

# PS-LX310/310(C)/311

## SERVICE MANUAL

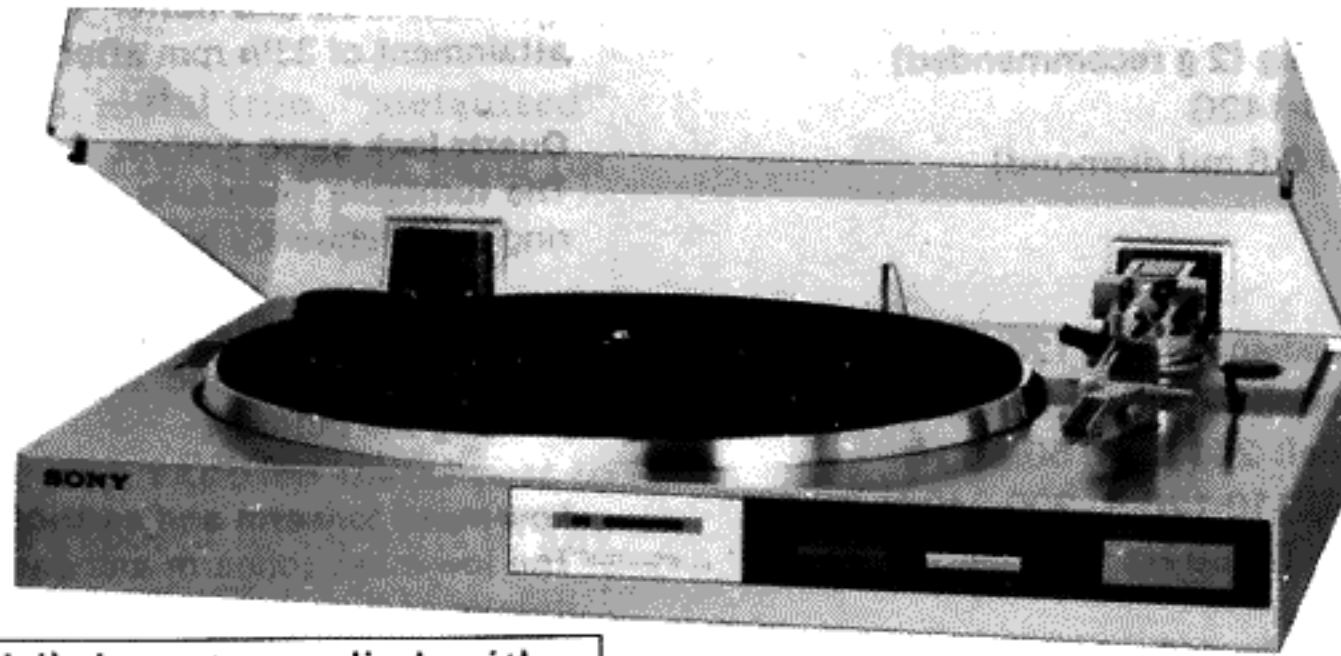


PHOTO: PS-LX310

PS-LX310  
*US Model*  
*AEP Model*  
*UK Model*

PS-LX310(C)  
*Canadian Model*

PS-LX311  
*AEP Model*  
*E Model*

The PS-LX310 (US model) is not supplied with a cartridge, while the PS-LX310(C) (Canadian model) is supplied with a VL-45G cartridge and PS-LX310 (AEP, UK model) is supplied with an XL-250G cartridge and PS-LX311 is supplied with a VL-42G cartridge.

### SPECIFICATIONS

<b>Turntable</b>	
Platter	30.1 cm (12 in.), aluminum-alloy diecast
Motor	Linear torque BSL (brushless and slotless) motor
Drive system	Direct drive
Control system	Quartz lock servo control system
Speed	33 $\frac{1}{3}$ rpm, 45 rpm
Starting characteristics	Comes to nominal speed within $\frac{2}{3}$ revolution (33 $\frac{1}{3}$ rpm)
Wow and flutter	0.025% (WRMS)* 0.03% (WRMS) $\pm 0.045\%$ (DIN)
Signal-to-noise ratio	75 dB (DIN-B)
Load characteristics	0% up to 100 g stylus force (at lead-in groove of a record)
Speed deviation	Within $\pm 0.0003\%$
Automatic system	Return, reject
<b>Tonearm</b>	
Type	PS-LX310/310(c) . . . . .Statically balanced PS-LX311 . . . . .Dynamic balanced
Pivot-to-stylus length	216.5 mm (8 $\frac{1}{2}$ in.)
Overhang	16.5 mm ( $\frac{21}{32}$ in.)
Usable cartridge	PS-LX310/310(c) . . . . .Plug-in type, 6 g PS-LX311 . . . . .Integrate type, 8 g

<b>Cartridge VL-45G [supplied with PS-LX310 (US model)/310(c)]</b>	
Type	Moving magnet type
Frequency response	20 Hz to 20 kHz
Channel separation	20 dB at 1 kHz
Output voltage	3.5 mV at 1 kHz, 5 cm/sec.
Load impedance	47 to 100 kilohms
Tracking force	1.25 g
Stylus	Sony ND-145G (conical 0.6 mil diamond)
Weight	6 g

<b>Cartridge XL-250G [supplied with PS-LX310 (AEP, UK model)]</b>	
Type	Moving magnet type
Frequency response	20 Hz to 20 kHz
Channel separation	18 dB at 1 kHz
Output voltage	5 mV at 1 kHz, 5 cm/sec.
Load impedance	47 to 100 kilohms
Tracking force	1.25 g
Stylus	Sony ND-250G (conical 0.6 mil diamond)
Weight	6 g

— continued on page 2 —

### ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES 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 DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ 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.



STEREO TURNTABLE SYSTEM  
**SONY**®

**Cartridge VL-42G [supplied with PS-LX311]**

Type	Moving magnet type
Frequency response	20 Hz to 20 kHz
Channel separation	16 dB at 1 kHz
Output voltage	2.5 mV at 1 kHz, 5 cm/sec.
Load impedance	50 to 100 kilohms
Tracking force	1.5 to 2.5 g (2 g recommended)
Stylus	Sony ND-142G (Conical 0.6 mil diamond)
Weight	8 g

**General**

Power requirements	US, Canadian model: 120 V ac, 60 Hz AEP model: 220 V ac, 50/60 Hz UK model: 240 V ac, 50/60 Hz E model: 110-120 V, 220-240 V ac 50/60 Hz
Power consumption	5 W
Dimensions	Approx. 430 × 110 × 340 mm (w/h/d) (17 × 4 <sup>3</sup> / <sub>8</sub> × 13 <sup>3</sup> / <sub>8</sub> in.) including projecting parts and controls
Weight	Approx. 4.5 kg (9 lbs 15 oz), net Approx. 5.4 kg (11 lbs 14 oz), in shipping carton

**FEATURES****Linear torque BSL motor**

Direct drive system with Sony's unique BSL (Brushless and slotless) motor which has a high signal-to-noise ratio to virtually eliminate wow and flutter. The motor's high torque assures a quick attainment of 33<sup>1</sup>/<sub>3</sub> rpm after only <sup>2</sup>/<sub>3</sub> revolution.

**Quartz lock servo system**

The turntable maintains an accurate and drift-free speed by referring to a frequency generated by a very stable quartz oscillator.

**Automatic turntable system**

Automatic return and reject functions are activated by merely pushing the buttons.

**Low-mass tonearm and cartridge**

The low-mass tonearm and cartridge allow the stylus to track with greater accuracy.

**Resilient feet**

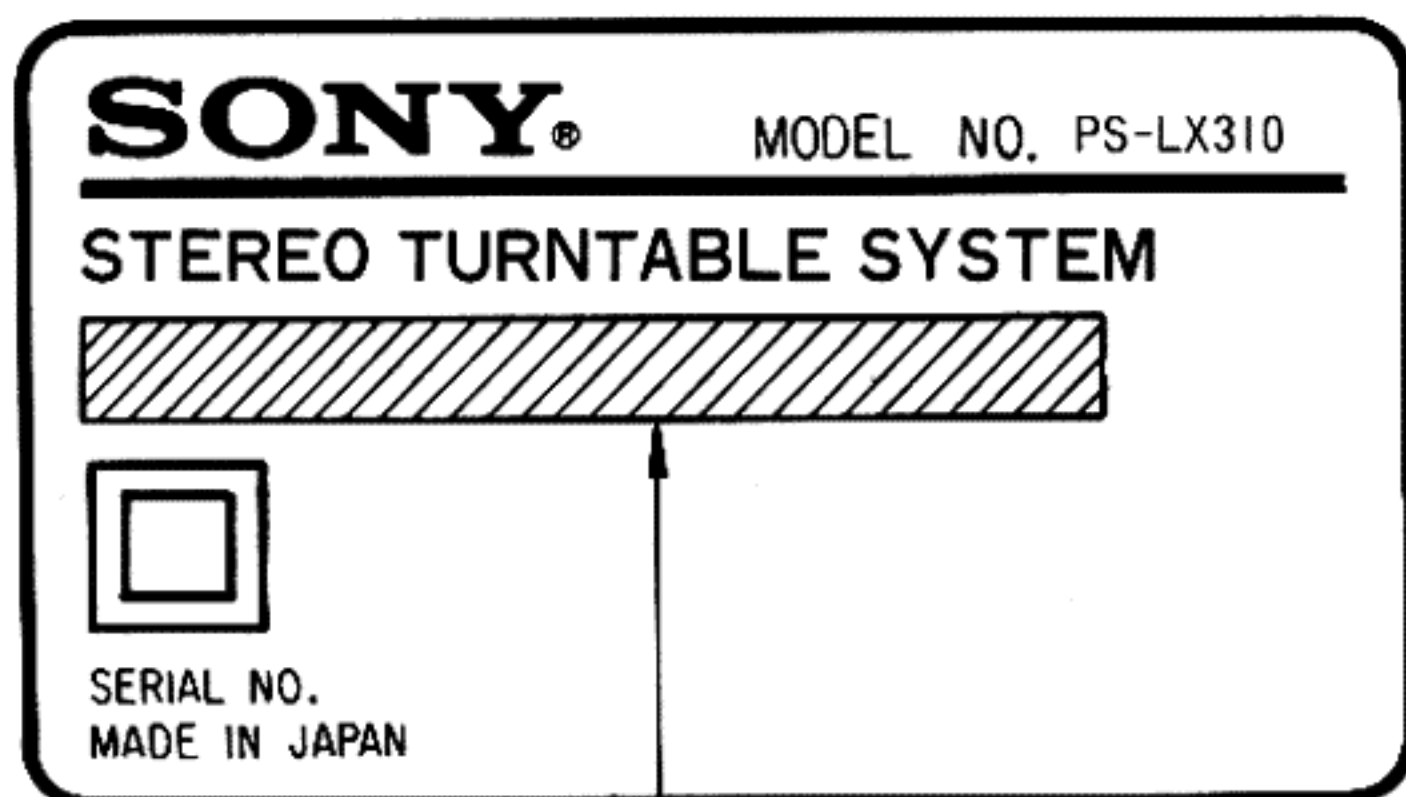
The turntable has resilient feet that isolate the mechanism from external shock and vibration.

**Disc centering guides**

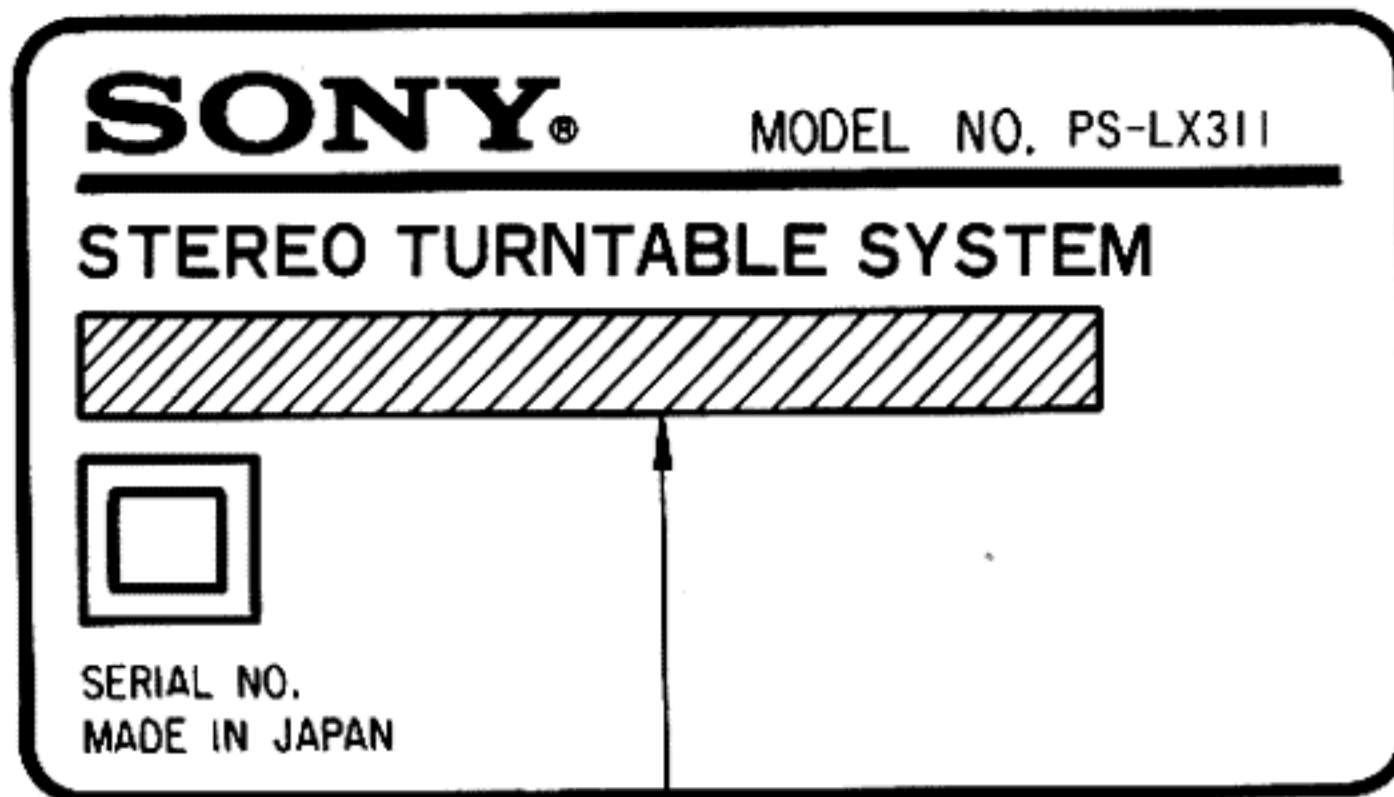
Disc centering guides facilitate placing a 30 cm record over the center spindle.

**MODEL IDENTIFICATION**

— Specification Label —

**PS-LX310/310(C)**

US, Canadian model: AC: 120 V ~ 60 Hz 5 W  
 AEP model: AC: 220 V ~ 50/60 Hz 5 W  
 G-AEP model: AC: 220 V ~ 50/60 Hz 5 W  
 UK model: AC: 240 V ~ 50/60 Hz 5 W

**PS-LX311**

AEP model: AC: 220 V ~ 50/60 Hz 5 W  
 E model: AC: 110-120 V, 220-240 V ~ 50/60 Hz 5 W

## 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)

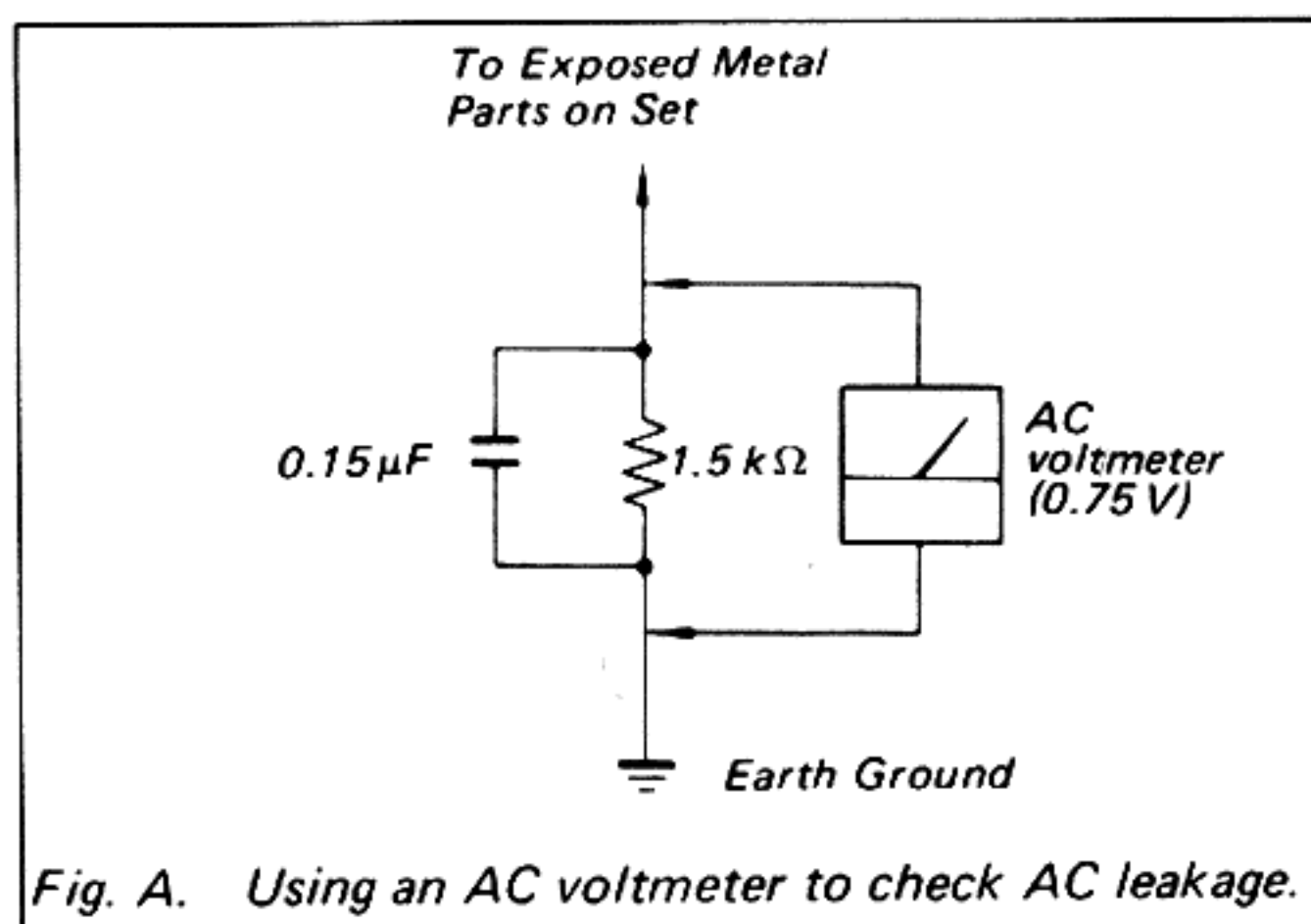
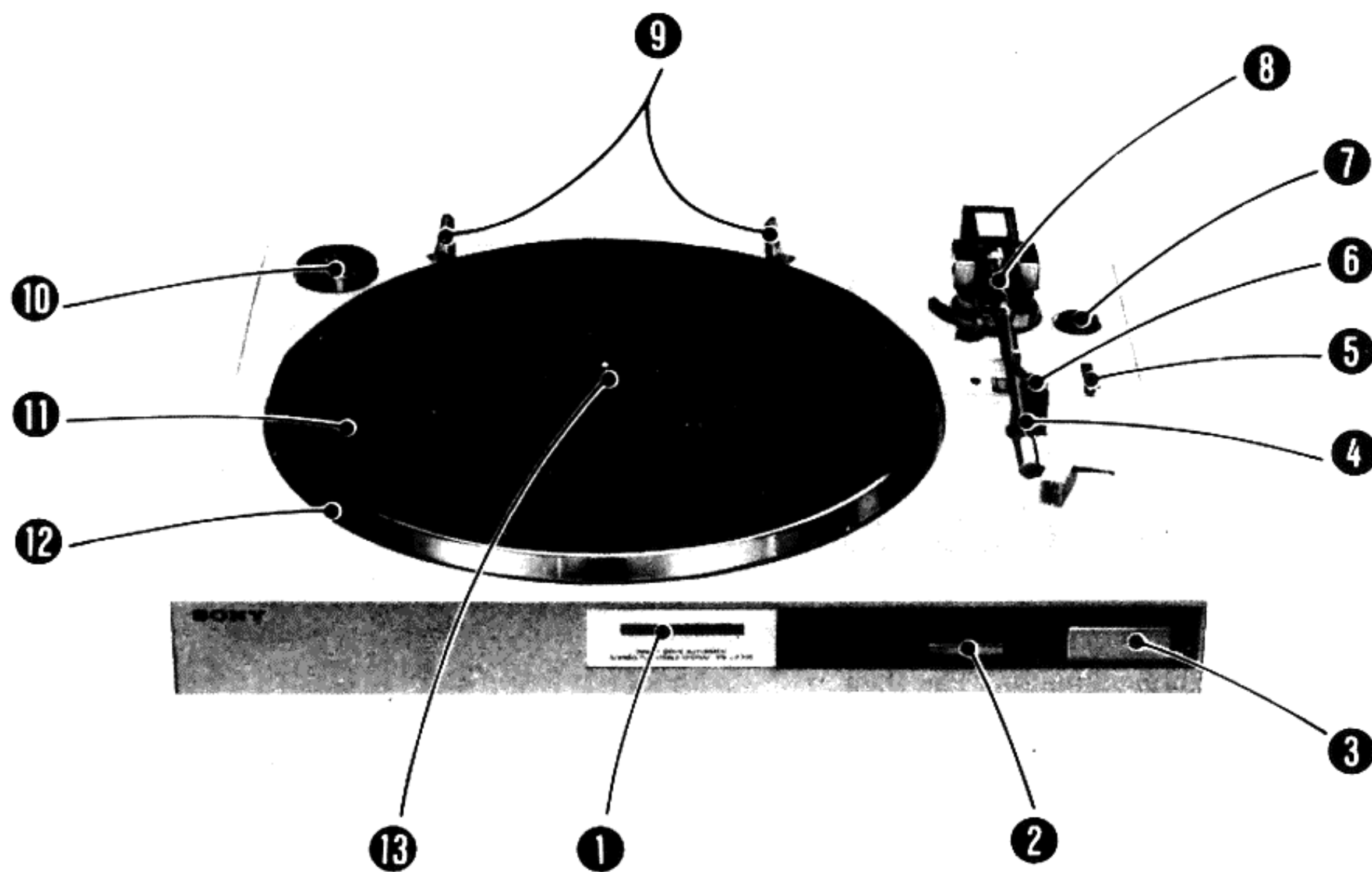


Fig. A. Using an AC voltmeter to check AC leakage.

# PARTS IDENTIFICATION

The numbers in the photo are keyed to the following explanations.



**1 QUARTZ LOCK indicator**

When the platter speed is stabilized, this indicator lights up.

**2 SPEED selector**

Set the SPEED selector according to the speed of the record to be played. For 45-rpm records, depress the selector. For 33 $\frac{1}{3}$ -records, press it again.

**3 REJECT button**

To stop during play, press this button.

**4 Tonearm**

**5  $\nabla/\nabla$  (cueing) lever**

Used to lift or lower the tonearm.

**6 Arm rest**

**7 ANTI-SKATING compensator**

**8 Sub-weight**

**9 Disc centering guides**

**10 45-rpm adaptor**

**11 Rubber mat**

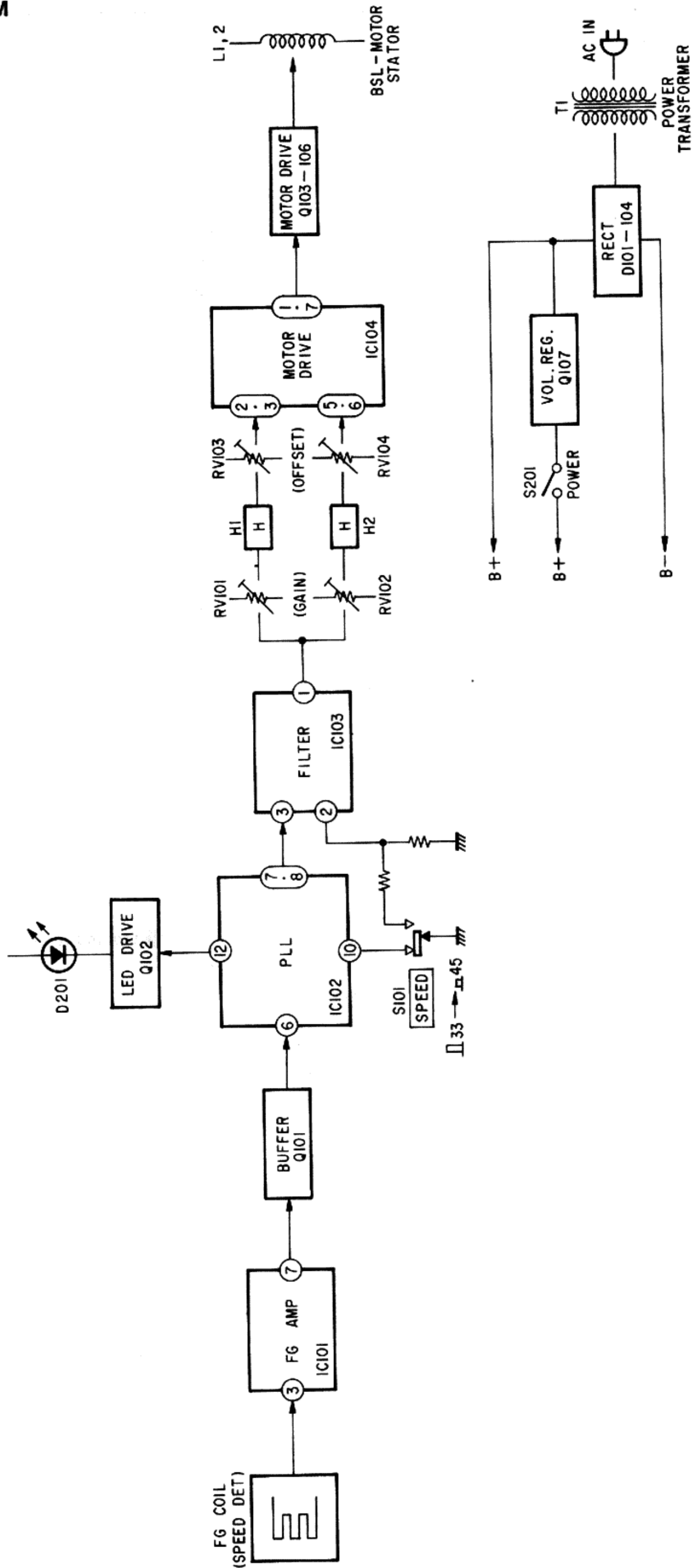
**12 Turntable platter**

**13 Center spindle**



# SECTION 1 OUTLINE

## 1-1. BLOCK DIAGRAM

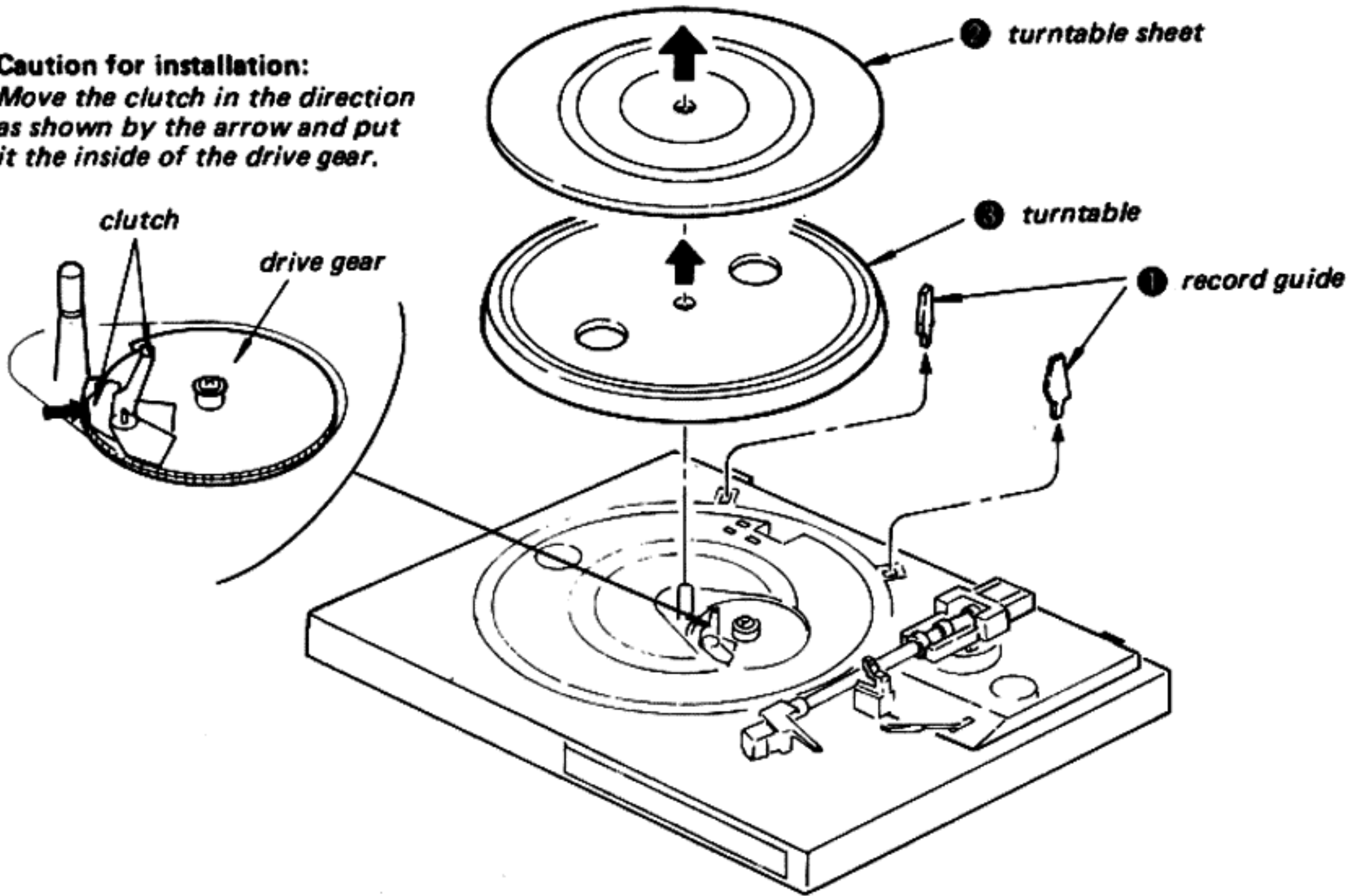


## SECTION 2 DISASSEMBLY

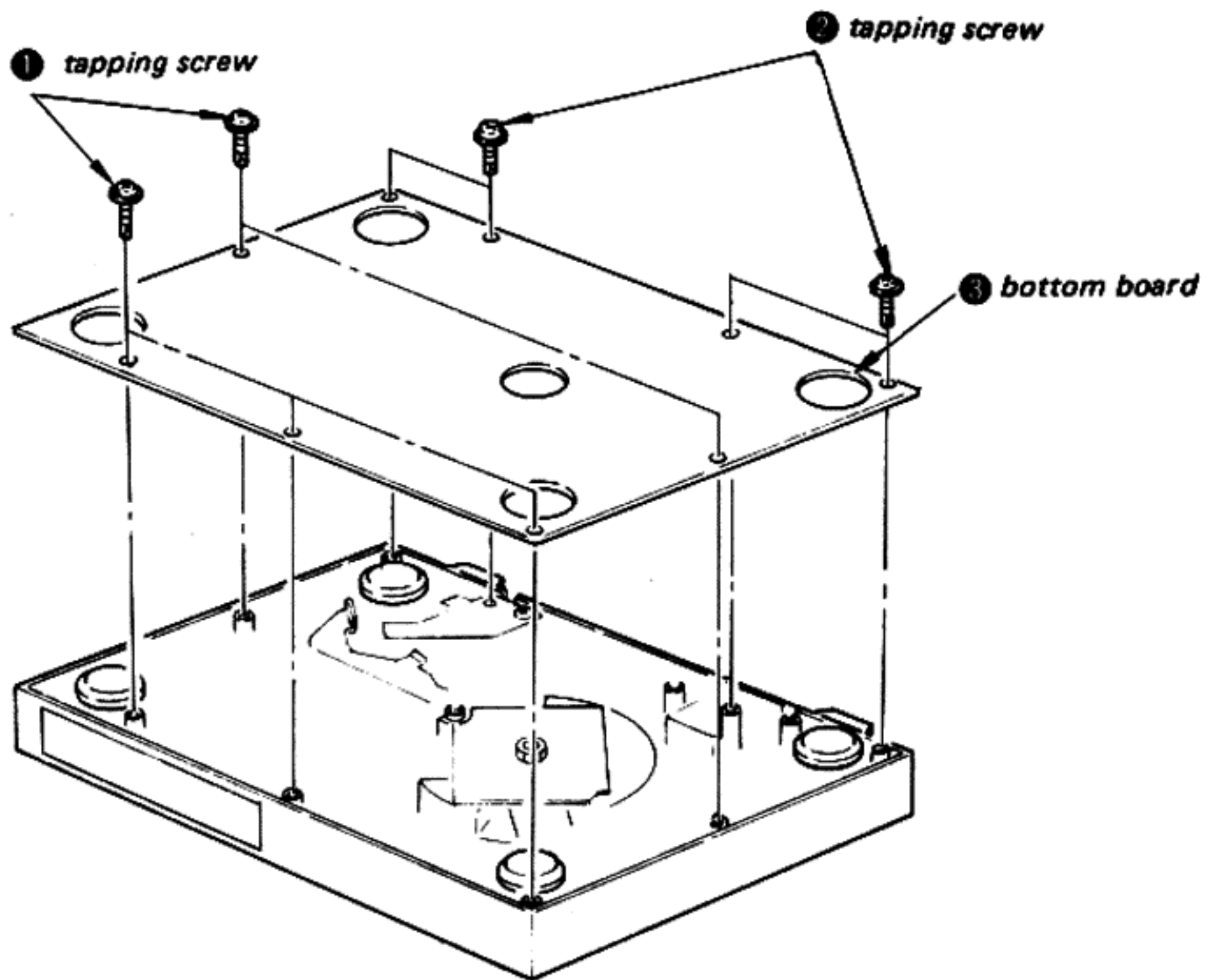
Note: Follow the disassembly procedure in the numerical order given.

### TURNTABLE REMOVAL

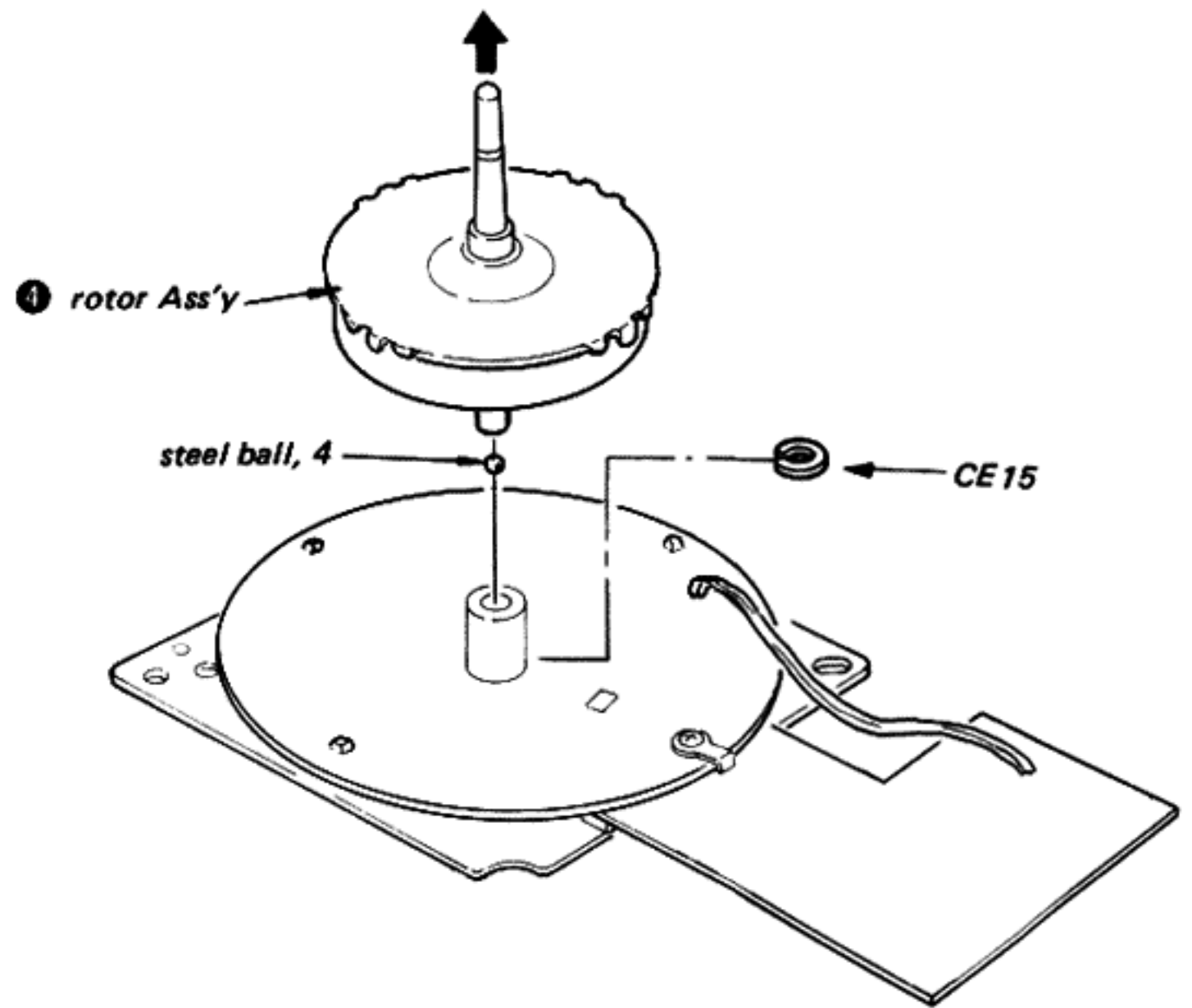
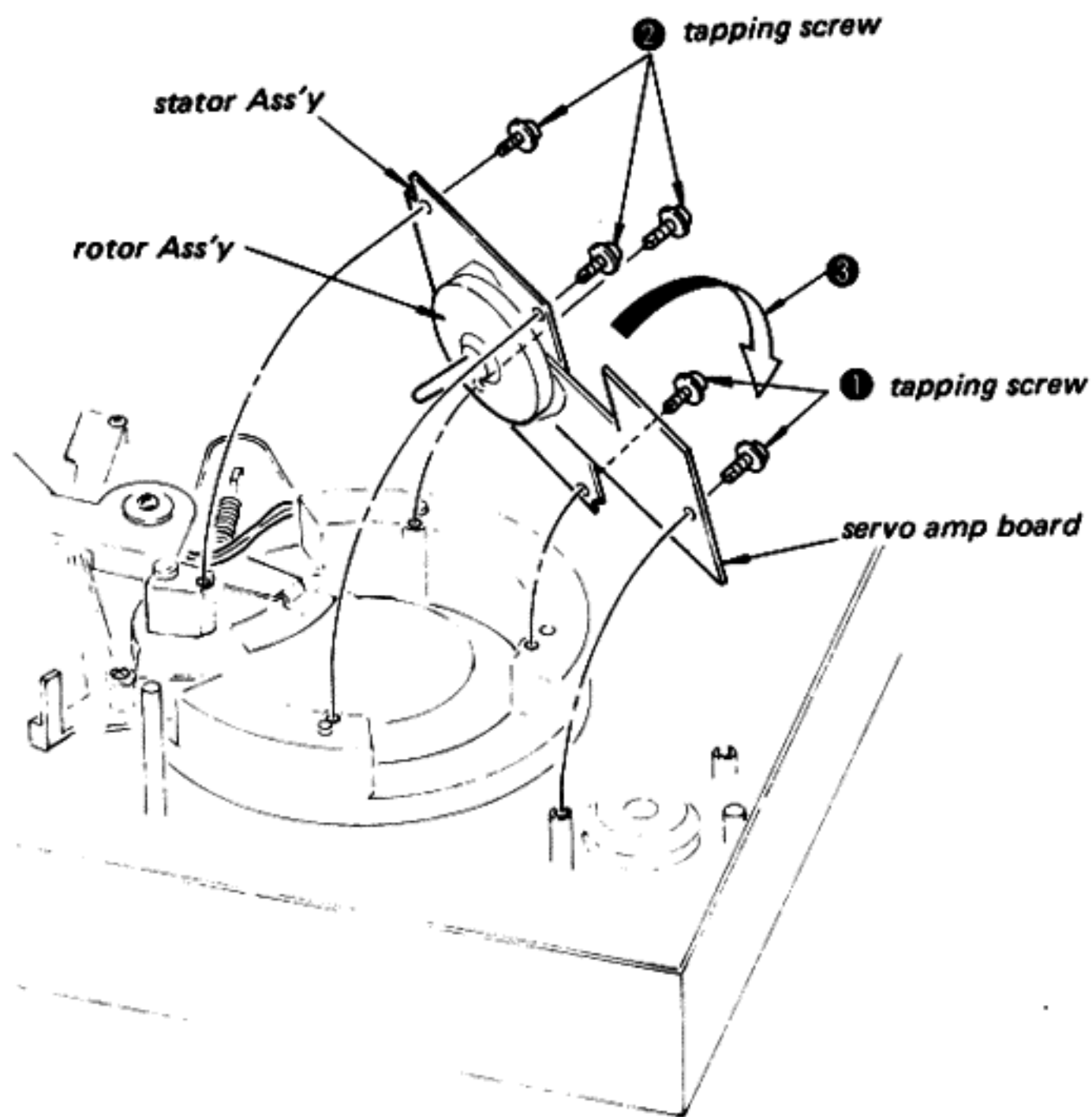
**Caution for installation:**  
Move the clutch in the direction  
as shown by the arrow and put  
it the inside of the drive gear.



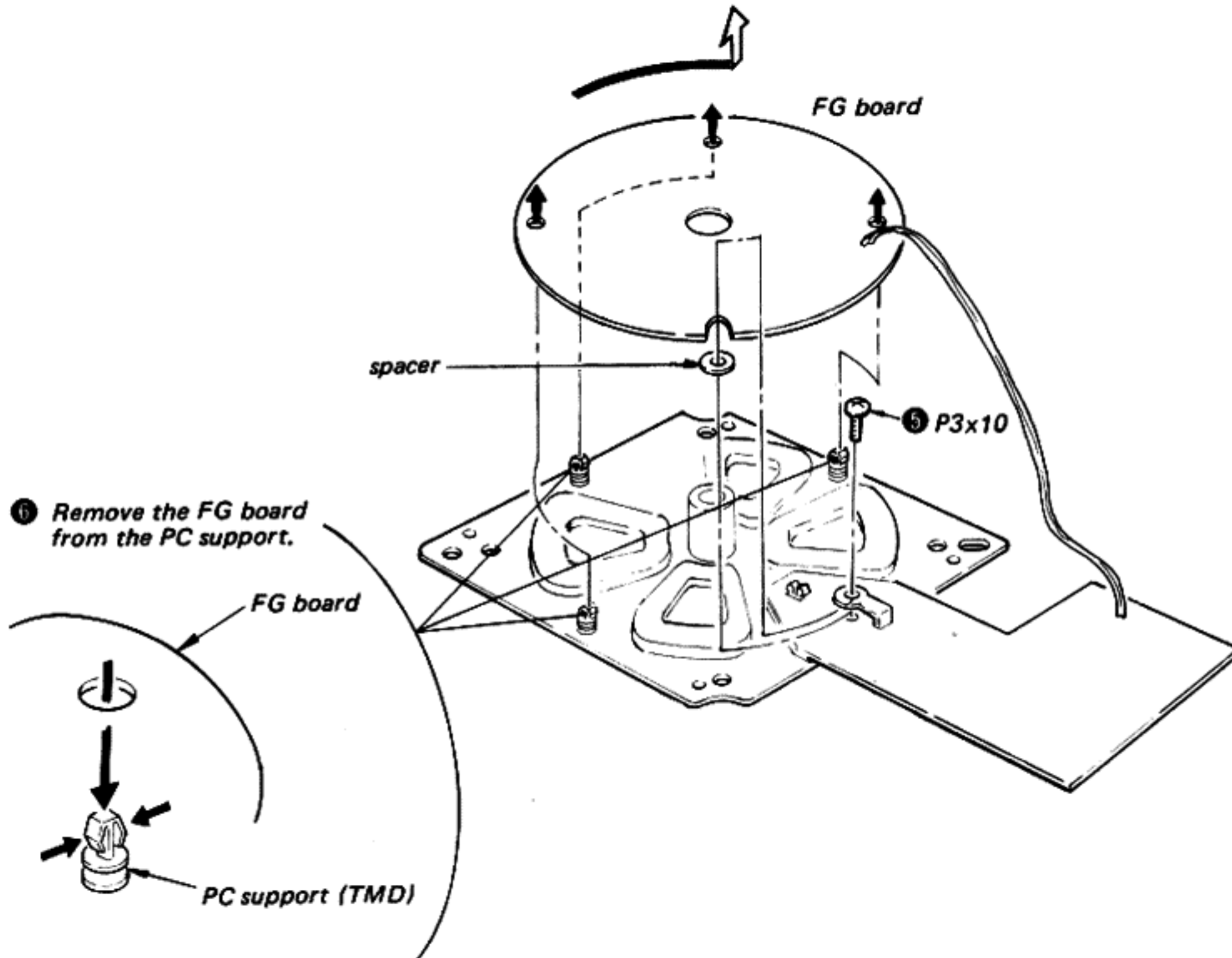
### BOTTOM BOARD REMOVAL



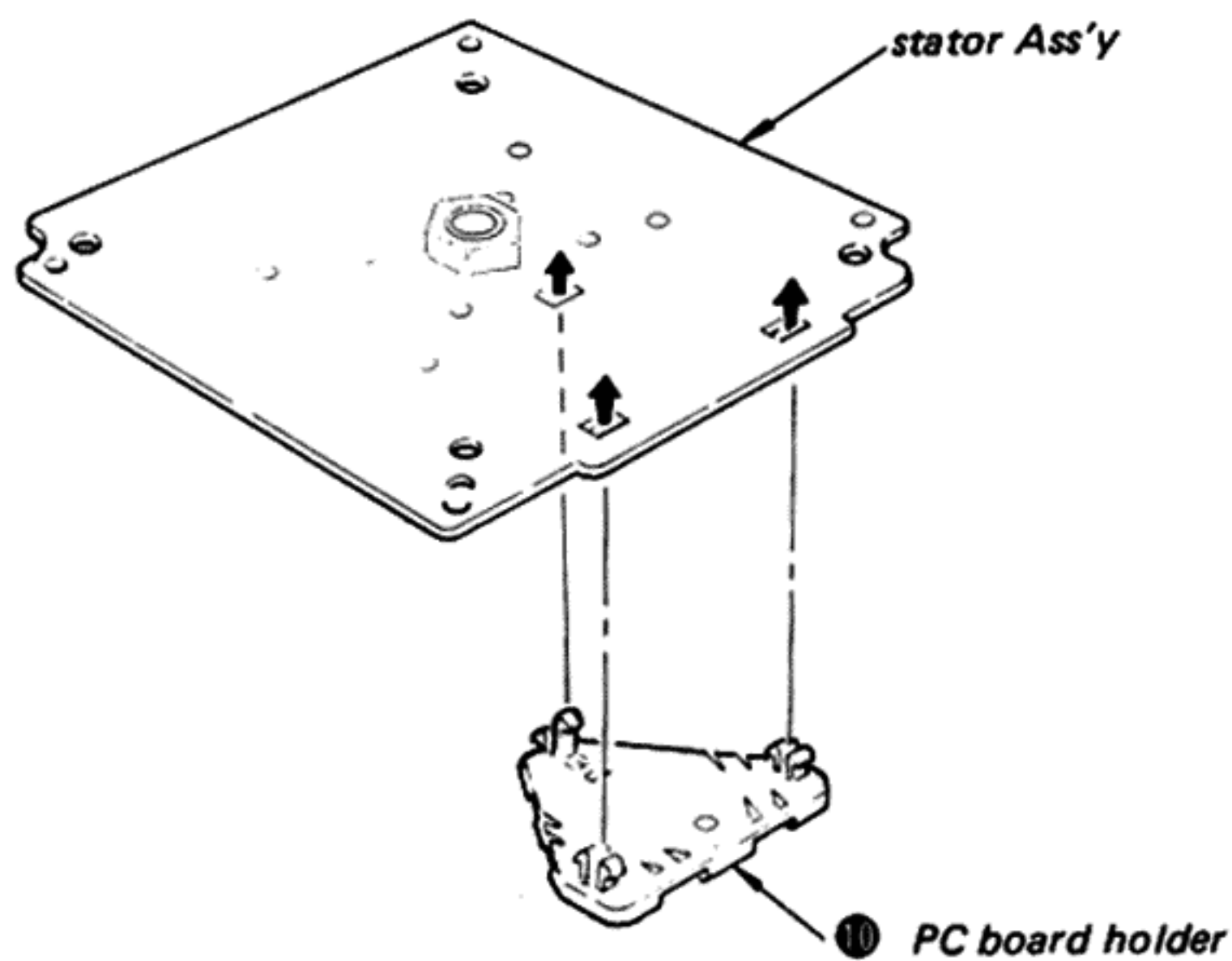
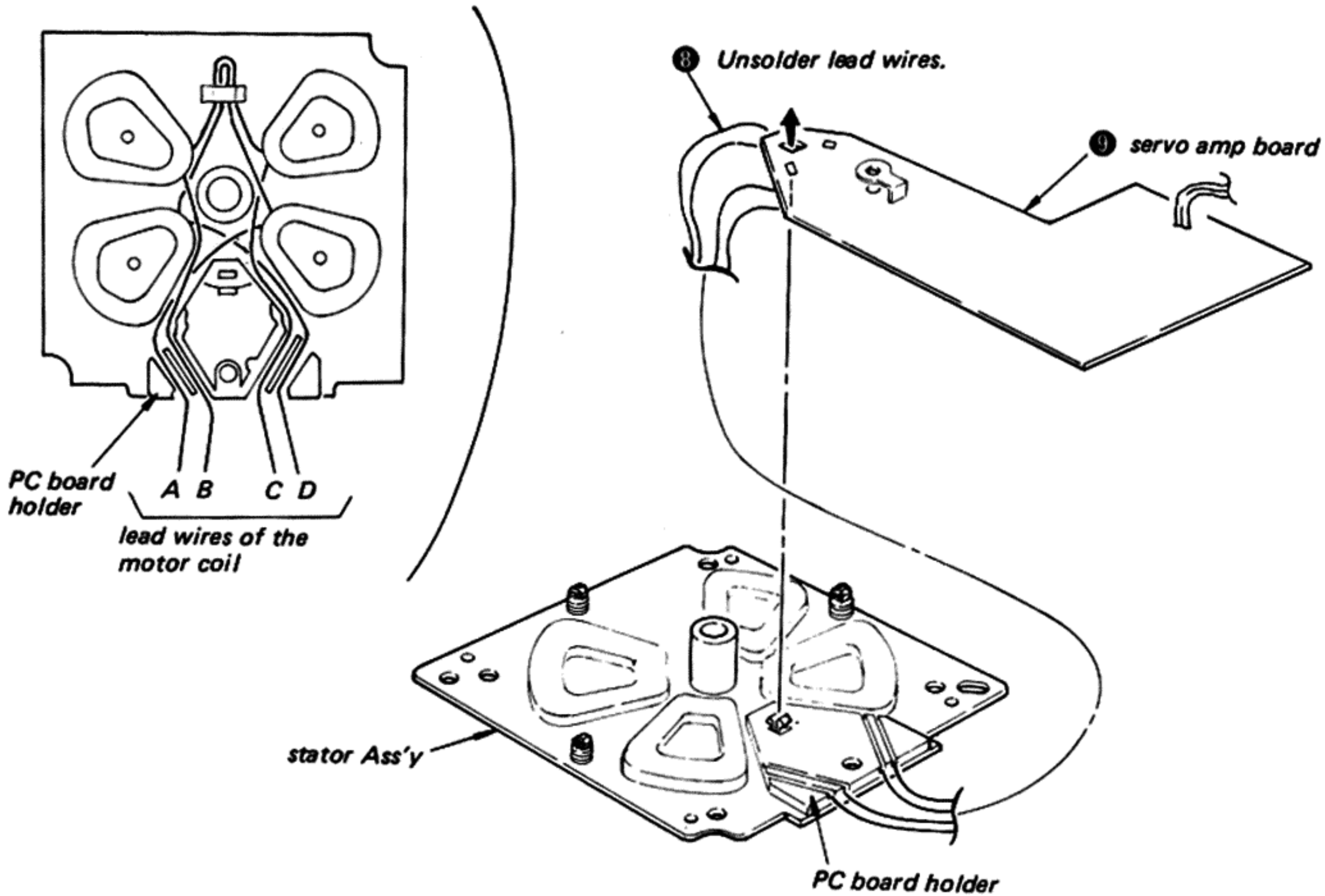
**SERVO AMP BOARD / STATOR ASS'Y / ROTOR ASS'Y REMOVAL**



① Turn the FG board in the direction as shown by the arrow and remove it.



When installing, run the lead wires of the motor coil through the grooves of the PC board holder.

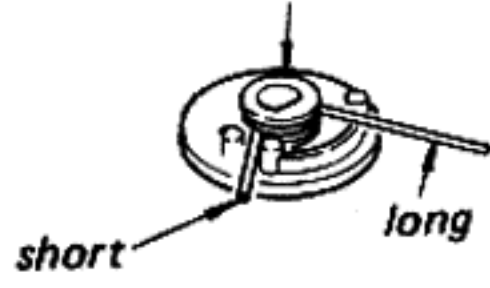




## ANTI-SKATING KNOB INSTALLATION

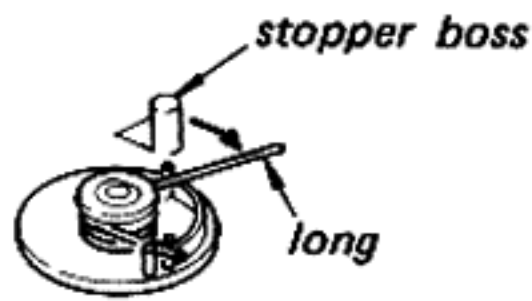
If necessary, apply grease (SGL-501) to the specified portion.

- ④ Install the spring on the IFC cam.

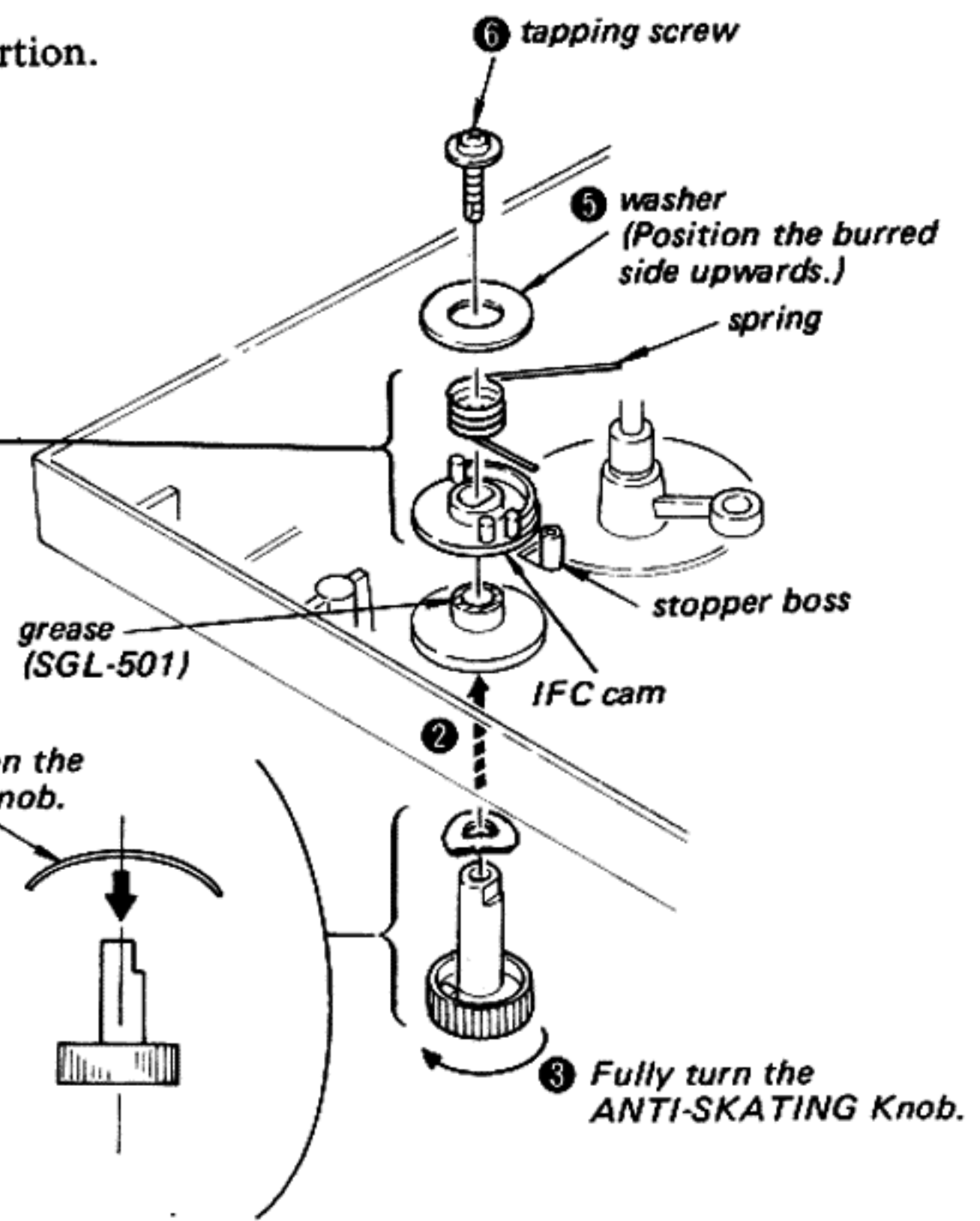


### CAUTION:

Install the spring so that the long side of the spring is located in the portion as shown by the arrow.



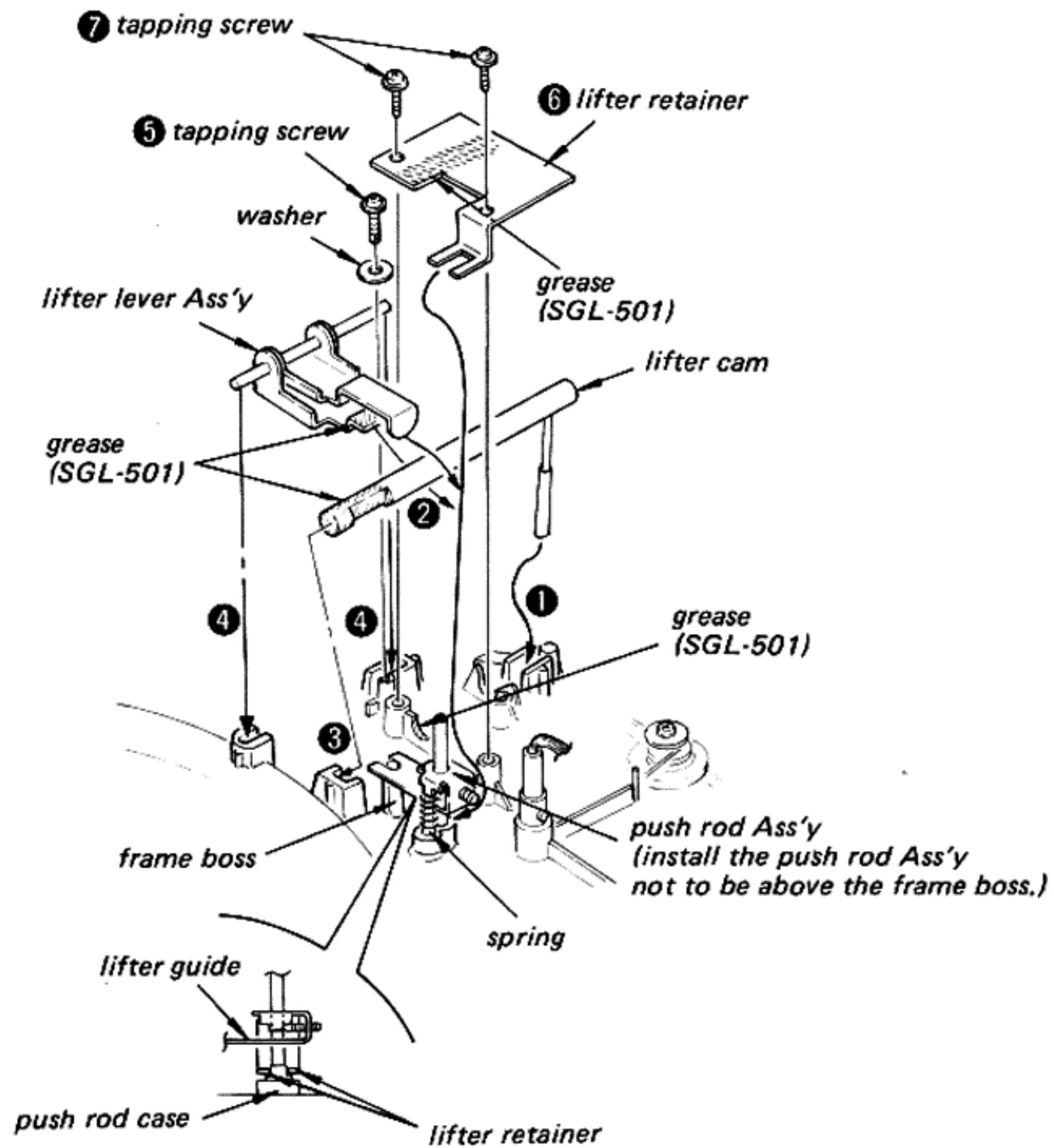
- ① Install washer (N) on the ANTI-SKATING Knob.



- ③ Fully turn the ANTI-SKATING Knob.

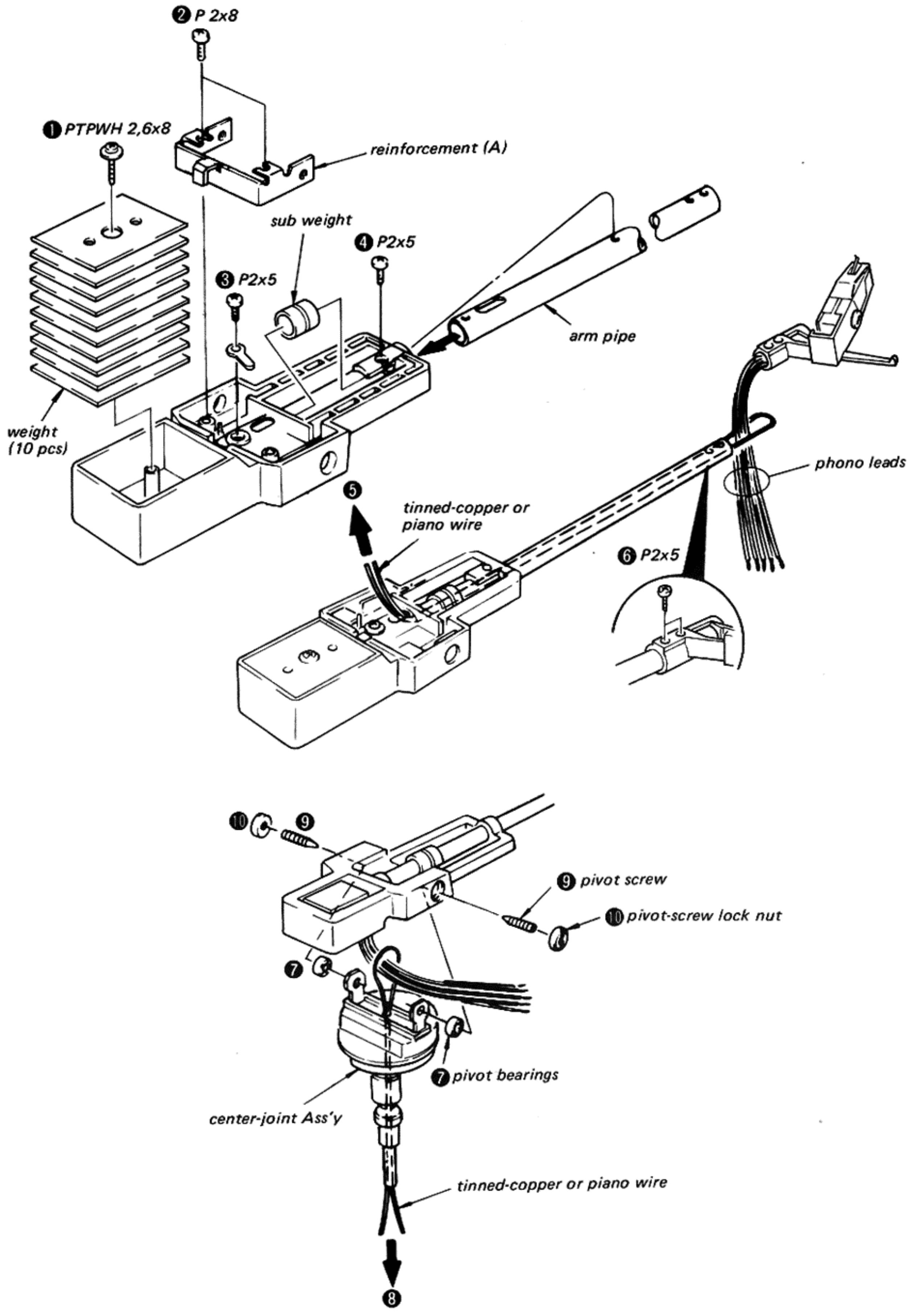
## LIFTER LEVER ASS'Y INSTALLATION

If necessary, apply grease (SGL-501) to the specified portion.

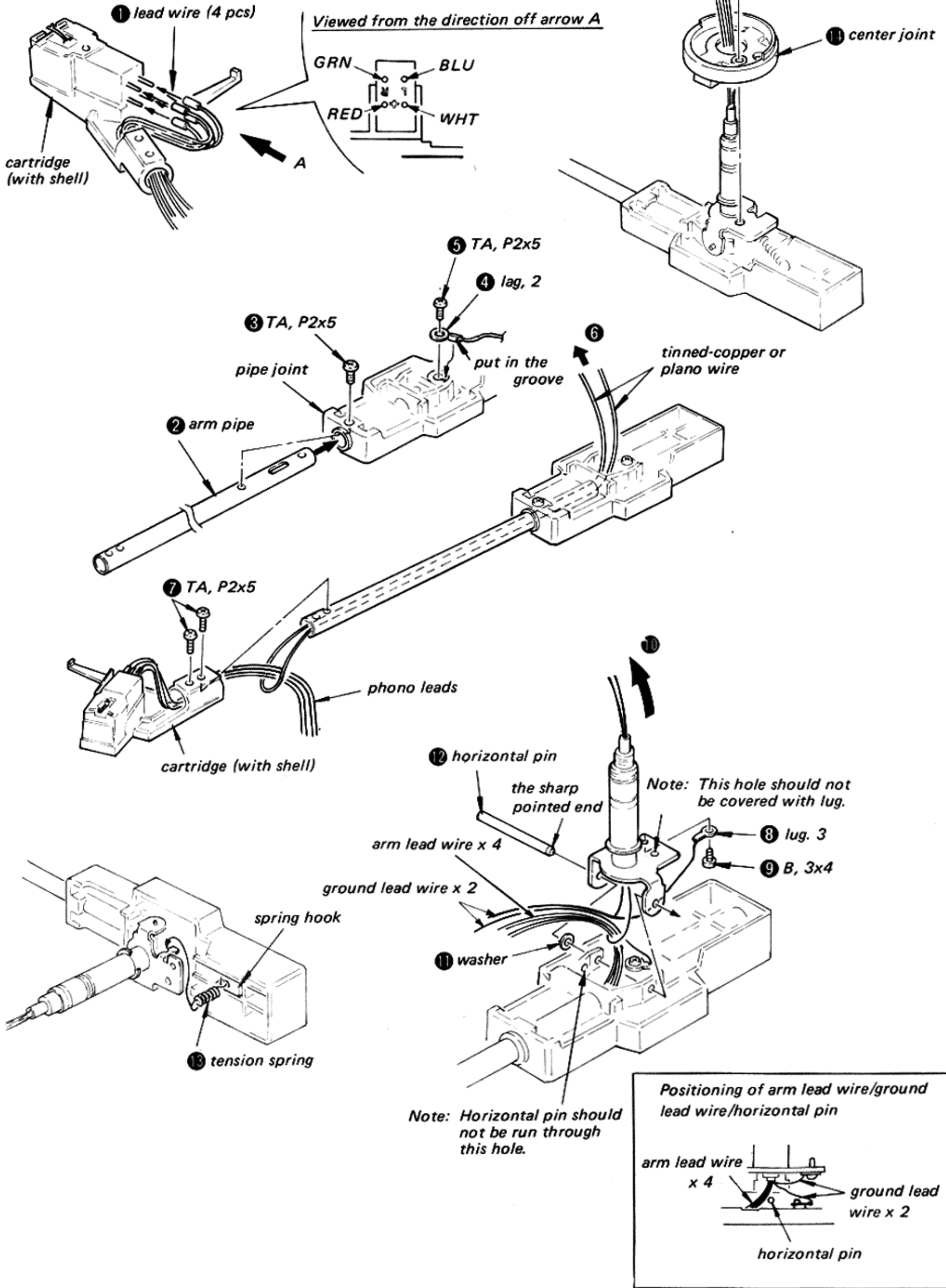




# ASSEMBLING THE TONEARM (PS-LX310/310(C))

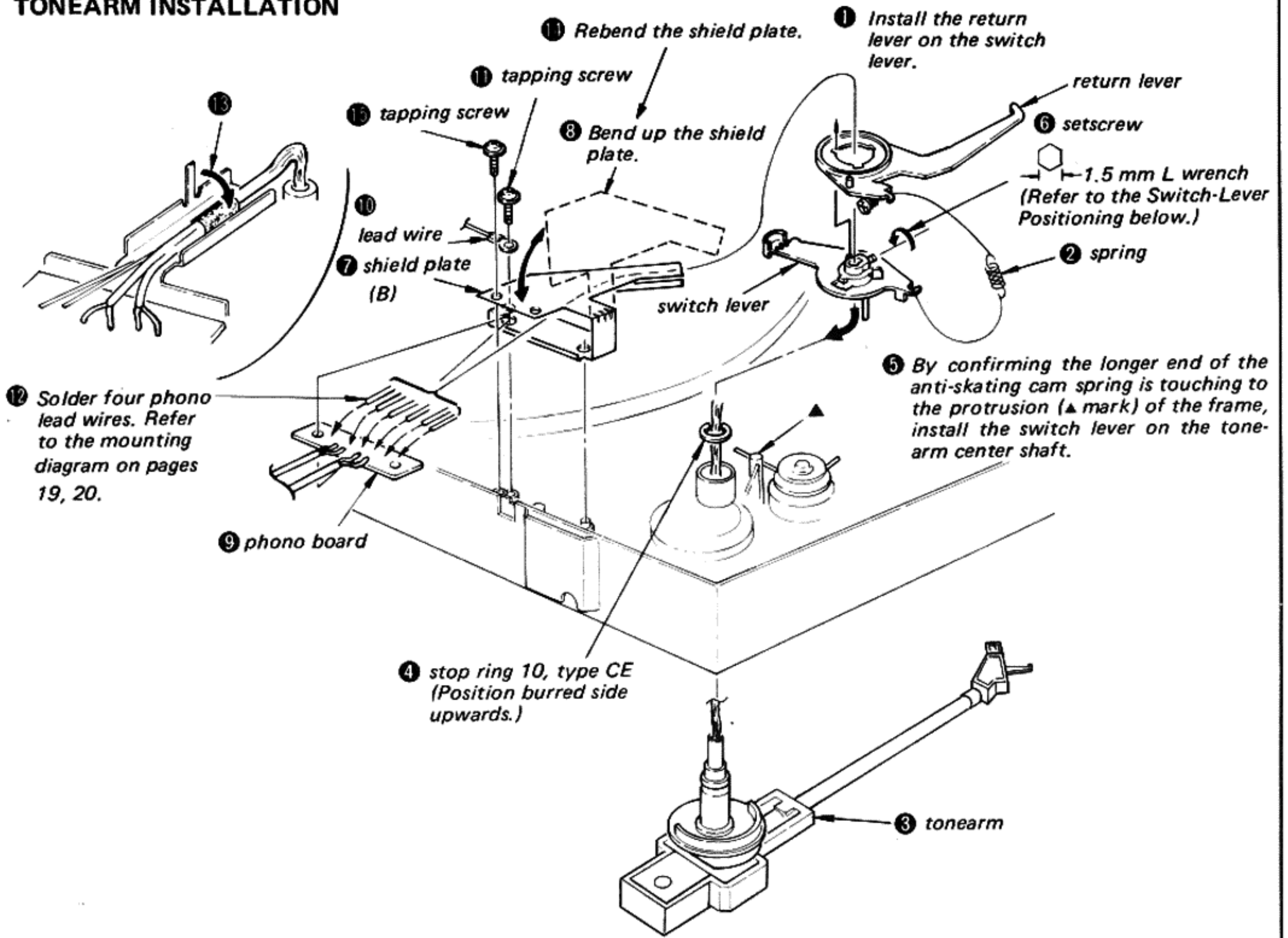


# ASSEMBLING THE TONEARM (PS-LX311)



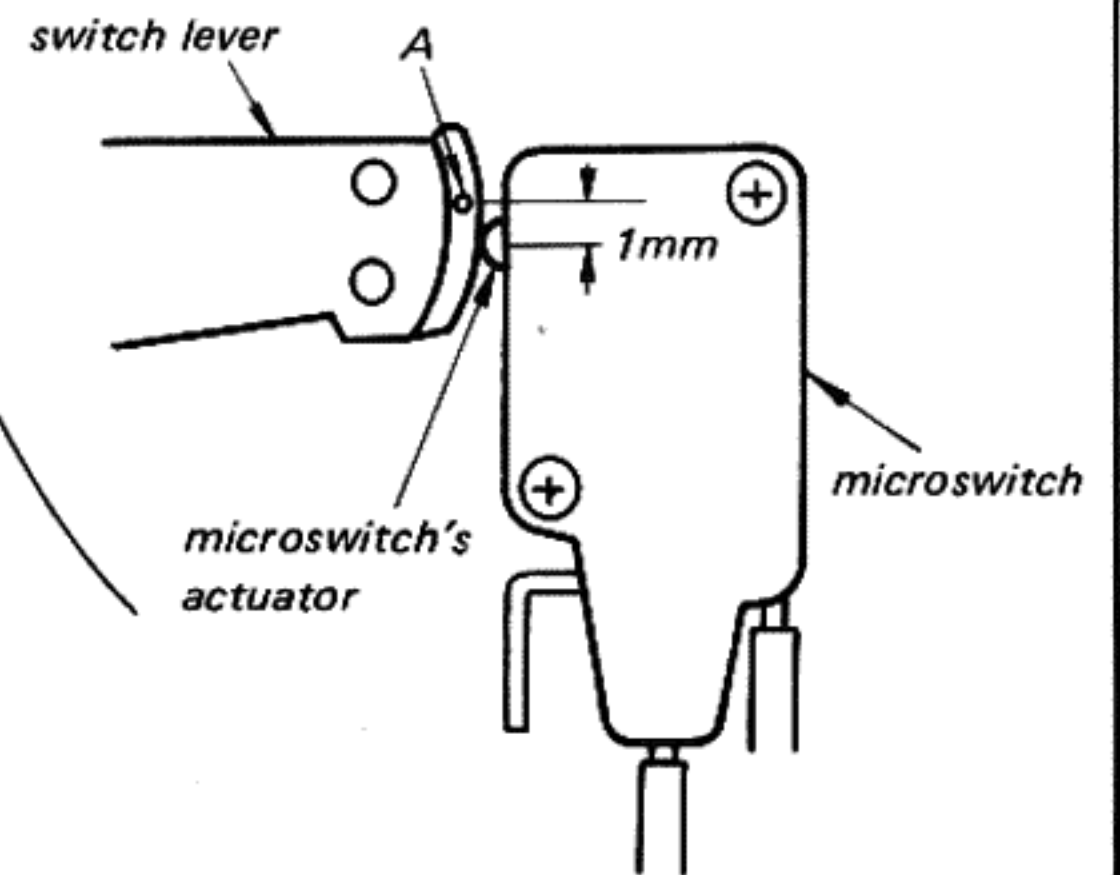
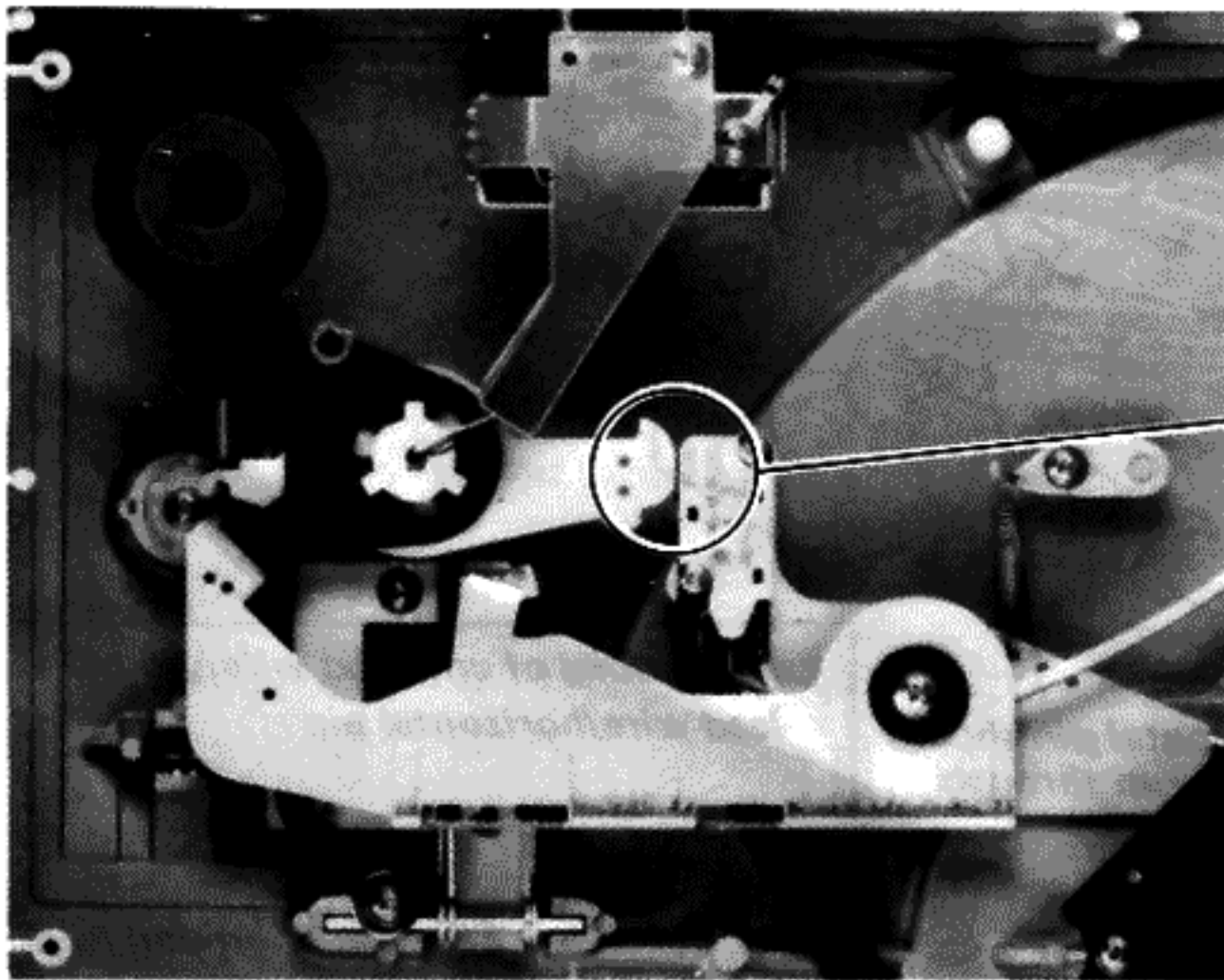


# TONEARM INSTALLATION



### Switch-Lever Positioning:

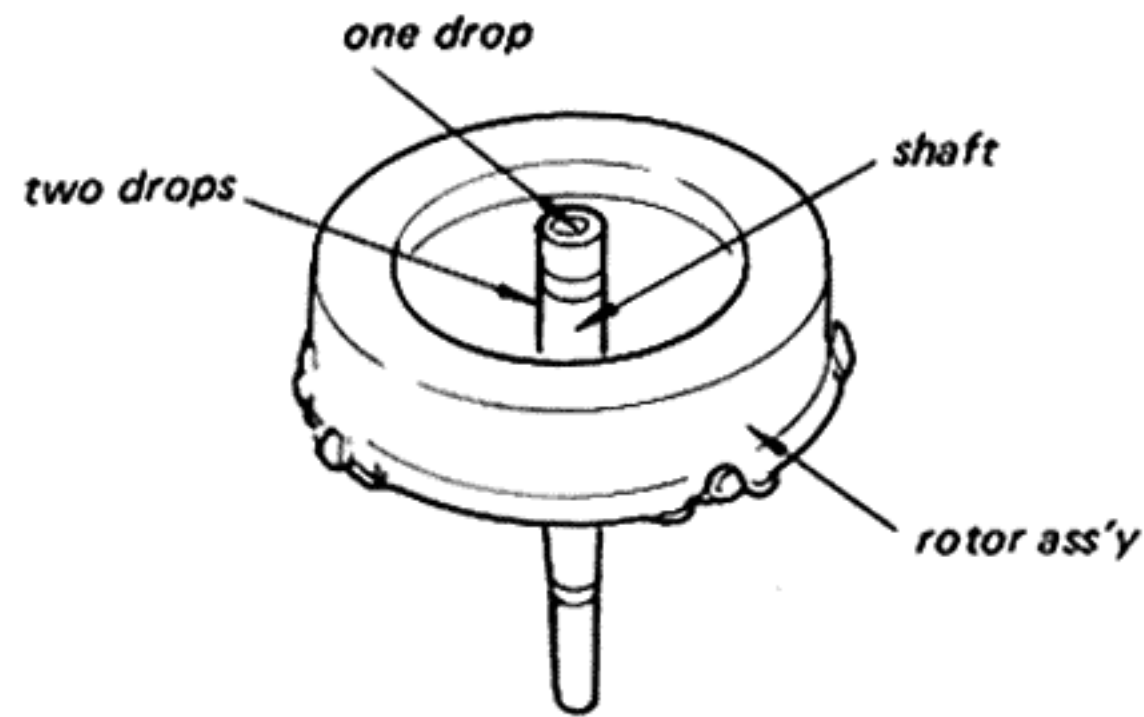
1. Place the tonearm on the tonearm rest.
2. Position the drive gear to the rest mode.
3. Position the part A of the switch lever 1mm off the microswitch's actuator as shown in the figure and tighten the set screw securely.



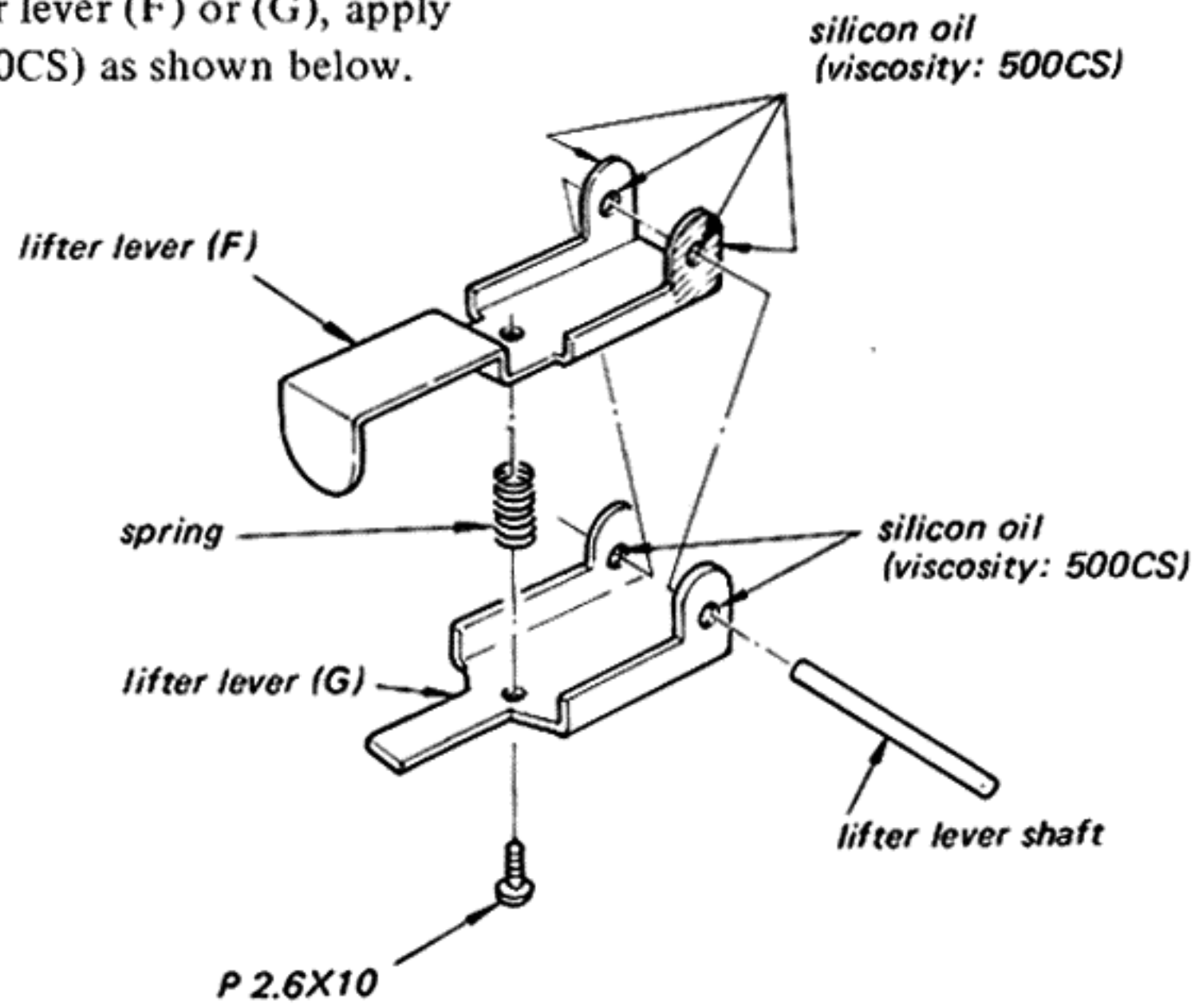


## LUBRICATION

1. When the motor rotor ass'y is replaced, apply Sony oil OL-2KA to the rotor shaft as illustrated below.



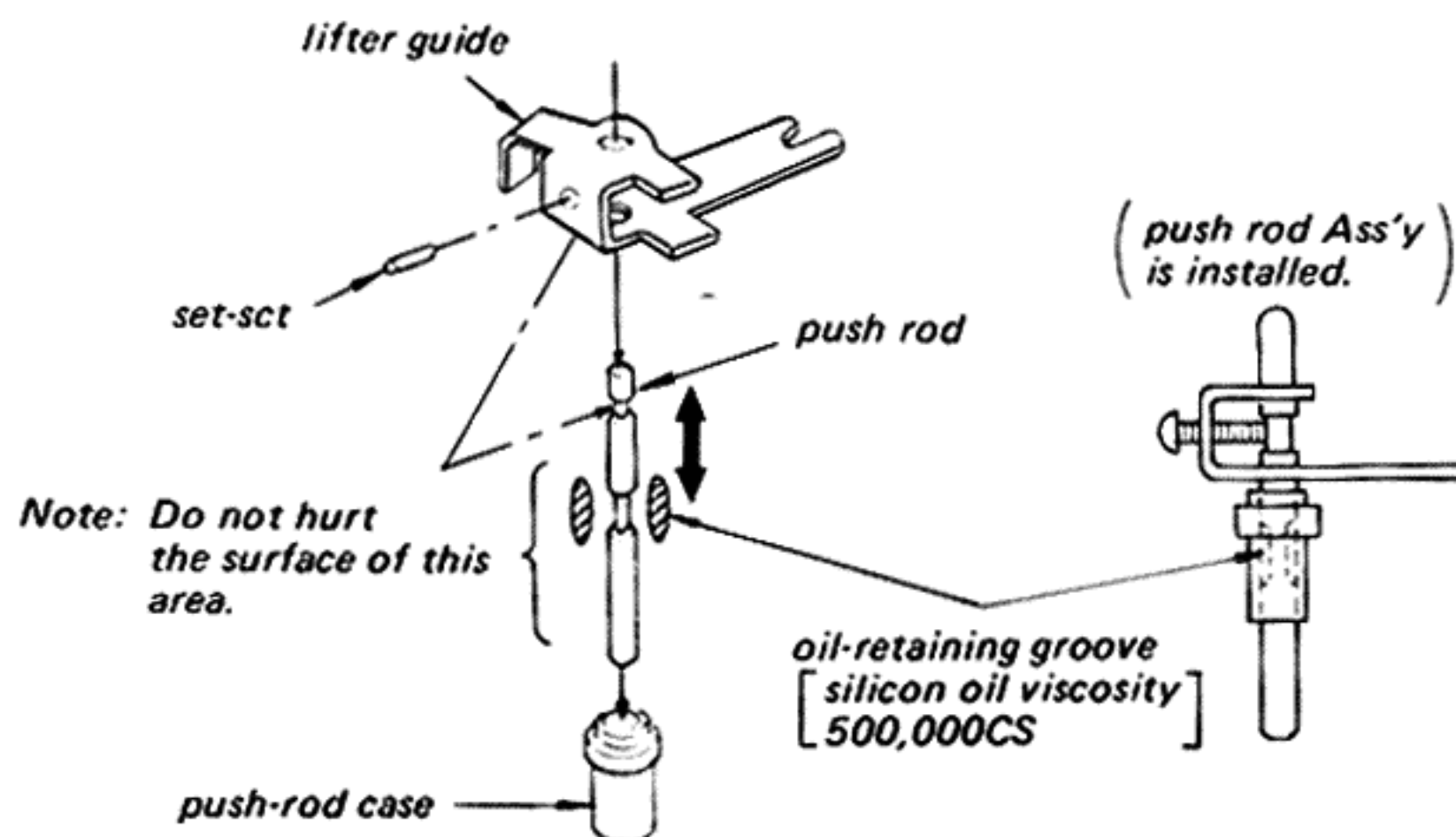
2. When replacing the lifter lever (F) or (G), apply silicon oil (viscosity: 500CS) as shown below.



3. Lubrication for push rod

### CAUTION:

When lubricating, rotate and move the push rod up and down a few times.



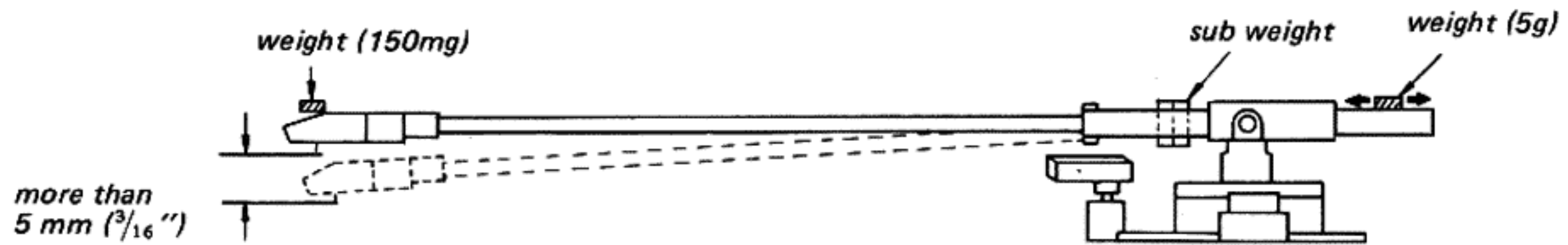
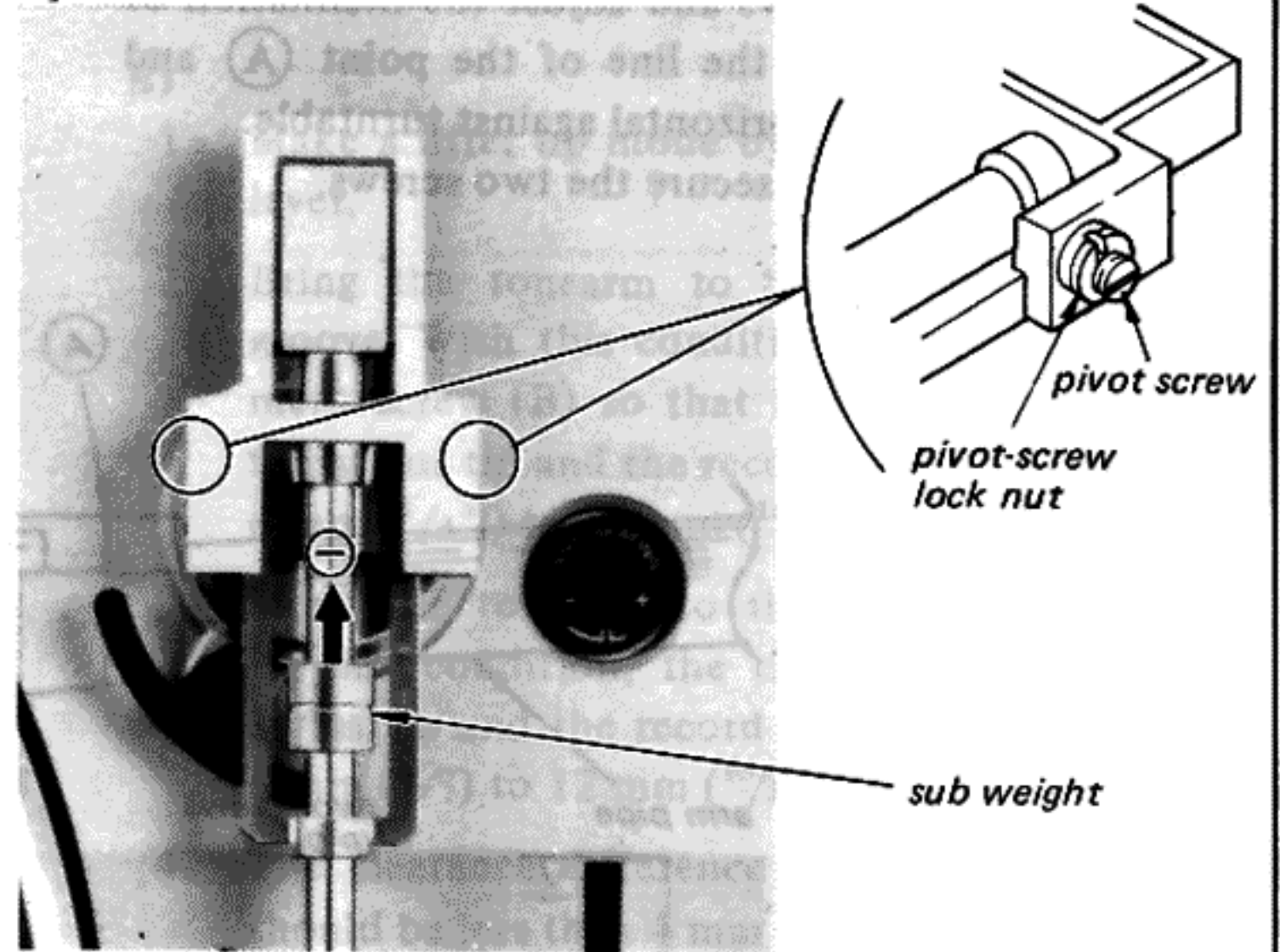
## SECTION 3 ADJUSTMENTS

### 3-1. MECHANICAL ADJUSTMENTS

#### Longitudinal Sensitivity Adjustment (PS-LX310/310(C))

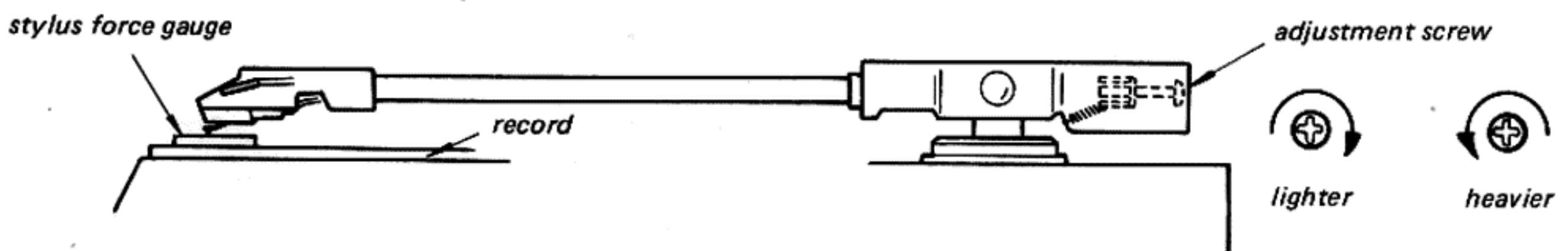
1. Install the cartridge and slide the sub weight at  $\ominus$  side.
2. Place a weight of about 5g on the pipe joint.
3. Adjust the weight position so that the arm is balanced.
4. Place a weight of about 150mg on the cartridge (right over the stylus).
5. Adjust the pivot screw so that the stylus tip goes down 5mm or more.

**Note:** If the pivot screw is secured excessively, the pivot bearing may be damaged.



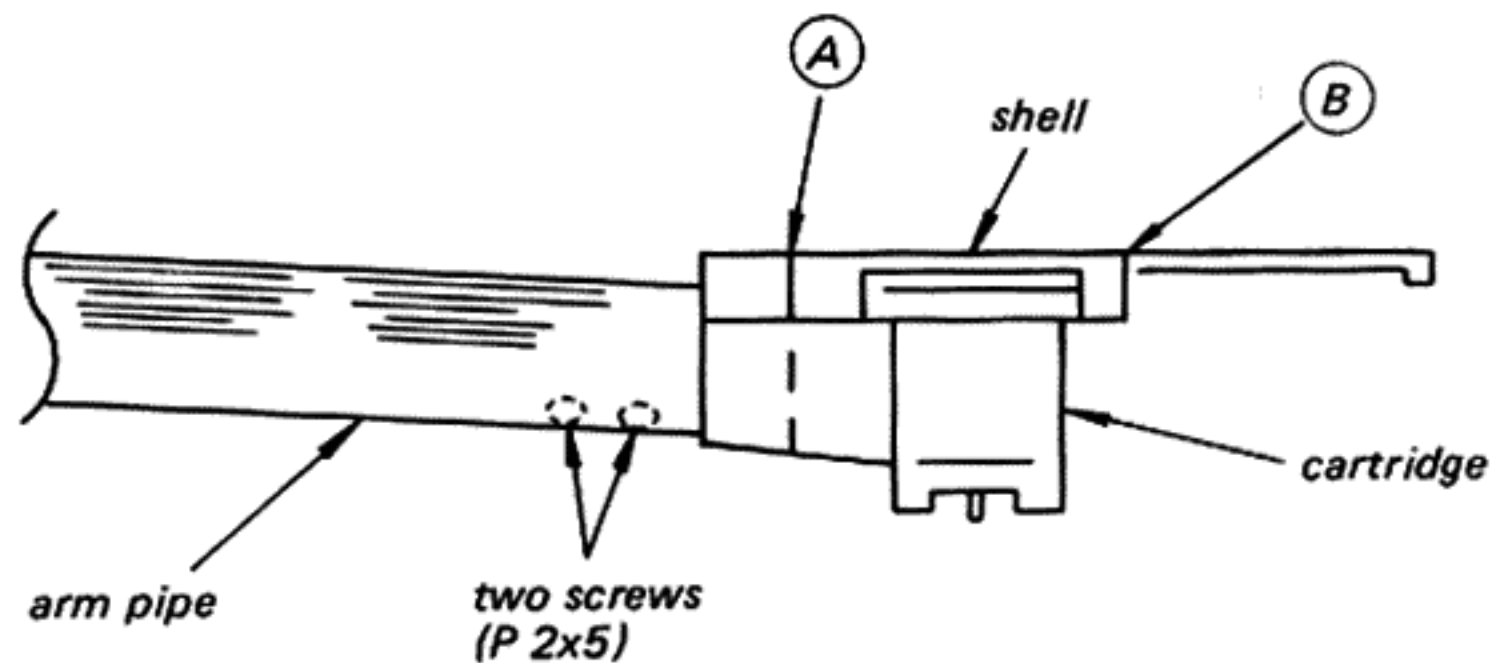
#### Stylus Force Adjustment (PS-LX311)

1. Turn the adjustment screw to obtain zero balance.
2. Turn the adjustment screw again so that stylus force becomes 2g on stylus force gauge.



### Cartridge Level Adjustment

Loosen the two screws and adjust the inclination of the cartridge so that the line of the point (A) and point (B) becomes horizontal against turntable. After the adjustment, secure the two screws.

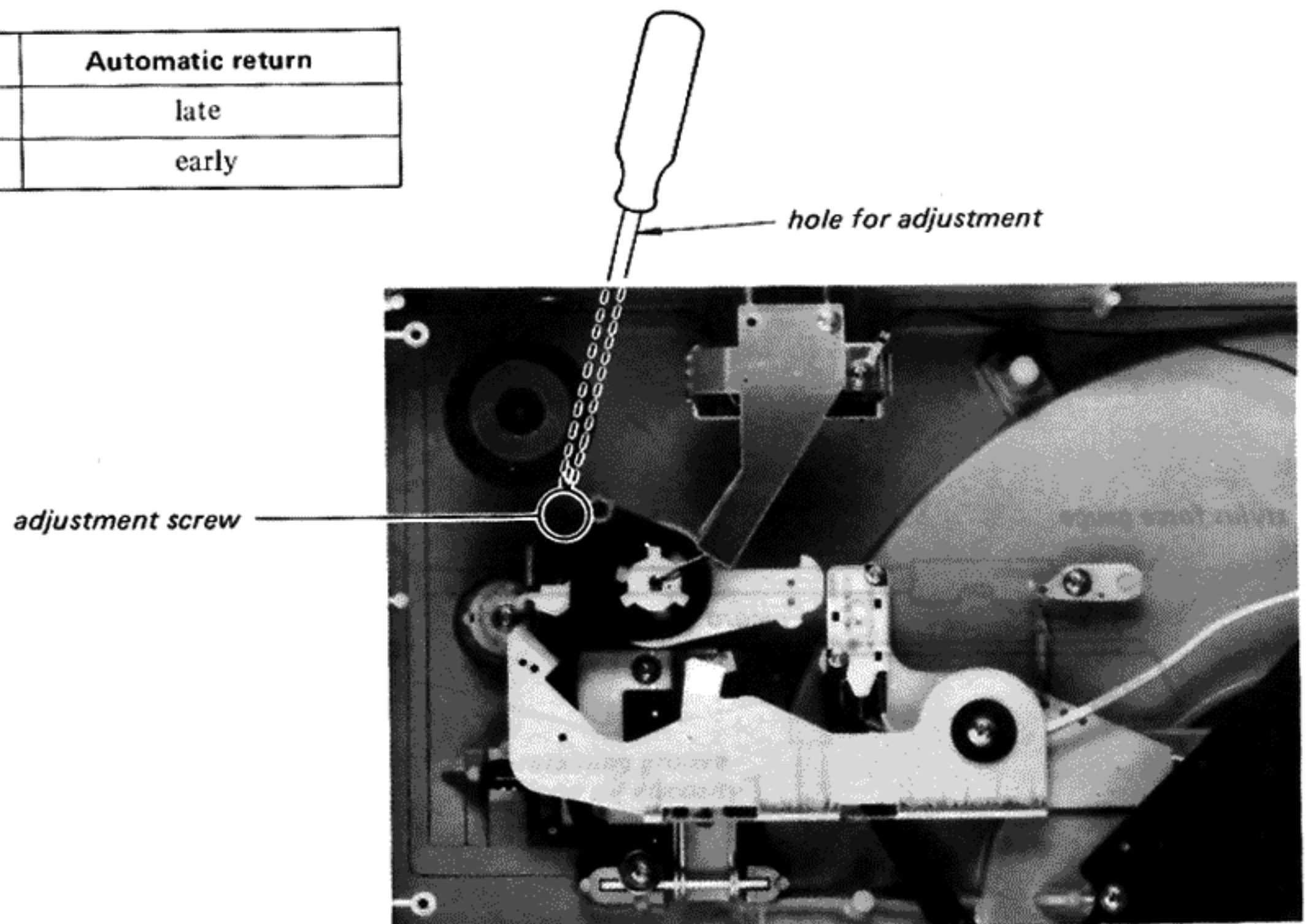


### Automatic Return Position Adjustment

1. Reject the tonearm by REJECT button.
2. Bring the tonearm to the automatic-return test groove (inside portion) of the test record (YFSC-16), and adjust the screw for making the tonearm return at count 3 to 12.

**Note:** The normal auto-return position is between 59 mm (2-3/8") and 64 mm (2-1/2") from the center of the center shaft.

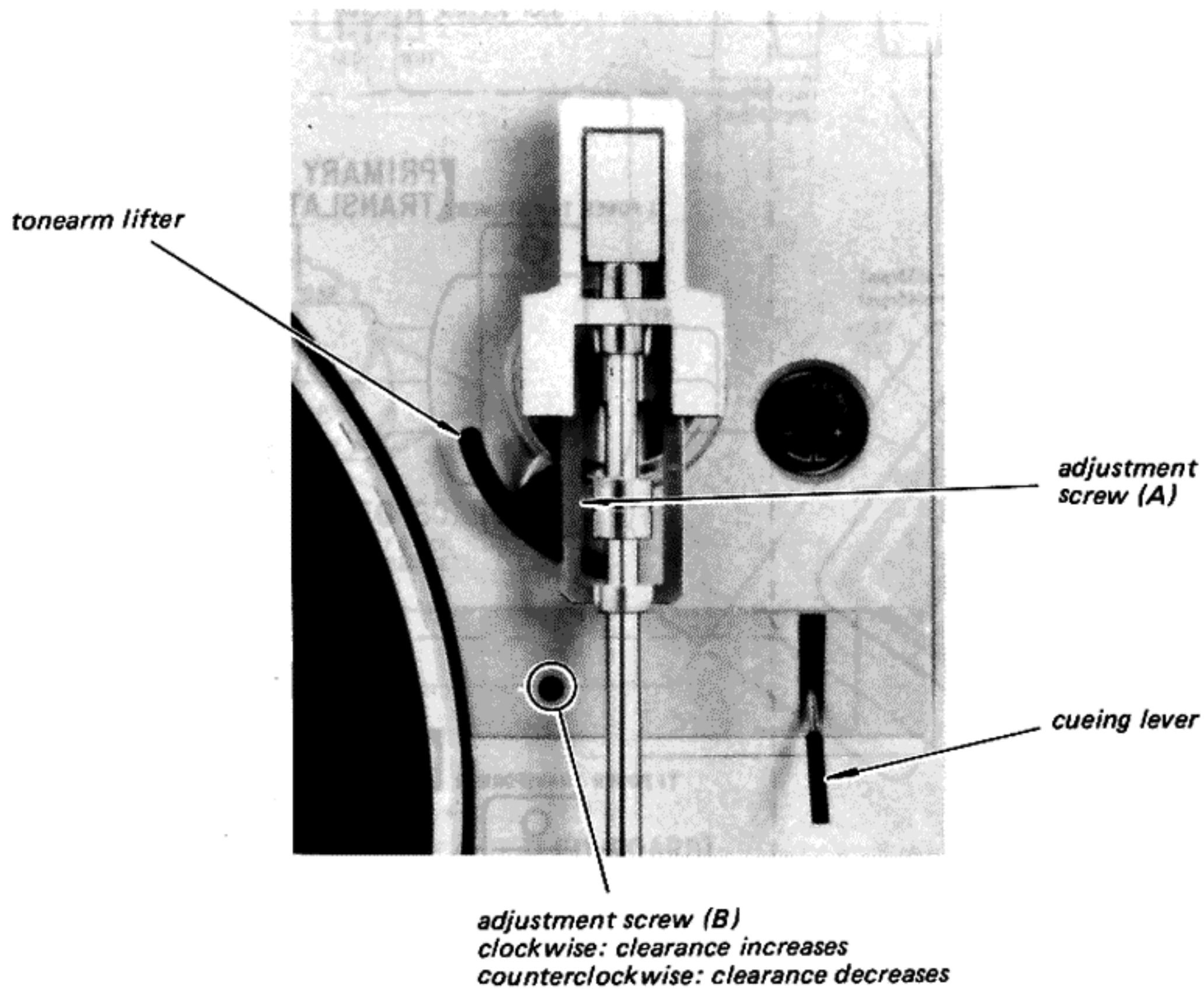
Turning direction	Automatic return
clockwise	late
counterclockwise	early



## Tonearm Height Adjustment

**Note:** Perform both adjustments A) and B).

- A)
1. Bring the tonearm toward the inner of the record and put the stylus in the last groove of the record.
  2. Push the REJECT button and slowly turn the turntable by hand to lift the tonearm.
  3. Adjust the height of the tonearm lifter by turning the adjustment screw(A) so that the clearance between the stylus tip and the record is approx. 6 mm ( $\frac{1}{4}$ " ) to 12 mm ( $\frac{15}{32}$  ").
  4. After the adjustment, make sure by turning the turntable by hand that the tonearm smoothly returns to the tonearm rest.
- B)
1. Make a lifter up mode by lifting up the cueing lever.
  2. Bring the tonearm to the outer-most record groove. With this condition, adjust the adjustment screw (B) so that the clearance between the stylus tip and the record surface becomes in 6 mm ( $\frac{1}{4}$  ") to 12 mm ( $\frac{15}{32}$  ").
  3. Move the tonearm to the inner-most groove. In this condition, the clearance between the stylus tip and the record surface should also be 6 mm ( $\frac{1}{4}$  ") to 12 mm ( $\frac{15}{32}$  ").
  4. The clearance difference between A) and B)-3 should be less than 4 mm ( $\frac{3}{16}$  ").
  5. After the adjustment, lock the adjustment screw (B) with locking compound.

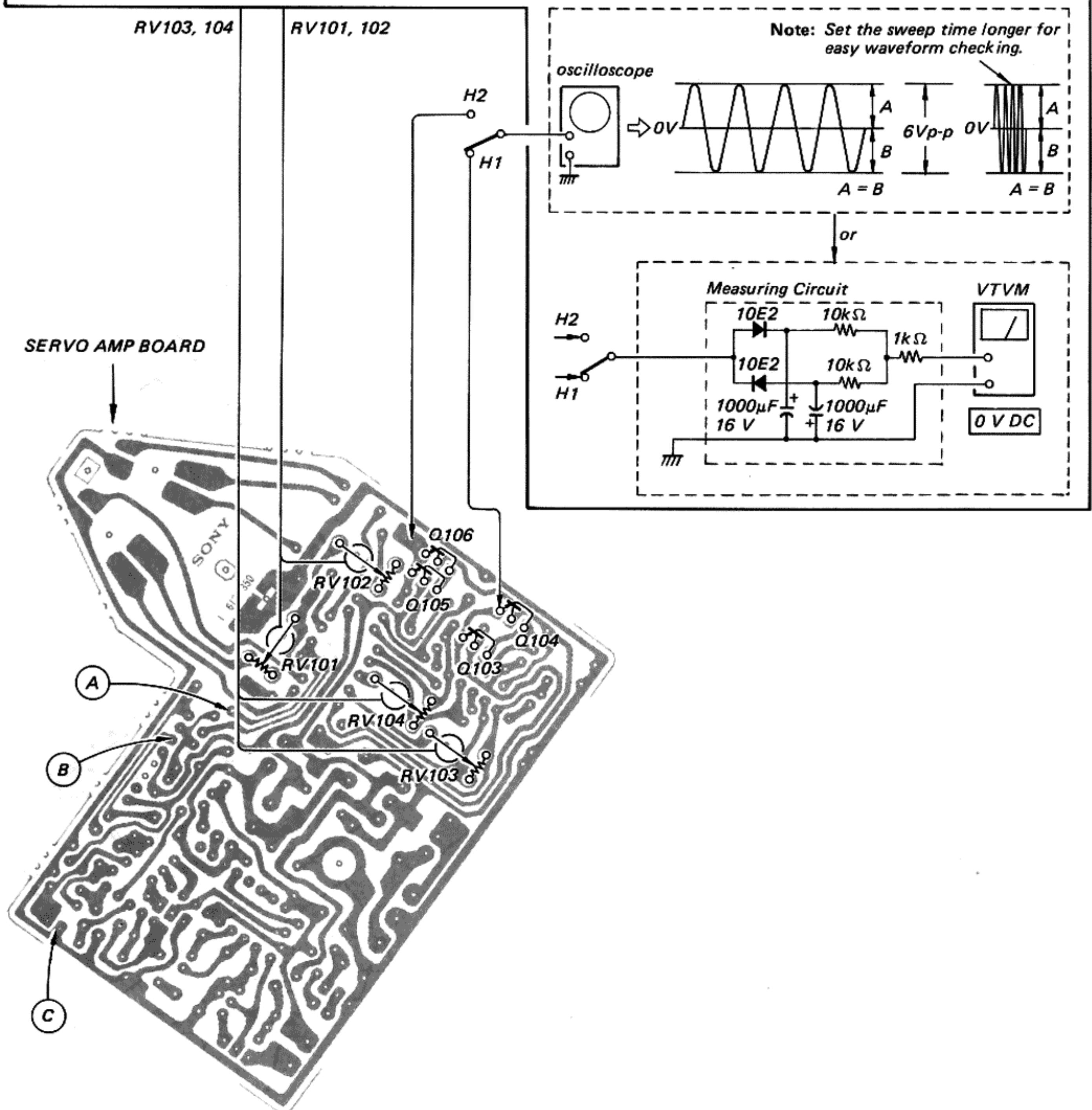




### 3-2. ELECTRICAL ADJUSTMENTS

#### Gain/Offset Adjustment

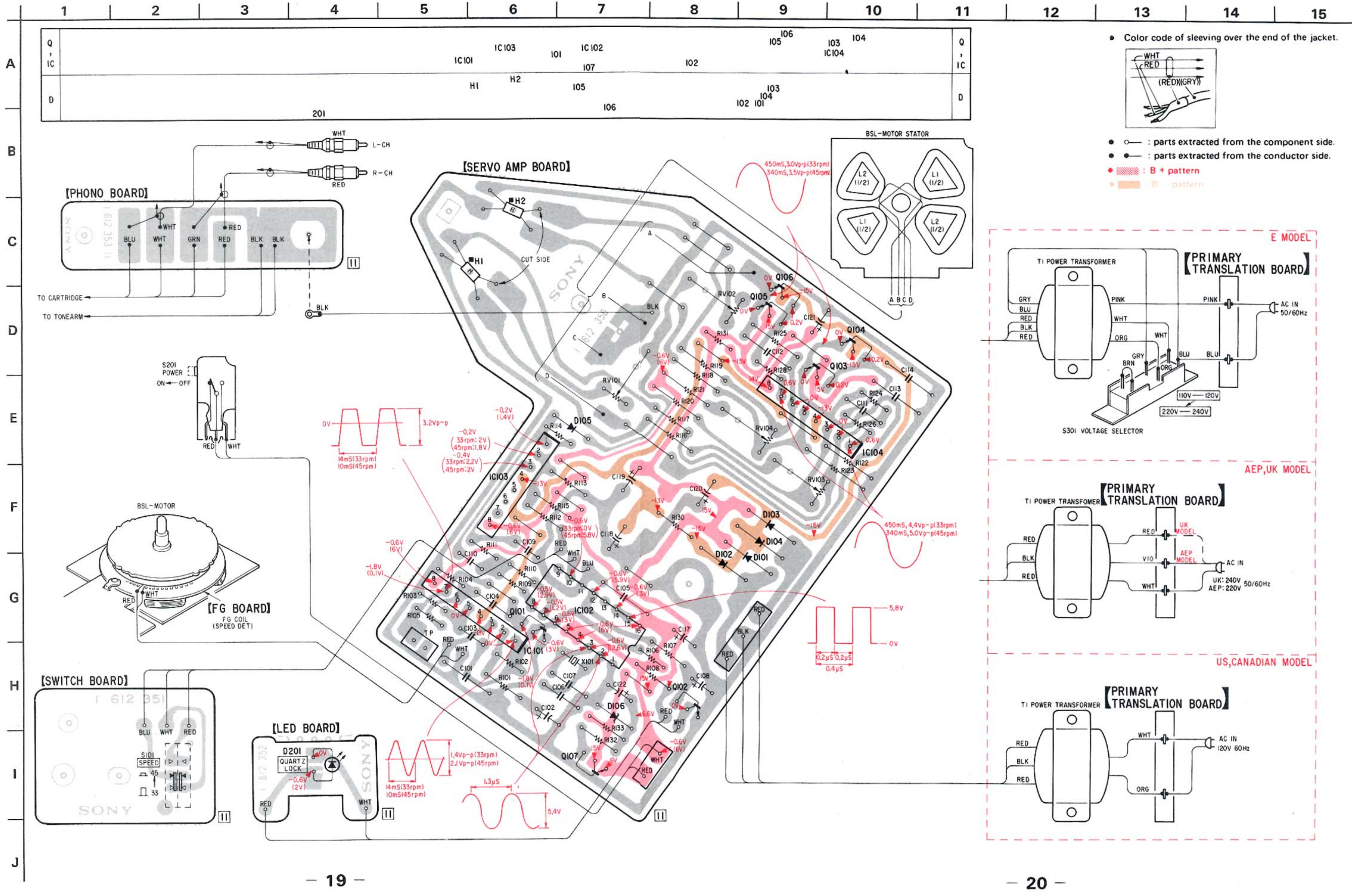
1. Take off the turntable sheet and turntable.
2. Connect IC 103 pin ③ (pattern ②) to the ground pin (pattern ③).
3. Apply a 1 V DC to the cathode of D 105 (pattern ①).
4. Adjust RV 103 (H1) and RV 104 (H2) so that the emitter waveforms of Q103, 104 (H1) and Q105, 106 (H2) are shown below (or so that DC potential is 0 V). . . . . Offset Adjustment
5. Apply a 2 V DC to the cathode of D 105.
6. Adjust RV 101 (H1) and RV 102 (H2) so that the emitter voltage of Q103, 104 (H1) and Q105, 106 (H2) are 6 Vp-p. . . . . Gain Adjustment
7. After adjustments, remove the jumper lead connected in Step 2, 3 (or 5).



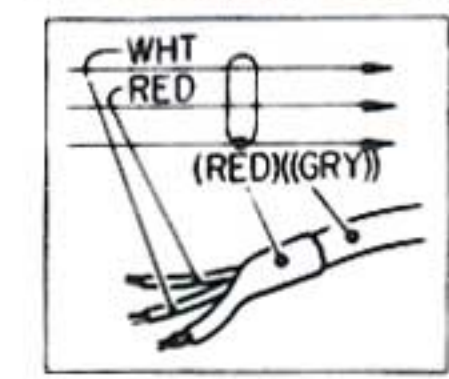


4-1. MOUNTING DIAGRAM  
- Conductor Side -

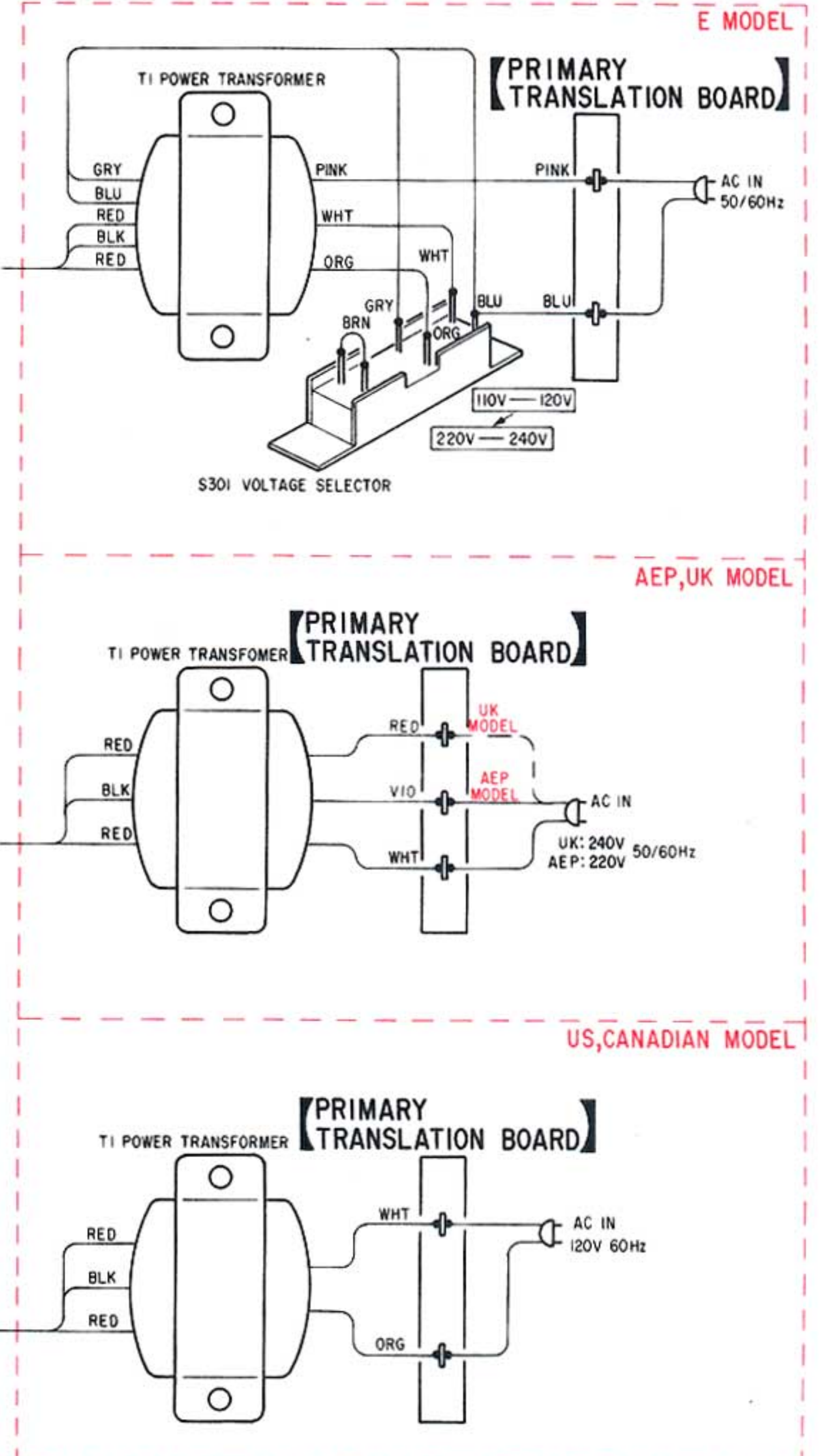
SECTION 4  
DIAGRAMS



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

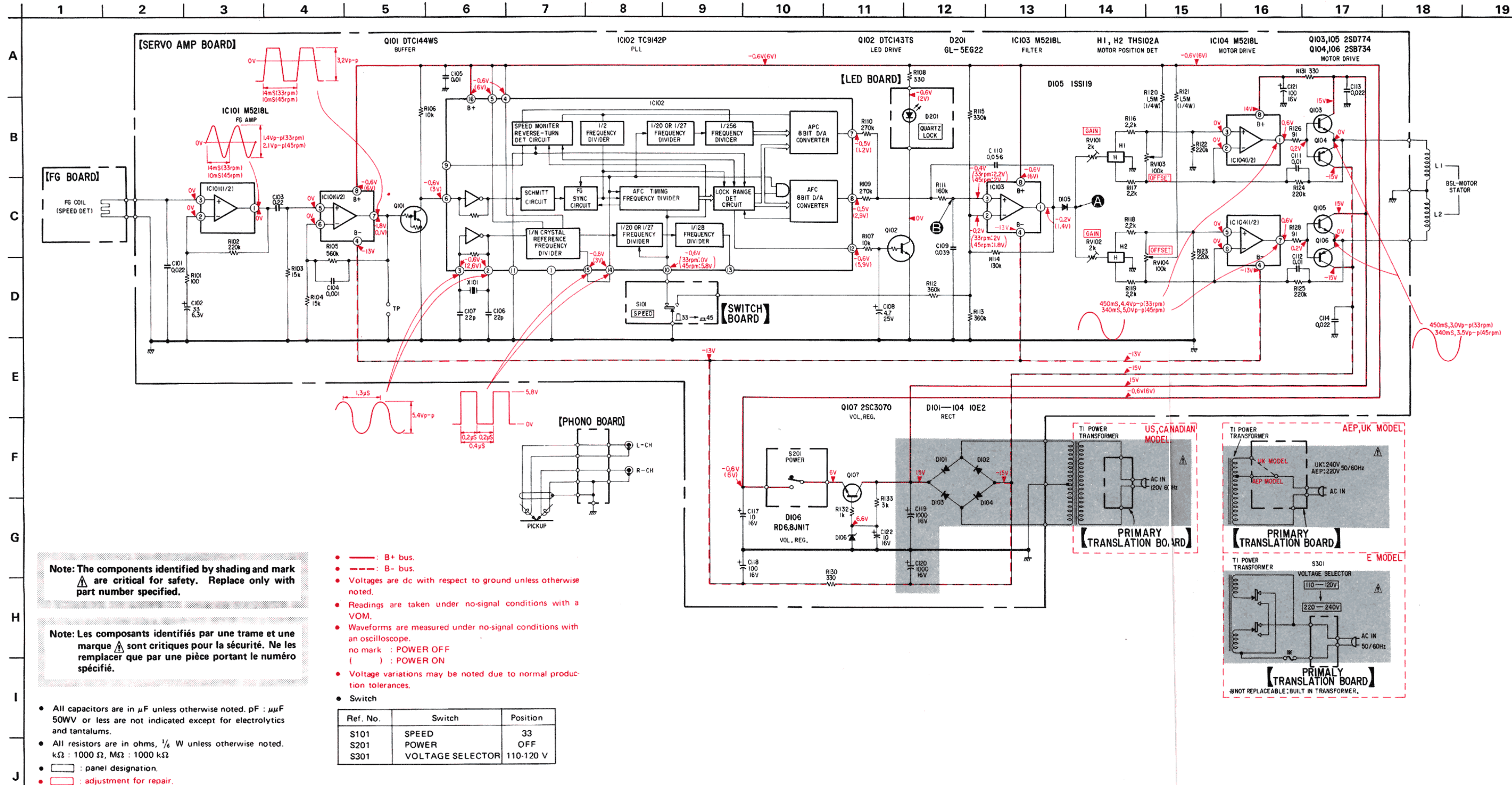


- ○ : parts extracted from the component side.
- ● : parts extracted from the conductor side.
- [Red pattern] : B + pattern
- [Orange pattern] : B - pattern

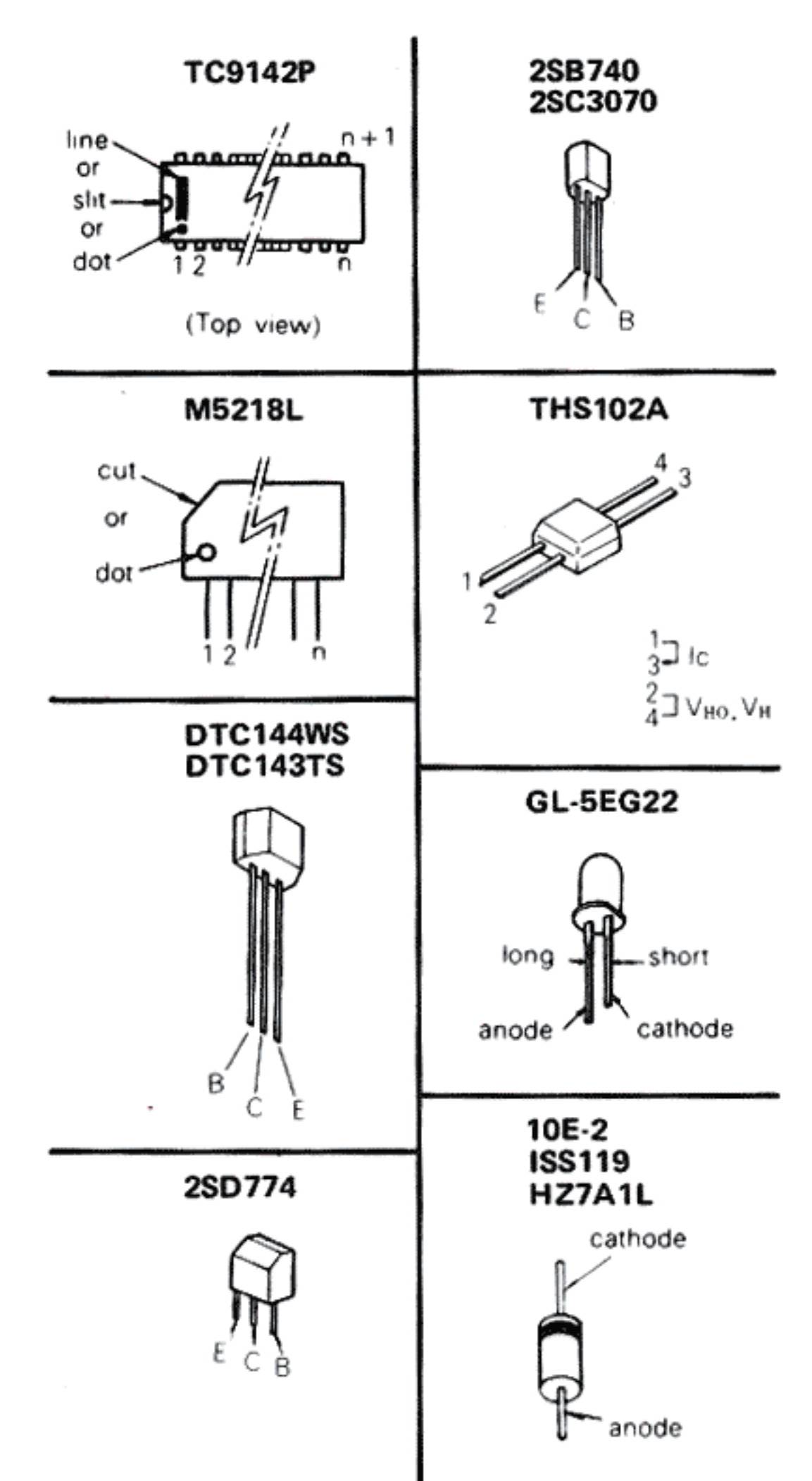




4-2. SCHEMATIC DIAGRAM



Semiconductor Lead Layouts



**Note: Checking BSL Motor Block.**

1. Connect point (B) on schematic diagram to ground.
2. Apply +1 V DC to point (A) on schematic diagram.
3. BSL motor is normal if it rotates when power is turned on.  
 (For connection on PC board, see step 2, 3 in Gain/Offset adjustment on page 18.)

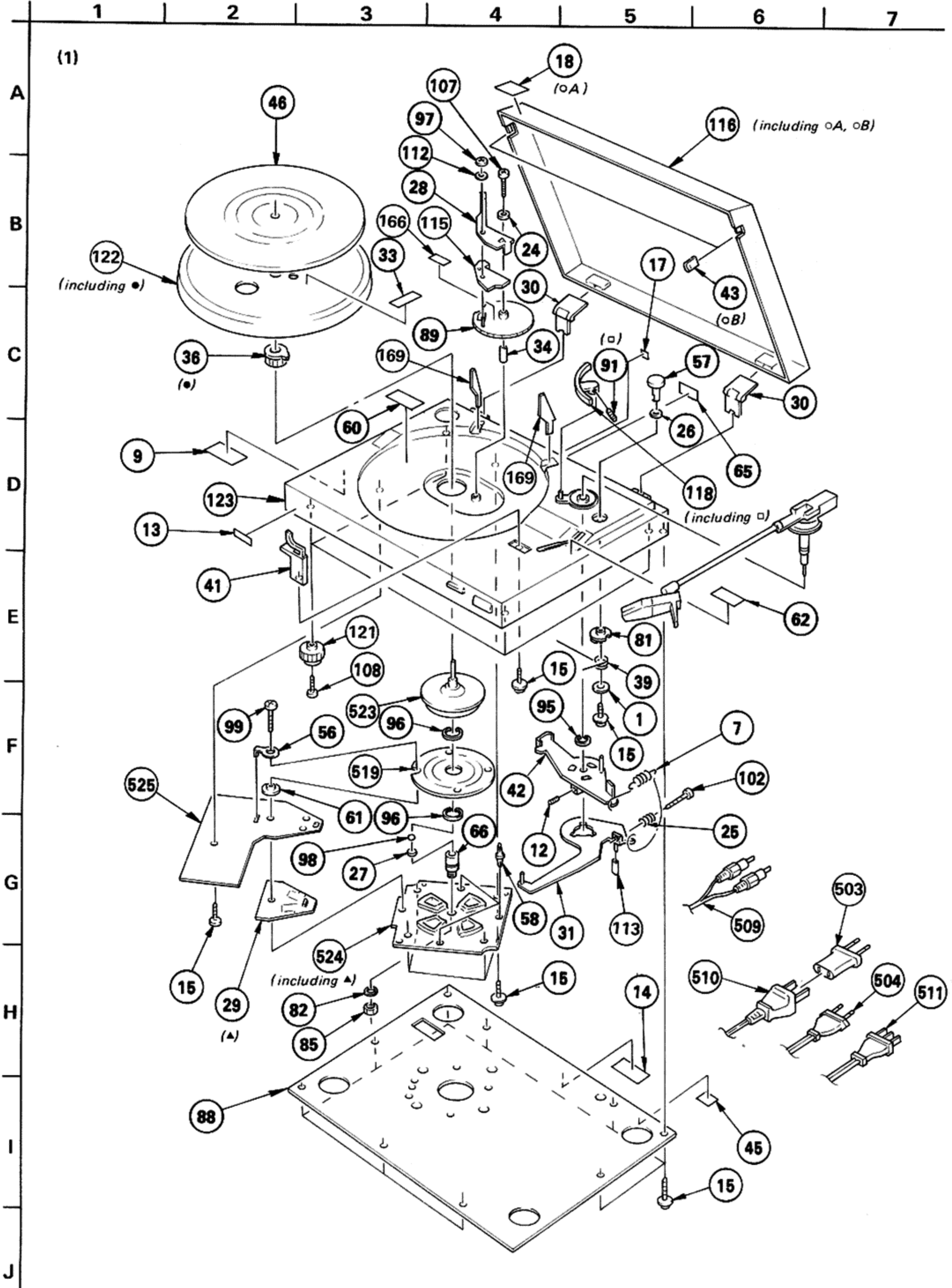
**Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.**

**Note: Les composants identifiés par une trame et une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF :  $\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms,  $\frac{1}{6}$  W unless otherwise noted. k $\Omega$  : 1000  $\Omega$ , M $\Omega$  : 1000 k $\Omega$
- : panel designation.
- : adjustment for repair.

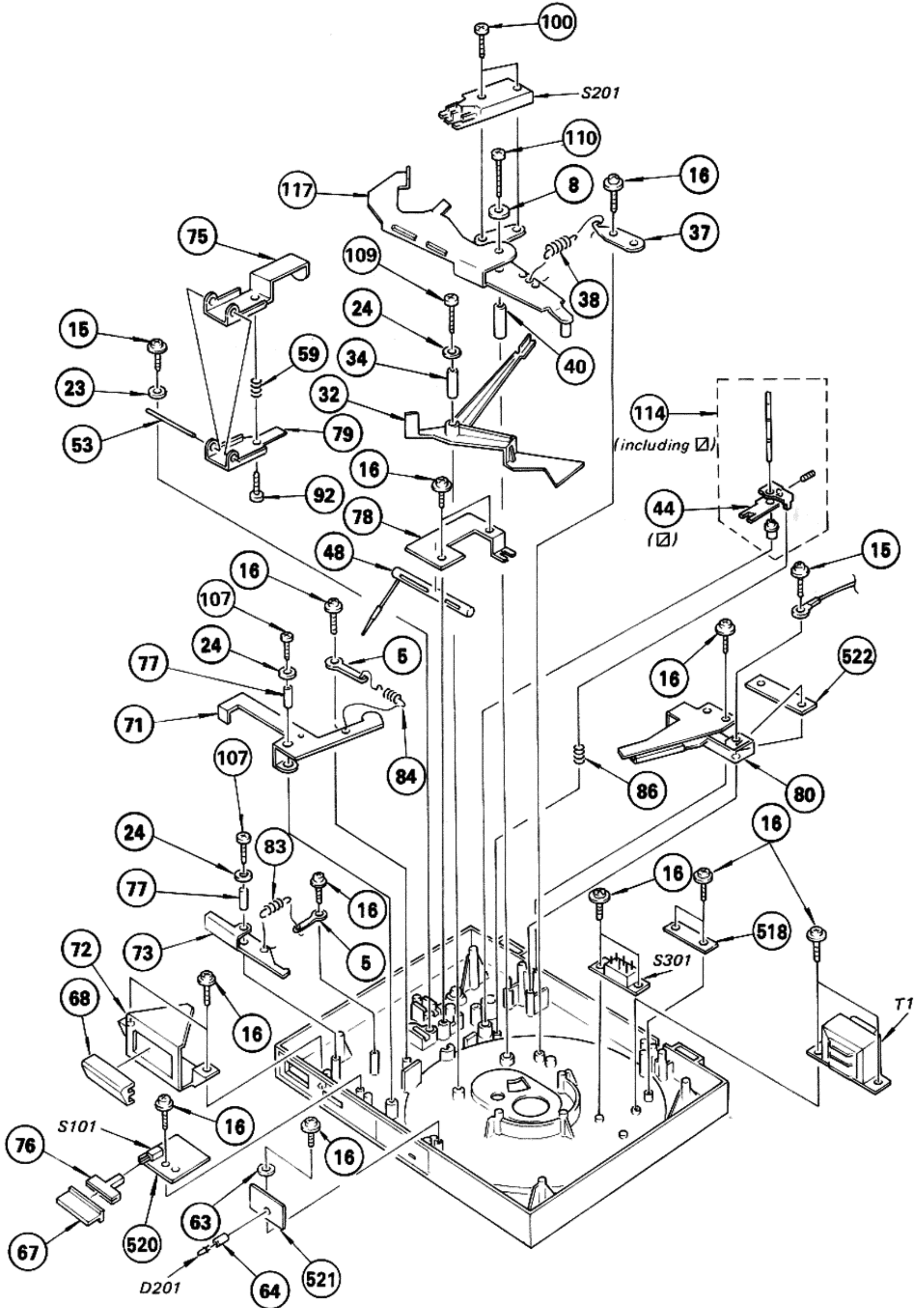


# SECTION 5 EXPLODED VIEWS AND PARTS LIST



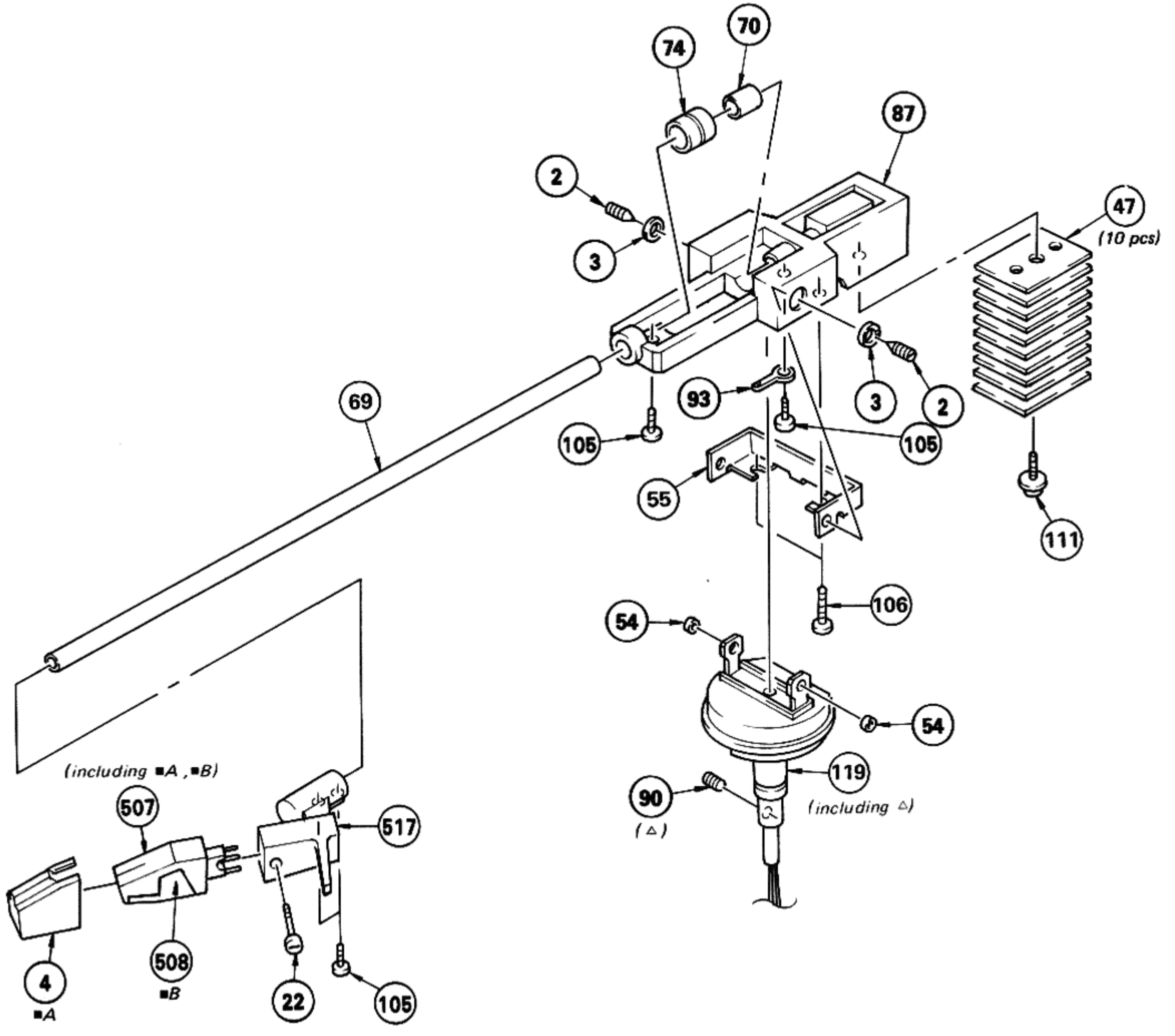
(2)

A  
B  
C  
D  
E  
F  
G  
H  
I  
J



(3) PS-LX310/310(C)

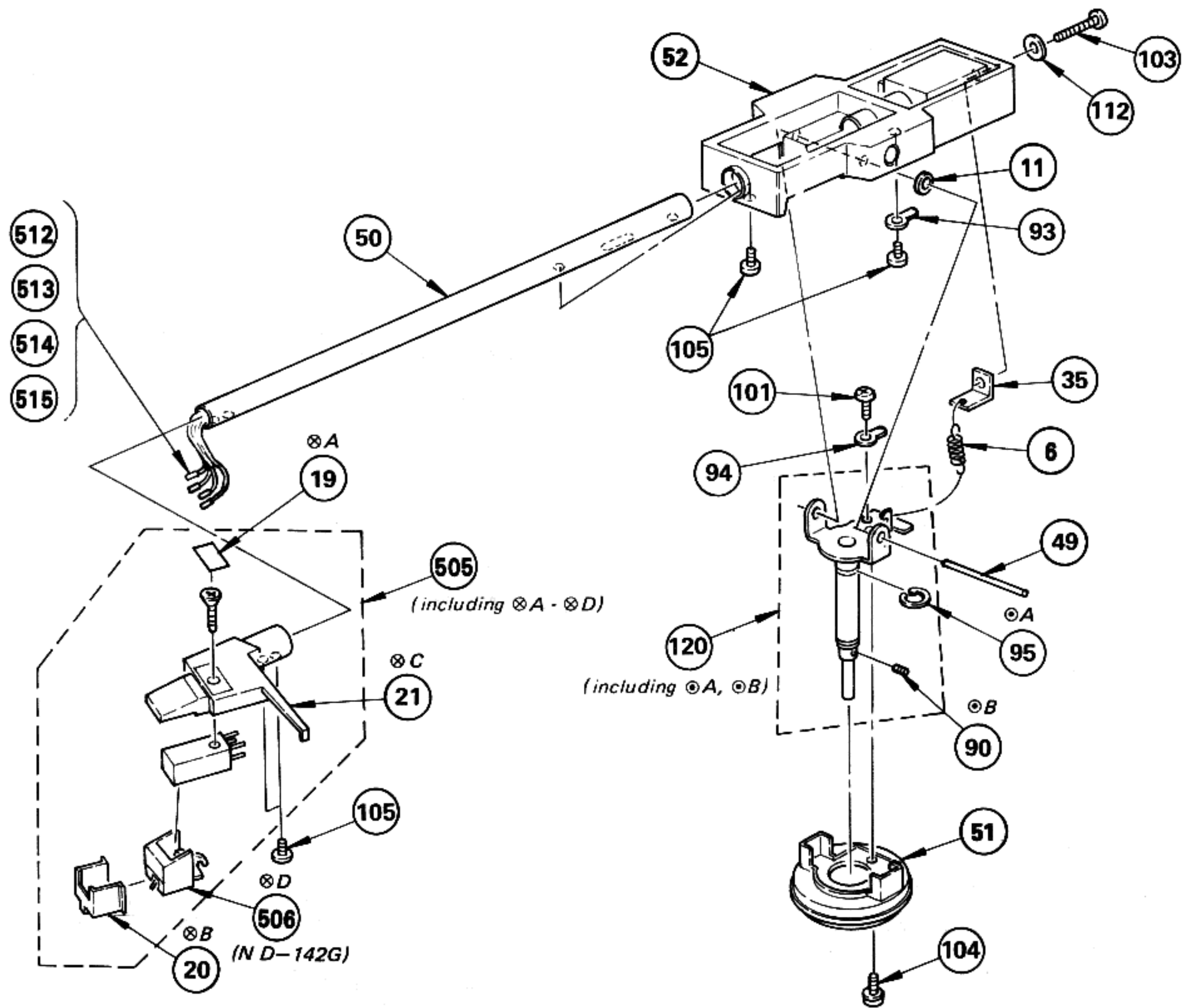
A  
B  
C  
D  
E  
F  
G  
H





(4) PS-LX311

A  
B  
C  
D  
E  
F  
G



GENERAL SECTION

No.	Part No.	Description
1	0-056-028-00	WASHER, PLAIN, 14 DIA
2	2-203-518-61	SCREW, PIVOT
3	2-203-519-00	NUT (A), LOCK, PIVOT
4	2-331-824-01	PROTECTOR (XL-250G)
4	4-903-347-01	PROTECTOR (VL-45G)
5	3-460-077-00	CLAMP, WIRE
6	3-465-159-XX	SPRING, TENSION
7	3-536-780-00	SPRING, TENSION
8	3-610-931-11	SPACER, SHAFT, DRUM, HEAD
9	3-701-030-00	LABEL, SERIAL NUMBER
10	.....	
11	3-701-437-01	WASHER
12	3-701-508-00	SET SCREW, DOUBLE POINT 3X6
13	♣;3-701-690-00	(LX310;UK)...LABEL (MADE IN JAPAN)
14	3-703-043-21	(LX310;UK)...LABEL, CAUTION, MAIN
14	♣;3-703-845-01	(LX310; US. LX310(C)) ...LABEL (N), MAIN CAUTION
15	3-703-136-00	SCREW, TAPPING
16	3-703-137-00	SCREW, TAPPING
17	9-910-999-33	(LX310;US)...LABEL, IDENTIFICATION
18	3-703-705-01	STICKER, SONY SYMBOL (30)
19	♣;3-705-612-00	LABEL, CARTRIDGE
20	3-706-613-00	PROTECTOR (VL-42G)
21	♣;3-706-614-00	SHELL
22	3-706-937-01	SCREW, SET, CARTRIDGE
23	♣;4-301-647-00	WASHER, SPECIAL
24	4-812-554-00	WASHER
25	4-836-836-00	SPRING, COMPRESSION
26	4-844-041-00	WASHER, (N)
27	4-852-007-00	RETAINER (A), THRUST
28	4-852-013-05	CLUTCH (A)
29	4-857-642-00	HOLDER, PC BOARD
30	4-857-653-00	HINGE, DUST COVER
31	♣;4-858-234-00	LEVER, RETURN
32	♣;4-858-240-00	LEVER (M), CLUTCH
33	4-858-264-21	LABEL, CAUTION
34	4-861-933-00	SLEEVE (D)
35	4-868-016-00	HOOK, SPRING
36	4-868-052-00	GEAR, CENTER
37	♣;4-870-752-00	HOLDER, SPRING
38	4-870-785-00	SPRING, TENSION (MAIN LEVER)
39	4-874-250-00	SPRING
40	4-875-207-00	SLEEVE
41	4-875-208-00	(SILVER)...REST, ARM
41	4-875-208-31	(BLACK)...REST, ARM

NOTE:

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- All resistors are in ohms.
- F : nonflammable

COILS

MMH : mH, UH : μH

SEMICONDUCTORS

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

GENERAL SECTION

No.	Part No.	Description
42	4-875-214-00	LEVER, SWITCH
43	4-876-304-00	CUSHION, DUST COVER
44	♣;4-876-317-00	GUIDE, LIFTER
45	♣;4-876-344-00	(LX310;AEP,G-AEP,LX311;AEP)..... LABEL, CAUTION, POWER CORD
46	4-877-807-11	SHEET, TURNTABLE
47	4-877-810-00	WEIGHT
48	4-877-824-00	CAM, LIFTER
49	4-880-619-00	PIN, HORIZONTAL
50	4-880-623-00	PIPE, ARM
51	4-880-631-00	JOINT, CENTER
52	4-880-635-00	JOINT, PIPE
53	♣;4-881-611-00	SHAFT, LEVER, LIFTER
54	4-881-618-00	BEARING, PIVOT
55	♣;4-881-628-00	REINFORCEMENT (A)
56	♣;4-881-629-00	PLATE (A), GROUND
57	4-881-633-00	(LX311)...KNOB (I), IFC
57	4-903-333-01	(LX310, LX310(C))....KNOB, IFC
58	4-881-636-11	SUPPORT (TMD), PC
59	4-881-642-00	SPRING, COMPRESSION
60	4-881-683-00	(LX311;E)...LABEL, VOLTAGE
61	4-885-727-00	SPACER
62	♣;4-885-792-00	PLUG IN SEAL (A)
63	4-890-173-00	WASHER
64	♣;4-901-657-00	SPACER (A), LED
65	4-903-301-01	(LX310;AEP).....LABEL, MODEL NUMBER
65	4-903-302-01	(LX310; US. LX310(C)) ...LABEL, MODEL NUMBER
65	4-903-340-01	(LX310;UK).....LABEL, MODEL NUMBER
65	4-903-341-01	(LX311;AEP).....LABEL, MODEL NUMBER
65	4-903-342-01	(LX311;E).....LABEL, MODEL NUMBER
65	4-903-343-01	(LX310;G-AEP)...LABEL, MODEL NUMBER
66	4-903-304-01	BEARING
67	4-903-305-01	(SILVER)...KNOB (SRS), T MOLD
67	4-903-305-11	(BLACK)...KNOB (SRS), T MOLD
68	4-903-306-01	(SILVER)...KNOB (SR), T MOLD
68	4-903-306-11	(BLACK)...KNOB (SR), T MOLD
69	4-903-307-01	PIPE, ARM
70	♣;4-903-308-01	SHEET (S)
71	♣;4-903-309-01	LEVER, CLUTCH
72	♣;4-903-310-01	HOLDER, REJECT
73	♣;4-903-311-01	LEVER (A), REJECT
74	♣;4-903-312-01	WEIGHT, SUB
75	♣;4-903-317-01	LEVER (F), LIFTER
76	4-903-318-01	JOINT, KNOB
77	♣;4-903-319-01	SLEEVE (R)

GENERAL SECTION

No.	Part No.	Description
78	4-903-320-01	RETAINER (D), LIFTER
79	4-903-321-01	LEVER (G), LIFTER
80	4-903-322-01	PLATE, SHIELD
81	4-903-323-01	CAM, IFC
82	4-903-324-01	PACKING (TMD)
83	4-903-325-01	SPRING (REJECT), TENSION
84	4-903-329-01	SPRING (CLUTCH), TENSION
85	4-903-330-01	NUT (TMD), BEARING
86	4-903-331-01	SPRING (LIFTER), COMPRESSION
87	4-903-336-01	JOINT, PIPE
88	4-903-338-01	BOARD, BOTTOM
89	4-903-339-01	GEAR, DRIVE
90	7-621-712-26	SET-SCREW, SLOT 2.6X3 CUP POINT
91	7-621-738-08	SET-SCT, HEX. 2.6X4, FLAT POINT
92	7-621-775-50	SCREW +B 2.6X10
93	7-623-505-01	LUG, 2
94	7-623-508-01	LUG, 3
95	7-624-133-54	STOP RING 10, TYPE-CE
96	7-624-133-94	STOP RING 15, TYPE-CE
97	7-624-190-81	STOP RING 2, TYPE-CS
98	7-671-156-01	BALL, STENLESS
99	7-682-149-13	SCREW +P 3X10
100	7-682-150-01	SCREW +P 3X12
101	7-682-545-04	SCREW +B 3X4
102	7-682-553-09	SCREW +B 3X20
103	7-682-555-04	SCREW +B 3X30
104	7-682-647-01	SCREW +PS 3X6
105	7-685-103-24	SCREW +P 2X5 TYPE2 SLIT
106	7-685-105-24	SCREW +P 2X8 TYPE2 SLIT
107	7-685-152-21	SCREW +P 3X25 TYPE2 SLIT
108	7-685-650-21	SCREW +BVTP 3X16 TYPE2 SLIT
109	7-685-665-01	SCREW +BVTP 3X25
110	7-685-666-21	SCREW +BVTP 4X30 TYPE2 SLIT
111	7-687-234-21	SCREW, TOTSU PTPWH 2.6X8, TYPE2
112	7-688-003-11	W 3, MIDDLE
113	9-911-815-01	CUSHION
114	A-4637-063-A	(LX310, LX310(C))...ROD ASSY (P), PUSH
114	A-4637-067-A	(LX311)...ROD ASSY (I), PUSH
115	X-4852-007-2	CLUTCH (B) ASSY
116	X-4877-804-0	COVER ASSY, DUST
117	X-4877-805-6	LEVER ASSY, MAIN
118	X-4880-501-0	(LX311)...PLATE ASSY, UP AND DOWN
118	X-4903-302-1	(LX310, LX310(C))...PLATE ASSY, UP AND DOWN

GENERAL SECTION

No.	Part No.	Description
119	X-4881-604-0	JOINT ASSY, CENTER
120	X-4881-605-1	SHAFT ASSY, ROTARY
121	X-4903-301-1	INSULATOR ASSY
122	X-4903-303-1	TABLE ASSY, TURN
123	X-4903-304-1	(LX310, LX310(C); SILVER)...FLAME ASSY
123	X-4903-305-1	(LX310, LX310(C); BLACK)...FLAME ASSY
123	X-4903-306-1	(LX311; SILVER)...FLAME ASSY
123	X-4903-307-1	(LX311; BLACK)...FLAME ASSY
<b>ACCESSORY &amp; PACKING MATERIAL</b>		
No.	Part No.	Description
161	3-701-616-00	(LX310;US)...BAG, POLYETHYLENE
162	3-701-630-00	BAG, POLYETHYLENE
163	3-701-634-00	BAG, POLYETHYLENE
164	3-701-806-00	ADAPTOR, 45, (E)
165	3-773-849-11	(LX310;AEP;UK)...MANUAL, INSTRUCTION
165	3-773-849-21	(LX310;US,Canadian)...MANUAL, INSTRUCTION
165	3-773-849-31	(LX310;Canadian)...MANUAL, INSTRUCTION
165	3-773-849-41	(LX310;AEP,G-AEP)...MANUAL, INSTRUCTION
165	3-773-850-11	(LX311;AEP,E)...MANUAL, INSTRUCTION
165	3-773-850-41	(LX311;AEP)...MANUAL, INSTRUCTION
166	3-794-123-11	LABEL, CAUTION
167	3-795-753-21	(LX310;US)...INSTRUCTION
168	4-858-078-00	SHEET, PROTECTION
169	4-874-262-00	GUIDE, RECORD
170	4-903-344-01	(LX310) INDIVIDUAL CARTON
171	4-903-404-01	CUSHION (LEFT), UPPER
172	4-903-405-01	CUSHION (RIGHT), UPPER
173	4-903-406-01	CUSHION (LEFT), LOWER
174	4-903-407-01	CUSHION (RIGHT), LOWER
175	4-903-427-01	HOLDER, TURNTABLE
176	4-903-345-01	(LX310(C))...INDIVIDUAL CARTON
177	4-903-346-01	(LX311)...INDIVIDUAL CARTON
178	4-903-348-01	HOLDER, ARM
179	4-903-423-01	ORPECTOR

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



## ELECTRICAL PARTS

Ref.No.	Part No.	Description
501	•;1-508-799-00	BASE POST (U TYPE)
502	•;1-508-800-13	U TYPE BASE POST 3P
503	1-526-565-00	(LX311;E)...AC PLUG ADAPTOR
504	△;1-534-817-XX	(LX310;AEP,G-AEP,LX311;AEP)...CORD, POWER, EULO PLUG
505	1-549-109-00	(LX311)...CARTRIGE (WITH SHELL)(VL-42G)
506	1-549-112-00	STYLUS (ND-142G)
507	1-549-117-00	(LX310;Canadian)...CARTRIDGE (VL-45G)
507	A-4505-089-C	(LX310;AEP,G-AEP,UK)...CARTRIDGE COMPLETE ASSY (XL-250G)
508	1-549-118-00	(PS-LX310;Canadian)...STYLUS (ND-145G)
508	A-4587-071-B	(PS-LX310;AEP,G-AEP,UK)...STYLUS ASSY (ND250G)
509	1-551-294-00	CORD
510	△;1-551-472-00	(LX311;E).....CORD, POWER
510	△;1-551-628-00	(LX310;US,Canadian)...CORD, POWER
511	△;1-556-562-00	(LX310;UK).....CORD, POWER
512	1-556-044-11	LEAD (WITH TERMINAL)(RED)
513	1-556-044-21	LEAD (WITH TERMINAL)(GRN)
514	1-556-044-31	LEAD (WITH TERMINAL)(BLU)
515	1-556-044-41	LEAD (WITH TERMINAL)(WHT)
516	•;1-560-200-00	BASE POST, MCD CONNECTOR 2P
517	1-562-517-11	CONNECTOR (WITH HEAD SHELL) 4P
518	•;1-608-536-00	PC BOARD, PRIMARY TRANSLATION
519	•;1-608-883-00	PC BOARD, FG
520	•;1-612-351-11	PC BOARD, SWITCH
521	•;1-612-352-11	PC BOARD, LED
522	•;1-612-353-11	PC BOARD, PHONO
523	A-4608-277-A	ROTOR ASSY
524	A-4608-278-A	STATOR ASSY
525	•;A-4619-235-A	MOUNTED PCB, AMPLIFIER, SERVO
C101	1-161-494-00	CERAMIC 0.022MF 30% 25V
C102	1-123-318-00	ELECT 33MF 20% 6.3V
C103	1-130-169-00	FILM 0.22MF 5% 50V
C104	1-162-110-00	CERAMIC 0.001MF 10% 50V
C105	1-162-113-00	CERAMIC 0.01MF 30% 16V
C106	1-162-052-00	CERAMIC 22PF 5% 50V
C107	1-162-052-00	CERAMIC 22PF 5% 50V
C108	1-123-369-00	ELECT 4.7MF 20% 25V
C109	1-130-627-00	FILM 0.039MF 5% 50V
C110	1-130-629-00	FILM 0.056MF 5% 50V
C111	1-162-113-00	CERAMIC 0.01MF 30% 16V
C112	1-162-113-00	CERAMIC 0.01MF 30% 16V
C113	1-161-494-00	CERAMIC 0.022MF 30% 25V
C114	1-161-494-00	CERAMIC 0.022MF 30% 25V
C117	1-123-356-00	ELECT 10MF 20% 16V

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## COILS

MMH : mH, UH : μH

## SEMICONDUCTORS

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

## ELECTRICAL PARTS

Ref.No.	Part No.	Description
C118	1-123-333-00	ELECT 100MF 20% 16V
C119	△;1-123-324-00	ELECT 1000MF 20% 16V
C120	△;1-123-324-00	ELECT 1000MF 20% 16V
C121	1-123-333-00	ELECT 100MF 20% 16V
C122	1-123-356-00	ELECT 10MF 20% 16V
D101	△;8-719-200-02	DIODE 10E-2
D102	△;8-719-200-02	DIODE 10E-2
D103	△;8-719-200-02	DIODE 10E-2
D104	△;8-719-200-02	DIODE 10E-2
D105	8-719-911-19	DIODE 1SS119
D106	8-719-910-71	DIODE HZ7A1L
D201	8-719-907-36	DIODE GL-5EG22
H1	8-719-800-17	DIODE THS102A
H2	8-719-800-17	DIODE THS102A
IC101	8-759-600-02	IC M5218L
IC102	8-759-201-58	IC TC9142P
IC103	8-759-600-02	IC M5218L
IC104	8-759-600-02	IC M5218L
Q101	8-729-900-85	TRANSISTOR DTC144WS
Q102	8-729-900-74	TRANSISTOR DTC143TS
Q103	8-729-177-43	TRANSISTOR 2SD774
Q104	8-729-374-02	TRANSISTOR 2SB740
Q105	8-729-177-43	TRANSISTOR 2SD774
Q106	8-729-374-02	TRANSISTOR 2SB740
Q107	8-729-800-34	TRANSISTOR 2SC3070
R101	1-247-807-00	CARBON 100 5% 1/6W
R102	1-247-887-00	CARBON 220K 5% 1/6W
R103	1-247-859-00	CARBON 15K 5% 1/6W
R104	1-247-859-00	CARBON 15K 5% 1/6W
R105	1-247-897-00	CARBON 560K 5% 1/6W
R106	1-247-855-00	CARBON 10K 5% 1/6W
R107	1-247-855-00	CARBON 10K 5% 1/6W
R108	1-247-819-00	CARBON 330 5% 1/6W
R109	1-247-889-00	CARBON 270K 5% 1/6W
R110	1-247-889-00	CARBON 270K 5% 1/6W
R111	1-247-884-00	CARBON 160K 5% 1/6W
R112	1-247-892-00	CARBON 360K 5% 1/6W
R113	1-247-892-00	CARBON 360K 5% 1/6W
R114	1-247-882-00	CARBON 130K 5% 1/6W
R115	1-247-891-00	CARBON 330K 5% 1/6W
R116	1-247-839-00	CARBON 2.2K 5% 1/6W
R117	1-247-839-00	CARBON 2.2K 5% 1/6W
R118	1-247-839-00	CARBON 2.2K 5% 1/6W
R119	1-247-839-00	CARBON 2.2K 5% 1/6W
R120	1-202-459-00	SOLID 1.5M 5% 1/4W
R121	1-202-459-00	SOLID 1.5M 5% 1/4W

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

Les composants identifiés par une trame et une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>
R122	1-247-887-00	CARBON 220K 5% 1/6W
R123	1-247-887-00	CARBON 220K 5% 1/6W
R124	1-247-887-00	CARBON 220K 5% 1/6W
R125	1-247-887-00	CARBON 220K 5% 1/6W
R126	1-247-806-00	CARBON 91 5% 1/6W
R128	1-247-806-00	CARBON 91 5% 1/6W
R130	1-247-819-00	CARBON 330 5% 1/6W
R131	1-247-819-00	CARBON 330 5% 1/6W
R132	1-247-831-00	CARBON 1K 5% 1/6W
R133	1-247-842-00	CARBON 3K 5% 1/6W
S101	1-516-657-00	SWITCH, MICRO
S201	1-553-331-21	SWITCH, PUSH (SPEED)
S301	▲.1-552-535-00	(LX311;E)...SWITCH, POWER & VOLTAGE CHANGE
RV101	1-226-234-00	RES, ADJ, CARBON 2K
RV102	1-226-234-00	RES, ADJ, CARBON 2K
RV103	1-226-239-00	RES, ADJ, CARBON 100K
RV104	1-226-239-00	RES, ADJ, CARBON 100K
T1	▲.1-447-256-00	(LX310;UC,Canadian)..TRANSFORMER, POWER
T1	▲.1-447-257-00	(LX310;AEP,G-AEP,UK,LX311;AEP) ...TRANSFORMER, POWER
T1	▲.1-447-691-00	(LX311;E)...TRANSFORMER, POWER
X101	1-567-259-11	VIBRATOR, CRYSTAL

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**Sony Corporation**

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— 32 —

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