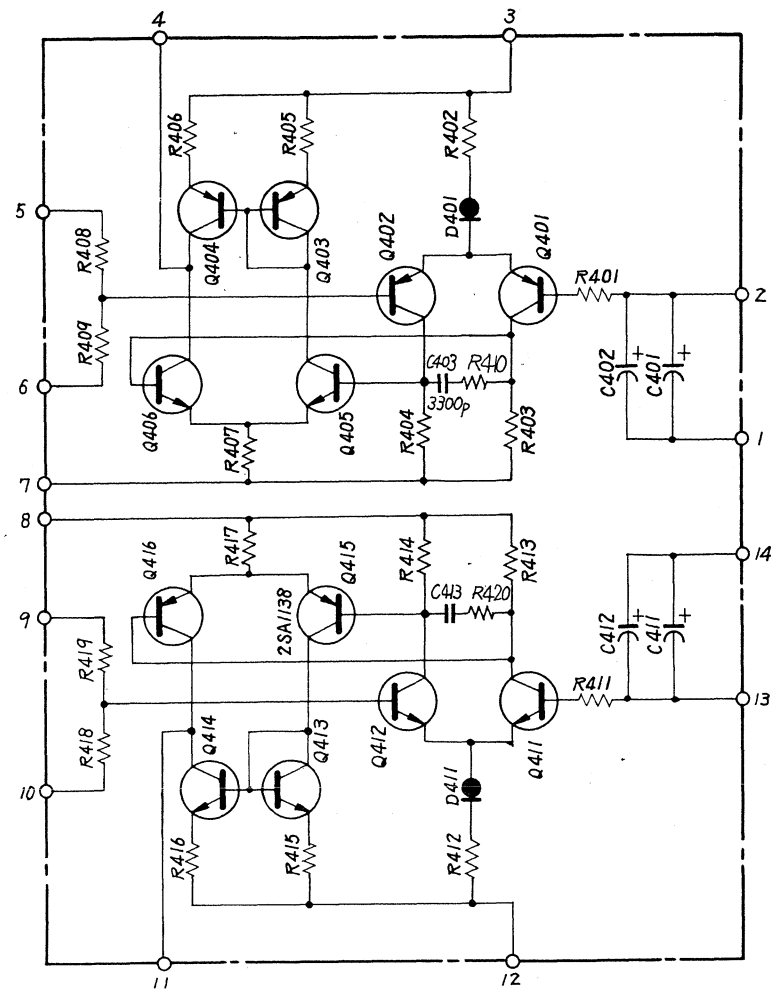


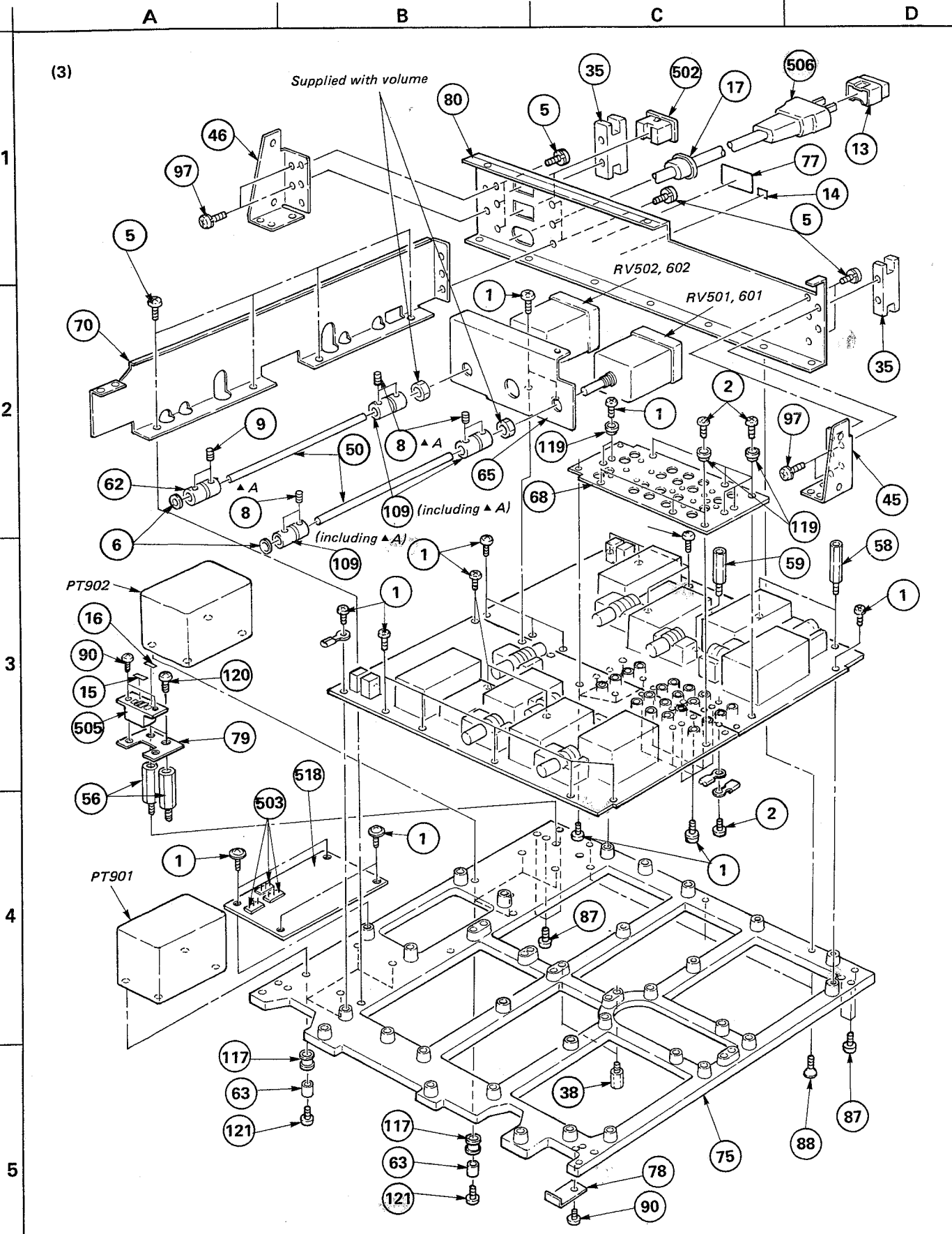


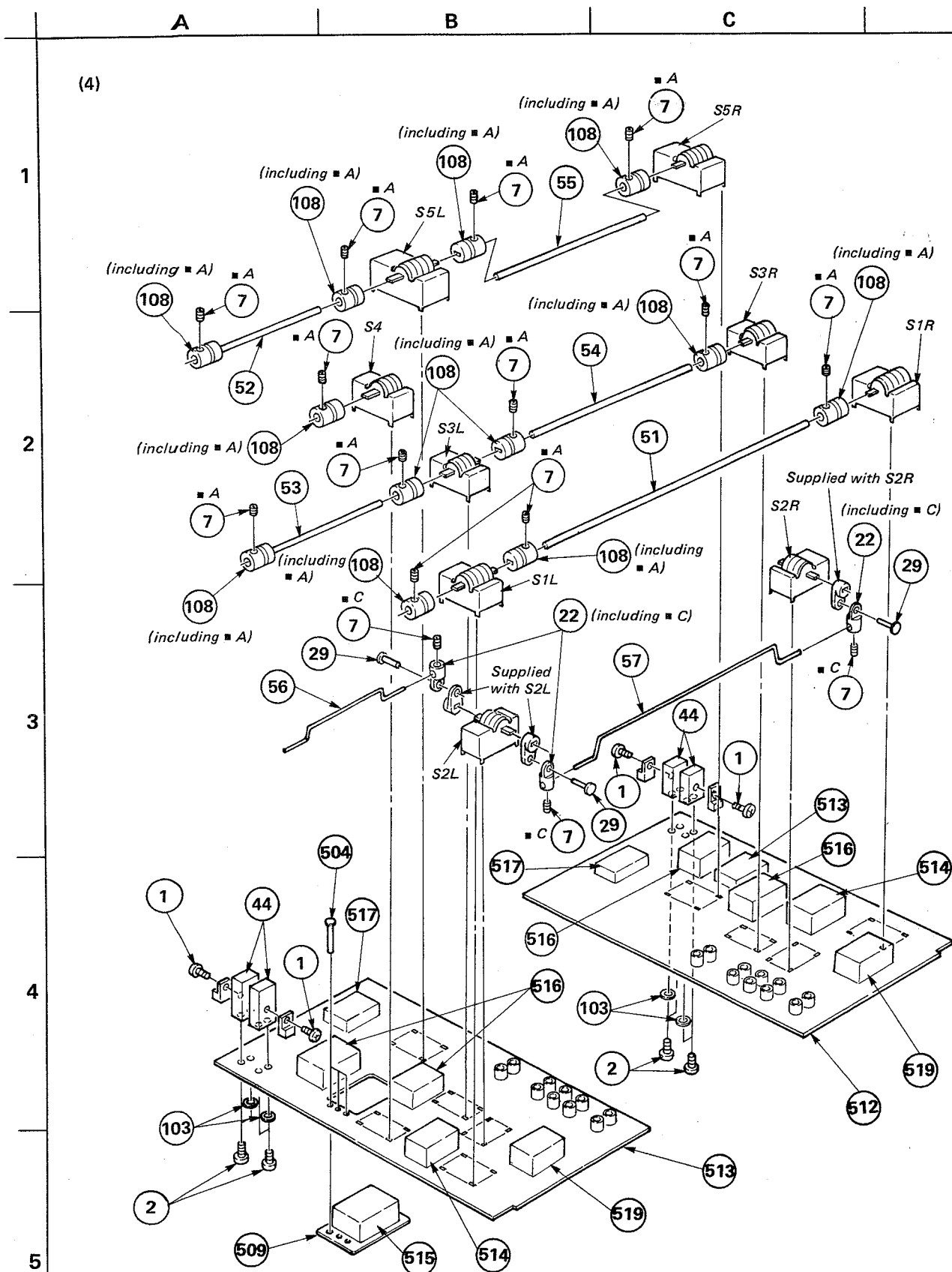
- REGULATOR
MODULE -



ULATOR
ULE -







GENERAL SECTION

No.	Part No.	Description
1	2-259-121-00	SCREW, TR
2	2-259-121-11	SCREW, TR
3	3-534-276-11	HOLDER, LAMP
4		
5	3-701-429-21	SCREW +B 3X5 W/PAWL
6	3-701-444-21	WASHER, 6
7	3-701-505-00	SET SCREW, DOUBLE POINT 3X3
8	3-701-506-01	SET SCREW, DOUBLE POINT 3X4
9	3-701-510-00	SET SCREW, DOUBLE POINT 4X4
10	3-701-690-00	(UK)...LABEL (MADE IN JAPAN)
11	3-703-043-21	(UK)...LABEL, CAUTION, MAIN
11	3-703-114-01	(US)...LABEL, MAIN CAUTION
12		
13	3-703-112-01	(US)...GAURD, PLUG
14	4-809-246-00	(US)...LABEL, AC 120V 60Hz
15	4-337-218-21	(AEP,UK)...LABEL, INDICATION, VOLTAGE
16	4-337-218-31	(AEP,UK)...LABEL, INDICATION, VOLTAGE
17	4-879-936-00	(US).....BUSHING, CORD
17	4-849-786-00	(AEP,UK)...STOPPER, CORD
18	4-852-925-00	LENS, POWER LAMP
19	4-854-715-00	TERMINAL (A)
20	4-854-716-00	TERMINAL (B)
21	4-854-717-00	TERMINAL (C)
22	4-854-721-00	SHAFT (B), JOINT
23	4-854-722-00	DETENT (A)
24	4-854-723-00	DETENT (B)
25	4-854-725-00	PLATE (B), ADJUSTMENT
26	4-854-734-00	ESCUTCHEON, LEVER
27	4-854-741-02	CAP, DUST PROTECTION, P.J
28	4-854-743-00	SPRING, COMPRESSION
29	4-854-747-00	PIN, JOINT SHAFT
30	4-854-748-02	SHAFT, LIGHT GUIDE
31		
32	4-870-203-00	BRACKET (A), POWER SWITCH
33	4-870-204-00	ORNAMENT, SWITCH (B)
34	4-870-210-00	RING, PANEL RETAINER
35	4-870-213-00	BLOCK, GUARD
36	4-870-220-00	BRACKET (B), POWER SWITCH
37	4-870-221-00	SHAFT, FITTING, POWER SWITCH
38	4-870-266-00	SUPPORT, BLOCK
39	4-876-628-01	ORNAMENT, JACK (WHITE)
40	4-876-628-11	ORNAMENT, JACK (RED)
41	4-879-101-00	DETENT (D)
42	4-879-102-00	DETENT (E)

GENERAL SECTION

No.	Part No.	Description
43	4-879-106-00	BRACKET, FILTER SWITCH
44	4-879-107-00	HEAT SINK
45	4-879-108-00	BRACKET (C)
46	4-879-109-00	BRACKET (D)
47	4-879-110-00	BRACKET (B)
48	4-879-111-00	BRACKET (A)
49	4-879-113-00	BRACKET, SELECTION SWITCH
50	4-879-119-00	SHAFT (A), RELAY
51	4-879-120-00	SHAFT (A), RELAY
52	4-879-121-00	SHAFT (B), RELAY
53	4-879-122-00	SHAFT (C), RELAY
54	4-879-123-00	SHAFT (D), RELAY
55	4-879-124-00	SHAFT (E), RELAY
56	4-879-125-00	JOINT (A)
57	4-879-126-00	JOINT (B)
58	4-879-127-00	SHAFT (A), FITTING, CASE
59	4-879-128-00	SHAFT (B), FITTING, CASE
60	4-879-129-00	SHAFT (A)
61	4-879-130-00	SHAFT (B)
62	4-879-131-00	BOSS (A), JOINT
63	4-879-132-00	SPACER, TRANSFORMER
64	4-879-133-00	BRACKET, JACK
65	4-879-134-00	BRACKET, CONTROL
66	4-879-135-00	PLATE, TOP
67	4-879-136-00	PANEL, SIDE
68	4-879-137-00	PLATE (A), GROUND
69	4-879-139-00	PLATE, SHIELD
70	4-879-142-00	CHASSIS, MIDWAY
71	4-879-144-00	BRACKET, KNOB
72	4-879-146-00	PANEL (R), SIDE
73	4-879-147-00	PANEL (L), SIDE
74	4-879-148-00	PLATE, BOTTOM
75	4-879-149-00	DECK
76	4-879-150-00	CASE, JACK
77	4-879-157-00	(UK)....LABEL, MODEL NUMBER (UK)
77	4-879-158-00	(AEP)....LABEL, MODEL NUMBER (AEP)
77	4-879-159-00	(US)....LABEL, MODEL NUMBER (US)
78	4-879-160-00	REINFORCEMENT (A)
79	4-879-161-00	(AEP,UK)...BRACKET, SELECTION, VOLTAGE
80	4-879-143-11	(US).....PLATE, JACK
80	4-879-162-00	(AEP,UK)...PLATE, JACK
81	7-621-284-00	SCREW +P 2.6X4
82	7-623-422-07	LW 3, TYPE B
83	7-624-109-04	STOP RING 5.0, TYPE -E

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked "•" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:μF, PF:μμF.

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

COILS

- MMH : mH, UH : μH

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

SEMICONDUCTORS

In each case, U : μ, for example:
UA...: μA..., UPA...: μPA..., UPC...: μPC,
UPD...: μPD...

GENERAL SECTION

No.	Part No.	Description
84		
85		
86	7-682-159-09	SCREW +P 4X5
87	7-682-163-09	SCREW +P 4X12
88	7-682-247-09	SCREW +K 3X6
89	7-682-546-09	SCREW +B 3X5
90	7-682-547-09	SCREW +B 3X6
91	7-682-548-09	SCREW +B 3X8
92	7-682-552-09	SCREW +B 3X16
93	7-682-559-09	SCREW +B 4X5
94	7-682-646-09	SCREW +PS 3X5
95		
96	7-682-649-09	SCREW +PS 3X10
97	7-682-662-09	SCREW +PS 4X10
98	7-682-947-09	SCREW +PSW 3X6
99	7-683-402-04	BOLT, HEXAGON SOCKET 3X5
100	7-683-418-04	BOLT, HEXAGON SOCKET 4X6
101	7-683-421-04	BOLT, HEXAGON SOCKET 4X12
102	7-684-023-04	N 3, TYPE 2
103	7-688-003-11	SW 3, TYPE 2
104	X-4852-903-0	LEG ASSY
105		
106	•X-4854-701-0	BEARING ASSY (A), CONTROL
107	•X-4854-702-0	BEARING ASSY (B), CONTROL
✓108	X-4854-706-0	JOINT (A) ASSY
✓109	X-4854-708-0	JOINT (B) ASSY
✓110	X-4870-208-0	KNOB ASSY
111	X-4879-102-0	KNOB ASSY, CONTROL H
112	X-4879-103-0	KNOB (A) ASSY, FUNCTION E
113	X-4879-104-0	KNOB (B) ASSY, FUNCTION E
114	X-4879-105-0	KNOB (C) ASSY, FUNCTION D
115	X-4879-107-1	PANEL ASSY, FRONT
116	X-4879-108-1	LAVER KNOB ASSY
117	3-103-893-11	BUSHING, RUBBER
118	4-854-738-11	CAP, KNOB
119	4-857-425-00	BUSHING, O3P INSULATING
120	7-621-775-10	SCREW +B 2.6X4
121	7-682-562-09	SCREW +B 4X10

ACCESSORY & PACKING MATERIAL

No.	Part No.	Description
151	2-249-859-00	CUSHION (A), SIDE
152	3-701-623-00	BAG, POLYETHYLENE
153	3-701-630-00	BAG, POLYETHYLENE
154	3-783-722-11	MANUAL, INSTRUCTION
155	3-795-275-11	INSTRUCTION
156	4-848-648-00	BAG, PROTECTION
157	4-876-631-00	CUSHION (FRONT)
158	4-876-632-00	CUSHION (REAR)
159	4-879-104-00	INDIVIDUAL CARTON
160	4-879-105-00	LABEL, INDIVIDUAL CARTON
161	7-721-140-60	L-WRENCH (3.0)

NOTE:

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- Items marked "•" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers.
- MF:μF, PF:μpF.

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

COILS

- MMH : mH, UH : μH

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

SEMICONDUCTORS

In each case, U : μ, for example:
 UA...: μA..., UPA...: μPA..., UPC...: μPC,
 UPD...: μPD...

TA-E900

ELECTRICAL PARTS

Ref.No.	Part No.	Description
501	1-506-113-00	SHORT PLUG
502	▲ 1-526-609-00	(US)...OUTLET, AC
503	▲ 1-535-116-00	TERMINAL
504	▲ 1-535-364-00	PIN, RAPPING
505	1-552-535-00	(AEP,UK)...SWITCH, POWER VOLTAGE CHANGE
506	▲ 1-555-701-00	(US)...CORD, POWER
506	▲ 1-555-795-00	(AEP)...CORD, POWER
506	▲ 1-556-035-00	(UK)...CORD, POWER
507		
508		
509	▲ 1-605-300-00	PC BOARD, REC BUFFER SUB
510	▲ 1-606-040-00	PC BOARD, LED
511	▲ 1-606-595-00	PC BOARD, CARTRIDGE LOAD SW
512	▲ A-4335-183-A	MOUNTED PCB, MAIN (R)
513	▲ A-4335-184-A	MOUNTED PCB, MAIN (L)
514	A-4358-091-A	E.Q MODULE
515	A-4375-145-A	UNIT ASSY, B.F
516	A-4375-151-A	F.T MODULE
517	A-4394-256-A	R.G MODULE
518	▲ A-4394-260-A	MOUNTED PCB, POWER SUPPLY
519	A-4409-528-A	H.A MODULE
C501	1-107-318-00	MICA 470PF 5% 100V
C502	1-131-450-00	TANTALUM 1MF 20% 50V
C503	1-131-450-00	TANTALUM 1MF 20% 50V
C504	1-123-624-00	ELECT 470MF 20% 120V
C505	1-123-624-00	ELECT 470MF 20% 120V
C506	1-107-317-00	MICA 33PF 5% 500V
C507	1-107-316-00	MICA 0.056MF 2% 100V
C508	1-107-315-00	MICA 0.016MF 2% 100V
C509	1-107-315-00	MICA 0.016MF 2% 100V
C510	1-107-309-00	MICA 100PF 5% 500V
C511	1-107-320-00	MICA 0.0022MF 5% 100V
C512	1-131-522-00	TANTALUM 10MF 20% 25V
C513	1-131-522-00	TANTALUM 10MF 20% 25V
C514	1-130-662-00	FILM 0.22MF 10% 100V
C515	1-131-450-00	TANTALUM 1MF 20% 50V
C516	1-131-450-00	TANTALUM 1MF 20% 50V
C517	1-107-320-00	MICA 0.0022MF 5% 100V
C518	1-130-662-00	FILM 0.22MF 10% 100V
C519	1-131-522-00	TANTALUM 10MF 20% 25V
C520	1-131-522-00	TANTALUM 10MF 20% 25V
C521	1-131-219-00	TANTALUM 4.7MF 10% 35V
C522	1-131-219-00	TANTALUM 4.7MF 10% 35V
C523	1-107-319-00	MICA 0.001MF 5% 100V
C524	1-131-450-00	TANTALUM 1MF 20% 50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description
C525	1-131-450-00	TANTALUM 1MF 20% 50V
C526	1-123-380-00	ELECT 1MF 20% 50V
C527	1-131-450-00	TANTALUM 1MF 20% 50V
C528	1-131-450-00	TANTALUM 1MF 20% 50V
C529	1-107-320-00	MICA 0.0022MF 5% 100V
C530	1-131-450-00	TANTALUM 1MF 20% 50V
C531	1-131-450-00	TANTALUM 1MF 20% 50V
C532	1-107-318-00	MICA 470PF 5% 100V
C533	1-107-311-00	MICA 15PF 5% 500V
C534	1-123-380-00	ELECT 1MF 20% 50V
C535	1-131-450-00	TANTALUM 1MF 20% 50V
C536	1-131-450-00	TANTALUM 1MF 20% 50V
C537	1-107-320-00	MICA 0.0022MF 5% 100V
C538	1-107-320-00	MICA 0.0022MF 5% 100V
C539	1-131-450-00	TANTALUM 1MF 20% 50V
C540	1-131-450-00	TANTALUM 1MF 20% 50V
C541	1-131-521-00	TANTALUM 22MF 20% 50V
C542	1-131-521-00	TANTALUM 22MF 20% 50V
C543	1-131-521-00	TANTALUM 22MF 20% 50V
C544	1-131-521-00	TANTALUM 22MF 20% 50V
C545	1-131-521-00	TANTALUM 22MF 20% 50V
C546	1-131-521-00	TANTALUM 22MF 20% 50V
C547	1-131-522-00	TANTALUM 10MF 20% 25V
C548	1-131-522-00	TANTALUM 10MF 20% 25V
C549	1-123-624-00	ELECT 470MF 20% 120V
C550	1-123-624-00	ELECT 470MF 20% 120V
C551	1-123-511-00	ELECT 33MF 20% 50V
C552	1-123-511-00	ELECT 33MF 20% 50V
C553	1-123-624-00	ELECT 470MF 20% 120V
C554	1-123-624-00	ELECT 470MF 20% 120V
C601	1-107-318-00	MICA 470PF 5% 100V
C602	1-131-450-00	TANTALUM 1MF 20% 50V
C603	1-131-450-00	TANTALUM 1MF 20% 50V
C604	1-123-624-00	ELECT 470MF 20% 120V
C605	1-123-624-00	ELECT 470MF 20% 120V
C606	1-107-317-00	MICA 33PF 5% 500V
C607	1-107-316-00	MICA 0.056MF 2% 100V
C608	1-107-315-00	MICA 0.016MF 2% 100V
C609	1-107-315-00	MICA 0.016MF 2% 100V
C610	1-107-309-00	MICA 100PF 5% 500V
C611	1-107-320-00	MICA 0.0022MF 5% 100V
C612	1-131-522-00	TANTALUM 10MF 20% 25V
C613	1-131-522-00	TANTALUM 10MF 20% 25V
C614	1-130-662-00	FILM 0.22MF 10% 100V
C615	1-131-450-00	TANTALUM 1MF 20% 50V

NOTE:

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- Items marked "▲" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (▲-△△△-△△△-XX or ▲-△△△△-△△△-X) may be different from those used in the set.

CAPACITORS:

- All capacitors are in μF . Common capacitors are omitted. Refer to the following lists for their part numbers.
- MF: μF , PF: μpF .

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

COILS

- MMH : mH, UH : μH

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

SEMICONDUCTORS

In each case, U : μ , for example:
 UA...: μA ..., UPA...: μPA ..., UPC...: μPC ,
 UPD...: μPD ...

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C616	1-131-450-00	TANTALUM	1MF	20%	50V
C617	1-107-320-00	MICA	0.0022MF	5%	100V
C618	1-130-662-00	FILM	0.22MF	10%	100V
C619	1-131-522-00	TANTALUM	10MF	20%	25V
C620	1-131-522-00	TANTALUM	10MF	20%	25V
C621	1-131-219-00	TANTALUM	4.7MF	10%	35V
C622	1-131-219-00	TANTALUM	4.7MF	10%	35V
C623	1-107-319-00	MICA	0.001MF	5%	100V
C624	1-131-450-00	TANTALUM	1MF	20%	50V
C625	1-131-450-00	TANTALUM	1MF	20%	50V
C626	1-123-487-00	ELECT	470MF	20%	16V
C627	1-131-450-00	TANTALUM	1MF	20%	50V
C628	1-131-450-00	TANTALUM	1MF	20%	50V
C629	1-107-320-00	MICA	0.0022MF	5%	100V
C630	1-131-450-00	TANTALUM	1MF	20%	50V
C631	1-131-450-00	TANTALUM	1MF	20%	50V
C632	1-107-318-00	MICA	470PF	5%	100V
C633	1-107-311-00	MICA	15PF	5%	500V
C634	1-123-380-00	ELECT	1MF	20%	50V
C635	1-131-450-00	TANTALUM	1MF	20%	50V
C636	1-131-450-00	TANTALUM	1MF	20%	50V
C637	1-107-320-00	MICA	0.0022MF	5%	100V
C638	1-107-320-00	MICA	0.0022MF	5%	100V
C639	1-131-450-00	TANTALUM	1MF	20%	50V
C640	1-131-450-00	TANTALUM	1MF	20%	50V
C641	1-131-521-00	TANTALUM	22MF	20%	50V
C642	1-131-521-00	TANTALUM	22MF	20%	50V
C643	1-131-521-00	TANTALUM	22MF	20%	50V
C644	1-131-521-00	TANTALUM	22MF	20%	50V
C645	1-131-521-00	TANTALUM	22MF	20%	50V
C646	1-131-521-00	TANTALUM	22MF	20%	50V
C647	1-131-522-00	TANTALUM	10MF	20%	25V
C648	1-131-522-00	TANTALUM	10MF	20%	25V
C649	1-123-624-00	ELECT	470MF	20%	120V
C650	1-123-624-00	ELECT	470MF	20%	120V
C651	1-123-511-00	ELECT	33MF	20%	50V
C652	1-123-511-00	ELECT	33MF	20%	50V
C653	1-123-624-00	ELECT	470MF	20%	120V
C654	1-123-624-00	ELECT	470MF	20%	120V
C701	1-123-495-00	ELECT	220MF	20%	25V
C702	1-123-356-00	ELECT	10MF	20%	25V
C703	1-123-488-00	ELECT	1000MF	20%	16V
C704	1-123-488-00	ELECT	1000MF	20%	16V
C705	1-123-895-00	ELECT	2200MF	20%	50V
C706	1-123-895-00	ELECT	2200MF	20%	50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C707	1-123-895-00	ELECT	2200MF	20%	50V
C708	1-123-895-00	ELECT	2200MF	20%	50V
C709	1-123-895-00	ELECT	2200MF	20%	50V
C710	1-123-895-00	ELECT	2200MF	20%	50V
C711	1-123-895-00	ELECT	2200MF	20%	50V
C712	1-123-895-00	ELECT	2200MF	20%	50V
C801	1-107-309-00	MICA	100PF	5%	500V
C802	1-107-310-00	MICA	220PF	5%	500V
C803	1-107-167-00	MICA	75PF	5%	500V
C804	1-107-309-00	MICA	100PF	5%	500V
C805	1-107-310-00	MICA	220PF	5%	500V
C806	1-107-167-00	MICA	75PF	5%	500V
C901	1-130-456-00	(AEP,UK).....FILM	0.022MF		250V
CNJ1L	1-507-567-00	PIN JACK 1P			
CNJ1R	1-507-567-00	PIN JACK 1P			
CNJ2L	1-507-567-00	PIN JACK 1P			
CNJ2R	1-507-567-00	PIN JACK 1P			
CNJ3L	1-507-567-00	PIN JACK 1P			
CNJ3R	1-507-567-00	PIN JACK 1P			
CNJ4L	1-507-567-00	PIN JACK 1P			
CNJ4R	1-507-567-00	PIN JACK 1P			
CNJ5L	1-507-567-00	PIN JACK 1P			
CNJ5R	1-507-567-00	PIN JACK 1P			
CNJ6L	1-507-567-00	PIN JACK 1P			
CNJ6R	1-507-567-00	PIN JACK 1P			
CNJ7L	1-507-567-00	PIN JACK 1P			
CNJ7R	1-507-567-00	PIN JACK 1P			
CNJ8L	1-507-567-00	PIN JACK 1P			
CNJ8R	1-507-567-00	PIN JACK 1P			
CNJ9L	1-507-567-00	PIN JACK 1P			
CNJ9R	1-507-567-00	PIN JACK 1P			
CNJ10L	1-507-567-00	PIN JACK 1P			
CNJ10R	1-507-567-00	PIN JACK 1P			
CNJ11	1-507-507-00	JACK			
CP901A	1-231-326-11	(US)...ENCAPSULATED COMPONENT			
D501	8-719-201-11	✓ DIODE 10YG1.1			
D502	8-719-201-11	✓ DIODE 10YG1.1			
D503	8-719-201-11	✓ DIODE 10YG1.1			
D504	8-719-201-11	✓ DIODE 10YG1.1			
D505	8-719-991-21	✓ DIODE EQA01-12R1			
D506	8-719-991-21	✓ DIODE EQA01-12R1			

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked "▲" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

CAPACITORS:

- All capacitors are in μ F. Common capacitors are omitted. Refer to the following lists for their part numbers.
- MF: μ F, PF: μ F.

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

COILS

- MMH : mH, UH : μ H

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

SEMICONDUCTORS

In each case, U : μ , for example:
 UA....: μ A...., UPA....: μ PA...., UPC....: μ PC,
 UPD....: μ PD....

TA-E900

ELECTRICAL PARTS

Ref.No.	Part No.	Description
D507	8-719-910-43	DIODE HZ24-3L
D508	8-719-910-43	DIODE HZ24-3L
D509	8-719-910-43	DIODE HZ24-3L
D510	8-719-910-43	DIODE HZ24-3L
D511	8-719-200-02	DIODE 10E-2
D512	8-719-200-02	DIODE 10E-2
D601	8-719-201-11	DIODE 10YG1.1
D602	8-719-201-11	DIODE 10YG1.1
D603	8-719-201-11	DIODE 10YG1.1
D604	8-719-201-11	DIODE 10YG1.1
D605	8-719-991-21	DIODE EQA01-12R1
D606	8-719-991-21	DIODE EQA01-12R1
D607	8-719-910-43	DIODE HZ24-3L
D608	8-719-910-43	DIODE HZ24-3L
D609	8-719-910-43	DIODE HZ24-3L
D610	8-719-910-63	DIODE HZ24-3L
D611	8-719-200-02	DIODE 10E-2
D612	8-719-200-02	DIODE 10E-2
D701	8-719-815-55	DIODE 1S1555
D702	8-719-200-02	DIODE 10E-2
D703	8-719-510-10	DIODE 1SRB10
D705	8-719-211-02	DIODE PB102F
D706	8-719-211-02	DIODE PB102F
D901	8-719-921-14	DIODE SLP114A
PL1	1-518-331-81	LAMP, PILOT
PT901A	1-447-074-00	(US).....TRANSFORMER, POWER
PT901B	1-447-198-00	(AEP,UK)...TRANSFORMER, POWER
PT902A	1-447-074-00	(US).....TRANSFORMER, POWER
PT902B	1-447-198-00	(AEP,UK)...TRANSFORMER, POWER
Q501	8-729-376-02	TRANSISTOR 2SD760
Q502	8-729-113-82	TRANSISTOR 2SA1138
Q503	8-729-372-02	TRANSISTOR 2SB720
Q504	8-729-167-62	TRANSISTOR 2SC2676
Q505	8-729-113-82	TRANSISTOR 2SA1138
Q506	8-729-113-82	TRANSISTOR 2SA1138
Q507	8-729-167-62	TRANSISTOR 2SC2676
Q508	8-729-167-62	TRANSISTOR 2SC2676
Q601	8-729-376-02	TRANSISTOR 2SD760
Q602	8-729-113-82	TRANSISTOR 2SA1138
Q603	8-729-372-02	TRANSISTOR 2SB720
Q604	8-729-167-62	TRANSISTOR 2SC2676
Q605	8-729-113-82	TRANSISTOR 2SA1138
Q606	8-729-113-82	TRANSISTOR 2SA1138
Q607	8-729-167-62	TRANSISTOR 2SC2676

ELECTRICAL PARTS

Ref.No.	Part No.	Description
Q608	8-729-167-62	TRANSISTOR 2SC2676
Q701	8-729-103-43	TRANSISTOR 2SB734
Q702	8-729-663-47	TRANSISTOR 2SC1364
R501	1-215-237-00	METAL 100K 1% 1W
R502	1-214-840-00	METAL 100 1% 1/2W
R503	1-214-840-00	METAL 100 1% 1/2W
R505	1-214-871-00	METAL 2K 1% 1/2W
R506	1-214-871-00	METAL 2K 1% 1/2W
R507	1-215-229-00	METAL 100 1% 1W
R508	1-214-862-00	METAL 820 1% 1/2W
R509	1-215-234-00	METAL 11K 1% 1W
R510	1-214-991-00	METAL 8.2K 1% 1W
R511	1-214-836-00	METAL 68 1% 1/2W
R512	1-214-864-00	METAL 1K 1% 1/2W
R513	1-214-913-00	METAL 100K 1% 1/2W
R514	1-214-836-00	METAL 68 1% 1/2W
R515	1-214-913-00	METAL 100K 1% 1/2W
R516	1-214-913-00	METAL 100K 1% 1/2W
R518	1-214-913-00	METAL 100K 1% 1/2W
R520	1-214-880-00	METAL 4.7K 1% 1/2W
R521	1-214-880-00	METAL 4.7K 1% 1/2W
R522	1-214-905-00	METAL 47K 1% 1/2W
R523	1-214-905-00	METAL 47K 1% 1/2W
R524	1-214-905-00	METAL 47K 1% 1/2W
R525	1-214-905-00	METAL 47K 1% 1/2W
R526	1-215-232-00	METAL 1K 1% 1W
R527	1-214-844-00	METAL 150 1% 1/2W
R528	1-215-230-00	METAL 220 1% 1W
R529	1-214-820-00	METAL 15 1% 1/2W
R531	1-214-870-00	METAL 1.8K 1% 1/2W
R532	1-214-108-00	METAL 100 1% 1/4W
R533	1-214-108-00	METAL 100 1% 1/4W
R534	1-214-124-00	METAL 470 1% 1/4W
R535	1-214-124-00	METAL 470 1% 1/4W
R536	1-214-880-00	METAL 4.7K 1% 1/2W
R537	1-214-880-00	METAL 4.7K 1% 1/2W
R538	1-214-872-00	METAL 2.2K 1% 1/2W
R539	1-214-872-00	METAL 2.2K 1% 1/2W
R540	1-214-868-00	METAL 1.5K 1% 1/2W
R541	1-214-868-00	METAL 1.5K 1% 1/2W
R542	1-214-116-00	METAL 220 1% 1/4W
R543	1-214-116-00	METAL 220 1% 1/4W
R544	1-214-140-00	METAL 2.2K 1% 1/4W
R545	1-214-140-00	METAL 2.2K 1% 1/4W
R546	1-214-858-31	METAL 560 1% 1/2W

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked "●" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF:μF, PF:μμF.

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

COILS

- MMH : mH, UH : μH

The components identified by shading and mark **Δ** are critical for safety. Replace only with part number specified.

SEMICONDUCTORS

In each case, U : μ, for example:
UA.... : μA..., UPA.... : μPA..., UPC.... : μPC,
UPD.... : μPD...

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R547	1-214-858-31	METAL	560	1%	1/2W
R601	1-215-237-00	METAL	100K	1%	1W
R602	1-214-840-00	METAL	100	1%	1/2W
R603	1-214-840-00	METAL	100	1%	1/2W
R605	1-214-871-00	METAL	2K	1%	1/2W
R606	1-214-871-00	METAL	2K	1%	1/2W
R607	1-215-229-00	METAL	100	1%	1W
R608	1-214-862-00	METAL	820	1%	1/2W
R609	1-215-234-00	METAL	11K	1%	1W
R610	1-214-991-00	METAL	8.2K	1%	1W
R611	1-214-836-00	METAL	68	1%	1/2W
R612	1-214-864-00	METAL	1K	1%	1/2W
R613	1-214-913-00	METAL	100K	1%	1/2W
R614	1-214-836-00	METAL	68	1%	1/2W
R615	1-214-913-00	METAL	100K	1%	1/2W
R616	1-214-913-00	METAL	100K	1%	1/2W
R618	1-214-913-00	METAL	100K	1%	1/2W
R620	1-214-880-00	METAL	4.7K	1%	1/2W
R621	1-214-880-00	METAL	4.7K	1%	1/2W
R622	1-214-905-00	METAL	47K	1%	1/2W
R623	1-214-905-00	METAL	47K	1%	1/2W
R624	1-214-905-00	METAL	47K	1%	1/2W
R625	1-214-905-00	METAL	47K	1%	1/2W
R626	1-215-232-00	METAL	1K	1%	1W
R627	1-214-844-00	METAL	150	1%	1/2W
R628	1-215-230-00	METAL	220	1%	1W
R629	1-214-820-00	METAL	15	1%	1/2W
R631	1-214-870-00	METAL	1.8K	1%	1/2W
R632	1-214-108-00	METAL	100	1%	1/4W
R633	1-214-108-00	METAL	100	1%	1/4W
R634	1-214-124-00	METAL	470	1%	1/4W
R635	1-214-124-00	METAL	470	1%	1/4W
R636	1-214-880-00	METAL	4.7K	1%	1/2W
R637	1-214-880-00	METAL	4.7K	1%	1/2W
R638	1-214-872-00	METAL	2.2K	1%	1/2W
R639	1-214-872-00	METAL	2.2K	1%	1/2W
R640	1-214-868-00	METAL	1.5K	1%	1/2W
R641	1-214-868-00	METAL	1.5K	1%	1/2W
R642	1-214-116-00	METAL	220	1%	1/4W
R643	1-214-116-00	METAL	220	1%	1/4W
R644	1-214-140-00	METAL	2.2K	1%	1/4W
R645	1-214-140-00	METAL	2.2K	1%	1/4W
R646	1-214-858-31	METAL	560	1%	1/2W
R647	1-214-858-31	METAL	560	1%	1/2W
R701	1-214-092-00	METAL	22	1%	1/4W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R702	1-214-141-00	METAL	2.4K	1%	1/4W
R704	1-214-140-00	METAL	2.2K	1%	1/4W
R705	1-214-148-00	METAL	4.7K	1%	1/4W
R706	1-214-172-00	METAL	47K	1%	1/4W
R707	1-214-156-00	METAL	10K	1%	1/4W
R708	1-214-177-00	METAL	75K	1%	1/4W
R709	1-214-105-00	METAL	75	1%	1/4W
R710	1-214-109-00	METAL	110	1%	1/4W
R711	1-214-140-00	METAL	2.2K	1%	1/4W
R801	1-214-901-00	METAL	33K	1%	1/2W
R802	1-214-913-00	METAL	100K	1%	1/2W
R803	1-214-901-00	METAL	33K	1%	1/2W
R804	1-214-913-00	METAL	100K	1%	1/2W
RT501	1-226-149-11	RES, ADJ, METAL FILM 100			
RT502	1-226-149-11	RES, ADJ, METAL FILM 100			
RT503	1-226-149-11	RES, ADJ, METAL FILM 100			
RT601	1-226-149-11	RES, ADJ, METAL FILM 100			
RT602	1-226-149-11	RES, ADJ, METAL FILM 100			
RT603	1-226-149-11	RES, ADJ, METAL FILM 100			
RY501	1-515-323-00	RELAY			
RY502	1-515-323-00	RELAY			
RY601	1-515-323-00	RELAY			
RY602	1-515-323-00	RELAY			
RV501	1-226-147-11	RES, VAR 3K			
RV502	1-226-148-00	RES, VAR 3K			
RV601	1-226-147-11	RES, VAR 3K			
RV602	1-226-148-00	RES, VAR 3K			
S1L	1-553-814-00	SWITCH, ROTARY SLIDE			
S1R	1-553-814-00	SWITCH, ROTARY SLIDE			
S2L	1-552-288-21	SWITCH, FUNCTION			
S2R	1-552-288-31	SWITCH, FUNCTION			
S3L	1-552-287-00	SWITCH, TAPE MONI			
S3R	1-552-287-00	SWITCH, TAPE MONI			
S4	1-552-287-00	SWITCH, TAPE MONI			
S5L	1-553-815-00	SWITCH, ROTARY SLIDE			
S5R	1-553-815-00	SWITCH, ROTARY SLIDE			
S6	1-553-796-00	SWITCH, ROTARY F			
S7	1-553-796-00	SWITCH, ROTARY			
S8	1-552-255-00	SWITCH, PUSH			
S9	1-552-974-00	(US).....SWITCH, AC			
S9	1-552-975-00	(AEP,UK)...SWITCH, AC			

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- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF: μF, PF: μμF.

RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

COILS

- MMH : mH, UH : μH

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

SEMICONDUCTORS

In each case, U : μ, for example:
 UA....: μA...., UPA....: μPA...., UPC....: μPC,
 UPD....: μPD....

HARDWARE NOMENCLATURE

Screw:

P 3 x 10

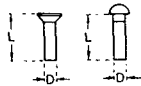
L: Length in mm

D: Diameter in mm

Type of head

Indicated slotted-head only.

Unless otherwise indicated, it means cross-recessed head (Phillips type).



Nut, Washer, Retaining ring:

N 3

Diameter of usable screw or shaft

Reference designation

Reference Designation	Shape	Description	Remarks
SCREWS			
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		braizer-head screw	

Reference Designation	Shape	Description	Remarks
SELF-TAPPING SCREWS			
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self-tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
SET SCREWS			
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
NUT			
N		nut	
WASHERS			
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
RETAINING RINGS			
E		retaining ring	
G		grip-type retaining ring	

TA-E900

SUPPLEMENT

US Model

File this supplement with the service manual.

No. 1

March, 1983

©SAFETY CHECK-OUT (US Model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

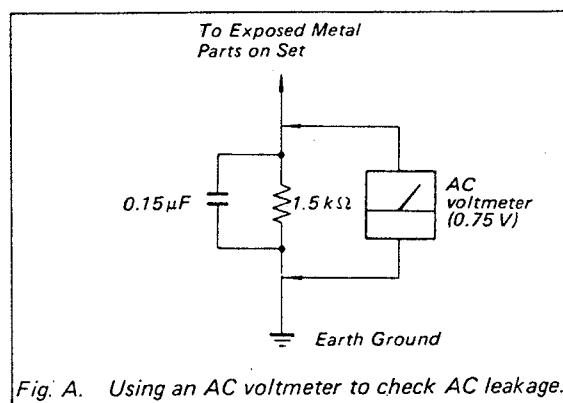


Fig. A. Using an AC voltmeter to check AC leakage.

© The following parts have been added as the safety-related components.

C553	△ 1-123-624-00	ELECT	470 MF	20%	120V
C554	△ 1-123-624-00	ELECT	470 MF	20%	120V
C653	△ 1-123-624-00	ELECT	470 MF	20%	120V
C654	△ 1-123-624-00	ELECT	470 MF	20%	120V
C701	△ 1-123-495-00	ELECT	220 MF	20%	25V
C703	△ 1-123-488-00	ELECT	1000 MF	20%	16V
C704	△ 1-123-488-00	ELECT	1000 MF	20%	16V
C705	△ 1-123-895-00	ELECT	2200 MF	20%	50V
C706	△ 1-123-895-00	ELECT	2200 MF	20%	50V
C707	△ 1-123-895-00	ELECT	2200 MF	20%	50V
C708	△ 1-123-895-00	ELECT	2200 MF	20%	50V
C709	△ 1-123-895-00	ELECT	2200 MF	20%	50V
C710	△ 1-123-895-00	ELECT	2200 MF	20%	50V
C711	△ 1-123-895-00	ELECT	2200 MF	20%	50V
C712	△ 1-123-895-00	ELECT	2200 MF	20%	50V

The components identified by shading and mark △ are critical for safety. Replace only with part number specified.

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