

PS-LX60/LX60P

SERVICE MANUAL

PS-LX60



PS-LX60P



*AEP Model
E Model*

PS-LX60

*UK Model
E Model*

PS-LX60P

• PS-LX60 is the turntable system in XO-D10, D20, D40, D50, and D70.

• PS-LX60P is the turntable system in XO-D50 and D70.

SPECIFICATIONS

Turntable

Platter	30 cm (12 in.)
Motor	DC servo motor
Drive system	Belt drive
Speed	33 $\frac{1}{3}$ rpm/45 rpm switchable
Wow and flutter	0.15% (WRMS)
Signal-to-noise ratio	65 dB (DIN-B)
Automatic system	Return, reject, lead in.

Tonearm

Type	Dynamically balanced
Pivot-to stylus length	206 mm (7 $\frac{7}{8}$ in.)
Overall arm length	235 mm (9 $\frac{3}{8}$ in.)

Cartridge

Type	Moving magnet type
Frequency response	20 Hz–20 kHz
Stylus	ND-155G

General

Dimensions	355 × 100 × 340 mm (w/h/d) (14 × 4 × 13 $\frac{1}{2}$ inches)
Weight	Approx. 2.6 kg (4 lb 14 oz)
Power requirements	The model for Europe: 220 V AC, 50/60 Hz The model for other countries: 110 – 120 V, 220 – 240 V adjustable, 50/60 Hz
Power consumption	The model for Europe: 2 W The model for other countries: 4 W
Accessory supplied	45-rpm adaptor (1)

Note for Cartridge

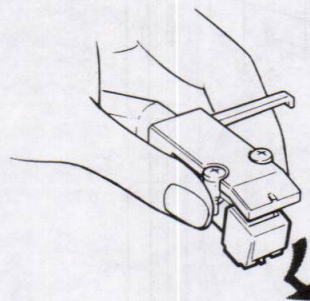
Be careful not to use any cartridge except for specified one (Part No.: 1-549-133-11 VL-55G) as balance weight of pick up arm assy is fixed.

REPLACING THE STYLUS

Replace the stylus after about 400 hours of use because using a worn stylus will damage records.

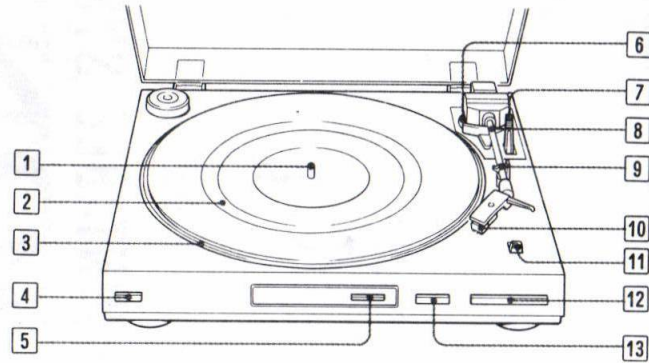
An ND-155G replacement stylus is available at your Sony dealer. Be sure to turn the amplifier off before proceeding with replacement.

- 1 While holding the cartridge, detach the stylus assembly as illustrated.
- 2 Insert the new stylus into the cartridge.



STEREO TURNTABLE SYSTEM
SONY®

LOCATION AND FUNCTION OF CONTROLS



- 1 Center spindle
- 2 Rubber mat
- 3 Turntable platter
- 4 POWER switch (PS-LX60 only)
- 5 SPEED select button
Allows selection of 45 rpm or 33 rpm turntable speed.
- 6 Drop point adjustment hole
- 7 Cueing lever (▼/▼)
- 8 Tonearm
- 9 Arm rest
- 10 Cartridge
- 11 SIZE SELECTOR
Allows selection of 17 cm (7 inch) or 30 cm (12 inch) records.
- 12 ◀ (start) button
- 13 ■ (stop) button

TONEARM DROP-POINT ADJUSTMENT

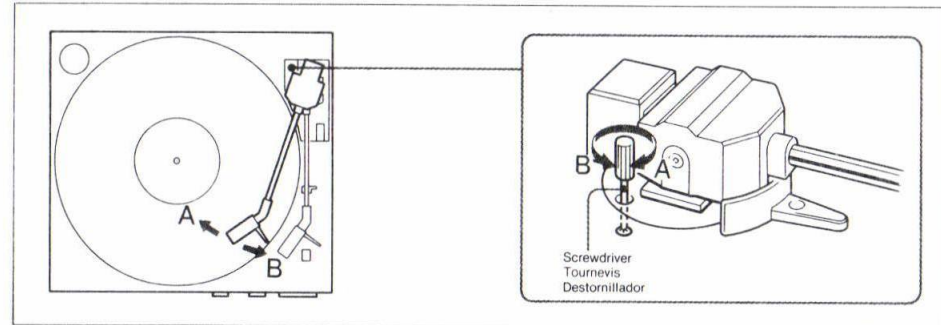
The tonearm drop-point during auto play has been factory-adjusted. If necessary, readjust it as follows.

To move the drop-point toward A, turn the adjustment screw clockwise with a screwdriver.

To move the drop-point toward B, turn the adjustment screw counterclockwise with a screwdriver.

If the tonearm does not return to the arm rest automatically after play

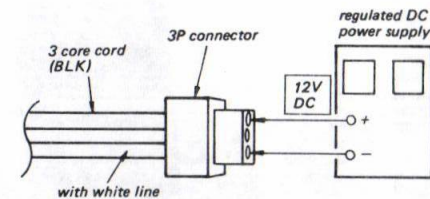
Turn the adjustment screw counterclockwise.



REPAIRING PRECAUTION (PS-LX60P only)

[To supply B+ voltage]

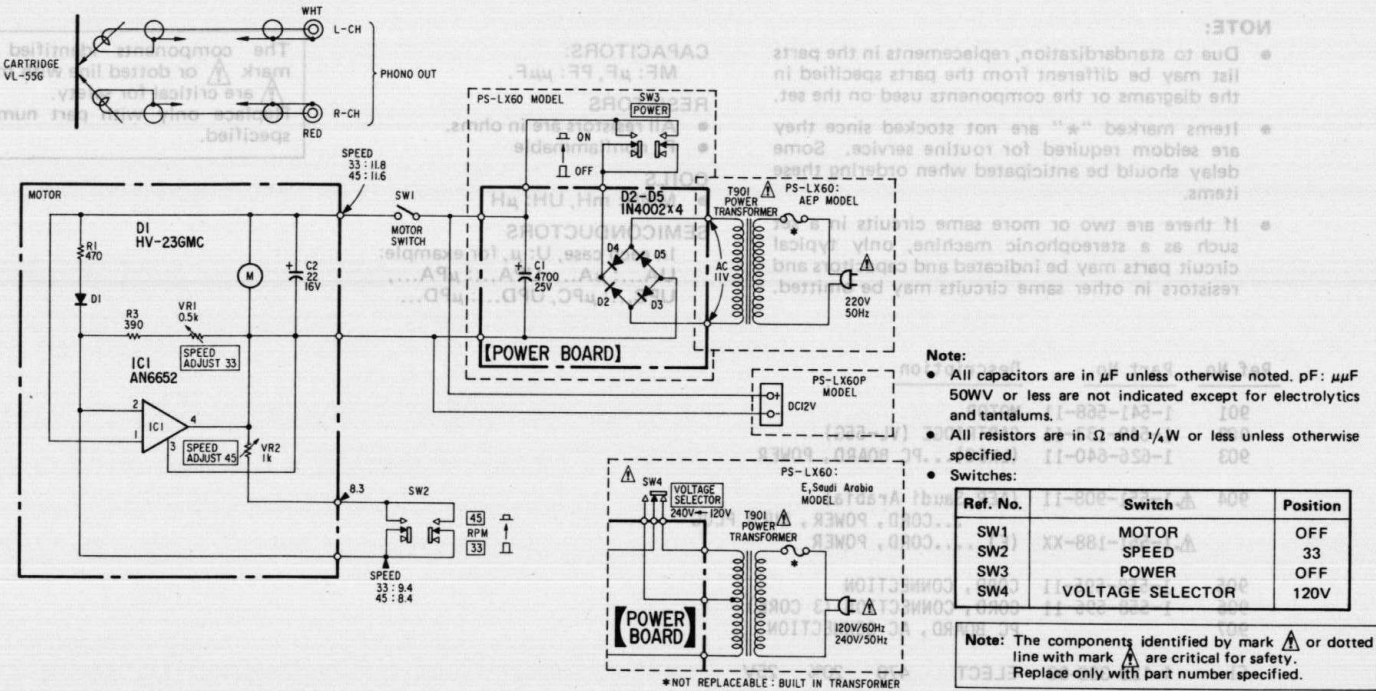
The power of this unit is fed from DXA-D50E. Because of this, connect the regulated DC power supply as illustrated right when this unit alone operates.



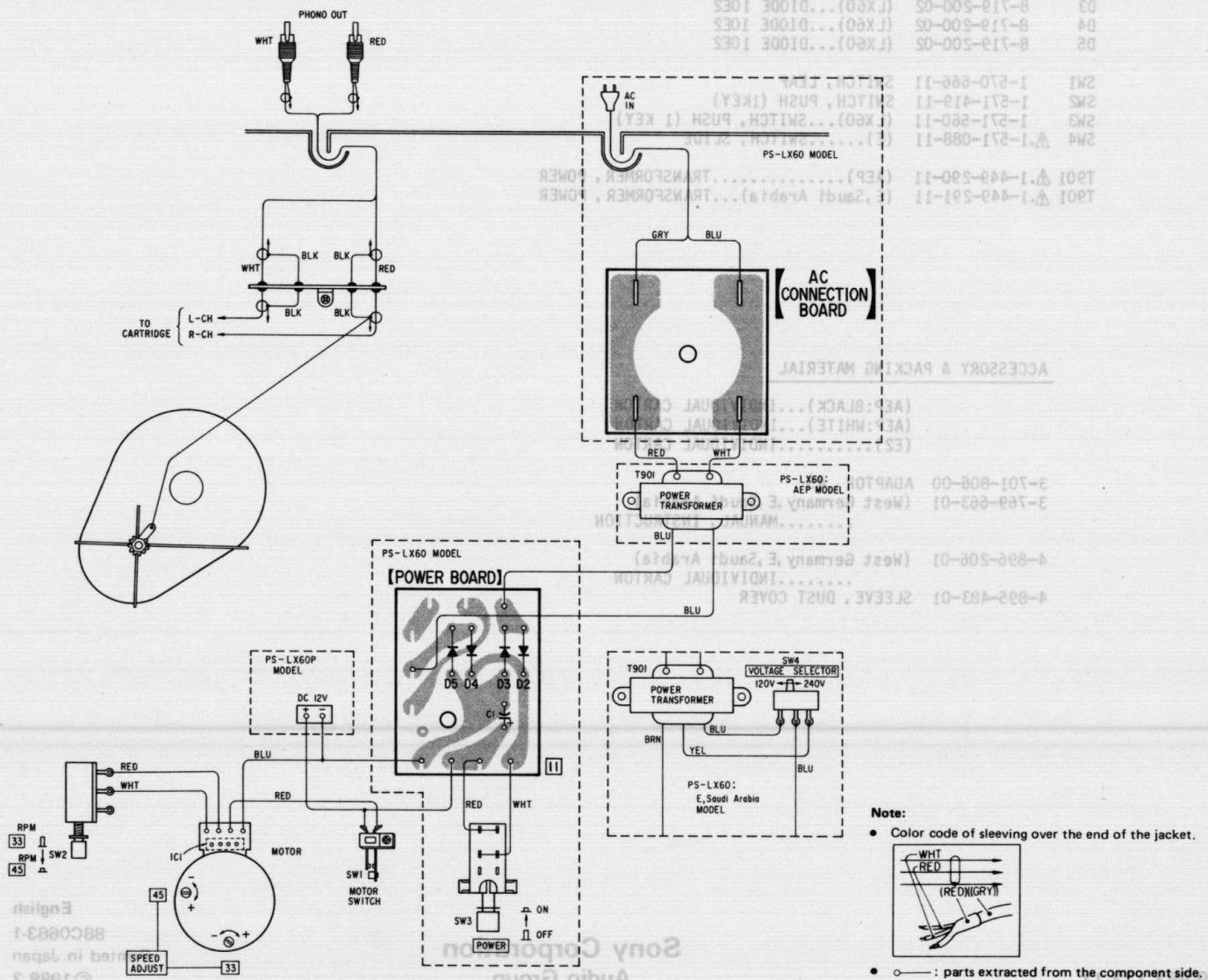
SECTION 2

DIAGRAMS

2-1. SCHEMATIC DIAGRAM



2-2. WIRING DIAGRAM

SECTION 3
EXPLODED VIEWS

NOTE:

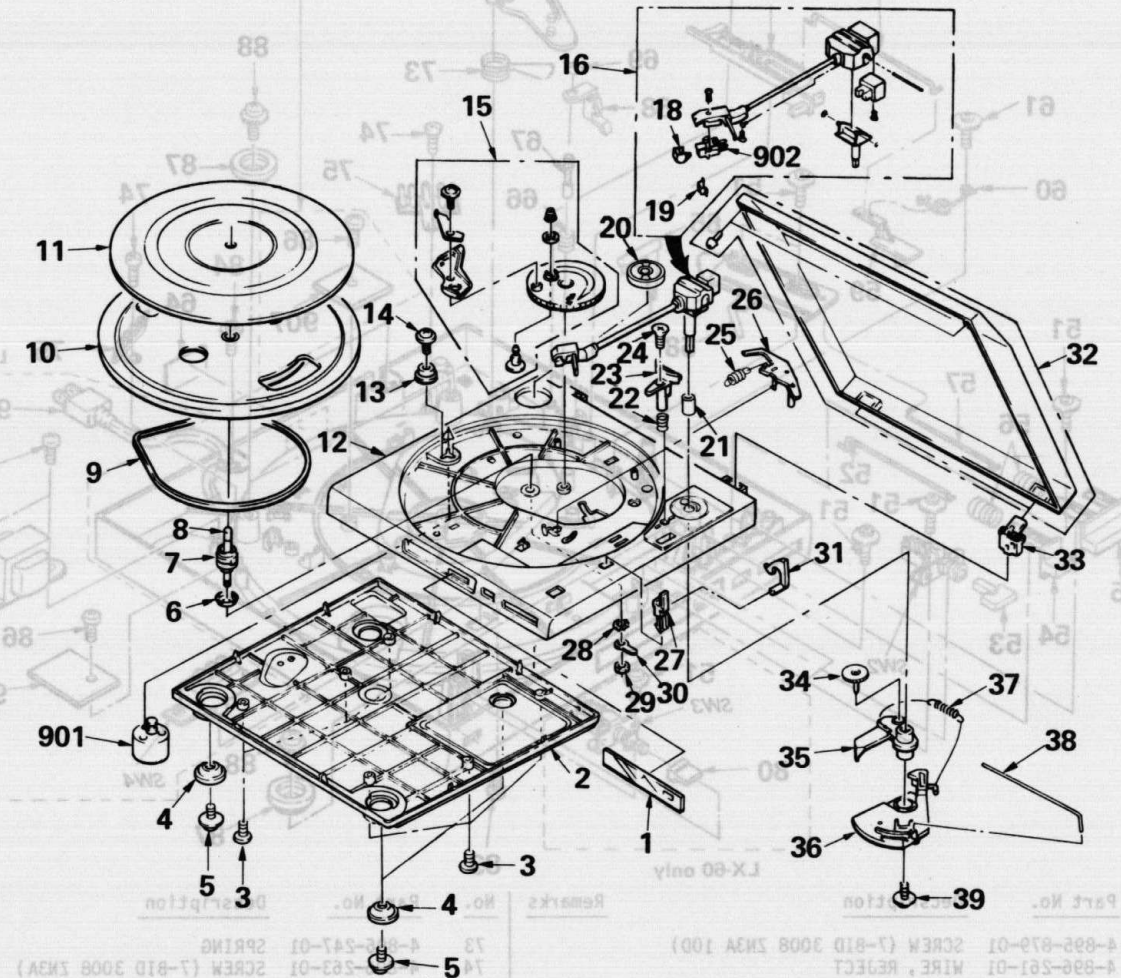
- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts Example: (RED) ... KNOB, BALANCE (WHITE)

Cabinet's Color Parts Color

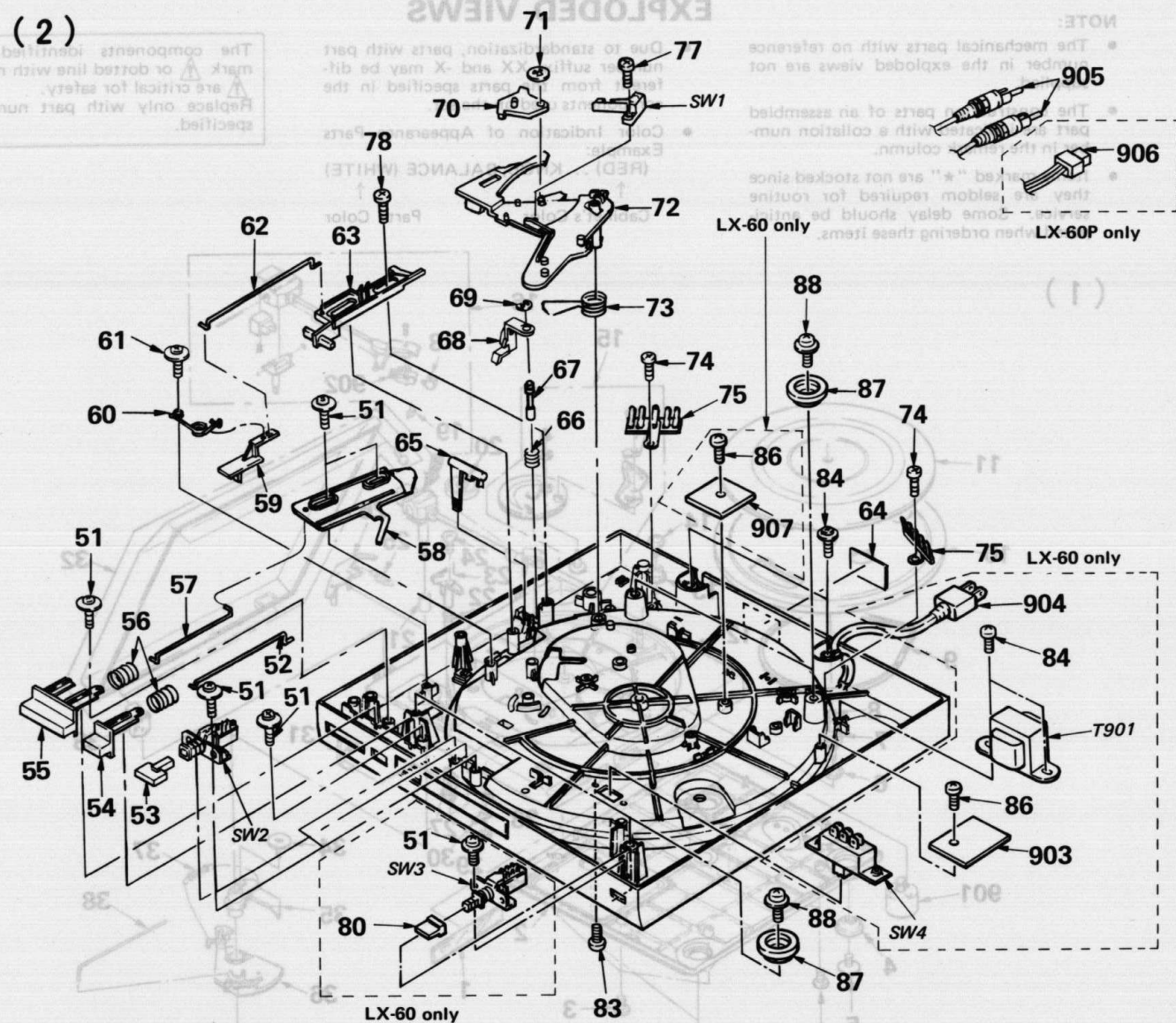
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

(1)



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	4-896-209-01	PANEL, FRONT		20	3-701-806-00	ADAPTOR, 45	
2	*4-896-217-01	(BLACK) ... BOARD, BOTTOM		21	*4-896-265-01	SHAFT, P.U.	
	4-896-217-11	(GRAY) ... BOARD, BOTTOM		22	4-896-267-01	SPRING (A)	
	4-896-289-01	(WHITE) ... BOARD, BOTTOM		23	4-896-258-01	PLATFORM, LIFT	
3	4-896-246-01	SCREW (7-BID 3010 ZN3A)		24	4-896-259-01	SCREW (1-FLAT 2612 ZN3K)	
4	4-895-435-01	FOOT		25	4-896-262-01	SPRING	
5	4-895-430-01	SCREW (7-BID 3008 ZN3A 12D)		26	4-896-260-01	LEVER, REJECT	
6	4-896-210-01	WASHER		27	4-895-417-01	P.U. REST	
7	4-896-233-01	GEAR, T/T		28	4-895-443-01	W GEAR 0003 ZN3A	
8	4-896-232-01	SPINDLE		29	4-895-445-01	NUT 50 ZN3A	
9	4-880-655-01	BELT		30	4-896-239-01	TERMINAL, GROUND	
10	4-896-333-01	TURNTABLE		31	4-895-418-01	P.U. TUBE HOOK	
11	4-896-334-01	TURNTABLE		32	A-4620-041-A	COVER ASSY, DUST	
12	*4-896-211-11	(BLACK) ... CABINET		33	4-895-410-01	HINGE ASSY	
	4-896-288-01	(LX60P: WHITE) ... CABINET		34	4-895-458-01	ADJUST CAM	
	4-896-288-11	(LX60: WHITE) ... CABINET		35	4-896-223-01	LINK (A), RETURN	
	4-896-211-21	(LX60: GRAY) ... CABINET		36	4-896-224-01	LINK (B), RETURN	
	4-896-211-31	(LX60P: GRAY) ... CABINET		37	4-895-460-01	ADJUST SPRING	
13	4-895-414-01	GROMMET (A)		38	*4-896-264-01	ROD, TRIP	
14	4-895-413-01	SCREW		39	4-896-249-01	SCREW (7-BID 3014 ZN3A 12D)	
15	X-4895-409-1	GEAR ASSY, CAM		901	1-541-568-11	MOTOR	
16	X-4895-410-1	ARM ASSY		902	1-549-133-11	CARTRIDGE (VL-55G)	
18	4-896-234-01	BEAM		903	1-626-640-11	(LX60) ... PC BOARD, POWER	
19	4-896-235-01	COVER, BEAM					

(2)



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
51	4-895-879-01	SCREW (7-BID 3008 ZN3A 10D)		73	4-896-247-01	SPRING	
52	4-896-261-01	WIRE, REJECT		74	4-896-263-01	SCREW (7-BID 3008 ZN3A)	
53	4-896-241-01	(BLACK)... BUTTON, SPEED		75	*4-895-423-01	LUG TERMINAL	
	4-896-241-11	(GRAY)... BUTTON, SPEED		76	4-896-256-01	SCREW ASSY	
	4-896-290-01	(WHITE)... BUTTON, SPEED					
54	4-896-240-01	(BLACK)... BUTTON, STOP		77	7-685-104-19	SCREW (7-PAN 2006 ZN3A)	
	4-896-240-11	(GRAY)... BUTTON, STOP		78	7-685-649-79	SCREW (7-BID 3016 ZN3A)	
	4-896-291-01	(WHITE)... BUTTON, STOP		80	4-895-896-01	BUTTON, POWER	
55	4-896-242-01	(BLACK)... BUTTON, START					
	4-896-242-11	(GRAY)... BUTTON, START		83	7-621-775-20	2-BID 2605 ZN3A	
	4-896-292-01	(WHITE)... BUTTON, START		84	4-895-430-01	SCREW (7-BID 3008 ZN3A 12D)	
56	4-896-255-01	SPRING		86	7-685-647-79	SCREW +P 3X10 TYP A N-S	
57	4-896-216-01	WIRE, CONTROL ARM		87	4-895-435-01	FOOT	
58	4-896-215-01	LEVER, CONTROL		88	7-685-646-79	SCREW (7-BID ZN3A 12D)	
59	4-896-243-01	KNOB, SPEED		903	1-626-640-11	(LX60)... PC BOARD, POWER	
60	4-896-244-01	SPRING		904	Δ.1-551-908-11	(AEP,Saudi Arabia) ...CORD, POWER, EULO PLUG	
61	4-896-245-01	SCREW (7-CUP 3008 ZN3A 10D)			Δ.1-551-188-XX	(E).....CORD, POWER	
62	*4-896-213-01	WIRE, SELECTOR		905	1-558-595-11	CORD, CONNECTION	
63	4-896-214-01	SELECTOR, SIZE		906	1-558-596-11	CORD, CONNECTION (3 CORE)	
64	*4-896-208-01	LABEL, MODEL NUMBER (ALL)		907		PC BOARD, AC CONNECTION	
65	4-896-212-01	LEVER, CUE		SW1	1-570-666-11	SWITCH, LEAF	
66	4-896-251-01	SPRING (B)		SW2	1-571-419-11	SWITCH, PUSH (1KEY)	
67	4-896-252-01	SHAFT, ARM LIFT		SW3	1-571-560-11	(LX60)...SWITCH, PUSH (1 KEY)	
68	4-896-253-01	FORK, LIFT		SW4	Δ.1-571-088-11	(E).....SWITCH, SLIDE	
69	4-896-254-01	RING (DIA.3), E		T901	Δ.1-449-290-11	(AEP).....TRANSFORMER, POWER	
70	4-896-248-01	CAM		T901	Δ.1-449-291-11	(E,Saudi Arabia)...TRANSFORMER, POWER	
71	4-303-605-00	PUSH NUT DIA.3					
72	4-896-218-01	ARM, CONTROL					

SECTION 4 ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- 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: μ F, PF: μ F.

RESISTORS

- All resistors are in ohms.
- F: nonflammable

COILS

- MMH: mH, UH: μ H

SEMICONDUCTORS

In each case, U: μ , for example:UA.... μ A..., UPA.... μ PA...,
UPC.... μ PC, UPD.... μ PD...

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description
901	1-541-568-11	MOTOR
902	1-549-133-11	CARTRIDGE (VL-55G)
903	1-626-640-11	(LX60)...PC BOARD, POWER
904	Δ.1-551-908-11	(AEP,Saudi Arabia) ...CORD, POWER, EULO PLUG
	Δ.1-551-188-XX	(E).....CORD, POWER
905	1-558-595-11	CORD, CONNECTION
906	1-558-596-11	CORD, CONNECTION (3 CORE)
907		PC BOARD, AC CONNECTION
C1	1-123-336-00	ELECT 470 20% 25V
D2	8-719-200-02	(LX60)...DIODE 10E2
D3	8-719-200-02	(LX60)...DIODE 10E2
D4	8-719-200-02	(LX60)...DIODE 10E2
D5	8-719-200-02	(LX60)...DIODE 10E2
SW1	1-570-666-11	SWITCH, LEAF
SW2	1-571-419-11	SWITCH, PUSH (1KEY)
SW3	1-571-560-11	(LX60)...SWITCH, PUSH (1 KEY)
SW4	Δ.1-571-088-11	(E).....SWITCH, SLIDE
T901	Δ.1-449-290-11	(AEP).....TRANSFORMER, POWER
T901	Δ.1-449-291-11	(E,Saudi Arabia)...TRANSFORMER, POWER

ACCESSORY & PACKING MATERIAL

	(AEP:BLACK)...INDIVIDUAL CARTON
	(AEP:WHITE)...INDIVIDUAL CARTON
	(E2).....INDIVIDUAL CARTON
3-701-806-00	ADAPTOR, 45
3-769-663-01	(West Germany,E,Saudi Arabia)
	MANUAL, INSTRUCTION
4-896-206-01	(West Germany,E,Saudi Arabia)
	INDIVIDUAL CARTON
4-895-483-01	SLEEVE, DUST COVER

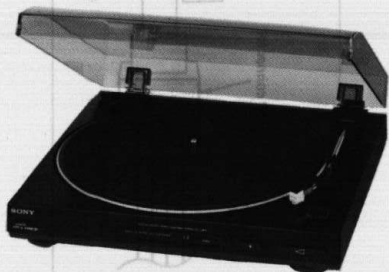
Sony Corporation
Audio Group

English
88C0663-1
Printed in Japan
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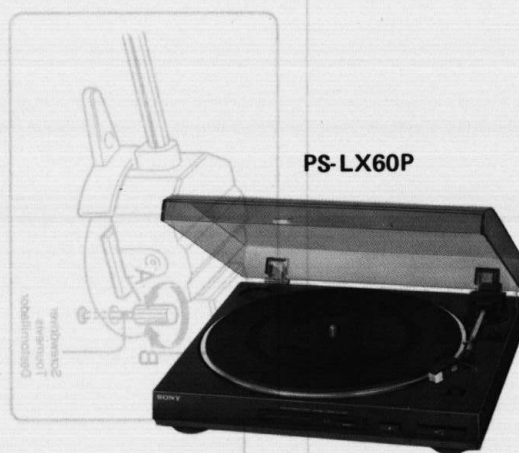
PS-LX60/LX60P

SERVICE MANUAL REVISED

PS-LX60



PS-LX60P



*AEP Model
E Model*

PS-LX60

*UK Model
E Model*

PS-LX60P

• PS-LX60 is the turntable system in XO-D10, D20, D40, D50, and D70.

• PS-LX60P is the turntable system in XO-D50 and D70.

SPECIFICATIONS

Turntable

Platter	30 cm (12 in.)
Motor	DC servo motor
Drive system	Belt drive
Speed	33 $\frac{1}{3}$ rpm/45 rpm switchable
Wow and flutter	0.15% (WRMS)
Signal-to-noise ratio	65 dB (DIN-B)
Automatic system	Return, reject, lead in.

Tonearm

Type	Dynamically balanced
Pivot-to stylus length	206 mm (7 $\frac{7}{8}$ in.)
Overall arm length	235 mm (9 $\frac{1}{8}$ in.)

Cartridge

Type	Moving magnet type
Frequency response	20 Hz - 20 kHz
Stylus	ND-155G

General

Dimensions	355 × 100 × 340 mm (w/h/d) (14 × 4 × 13 $\frac{1}{2}$ inches)
Weight	Approx. 2.6 kg (4 lb 14 oz)
Power requirements	The model for Europe: 220 V AC, 50/60 Hz The model for other countries: 110 - 120 V, 220 - 240 V adjustable, 50/60 Hz
Power consumption	The model for Europe: 2 W The model for other countries: 4 W
Accessory supplied	45-rpm adaptor (1)

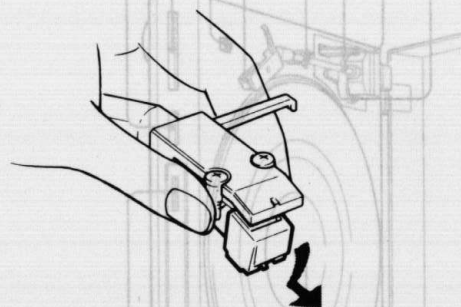
Note for Cartridge

Be careful not to use any cartridge except for specified one (Part No.: 1-549-133-11 VL-55G) as balance weight of pick up arm assy is fixed.

REPLACING THE STYLUS

Replace the stylus after about 400 hours of use because using a worn stylus will damage records. An ND-155G replacement stylus is available at your Sony dealer. Be sure to turn the amplifier off before proceeding with replacement.

- 1 While holding the cartridge, detach the stylus assembly as illustrated.
- 2 Insert the new stylus into the cartridge.



STEREO TURNTABLE SYSTEM
SONY®

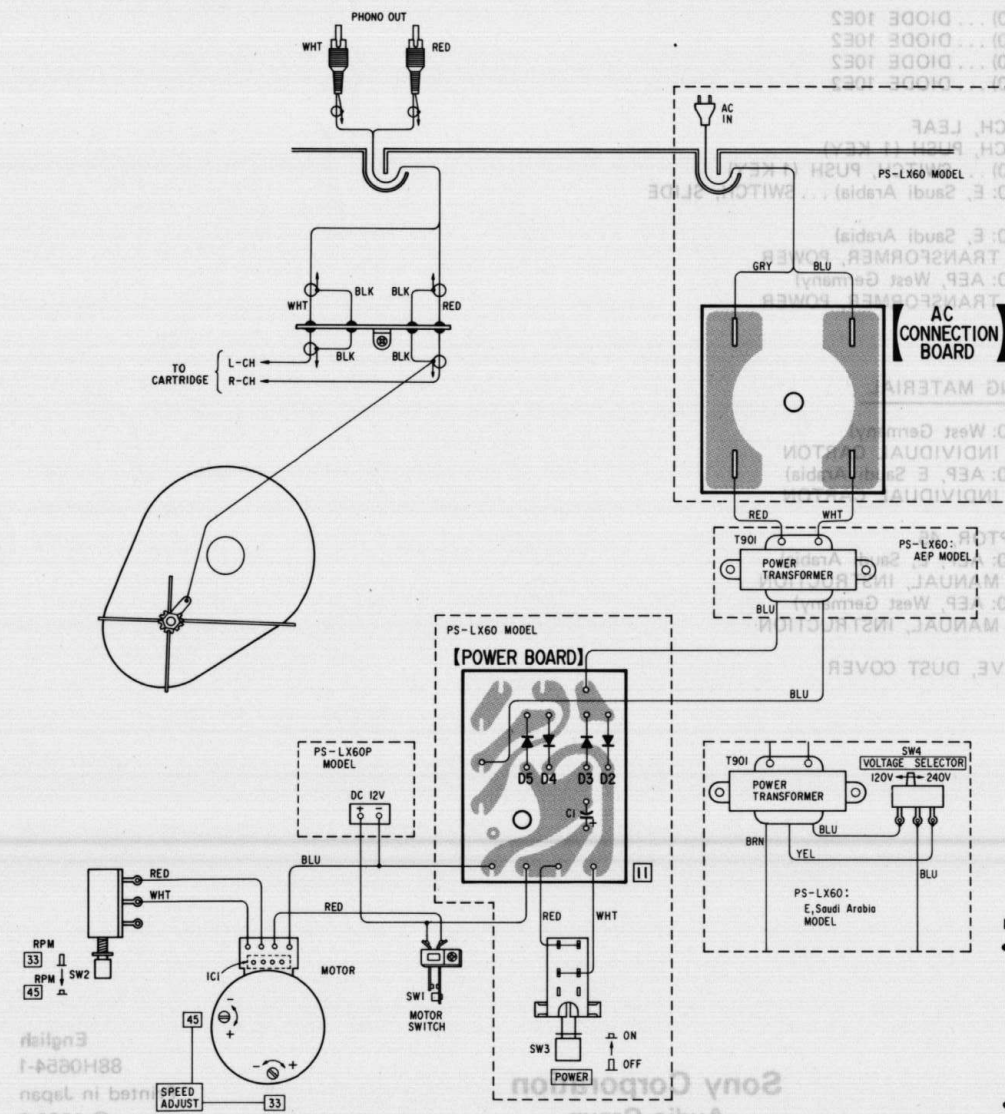
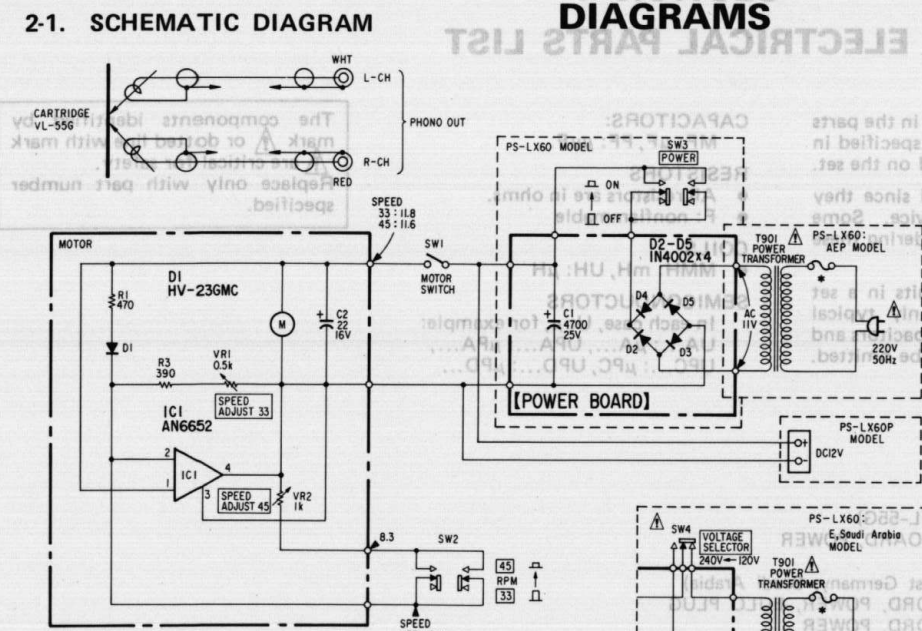
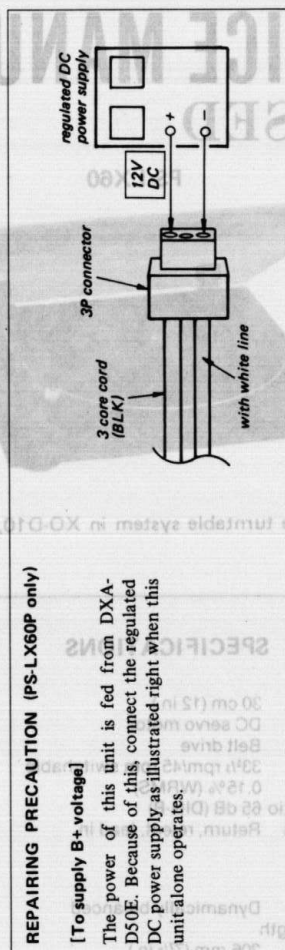
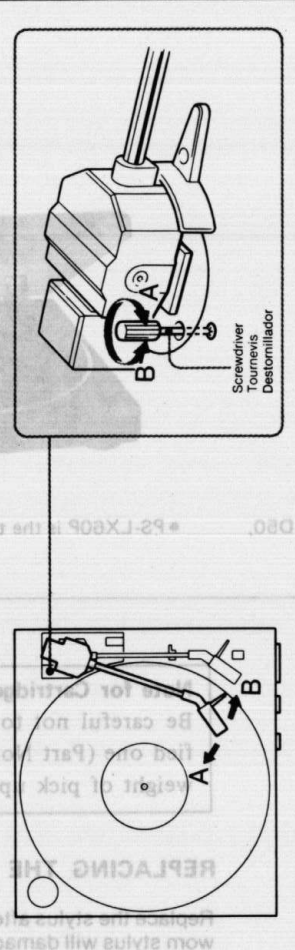


SECTION 2 DIAGRAMS

The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

LOCATION AND FUNCTION OF CONTROLS

13 ■ (stop) button



Note:

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

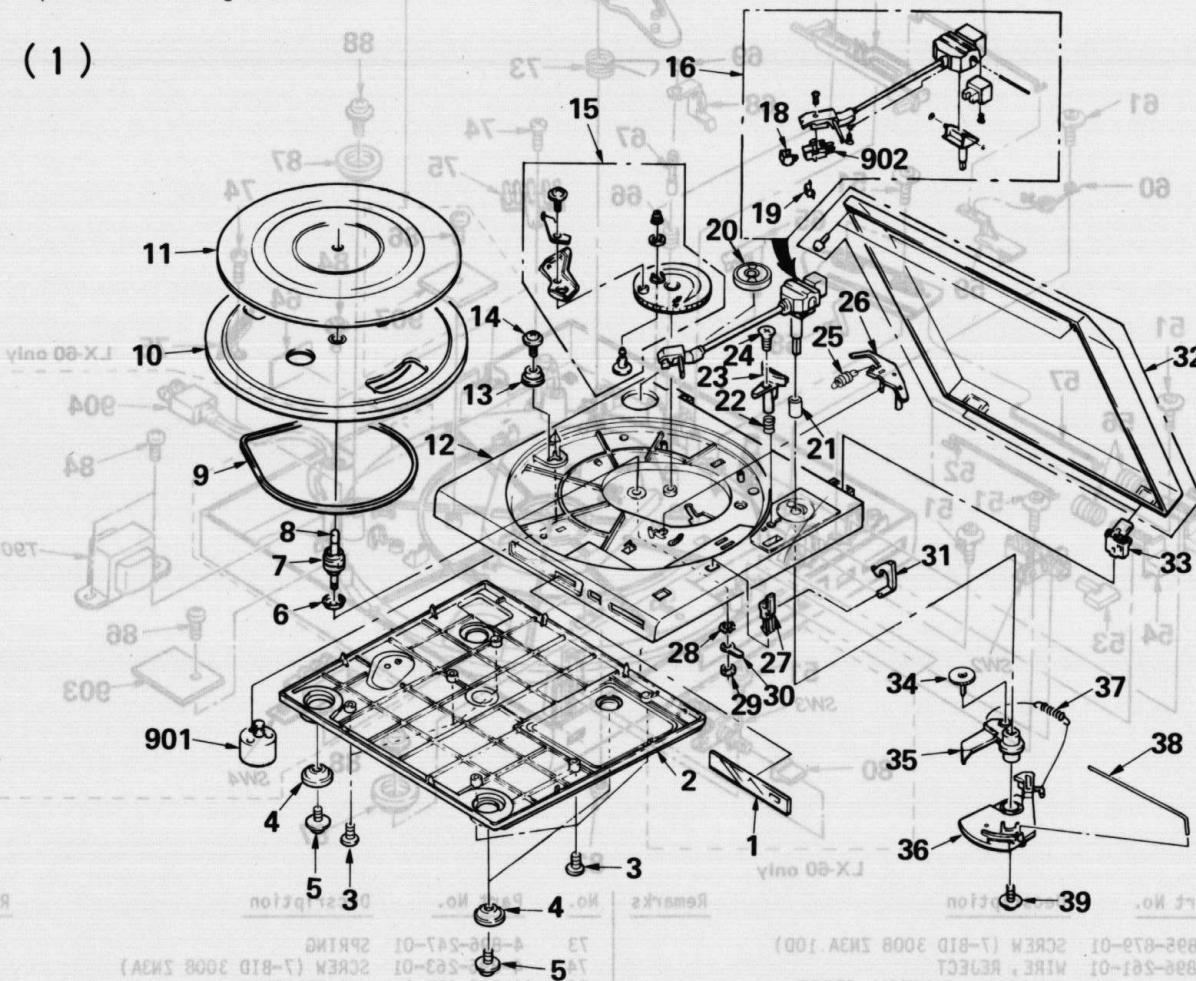


The diagram shows a cross-section of a cable. A central conductor is surrounded by a jacket. A sleeve is applied over the end of the jacket. The sleeve is labeled 'RED' and 'RED (NIGRYI)'. The jacket is labeled 'WHT' and 'RED'.

- — : parts extracted from the component side

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.



No.	Part No.	Description	Remarks
1	4-896-209-01	PANEL, FRONT	
2	*4-896-217-01	(BLACK)..... BOARD, BOTTOM	
	4-896-217-11	(GRAY).... BOARD, BOTTOM	
	4-896-289-01	(WHITE).... BOARD, BOTTOM	
3	4-896-246-01	SCREW (7-BID 3010 ZN3A)	
4	4-895-435-01	FOOT	
5	4-895-430-01	SCREW (7-BID 3008 ZN3A 12D)	
6	4-896-210-01	WASHER	
7	4-896-233-01	GEAR, T/T	
8	4-896-232-01	SPINDLE	
9	4-880-655-01	BELT	
10	4-896-333-01	TURNTABLE	
11	4-896-334-01	TURNTABLE	
12	*4-896-211-11	(BLACK)..... CABINET	
	4-896-288-01	(LX60P: WHITE).... CABINET	
	4-896-288-11	(LX60: WHITE).... CABINET	
	4-896-211-21	(LX60: GRAY).... CABINET	
	4-896-211-31	(LX60P: GRAY).... CABINET	
13	4-895-414-01	GROMMET (A)	
14	4-895-413-01	SCREW	
15	X-4895-409-1	GEAR ASSY, CAM	
16	X-4895-410-1	ARM ASSY	
18	4-896-234-01	BEAM	
19	4-896-235-01	COVER, BEAM	

No.	Part No.	Description	Remarks
20	3-701-806-00	ADAPTOR, 45	
21	*4-896-265-01	SHAFT, P.U	
22	4-896-267-01	SPRING (A)	
23	4-896-258-01	PLATFORM, LIFT	
24	4-896-259-01	SCREW (1-FLAT 2612 ZN3K)	
25	4-896-262-01	SPRING	
26	4-896-260-01	LEVER, REJECT	
27	4-895-417-01	P.U. REST	
28	4-895-443-01	W GEAR 0003 ZN3A	
29	4-895-445-01	NUT 50 ZN3A	
30	4-896-239-01	TERMINAL, GROUND	
31	4-895-418-01	P.U. TUBE HOOK	
32	A-4620-041-A	COVER ASSY, DUST	
33	4-895-410-01	HINGE ASSY	
34	4-895-458-01	ADJUST CAM	
35	4-896-223-01	LINK (A), RETURN	
36	4-896-224-01	LINK (B), RETURN	
37	4-895-460-01	ADJUST SPRING	
38	*4-896-264-01	ROW, TRIP	
39	4-896-249-01	SCREW (7-B10 3014 ZN3A 12D)	
901	1-541-568-11	MOTOR	
902	1-549-133-11	CARTRIDGE (VL-556)	
903	1-626-640-11	(LX60)...PC BOARD, POWER	

SECTION 3
EXPLODE VIEWS

SECTION 4
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- 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: μ F, PF: μ F.

RESISTORS
• All resistors are in ohms.
• F: nonflammable

COILS
• MMH: mH, UH: μ H

SEMICONDUCTORS
In each case, U: μ , for example:
UA...: μ A...: μ PA...: μ PC...: μ PD...

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

No.	Part No.	Description	Remarks
51	4-895-879-01	SCREW (7-BID 3008 ZN3A 100)	
52	4-896-261-01	WIRE, REJECT	
53	4-896-241-01	(BLACK)... BUTTON, SPEED	
	4-896-241-11	(GRAY)... BUTTON, SPEED	
	4-896-290-01	(WHITE)... BUTTON, SPEED	
54	4-896-240-01	(BLACK)... BUTTON, STOP	
	4-896-240-11	(GRAY)... BUTTON, STOP	
	4-896-291-01	(WHITE)... BUTTON, STOP	
55	4-896-242-01	(BLACK)... BUTTON, START	
	4-896-242-11	(GRAY)... BUTTON, START	
	4-896-292-01	(WHITE)... BUTTON, START	
56	4-896-255-01	SPRING	
57	4-896-216-01	WIRE, CONTROL ARM	
58	4-896-215-01	LEVER, CONTROL	
59	4-896-243-01	KNOB, SPEED	
60	4-896-244-01	SPRING	
61	4-896-245-01	SCREW (7-CUP 3008 ZN3A 100)	
62	*4-896-213-01	WIRE, SELECTOR	
63	4-896-214-01	SELECTOR, SIZE	
64	*4-896-208-01	LABEL, MODEL NUMBER (ALL)	
65	4-896-212-01	LEVER, CUE	
66	4-896-251-01	SPRING (B)	
67	4-896-252-01	SHAFT, ARM LIFT	
68	4-896-253-01	FORK, LIFT	
69	4-896-254-01	RING (DIA.3), E	
70	4-896-248-01	CAM	
71	4-303-605-00	PUSH NUT DIA.3	
72	4-896-218-01	ARM, CONTROL	
73	4-896-247-01	SPRING	
74	4-896-263-01	SCREW (7-BID 3008 ZN3A)	
75	*4-895-423-01	LUG TERMINAL	
76	4-896-256-01	SCREW ASSY	
77	7-685-104-19	SCREW (7-PAN 2006 ZN3A)	
78	7-685-649-79	SCREW (7-BID 3016 ZN3A)	
80	4-895-896-01	(LX60)... BUTTON, POWER	
83	7-621-775-20	2-BID 2605 ZN3A	
84	4-895-430-01	SCREW (7-BID 3008 ZN3A 12D)	
85	7-685-647-79	SCREW +P 3X10 TYP A N-S	
87	4-895-435-01	FOOT	
88	7-685-646-79	SCREW (7-BID ZN3A 12D)	
903	1-626-640-11	(LX60)... PC BOARD, POWER	
904	Δ 1-551-908-11	(LX60: AEP, Saudi Arabia) ...CORD, POWER, EULO PLUG	
	Δ 1-551-188-XX	(LX60: E)...CORD, POWER	
905	1-558-595-11	CORD, CONNECTION	
906	1-558-596-11	(LX60P)... CORD, CONNECTION (3 CORE)	
907	4-896-337-01	(LX60)... PC BOARD, AC CONNECTION	
SW1	1-570-666-11	SWITCH, LEAF	
SW2	1-571-419-11	SWITCH, PUSH (1 KEY)	
SW3	1-571-560-11	(LX60)... SWITCH, PUSH (1 KEY)	
SW4	Δ 1-571-088-11	(LX60: E, Saudi Arabia)... SWITCH, SLIDE	
T901	Δ 1-449-290-11	(LX60: E, Saudi Arabia) ...TRANSFORMER, POWER	
T901	Δ 1-449-291-11	(LX60: AEP, West Germany) ...TRANSFORMER, POWER	

ACCESSORY & PACKING MATERIAL

4-896-206-01	(LX60: West Germany) ...INDIVIDUAL CARTON
4-896-336-01	(LX60: AEP, E Saudi Arabia) ...INDIVIDUAL CARTON
3-701-806-00	ADAPTOR, 45
3-769-871-12	(LX60: AEP, E, Saudi Arabia) ...MANUAL, INSTRUCTION
3-769-871-41	(LX60: AEP, West Germany) ...MANUAL, INSTRUCTION
4-895-483-01	SLEEVE, DUST COVER

SECTION 5
WIRING DIAGRAM

SECTION 6
SCHEMATIC DIAGRAM

SECTION 7
EXPLODED VIEWS