<R42-328-0>

SERVICE MANUAL

STEREO TURNTABLE

PL-12E

PV

PIONEER®

<73B02E31F>

1. SPECIFICATIONS

MOTOR AND TURNTABLE

Motor	4-pole synchronous motor
Turntable drive	Belt-driven
Speed	Two speeds, 33-1/3, 45 rpm
Wow and flutter	0.1% (WRMS) or less
S/N	47dB or more
Turntable platter	12" (30cm) diameter die-cast aluminum alloy

TONEARM

Tonearm	Static balance type, pipe arm
Effective arm length	22.1cm
Furnished cartridge	PIONEER PC-12 (Moving magnet type)

MISCELLANEOUS

Power requirements	AC 220/240V, 110/130V, 60Hz or 50Hz
Power consumption	10W (MAX)
Dimensions	430(W) x 160.5(H) x 349(D)mm (17 x 6-5/16 x 13-3/4 in.)
Weight	7.5kg (16 lb. 8 oz.)

ACCESSORIES

Lubricator	1	EP adaptor	1
Screwdriver	1	Motor pulley	1
Sub counterweight	1	Operating Instructions	1

FURNISHED CARTRIDGE MODEL PC-12

Type	Moving magnet type
Construction	Super permalloy shield
Frequency response	20~23,000Hz
Output voltage	4mV (1kHz 50mm/s)
Channel separation	23dB over (at 1kHz 10mm/s)
Load impedance	30kΩ~100kΩ
Impedance	2.5kΩ (at 1kHz)
Static compliance	15.0 x 10^{-6} cm/dyn
Dynamic compliance	7.5 x 10^{-6} cm/dyn
Stylus point	0.6 mil diamond
Stylus for replacement	Pioneer stylus model PN-12
Tracking force (stylus pressure)	2.7~3.3g
Weight	5.5g

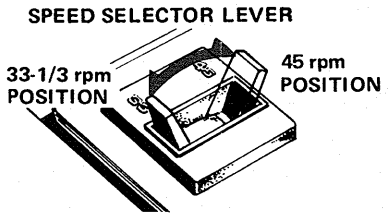
All conforms to EIA specification.

NOTE: Specifications and the design subject to possible modification without notice due to improvements.

2. OPERATIONS

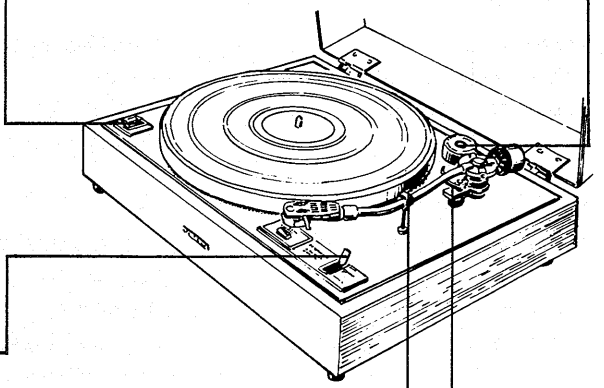
SPEED SELECTOR LEVER

The PL-12E is a two-speed (45, 33-1/3 rpm) turntable. Simply flick the lever to the desired position to change speeds.
Since the belt is in constant contact with the motor pulley, the speed can be changed only while the motor is rotating.



EP RECORD ADAPTOR

An EP record adaptor is supplied in the accessory group, which permits 45 rpm records with large center holes to be played. When the adaptor is not in use, keep it on the pin located in the upper right of the base plate.



FUNCTION LEVER

The three positions of this lever control the ON/OFF motor switching and the tonearm DOWN/UP positioning.

* **POSITION "ON-UP"**

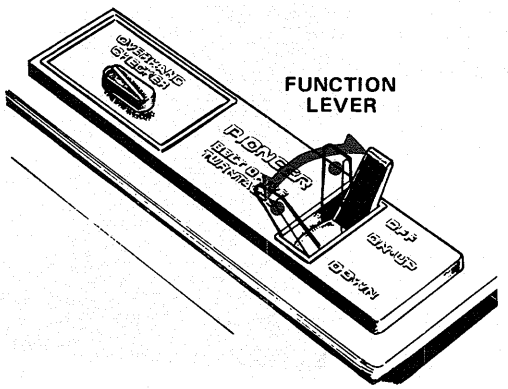
Power is supplied to the motor and the turntable platter revolves. If the lever is moved to this position from position DOWN, the tonearm will be lifted off the record surface slowly and smoothly. However, the platter will continue to revolve.

* **POSITION "DOWN"**

When the lever is moved to this position, the tonearm gently lowers until the stylus is in the groove. This is the position for playing the record.

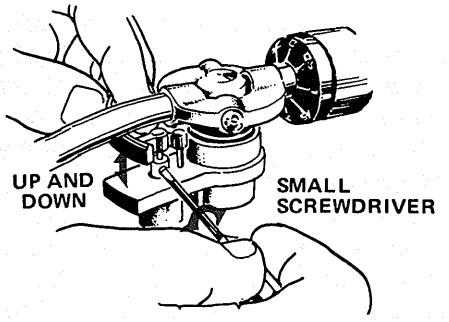
* **POSITION "OFF"**

This turns OFF the power to the motor. When the lever is moved to this position from position DOWN, the tonearm lifts and the platter stops moving.



ARM ELEVATION DEVICE

The tonearm is raised and lowered by this hydraulic device, according to the operation of the function lever. A screw is also provided to adjust tonearm elevation.



ARM REST

This rest holds the tonearm and protects its precision balance. The tonearm should always be in the rest when a record is not being played.

3. LINE VOLTAGE AND LINE FREQUENCY

3.1 LINE VOLTAGE

If the PL-12E does not agree with the line voltage of your service area, set the unit to the proper line voltage as follows.

1. The line voltage selector switch, provided inside the wooden base, can be seen when the bottom plate is opened (Fig. 1).
2. Fig. 2 shows the location of the line voltage selector switch and metal stopper. Remove the screw, to free the metal stopper.
3. Set the selector switch to the local voltage, hold the switch in position with the metal stopper, and tighten the screws.

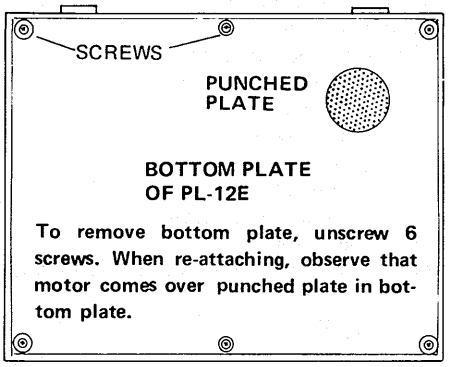


Fig. 1

3.2 LINE FREQUENCY

If the frequency in your area does not agree with the operation line frequency of the turntable, change the operation line frequency of the unit in the following sequence:

1. Remove the turntable platter. Now the motor pulley is accessible. The pulley is fastened to the motor shaft by one little screw.
   Remove this screw with the supplied screwdriver, and remove the pulley.
2. Set the speed selector lever at position 33 rpm.
3. Attach the supplied spare motor pulley and fasten it with one screw removed in step 1. Do not tighten the screw firmily, yet. Then set the turntable platter on the unit and lead the drive belt around the pulley.
4. The belt should be positioned in the belt guide and around the center of the upper (smaller) part of the motor pulley. To achieve this, it may be necessary to loosen the pulley once more and adjust its height as shown in Fig. 3.
5. Turn the unit on and confirm that the belt travels smoothly through the belt guide and around the pulley.

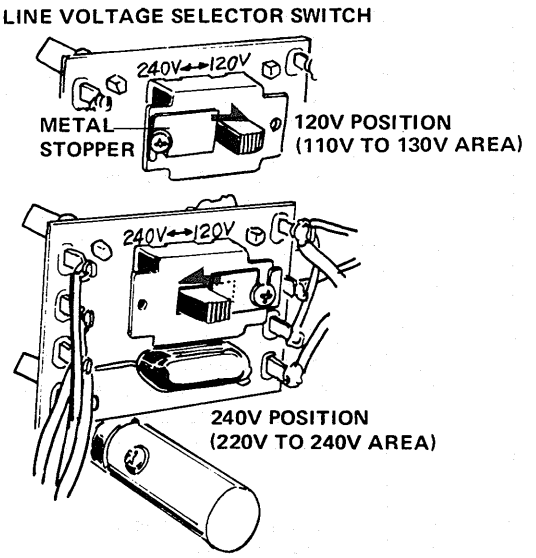


Fig. 2

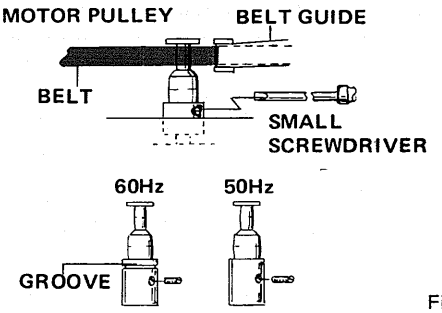


Fig. 3

HOW TO DESTINGUISH THE MOTOR PULLEYS

Pulley for 50Hz AC: larger diameter.
Pulley for 60Hz AC: smaller diameter, also has a groove in its lower part.

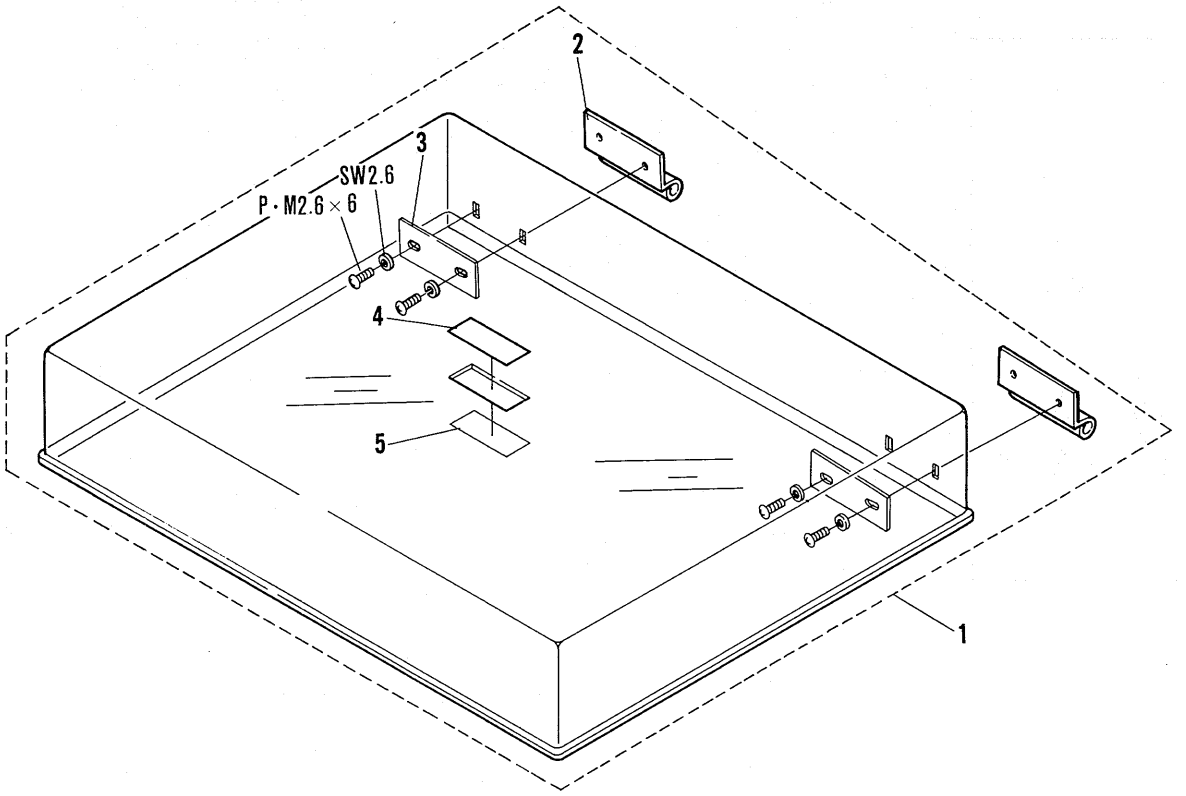
4. EXPLODED VIEWS AND PARTS LIST

The following symbols stand for screws, nut, washers as shown in EXPLODED VIEWS.
P: Pan head screw
PSB: Pan head sems B screw
PSF: Pan head sems F screw
N: Hexagon nut
E: Retaining washer
FW: Flat washer
SW: Spring washer
C: Countersunk head screw
T: Tapping screw
Figures succeeding these symbols denote dimensions.

4.1 CABINET

NOTICE: Any parts asterisked *are subject to being not supplied.

Key No.	Description	Part No.	
1	Dust cover	KEC-060-A	
2	Hinge (C)	N62-003-0	
3	Plate	N62-001-0	
4	Name plate	KAM-020-0	
5	Name plate	A55-013-A	
6	⊕ 3.1ϕ x 13 Wood screw		
7	Hinge (B)	N62-004-0	
8	AC cord	D54-015-D	
9	Hinge (A)	W72-070-A	
10*	Metal plate	D54-015-D	
11	Wooden base	KMM-053-0	
12*	Punching metal	KNA-450-0	
13	⊕ 2.4ϕ x 6.3 Wood screw		
14	Bottom plate assembly	KXA-439-B	
15	⊕ 3.1ϕ x 13 Wood screw		
16	Foot	E31-147-0	
17	⊕ 3.1ϕ x 20 Wood screw		
18	Output Cord	D54-015-D	
19	⊕ 2.4ϕ x 6.3 Wood screw		
20	Lead wire	KDX-008-B	
21	1L lug terminal	KKC-011-0	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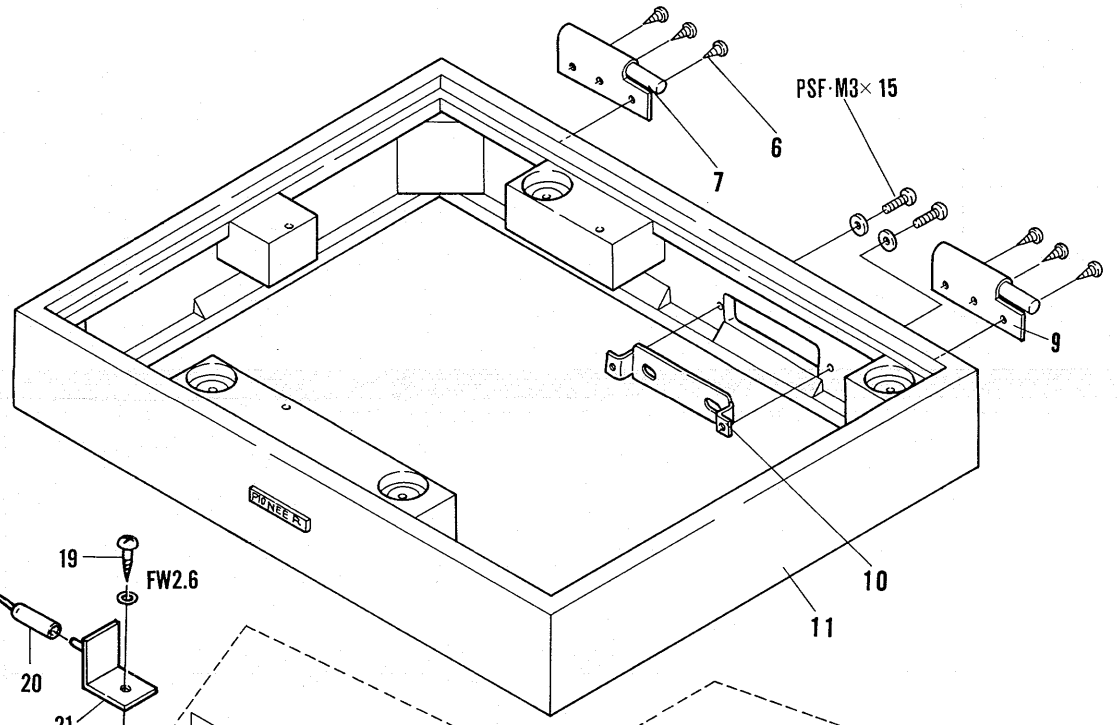
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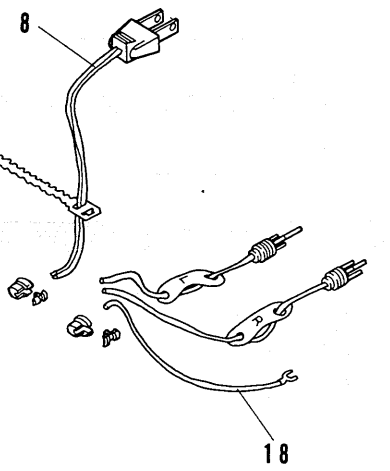
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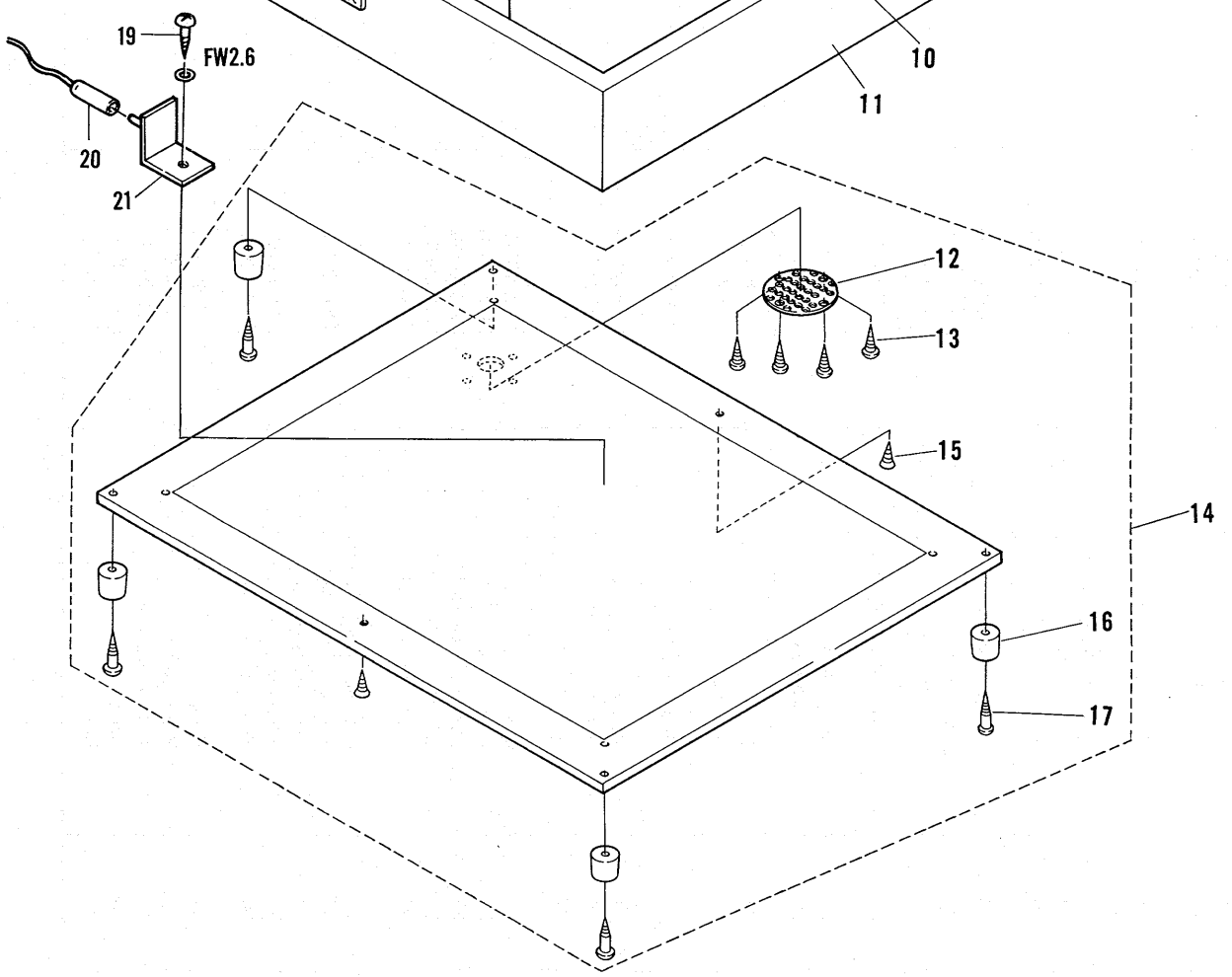
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FW2.6
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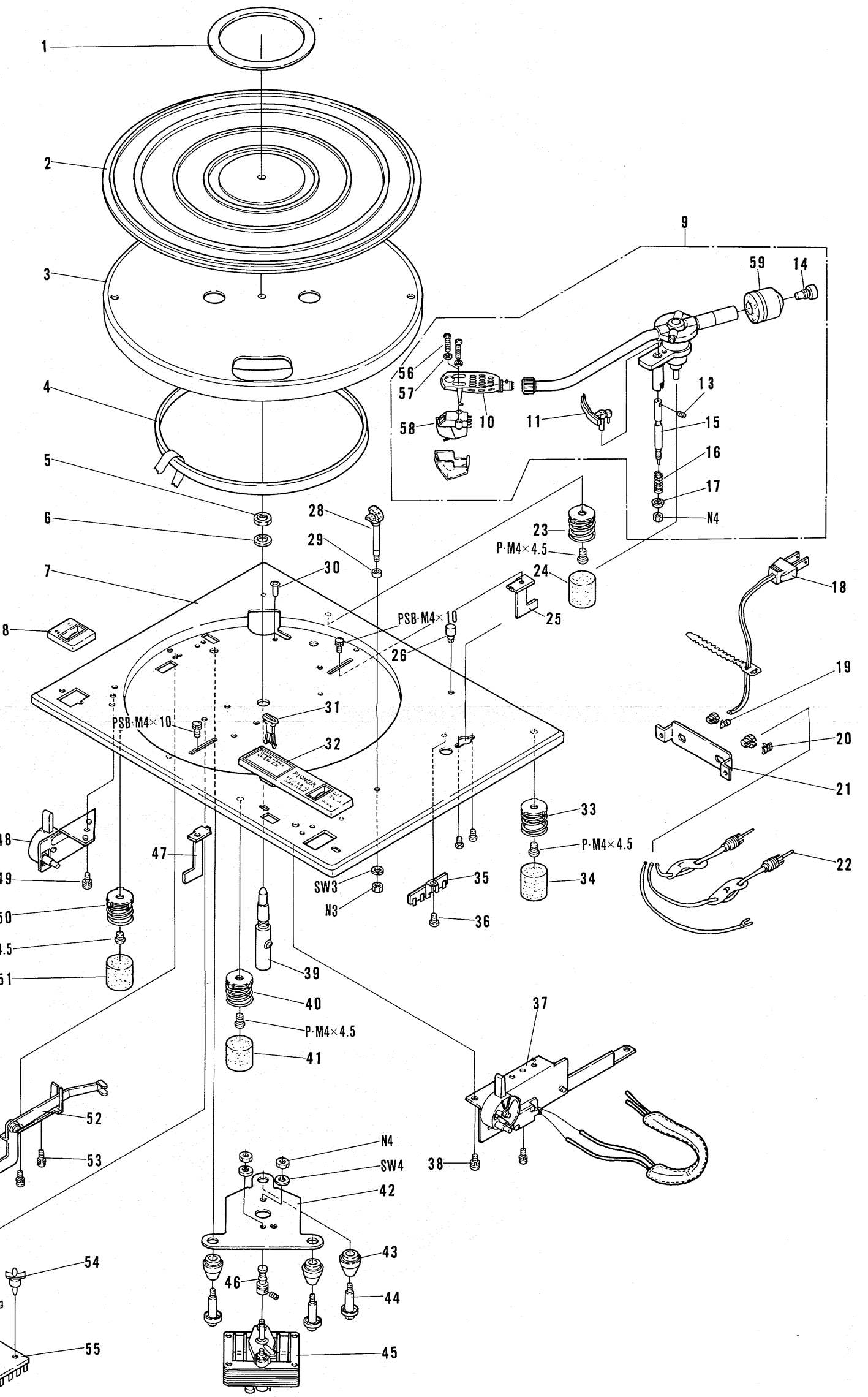
4.2 MECHANISM

NOTICE: Any parts asterisked *are subject to being not supplied.

Key No.	Description	Part No.	
1	Rubber mat ring	A61-602-A	
2	Rubber mat	E31-606-B	
3	Turntable platter	KNH-090-0	
4	Belt	KEB-006-0	
5	Nut	B71-656-B	
6	Washer	B22-650-0	
7*	Panel	KNA-585-0	
8	Speed selector name plate	KNK-166-A	
9	Tonearm	KPD-022-A	
10*	Head shell	KXA-103-C	
11	Elevation assembly	KXA-394-0	
12			
13	Setscrew M2.6 x 2		
14	Sub-weight	KLA-359-A	
15	Elevation shaft	KLA-350-A	
16	Elevation spring	KBH-022-A	
17	Tray washer	KNA-125-A	
18	AC cord	KDG-007-0	
19	Cord stopper	E32-056-0	
20	Cord stopper (A)	KEC-037-0	
21*	Metal plate	KNA-361-B	
22	Output cord	D54-015-D	
23	Spring (C) assembly	KXA-158-B	
24	Buffer	E33-625-0	
25*	Retainer	KNA-374-B	
26*	Adaptor catch	N93-007-A	
27			
28	Arm rest	KNK-241-0	
29	Arm rest stand	N54-843-0	
30	Eyelet 3ϕ x 7		
31	Overhang checker	KNK-168-C	
32	Escutcheon	KNK-167-B	
33	Spring (G) assembly	KXA-208-C	
34	Buffer	E33-625-0	
35	1 L4P lug terminal	K13-026-A	
36	Tapping screw M3 x 6		
37	Function lever assembly	KXA-331-C	
38	Tapping screw M3 x 6		
39	Center shaft assembly	W71-004-C	
40	Spring (A) assembly	KXA-209-B	
41	Buffer	E33-625-0	
42*	Motor panel	KNA-456-A	
43	Rubber grommet	E31-605-A	
44	Screw	KBA-025-0	
45	Motor	KXM-015-A	

Key No.	Description	Part No.	
46	Motor pully 50Hz 60Hz	N24-005-F N24-006-F	
47*	Retainer	KNA-374-B	
48	Speed selector assembly	KXA-296-0	
49	Tapping screw M3 x 6		
50	Spring (C) assembly	KXA-158-B	
51	Buffer	E33-625-0	
52	Belt guide assembly	KXA-093-C	
53	Tapping screw M3 x 6		
54*	Boss	KNK-186-0	
55	P.C. board	KNB-031-A	
56	Screw	KBA-022-0	
57	Washer	B23-642-0	
58*	Cartridge (PC-12)		
59	Main weight	KXA-458-0	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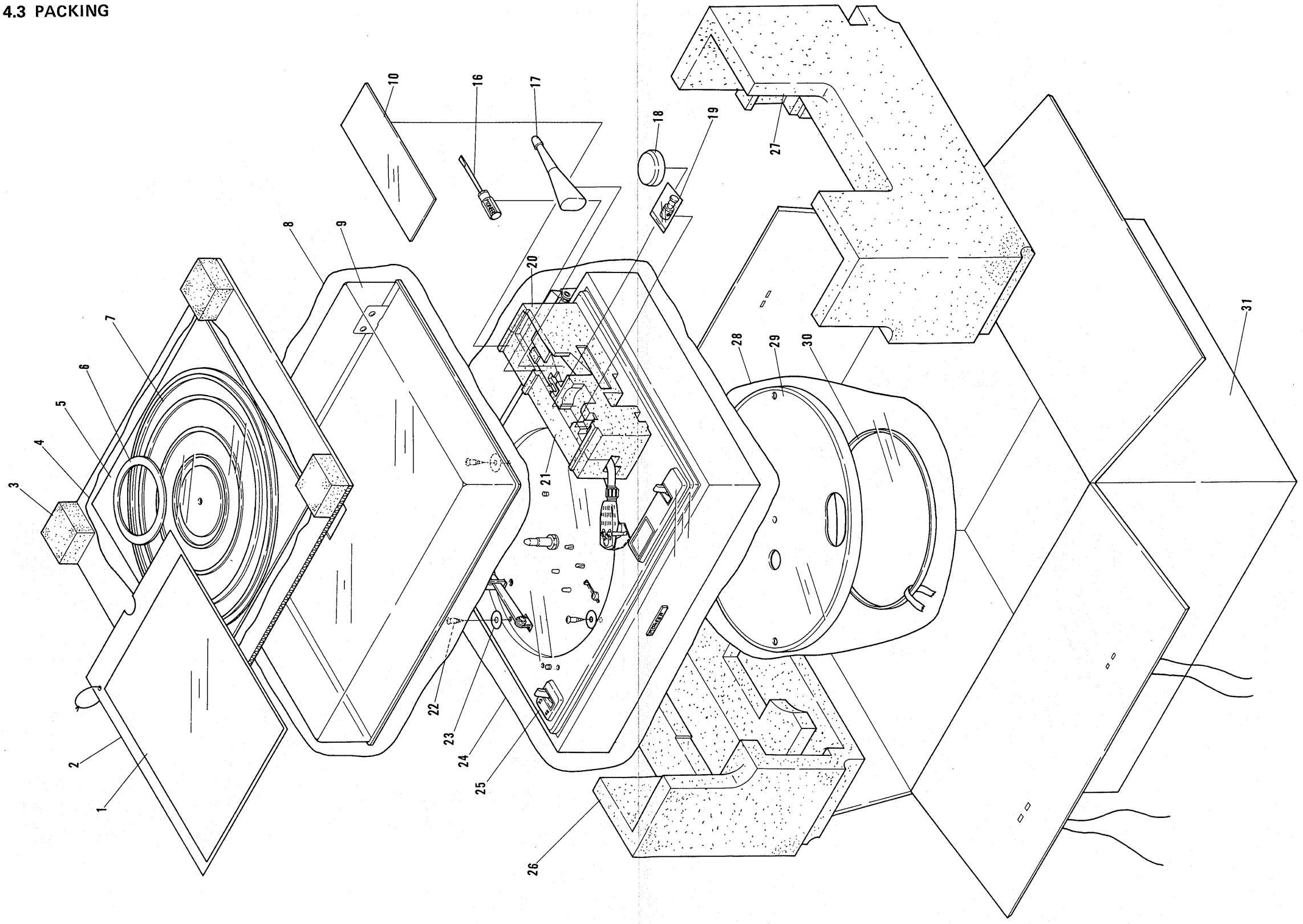
N4

PL-12E

4.3 PACKING



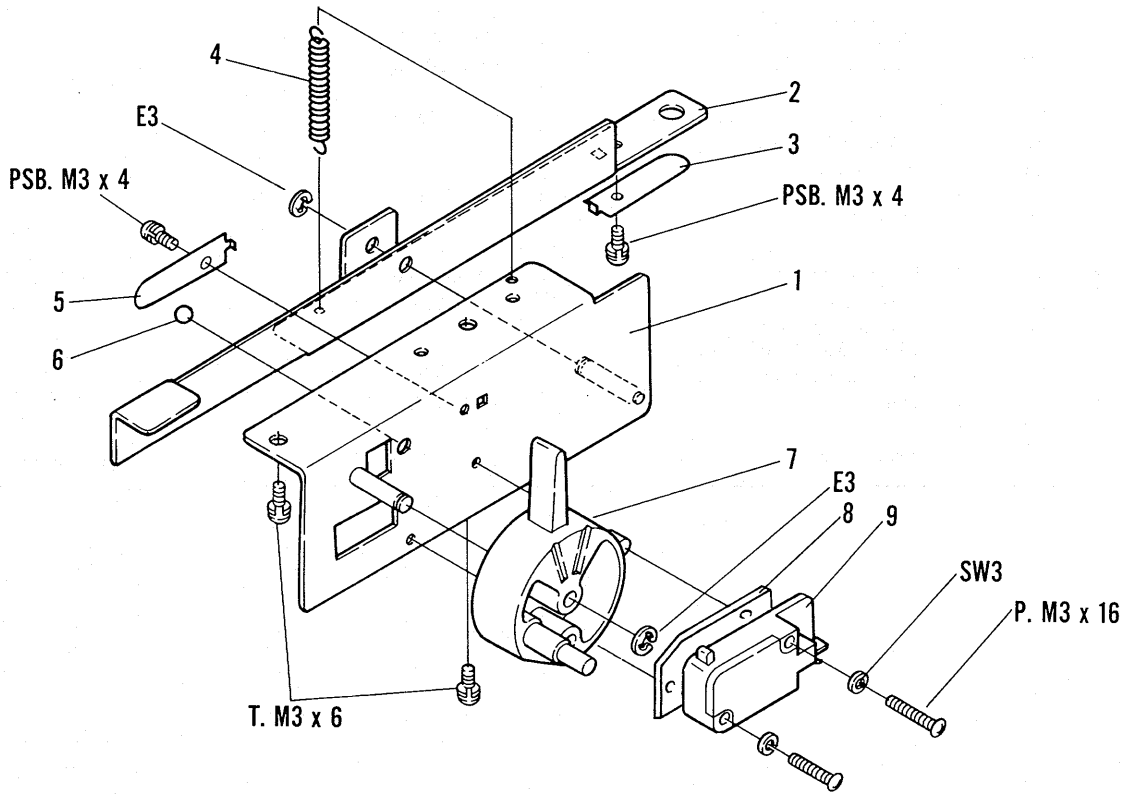
NOTICE: Any parts asterisked* are subject to being not supplied.

Key No.	Description	Part No.	
1	Operating instructions	KRB-027-0	
2	Vinyl bag	E11-024-0	
3*	Top cardboard		
4	Rubber mat bag 345 x 395 x 0.05(t)mm		
5	Cardboard	H52-632-0	
6	Rubber mat ring	A61-602-A	
7	Rubber mat	E31-606-B	
8	Dust cover bag 700 x 650 x 0.05(t)mm		
9	Dust cover	KEC-060-0	
10	Cover	KHK-022-0	
16	Screwdriver	KEX-002-A	
17	Lubricator	KEM-001-A	
18	EP adaptor	N93-603-A	
19	Motor pulley (50Hz) Motor pulley (60Hz)	N24-005-F N24-006-F	
20	Tonearm protector (R)	KNK-240-0	
21	Tonearm protector (L)	KNK-239-0	
22	⊕ 3.1ϕ x 16 Wood screw		
23	Fiber washer		
24	Turntable bag	H56-603-0	
25*	PL-12E		
26	Styrotector (L)	KHK-165-C	
27	Styrotector (R)	KHK-164-E	
28	Turntable platter bag 345 x 395 x 0.05(t)mm		
29	Turntable platter	KNH-090-0	
30	Belt	KEB-006-0	
31	Packing case	KHK-137-0	

4.4 FUNCTION LEVER ASSEMBLY

NOTICE: Any parts asterisked* are subject to being not supplied.

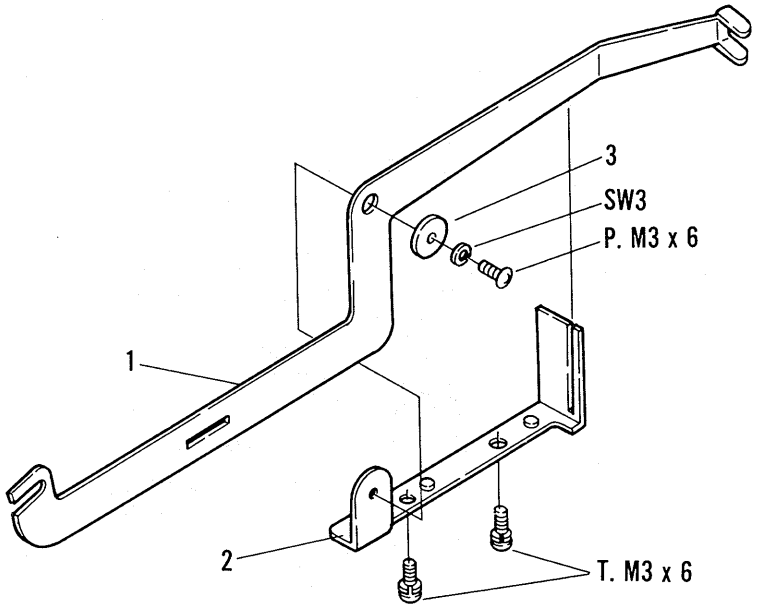
Key No.	Description	Part No.	
	Function lever assembly	KXA-331-C	
1*	Function lever angle unit	KWM-027-0	
2*	Lifter	KNA-328-0	
3	Plate spring	KBK-016-0	
4	Spring	KBH-066-A	
5	Plate spring	KBK-016-0	
6	Steel ball 5/32"		
7	Function lever	KNK-169-0	
8	Insulator plate	KEE-010-0	
9	Microswitch	KSF-015-0	



4.5 BELT GUIDE ASSEMBLY

NOTICE: Any parts asterisked* are subject to being not supplied.

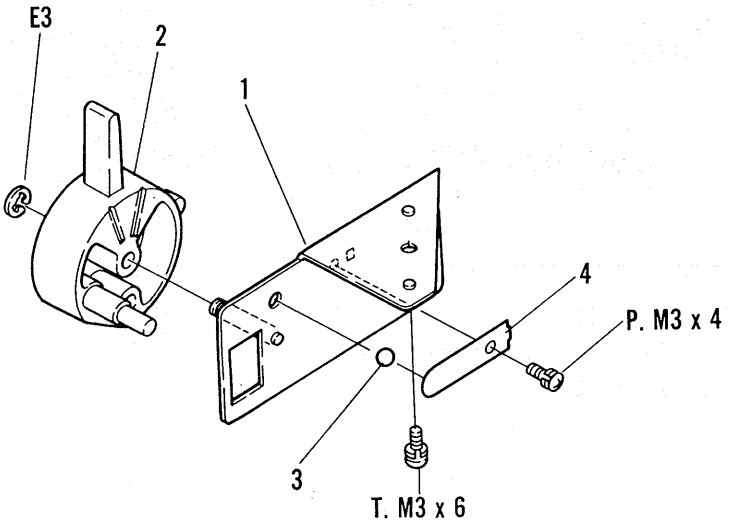
Key No.	Description	Part No.	
	Belt guide assembly	KXA-093-C	
1	Belt guide	KNB-004-B	
2*	Belt guide angle	KNB-005-B	
3	Washer	N51-794-0	



4.6 SPEED SELECTOR ASSEMBLY

NOTICE: Any parts asterisked* are subject to being not supplied.

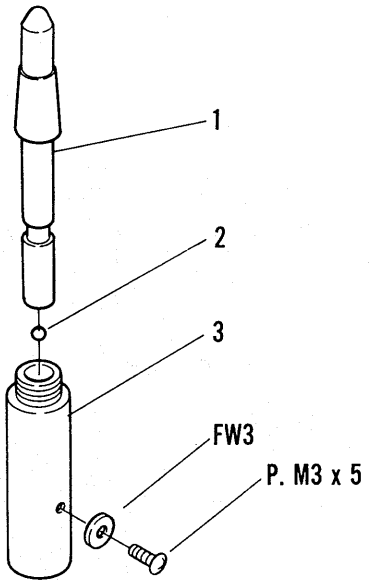
Key No.	Description	Part No.	
	Speed selector assembly	KXA-296-0	
1*	Speed selector angle	KWM-026-0	
2	Function lever	KNK-169-0	
3	Steel bail 5/32"		
4	Plate spring	KBK-016-0	



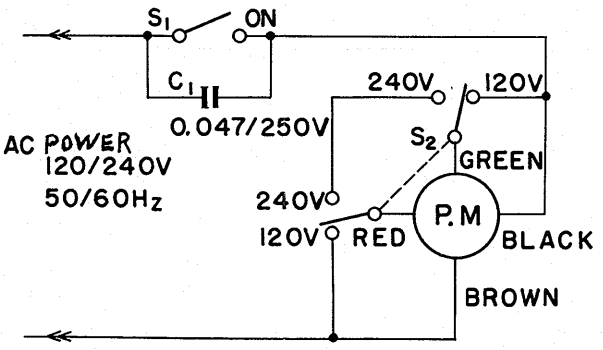
4.7 CENTER SHAFT ASSEMBLY

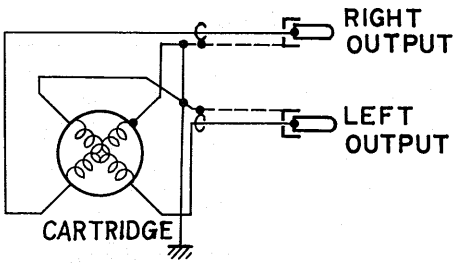
NOTICE: Any parts asterisked* are subject to being not supplied.

Key No.	Description	Part No.	
	Center shaft assembly	W71-004-C	
1	Center shaft	N54-786-B	
2	Steel ball 1/8"		
3	Center shaft base	N23-614-B	



5. CIRCUIT DIAGRAM





S_1 : POWER SWITCH
S_2 : VOLTAGE SELECTOR SWITCH
P.M : PHONO MOTOR

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