

C-48

US Model
E Model



CONDENSER MICROPHONE

SPECIFICATIONS

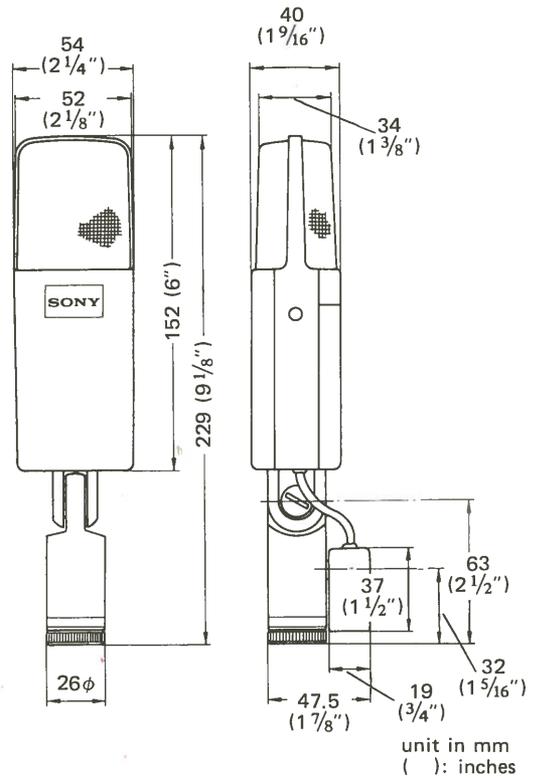
Battery:	9V dc, battery size "006P" or equiv. (IEC designation 6F22)	Noise Level:	S/N ratio:	More than 52 dB (1,000 Hz, 1 μ bar)
Power Supply:	Standard operating voltage: 9V Minimum operating voltage: approx. 5.5V Current drain: less than 5 mA (with battery) less than 1 mA (with external power supply) Continuous battery duration: more than 50 hours with a 006P dry battery Accepts external power supply of 48V dc		Inherent noise:	Less than 22 dB SPL (0 dB = 2 \times 10 ⁻⁴ μ bar)
Directivity:	Uni-, bi- and omni-directional		Wind noise* ³ :	Less than 47 dB SPL
Output Impedance:	150 Ω \pm 20% (balanced)		Induction noise from external magnetic field* ⁴ :	Less than 0 dB SPL/m gauss
Output Level:	Effective output level: -38.8 dBm (0 dBm = 1 mW/10 μ bar, 1,000 Hz) Open circuit voltage: -61.0 dB (0.89 mV) (0 dB = 1 V/ μ bar, 1,000 Hz) Output level deviation is \pm 2 dB Recommended load impedance is more than 3 k Ω .			* ³ Wind noise is the value measured by applying a wind velocity of 6.6 ft/second from all direc- tions on the microphone. The mean value is obtained and converted to the equivalent input sound level. (0 dB = 2 \times 10 ⁻⁴ μ bar)
Frequency Response:	30 Hz-16,000 Hz			* ⁴ The external magnetic field induction noise is measured with the microphone placed in an alternating magnetic field of 50 Hz, 1 m gauss. The maximum noise value is obtained and then converted to the equivalent input sound level. (0 dB = 2 \times 10 ⁻⁴ μ bar)

— Continued on next page —

SONY[®]
SERVICE MANUAL

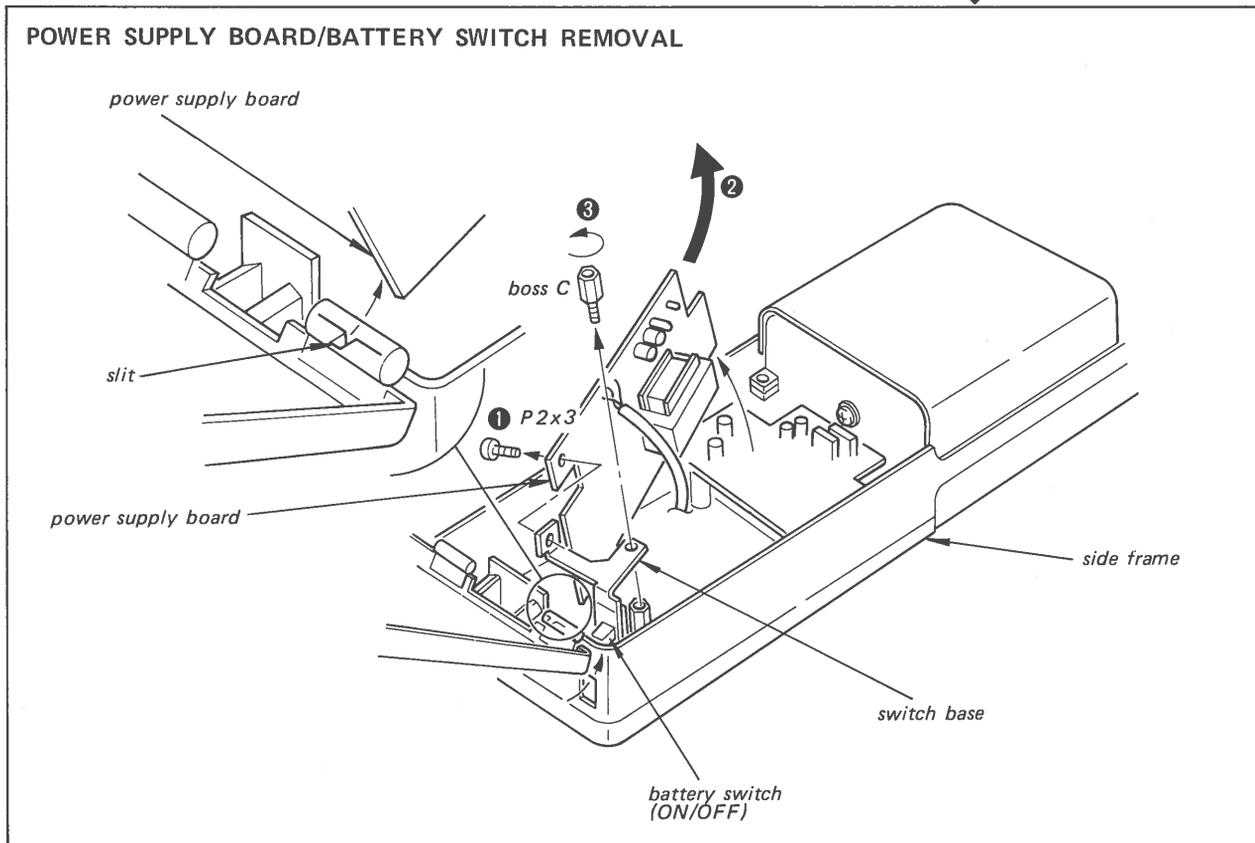
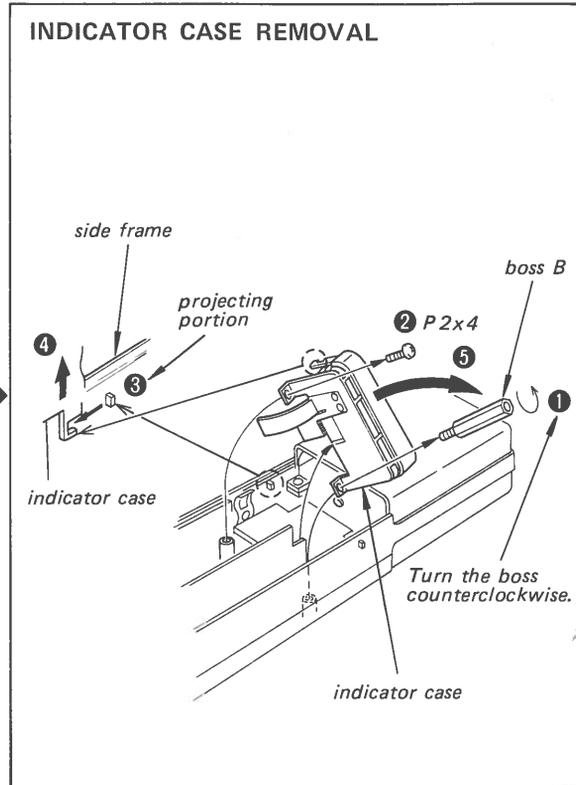
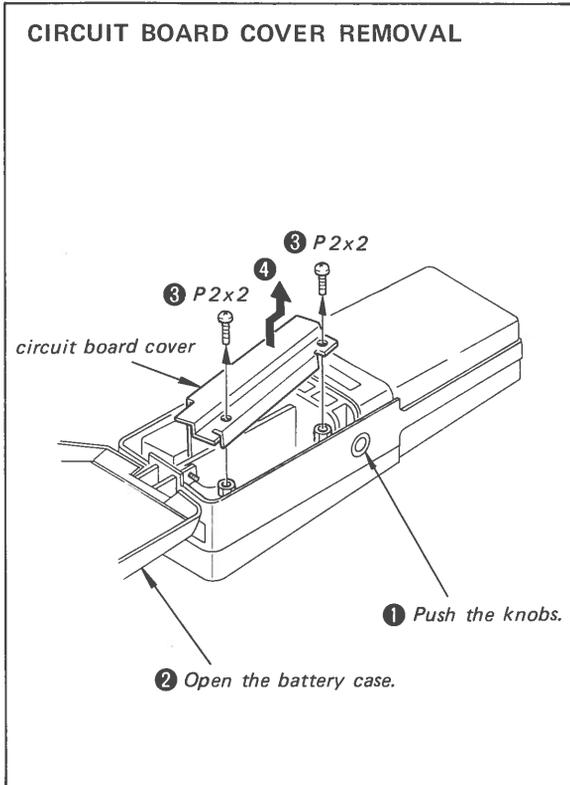
- Maximum Sound Pressure Input Level*3:** Approx. 128 dB SPL
 *3 This is the maximum input level which produces less than 1% wave distortion at the output with 1,000 Hz. (0 dB = 2×10^{-4} μ bar)
- Dynamic Range:** Approx. 106 dB
- Acceptable Preservation Temperature:** -4° to 140° F (-20° to 60° C)
- Proper Operating Temperature:** 32° to 140° F (0° to 60° C)
- Output Connector:** CANNON XLR-3-12C type
- Mounting Thread:** PF½
- Weight:** 550 g (1 lb 4 oz) without cable

Dimensions:



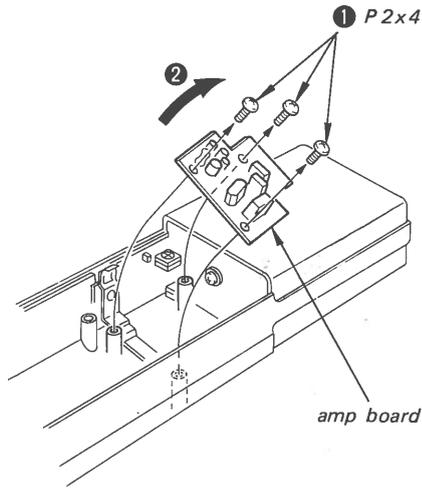
SECTION 1 DISASSEMBLY

- Note:
- Follow the disassembly procedure in the numerical order given.
 - All screws are Phillips (cross recess) type unless otherwise noted. (-) = slotted head

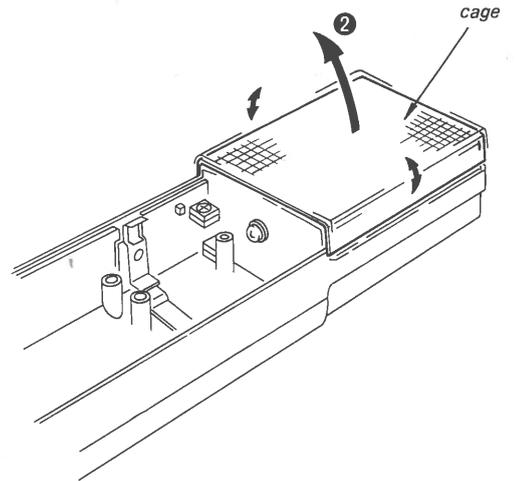


AMP BOARD REMOVAL**CAUTION**

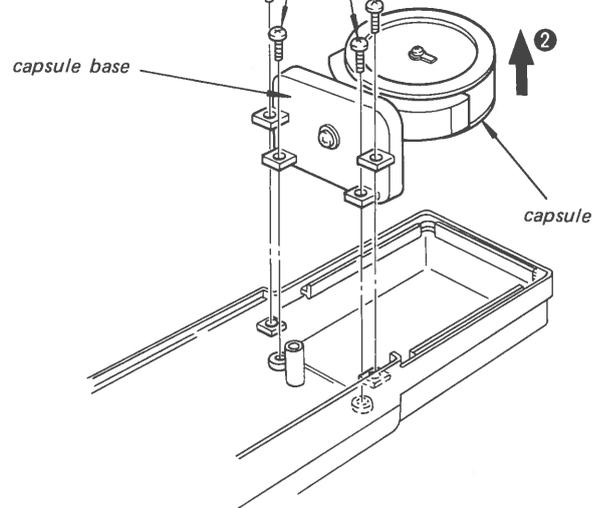
The amp board has been carefully adjusted at the factory. If some trouble occurs on it, replace the amp board as a part. The parts on the amp board are not individually available.

**CAGE REMOVAL**

- 1** As cage is fixed by adhesive cement, remove locking compound.

**CAPSULE ASS'Y REMOVAL**

- 1** P 2x4 (4 pcs.)



SECTION 2
DIAGRAMS

A

B

C

D

2-1. MOUNTING DIAGRAM

Replacement Semiconductors: See pages 7, 8.

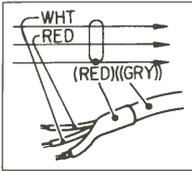
— Conductor Side —

CAUTION

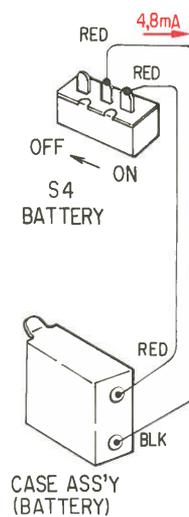
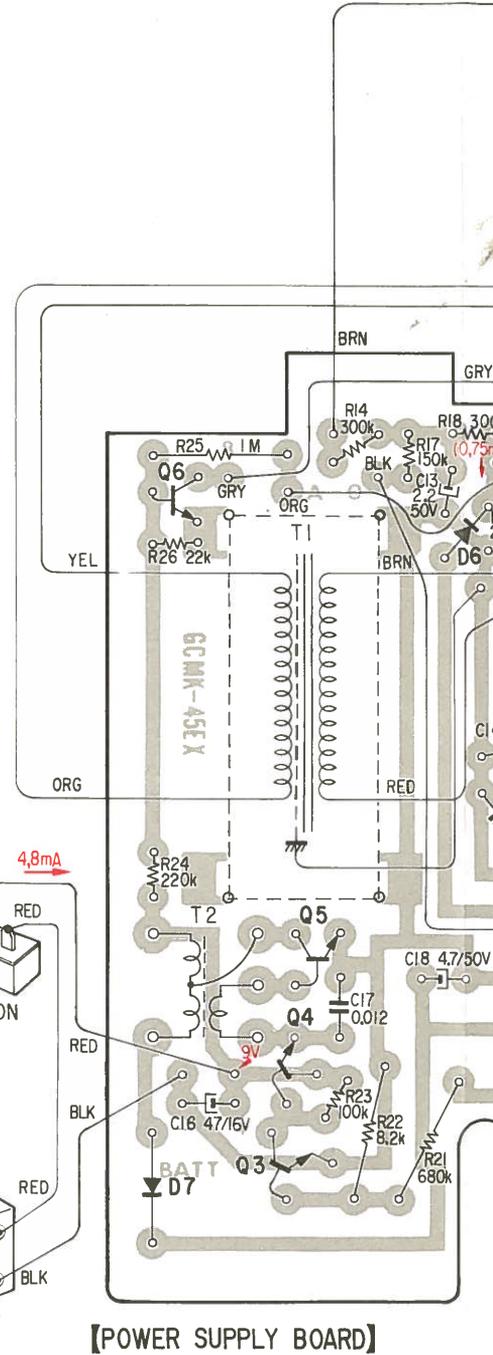
The amp board has been carefully adjusted at the factory. If some trouble occurs on it, replace the amp board as a part. The parts on the amp board are not individually available.

Note:

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



CU 3401
MIC
CAPSULE
CO



[POWER SUPPLY BOARD]

1

2

3

4

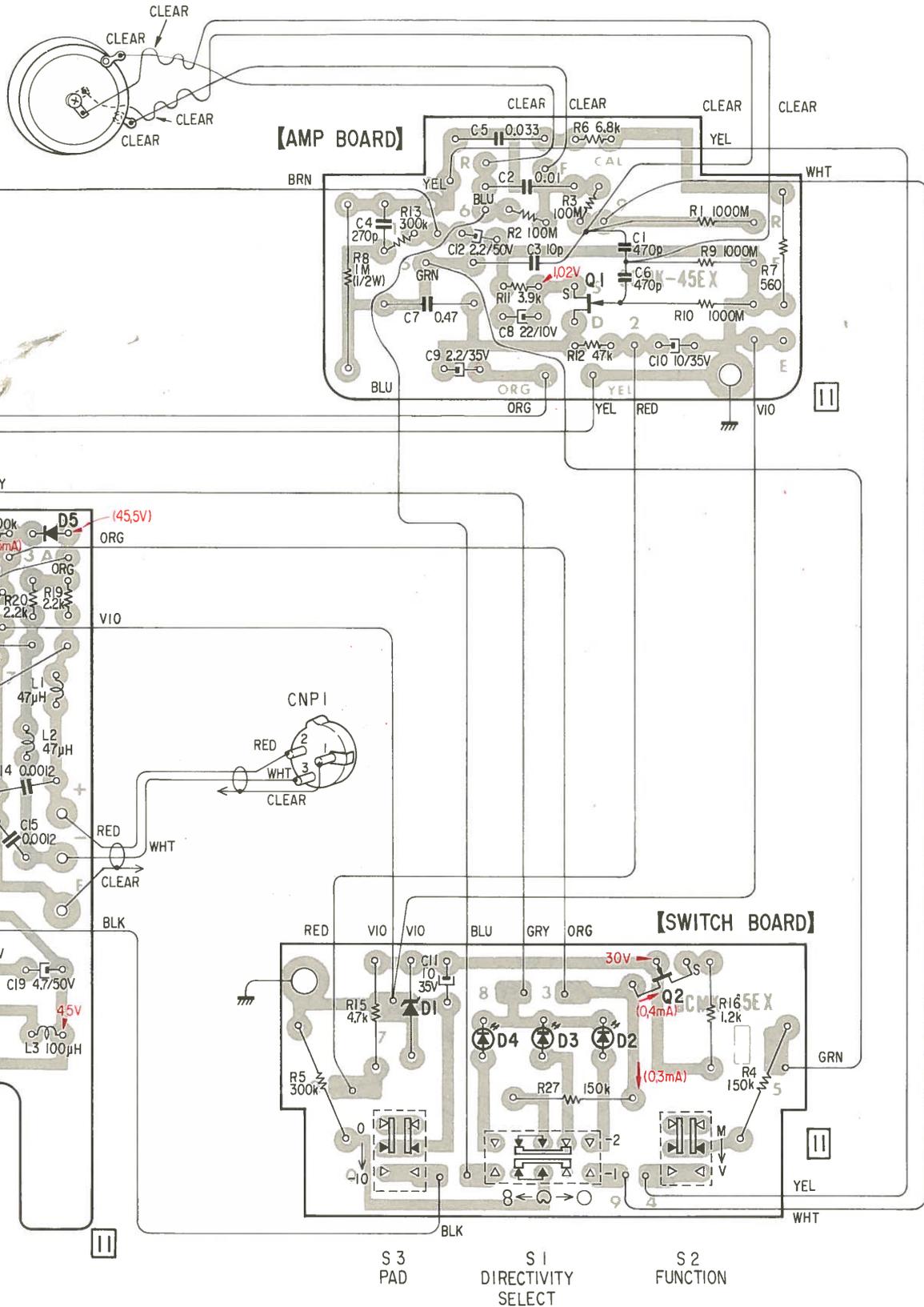
5

E

F

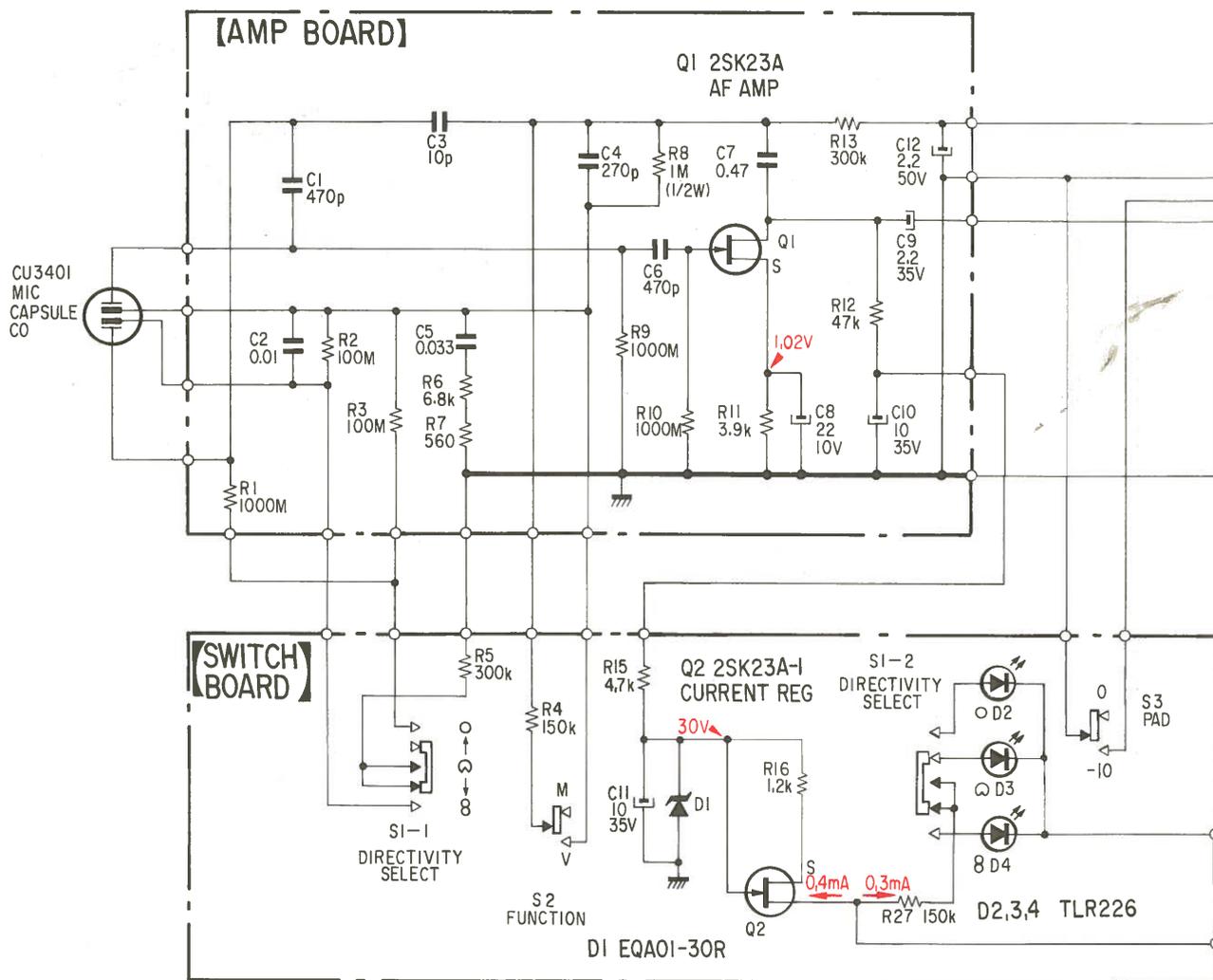
G

H



Q	D
1	
5	
6	
6	
5	2
4	1
	4.3.2
3	7

2-2. SCHEMATIC DIAGRAM



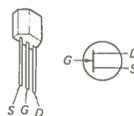
Note:

- All capacitors are in μF unless otherwise noted. pF: $\mu\mu\text{F}$
50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, $\frac{1}{4}\text{W}$ unless otherwise noted.
k Ω : 1000 Ω , M Ω : 1000 k Ω
- Voltages are dc with respect to ground unless otherwise noted.
- Readings and currents are taken under no-signal conditions with a VOM (20 k Ω /V).
(): When power supply unit is used.
- Voltage variations may be noted due to normal production tolerances.

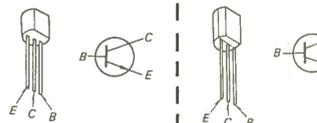
Replacement Semiconductors

For replacement, use semiconductors except in ().

Q2: 2SK23A-1
T1-3



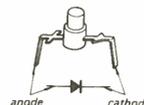
Q3, 4: 2SC1364 (2SC945-P)
T3-1 T3-5



D1: EQB01-30 (EQA01-30R)
D1-13



D2-4: TLR226
D18-3



E

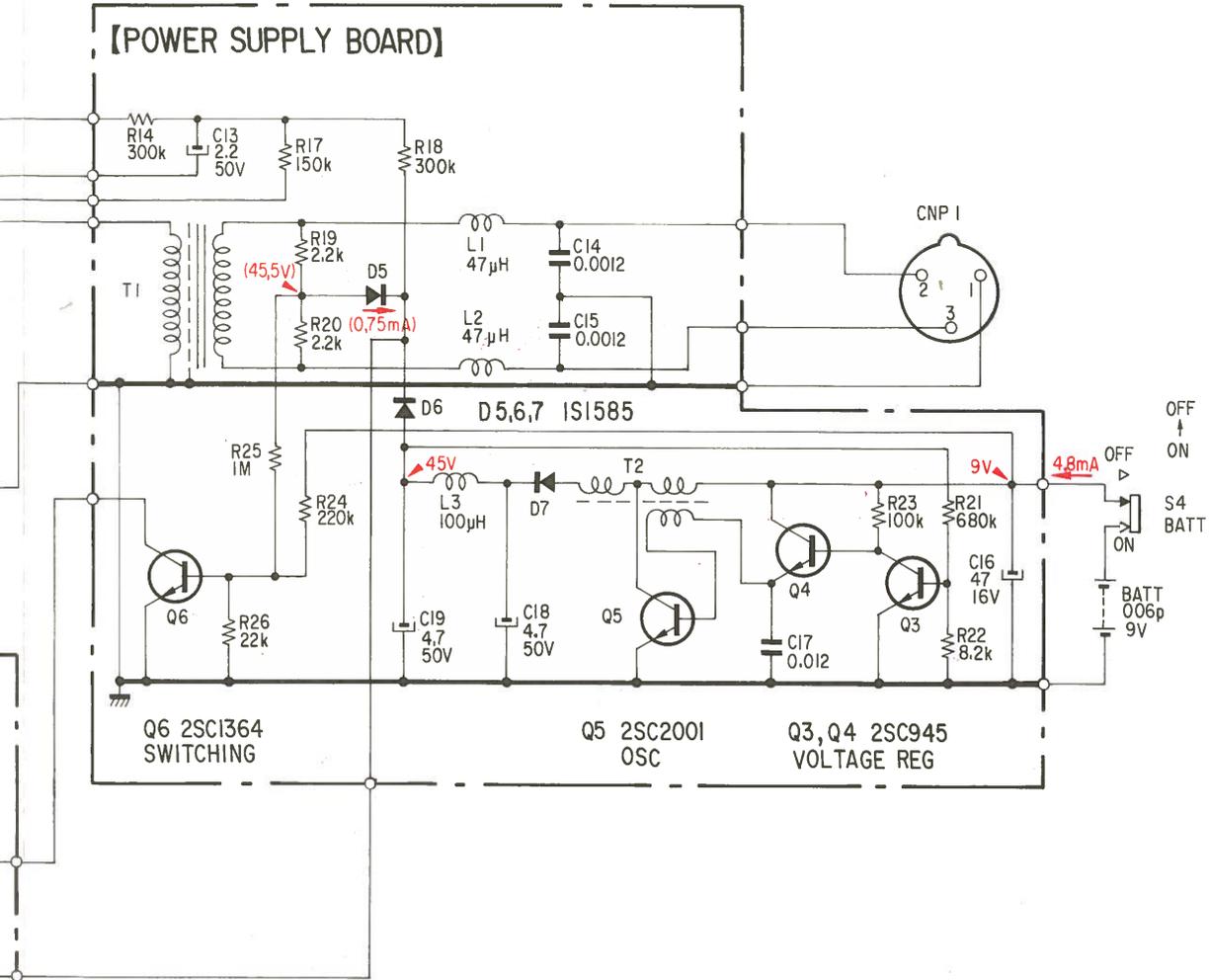
F

G

H

CAUTION
 The amp board has been carefully adjusted at the factory. If some trouble occurs on it, replace the amp board as a part. The parts on the amp board are not individually available.

[POWER SUPPLY BOARD]



<p>5-P)</p>	<p>Q5: 2SC2001 (2SC2001L) T3-1</p>	<p>Q6: 2SC1364 (2SC1364-7) T3-1</p>
	<p>D5-7: 1S1585 D1-5</p>	

A B C D

3-2.

Note:

- Items marked "!" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All screws are Phillips (cross recess) type unless otherwise noted.
(-) = slotted head

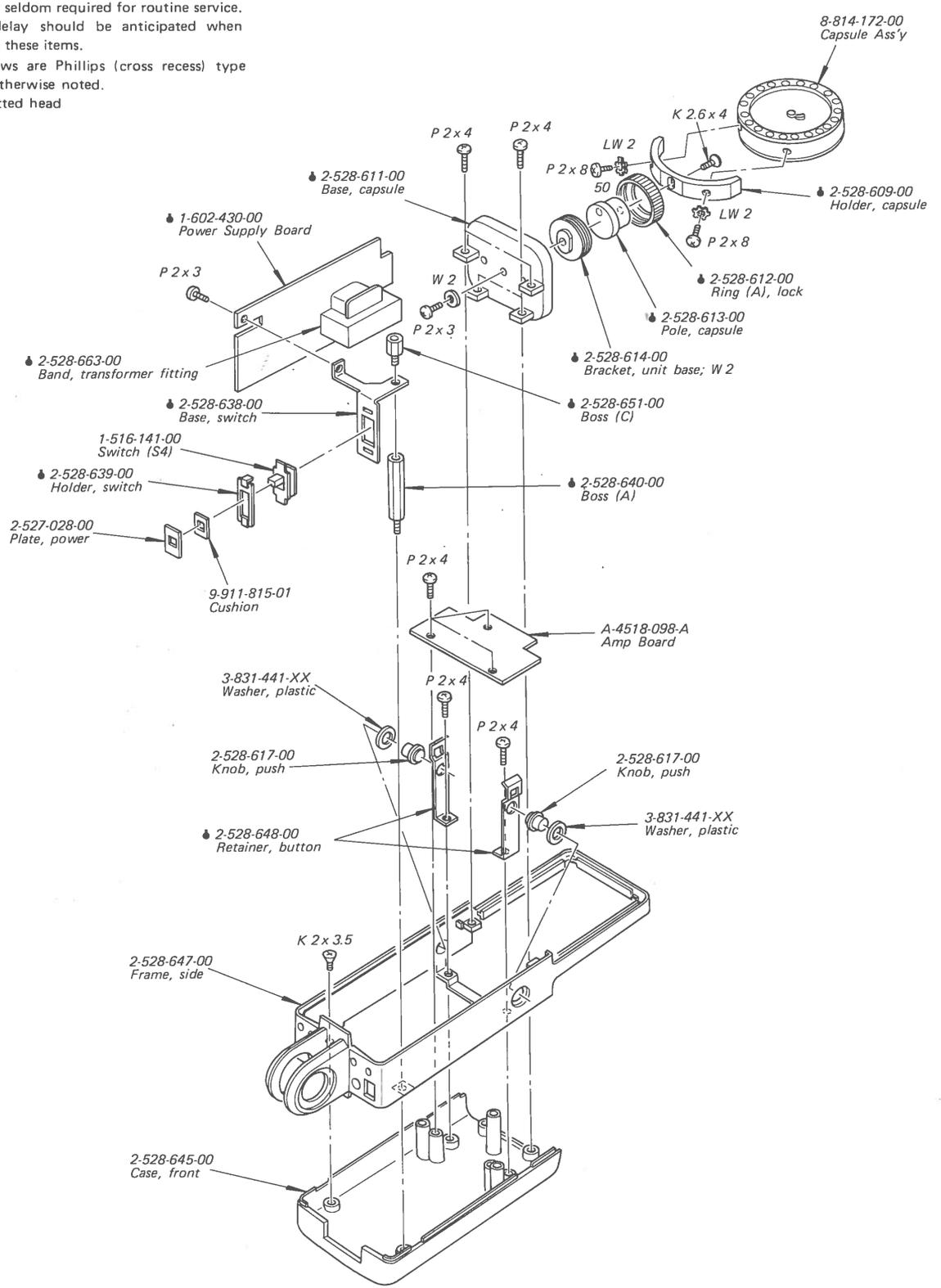
1

2

3

4

5



SECTION 4 ELECTRICAL PARTS LIST

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>			
SEMICONDUCTORS					
Transistors					
Q2	8-722-361-11	2SK23A-1			
Q3,4	8-729-663-47	2SC1364			
Q5	8-729-100-13	2SC2001			
Q6	8-729-663-47	2SC1364			
Diodes					
D1	8-719-931-30	EQB01-30			
D2-4	8-719-812-26	TLR226			
D5-7	8-719-815-85	1S1585			
CAPACITORS					
C11	1-131-353-00	10 μ F	35 V	tantalum	
C13	1-131-496-00	2.2 μ F	50 V	tantalum	
RESISTORS					
R4	1-214-781-00	150 k Ω	¼W	1%	metal-oxide
R5	1-214-788-00	300 k Ω	¼W	1%	metal-oxide
R14	1-214-788-00	300 k Ω	¼W	1%	metal-oxide
R15	1-214-745-00	4.7 k Ω	¼W	1%	metal-oxide
R16	1-214-731-00	1.2 k Ω	¼W	1%	metal-oxide
R17	1-214-781-00	150 k Ω	¼W	1%	metal-oxide
R18	1-214-788-00	300 k Ω	¼W	1%	metal-oxide
R19,20	1-214-995-00	2.2 k Ω	¼W	1%	metal-oxide
R22	1-246-495-00	8.2 k Ω	¼W	1%	carbon
R24	1-214-785-00	220 k Ω	¼W	1%	metal-oxide
R25	1-214-964-00	1 M Ω	¼W	1%	metal-oxide
R26	1-214-761-00	22 k Ω	¼W	1%	metal-oxide
R27	1-214-781-00	150 k Ω	¼W	1%	metal-oxide
MISCELLANEOUS					
CNP	1-509-096-00	Connector, male; CANNON XLR-3-14			

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
L1,2	1-407-165-XX	47 μ H, microinductor
L3	1-407-169-XX	100 μ H, microinductor
S1	1-552-409-00	Switch, slide
S2,3	1-552-849-00	Switch, slide
S4	1-516-141-00	Switch
T1	1-429-061-00	Microphone Transformer
T2	1-433-226-00	OSC Coil
	A-4518-098-A	Amp Board
	1-555-461-00	Cord, microphone
	● 1-602-429-00	Printed Circuit Board
	● 1-602-430-00	Power Supply Board

ACCESSORIES AND PACKING MATERIALS

<u>Part No.</u>	<u>Description</u>
X-2528-603-0	Case, carrying
2-052-522-02	Adaptor, screw
2-528-655-00	Carton
2-599-150-11	Manual, instruction (E model)
2-599-150-21	Manual, instruction (US model)
3-701-627-00	Bag, plastic (for microphone)
3-701-628-00	Bag, plastic (for instruction manual)
3-703-050-00	Label, warning
3-794-422-21	Card, warranty
4-022-133-00	Bag, protection

● Items marked "●" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

