

PS-T22/T22C



PS-T22

*US Model
Canadian Model
AEP Model
UK Model
E Model*

PS-T22C

US Model

STEREO TURNTABLE SYSTEM

SPECIFICATIONS

Turntable section

Platter	31 cm (12 ¹ / ₄ inches) diameter Diecast aluminum-alloy
Motor	Linear BSL (brushless and slotless) DC servo-controlled motor
Drive system	Direct drive
Pitch control range	±4%
Speed	33 ¹ / ₃ rpm, 45 rpm
Wow and flutter	0.025% (WRMS)*, 0.03% (WRMS) ±0.045% (DIN)
Signal-to-noise ratio	Better than 75 dB (DIN-B)
Automatic system	Reject, return

Tonearm section

Type	Statically balanced
Pivot to stylus length	216.5 mm (8 ¹ / ₂ inches)
Overall arm length	283 mm (11 inches)
Overhang	16.5 mm
Tracking error	+3° to -1°
Tracking-force adjustment range	0 to 2.5 g
Cartridge shell weight	5.2 g
Acceptable range of cartridge weight (including supplied shell)	7.5 to 12 g

Cartridge XL-15A

Type	Moving magnet type
Frequency response	10 Hz to 30 kHz
Channel separation	25 dB at 1 kHz
Output voltage	4 mV at 1 kHz, 5 cm/sec., 45°
Load impedance	50 to 100 kilohms
Tracking force	1.2 to 2.5 g (1.7 g recommended)
Stylus	Sony ND-15GA (Conical 0,6 mil diamond)
Weight	5.0 g

— continued on page 2 —

* This new measuring method concerns only the turntable assembly, including the platter. It excludes wow and flutter caused by the tonearm, the cartridge, or the record. Measured by obtaining signal from magnetic pick-up head.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME 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 DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SAFETY-RELATED COMPONENT WARNING!!

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

SONY

SERVICE MANUAL

Cartridge VL-5 (supplied only with the PS-T22C)

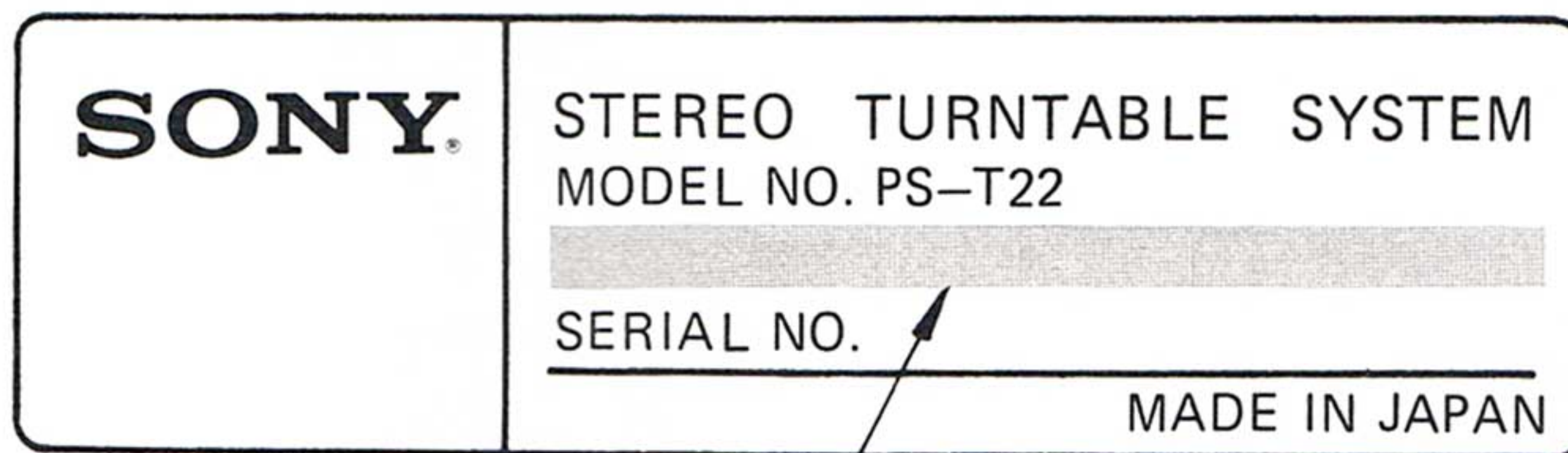
Type Moving magnet type
Frequency response 10 Hz to 20 kHz
Channel separation 20 dB at 1 kHz
Output voltage 3.5 mV at 1 kHz, 5 cm/sec., 45°
Load impedance 50 to 100 kilohms
Tracking force 1.5 to 2.5 g (2 g recommended)
Stylus Sony ND-5G
(Conical 0.6 mil diamond)
Weight 5 g

General

Power requirements 240 V ac, 50 Hz (UK model)
220 V ac, 50/60 Hz (AEP model)
Adjustable to 110 – 120 V or
220 – 240 V ac, 50/60 Hz (E model)
120 V ac, 60 Hz (US, Canadian model)
Power consumption 6 watts (US model)
8 watts (AEP, E, UK model)
Dimensions Approx. 430 × 130 × 370 mm (w/h/d)
(17 × 5¹/₈ × 14⁵/₈ inches)
including projecting parts and controls
Weight Approx. 6.1 kg (13 lb 1 oz) net
Approx. 7.5 kg (16 lb 8 oz) in shipping carton

MODEL IDENTIFICATION

– Specification Label –



US, Canadian model: AC 120 V 60 Hz 6 W
AEP model: AC 220 V ~50/60 Hz 8 W
UK model: AC 240 V ~50/60 Hz 8 W
E model: AC 110 V – 120, 220 – 240 V ~50/60 Hz 8 W

SECTION 1 DISASSEMBLY

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

Remove the turntable.

BOTTOM BOARD REMOVAL

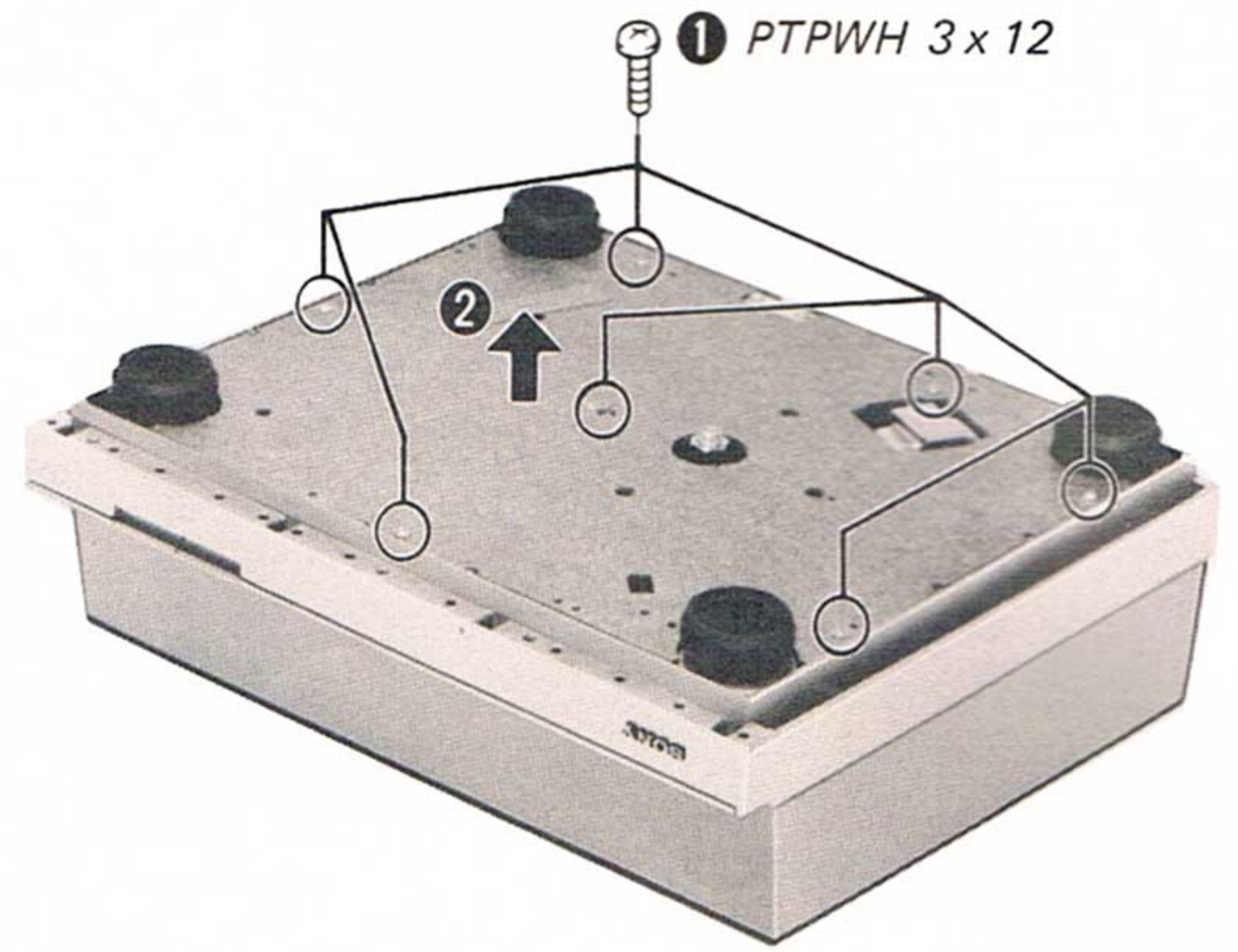


Fig. 1-1

SERVO AMP BOARD AND MOTOR SECTION REMOVAL

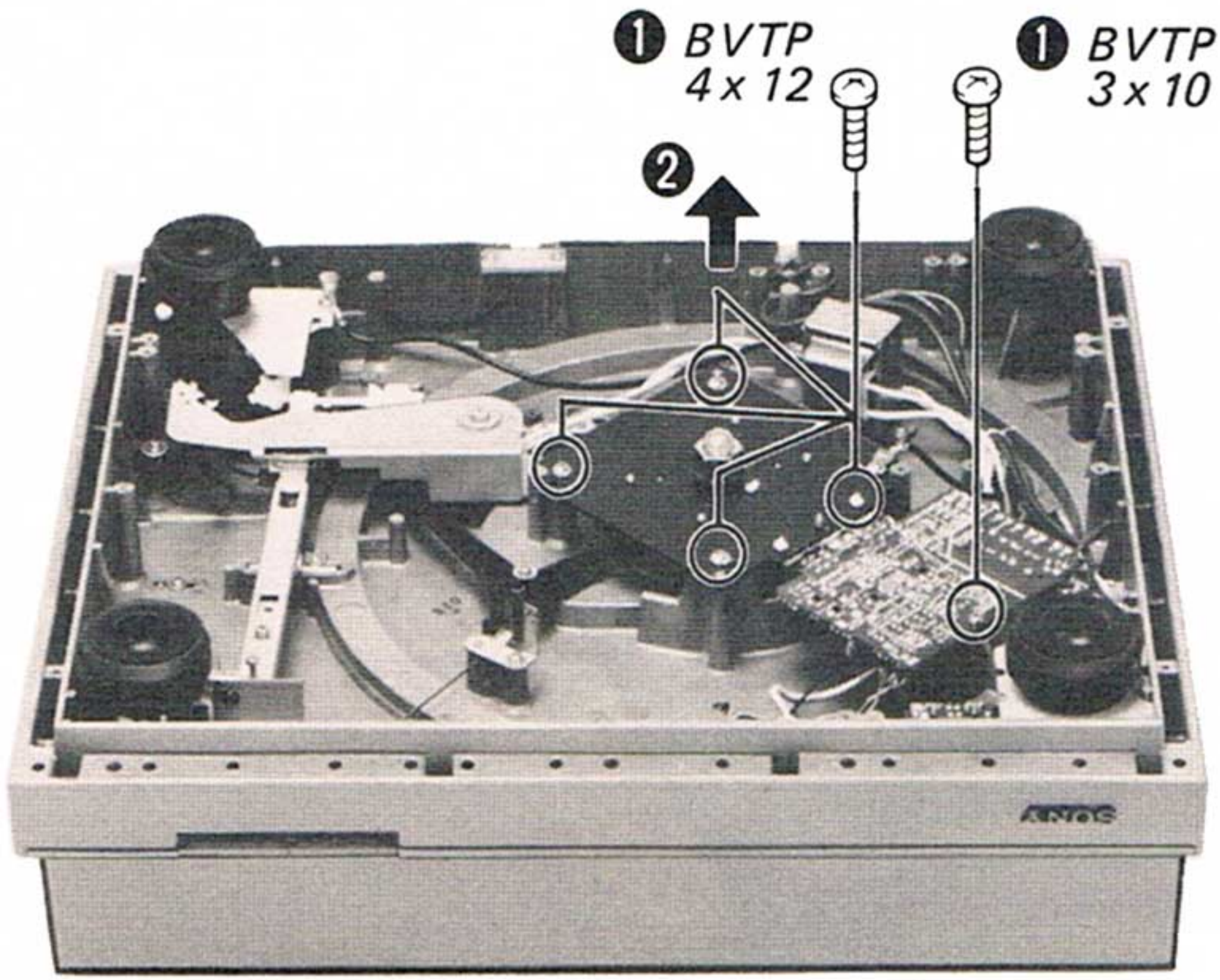


Fig. 1-2

TONEARM REMOVAL

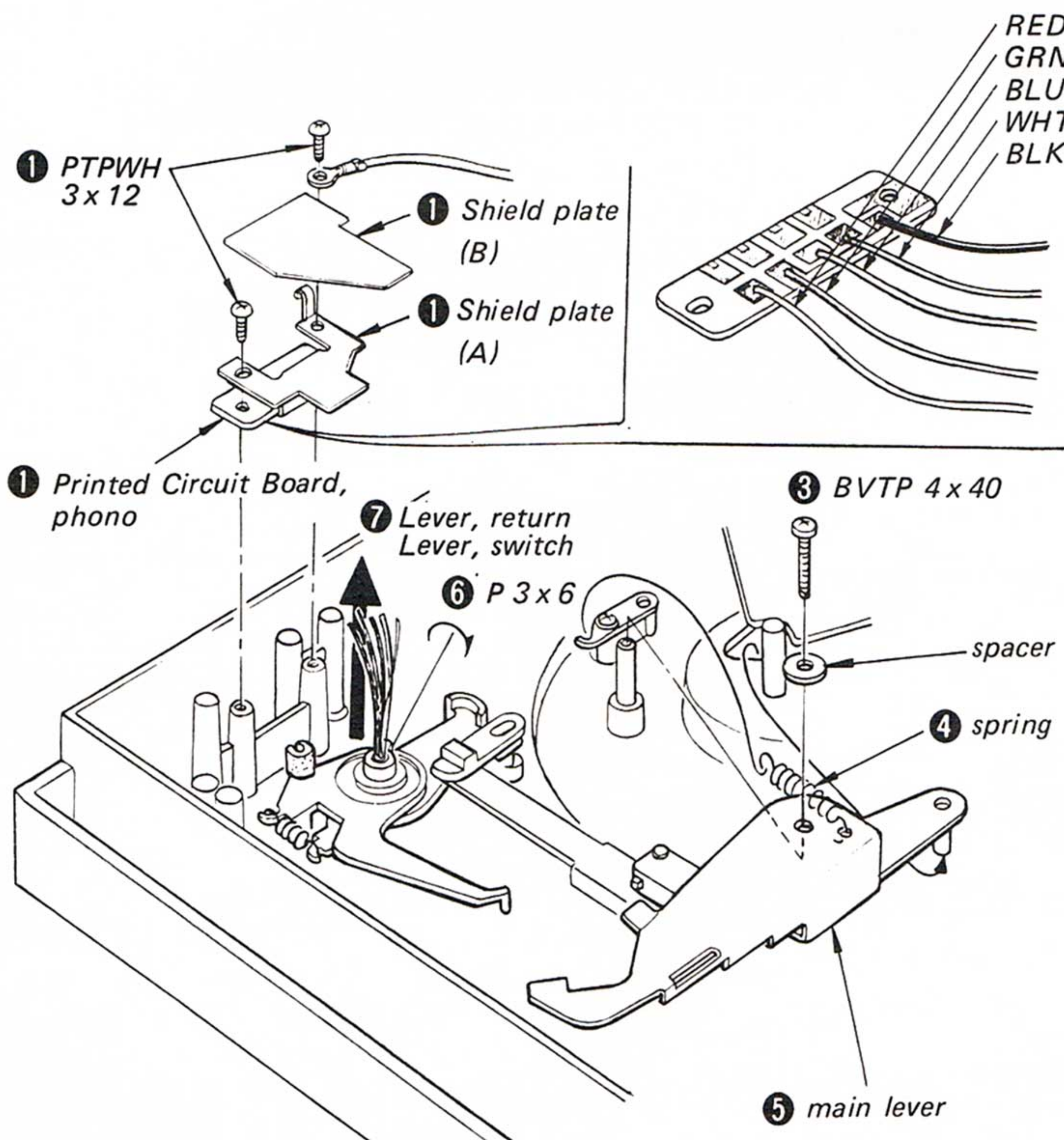


Fig. 1-3

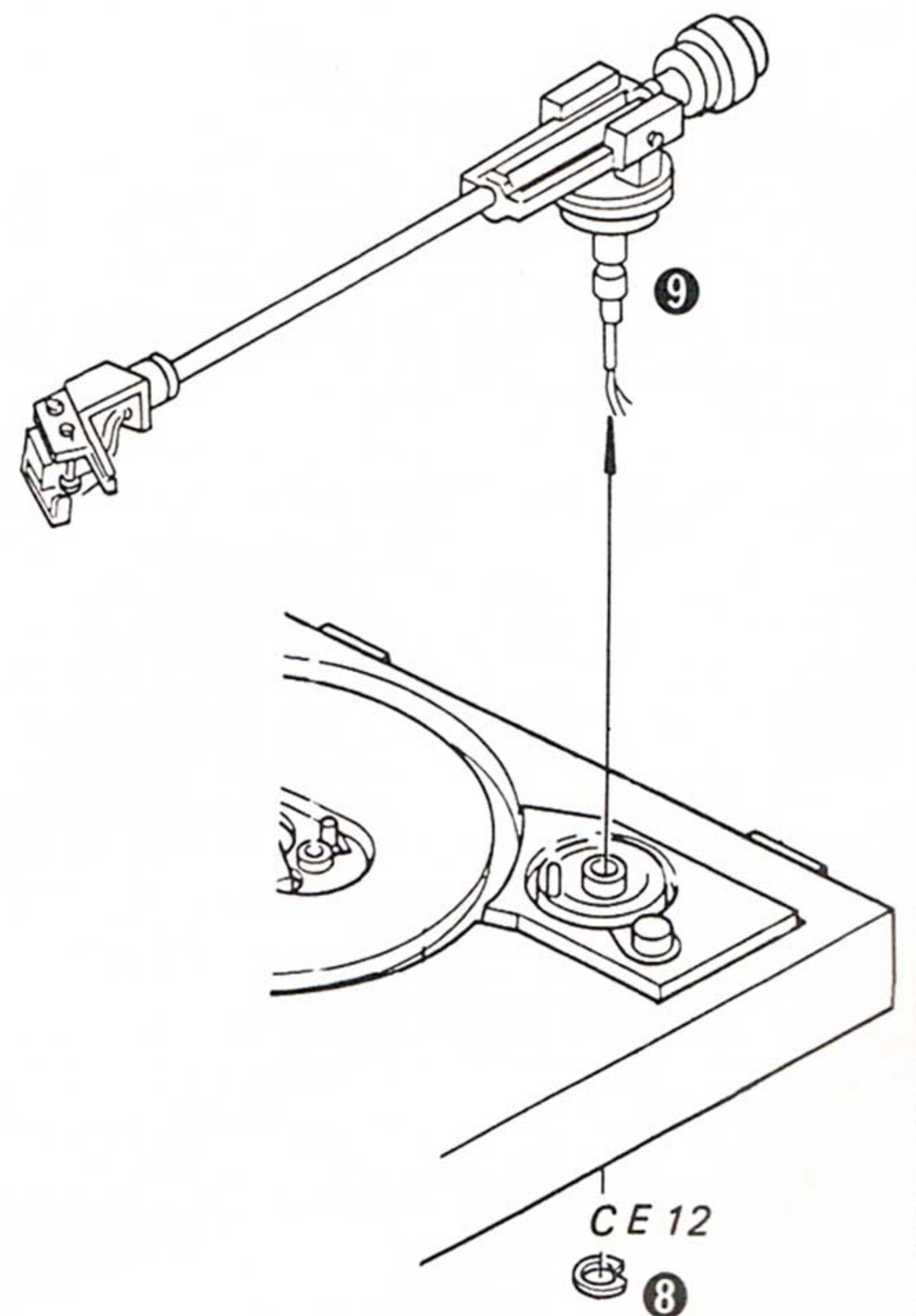


Fig. 1-4

SECTION 2 ASSEMBLY

TONARM ASSEMBLY

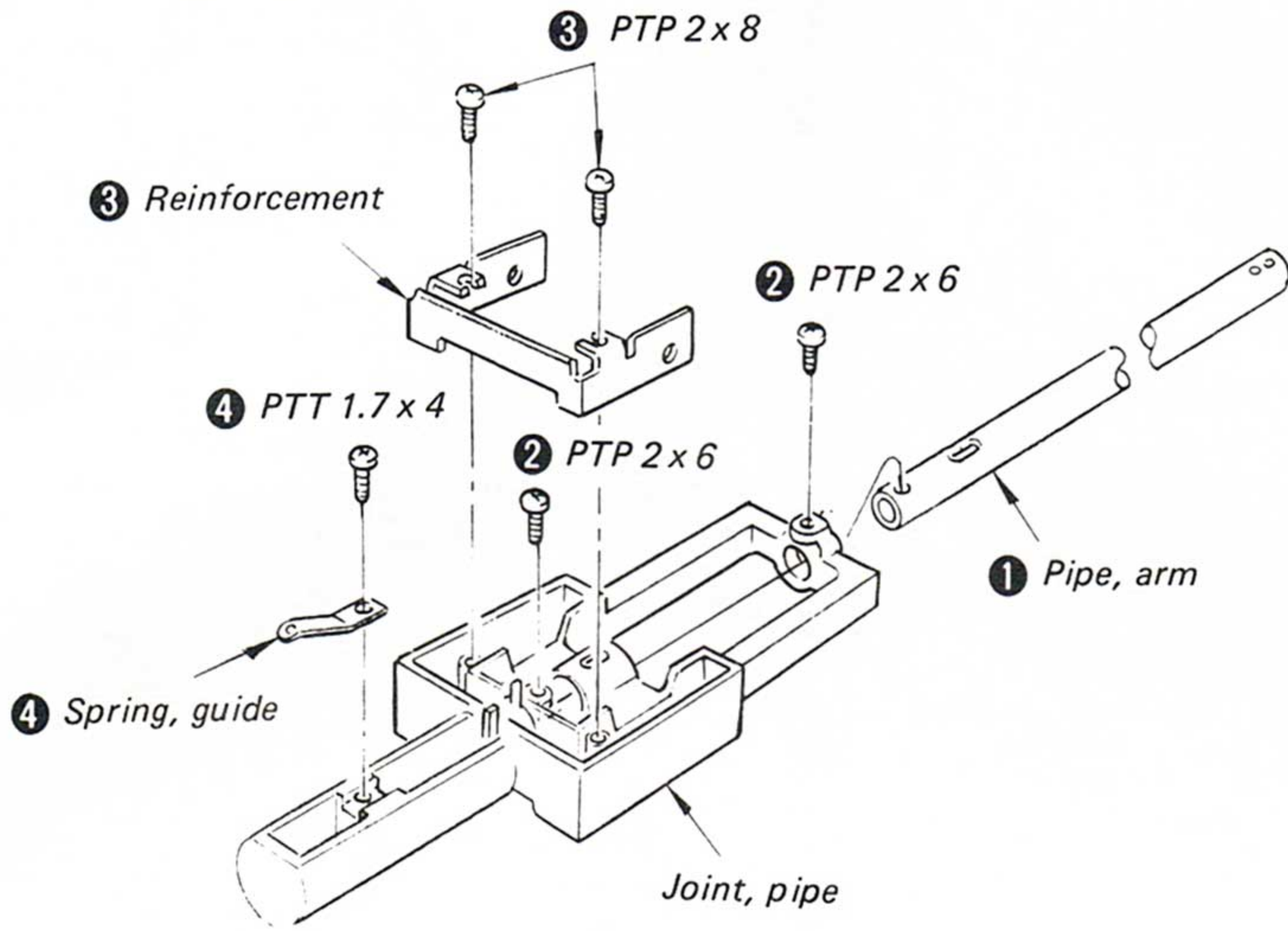


Fig. 2-1

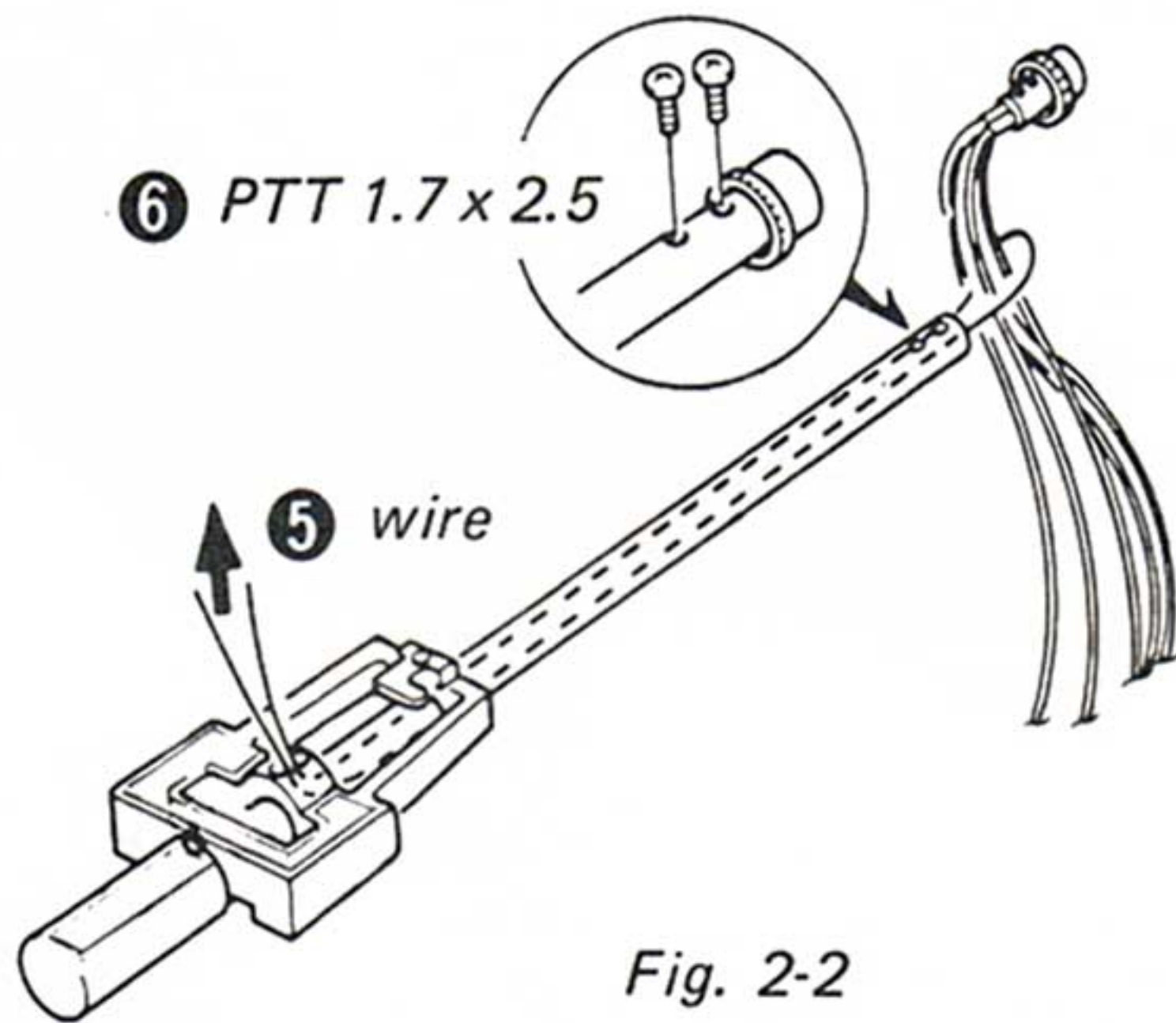


Fig. 2-2

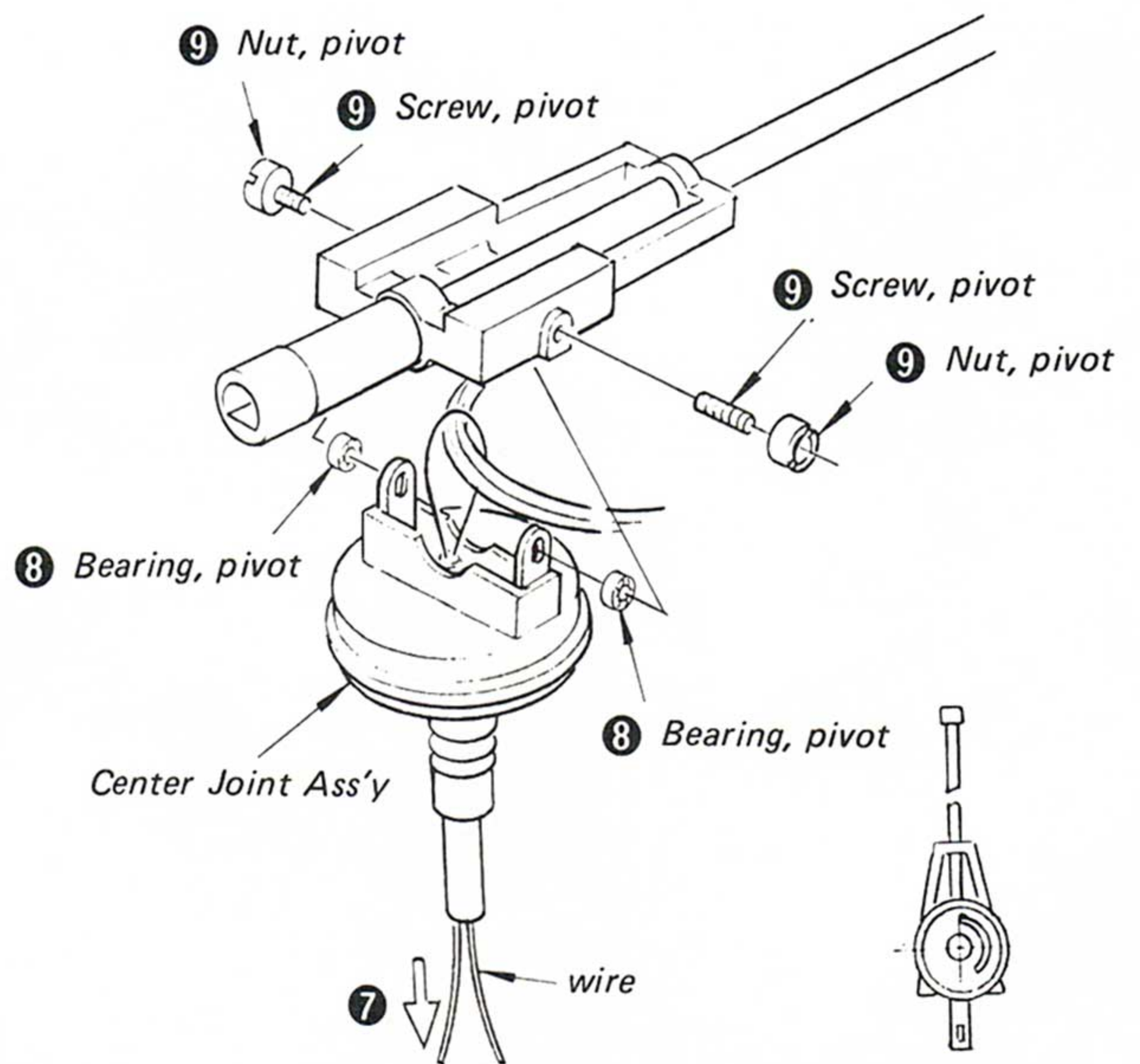


Fig. 2-3

LEAD WIRE CONNECTION

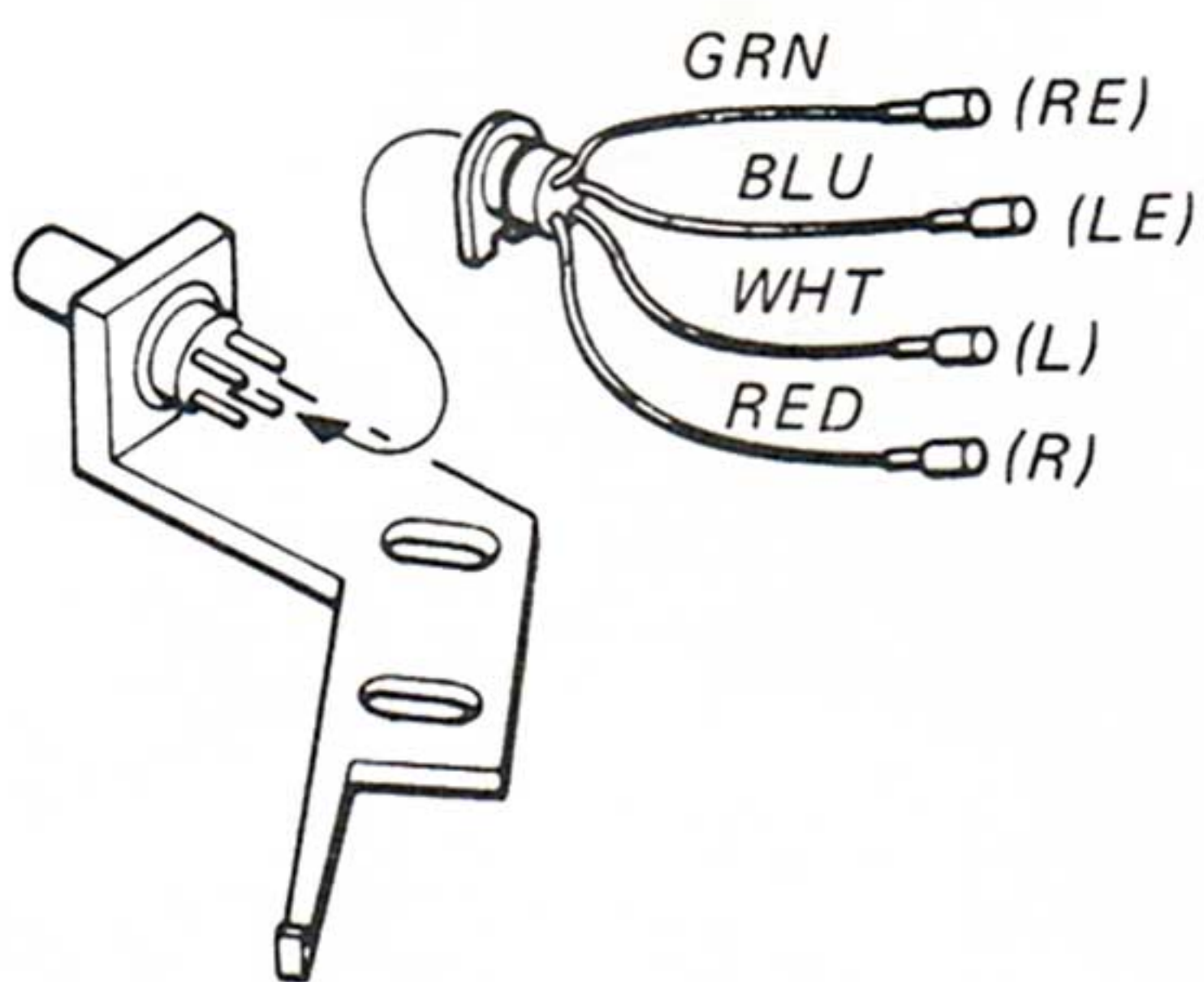


Fig. 2-4

CARTRIDGE INSTALLATION

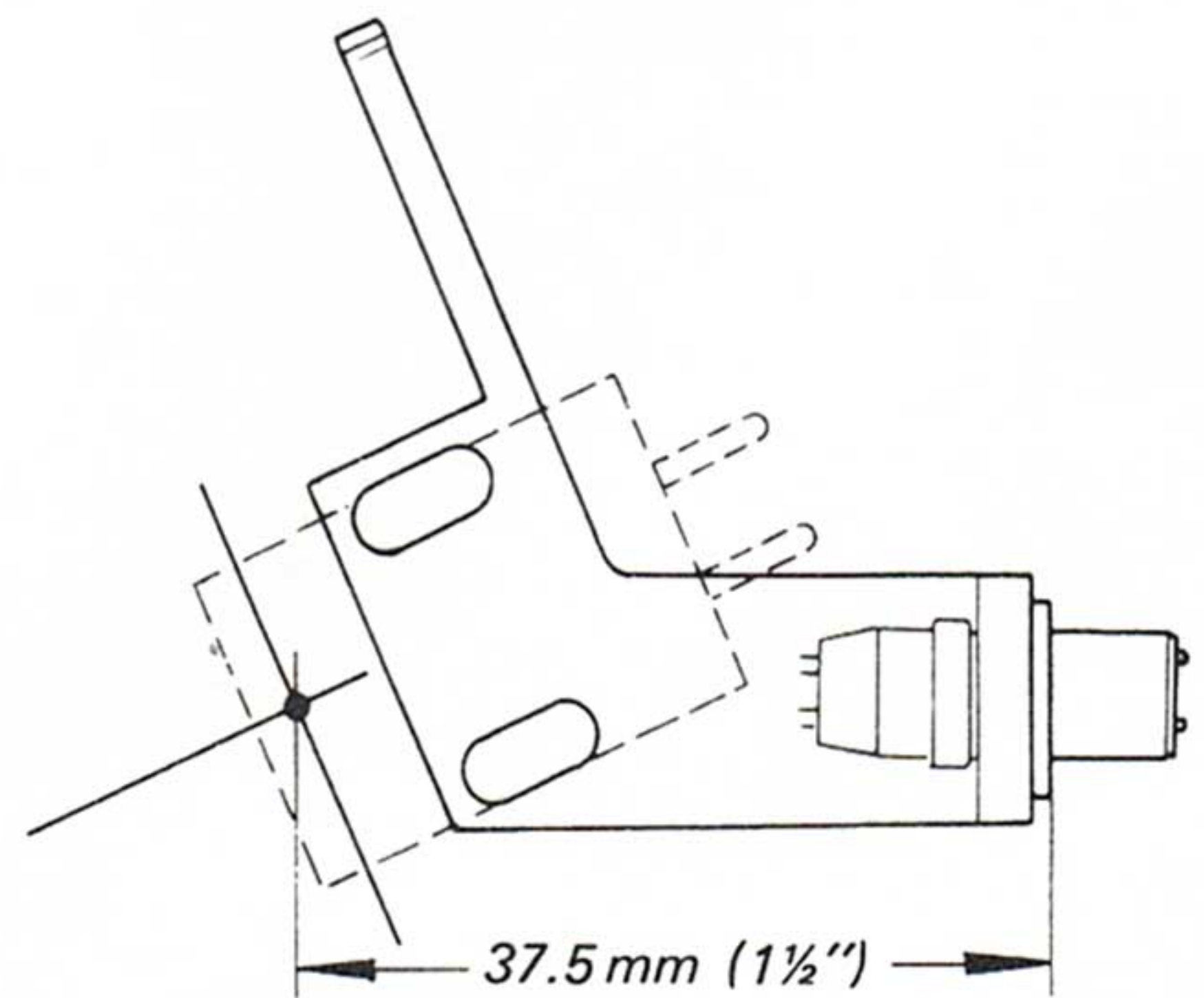


Fig. 2-5

SECTION 3 MOTOR REPAIRING

MOTOR INSTALLATION

The motor and the servo amp board are assembled together. If found defective, disassemble the motor block as shown in Fig. A and repair it.

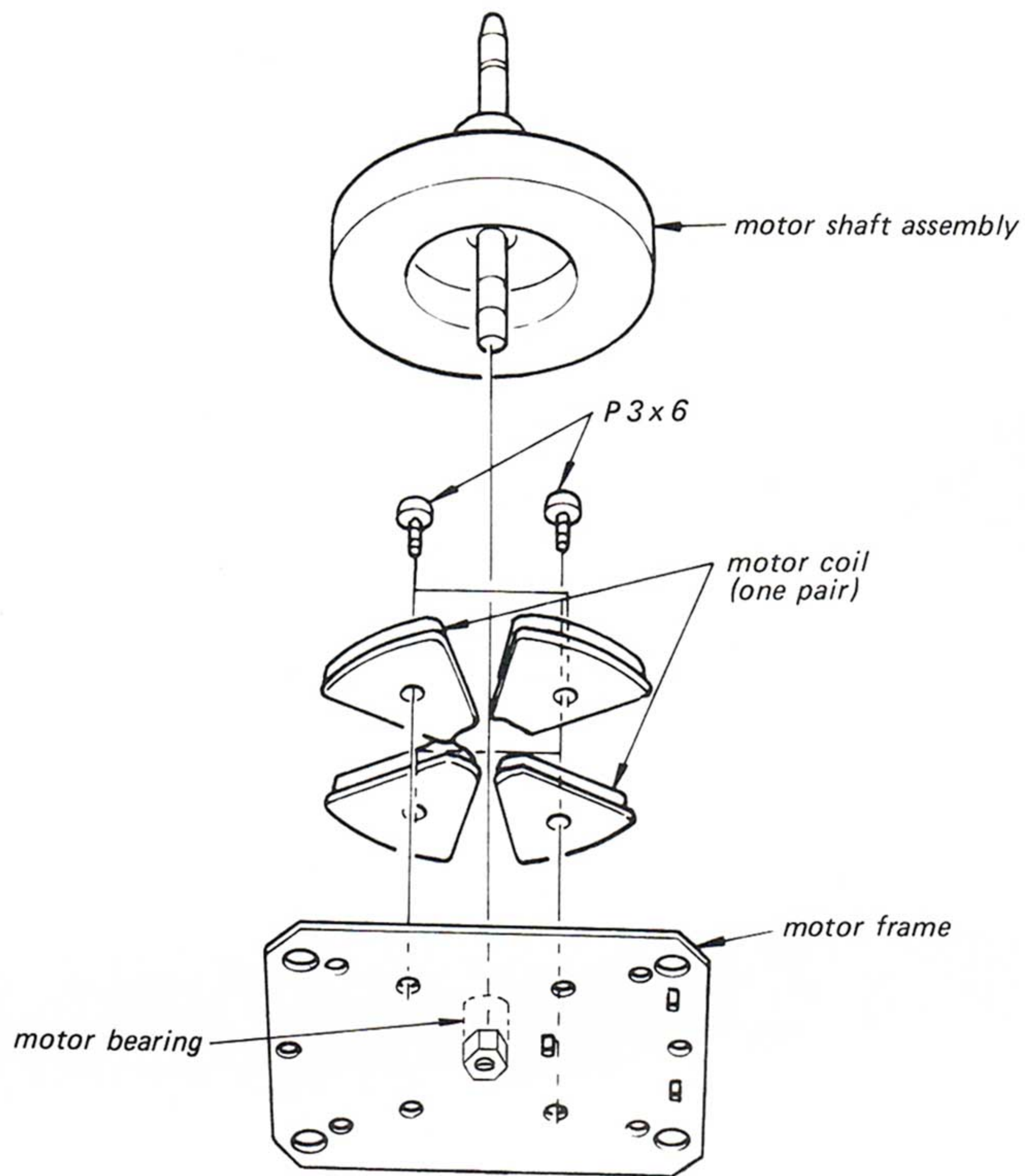


Fig. A

1. When the motor shaft is replaced, apply two drops of the SONY oil (OL-2KA) as shown below.
2. When the motor bearing and the thrust retainer plate are replaced, apply two drops of the SONY oil (OL-2KA) as shown below.

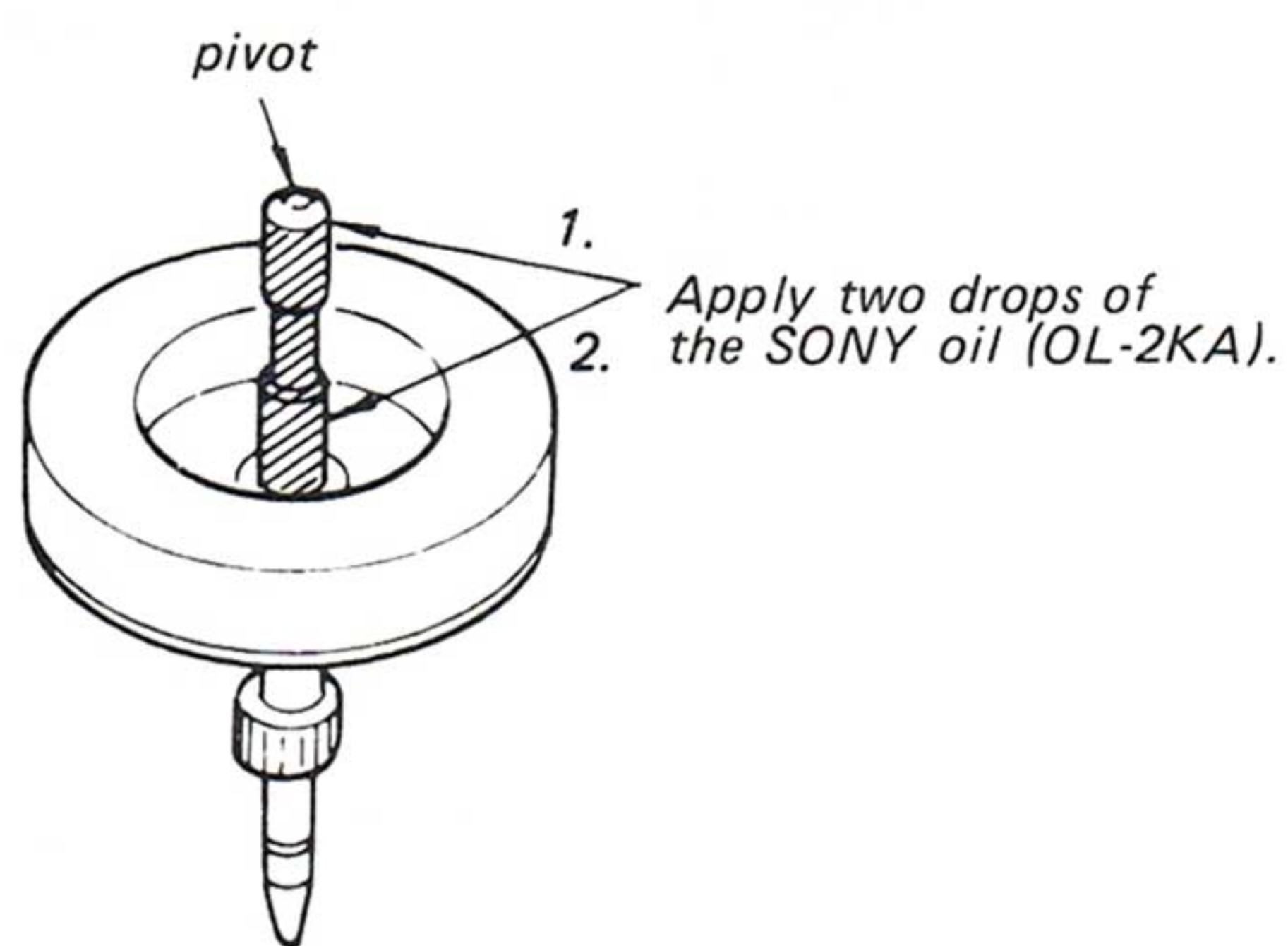


Fig. B

3. The motor coils are composed of two pairs.
 - a). Mount the coils on the motor frame so that the boss of the coil is placed in the hole of the frame as illustrated in Fig. C.
 - b). Push the coils in the direction of arrow and tighten the screws.

c). Lay the leads of the coils as shown in Fig. D and fix the leads in the slot between the portions marked by * in Fig. E.

4. Insert the motor shaft assembly slowly in the motor bearing so that the motor shaft is not attracted by strong magnetic field strength.

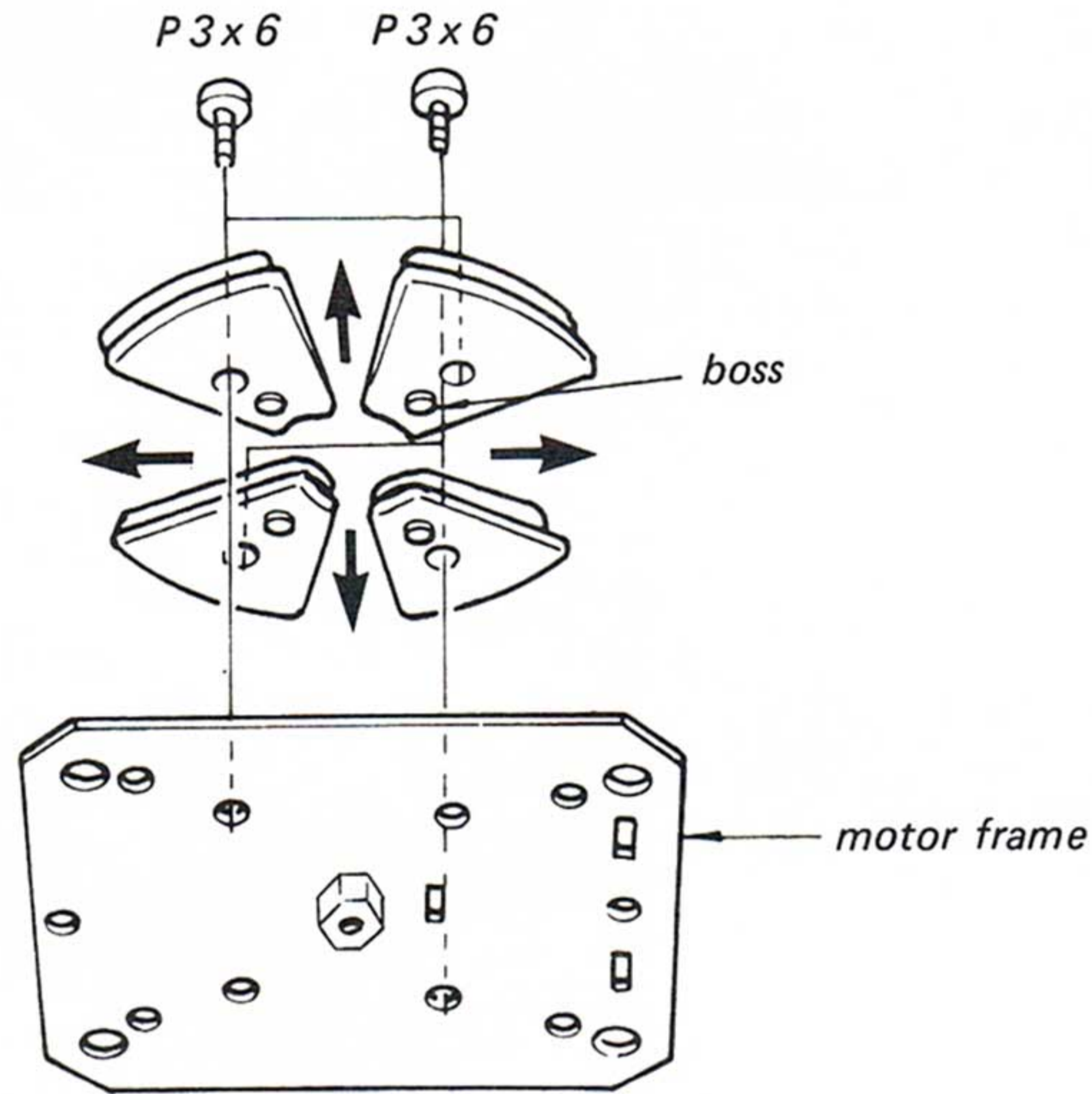


Fig. C

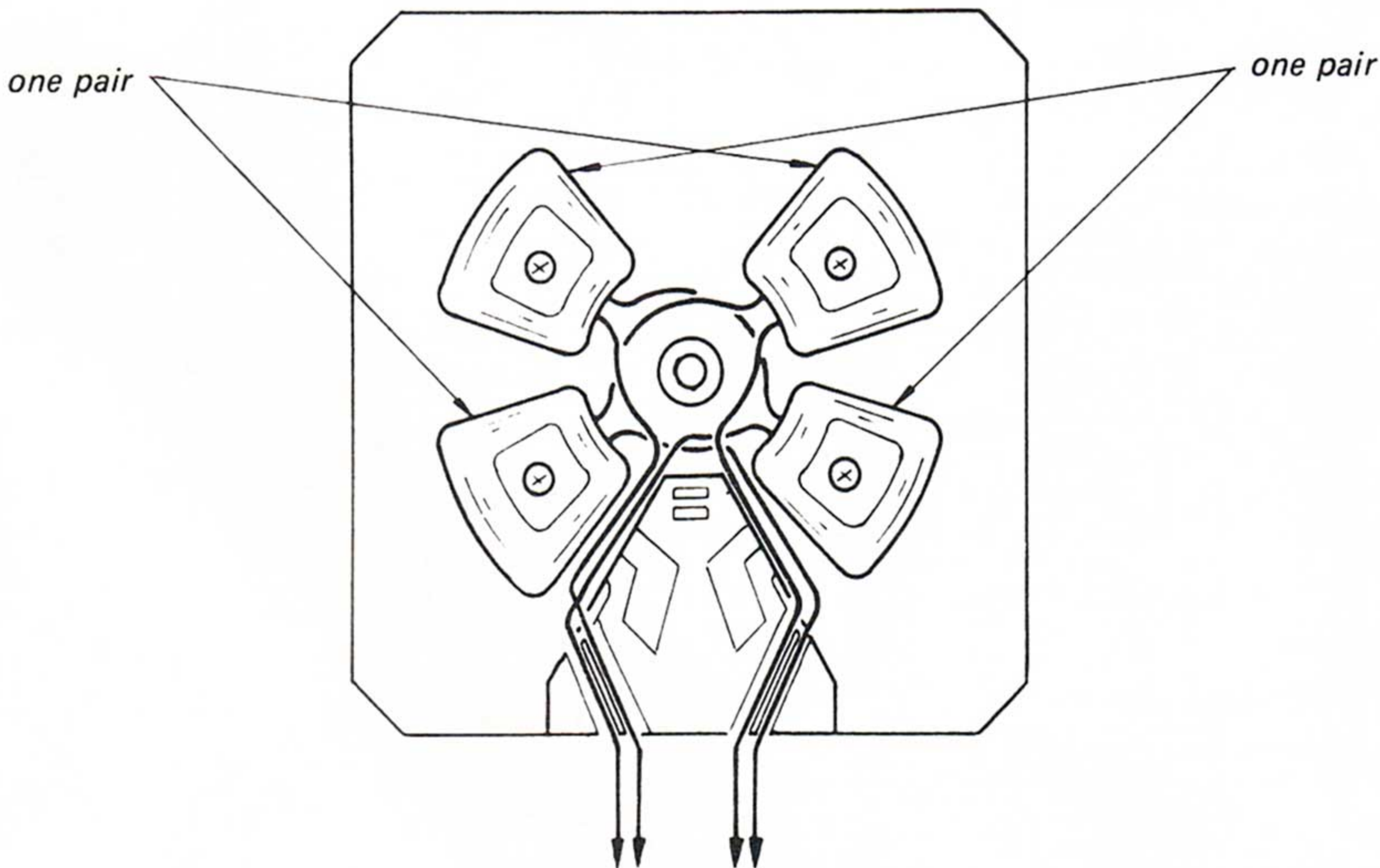


Fig. D

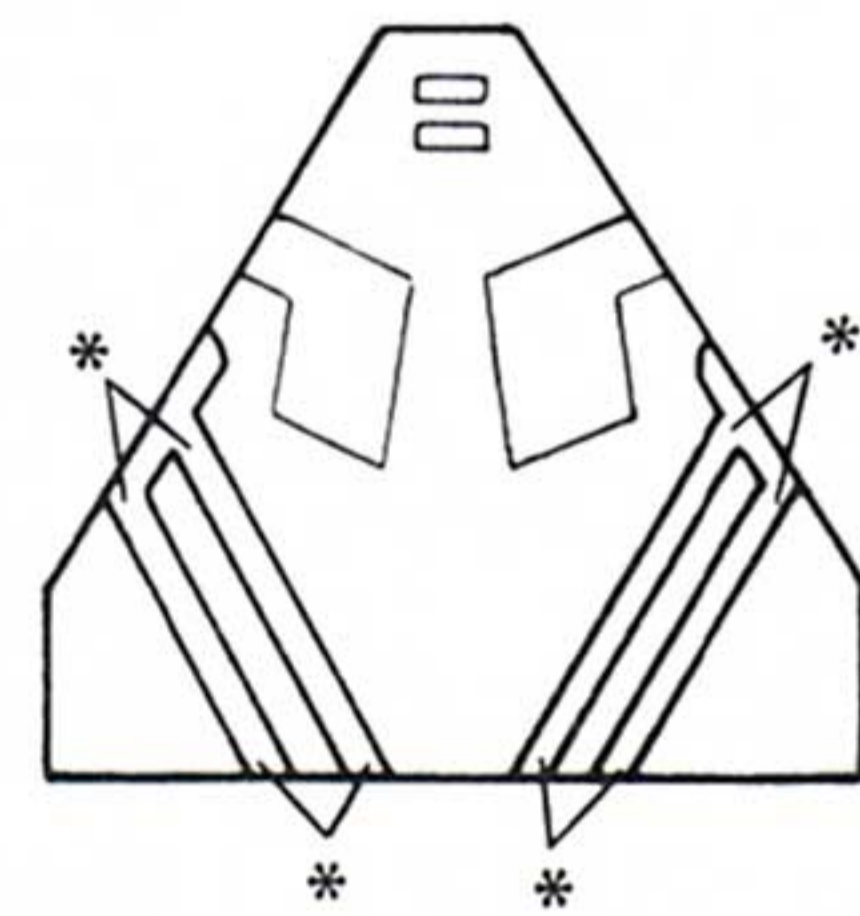


Fig. E

SECTION 4 ADJUSTMENTS

4-1. MECHANICAL ADJUSTMENTS

Speed Detecting Head Output Level Adjustment

1. Set the head deck as shown.
2. Make sure that the VTVM reading is more than 20 mV ac.
3. If necessary, adjust the position of the head deck by loosening the adjustment screw.

Note: Make sure that the head does not touch the turntable.

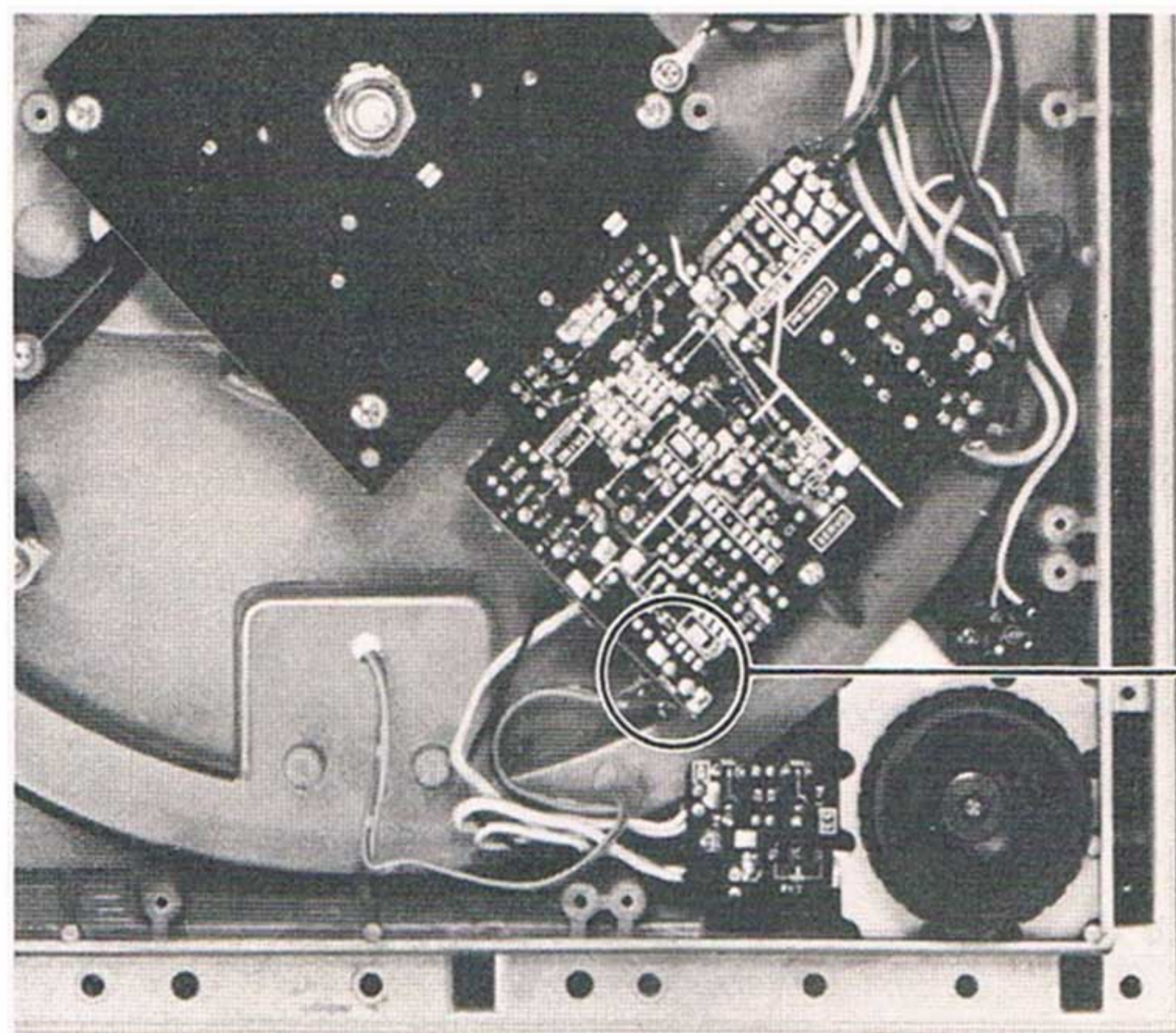


Fig. 4-2

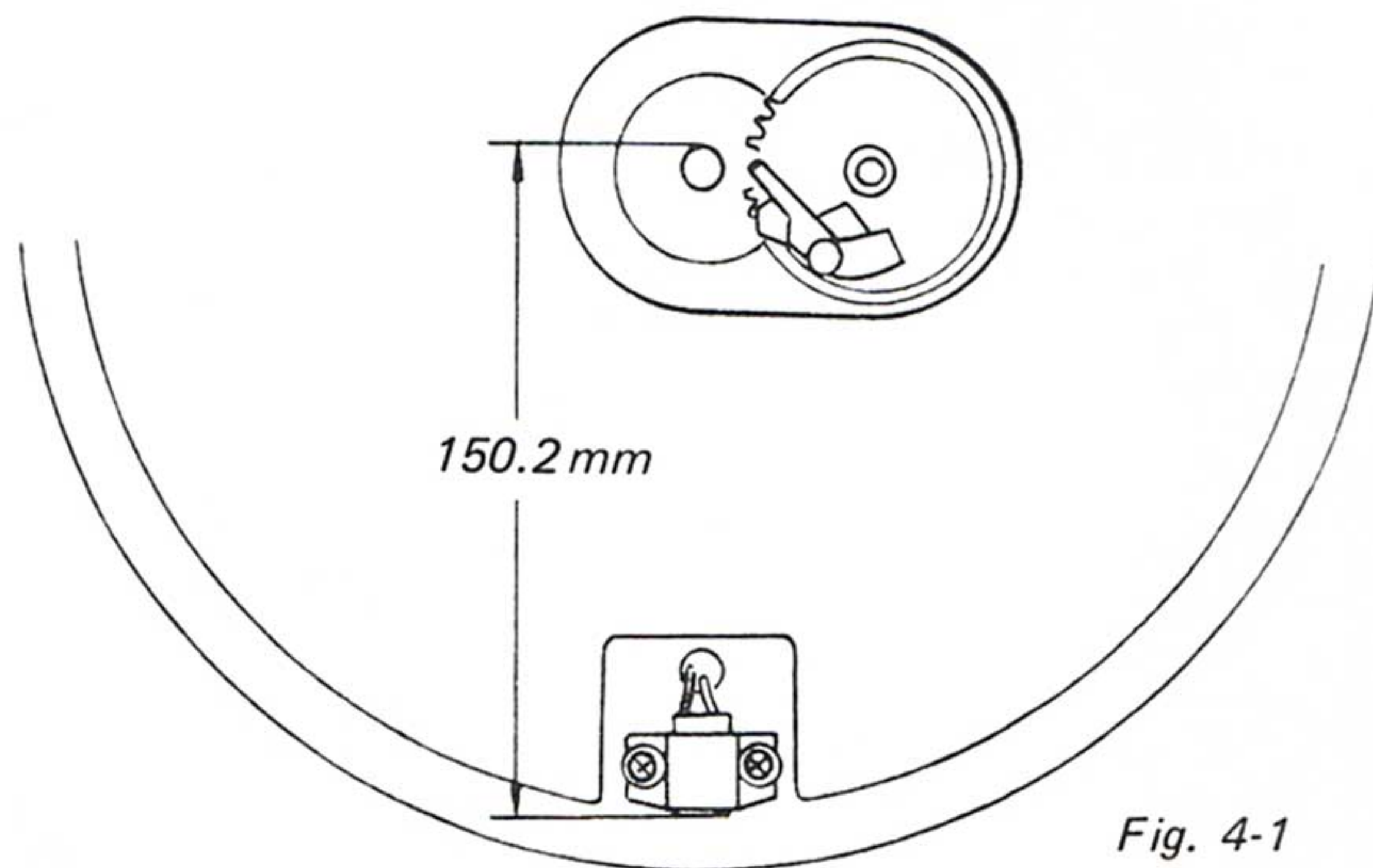
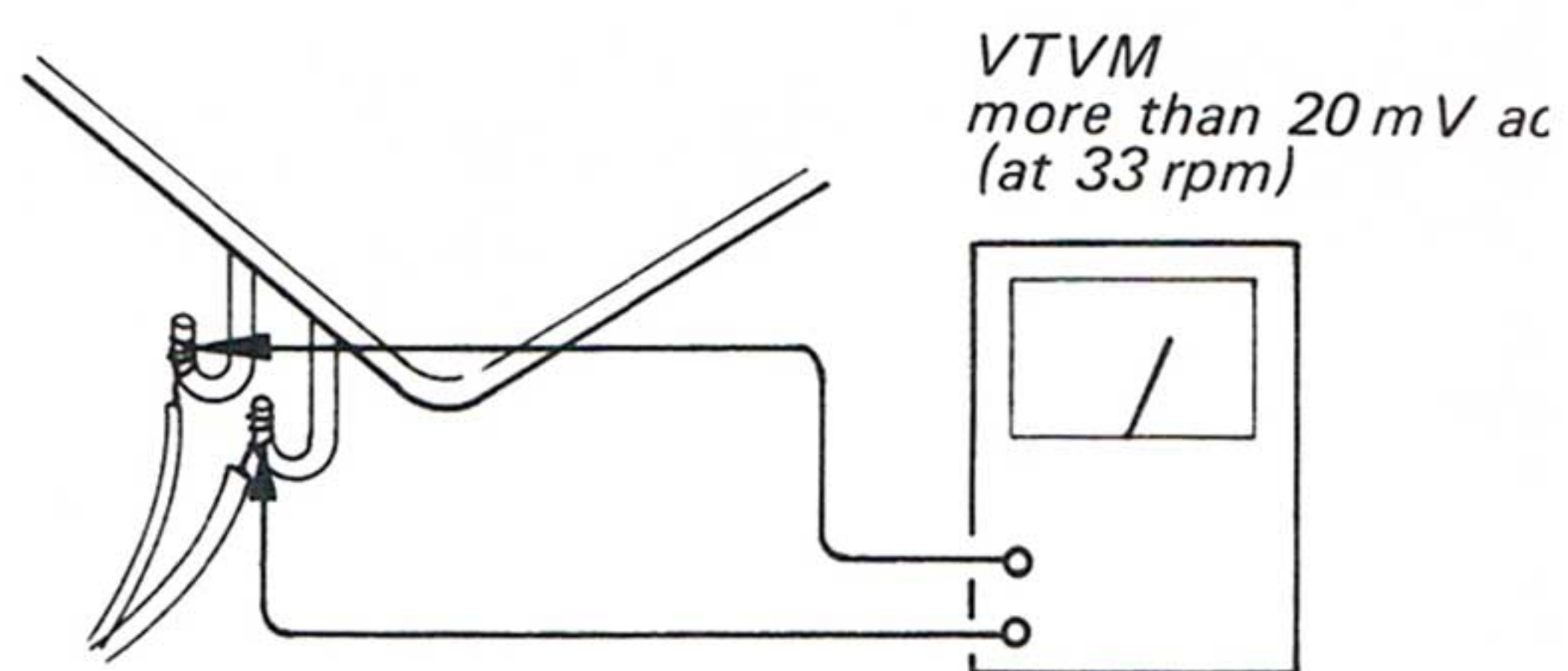


Fig. 4-1



Longitudinal Sensitivity Adjustment

1. Make the longitudinal balance adjustment of tonearm.
2. Repeating the following procedures, adjust the pivot screws and the lock nuts.
 - a. When the 70 mg weight is placed on the top of the shell, the tonearm sinks more than 5 mm (measured at stylus-tip.).
 - b. When the weight is removed, the tonearm returns horizontally.

Note: Rotate the left and right pivot screws by same numbers of turns.

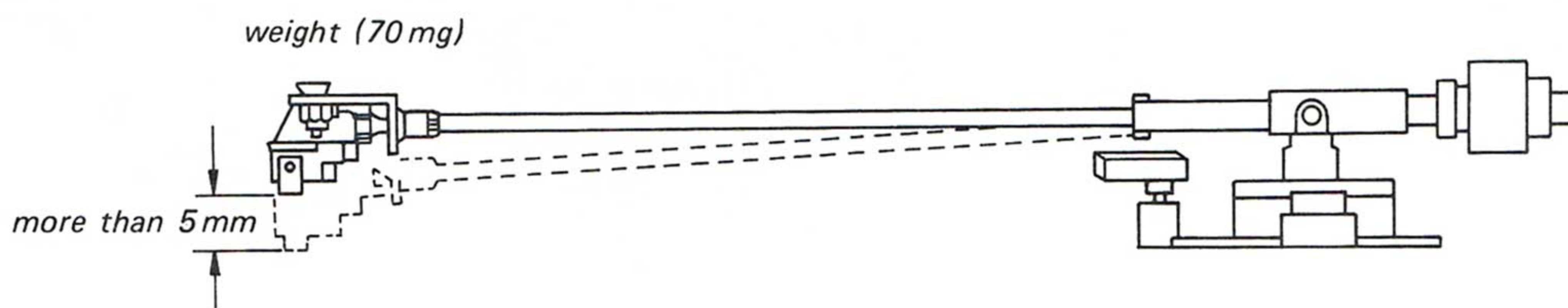
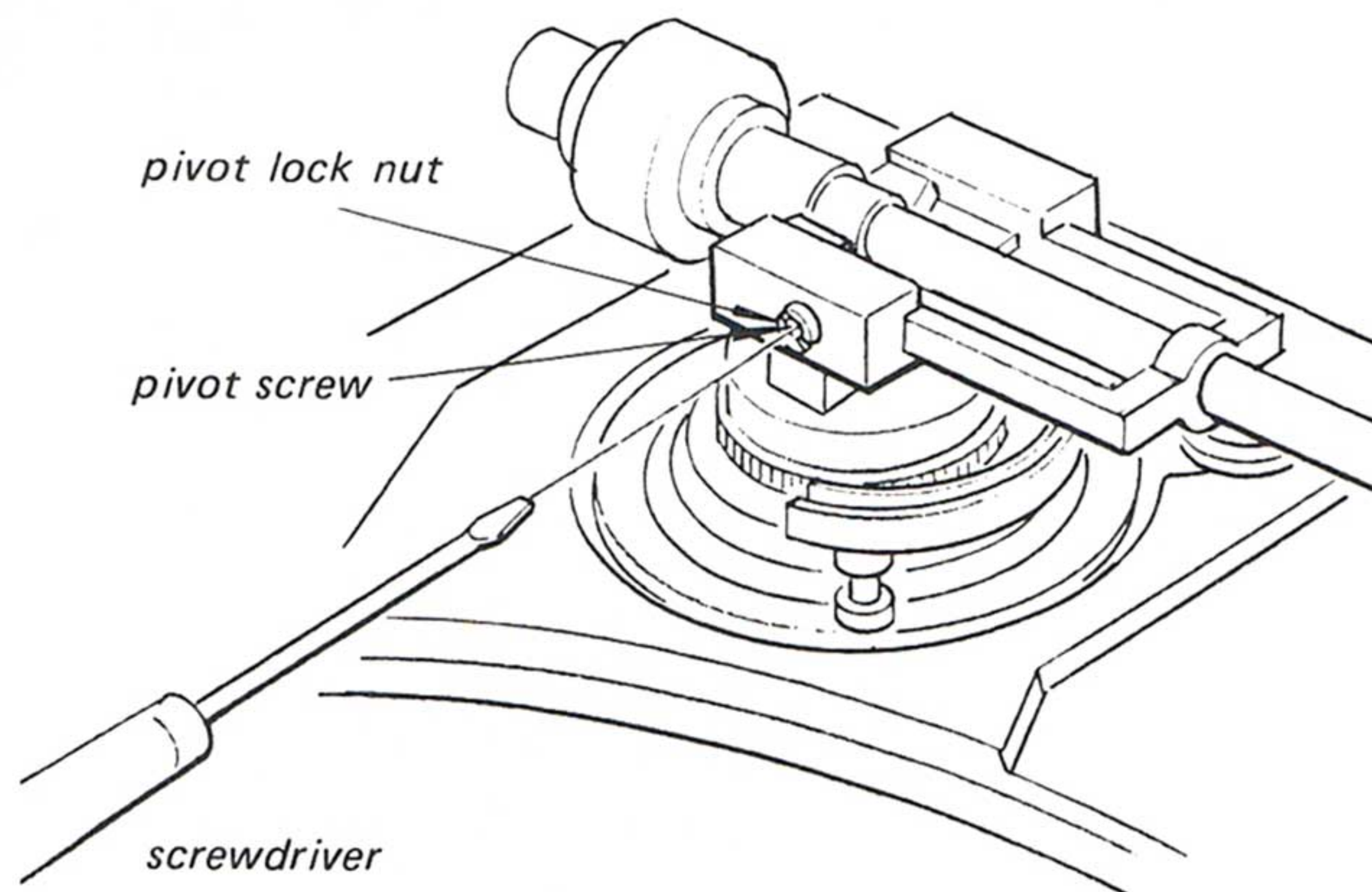


Fig. 4-4

Tonearm Height Adjustment

- A)
1. Bring the tonearm toward the inner of the record and put the stylus in the last groove of the record.
 2. Slowly turn the turntable by hand to lift the tonearm.
 3. Make sure that the clearance between the stylus tip and the record is approx. 7 mm.
 4. If necessary, adjust the height of the tonearm by turning the tonearm lifter screw.
 5. After the adjustment, make sure that the tonearm smoothly returns to the tonearm rest.

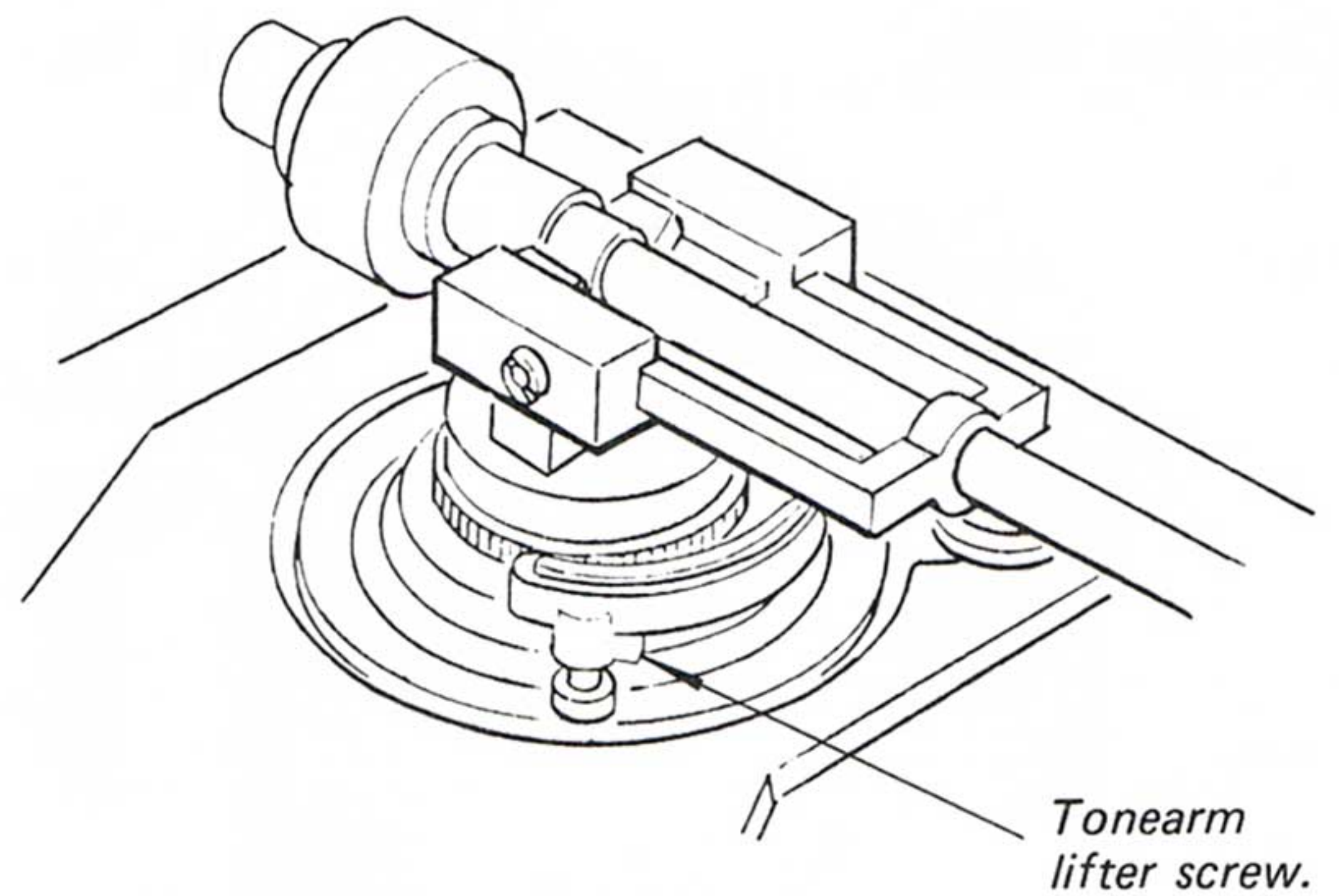


Fig. 4-5

- B)
1. Loosen the screw (A) counterclockwise.
 2. Set the arm lift-up button to up position and adjust the screw (B) so that the clearance between the stylus tip and the record surface is 7 mm.
 3. Turn again the screw (A) clockwise until the screw (A) touches the boss.
 4. Push the arm lift-up button and check the arm operation. If the tonearm does not drop smoothly, adjust by turning again the screw (A).
 5. When the stylus drops out of the turntable, confirm that the stylus tip is more than 1 mm below the surface of the turntable mat.
 6. After the adjustments, apply a drop of locking compound to the screws (A) and (B).

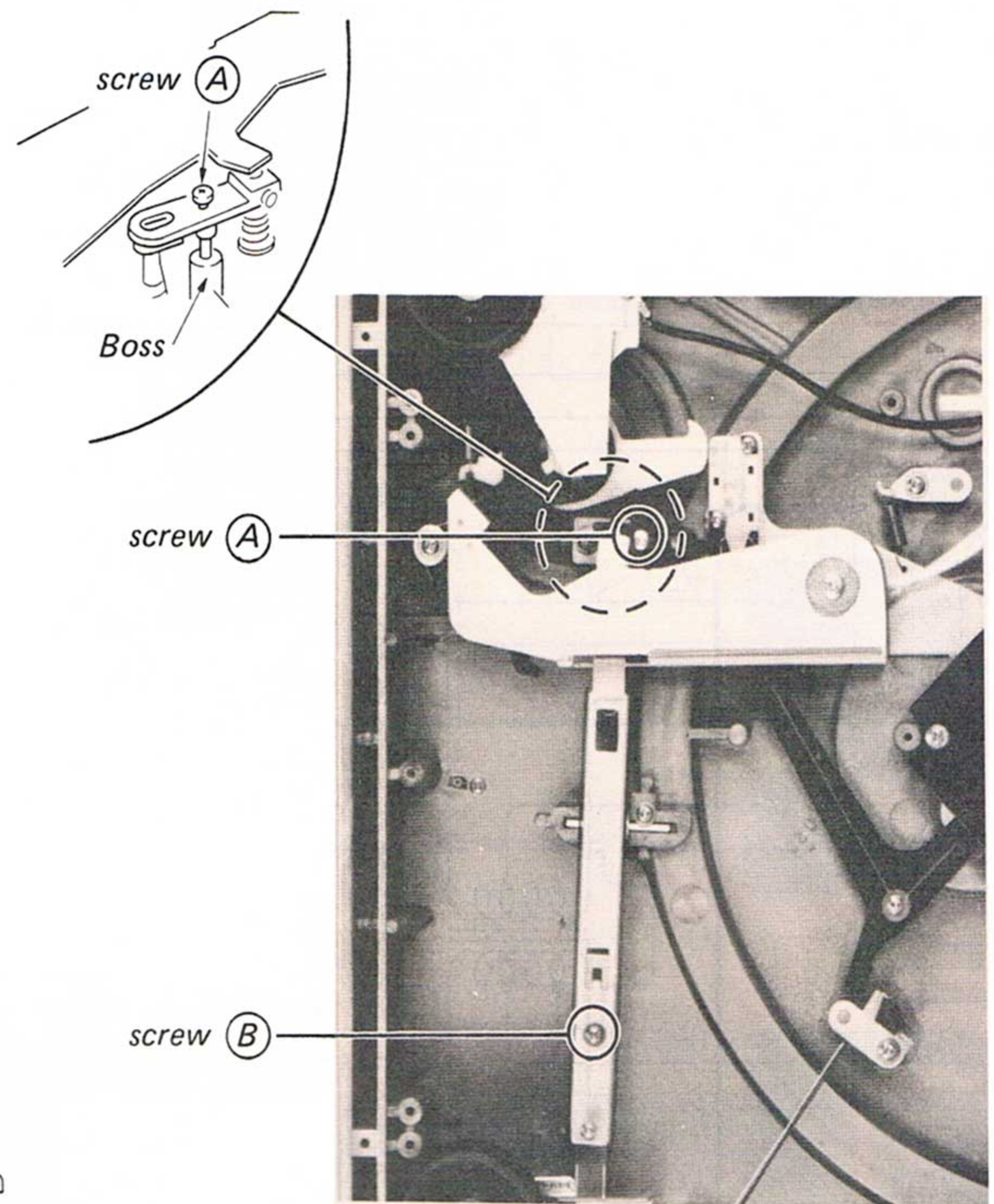


Fig. 4-6

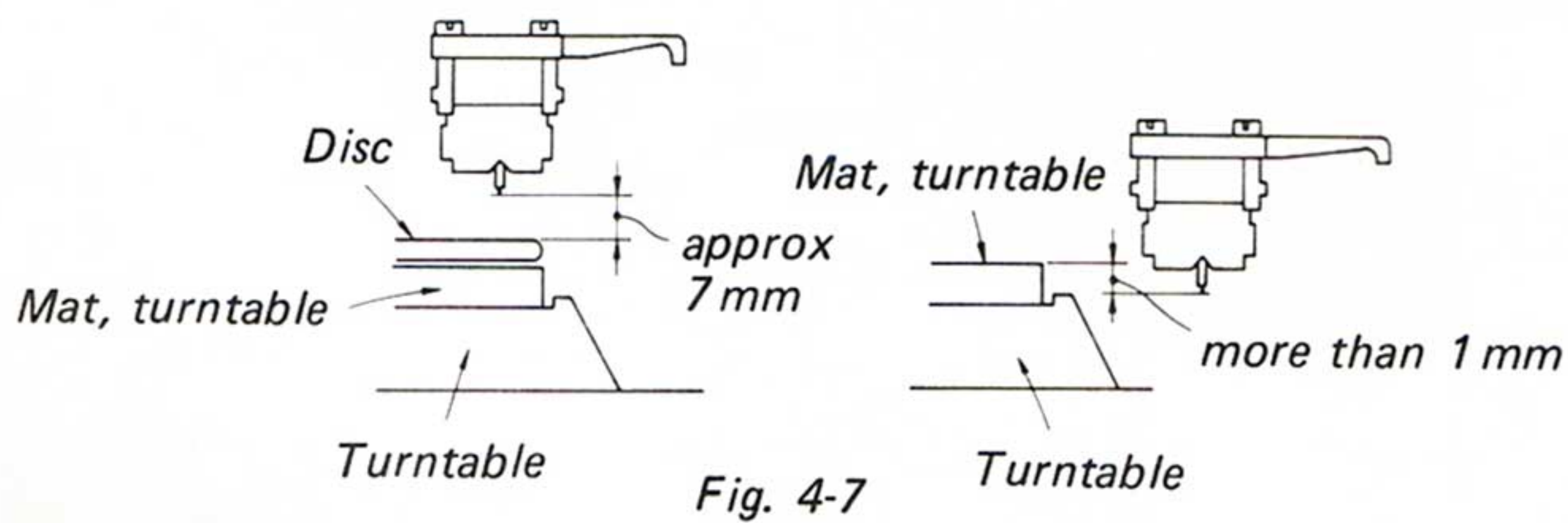


Fig. 4-7

Automatic Return Position Adjustment

1. Reject the tonearm by REJECT lever.
2. Bring the tonearm to the automatic-return test groove (inside portion) of the test record (YFSB-6), and adjust the screw for returning the tonearm at count 15~17.

Turning direction	Automatic return
clockwise	late
counterclockwise	early

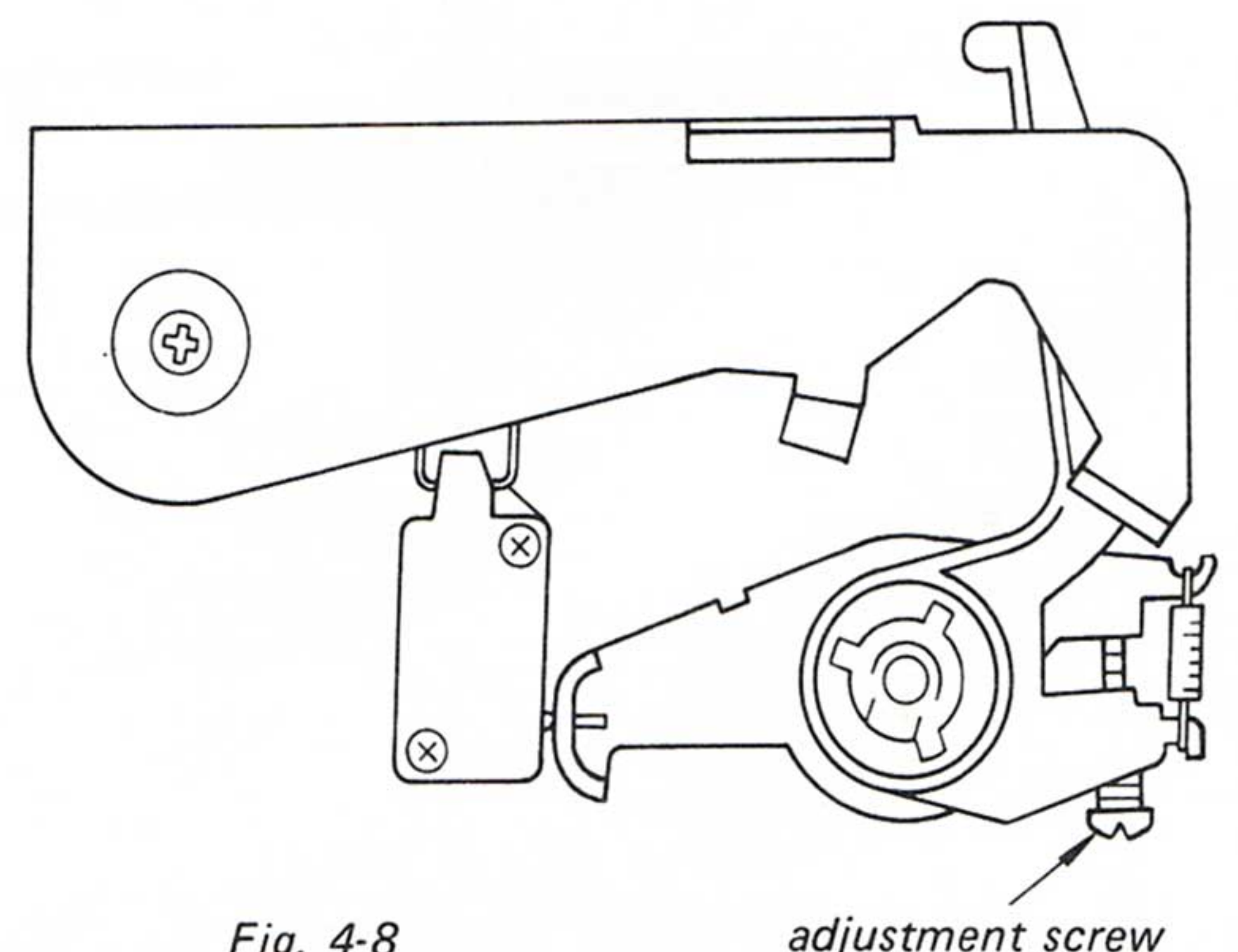


Fig. 4-8

SECTION 6 EXPLODED VIEWS

A

B

C

D

(1)

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

X-4870-712-0
Dust Cover Ass'y, including
part marked ■ A

■ A
4-866-089-00
Cushion, dust cover

4-858-247-00
Mat, turntable

■ A
4-866-089-00
Cushion, dust cover

4-852-056-21
Hinge

X-4870-711-0
Turntable Ass'y, including
part marked ● A

BVTP 3 x 10

4-858-264-21
Label, caution

● A
4-852-061-00
Gear, center

CS 2
W 3

4-861-933-00
Sleeve, (D)

BVTP 3 x 20

A-4609-010-A
Drive Gear Ass'y

1-543-123-00
Head, speed detecting
(HMG)

4-857-661-11
Emblem, SONY

● 3-701-690-00
Label, MADE IN JAPAN (UK model)

4-870-701-00
Frame

4-870-703-00 (US, Canadian model)
4-870-705-00 (AEP, model)
4-870-709-00 (E model)
4-870-707-00 (UK model)
Label, specification

X-4870-713-0
Up and Down Plate Ass'y

PTP 2.6 x 6

X-4870-714-0
Arm Rest Ass'y

4-870-730-00
Knob, SPEED

● 1-603-102-00
Printed Circuit Board,
speed select

4-870-764-00
Knob, up/down,
REJECT control

3-533-014-00
Spring

1-552-928-00
Switch, speed selector
(S1)

PTPWH 3 x 8

● 4-870-746-00
Bracket, switch

4-870-766-11
Panel, control

● 4-858-235-00
Lever, switch

● 4-858-234-00
Lever, return

CE 12 P 3 x 6

PTPWH 3 x 10

B 3 x 20

4-836-836-00
Spring

3-536-780-00
Spring

3-830-350-11
Cushion

⚠ 1-551-530-00
Cord, power (E1 model)

4-870-768-00
Board, bottom

PTPWH 3 x 12

PTPWH 3 x 12

4-866-073-00
Label, power cord caution
(AEP model)

3-703-043-21
Label, main caution
(US, Canadian, UK model)

9-991-863-XX
Fiber Sheet

⚠ 1-551-884-00 (UK model)
1-534-986-XX (US model)
1-551-628-00 (E2, Canadian model)
1-534-817-XX (AEP model)
Cord, power

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.

A

B

C

D

(3)

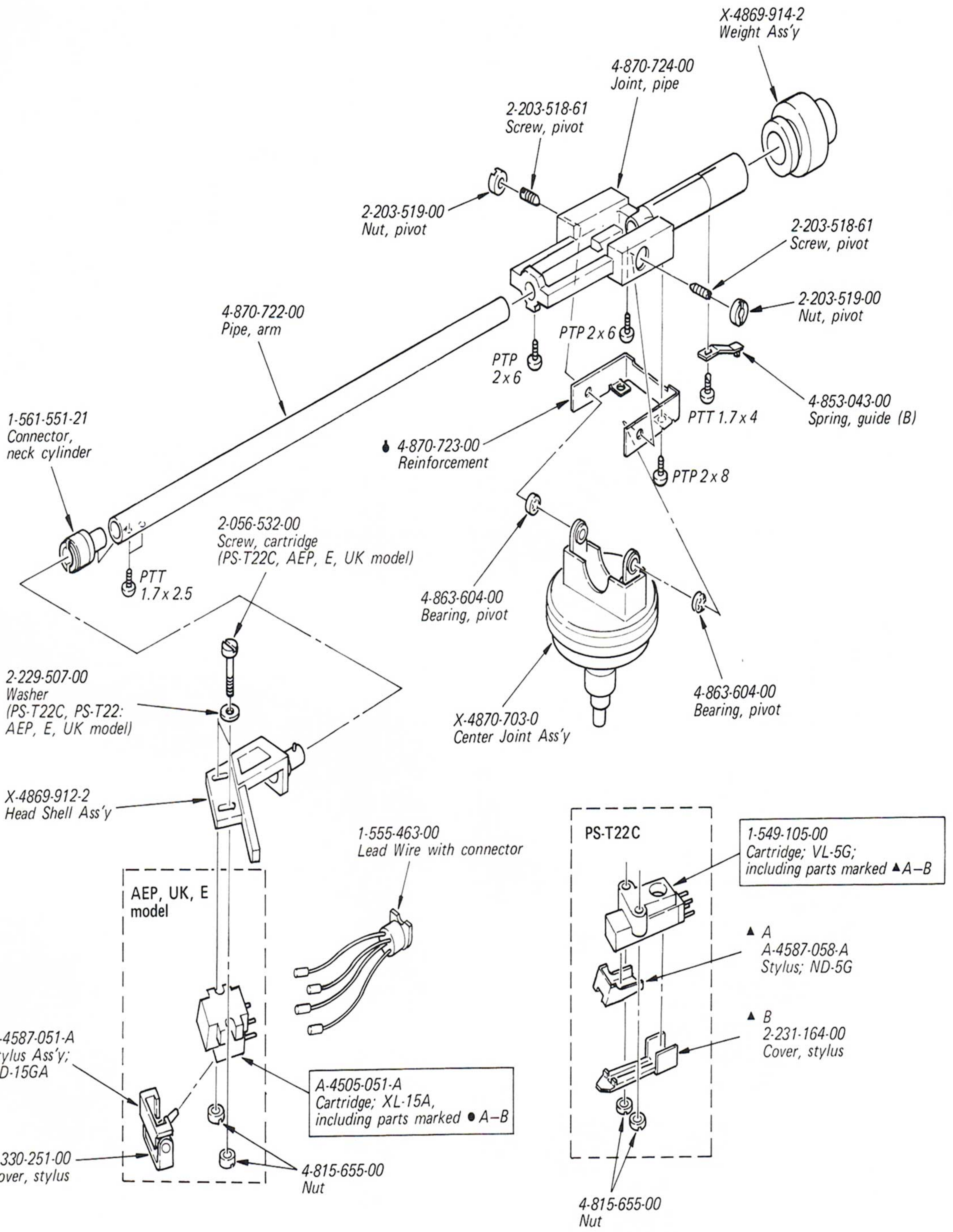
1

2

3

4

5



A

B

C

D

(2)

1

2

3

4

5

