PS-X4

Canadian Model
E Model
AEP Model
UK Model

Canadian, AEP, UK model

(Cartridge is not supplied with this turntable system.)

E model

AUTOMATIC STEREO TURNTABLE SYSTEM

SPECIFICATIONS

GENERAL

Power Requirements: 110, 120, 220, 240 V ac ~, adjustable, 50/60 Hz (E, AEP, UK model)
120 V ac ~, 60 Hz (Canadian model)

Power Consumption: 12 W (E, AEP, UK model)
8 W (Canadian model)

Dimensions: Approx.
445 (w) x 150 (h) x 375 (d) mm
Approx.
17 1/2 (w) x 5 7/8 (h) x 14 3/4 (d) inches including projecting parts and controls

Weight: Approx. 10.9 kg, 24 lb, net
Approx. 12.7 kg, 28 lb, with shipping carton (E, AEP, UK model)

Approx. 10.3 kg, 22 lb 12 oz, net
Approx. 12.1 kg, 26 lb 11 oz, with shipping carton (Canadian model)

TURNTABLE

Platter: 31.7 cm, 12 1/2 inches, aluminum-alloy diecast

Drive System: Direct drive, crystal lock control system

Speeds: 33 1/3, 45 rpm
Starting characteristics comes to nominal speed within a third revolution (33 1/3 rpm)

Wow and Flutter: ±0.045 % (DIN)
0.025 % (WRMS)

S/N Ratio: 73 dB (DIN-B)

Initial Drift: Within 0.0003 %

Load Characteristics: 0 % at 150 g tracking force

Speed Deviation: Withing 0.003 %

Automatic System: Arm return, reject

TONEARM

Type: Statically balanced, universal

Arm Length: 300 mm, 17 7/8 inches, overall
216.5 mm, 8 1/2 inches, pivot-to-stylus

Overhang: 16.5 mm, 21/32 inches

Tracking Error: +3°, −1°

Tracking-force Adjustment Range: 0 – 3 g

Shell Weight: 10.5 g

Cartridge Weight Range: 2.5 – 9.5 g
8 – 14.5 g with extra weight

— Continued on next page —

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING ON THE SCHEMATIC DIAGRAMS 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

MODEL IDENTIFICATIONS

– Specification Label –

Canadian model

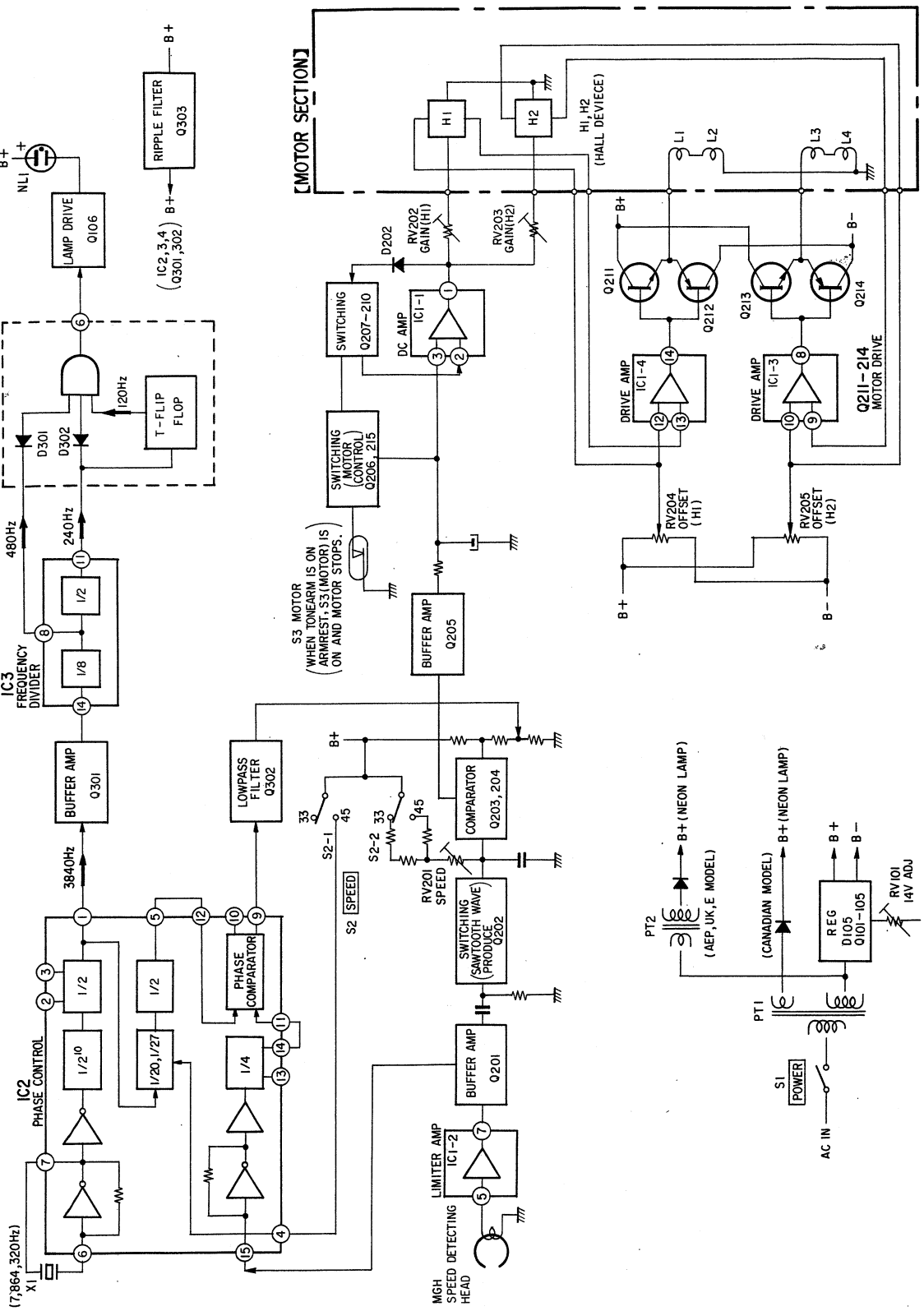
SONY®	STEREO TURNTABLE SYSTEM **PS-X4** AC 120 V 60 Hz 8 W SERIAL NO. MADE IN JAPAN

E, AEP, UK model

SONY®	STEREO TURNTABLE SYSTEM **PS-X4** ~110, 120, 220, 240 V 50/60 Hz 12 W SERIAL NO. MADE IN JAPAN

SECTION 1
OUTLINE

1-1. BLOCK DIAGRAM



1-2. TECHNICAL DESCRIPTION

This model uses the BSL (brushless and slotless) motor and the crystal-locked magnedisc servo control system to maintain the turntable rotation at an accurate and a stable speed.

Automatic arm return at end of record and reject function during play assure easy operation.

- The reject function can be performed by pushing the REJECT button even with the dust cover closed.
- Moving the tonearm toward the turntable by hand, the motor automatically starts to rotate by using a reed switch and a magnet. After play, when the tonearm return to the arm rest, the motor stops rotating. In these switching, the tonearm does not contact any lever.

Tonearm Return Mechanism

Automatic Return

❶ When the stylus comes to the lead-out groove, the arm lever pushes the kick lever. (Fig. 1-1)

Return by Reject Function

❷ REJECT button is pressed. (Fig. 1-1)

❸ The reject lever is pushed. (Fig. 1-1)

❹ The reject lever pushes the kick lever through the reject spring. (Fig. 1-1)

❺ The kick lever pushes the clutch (A) and the clutch (B). The center gear cam pushes the clutch (A). (Fig. 1-2)

❻ The drive gear rotates counterclockwise. (Fig. 1-2)

❼ The guide roller slides in the heart-shaped groove on the drive gear and moves to the inside of drive gear. (Fig. 1-3)

❽ The main lever moves and pushes up the arm lifter to lift the tonearm. (Fig. 1-3)

❾ The return cam of the main lever pushes and rotates the brake drum. The tonearm attached to the brake drum moves toward the arm rest. Then the tonearm returns to the arm rest and the return function has been finished. (Fig. 1-3)

❿ After finishing the return function, the magnet on the brake drum turns ON the reed switch (motor switch S3) and the motor stops rotating. (Refer to "Switching Circuit for Motor Driving" on page 7 and 8.)

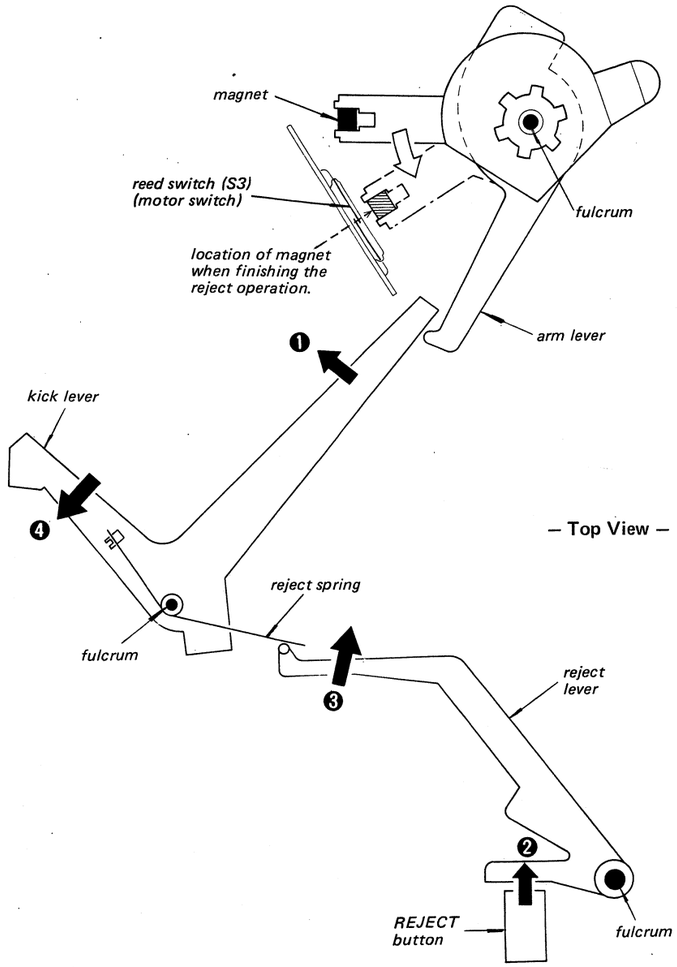


Fig. 1-1

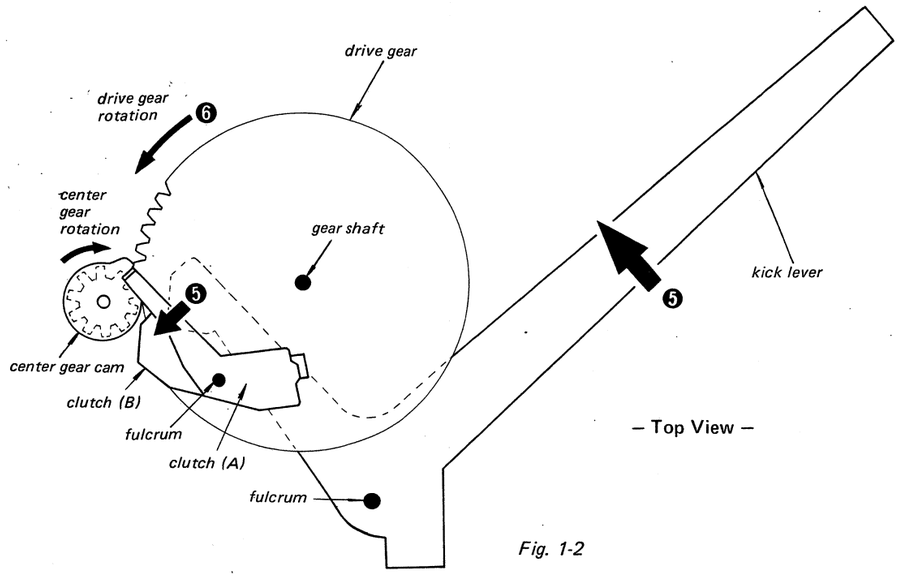


Fig. 1-2

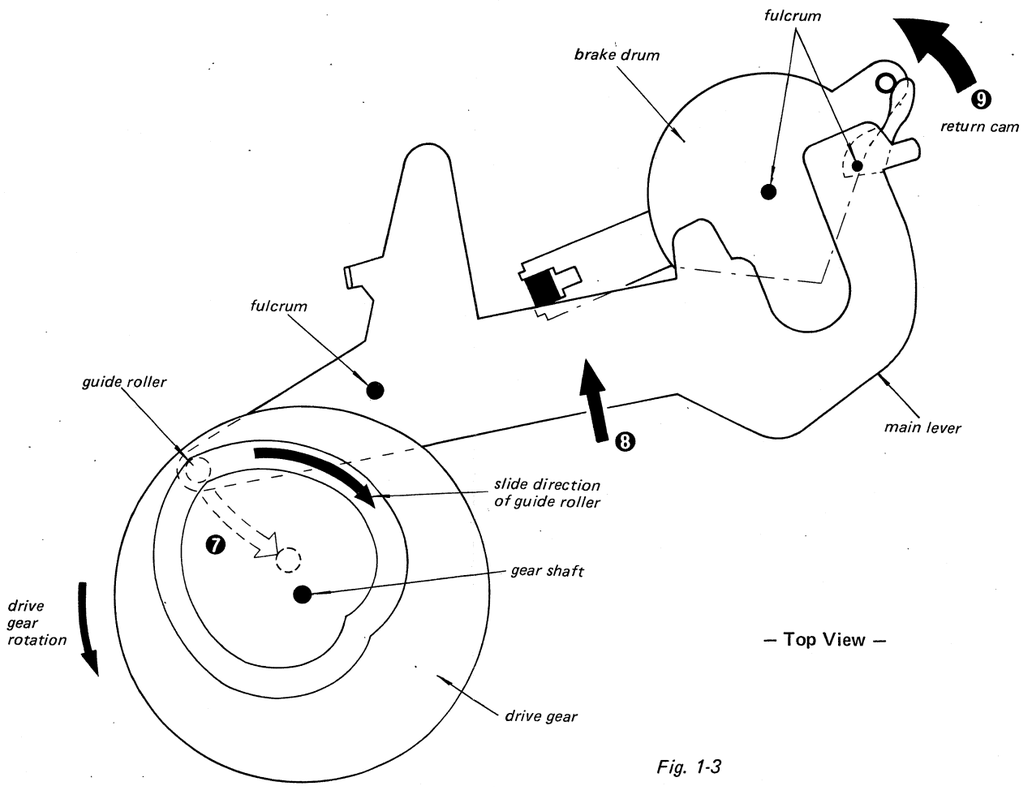


Fig. 1-3

Switching Circuit for Motor Driving

The magnet on the brake drum, the reed switch (motor switch S3) and the motor control circuit Q215 and Q206 operate as follows:

Moving the tonearm toward the turntable by hand, the motor automatically starts to rotate. (Refer to Fig. 1-4.)

1. The magnet on the brake drum moves away from the motor switch S3 to turn it OFF.
2. Q215 turns ON and Q206 turns OFF. The motor-drive signal is applied to terminal 3 of IC1-1 and the output signal from terminal 1 of IC1-1 drives the motor. Q207 also turns ON and the positive voltage is applied to terminal 2 of IC1-1 to quickly stabilize the motor rotation when the speed is changed from 45 rpm to 33-1/3 rpm.

After playing record or when pushing REJECT button, the tonearm automatically returns to the arm rest and the motor stops rotating. (Refer to Fig. 1-5.)

1. The magnet on the brake drum approaches the motor switch S3 to turn it ON.
2. Q215 turns OFF and Q206 turns ON. The motor-drive signal, therefore, is muted. Q207 also turns OFF and no signal is applied to IC1-1.
3. No output from IC1-1 is applied to the motor and the motor stops rotating.

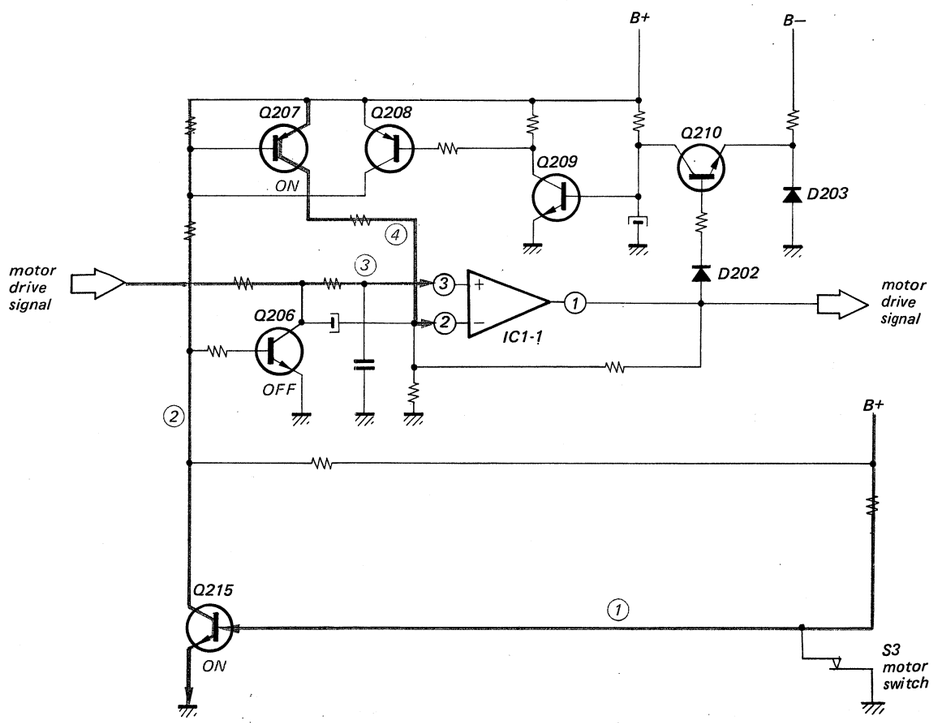


Fig. 1-4

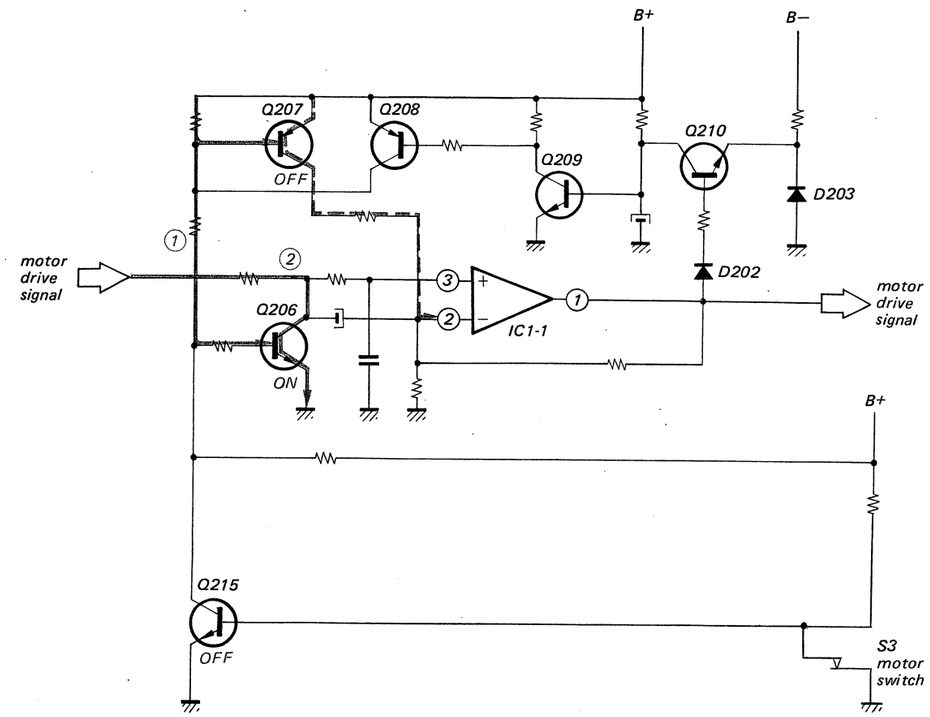


Fig. 1-5

SECTION 2
DISASSEMBLY

UPPER PROTECTOR REMOVAL

Remove the turntable platter and five screws ❶ as shown below.

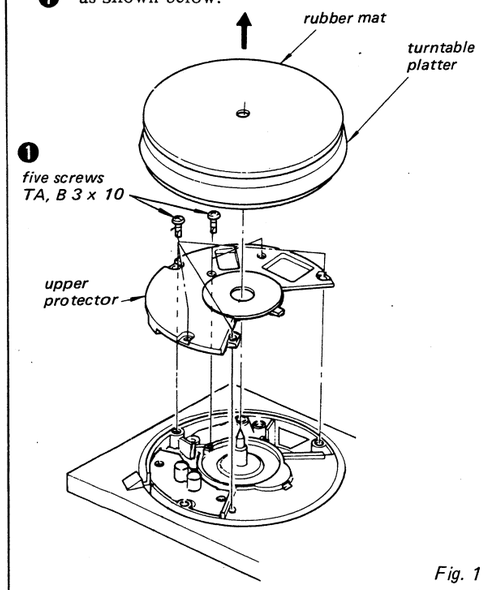


Fig. 1

LOWER PROTECTOR REMOVAL

Remove two insulators and six screws ❶ as shown below.

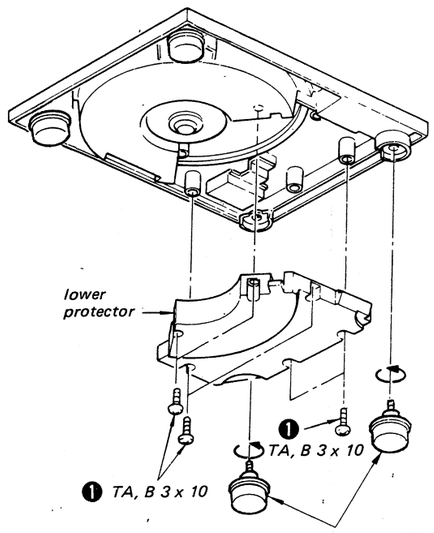


Fig. 2

MOTOR AND POWER SUPPLY CIRCUIT BOARD REMOVAL

Power Supply Circuit Board Removal
Remove two screws ❶

Motor Removal
Remove two screws ❷ and three screws ❸ .

– Top View –

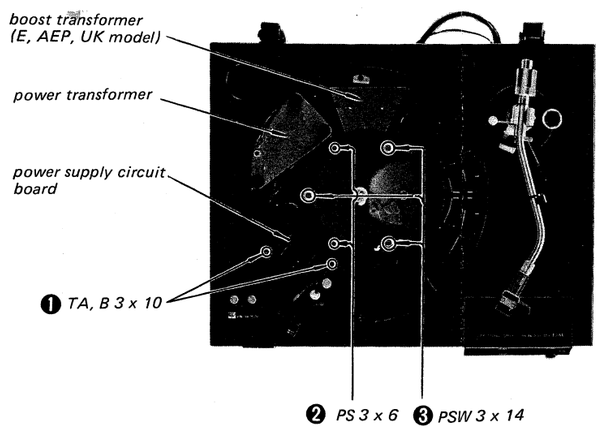


Fig. 3

SERVO AMP/PLL CIRCUIT BOARD, CONTROL PANEL ASS'Y AND SPEED SELECT LEVER BRACKET REMOVAL

Servo Amp/PLL Circuit Board Removal
Remove the screw ❶ and remove the circuit board in the direction shown by arrow ❷ .

Control Panel Removal
Remove the screws ❸ and ❹ .

Speed Select Lever Bracket Removal
Remove three screws ❺ .

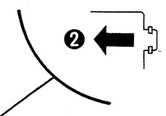
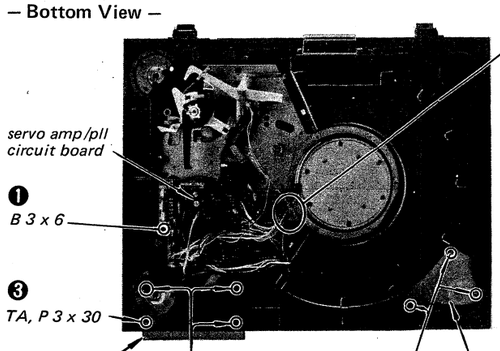


Fig. 4

– Bottom View –



REMOVED MECHANISM

– Top View –

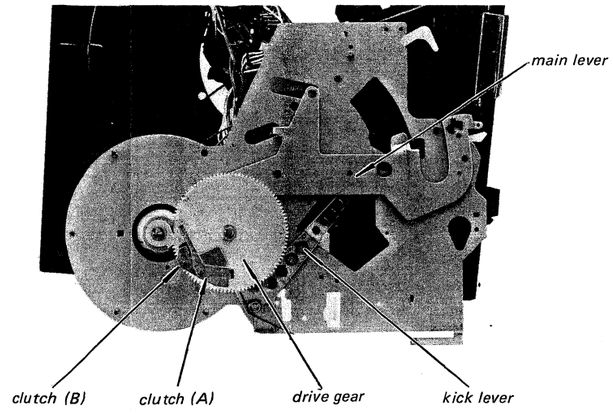


Fig. 6

MECHANISM REMOVAL

1. Remove three screws ❸ in Fig. 3.
2. Remove the shield plate and the shield base as shown in Fig. 5-1.
3. Remove the brake drum and the arm lever by loosening the set screw ❶ in Fig. 5-2.
4. Remove three screws ❷ .

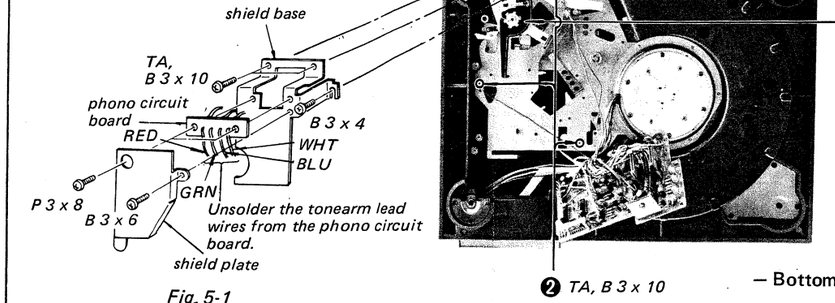


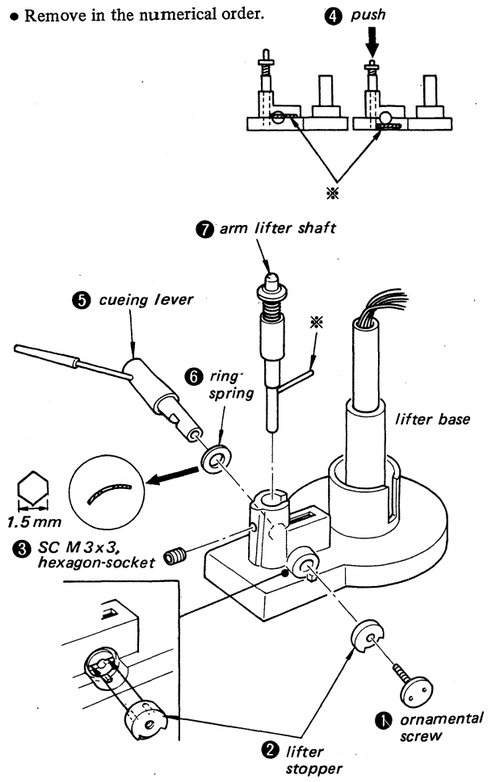
Fig. 5-1

Fig. 5-2

Fig. 5

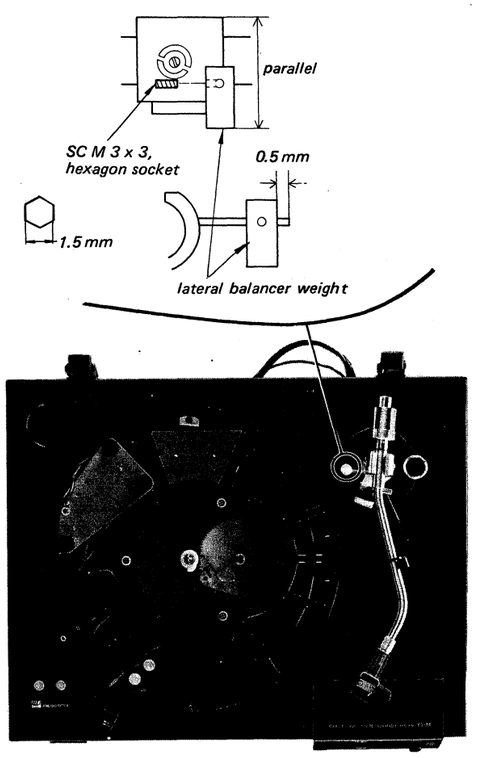
ARM LIFTER SHAFT REMOVAL

• Remove in the numerical order.



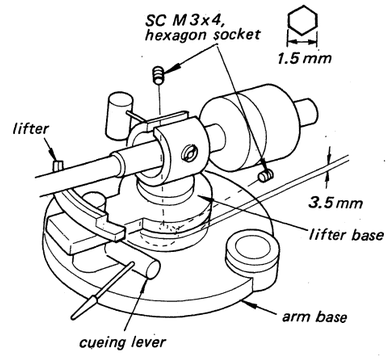
Note: • *When installing the cueing lever, take care to the direction of the spring* ❻.
• *After installing the cueing lever, make sure that the arm lifter shaft is smoothly moved up and down by the cueing lever.*

LATERAL BALANCER WEIGHT INSTALLATION



LIFTER BASE INSTALLATION

Install the lifter base so that the clearance between the tone base and lifter base is 3.5 mm.

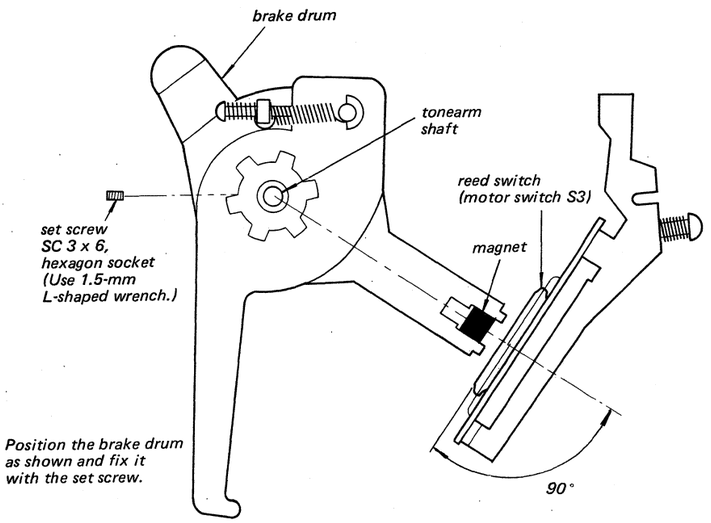


SECTION 3
ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENTS

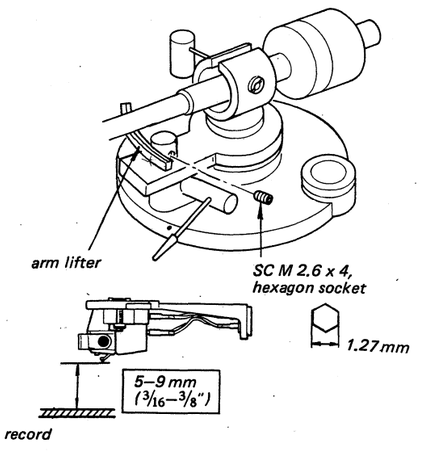
1. Brake Drum Position Adjustment

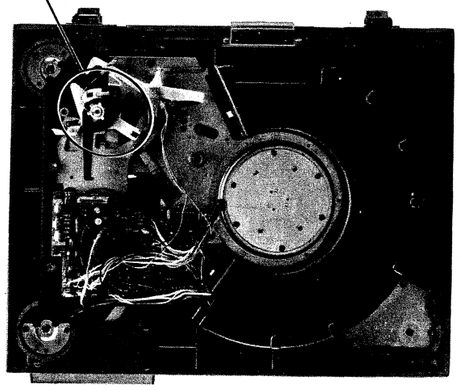
Tonearm: on the arm rest
POWER switch: OFF



Reed Switch Mounting

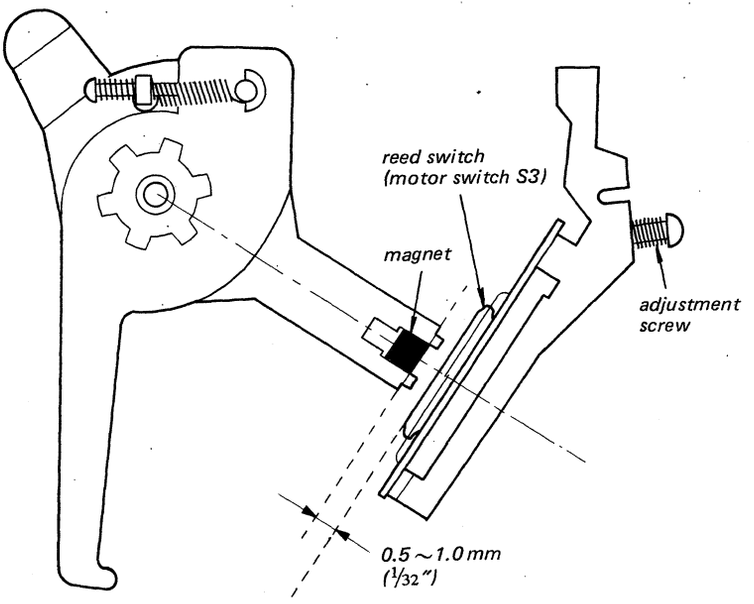
Arm Lifter Hight Adjustment





2. Reed Switch Position Adjustment

Tonearm: on the arm rest
POWER switch: OFF



After the reed switch position adjustment, push POWER switch ON and confirm the following functions:

a). Carefully move the tonearm toward the turntable by hand and confirm that the turntable starts to rotate before the inside of head shell comes at 5 mm ($^3/_{16}$") from the outer surface of turntable.

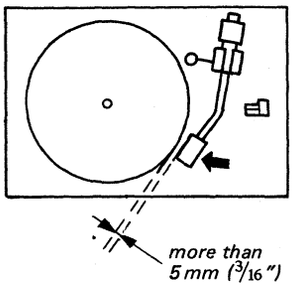


Fig. A Motor starts to rotate.

b) Carefully return the tonearm toward the arm rest by hand and confirm that the motor stops rotating (The stroboscope pattern starts to flow.) before the tonearm pipe center comes at the inner edge of arm rest.

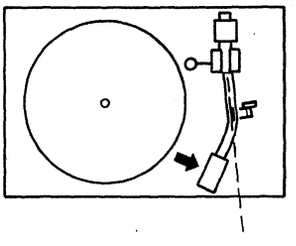
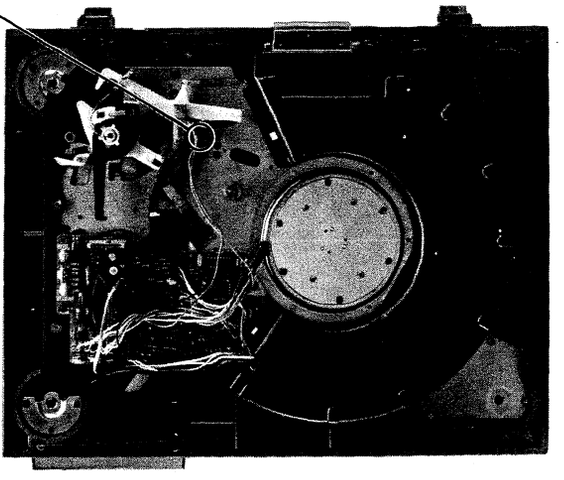


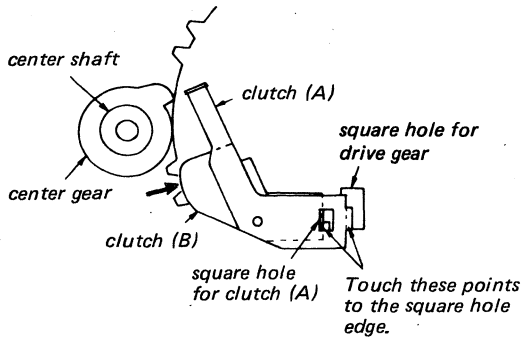
Fig. B Motor stops rotating.



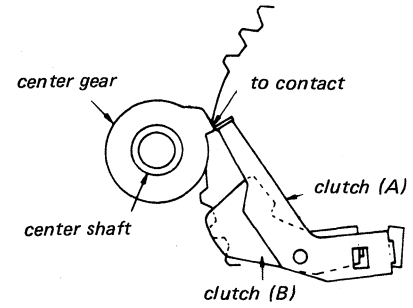
3. Automatic Return Position Adjustment

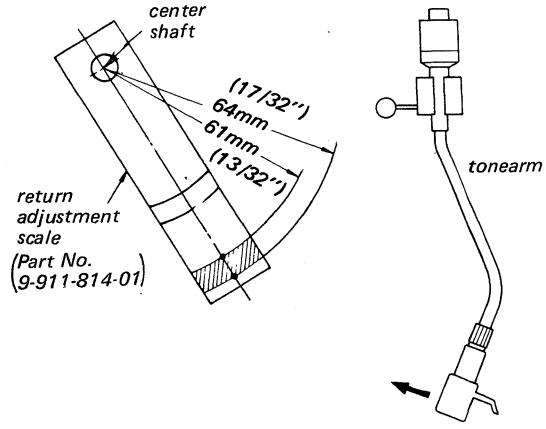
POWER switch: OFF

1. Remove the rubber mat and the turntable.
2. Put the tonearm on the arm rest.
3. Turn the center shaft clockwise by hand and turn the drive gear one turn by engaging the center gear with the drive gear. The place the drive gear in the disengaging position.
4. Push the clutch (B) in the direction shown by the arrow and place the clutch (A) and clutch (B) as shown below:



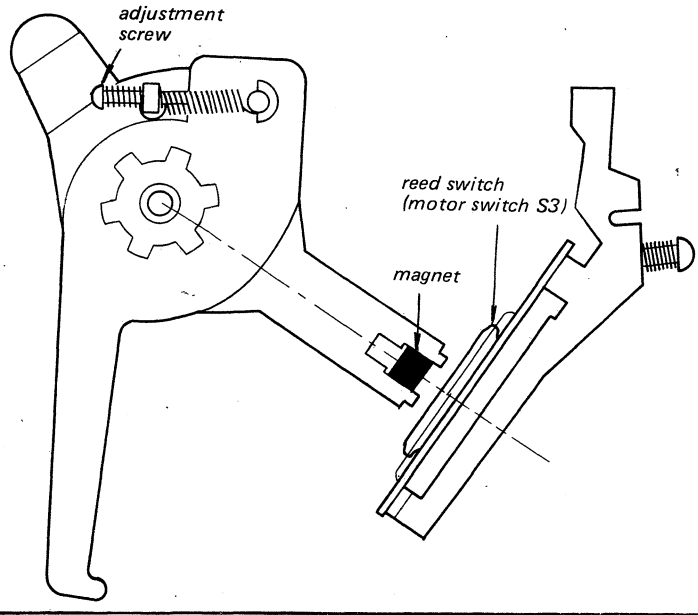
5. Put the return adjustment scale (Part No. 9-911-814-01) on the center shaft.
6. Move the tonearm toward the center shaft by hand so that the clutch (A) is positioned as shown below and confirm that the stylus is located on the hatched area of the return adjustment scale.

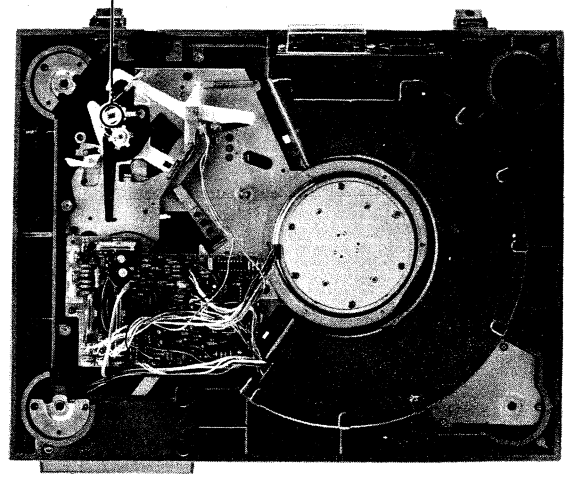




If necessary, adjust the adjustment screw.

Stylus Position	Adjustment Screw
outside of hatched area	clockwise
inside of hatched area	counterclockwise
on hatched area	correct

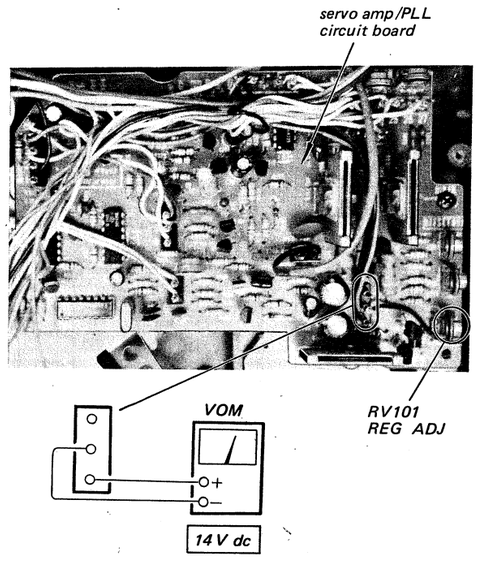




3-2. ELECTRICAL ADJUSTMENTS

1. B+ (14 V) Adjustment

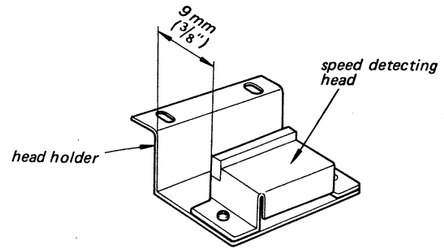
Adjust RV101 for 14V reading on VOM.



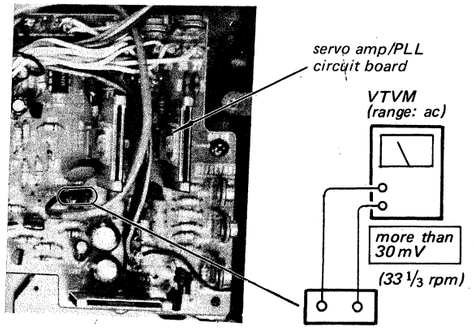
Note: Maladjustment results in abnormal wow-flutter characteristics.

2. Speed Detecting Head Output Level Adjustment

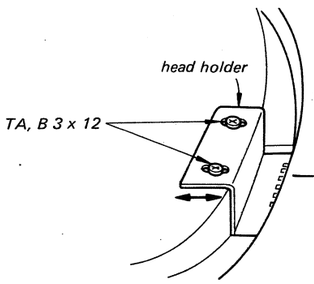
Before this adjustment, set the speed detecting head on the head holder as shown below.

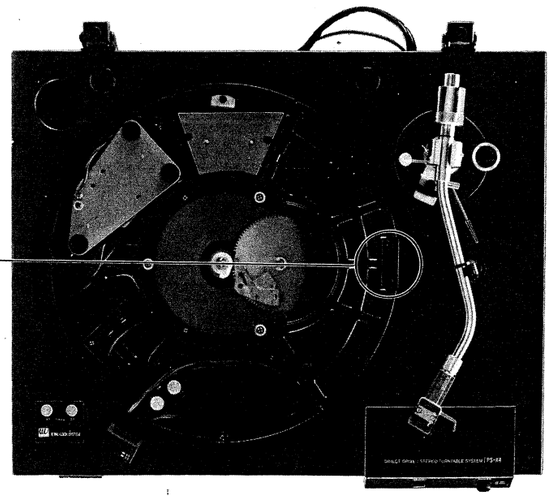


1. Adjust the position of the head bracket so that the VTVM reading is more than 30 mV at 33⅓ rpm.
2. Make sure that the head does not touch the turntable and tighten the screws securely.



Adjustment Location:

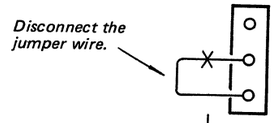




Note: The clearance between the magnet coated rim and the speed detecting head is more than 0.3 mm.

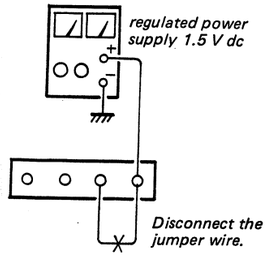
3. Turntable Speed Adjustment (33⅓ or 45 rpm)

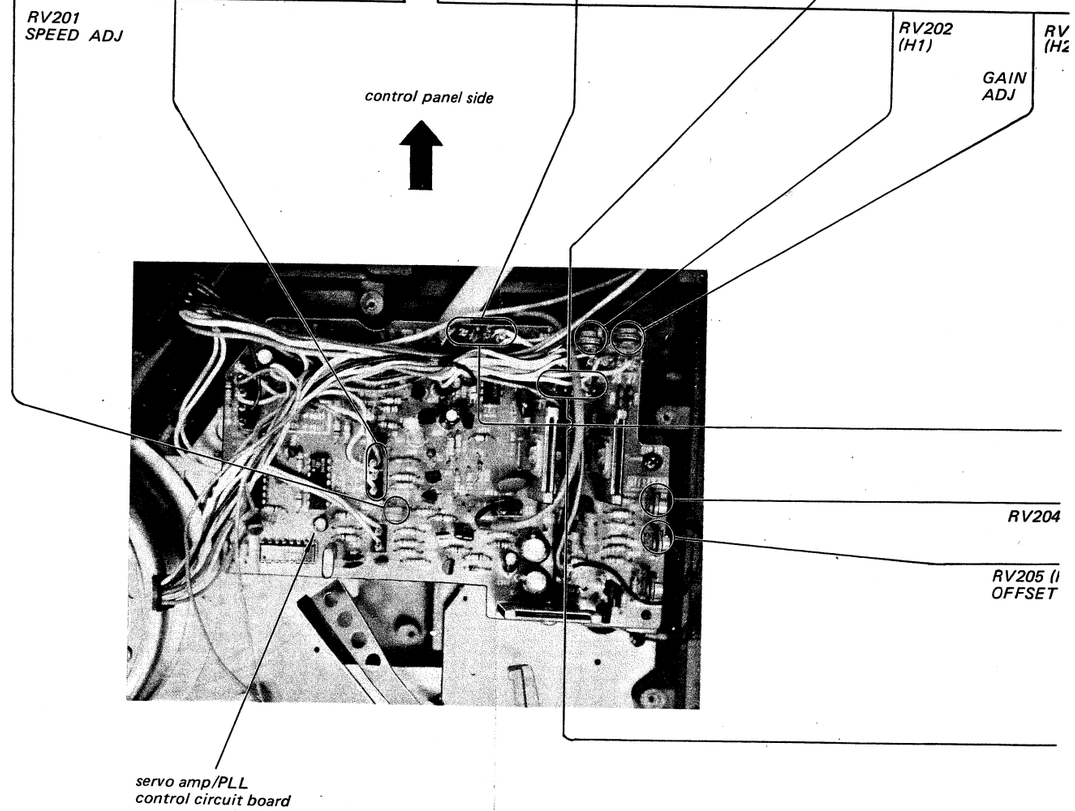
1. Disconnect the jumper wire and adjust RV201 so that the stroboscope pattern appears stationary.
2. Connect the jumper wire and make sure that the stroboscope pattern appears stationary after changing the turntable speed by hand.



4. Hall Device Gain Adjustment (33⅓ rpm)

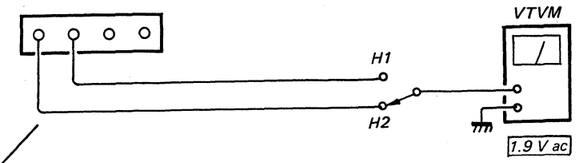
1. Disconnect the jumper wire and connect the regulated power supply as shown below.
2.
3.

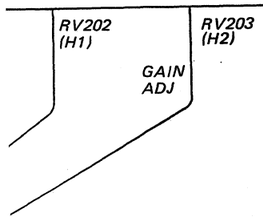




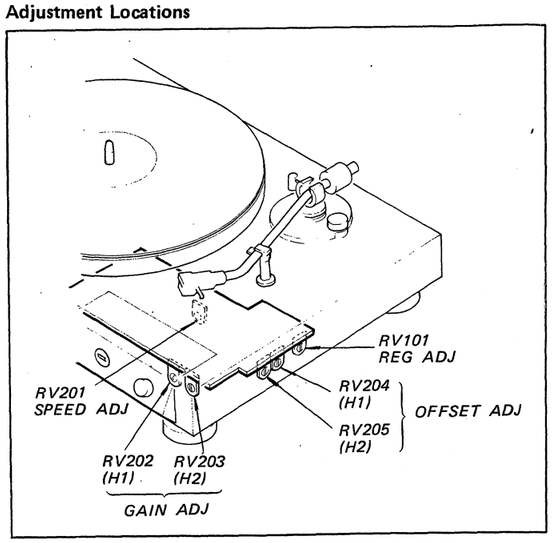
nnect the
:low.

2. Connect VTVM to H1 and adjust RV202 for 1.9 V ac reading on VTVM.
3. Connect VTVM to H2 and adjust RV203 for 1.9V ac reading on VTVM.



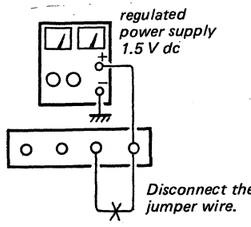


Adjustment Locations



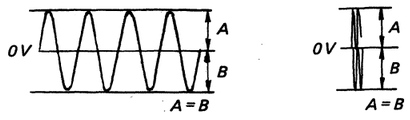
5. Motor Amp Offset Adjustment (33⅓ rpm)

1. Disconnect the jumper wire and connect the regulated power supply as shown below.



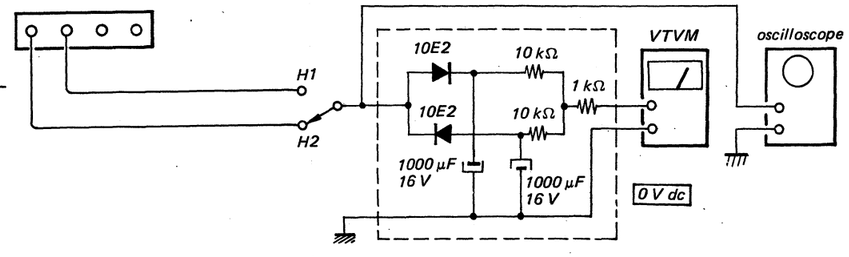
2. Connect VTVM or oscilloscope to H1 and adjust RV204 for 0 V dc VTVM reading or the waveform on oscilloscope as shown below.
3. Connect VTVM or oscilloscope to H2 and adjust RV205 for 0 V dc VTVM reading or the waveform on oscilloscope as shown below.

Note: Set the sweep time to longer for easy checking the waveform.



RV204 (H1)

RV205 (H2)
OFFSET ADJ

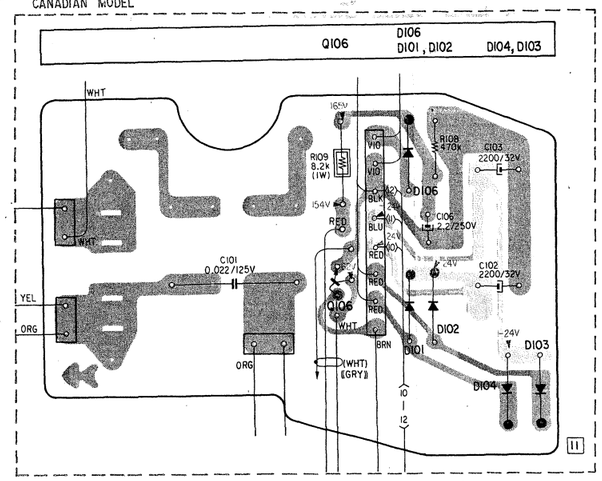


SECTION 4
DIAGRAMS

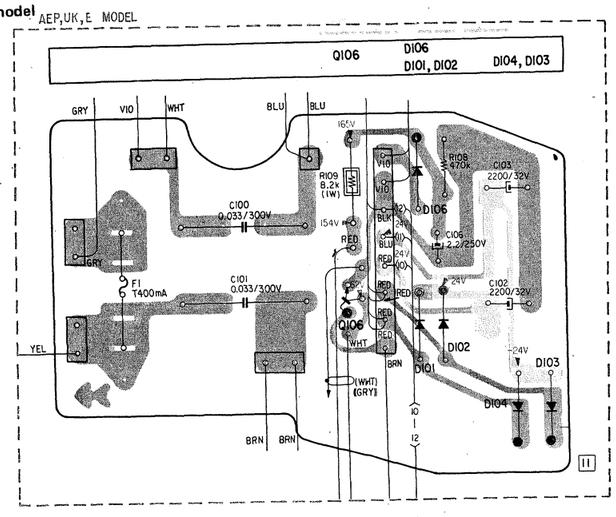
4-1. MOUNTING DIAGRAMS

[Power Supply Board]
– Conductor Side –

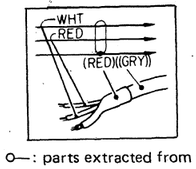
Canadian model



E, AEP, UK model



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



- O—: parts extracted from the component side.
- ●—: parts extracted from the conductor side.
- ▲ : nonflammable resistor.

- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken at 33 rpm with a VOM (20 kΩ/V).
  ( ): 45 rpm
  < >: S3 is ON.
- : B+ pattern
- : B– pattern

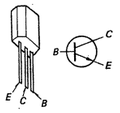
4-2. MOUNTING DIAGRAMS

- **Replacement Semiconductors**

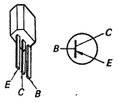
  For replacement, use semiconductors except in ( ).

Q106: 2SC926A

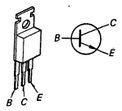
Q102, 103, 201 – 204, Q206, 209, 210, 215, Q301 – 303, } **2SC634A (2SC633A)**



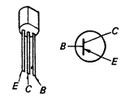
Q104, 205 } **2SA678**
Q207, 208 } **(2SA677)**



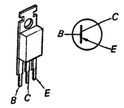
Q101, 211, 213: 2SC1061 (2SC1419)



Q105: 2SA684 (2SA773)

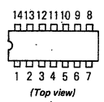


Q212, 214: 2SA671 (2SA755)

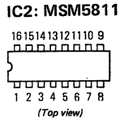


H1, 2: 5GF-MS-07F

IC1: μPC324C
IC3: M53293P (SN7493AN)
IC4: M53200P (SN7400N)



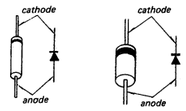
IC2: MSM5811



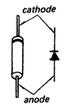
CAUTION ON NEON LAMP

Apply higher dc voltage to the terminal marked by ●.
(●side is equivalent to + side shown in diagram.)

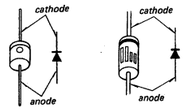
D101 – 104: 10E2 (GP08-D)



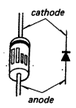
D201 – 203, D301, 302: 1S1555 (1T40)



D106: 10D6 (SIB01-06)

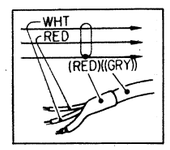


D105: EQB01-06 (EQA01-06)

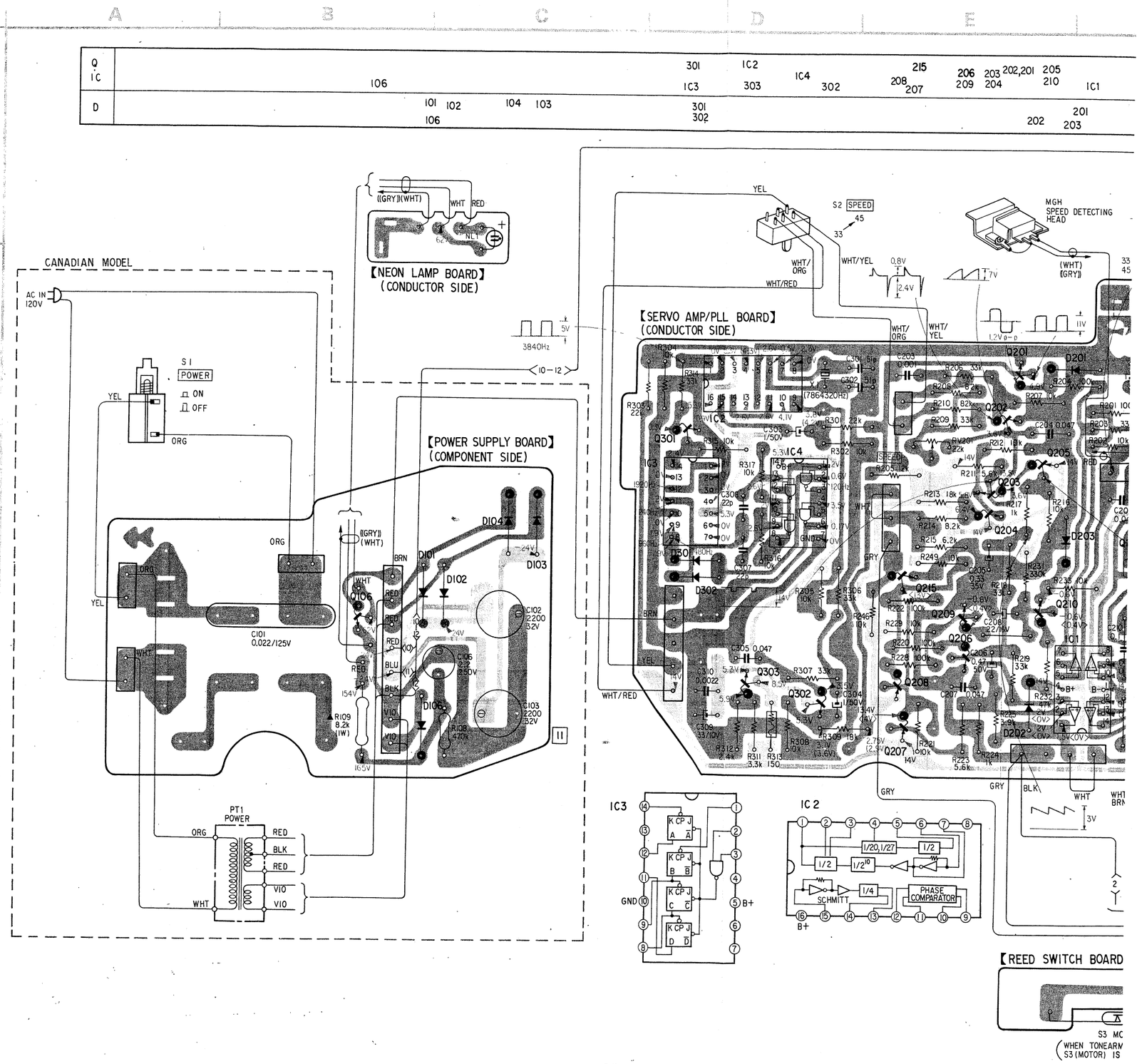


Note:

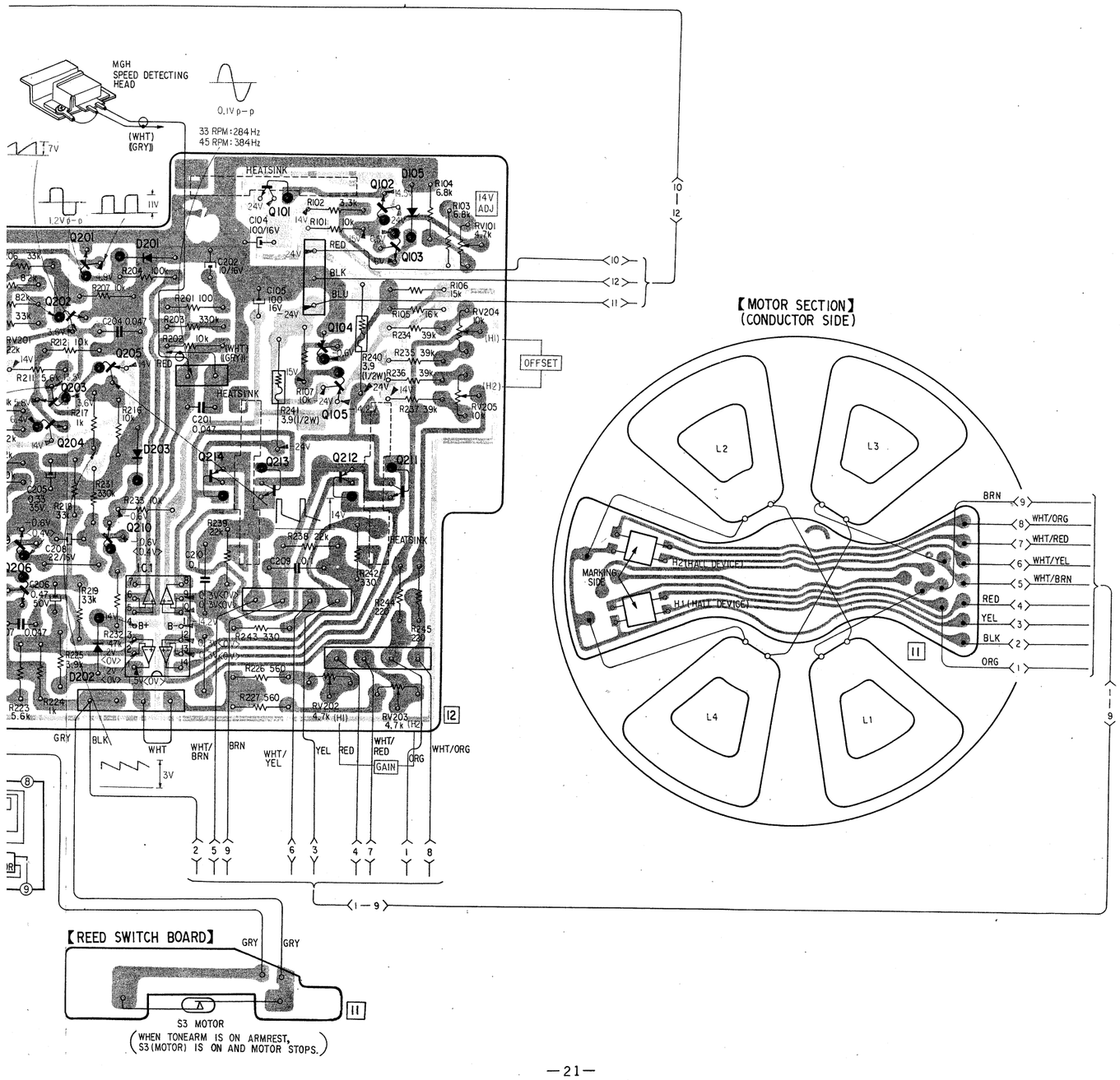
- Color code of sleeving over the end of the jacket.

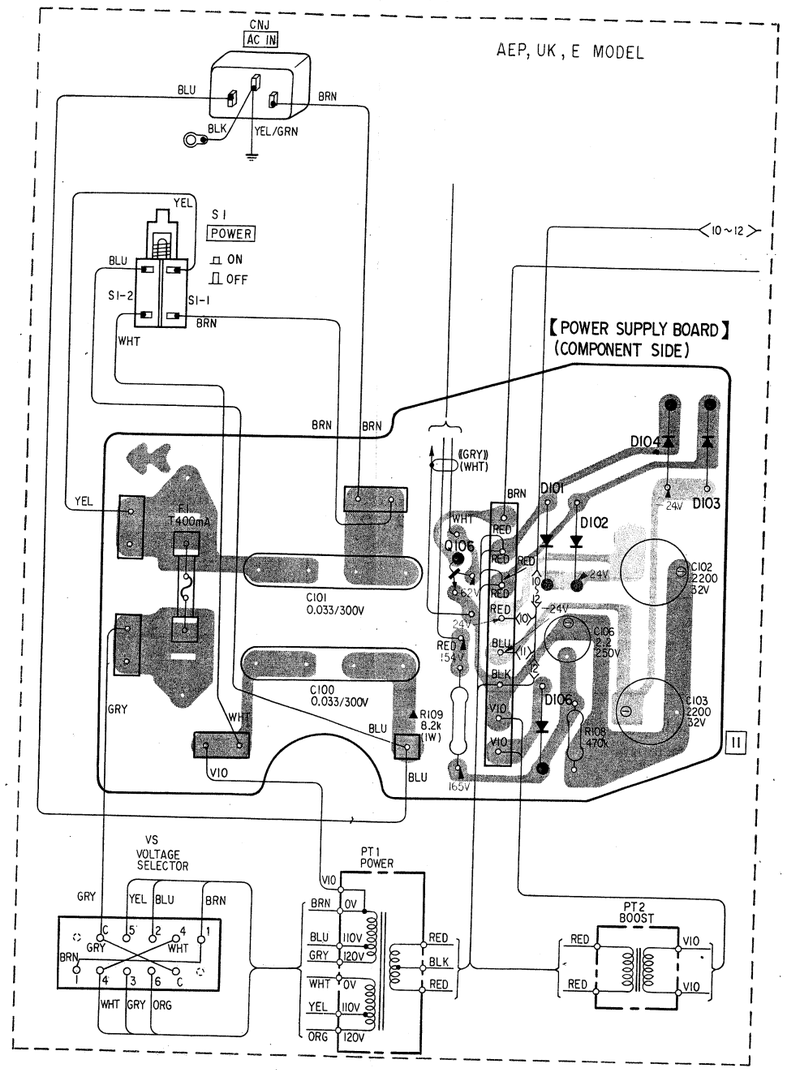


- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken at 33 rpm with a VOM (20 kΩ/V).
  ( ): 45 rpm
  < >: S3 is ON.
- : B+ pattern
- : B– pattern

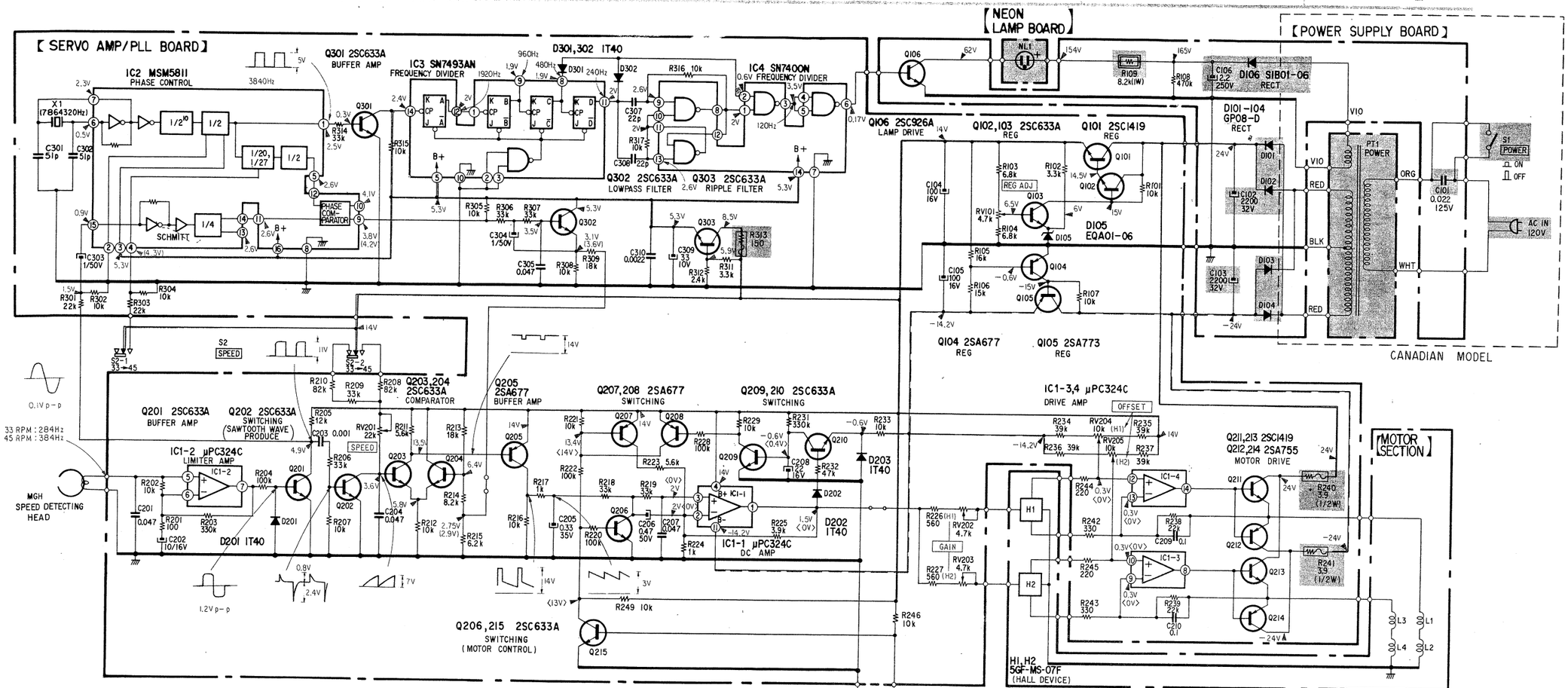


206 203 202,201 205 101 104 212 102 / 209 204 210 IC1 214 213 105 103 211	Q · IC
202 201 203 105	D





4-3. SCHEMATIC DIAGRAM



- All capacitors are in μF unless otherwise noted. pF = μμF 50WV or less are not indicated except for electrolytics.
- All resistors are in ohms, ¼W unless otherwise noted. kΩ = 1000Ω, MΩ = 1000kΩ
- : nonflammable resistor.
- : fusible resistor.
- : B+ bus.
- : panel designation.
- : B− bus.
- : adjustment for repair.
- : direct connection to points marked ⏚ on the chassis.

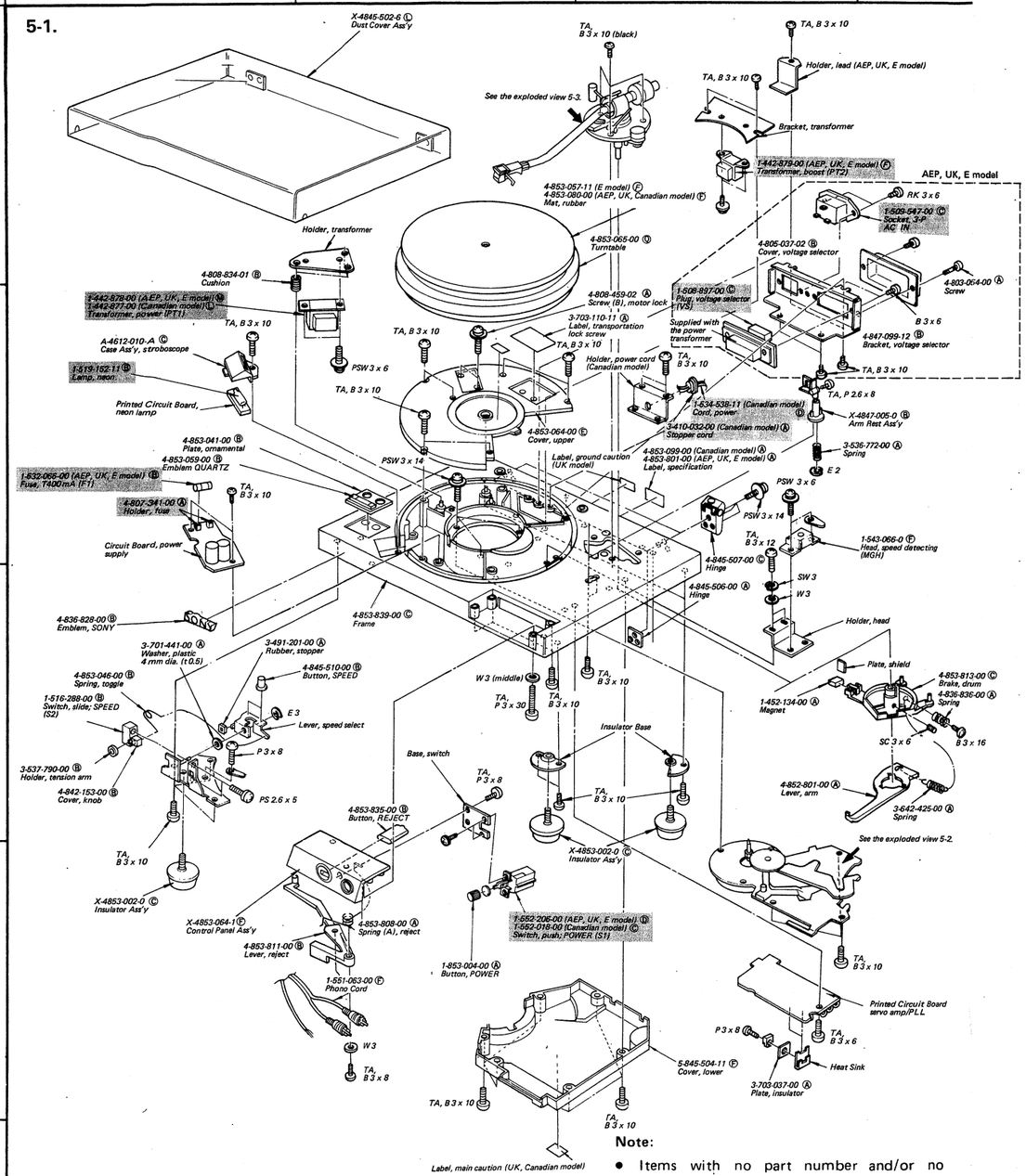
Note: The components identified by shading are critical for safety. Replace only with part number specified.

- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken at 33 rpm with a VOM (20kΩ/V).
  ( ): 45 rpm
  < >: S3 is ON.
- Voltage variations may be noted due to normal production tolerances.
- Switch

Ref. No.	Switch	Position
S1	POWER	OFF
S2	SPEED	33
S3	MOTOR	OFF

SECTION 5
EXPLODED VIEWS

5-1.

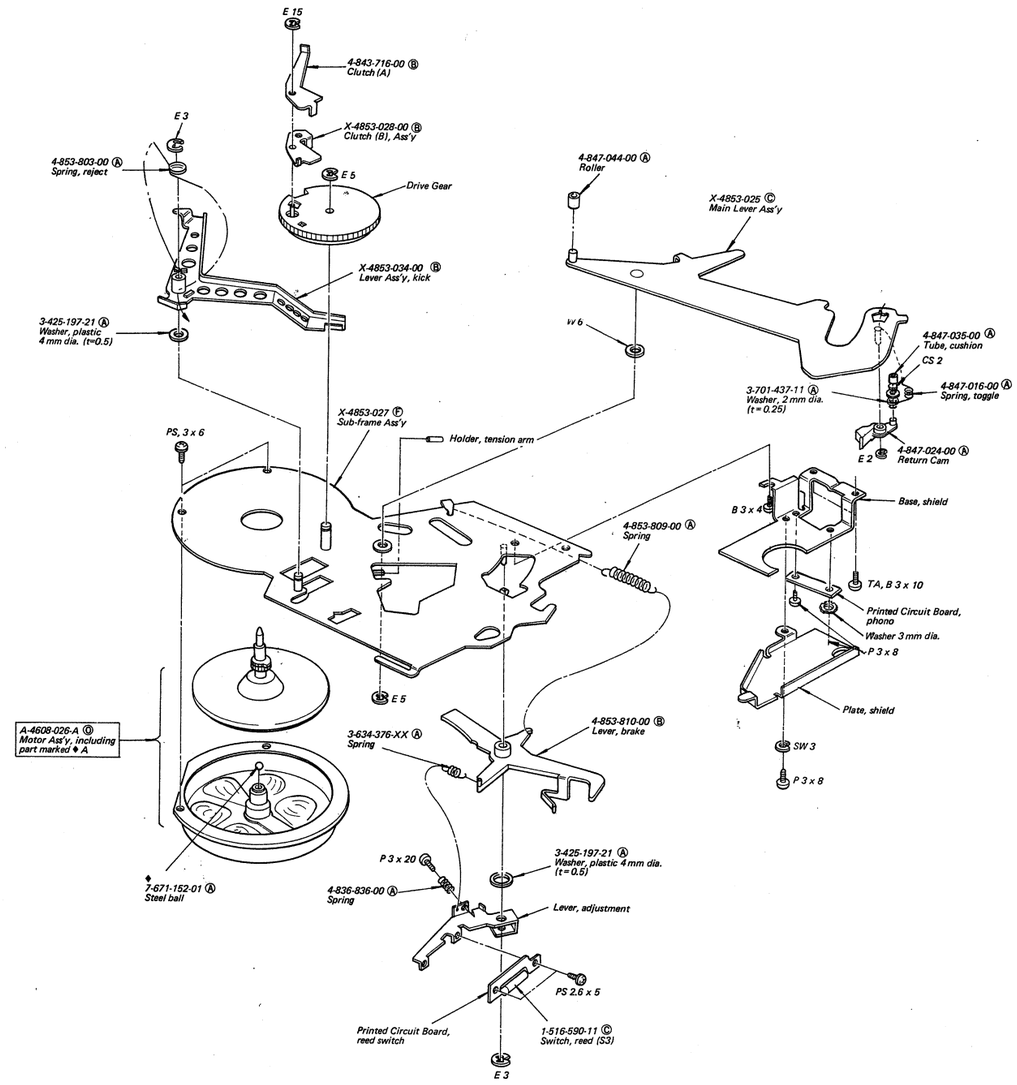


Note: The components identified by shading are critical for safety. Replace only with part number specified.

Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head
- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

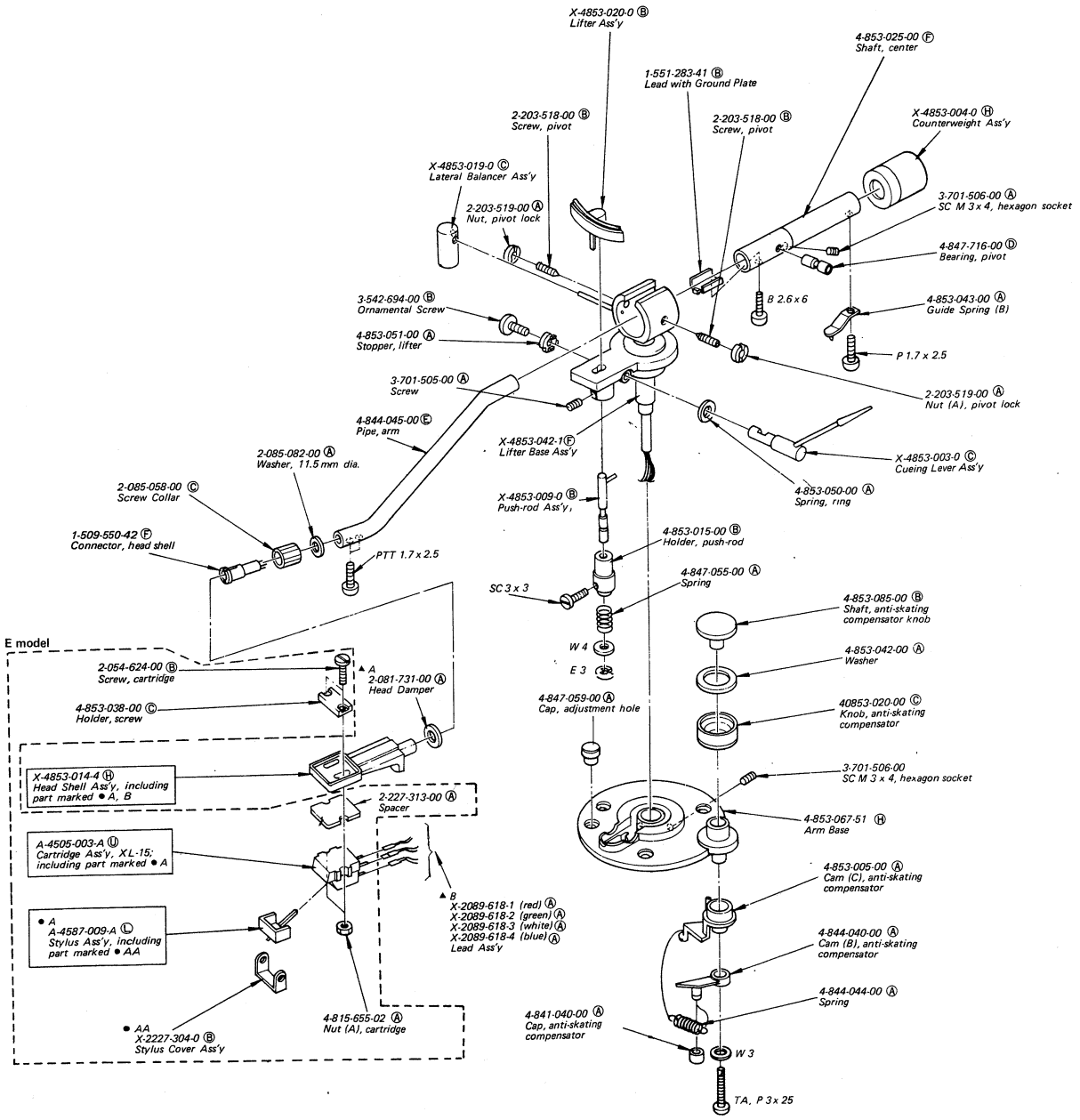
5-2.



Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head
- (□□T) shows the number of coils in spring.
- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

5-3.



Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head.
- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

SECTION 6
ELECTRICAL PARTS LIST

Note: Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

Ref. No.	*Part No.*	*Description*

SEMICONDUCTORS

Transistors

⇒ Q101		Ⓓ 2SC1061
⇒ Q102, 103		Ⓑ 2SC634A
⇒ Q104		Ⓒ 2SA678
⇒ Q105		Ⓒ 2SA684
Q106		Ⓒ 2SC926A
⇒ Q201 – 204		Ⓑ 2SC634A
⇒ Q205		Ⓒ 2SA678
⇒ Q206		Ⓑ 2SC634A
⇒ Q207, 208		Ⓒ 2SA678
⇒ Q209, 210		Ⓑ 2SC634A
⇒ Q211		Ⓓ 2SC1061
⇒ Q212		Ⓔ 2SA671
⇒ Q213		Ⓓ 2SC1061
⇒ Q214		Ⓔ 2SA671
⇒ Q215		Ⓑ 2SC634A
⇒ Q301, 302		Ⓑ 2SC634A

Diodes

⇒ D101 – 104		Ⓑ 10E2
⇒ D105		Ⓑ EQB01-06
⇒ D106		Ⓑ SIB01-06
⇒ D201 – 203		Ⓑ 1S1555
⇒ D301, 302		Ⓑ 1S1555

ICs

IC1		Ⓖ μPC324C
IC2		Ⓛ MSM5811
IC3		Ⓚ M53293P
IC4		Ⓔ M53200P
H1, 2		Ⓓ 5GF-MS-07F

⇒: Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

Transformers

PT1	1-442-877-00	Ⓛ Power (Canadian Model)
PT1	1-442-878-00	Ⓜ Power (AEP, UK, E Model)
PT2	1-442-879-00	Ⓕ Boost (AEP, UK, E Model)

CAPACITORS

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

C100, 101	1-108-750-62	Ⓑ 0.033	300 V	mylar (AEP, UK, E Model)
C101	1-130-098-11	Ⓒ 0.022	125 V	polystyrol (Canadian Model)
C102, 103	1-123-047-11	Ⓒ 2200	32 V	elect
C104, 105	1-123-193-11	Ⓑ 100	16 V	elect
C106	1-123-027-11	Ⓑ 2.2	250 V	elect
C201	1-101-925-11	Ⓐ 0.047		
C202	1-121-651-11	Ⓐ 10	16 V	elect
C203	1-102-074-11	Ⓐ 0.001		
C204	1-108-595-12	Ⓑ 0.047		mylar
C205	1-131-212-11	Ⓑ 0.33	35 V	tantalum
C206	1-121-951-11	Ⓚ 0.47	50 V	elect
C207	1-101-925-11	Ⓐ 0.047		
C208	1-123-191-11	Ⓐ 22	16 V	elect
C209, 210	1-108-251-12	Ⓑ 0.1		mylar
C301, 302	1-102-491-11	Ⓐ 51 p		
C303	1-121-391-11	Ⓐ 1	50 V	elect
C304	1-121-952-11	Ⓐ 1	50 V	elect
C305	1-101-925-11	Ⓐ 0.047		
C307, 308	1-102-967-11	Ⓐ 22 p		
C309	1-123-194-11	Ⓐ 33	10 V	elect
C310	1-101-919-11	Ⓐ 0.0022		

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

Note: Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

Ref. No.	Part No.	Description
		RESISTORS
		All resistors are in ohms. Common ¼W carbon resistors are omitted. Check schematic diagram for values.
R109	1-213-154-11	Ⓐ 8.2 k 1W metal oxide
R240, 241	1-217-429-11	Ⓑ 3.9 ½W wirewound
R313	1-217-401-11	Ⓑ 150 ¼W fusible
RV101	1-224-644-XX	Ⓑ 4.7 k, adjustable
RV201	1-224-646-XX	Ⓑ 22 k, adjustable
RV202, 203	1-224-644-XX	Ⓑ 4.7 k, adjustable
RV204, 205	1-224-634-11	Ⓑ 10 k, adjustable
		SWITCHES
S1	1-552-018-00	Ⓒ Push, POWER (Canadian Model)
S1	1-552-206-00	Ⓓ Push, POWER (AEP, UK, E Model)
S2	1-516-288-00	Ⓑ Slide, SPEED
S3	1-516-590-11	Ⓒ Reed
		MISCELLANEOUS
CNJ	1-509-547-00	Ⓒ Socket, 3-p, AC Input (AEP, UK, E Model)
F1	1-532-066-00	Ⓑ Fuse 0.4 A (AEP, UK, E Model)
MGH	1-543-066-00	Ⓕ Head, speed detector
NE	1-519-152-11	Ⓑ Neon Lamp 10 mA
VS	1-508-897-00	Ⓒ Plug, voltage selector (AEP, UK, E Model)
X1	1-527-304-00	Ⓕ Crystal 7.864320 MHz
	A-4608-026-A	Ⓞ Motor Ass'y
	X-2089-618-1	Ⓐ Lead Wire Ass'y (red)
	X-2089-618-2	Ⓐ Lead Wire Ass'y (green)
	X-2089-618-3	Ⓐ Lead Wire Ass'y (white)
	X-2089-618-4	Ⓐ Lead Wire Ass'y (blue)
	1-452-134-00	Ⓐ Magnet
	1-509-550-42	Ⓕ Connector, head shell
	1-534-538-11	Ⓓ Cord, power (Canadian Model)
	1-535-114-00	Ⓐ Terminal with base, 1 p
	1-535-115-00	Ⓐ Terminal with base, 2 p
	1-535-116-00	Ⓐ Terminal with base, 3 p
	1-535-117-00	Ⓐ Terminal with base, 4 p
	1-535-121-00	Ⓐ Terminal with base, 8 p
	1-551-063-00	Ⓕ Cord, phono; low capacitance
	1-551-283-41	Ⓑ Lead wire with ground plate

ACCESSORIES & PACKING MATERIALS

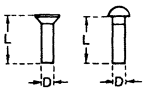
Part No.	Description
X-4853-006-0	Ⓔ Screw Ass'y, cartridge (AEP, UK, Canadian Model)
including	
2-011-002-00	Ⓐ Bag, plastic (AEP, UK, Canadian Model)
2-054-625-00	Ⓐ Screw (C) (AEP, UK, Canadian Model)
2-056-532-00	Ⓑ Screw (A)
2-224-081-00	Ⓐ Screw (E)
2-227-313-00	Ⓐ Spacer
4-815-655-00	Ⓐ Nut (A), cartridge
4-853-038-00	Ⓒ Holder, screw
X-4853-018-0	Ⓒ Sub-weight Ass'y
1-534-754-14	Ⓔ Cord, power (E Model w/parallel blade plug)
1-534-819-00	Ⓖ Cord, power (UK Model)
1-551-216-00	Ⓗ Cord, power (E Model w/euro plug)
3-701-613-00	Ⓐ Bag, plastic
3-701-630-00	Ⓐ Bag, plastic
3-701-806-02	Ⓐ Adaptor, 45 rpm
3-770-345-11	Ⓔ Manual, instruction
3-793-395-14	Ⓑ Gauge, tracking error check
3-793-815-11	Ⓐ Leaflet (power supply caution)
3-849-790-00	Ⓑ Bag, protection
4-844-060-00	Ⓒ Bag, protection
4-848-005-00	Ⓒ Box, accessory
4-848-006-00	Ⓑ Bag, accessory
4-848-012-00	Ⓐ Plate, protection
4-853-836-00	Ⓒ Cushion
4-853-839-00	Ⓒ Frame
4-853-845-00	Ⓕ Carton

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

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	

9-958-421-01

Sony Corporation

7710578-1
Printed in Japan

AUTOMATIC STEREO TURNTABLE SYSTEM

PS-X4

SUPPLEMENT

File this supplement with the service manual.

AEP Model
UK Model
E Model

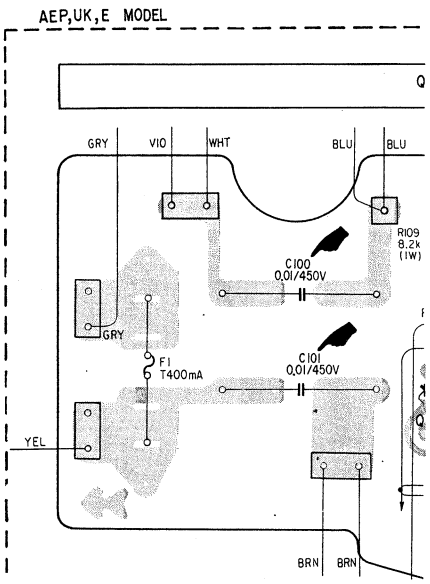
No. 1
October, 1977

1. ELECTRICAL PARTS LIST (See page 28.)

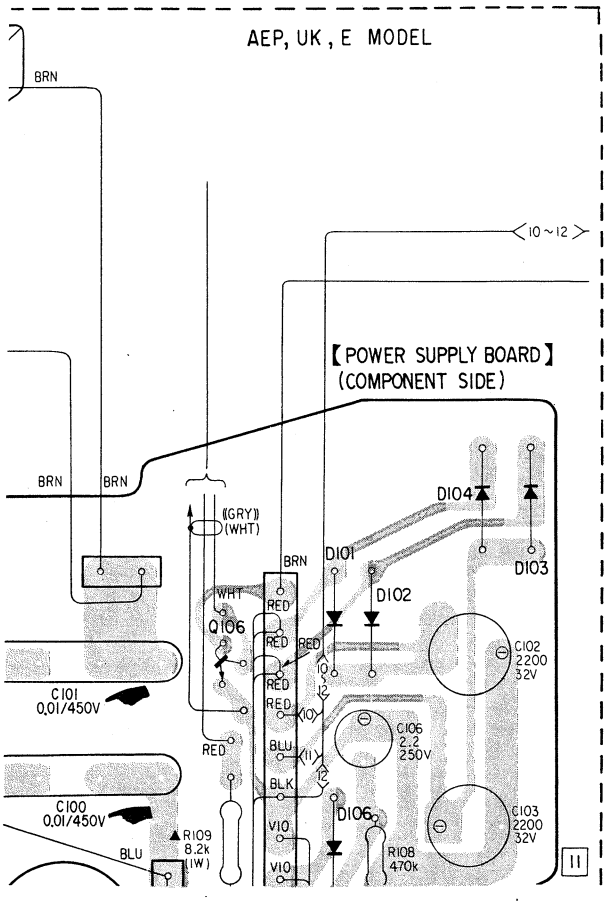
	Former	New
C100, 101	1-108-750-62 Ⓑ 0.033 300 V mylar (AEP, UK, E Model)	1-115-148-11 Ⓒ 0.01 450 V paper (AEP, UK, E Model)

2. MOUNTING DIAGRAM ▬: changed portion

– Conductor Side – (See page 18.)

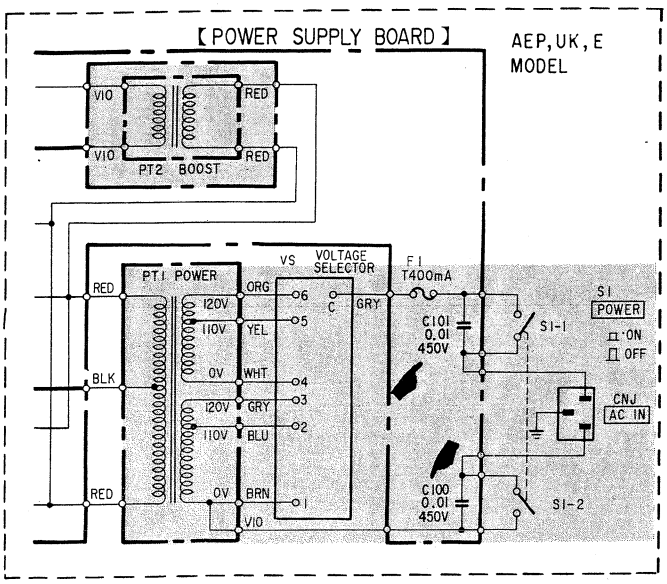


– Component Side – (See page 22.)



3. SCHEMATIC DIAGRAM (See page 24.)

▬: changed portion



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

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