

PS-LX410/LX410(G)

SERVICE MANUAL

PS-LX410:

US Model

AEP Model

UK Model

E Model

PS-LX410(C):

US Model

Canadian Model



The PS-LX410 (AEP, UK, E Model) is supplied with a XL-250G cartridge, while the PS-LX410 (US model) is not supplied with a cartridge.

SPECIFICATIONS

Turntable

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) ±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 ±0.0003%
Automatic system	Lead-in, return, reject, repeat

Tonearm

Type	Statically balanced
Pivot-to-stylus length	216.5 mm (8 $\frac{1}{2}$ in.)
Overhang	16.5 mm ($\frac{21}{32}$ in.)
Usable cartridge	Plug-in type, 6 g

Cartridge VL-45G (supplied with some units)

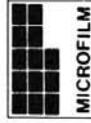
Type	Moving magnet type
Frequency response	20 Hz to 20 kHz
Channel separation	20 dB at 1 kHz
Output voltage	3.5 mV at 1 kHz, 5 cm/sec.
Load impedance	47 to 100 kilohms
Tracking force	1.25 g
Stylus	Sony ND-145G (conical 0.6 mil diamond)
Weight	6 g

SAFETY-RELATED COMPONENT WARNING!

COMPONENTS IDENTIFIED BY SHADING AND MARK Δ 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.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE Δ SUR LES DIAGRAMMES SCHEMATIQUES 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.



STEREO TURNTABLE SYSTEM

SONY®

AUD

— Continued on page 2 —

PS-LX410/LX410(C)

Cartridge XL-250G

Type Moving magnet type
Frequency response 20 Hz to 20,000 Hz
Channel separation 8 dB at 1 kHz
Output voltage 5 mV at 1 kHz, 5 cm/sec., 45°
Load impedance 47 to 100 kilohms
Tracking force 1.0 to 1.5 g (1.25 g recommended)
Stylus Sony ND-250G
Weight 6 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: 110–220 or 220–240 V ac, adjustable
50/60 Hz

Power consumption 8 W

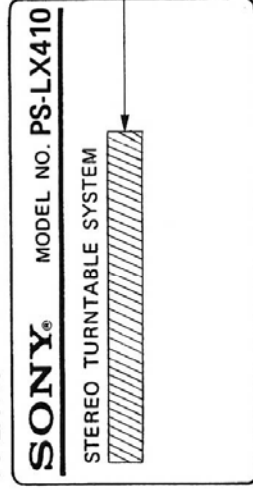
Dimensions Approx. 430 × 110 × 340 mm (w/h/d)
(17 × 4³/₈ × 13³/₈ in.)

Weight including projecting parts and controls
Approx. 4.7 kg (10 lbs 6 oz), net
Approx. 5.7 kg (12 lbs 9 oz), in shipping carton

MODEL IDENTIFICATION

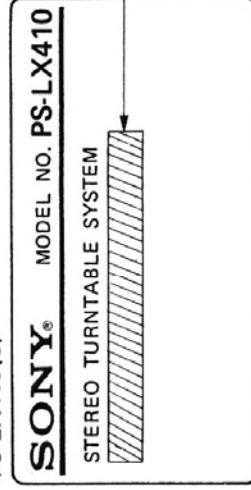
— Specification Label —

PS-LX410



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

PS-LX410(C)



US, Canadian: AC: 120V 60Hz 8W

FEATURES

Automatic turntable system

Automatic lead-in, return, reject and repeat functions are activated by merely pushing the buttons.

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 $\frac{1}{3}$ rpm after only $\frac{2}{3}$ 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.

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.

Wireless remote control operation

Using the optional RM-44 or RM-S410 system remote controller, start/stop play can be remotely controlled.

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.

Notes on Repair

Check as follows when the turntable does not rotate.

1. Check to see if a waveform appears at Q107-110 emitter when DC 2V is applied to D105 cathode side.

If the waveform appears, the motor drive circuit and motor are not defective, but the servo circuit may be defective.

2. If the motor does not rotate after step 1, the motor drive circuit or motor, etc. may be defective.

2-1. Motor Check

Check for power being conducted by applying a tester to the motor coil.

2-2. Hall Element Check

Measure the resistance values between each pin. (Between pins next to each other and diagonally across from each other.) The values should be about 600–1k Ω .

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75V, 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)

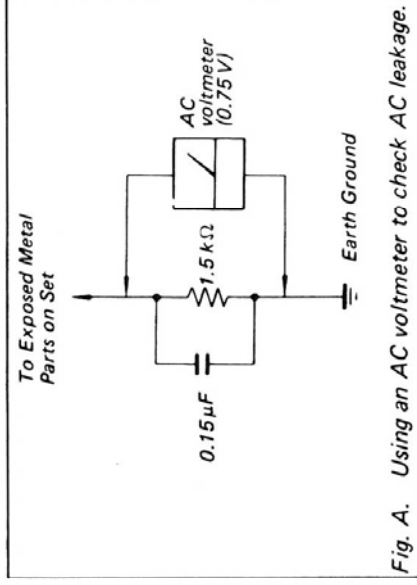
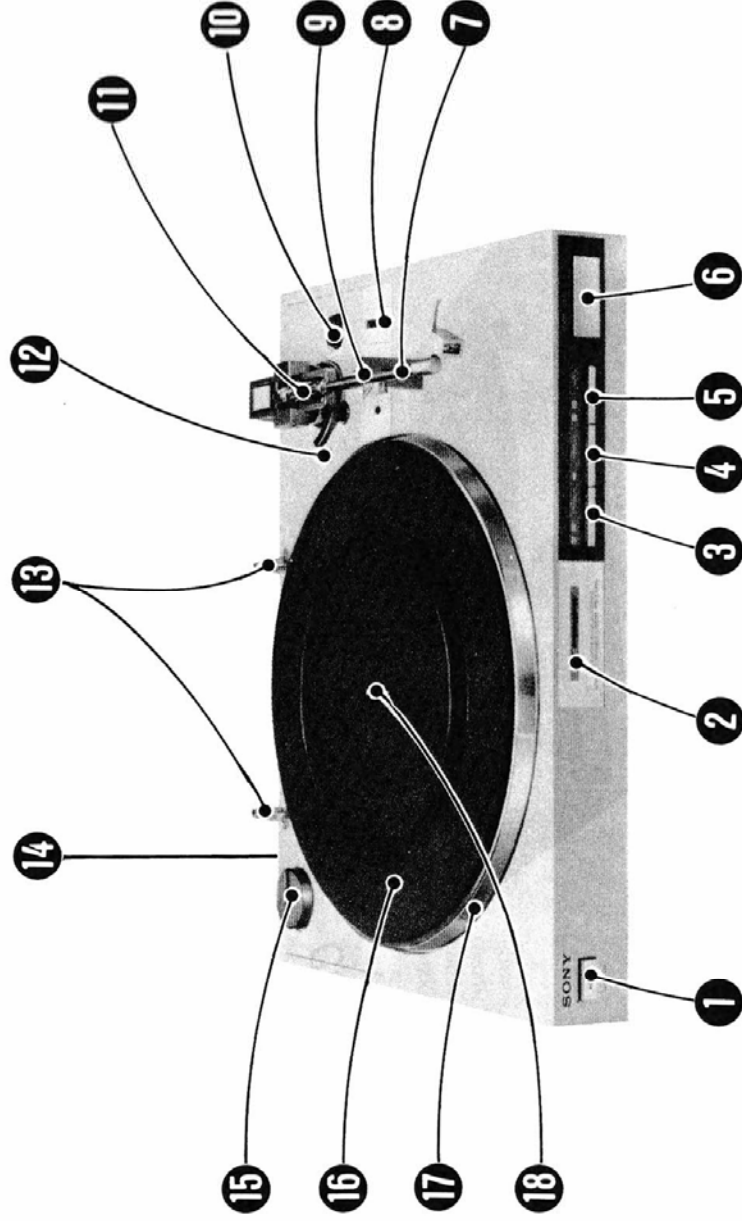


Fig. A. Using an AC voltmeter to check AC leakage.

PS-LX410/LX410(C)

PARTS IDENTIFICATION

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



1 POWER switch

Press to turn on the turntable. To turn the turntable off, press it again.

2 QUARTZ LOCK indicator

When the turntable platter starts rotating, this indicator flashes. When the platter speed is stabilized, this indicator lights up.

3 SPEED selector and indicators

Selects the record speed. When the POWER switch is turned on, the speed is always 33 $\frac{1}{3}$ rpm and the indicator on the right illuminates. When the selector is pressed, 45 rpm is selected and the indicator on the left illuminates.

4 REPEAT button and indicator

Press this button to repeat play. The indicator illuminates and repeat play continues until this button is pressed to stop it. If the START/STOP button is pressed during repeat play, the tonearm returns to the arm rest and the turntable stops rotating.

5 Record SIZE selector and indicators

Selects the record size. When the POWER switch is turned on, the size is always 30 cm and the indicator on the right illuminates. When the selector is pressed, 17 cm is selected and the indicator on the left illuminates.

6 START/STOP button

Press this button to start the record playing, and the QUARTZ LOCK indicator flashes, then lights up. To stop during play, press it again.

7 Tonearm

8 V/V (cueing) lever

Used to lift or lower the tonearm.

9 Arm rest

10 ANTI-SKATING compensator

11 Sub-weight

12 Tonearm drop-point adjustment hole

13 Disc centering guides

14 Remote connector (rear)

Connect the optional RM-44 or RM-S410 system remote controller to this connector.

15 45-rpm adaptor

16 Rubber mat

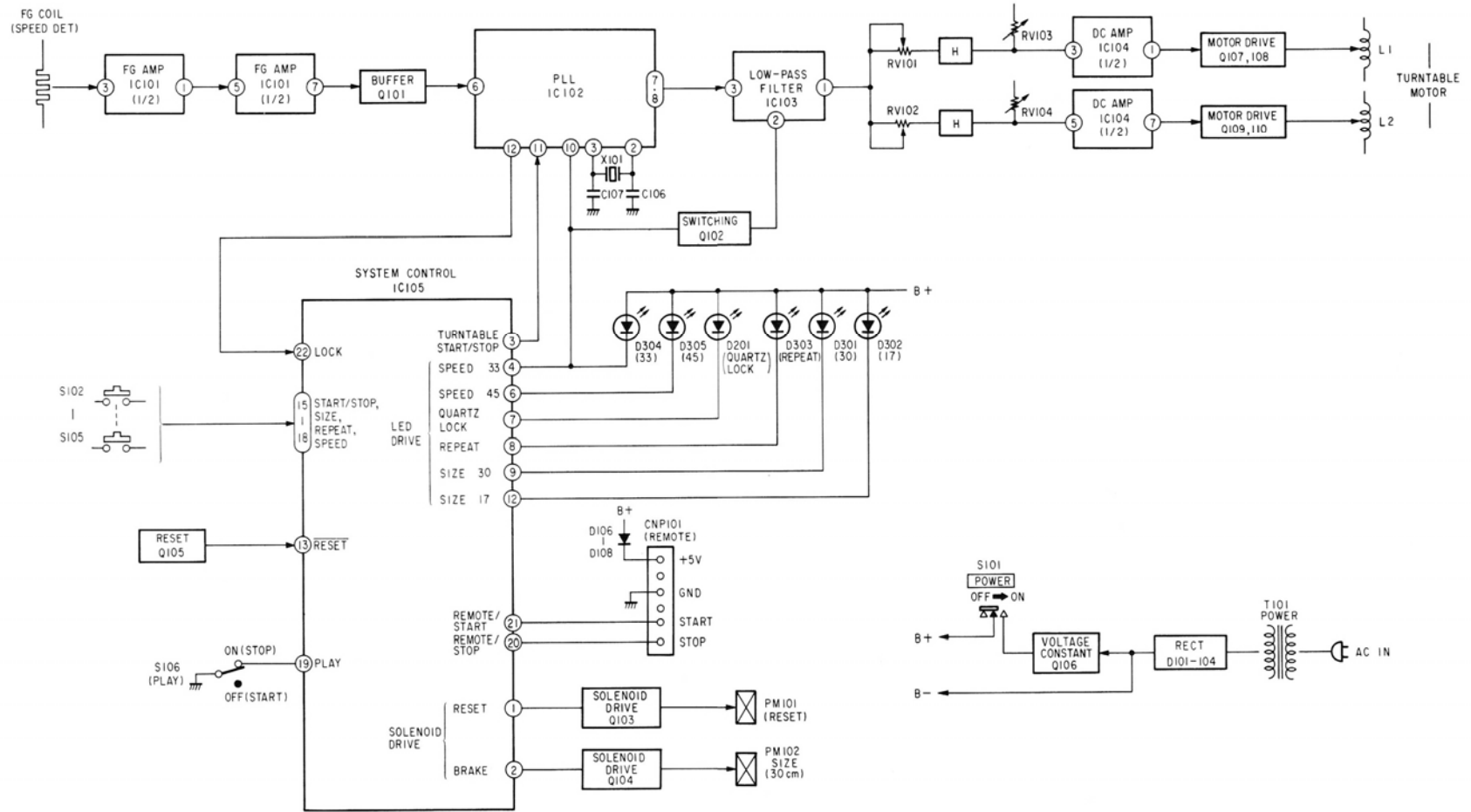
17 Turntable platter

18 Center spindle

PS-LX410/LX410(C)

SECTION 1 OUTLINE

1-1. BLOCK DIAGRAM

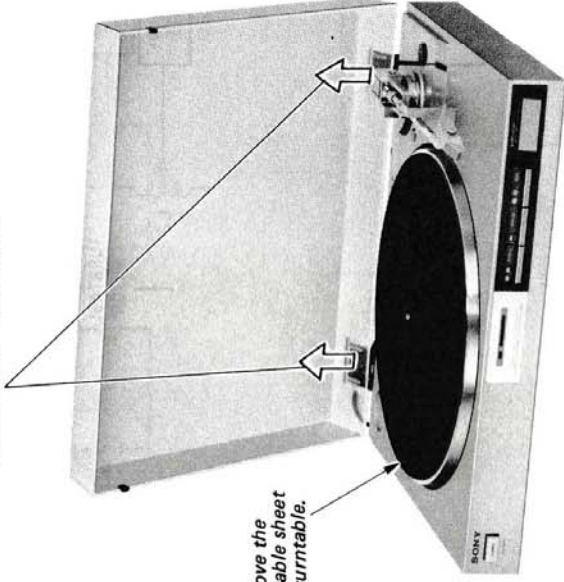


SECTION 2 DISASSEMBLY

2-1. REMOVAL **Note:** Follow the disassembly procedure in the numerical order given.

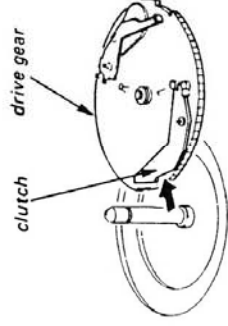
DUST COVER, TURNTABLE

① Open the dust cover fully and slide it upward with both hands.



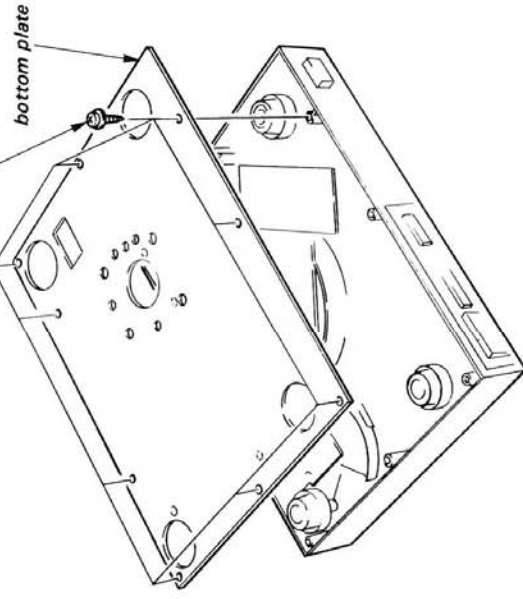
② Remove the turntable sheet and turntable.

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



BOTTOM PLATE

PTPWH3 x 12
(9 pcs.)

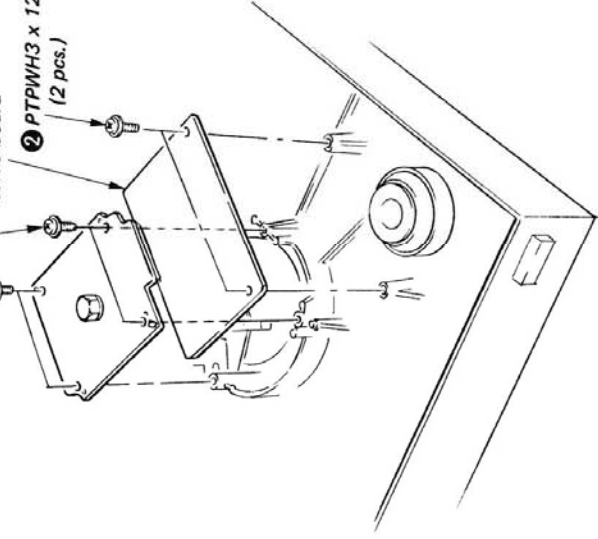


SERVO BOARD

① PTPWH3 x 12
(4 pcs.)

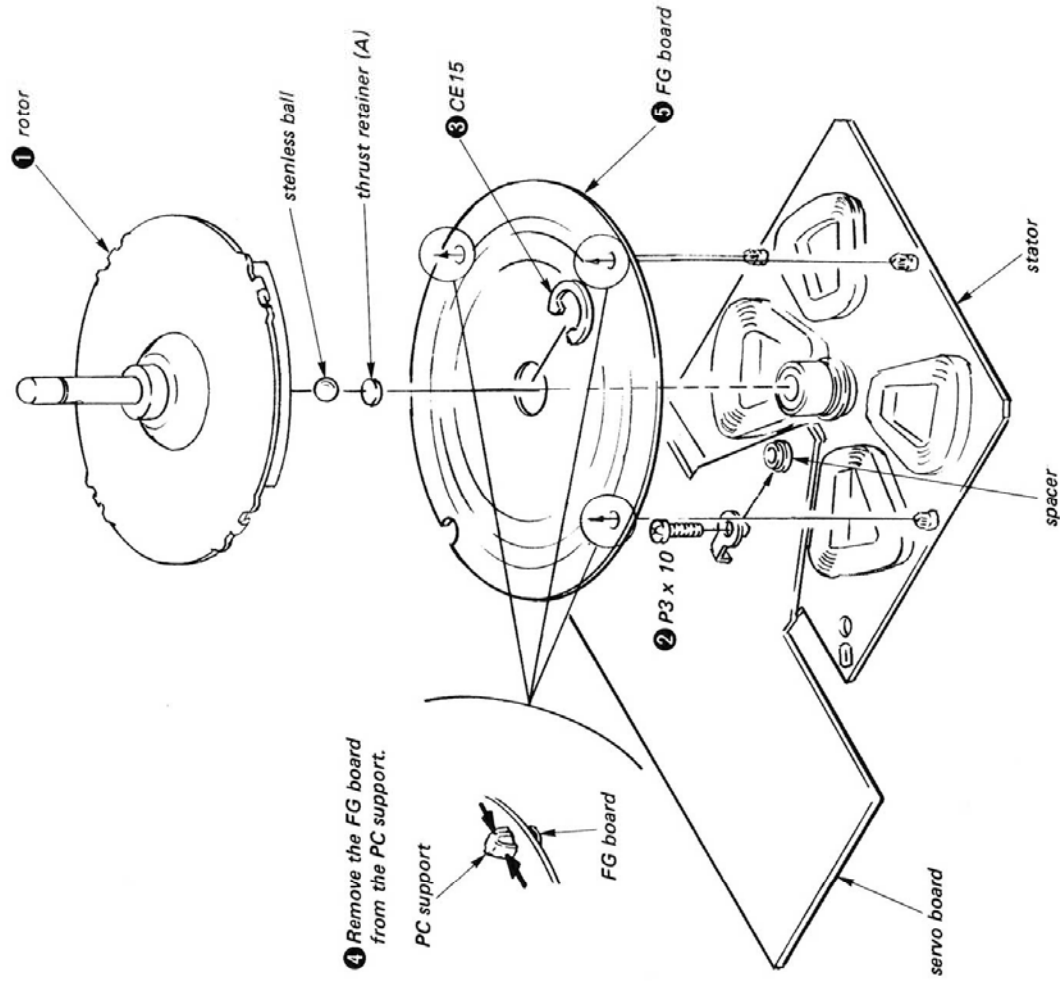
② PTPWH3 x 12
(2 pcs.)

servo board



PS-LX410/LX410(C)

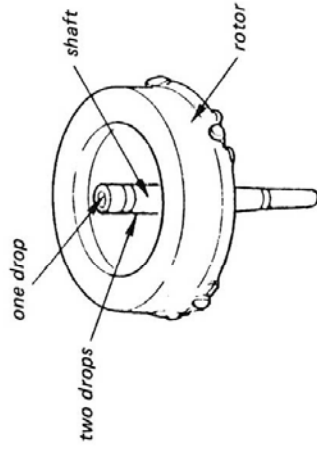
ROTOR, FG BOARD



- 4 Remove the FG board from the PC support.

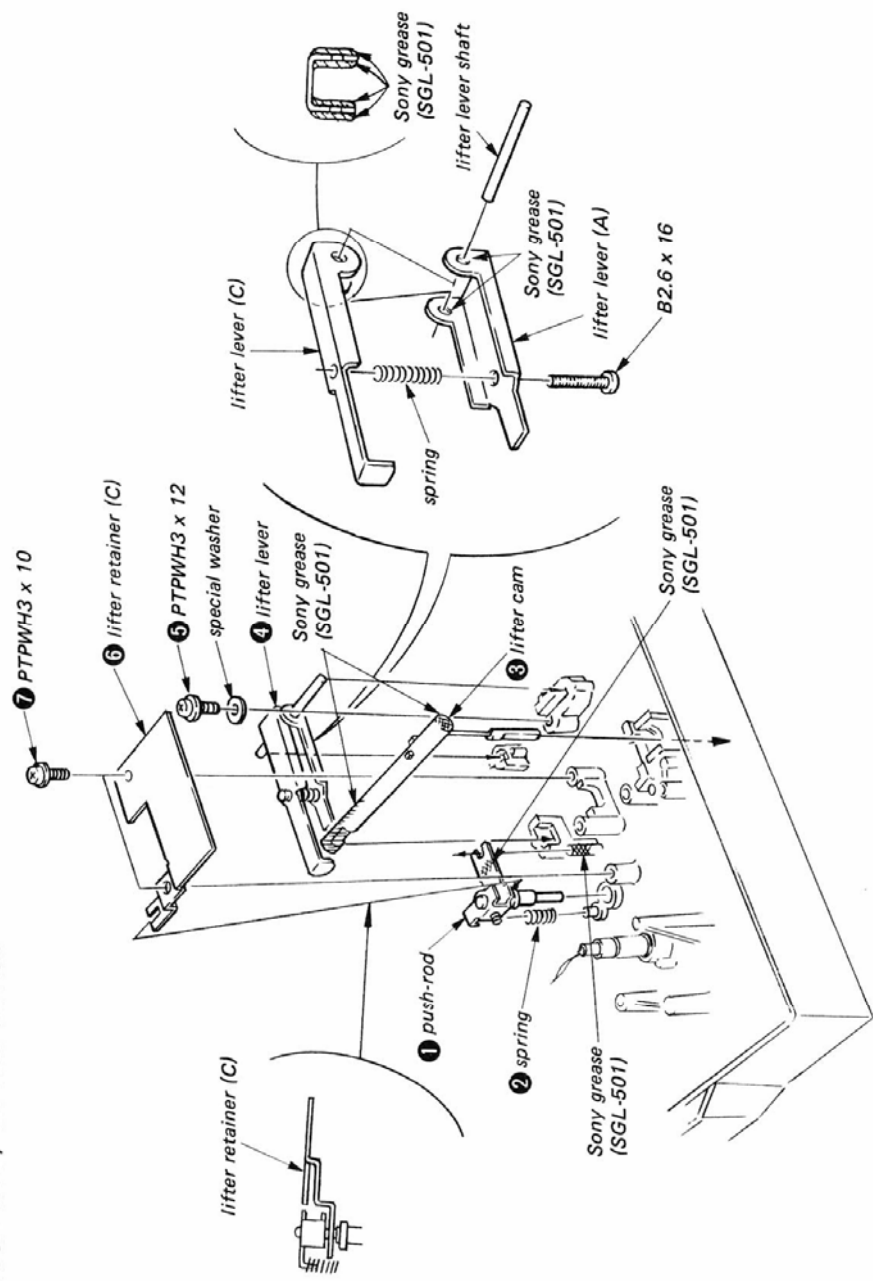
Caution for installation:

When the rotor is replaced, apply Sony oil OL-2KA to the rotor shaft as illustrated below.



2-2. INSTALLATION

PUSH ROD, LIFTER LEVER

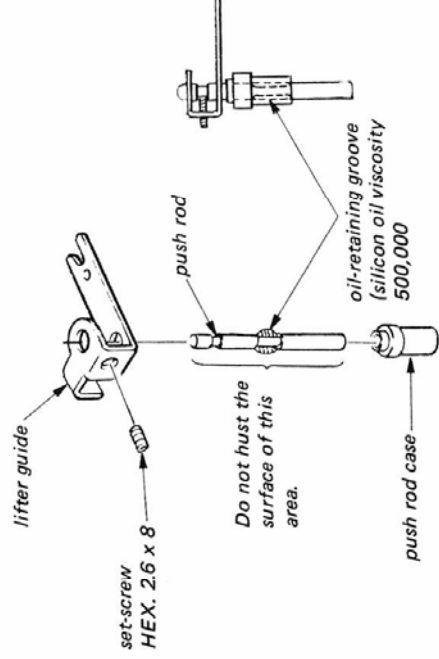


Caution for installation:

When the push rod is replaced, apply silicon oil (viscosity: 500,000 cs) to the push rod as illustrated below.

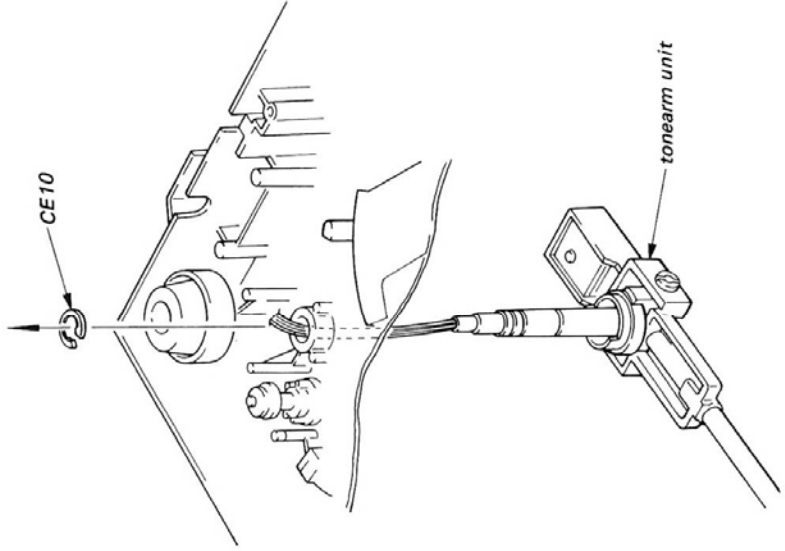
Caution:

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

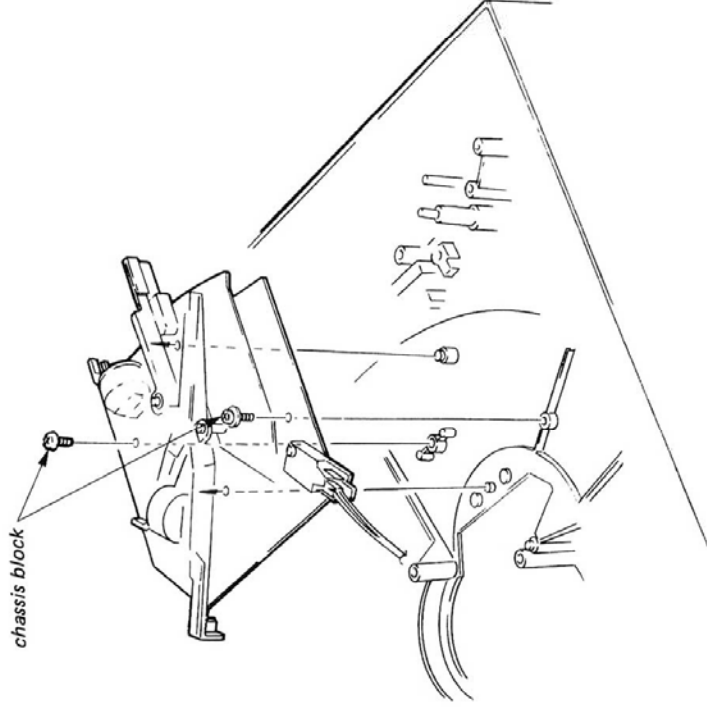


PS-LX410/LX410(C)

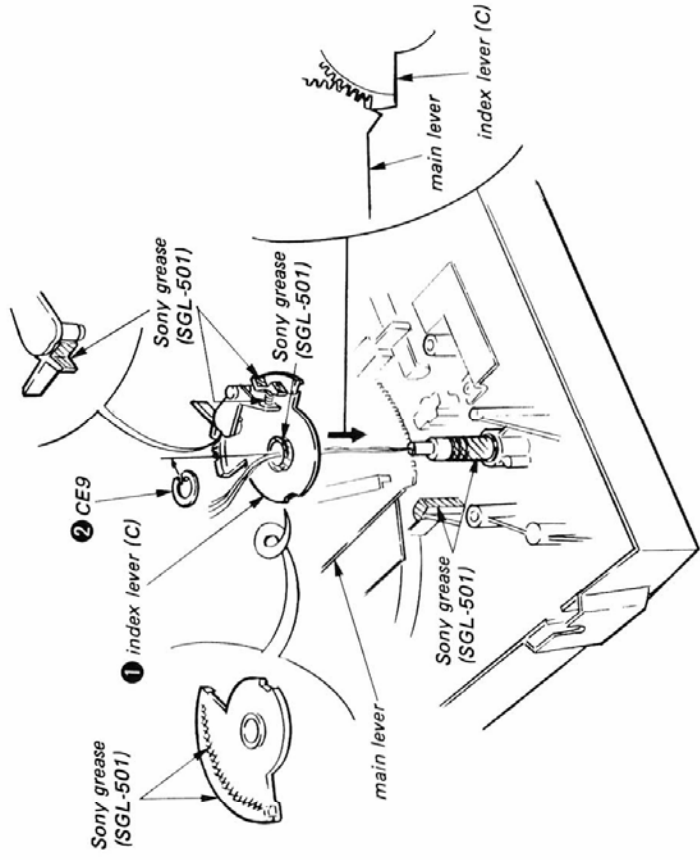
TONE ARM UNIT



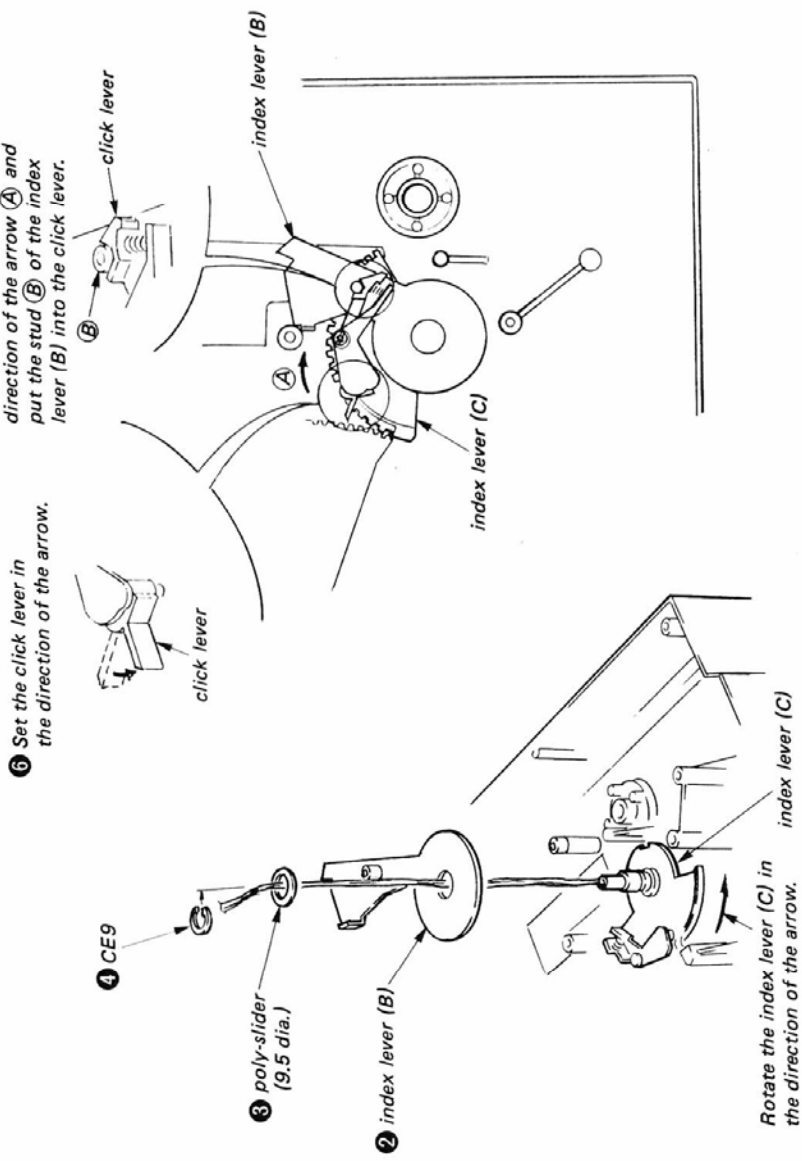
CHASSIS BLOCK



INDEX LEVER (C)

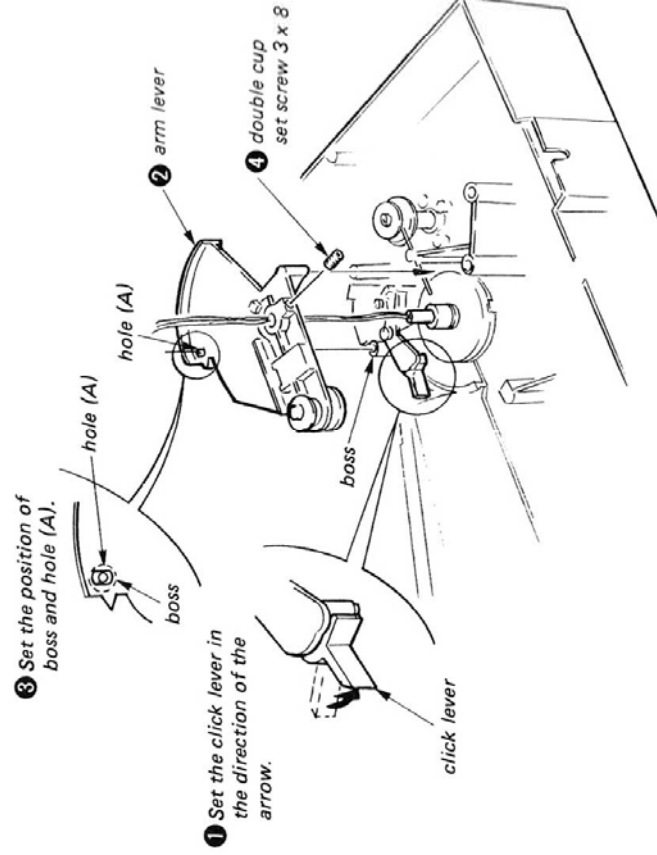


INDEX LEVER (B)

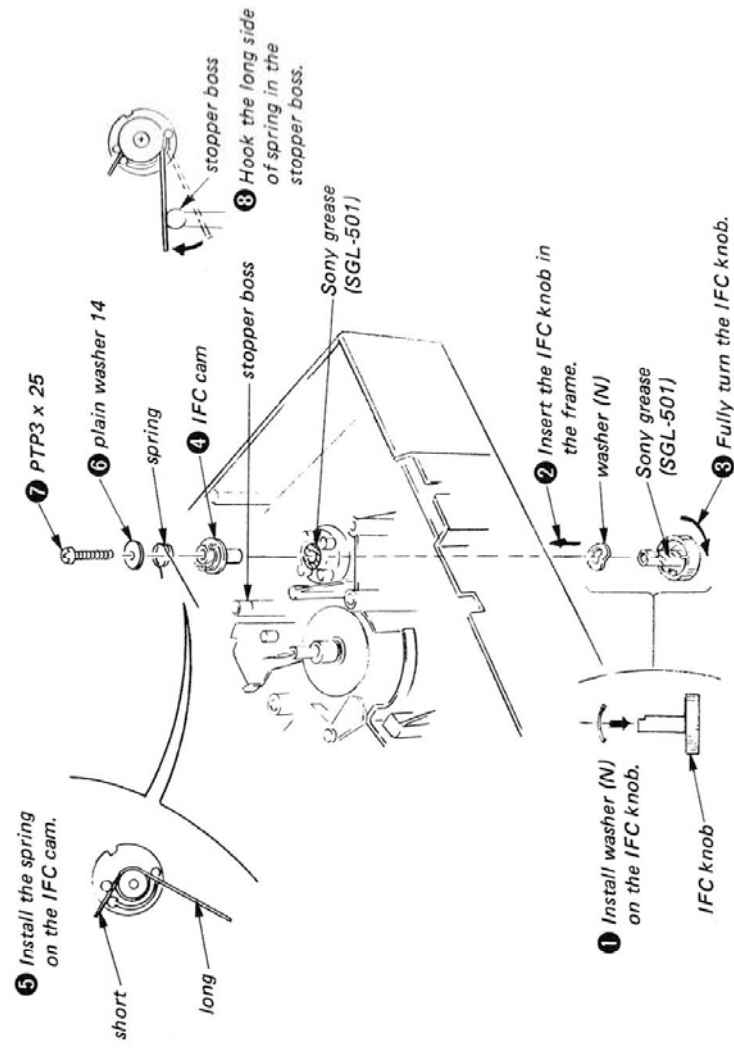


PS-LX410/LX410(C)

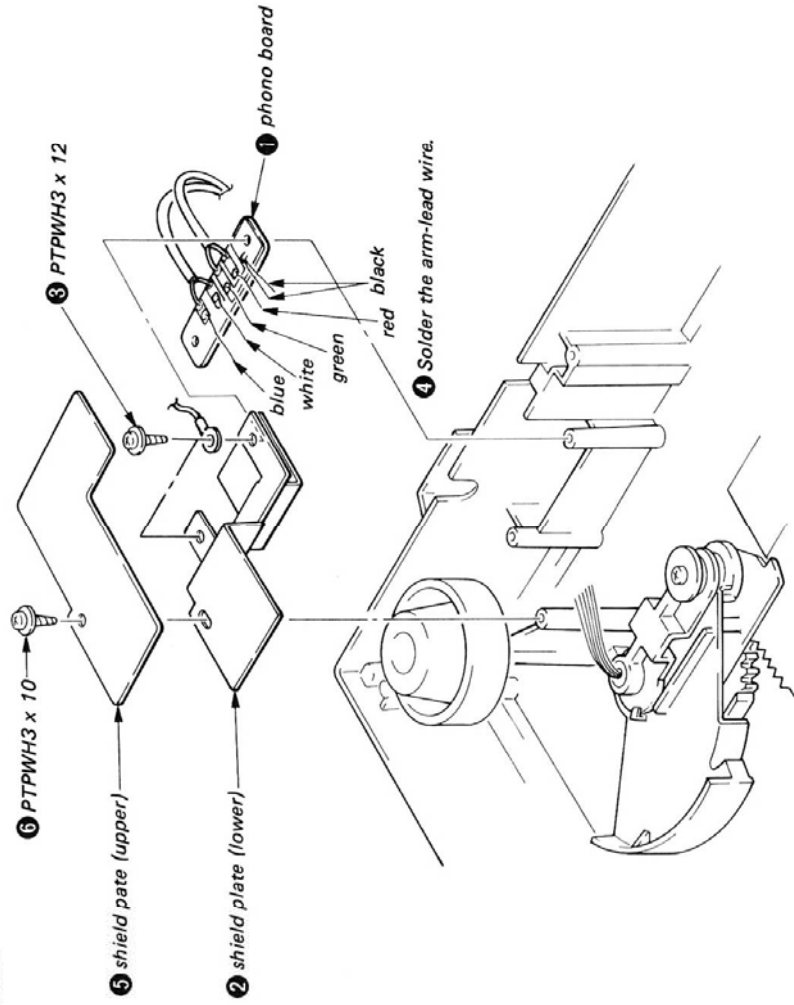
ARM LEVER



IFC (ANTI-SKATING) KNOB

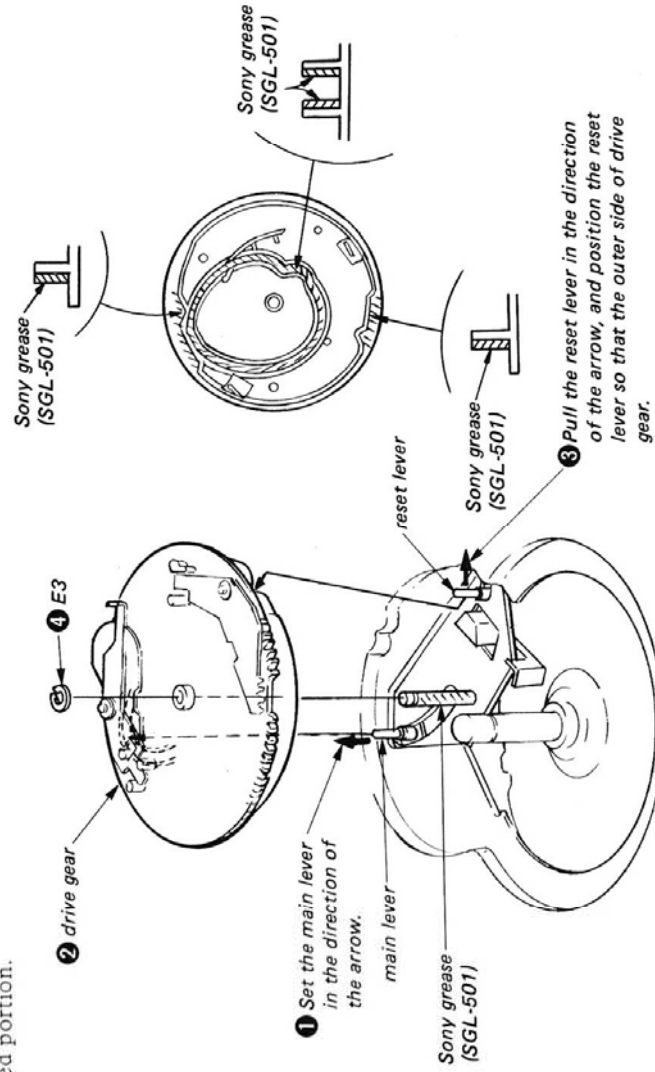


PHONO BOARD



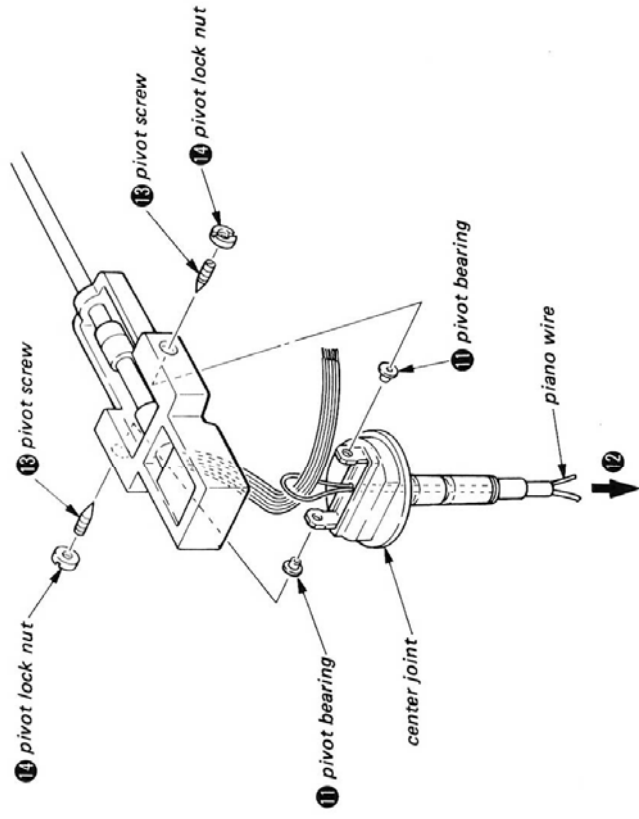
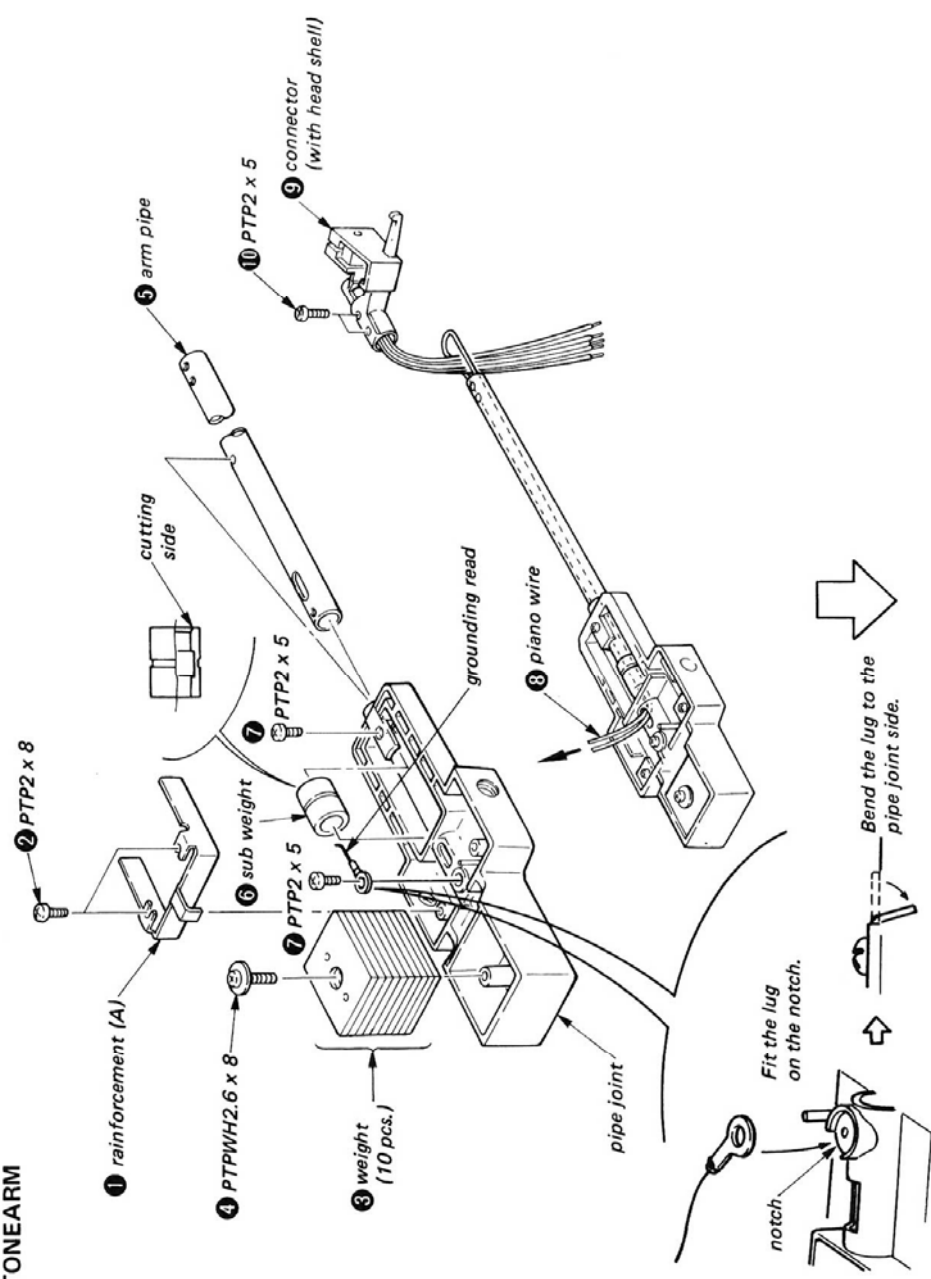
DRIVE GEAR

If necessary, apply Sony grease (SGL-510) to the specified portion.



PS-LX410/LX410(C)

TONEARM



SECTION 3
ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENT

Brake Lever Position Adjustment

1. Rotate the drive gear in the direction of the arrow by hand, and set the reset lever to the reset position where the pin of the reset lever is set into the reset groove of the drive gear. See Fig. 1.
2. Confirm that the portion **A** of the size lever lightly touches to rectangular hole of the chassis. See Fig. 2.
3. At this time, adjust the adjustment screw so that the brake lever is slightly detached from the size lever. See Fig. 3.
4. Secure the adjustment screw with locking compound.

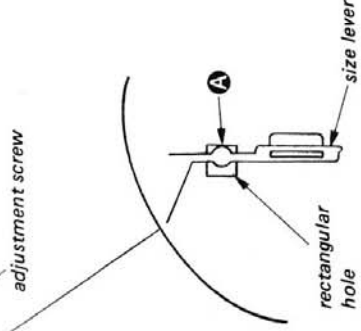
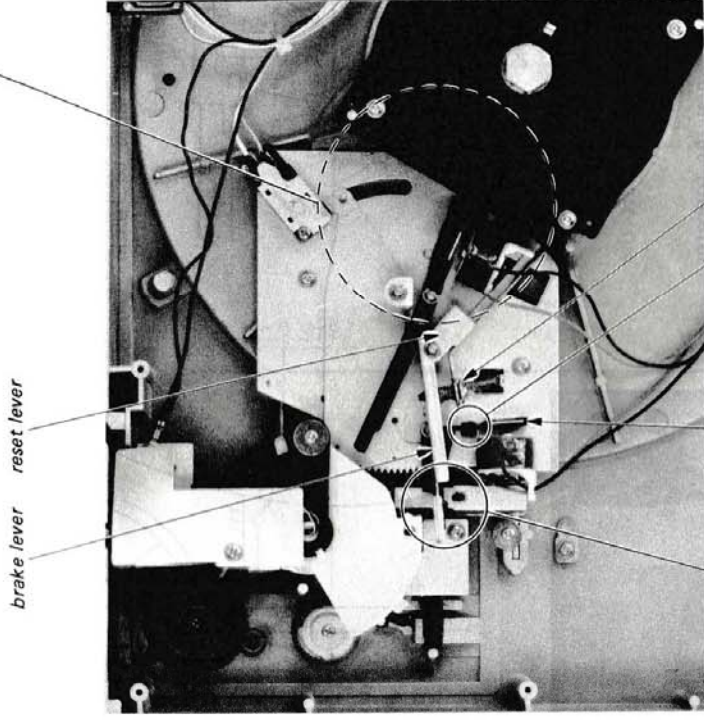
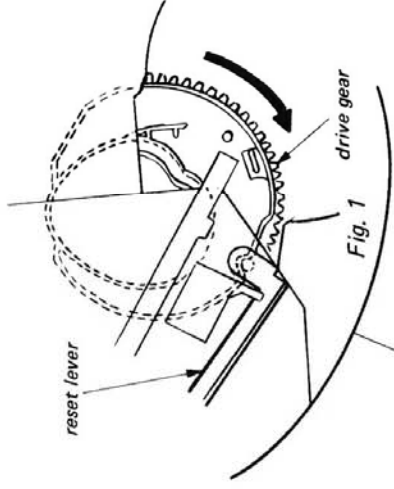


Fig. 2

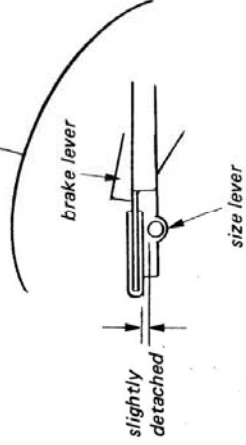


Fig. 3

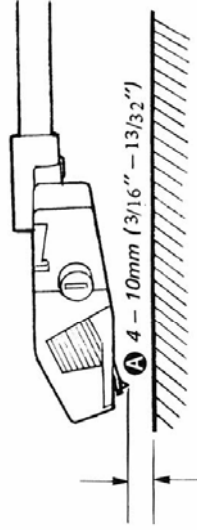
PS-LX410/LX410(C)

Stylus Height Adjustment

Note: Perform both adjustments for manual and automatic operations.

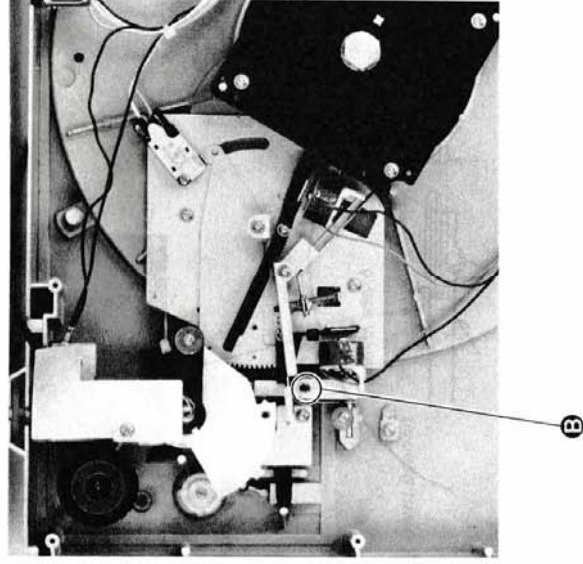
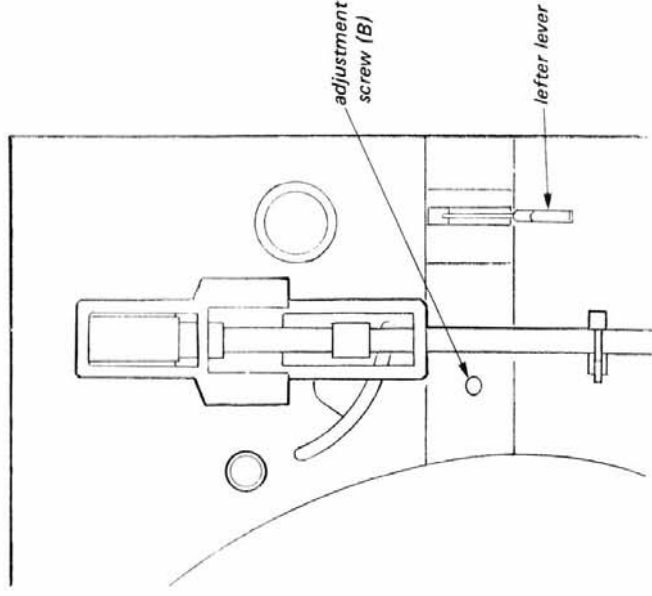
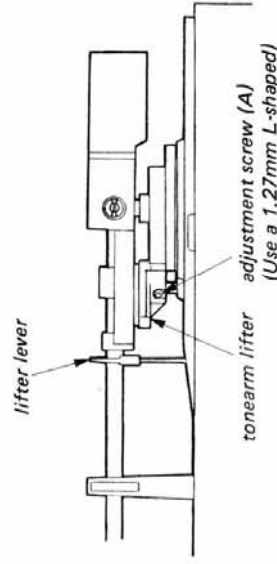
1. Automatic

- 1-a) Put a test record on the mat.
- 1-b) Depress the lifter lever to make a lifter-down mode (Σ).
- 1-c) Press the START/STOP button to start the operation.
- 1-d) Turn the POWER off just when the tonearm has moved to the automatic-return point and the tonearm lifter has started to lift the tonearm. Stop the turning of the turntable by hand.
- 1-e) Loosen the adjustment screw (A) and adjust the height of the tonearm lifter so that the stylus height **A** becomes in 4mm to 10mm (3/16" to 13/32").



2. Manual

- 2-a) Put a test record on the mat.
- 2-b) Depress the lifter lever to make a lifter-up mode (∇).
- 2-c) Press the START/STOP button to start the operation.
- 2-d) Turn the POWER off just when the tonearm has come to the lead-in position and stopped moving.
- 2-e) Adjust the adjustment screw (B) so that the stylus height **A** becomes in 4mm to 8mm (3/16" to 13/32").
- 2-f) Secure the portion **B** with locking compound.



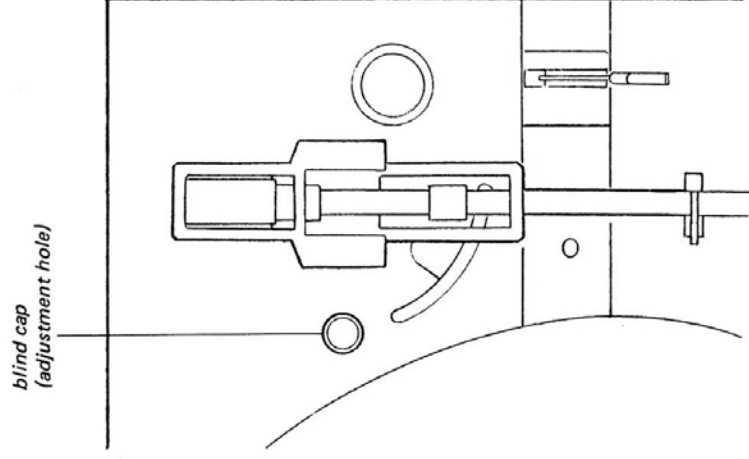
Stylus Drop-point Adjustment

1. Remove the blind cap.
2. Set the SPEED switch to 33.
3. Put a test record YFSC-16 on the mat.
4. Press the START/STOP button.
5. By using a hex-shaped ordinal pencil or a screwdriver, turn the adjustment screw so that the stylus tip drops on the record at the 4 – 16 count position.

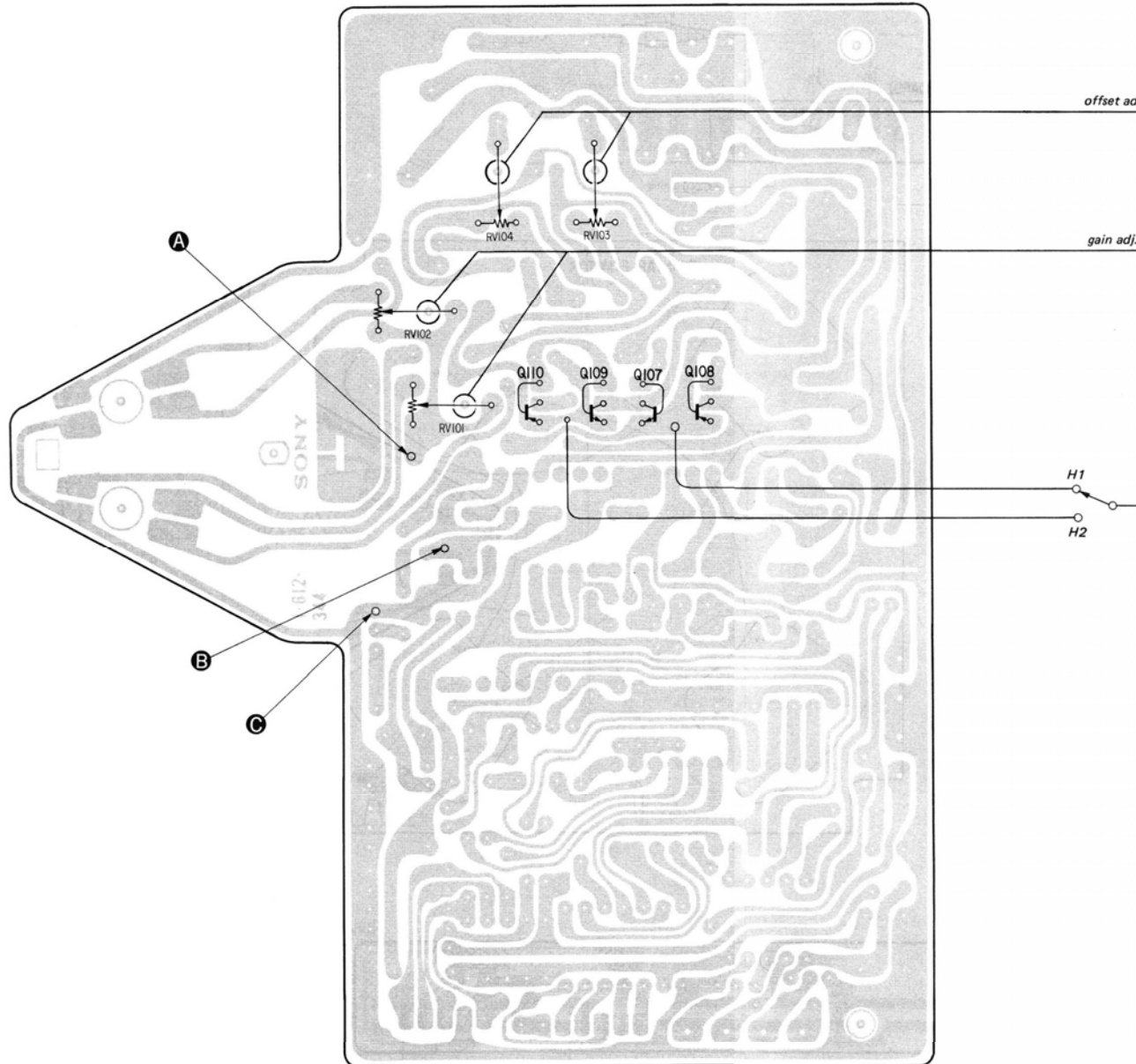
Adjustment screw rotation	Drop point
clockwise	to inside (higher counts)
counterclockwise	to outside (lower counts)

6. After the adjustment, confirm that the auto-return is started within 3 – 12 count on the test record.

Note: The proper adjustment for a 30cm record is also correct for a 17cm record.



3-2. ELECTRICAL ADJUSTMENT



Gain/Offset Adjustments

1. Connect the pattern **B** to the pattern **C** , and apply a 2V dc to the pattern **A** .
2. POWER switch: ON
SPEED switch: 45
3. Adjust the gain adjustment RV101 at the switch position H1 for a 6Vp-p reading on the oscilloscope.
4. Adjust the gain adjustment RV102 at H2 for a 6Vp-p reading.
5. Adjust the offset adjustment RV103 at H1 for a 0V dc centering on the waveform.
6. Adjust the offset adjustment RV104 at H2 for a 0V dc centering.
7. After the adjustments, disconnect the pattern **B** from the pattern **C** and remove the dc-voltage connection from the pattern **A** .

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

adaptor

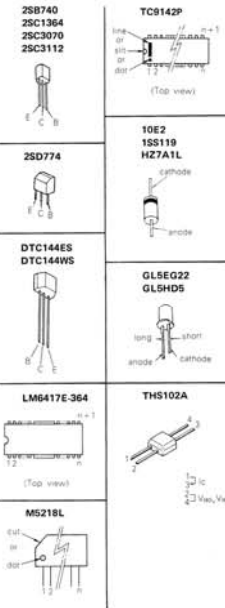
PS-LX410/LX410(C)

DIAGRAMS SECTION 4

PS-LX410/LX410(C) PS-LX410/LX410(C)

4-1. MOUNTING DIAGRAM
— Conductor Side —

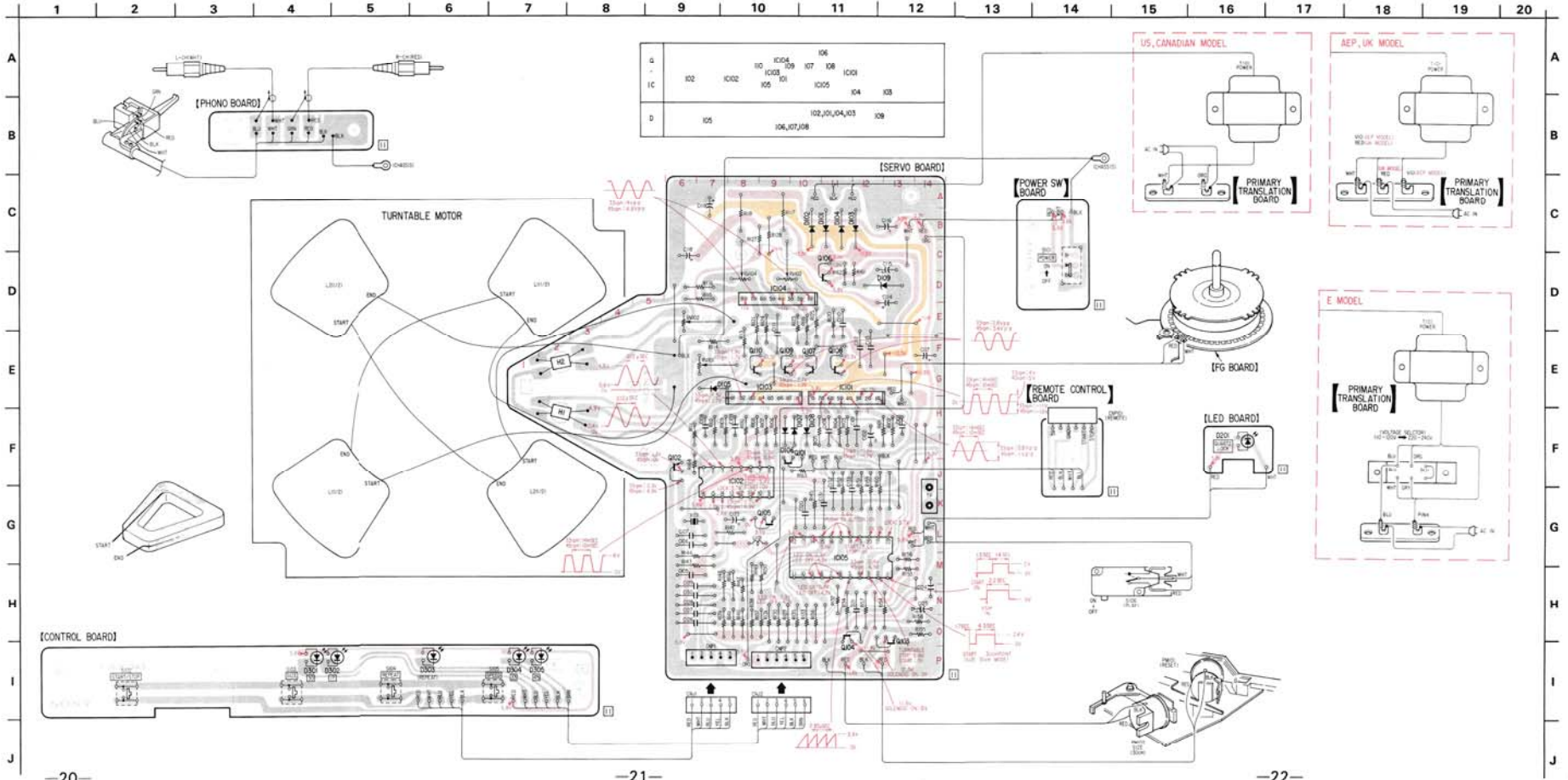
● Semiconductor Lead Layouts



Note:
● Color code of sleeving over the end of the jacket.



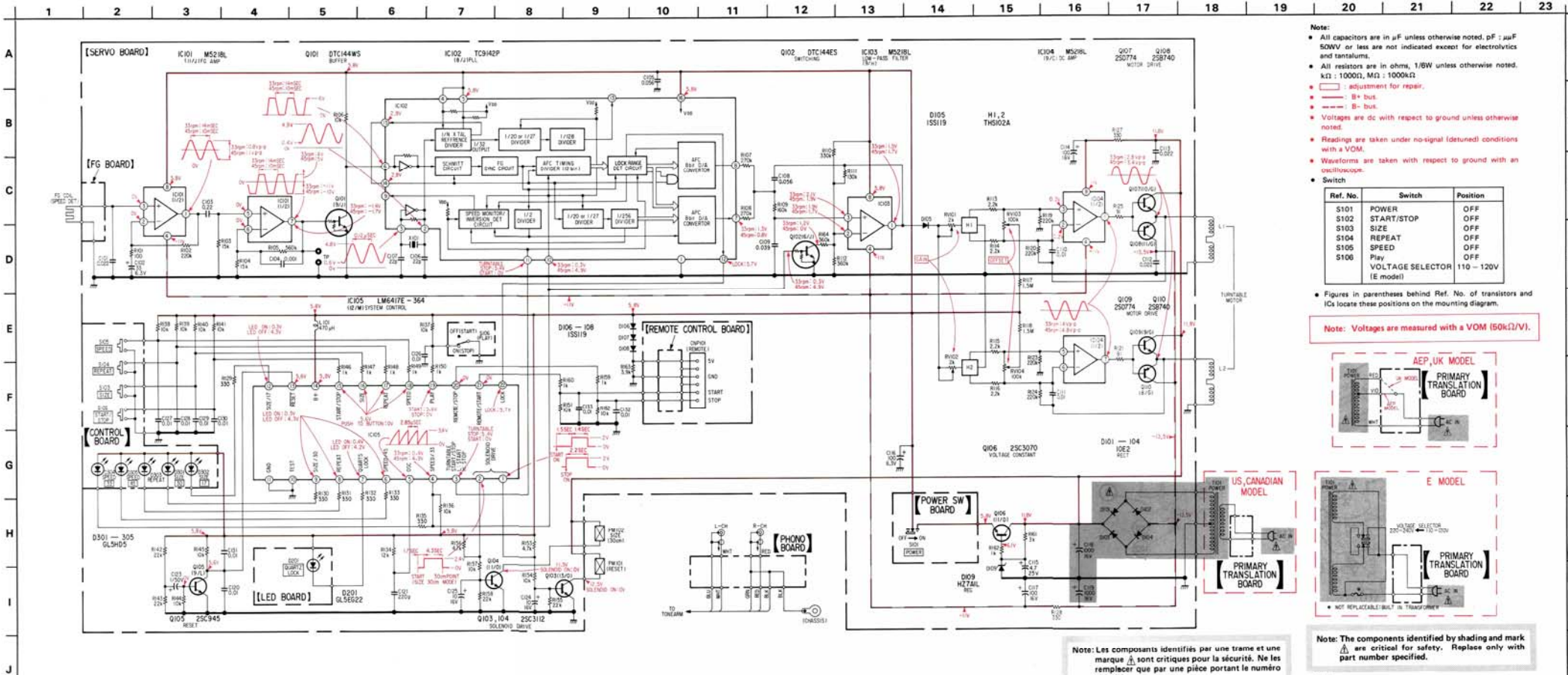
○ : parts extracted from the component side.
● : parts extracted from the conductor side.
■ : 5x pattern



PS-LX410/LX410(C) PS-LX410/LX410(C)

PS-LX410/LX410(C)

4.2. SCHEMATIC DIAGRAM

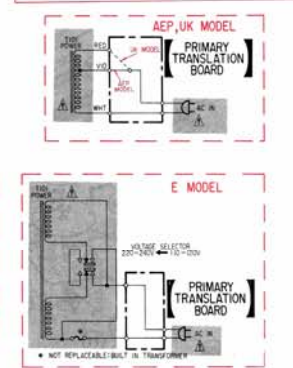


- Note:**
- All capacitors are in μF unless otherwise noted, $\text{pF} \pm \mu\text{F}$ 50WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in ohms, 1/8W unless otherwise noted.
 - \square : 1000 Ω , \square : 10000 Ω
 - \square : adjustment for repair.
 - : B+ bus.
 - : B- bus.
 - Volts are dc with respect to ground unless otherwise noted.
 - Readings are taken under no-signal (detuned) conditions with a VOM.
 - Waveforms are taken with respect to ground with an oscilloscope.
 - Switch

Ref. No.	Switch	Position
S101	POWER	OFF
S102	START/STOP	OFF
S103	SIZE	OFF
S104	REPEAT	OFF
S105	SPEED	OFF
S106	VOLTAGE SELECTOR	Play
		110 - 120V (E model)

Figures in parentheses behind Ref. No. of transistors and ICs locate these positions on the mounting diagram.

Note: Voltages are measured with a VOM (50k Ω /V).

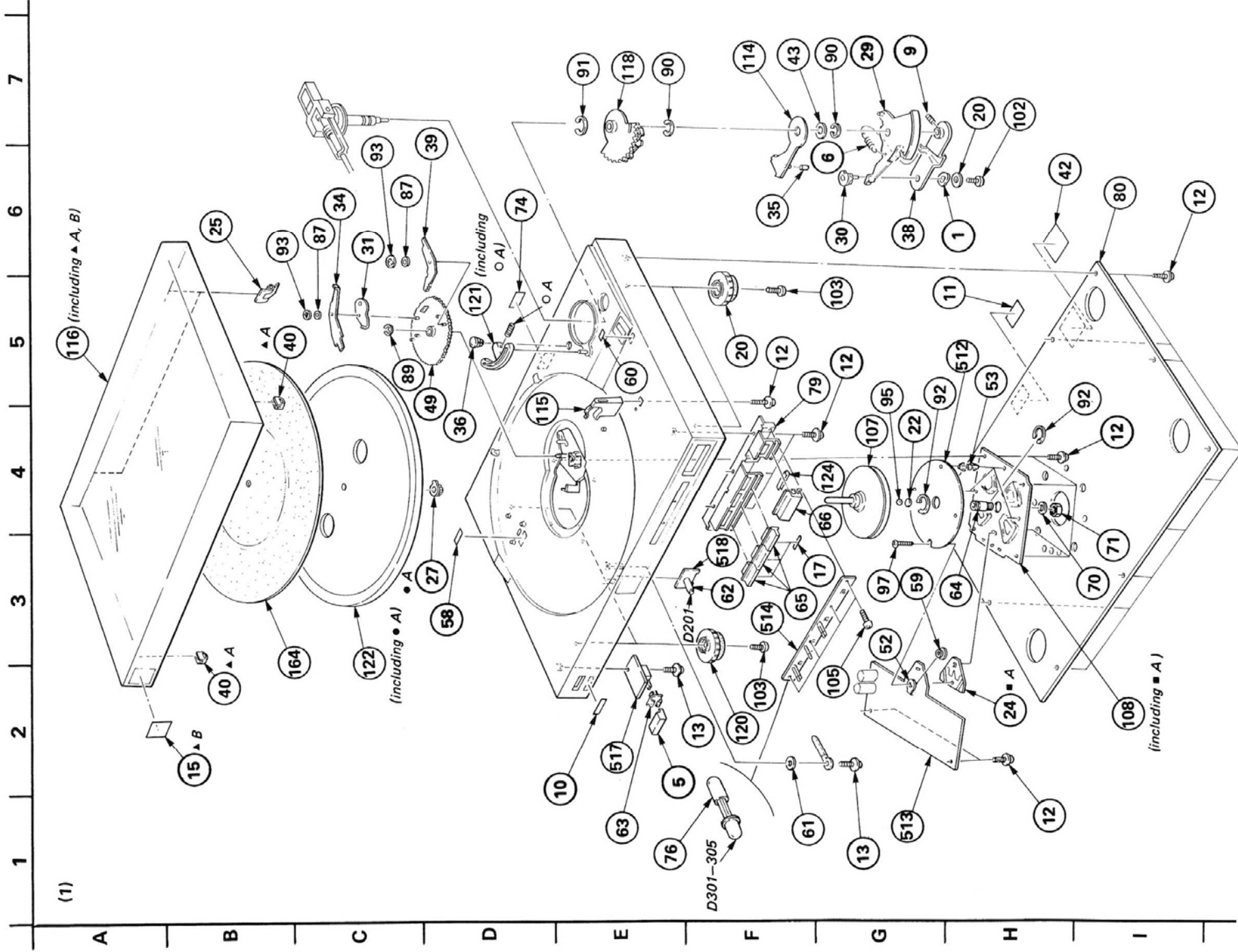


Note: Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

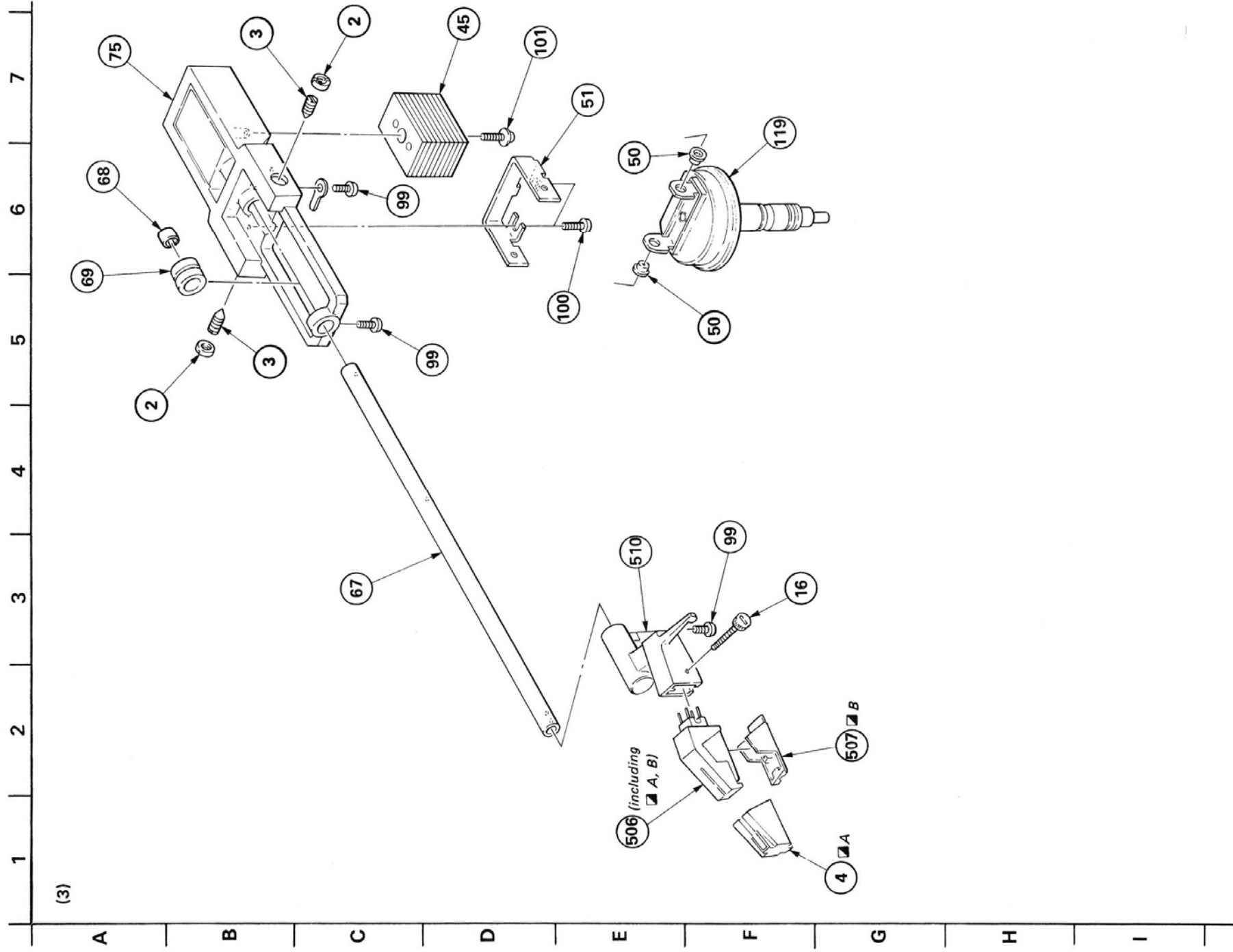
Note: The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

PS-LX410/LX410(C)

SECTION 5 EXPLODED VIEWS AND PARTS LIST



PS-LX410/LX410(C)



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	2-231-824-01	(AEP,UK,E).....COVER, STYLUS
4	4-903-347-01	(Canadian,PS-LX410(C))...COVER, STYLUS
5	3-318-911-01	(SILVER)....KNOB (POWER,L), T MOLD
5	3-318-911-11	(BLACK)....KNOB (POWER,L), MOLD
6	3-548-124-00	SPRING, TENSION
7	3-701-030-00	LABEL, SERIAL NUMBER
8	3-701-441-21	WASHER
9	3-701-509-00	SET SCREW, DOUBLE CUP 3X8
10	3-701-690-00	(UK)....LABEL (MADE IN JAPAN)
11	3-703-043-21	(UK)....LABEL, CAUTION, MAIN
11	3-703-845-01	(US,Canadian)....LABEL, CAUTION, MAIN
12	3-703-136-00	SCREW, PTPMH 3X12
13	3-703-137-00	SCREW, PTPMH 3X10
14	3-703-678-00	LABEL, CAUTION, NEW UL
15	3-703-705-01	STICKER, SONY SYMBOL (30)
16	3-706-937-01	SCREW, SET, CARTRIDGE
17	3-831-441-XX	SPACER (SRS)
18	4-301-647-00	WASHER, SPECIAL
19	4-812-554-00	WASHER
20	4-844-041-00	WASHER, (N)
21	4-844-041-11	WASHER, (N)
22	4-852-007-00	RETAINER (A), THRUST
23	4-852-841-00	TUBE
24	4-857-642-00	HOLDER, PC BOARD
25	4-857-653-00	HINGE, DUST COVER
26	4-861-940-00	SHAFT, LIFTER LEVER
27	4-868-052-00	GEAR, CENTER
28	4-874-218-00	CASE, PUSH ROD
29	4-874-223-00	LEVER (A), ARM
30	4-874-231-00	CAM, ECCENTRIC
31	4-874-232-00	CLUTCH (R)
32	4-874-234-00	CORE
33	4-874-250-00	SPRING
34	4-874-254-00	CLUTCH (S)
35	4-874-259-00	RUBBER, SHOCK ABSORBING
36	4-874-260-11	(BLACK)....CAP, BLIND
36	4-874-260-01	(SILVER)....CAP, BLIND
37	4-874-275-00	PAD, BRAKE
38	4-874-277-00	LEVER (B), ARM
39	4-874-279-00	CLUTCH (L)
40	4-876-304-00	CUSHION, DUST COVER

GENERAL SECTION

No.	Part No.	Description
41	4-876-317-00	GUIDE, LIFTER
42	4-876-344-00	(AEP)....LABEL, CAUTION, POWER CORD
43	4-876-324-21	POLY-SLIDER (DIA. 9.5)
44	4-903-424-01	SPRING, TENSION (RESET)
45	4-877-810-00	WEIGHT
46	4-877-824-00	CAM, LIFTER
47	4-880-501-00	LEVER (A), LIFTER
48	4-880-503-00	SPRING, COMPRESSION
49	4-880-524-00	GEAR (S), DRIVE
50	4-881-618-00	BEARING, PIVOT
51	4-881-628-00	REINFORCEMENT (A)
52	4-881-629-00	PLATE (A), GROUND
53	4-881-636-11	SUPPORT (TMD), PC
54	4-881-656-00	PLATE (UPPER), SHIELD
55	4-881-657-00	PLATE (LOWER), SHIELD
56	4-881-659-00	LEVER (C), LIFTER
57	4-881-688-00	ROD, PUSH
58	4-881-683-00	(E)....LABEL, VOLTAGE
59	4-885-727-00	SPACER
60	4-885-792-00	PLUG IN SEAL (A)
61	4-890-173-00	WASHER
62	4-901-657-00	SPACER (A), LED
63	4-902-831-01	JOINT (G), KNOB
64	4-903-304-01	BEARING
65	4-903-305-01	(SILVER)....KNOB (SRS), T MOLD
65	4-903-305-11	(BLACK)....KNOB (SRS), T MOLD
66	4-903-306-01	(SILVER)....KNOB (SR), T MOLD
66	4-903-306-11	(BLACK)....KNOB (SR), T MOLD
67	4-903-307-01	PIPE, ARM
68	4-903-308-01	SHEET (S)
69	4-903-312-01	WEIGHT, SUB
70	4-903-324-01	PACKING (TMD)
71	4-903-330-01	NUT (TMD), BEARING
72	4-903-331-01	SPRING (LIFTER), COMPRESSION
73	4-903-333-01	KNOB, IFC
74	4-903-401-01	(AEP).....LABEL, MODEL NUMBER
74	4-903-402-01	(US,Canadian)....LABEL, MODEL NUMBER
74	4-903-418-01	(UK).....LABEL, MODEL NUMBER
74	4-903-419-01	(E).....LABEL, MODEL NUMBER
75	4-903-336-01	JOINT, PIPE
76	4-903-408-01	SPACER, LED
77	4-903-409-01	CAM, IFC
78	4-903-410-01	RETAINER (C), LIFTER
79	4-903-412-01	HOLDER, SWITCH, CONTROL
80	4-903-416-01	BOARD, BOTTOM

NOTE:

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- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:

MF:μF, PF:μuF.

RESISTORS

All resistors are in ohms.

F : nonflammable

COILS

MH : mH, UH : μH

SEMICONDUCTORS

In each case, U : μ, for example:

UA....: μA..., UPA....: μPA..., UPC....: μPC,

UPD....: μPD....

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

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

PS-LX410/LX410(C)

GENERAL SECTION

No.	Part No.	Description
81	♣;4-903-421-01	(E)...COVER, VOLTAGE SELECTION
82	7-621-712-17	SET-SCREW, SLOT 2.6X2 CUP POINT
83	7-621-738-08	SET-SCT, HEX, 2.6X4, FLAT POINT
84	7-621-770-67	SCREW +P 2.6X6
85	7-621-775-80	SCREW +B 2.6X16
86	7-622-207-05	N 2.6, TYPE 2
87	7-623-105-15	W 2,MIDDLE
88	7-623-505-01	LUG, 2
89	7-624-106-04	STOP RING 3.0, TYPE -E
90	7-624-133-44	STOP RING 9, TYPE-CE
91	7-624-133-54	STOP RING 10, TYPE-CE
92	7-624-133-94	STOP RING 15, TYPE-CE
93	7-624-190-81	STOP RING 2, TYPE-CS
94	3-701-441-11	WASHER
95	7-671-156-01	BALL, STENLESS
96	7-682-110-01	SCREW +P 3X18
97	7-682-149-13	SCREW +P 3X10
98	7-685-102-14	TOTSU PTPMH 2X4, TYPE 2, SLIT
99	7-685-103-24	SCREW +P 2X5 TYPE2 SLIT
100	7-685-105-24	SCREW +P 2X8 TYPE2 SLIT
101	7-685-134-14	SCREW, TOTSU PTPMH 2.6X8, TYPE2
102	7-685-145-14	SCREW +P 3X6 TYPE2 SLIT
103	7-685-150-14	SCREW +BVTIP 3X16 TYPE2 SLIT
104	7-685-152-21	SCREW +P 3X25 TYPE2 SLIT
105	7-685-646-11	SCREW +BVTIP 3X8 TYPE2 N-S
106	7-685-755-01	SCREW +PTT 3X14 (S)
107	A-4608-277-A	ROTOR ASSY
108	A-4608-278-A	STATOR ASSY
109	♣;X-4874-202-0	LEVER ASSY, MAIN
110	X-4874-203-0	LEVER ASSY, CLUTCH
111	♣;X-4874-204-0	LEVER ASSY, SIZE
112	♣;X-4874-205-0	LEVER ASSY, RESET
113	♣;X-4874-206-0	LEVER ASSY, BRAKE
114	♣;X-4874-209-0	LEVER (B) ASSY, INDEX
115	X-4874-212-1	(SILVER)....REST ASSY, ARM
115	X-4874-212-X	(BLACK)....REST ASSY, ARM
116	X-4877-804-0	COVER ASSY, DUST
117	♣;X-4881-608-0	CHASSIS ASSY
118	X-4881-610-0	LEVER (C) ASSY, INDEX
119	X-4881-611-0	JOINT ASSY, CENTER
120	X-4903-301-1	INSULATOR ASSY
121	X-4903-302-1	PLATE ASSY, UP AND DOWN
122	X-4903-303-1	TABLE ASSY, TURN
123	X-4903-401-1	FLAME ASSY
124	3-831-441-11	SPACER (T)
125	7-621-741-09	SEC-SCREW, HEX, 2.6X8

ACCESSORY & PACKING MATERIAL

No.	Part No.	Description
151	3-701-616-00	(US)...BAG, POLYETHYLENE
152	3-701-630-00	BAG, POLYETHYLENE
153	3-701-634-00	BAG, POLYETHYLENE
154	3-701-806-00	ADAPTOR, 45, (E)
155	3-773-847-11	(AEP,UK,E)....MANUAL, INSTRUCTION
156	3-773-847-21	(US,Canadian)....MANUAL, INSTRUCTION
157	3-773-847-41	(AEP)....MANUAL, INSTRUCTION
158	3-794-123-11	LABEL, CAUTION
159	3-795-753-21	(US)....INSTRUCTION
160	4-858-078-00	SHEET, PROTECTION
161	4-862-043-00	CUSHION, ARM
162	4-874-262-00	GUIDE, RECORD
163	4-876-320-00	SPACER, CLUTCH
164	4-877-807-11	SHEET, TURNTABLE
165	3-773-847-31	(Canadian)....MANUAL, INSTRUCTION
166	4-903-404-01	CUSHION, UPPER (LEFT)
167	4-903-405-01	CUSHION, UPPER (RIGHT)
168	4-903-406-01	CUSHION, LOWER (LEFT)
169	4-903-407-01	CUSHION, LOWER (RIGHT)
170	4-903-422-01	HOLDER, ARM
171	4-903-423-01	PLATE, PROTECTOR
172	4-903-425-02	(PS-LX410)....INDIVIDUAL, CARTON
173	4-903-426-02	(PS-LX410(C))....INDIVIDUAL, CARTON
174	4-903-427-01	HOLDER, TURUTABLE

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CAPACITORS:

MF:μF, PF:μpF.

RESISTORS

- All resistors are in ohms.
- F : nonflammable

COILS

- MH : mH, UH : μH

SEMICONDUCTORS

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

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

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PS-LX410/LX410(C)

ELECTRICAL PARTS

Ref. No.	Part No.	Description
501	♣;1-508-800-13	U TYPE BASE POST 3P
502	♣;1-508-801-00	U TYPE BASE POST 4P
503	♣;1-508-880-00	BASE POST, MCD CONNECTOR 6P
504	♣;1-526-565-00 (E)	AC PULG ADAPTOR
505	♣;1-534-817-XX (AEP)	CORD, POWER, EULO-PLUG
505	♣;1-551-472-00 (E)	CORD, POWER
505	♣;1-551-628-00 (US,Canada)	CORD, POWER
505	♣;1-551-884-00 (UK)	CORD, POWER
506	1-549-117-00	(PS-LX410(C))...CARTRIDGE(VL-45G)
506	A-4505-089-C	(AEP,UK,E).....CARTRIDGE (XL-250G)
507	1-549-118-11	(PS-LX410(C))...STYLUS ASSY, ND-145G
507	A-4587-071-C	(AEP,UK,E).....STYLUS ASSY, ND-250G
508	♣;1-552-535-00	SWITCH, VOLTAGE SELECTOR
509	♣;1-560-070-00	BASE POST
510	1-562-517-11	CONNECTOR (WITH HEAD SHELL) 4P
511	♣;1-608-536-00	PC BOARD, PRIMARY TRANSLATION
512	♣;1-608-883-00	PC BOARD, FG
513	♣;1-612-344-11	PC BOARD, SERVO
514	♣;1-612-345-11	PC BOARD, CONTROL
515	♣;1-612-346-11	PC BOARD, REMOTE CONTROL
516	♣;1-612-347-11	PC BOARD, PHONO
517	♣;1-612-348-11	PC BOARD, POWER SW
518	♣;1-612-349-11	PC BOARD, LED
519	A-4619-237-A	MOUNTED PCB, AMPLIFIER, SERVO
C101	1-161-494-00	CERAMIC 0.022MF
C102	1-123-318-00	ELECT 33MF
C103	1-130-636-00	FILM 0.22MF
C104	1-162-110-00	CERAMIC 0.001MF
C105	1-108-361-51	MYLAR 0.056MF
C106	1-162-052-00	CERAMIC 22PF
C107	1-162-052-00	CERAMIC 22PF
C108	1-130-629-00	FILM 0.056MF
C109	1-130-627-00	FILM 0.039MF
C110	1-162-113-00	CERAMIC 0.01MF
C111	1-162-113-00	CERAMIC 0.01MF
C112	1-161-494-00	CERAMIC 0.022MF
C113	1-161-494-00	CERAMIC 0.022MF
C114	1-123-333-00	ELECT 100MF
C115	1-123-328-00	ELECT 4.7MF
C116	1-123-295-00	ELECT 100MF
C117	1-123-333-00	ELECT 100MF
C118	♣;1-123-324-00	ELECT 1000MF
C119	♣;1-123-324-00	ELECT 1000MF
C120	1-162-113-00	CERAMIC 0.01MF
C121	1-162-102-00	CERAMIC 220PF
C123	1-123-380-00	ELECT 1MF

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ELECTRICAL PARTS

Ref. No.	Part No.	Description
C124	1-123-356-00	ELECT 10MF
C125	1-123-356-00	ELECT 10MF
C126	1-162-113-00	CERAMIC 0.01MF
C127	1-162-113-00	CERAMIC 0.01MF
C128	1-162-113-00	CERAMIC 0.01MF
C129	1-162-113-00	CERAMIC 0.01MF
C130	1-162-113-00	CERAMIC 0.01MF
C131	1-162-113-00	CERAMIC 0.01MF
C132	1-162-113-00	CERAMIC 0.01MF
C133	1-162-113-00	CERAMIC 0.01MF
♣	CNP101;1-560-317-00	CONNECTOR PIN 6P, REMOTE
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	8-719-911-19	DIODE 1SS119
D107	8-719-911-19	DIODE 1SS119
D108	8-719-911-19	DIODE 1SS119
D109	8-719-910-71	DIODE HZ7ALL
D201	8-719-907-36	DIODE GL-5EG22
D301	8-719-904-55	DIODE GL-5HD5
D302	8-719-904-55	DIODE GL-5HD5
D303	8-719-904-55	DIODE GL-5HD5
D304	8-719-904-55	DIODE GL-5HD5
D305	8-719-904-55	DIODE GL-5HD5
H1	8-719-800-17	THS102A
H2	8-719-800-17	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
IC105	8-759-800-94	IC LM6417E-364
L101	1-408-894-00	MICRO INDUCTOR 470UH
PM101	1-454-196-51	SOLENOID (RESET)
PM102	1-454-196-51	SOLENOID (BRAKE)
Q101	8-729-900-85	TRANSISTOR DTC144MS
Q102	8-729-900-89	TRANSISTOR DTC144ES
Q103	8-729-201-83	TRANSISTOR 2SC3112
Q104	8-729-201-83	TRANSISTOR 2SC3112
Q105	8-729-663-47	TRANSISTOR 2SC1364
Q106	8-729-800-34	TRANSISTOR 2SC3070

CAPACITORS:

MF:μF, PF:μuF.

RESISTORS

- All resistors are in ohms.
- F: nonflammable

COILS

MH: mH, UH: μH

SEMICONDUCTORS

In each case, U: μ, for example:

UA....: μA..., UPA....: μPA..., UPC....: μPC, UPD....: μPD....

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

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PS-LX410 / LX410(C)

ELECTRICAL PARTS

Ref.No.	Part No.	Description
Q107	8-729-177-43	TRANSISTOR 2SD774
Q108	8-729-374-02	TRANSISTOR 2SB740
Q109	8-729-177-43	TRANSISTOR 2SD774
Q110	8-729-374-02	TRANSISTOR 2SB740
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	1-247-889-00	CARBON 270K 5% 1/6W
R108	1-247-889-00	CARBON 270K 5% 1/6W
R109	1-247-884-00	CARBON 160K 5% 1/6W
R110	1-247-891-00	CARBON 330K 5% 1/6W
R111	1-247-882-00	CARBON 130K 5% 1/6W
R112	1-247-892-00	CARBON 360K 5% 1/6W
R113	1-247-839-00	CARBON 2.2K 5% 1/6W
R114	1-247-839-00	CARBON 2.2K 5% 1/6W
R115	1-247-839-00	CARBON 2.2K 5% 1/6W
R116	1-247-839-00	CARBON 2.2K 5% 1/6W
R117	1-202-459-00	SOLID 1.5M 5% 1/4W
R118	1-202-459-00	SOLID 1.5M 5% 1/4W
R119	1-247-887-00	CARBON 220K 5% 1/6W
R120	1-247-887-00	CARBON 220K 5% 1/6W
R121	1-247-806-00	CARBON 91 5% 1/6W
R122	1-247-887-00	CARBON 220K 5% 1/6W
R124	1-247-887-00	CARBON 220K 5% 1/6W
R125	1-247-806-00	CARBON 91 5% 1/6W
R127	1-247-819-00	CARBON 330 5% 1/6W
R128	1-247-819-00	CARBON 330 5% 1/6W
R129	1-247-823-00	CARBON 470 5% 1/6W
R130	1-247-823-00	CARBON 470 5% 1/6W
R131	1-247-823-00	CARBON 470 5% 1/6W
R132	1-247-819-00	CARBON 330 5% 1/6W
R133	1-247-823-00	CARBON 470 5% 1/6W
R134	1-247-857-00	CARBON 12K 5% 1/6W
R135	1-247-823-00	CARBON 470 5% 1/6W
R136	1-247-855-00	CARBON 10K 5% 1/6W
R137	1-247-855-00	CARBON 10K 5% 1/6W
R138	1-247-855-00	CARBON 10K 5% 1/6W
R139	1-247-855-00	CARBON 10K 5% 1/6W
R140	1-247-855-00	CARBON 10K 5% 1/6W
R141	1-247-855-00	CARBON 10K 5% 1/6W
R142	1-247-863-00	CARBON 22K 5% 1/6W
R143	1-247-863-00	CARBON 22K 5% 1/6W
R144	1-247-855-00	CARBON 10K 5% 1/6W

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ELECTRICAL PARTS

Ref.No.	Part No.	Description	10K	5%	1/6W
R145	1-247-855-00	CARBON	10K	5%	1/6W
R146	1-247-831-00	CARBON	1K	5%	1/6W
R147	1-247-831-00	CARBON	1K	5%	1/6W
R148	1-247-831-00	CARBON	1K	5%	1/6W
R149	1-247-831-00	CARBON	1K	5%	1/6W
R150	1-247-831-00	CARBON	1K	5%	1/6W
R151	1-247-855-00	CARBON	10K	5%	1/6W
R152	1-247-855-00	CARBON	10K	5%	1/6W
R153	1-247-847-00	CARBON	4.7K	5%	1/6W
R154	1-247-855-00	CARBON	10K	5%	1/6W
R155	1-247-863-00	CARBON	22K	5%	1/6W
R156	1-247-847-00	CARBON	4.7K	5%	1/6W
R157	1-247-855-00	CARBON	10K	5%	1/6W
R158	1-247-863-00	CARBON	22K	5%	1/6W
R159	1-247-831-00	CARBON	1K	5%	1/6W
R160	1-247-831-00	CARBON	1K	5%	1/6W
R161	1-247-842-00	CARBON	3K	5%	1/6W
R162	1-247-831-00	CARBON	1K	5%	1/6W
R163	1-247-845-00	CARBON	3.9K	5%	1/6W
R164	1-247-892-00	CARBON	360K	5%	1/6W
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			
S101	▲,1-552-928-00	SWITCH			
S102	1-554-303-00	SWITCH, KEY BOARD			
S103	1-554-303-00	SWITCH, KEY BOARD			
S104	1-554-303-00	SWITCH, KEY BOARD			
S105	1-554-303-00	SWITCH, KEY BOARD			
S106	1-516-657-00	SWITCH, MICRO			
T101	▲,1-447-256-00	(US,Canadian).....TRANSFORMER, POWER			
T101	▲,1-447-257-00	(AEP,UK).....TRANSFORMER, POWER			
T101	▲,1-447-691-00	(E).....TRANSFORMER, POWER			
X101	1-567-259-11	VIBRATOR, CRYSTAL			

CAPACITORS:

MF:μF, PF:μuF.

RESISTORS

- All resistors are in ohms.
- F : nonflammable

COILS

- MH : mH, UH : μH

SEMICONDUCTORS

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

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