PS-T1

Canadian Model
US Model
AEP Model
UK Model
E Model

STEREO TURNTABLE SYSTEM

SPECIFICATIONS

GENERAL

Power Requirements: 120, 220 V ac (E, AEP model serial No. 511501 and later)
110, 120, 220, 240 V ac adjustable, 50/60 Hz (AEP model up to serial No. 511500)
240 V ac, 50 Hz (UK model)
120 V ac, 60 Hz (US, Canadian model)

Power Consumption: 8W (AEP, UK, E model)
6W (US, Canadian model)

Dimensions: Approx. 445 (w) x 140 (h) x 375 (d) mm
17½ (w) x 5½ (h) x 14¾ (d) inches
including projecting parts and controls

Weight: Approx. 5 kg, 11 lb (net)
6 kg, 13 lb 4 oz (with shipping carton)

TURNTABLE

Platter: 31.3 cm, 12 3/8 inches, aluminum-alloy diecast

Motor: DC servo-controlled motor (brushless and slotless)

Drive System: Direct drive

Speeds: 33 1/3, 45 rpm

Pitch Control Range: ±4%

Wow and Flutter: 0.04% (WRMS)
±0.065% (DIN)

S/N Ratio: 68 dB (DIN-B)

Automatic System: Arm return, reject

TONEARM

Type: Statically balanced, universal

Pivot-to-Stylus Length: 216.5 mm, 8½ inches

Overall Arm Length: 300 mm, 11 7/8 inches

Overhang: 16.5 mm, 21/32 inches

Tracking Error: +3°, -1°

Tracking-Force Adjustment Range: 0–3 g

Shell Weight: 7.5 g

Cartridge Weight Range: 4–10 g

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.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ !

LES COMPOSANTS IDENTIFIÉS PAR UN TRAMÉ ET UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES, LES VUES EXPLOSÉES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DES SUPPLÉMENTS PUBLIÉS PAR SONY.

MODEL IDENTIFICATIONS: See page 36

SONY®
SERVICE MANUAL

TONEARM REMOVAL

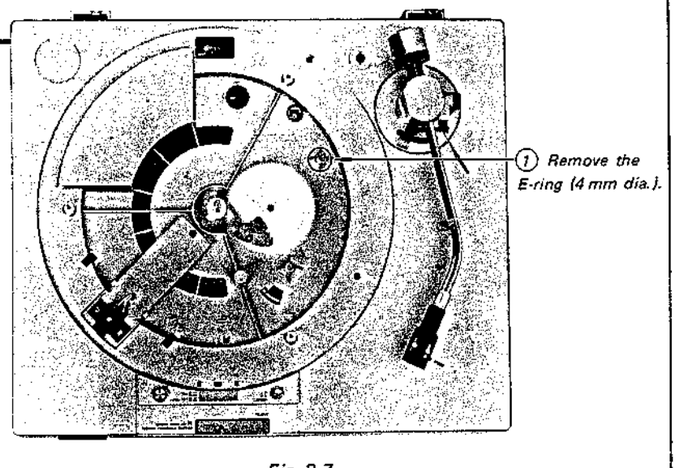


Fig. 2-7

Turn the set upside-down and proceed ②, ③, ④ and ⑤ as shown in Fig. 2-8.

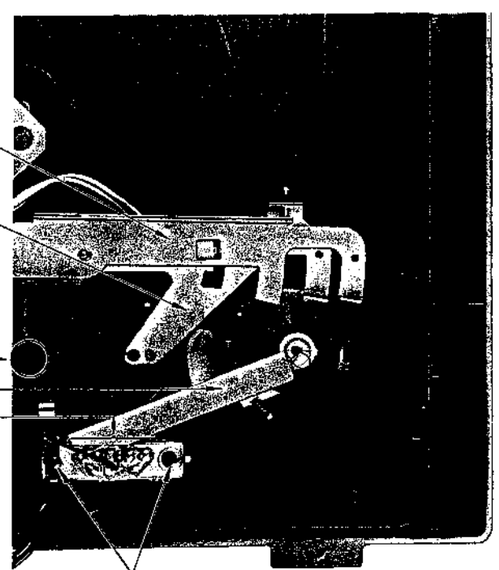


Fig. 2-8

Loosen the screw and pull up the arm lever assembly from the tonearm shaft.

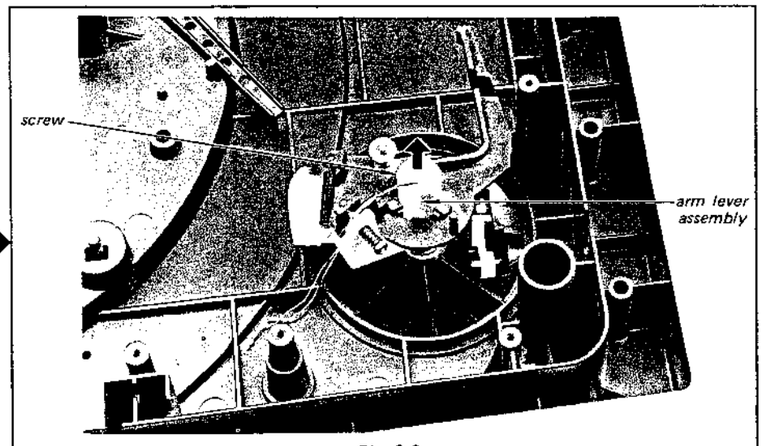


Fig. 2-9

1. Loosen the screw.
2. Hold the tonearm firmly by hand and pull up the thrust nut (D) by turning it counterclockwise.
3. Remove the steel-balls from the arm pivot.
4. Turn the set upside-down again and pull up the tonearm slowly.

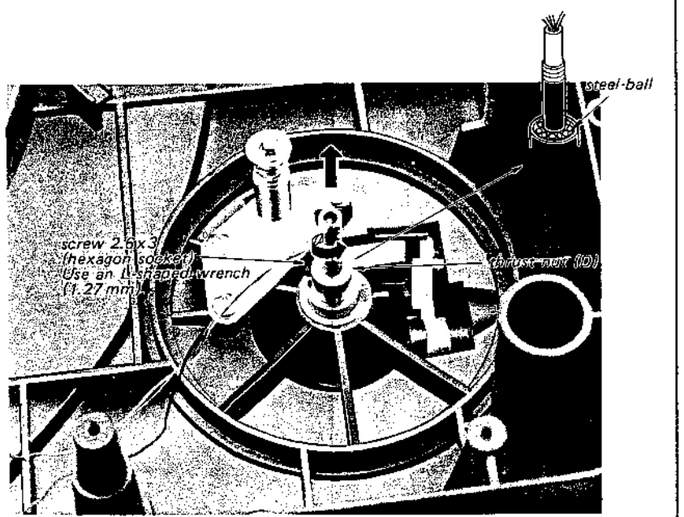


Fig. 2-10

SECTION 3
ASSEMBLY

3-1. TONEARM ASSEMBLY

1. Pipe Assembly (1)

1. Thread a wire in Ⓓ.
2. Thread the leads of Ⓖ in Ⓕ and Ⓔ, and hook the leads by the wire.
3. Insert Ⓖ in Ⓓ by pulling the wire in the direction shown by the arrow, adjust two holes marked *1, *2 and tighten the screw ③.

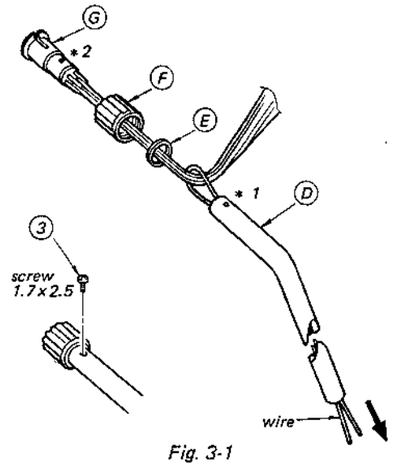


Fig. 3-1

2. Pipe Assembly (2)

1. Thread a wire in Ⓗ as shown below.
2. Hook four leads of Ⓚ and Ⓖ together by the wire and pull the leads into Ⓗ.
3. Adjust three holes marked *1, *2, *3 to tighten the screws ④.

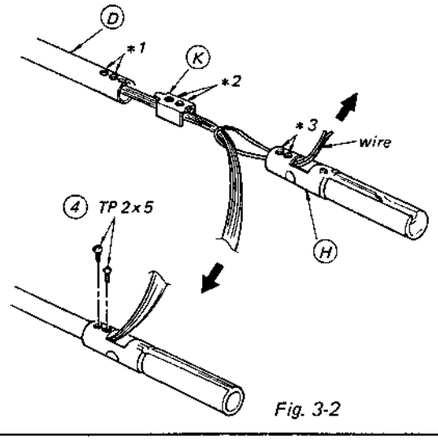


Fig. 3-2

3. Installation of Pipe Assembly

1. Thread a wire in Ⓙ.
2. Hook five leads of the pipe assembly by the wire.
3. Insert the pipe assembly into Ⓛ, while pulling the leads.

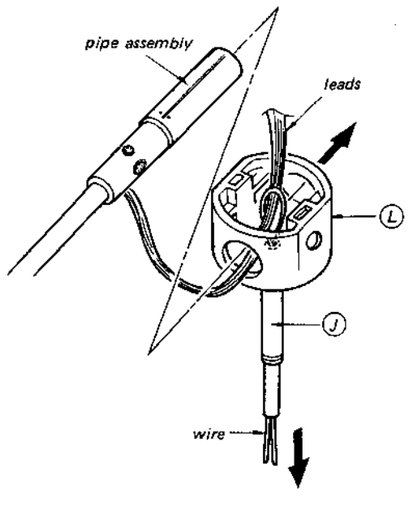


Fig. 3-3

4. Setting of Pivot (A) and Pivot (B)

Push the pivot (A) and the pivot (B) into the holes of Ⓛ strongly and tighten the screws ② .

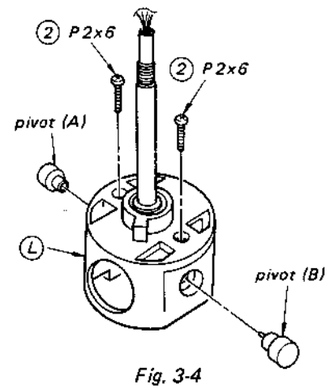


Fig. 3-4

5. Setting of Pivot Screw and Lock Nut (A)

1. Adjust the positions of the pivot (A) and the pivot bearing of the center boss.
2. Tighten the screw ① and the nut ② temporarily.

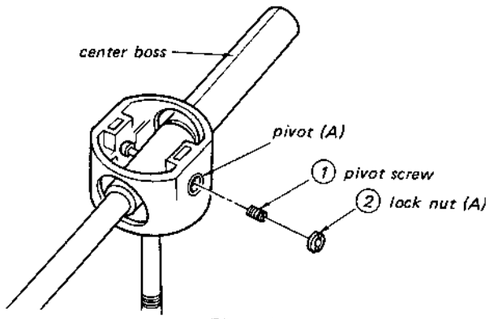


Fig. 3-5

3. Attach the head shell (with a cartridge) and the counterweight to the tonearm.
4. In order to keep a balance, adjust the screw and the nut, repeating the following procedures.
   a. When the 70 mg weight is placed on the top of the shell (just above a stylus), the tonearm sinks 5 mm (measured at the stylus-tip).
   b. When the weight is removed, the tonearm returns horizontally.

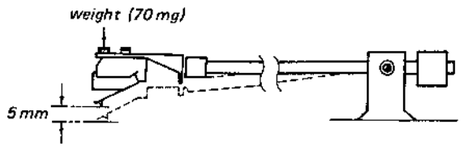


Fig. 3-6

3-2. INSTALLING TONEARM TO FRAME

1. Clean the portion of the arm pivot marked by in Fig. 3-7 with an alcohol-moistened swab.
2. Insert the arm shaft in the arm pivot by half.
3. Put fourteen cleaned steel-balls into the portion marked * .
4. Insert the arm shaft in the arm pivot completely.
5. Hold the tonearm firmly by hand and turn the set upside-down.

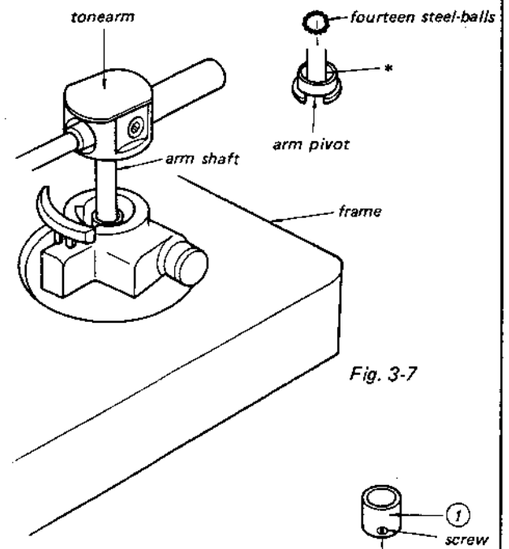


Fig. 3-7

6. Clean the portion marked * in Fig. 3-8.
7. Put fourteen cleaned steel-balls into the portion marked by * in Fig. 3-8.

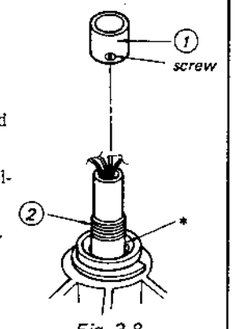


Fig. 3-8

8. Insert the ① (with a screw side down) and screw up the ① to the extent of ② being movable slightly up and down.
9. Tighten the screw with an L-shaped wrench (dia. 1.27 mm).
10. Adjust the stylus-pressure to 750 mg and trace the stylus on the grooveless disk.
11. Confirm that the tonearm traverse smoothly from the outer track to the inner.
12. If not, readjust the ①.

SECTION 6
ADJUSTMENTS

6-1. GAIN ADJUSTMENT

1. Remove the turntable.
2. Unsolder the portion shown by Ⓐ and connect the regulated power supply as illustrated in Fig. 6-1.
3. Connect a VTVM between the emitter Q6/Q8 and the ground.
4. Adjust RV4/RV5 so that the VTVM reading is 2.5 V ac.

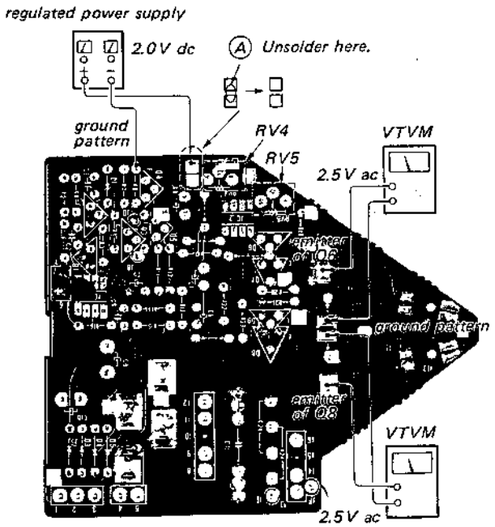


Fig. 6-1

6-2. HEAD SHELL SLANT ADJUSTMENT

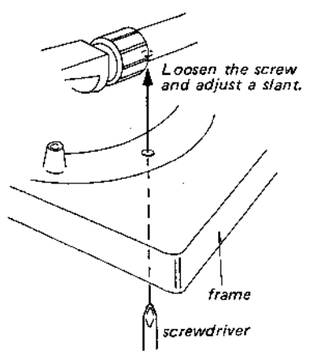


Fig. 6-2

6-3. SPEED ADJUSTMENT

In case of being unable to control speed by the PITCH Control, adjust RV2/RV3 (Fig. 6-3) with a screwdriver until the respective stroboscope pattern appears to be stopped.

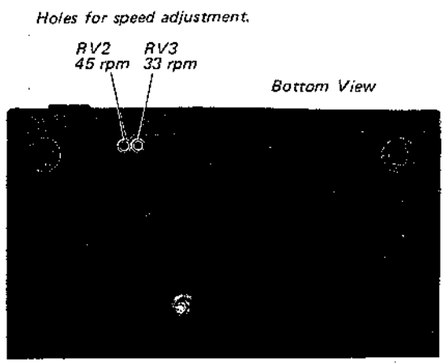


Fig. 6-3

6-4. AUTOMATIC RETURN POSITION ADJUSTMENT

1. Remove the turntable and the bottom cover.
2. Reset: Move the clutch A and the clutch B in the arrowed direction as shown in Fig. 6-4B.
3. Adjust the position of the stylus so that the stylus comes to the mark of the boss as shown in Fig. 6-4A and the hold the stylus.
4. Turn the adjustment screw in Fig. 6-5 so that the portion shown by *1 of the center gear contacts the portion shown by *2 of the clutch A as shown in Fig. 6-4B.

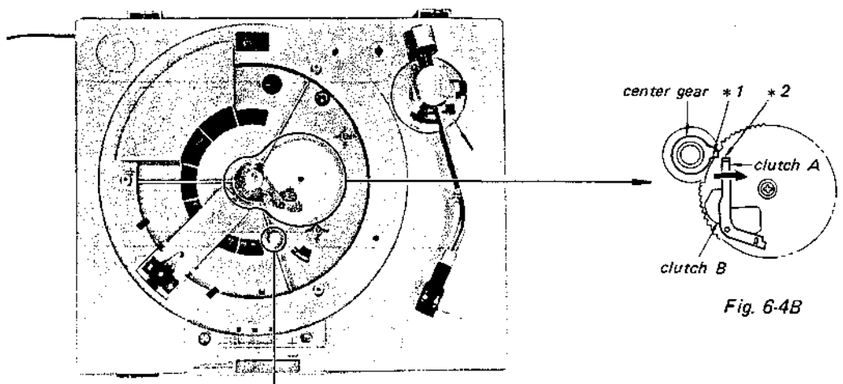


Fig. 6-4B

Fig. 6-4

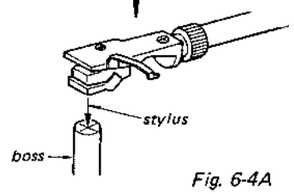


Fig. 6-4A

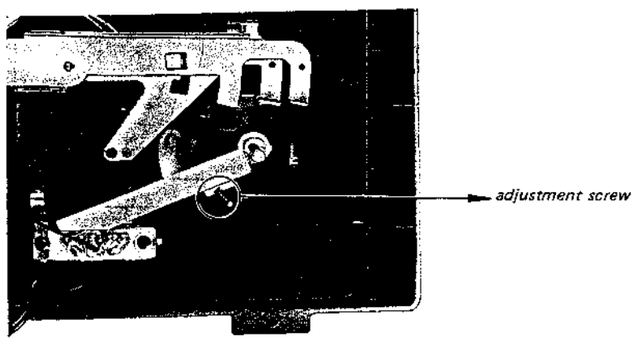


Fig. 6-5

6-5. SPEED DETECTING HEAD ADJUSTMENT

1. Fix the speed detecting head temporarily at a distance of 117 mm from the bracket hole to the head tip.
2. Adjust the head position so that the output level of the head exceeds 15 mV ac (at 33 rpm) when the turntable is rotating.

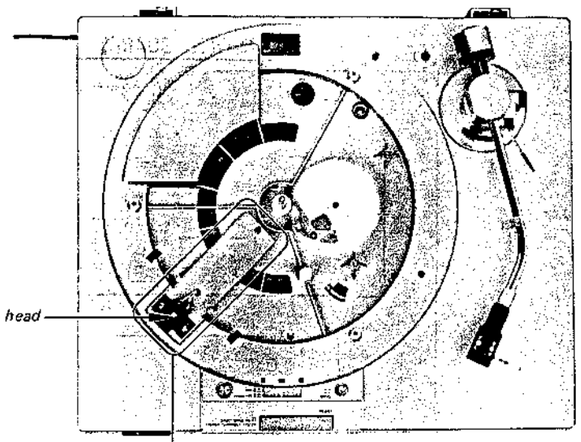
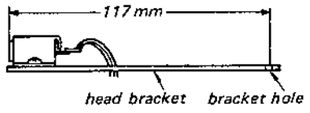


Fig. 6-6



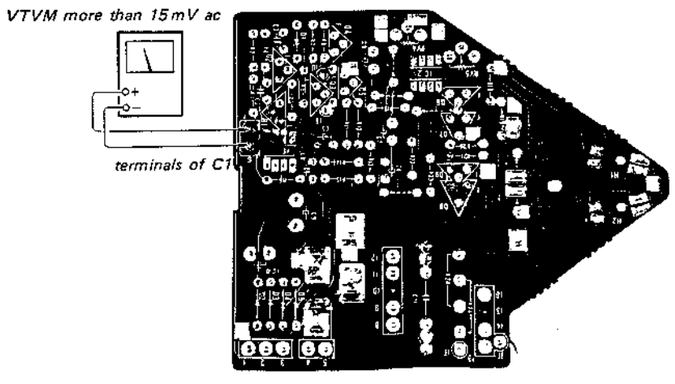


Fig. 6-7

6-6. MINIATURE SWITCH POSITION ADJUSTMENT

1. Lock the tonearm on the arm rest.
2. Adjust the adjustment screw so that the positions of the miniature switch and the arm lever assembly are as shown in Fig. 6-8A.
3. Move the tonearm by hand and confirm that the neon lamp lights up just when the head shell comes to a distance of 15 mm from the turntable rim as shown in Fig. 6-8B.
4. Return the tonearm and confirm that the neon lamp goes off just when the center of the tonearm pipe comes to the tip of the tonearm rest.

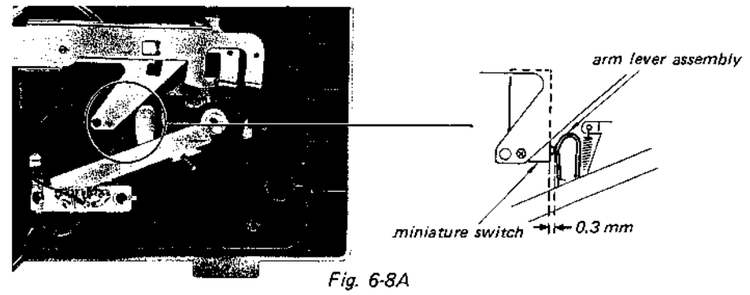


Fig. 6-8A

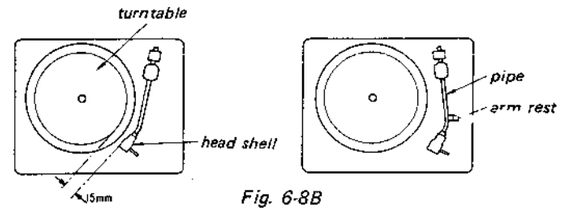


Fig. 6-8B

6-7. TONEARM HEIGHT ADJUSTMENT

Automatic/Manual Return Operation

Adjust the height of the lift assembly by loosening the set screw so that the clearance between the stylus tip and the record is 5–9 mm, when the tonearm is raised by using the cueing lever after playing.

Check for the same result when the tonearm is automatically raised.

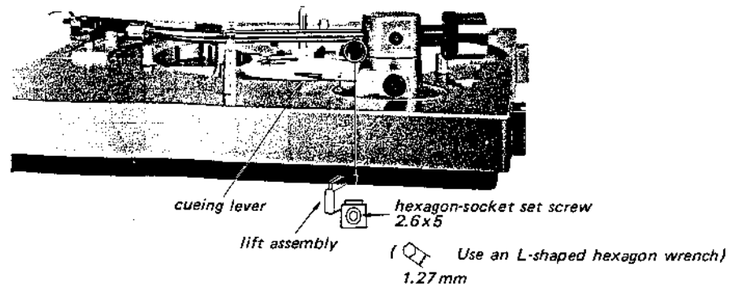
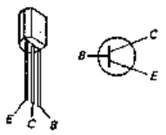


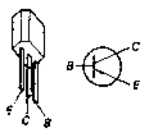
Fig. 6-9

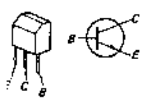
SECTION 7
DIAGRAM

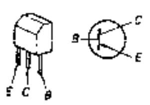
MOUNTING DIAGRAMS
– Conductor Side –

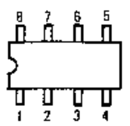
ement Semiconductors
lacement, use semiconductors except in ( ).

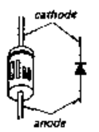
21–4: 2SC1364


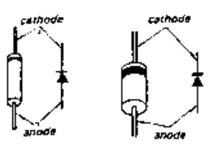
25: 2SA678


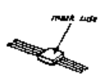
26, 8: 2SD571


27, 9: 2SB605


C1, 2: μPC4558C


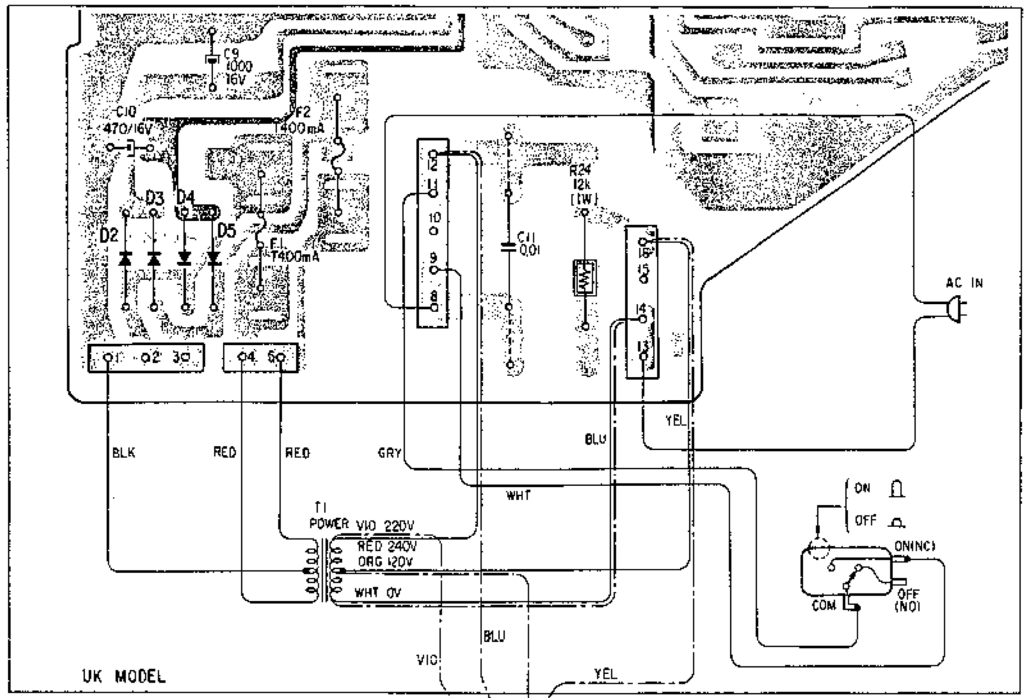
21: EQB01-05 (EQA01-05R)


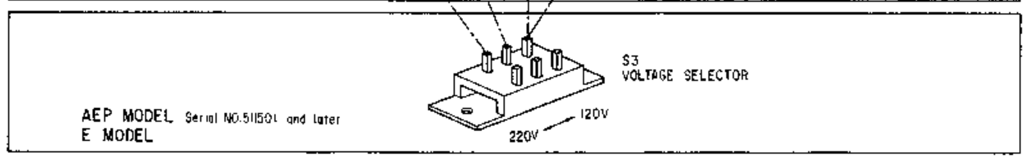
22–5: 10E-2 (GP08D)


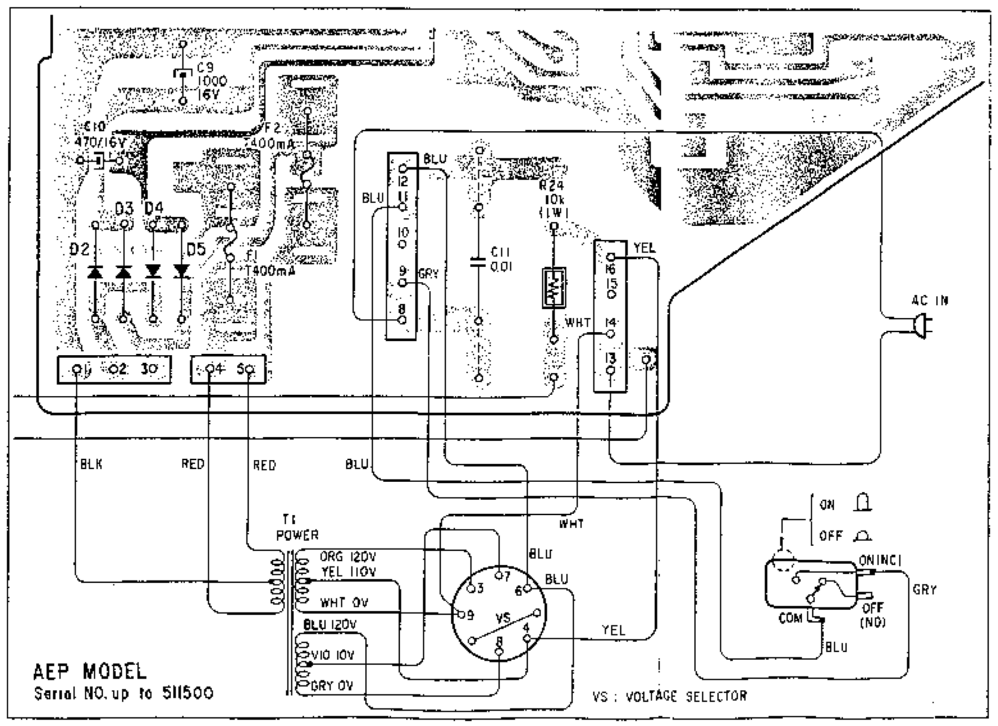
41, 2: 5GF-MS-07F


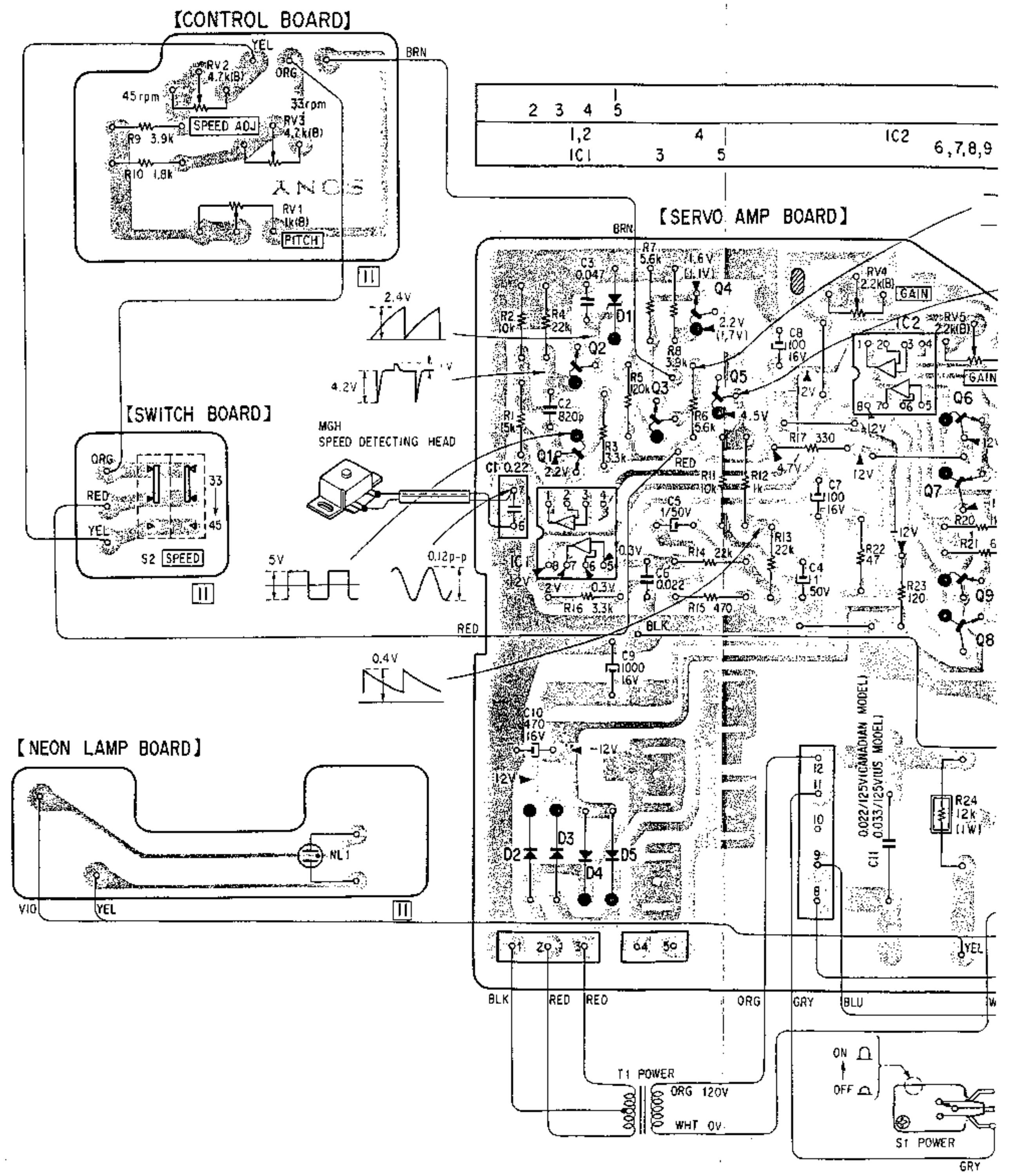
A B C D E F G

1 2 3 4 5

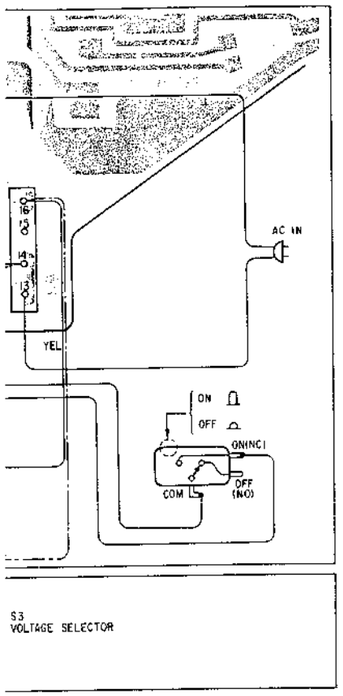


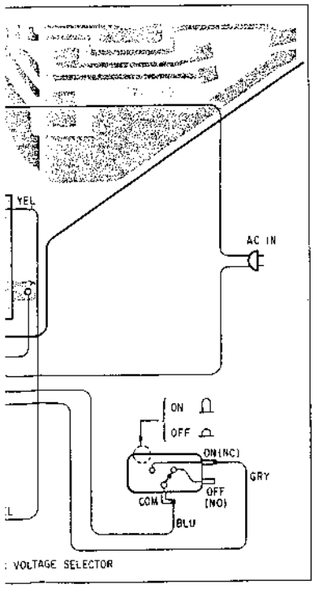


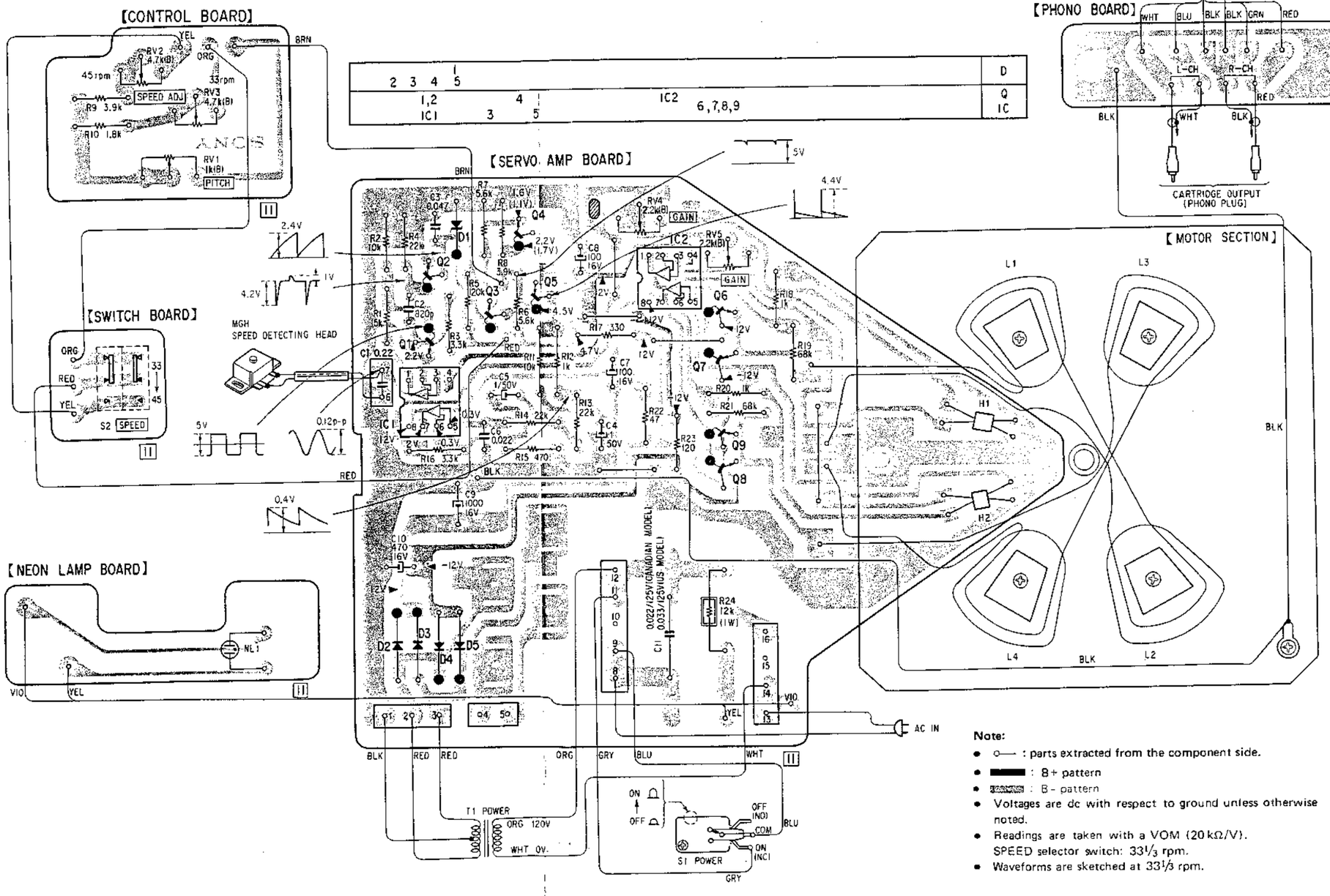




C D E F G H I J





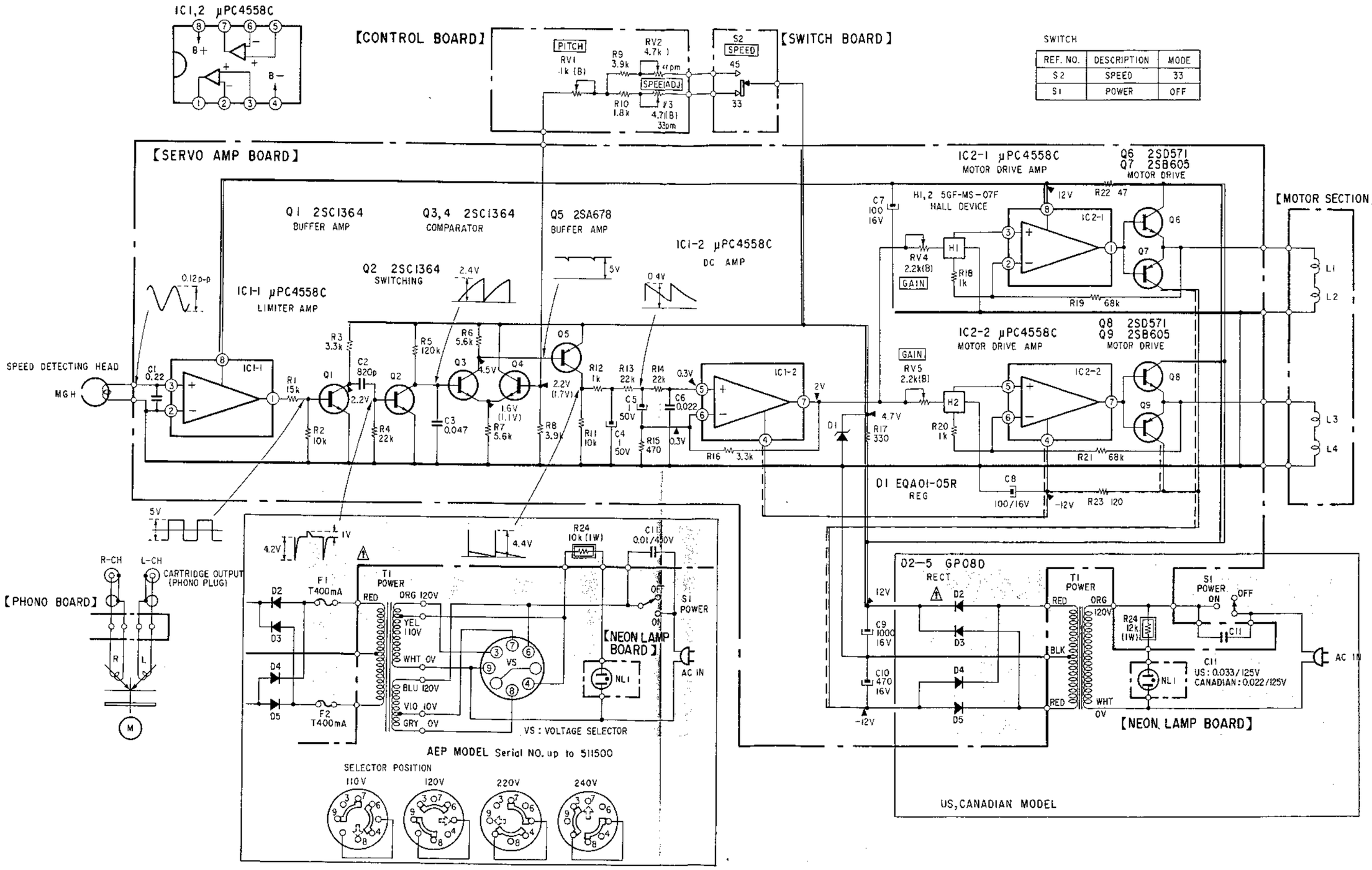


	D
2 3 4 5 / 1,2 4 / IC1 3 5 / IC2 6,7,8,9	Q / IC

Note:

- ○— : parts extracted from the component side.
- ▬ : B+ pattern
- ▬ : B- pattern
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a VOM (20 kΩ/V).
  SPEED selector switch: 33⅓ rpm.
- Waveforms are sketched at 33⅓ rpm.

7-2. SCHEMATIC DIAGRAM



Note:

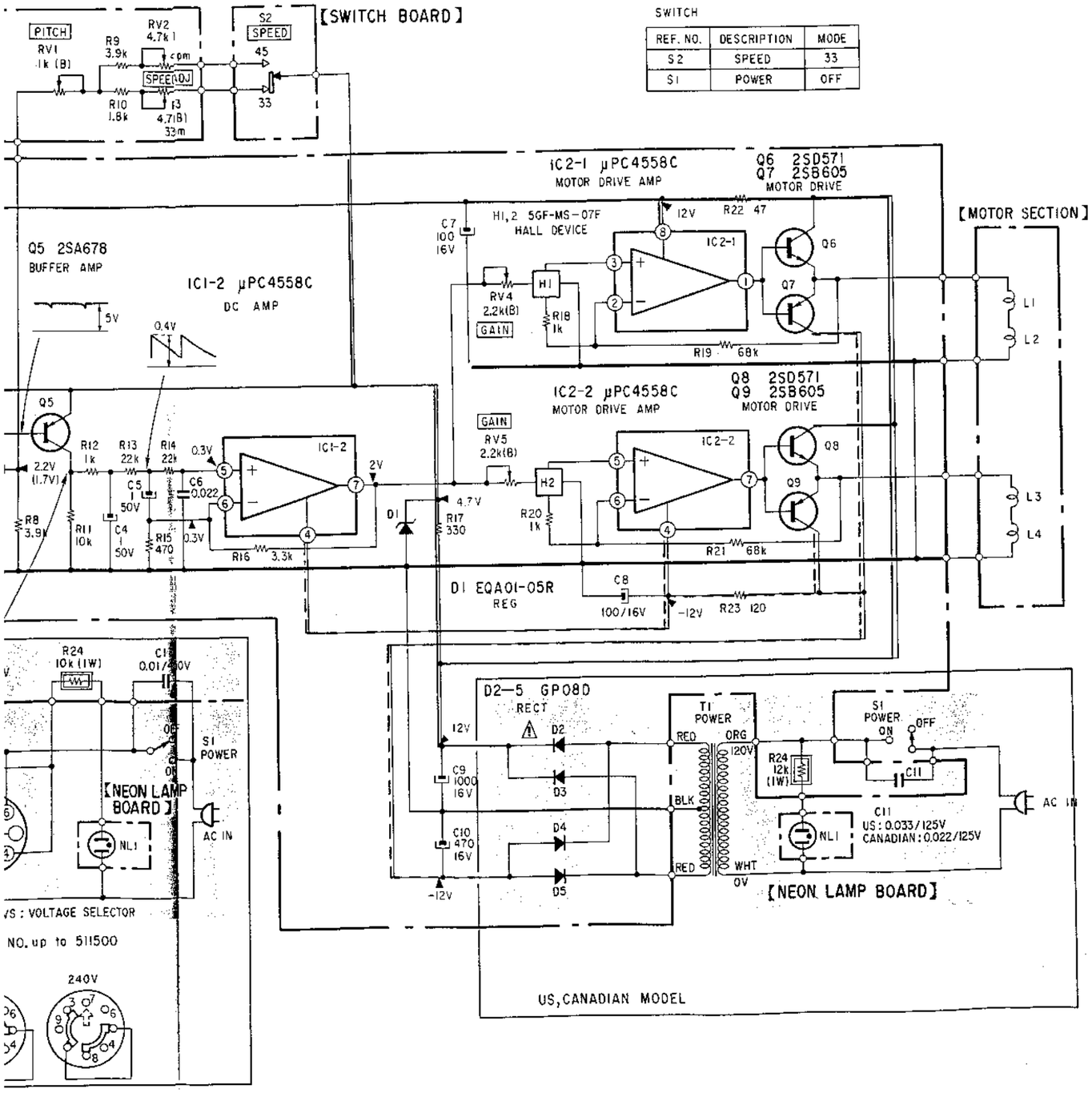
- All capacitors 50 WV or less
- All resistors kΩ = 1000Ω;
- : nonfl
- Voltages are noted.
- Readings are
- Voltage variat duction tolera
- Waveforms are
- : panel
- : adjust
- : B+ bu
- : B–

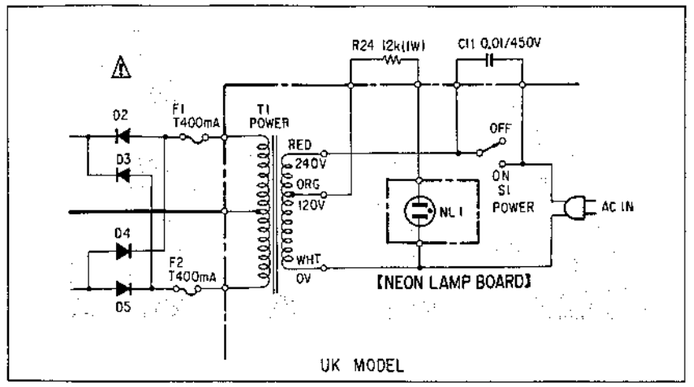
D E F G H I J K L

【SWITCH BOARD】

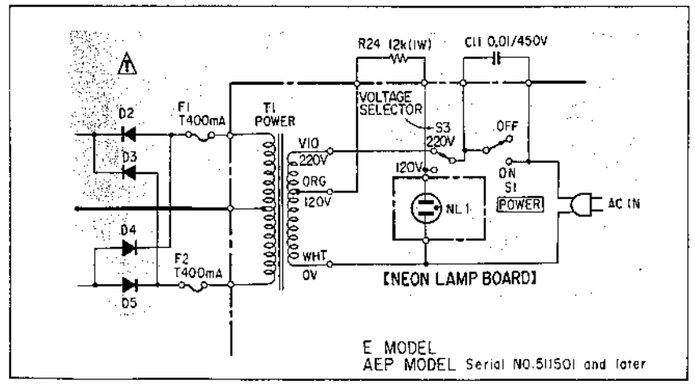
SWITCH

REF. NO.	DESCRIPTION	MODE
S2	SPEED	33
S1	POWER	OFF





UK MODEL



E MODEL
AEP MODEL Serial NO.511501 and later

te:

All capacitors are in μF unless otherwise noted. pF = μμF 50 WV or less are not indicated except for electrolytics.

All resistors are in ohms, ¼ W unless otherwise noted. kΩ = 1000 Ω; MΩ = 1000 kΩ

: nonflammable resistor.

Voltages are dc with respect to ground unless otherwise noted.

Readings are taken with a VOM (20 kΩ/V).

Voltage variations may be noted due to normal production tolerances.

Waveforms are sketched at 33rpm.

: panel designation.

: adjustment for repair.

: B+ bus.

: B– bus.

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

Note: Les composants identifies par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.