KENWOOD

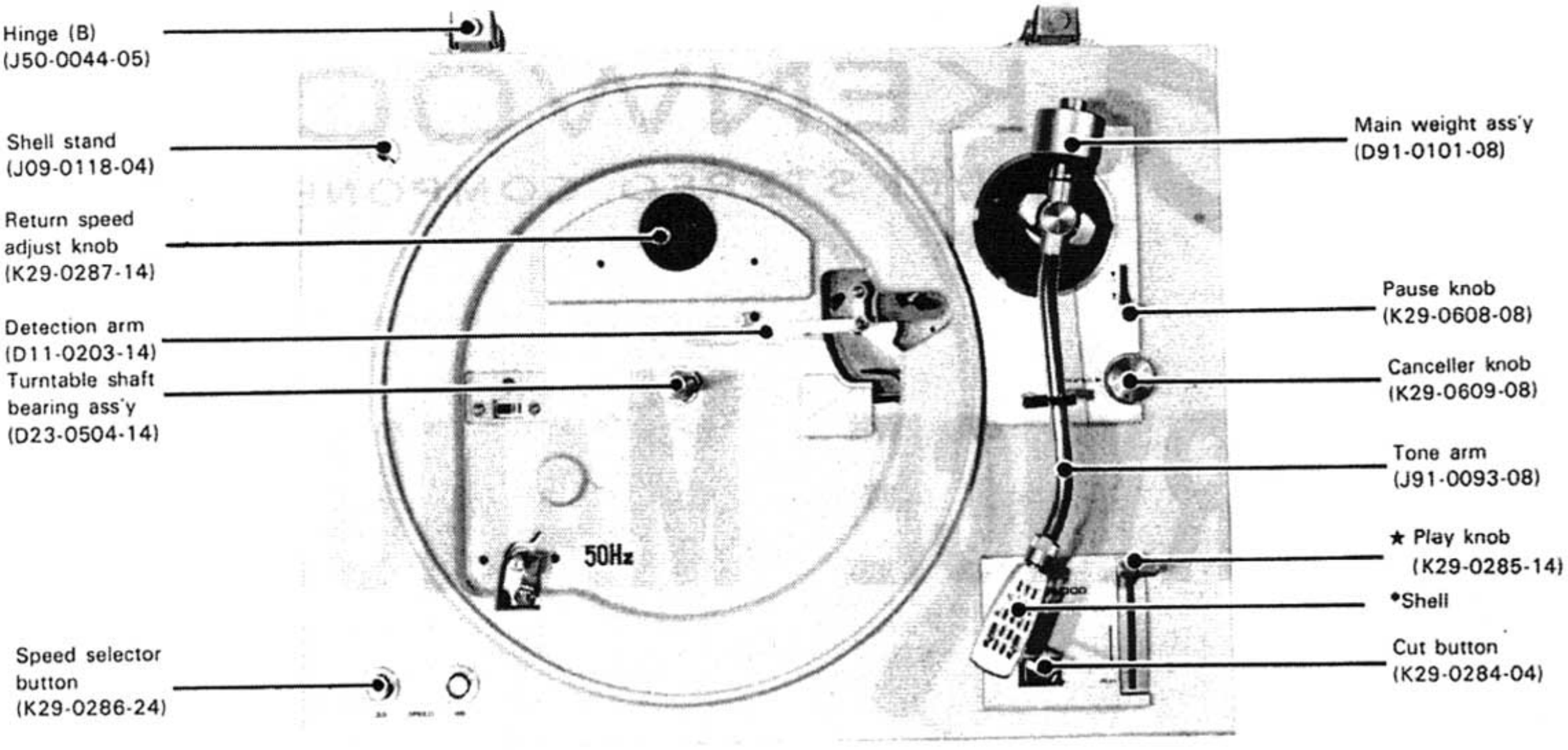
HI/FI STEREO COMPONENTS

SERVICE MANUAL

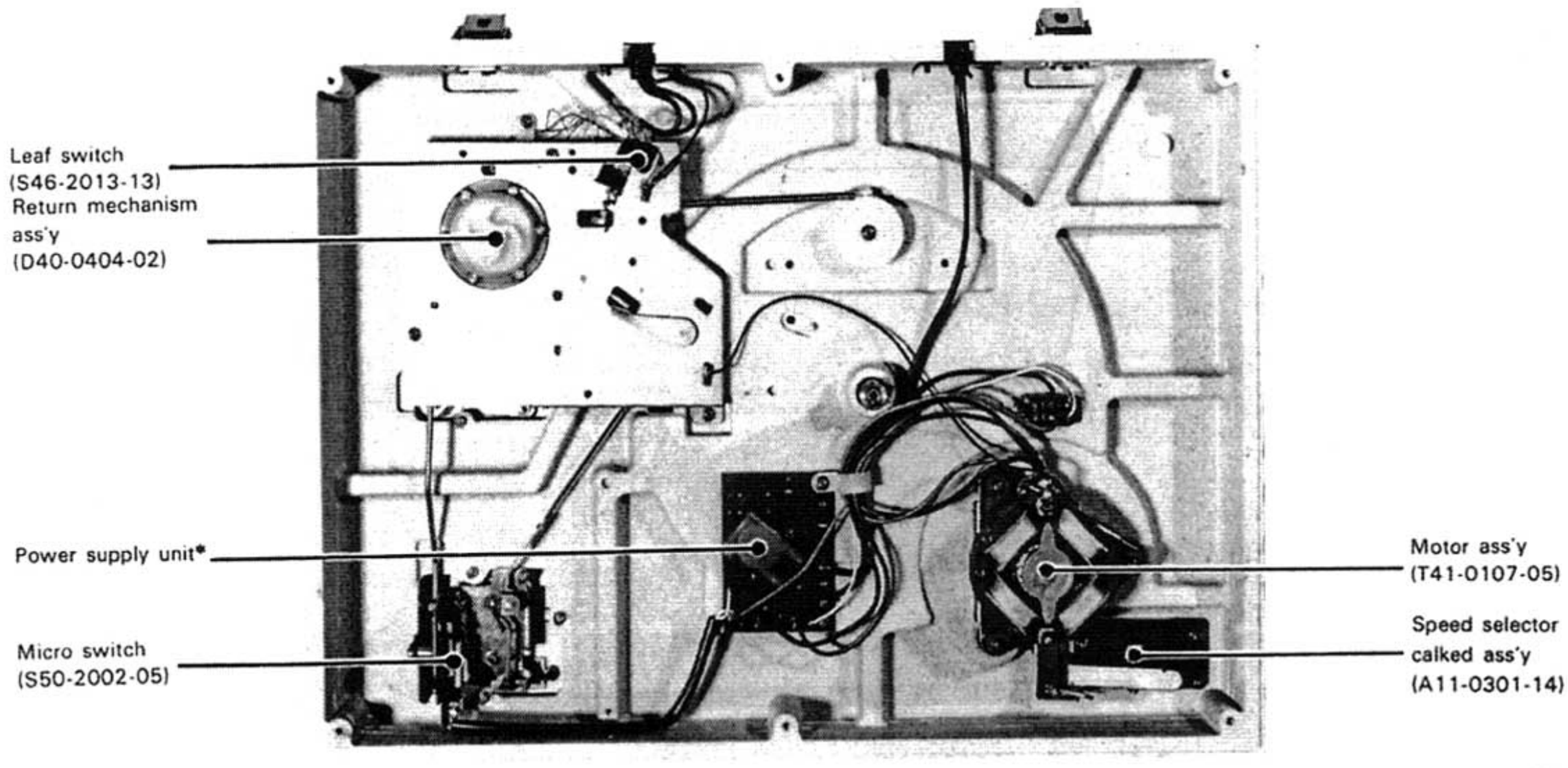
KD-2055

STEREO TURNTABLE

EXTERNAL AND INTERNAL VIEW



★ When it is desired to stop part ways through a record play, push the "cut button"



* Refer to parts list

TURNTABLE CABINET DESCRIPTION

KD-2055 is carefully designed and manufactured to obtain the basic characteristics that must be completely assured by the turntable. The turntable is constructed mainly of turntable cabinet dust cover, turntable platter, tonearm, cartridge, driving motor. Performance of each part used in KD-2055 is introduced below:

TURNTABLE CABINET

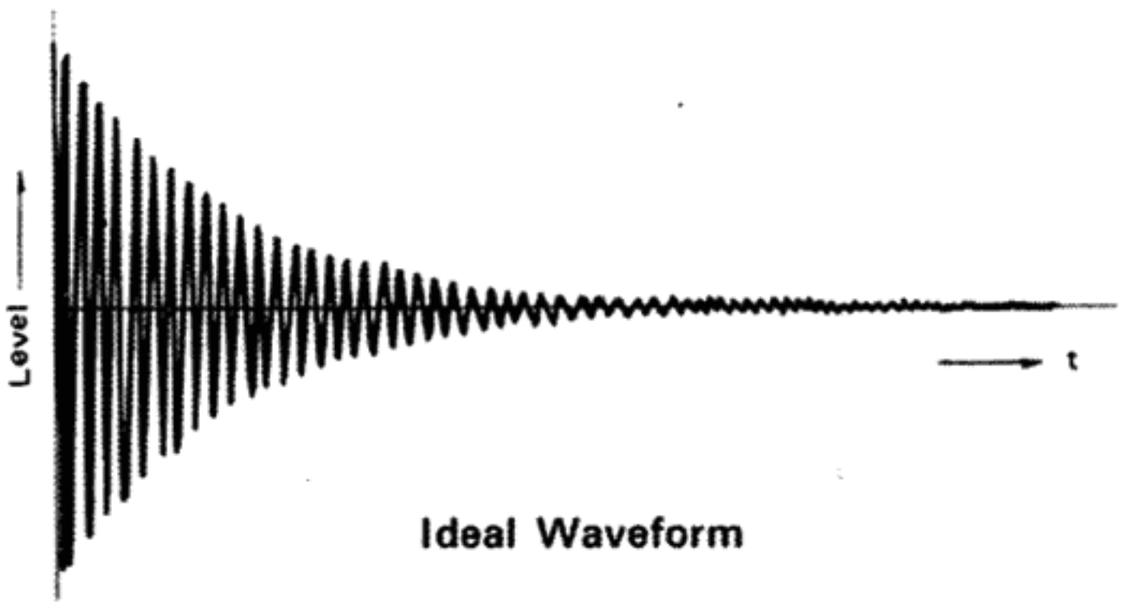
The turntable cabinet is an essential part for accommodating driving motor, turntable, tonearm, etc., which are directly concerned with record reproduction.

The most significant matter for high fidelity reproduction is to insulate the cartridge, record, tonearm, etc. against harmful internal and external vibration such as vibration of the driving motor and acoustic feedback from the speaker system.

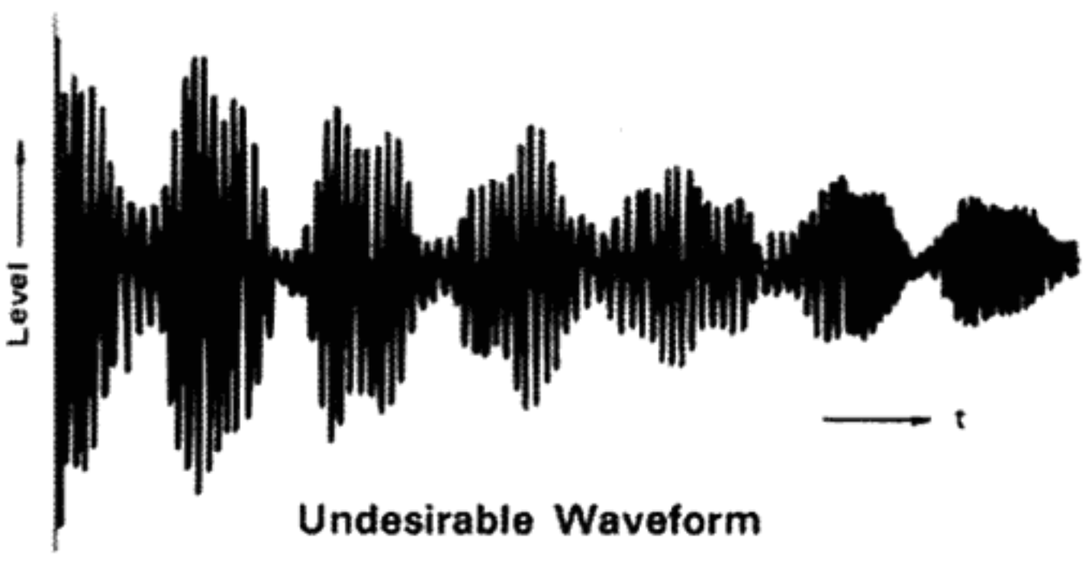
Meaning of vibration-proof property:

1. Periodic damping rate is high. (Periodic damping time is short.)
2. Periodic damping pattern shows a smooth feature without turbulence. Turbulence, if any, shows that there is energy loss due to resonance.

The most preferable characteristic necessary for the turntable cabinet should be as shown in Fig. 1 for reproduction frequencies from 20 Hz to 20 kHz band. The turntable cabinet of KD-2055 employs a layer construction of **A.R.C.B. (anti resonance compression base, so to speak resin concrete)** and plywood.



Ideal Waveform



Undesirable Waveform

Fig. 1

A.R.C.B. is a compressed and formed material, which is mixed with stone grains of 1 ~ 5 mm in diameter, calcium carbonate powder, glass powder, and polyester resin. This material is rich in processing accuracy, strength, and esthetic value.

The most outstanding feature is that it offers a very excellent damping characteristic against vibration below 1 kHz (Fig. 2).

Particle board has been used for speaker cabinets. It is a material obtained by compressing and forming lauan powder with adhesive agent.

Vibration-proof property of this material presents a striking contrast to that of resin concrete. As shown in Fig. 3, characteristics are excellent against vibration above 1 kHz.

KD-2055 employs a layer construction of resin concrete and plywood to assure wide vibration-proof performance that cannot be obtained from a single material. The characteristics of KD-2055 cabinet are shown in Fig. 4.

NOTE:

Perfect performance of KD-2055 is assured only by the complete combination of resin concrete and plywood. At time of repair the bottom board (plywood) must be tightened rigidly with mounting screws.

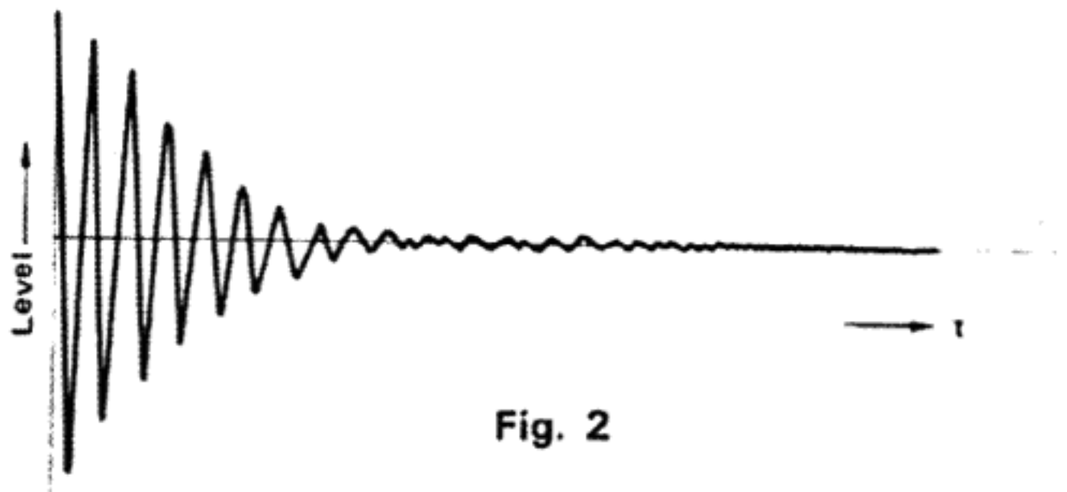


Fig. 2

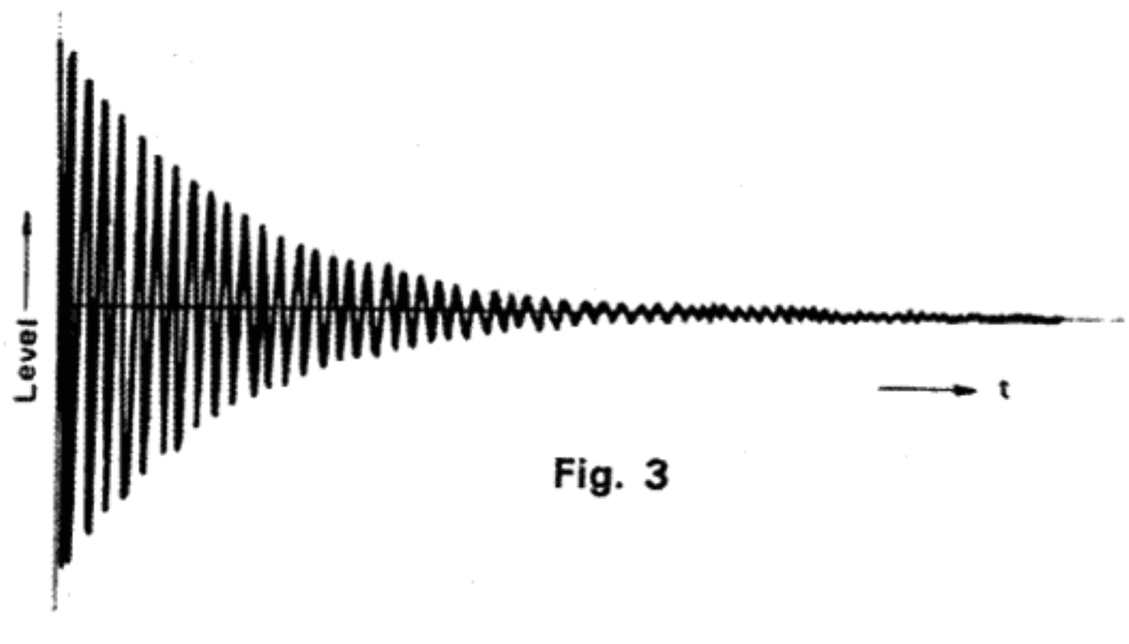


Fig. 3

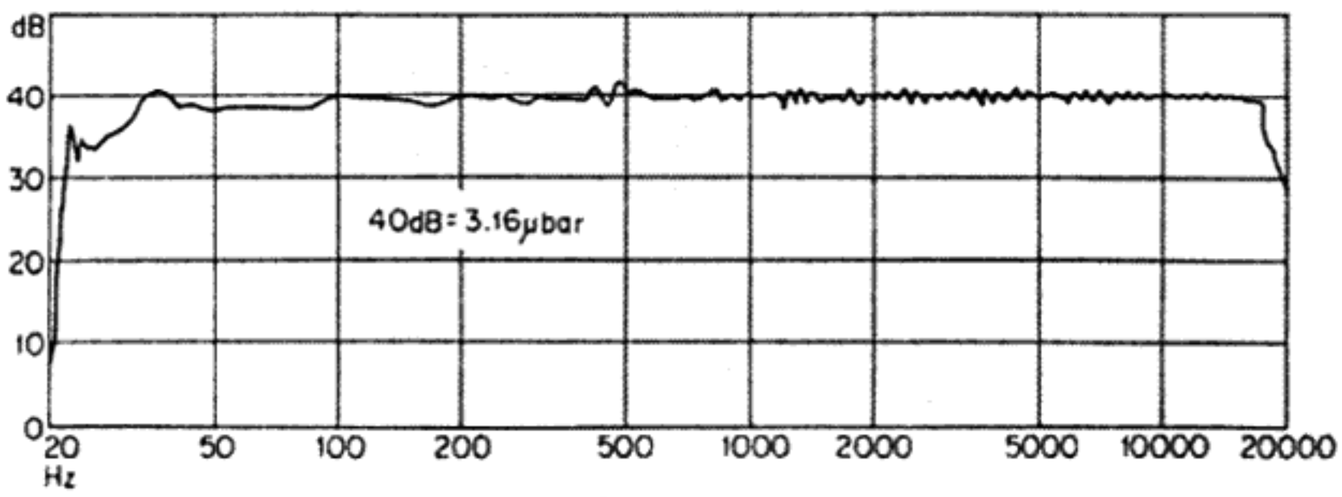


Fig. 4

TURNTABLE OPERATION DESCRIPTION

AUTOMATIC MECHANISM

Figure shows the mechanism of KD-2055 in stop position. It is operated automatically by the center cam assembly rotation.

FUNCTION OF PLAY LEVER:

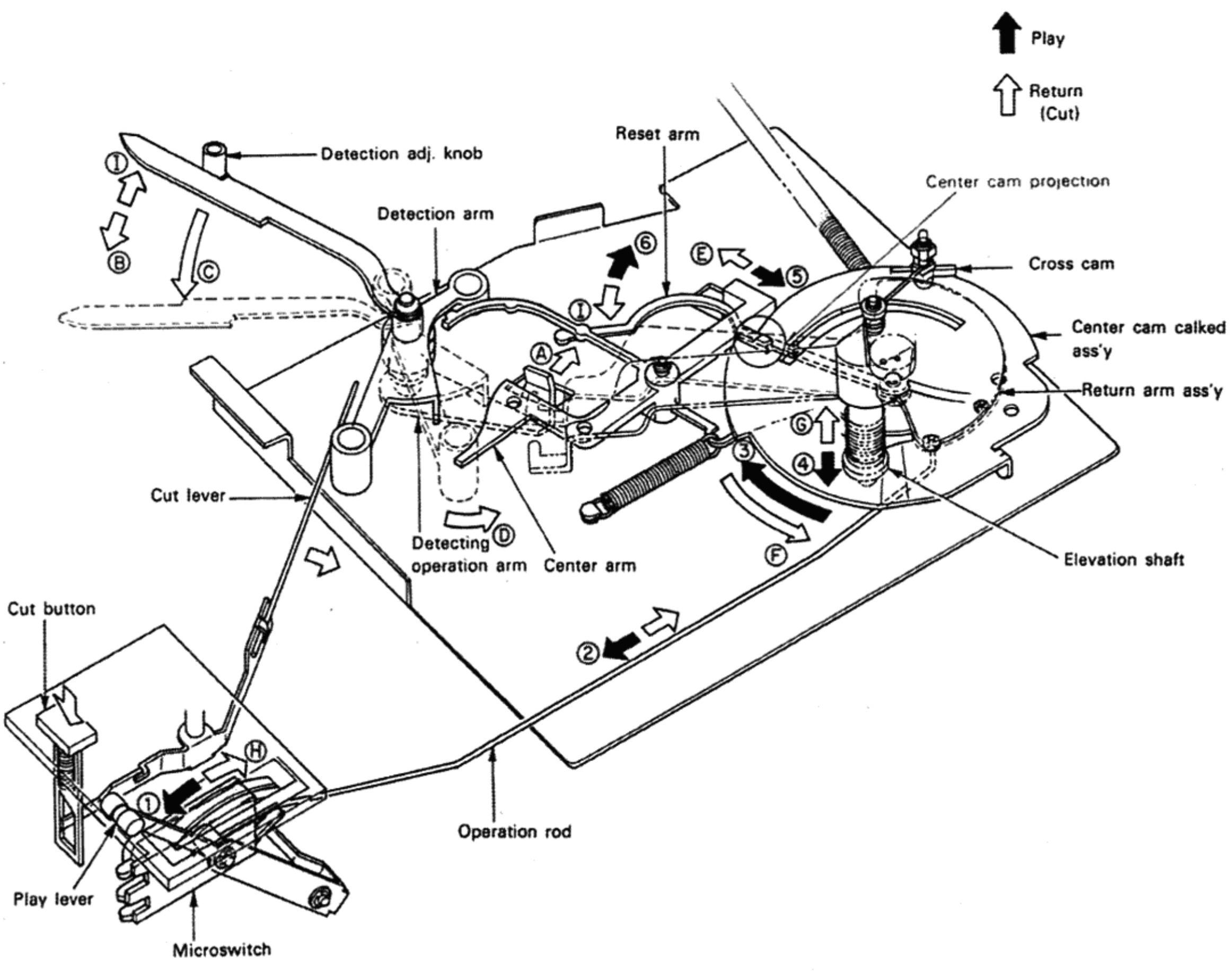
To start playing, move the play lever in the "arrow" direction ①, and the operation rod connected to the play lever is pulled ②, rotating the center cam assembly ③ (hereinafter referred to as center cam). When the operation rod is pulled the microswitch is turned to ON and the motor starts running, and, at the same time, the shaft of the support assembly on the center cam is lowered along the inclined part of the center cam ④.

The rotational movement of the center cam also permits the projection of the center arm to enter the cutout section provided on the center cam ⑤, thus the center cam is prevented from rotating in the reverse direction.

It will be noted that the detecting operation arm is released from the reset arm. And then allow the record to be played when the pickup is moved toward it ⑥.

AT THE END OF PLAYING:

When the pickup reaches the end of the record, the stylus enters the guide groove of the record, while the detecting operation arm Ⓐ is slowly pushed by the return arm located under the tone arm to shift the detection arm in the "arrow" direction Ⓑ. The detection arm is then engaged with the trip pin provided at the bottom of the platter and thus the detection arm is shifted in the direction of the platter rotation Ⓒ. In this instance, the center arm is pushed Ⓓ by the detection arm to release Ⓔ the reverse rotation preventive mechanism so that the center cam, pulled by the return spring, starts rotating in the reverse direction Ⓕ; the tone arm is elevated Ⓖ along the inclined part of the center cam and the cross-cam is engaged with the return arm assembly to return the tonearm to the arm reset where the play lever is also set to the stop position Ⓗ. At the same time, the reset arm is pushed by the center cam to set the detection operating arm to the locked position Ⓘ.



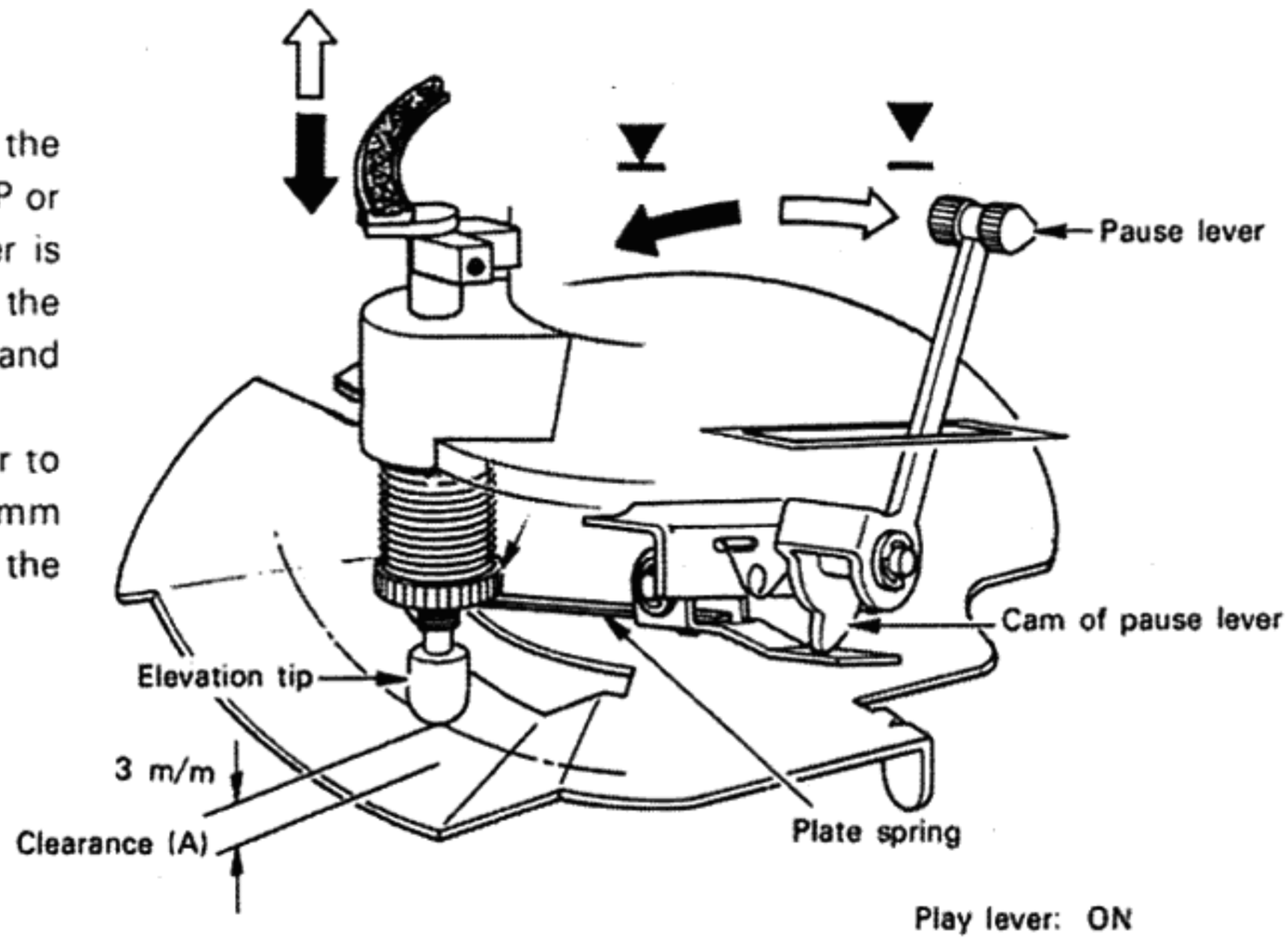
ADJUSTMENTS

ADJUSTMENT

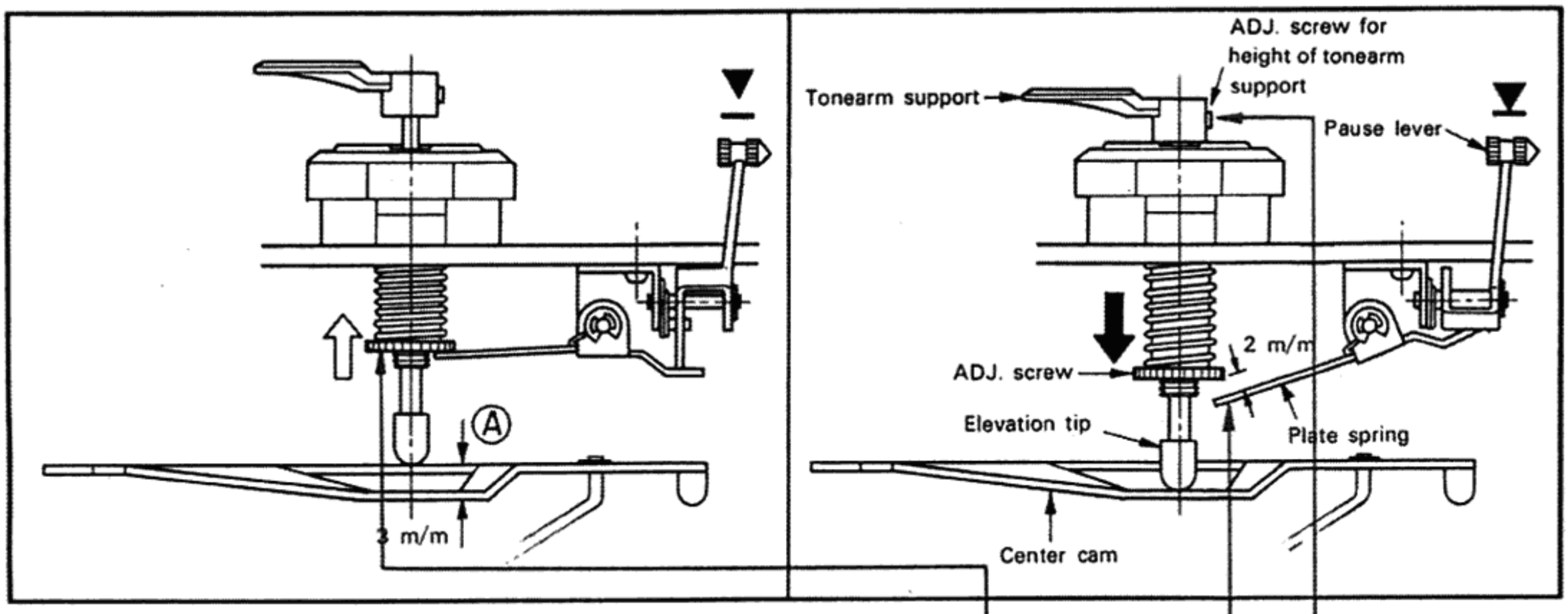
CONFIRMATION OF FUNCTION:

The stylus is 7 mm away from a record surface while the tonearm is being lifted (when the pause lever is set to UP or the play lever to OFF). Accordingly, while the play lever is being set to OFF and the pause lever to UP or DOWN, the arm should be adjusted so that it does not move up and down.

In play mode (the play lever to ON and the pause lever to DOWN), there should be the clearance of about 3 mm between the tonearm and the tonearm support to prevent the pick-up from being lifted and perform correct tracing.



Play lever: ON
Pause lever: OFF

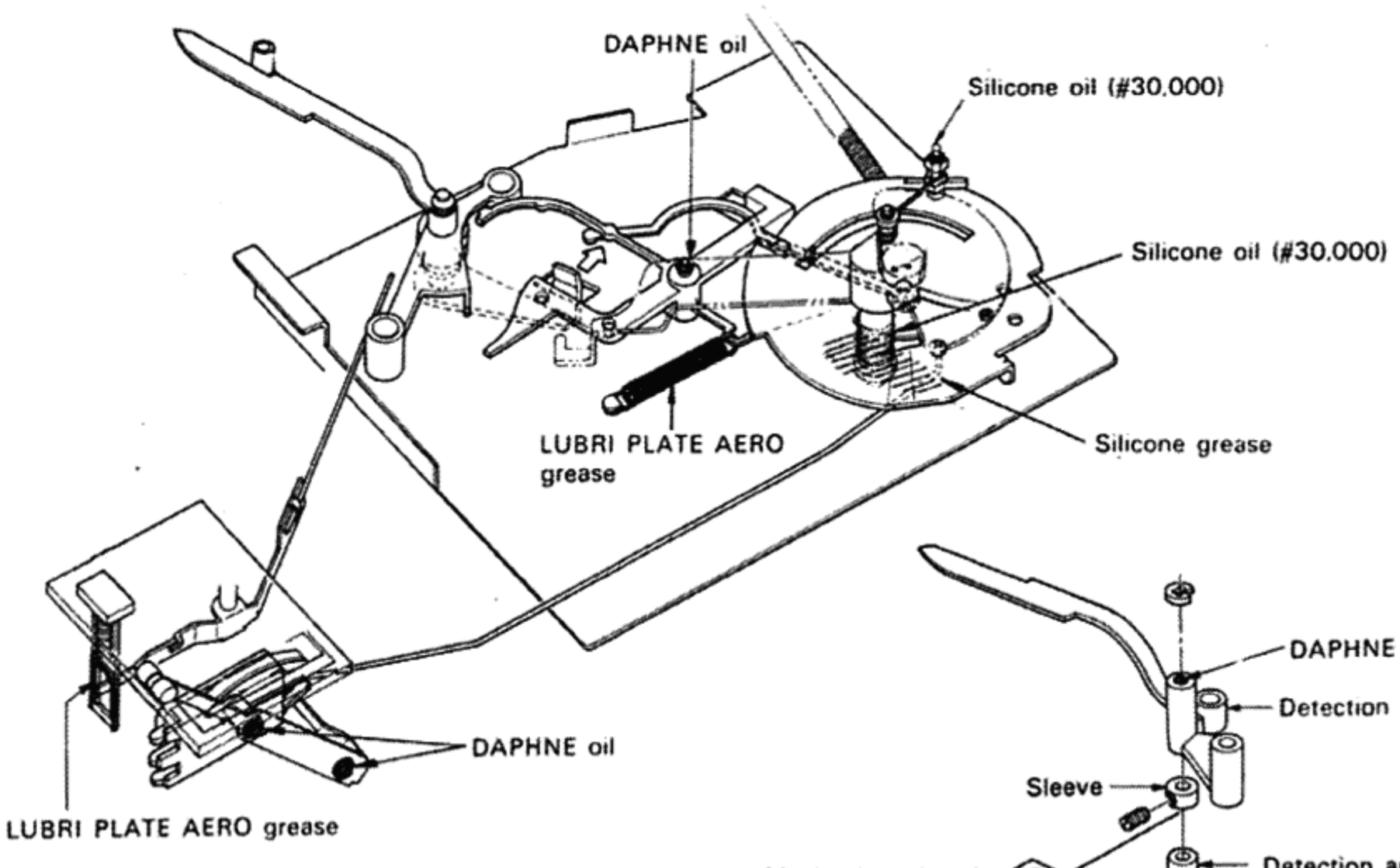


When the functions described above seem to be imperfect, adjust as follows.

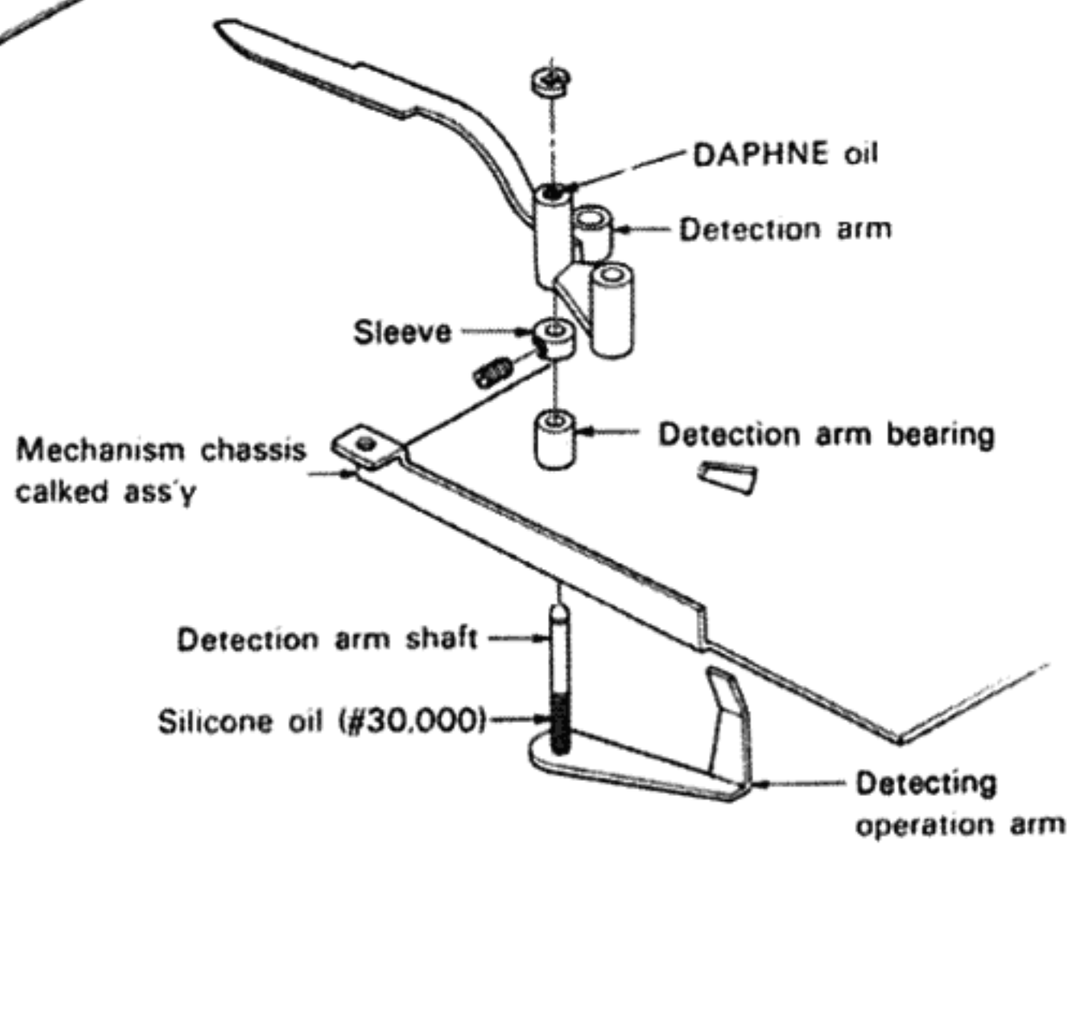
NOTE:
Be sure to turn the power off before adjustment.

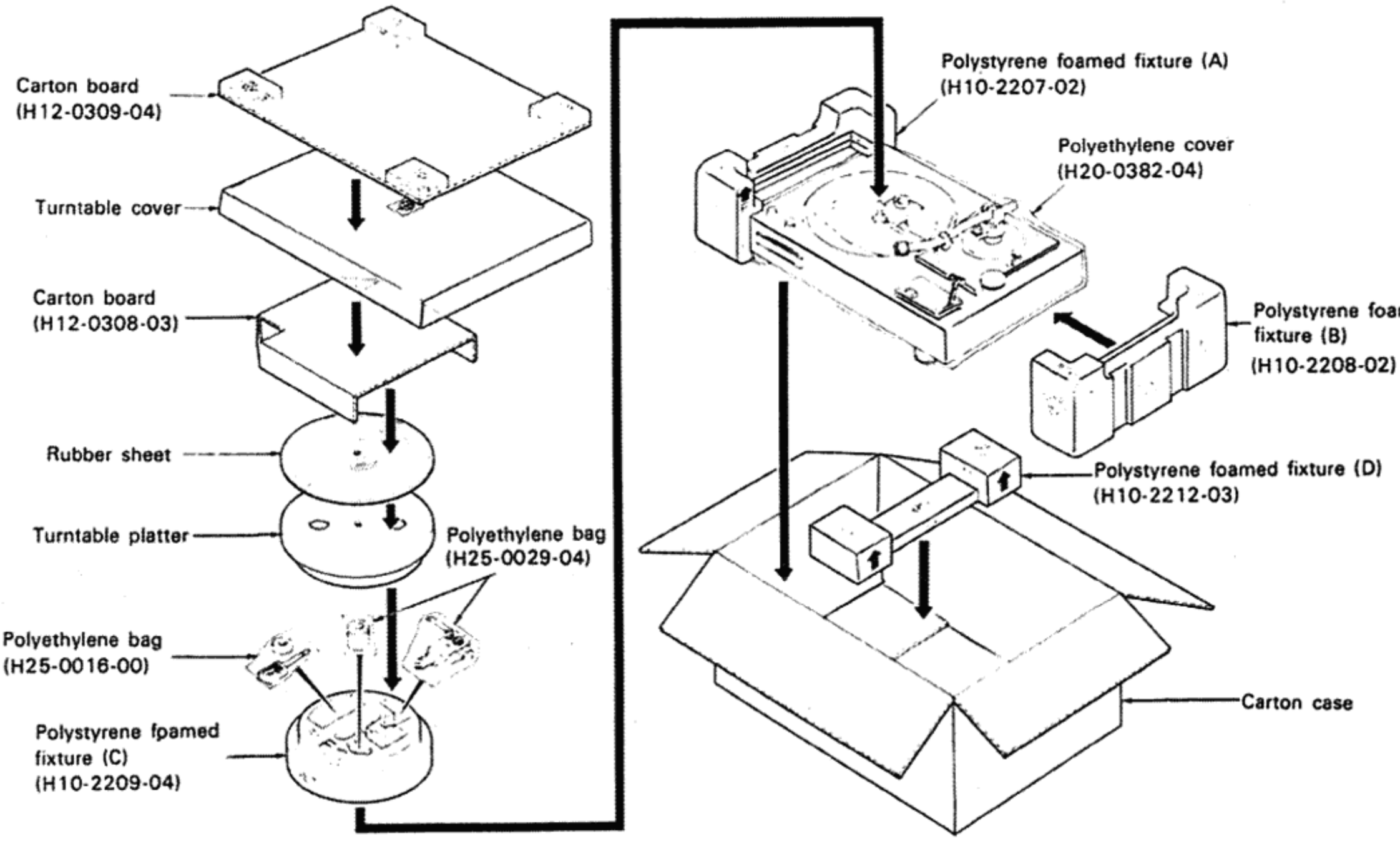
Order	Play lever	Pause lever	Adjustment
①	OFF	▼	The arm location is not changed either in ① or ② condition (Clearance A is not changed). If changed, adjust by means of the adjusting screw.
②	ON(PLAY)	▼	
③	ON(PLAY)	▼	When there is no clearance of 2 mm, bend the plate spring.
④	Carry out ① and ② repeatedly.		
⑤	ON(PLAY)	▼	Keep the clearance between the record surface and the stylus at 7 mm by adjusting the tonearm support screw.
⑤	ON(PLAY)	▼	The clearance between the tonearm support and the tonearm should be 2 mm.

LUBRICATIONS/PACKING



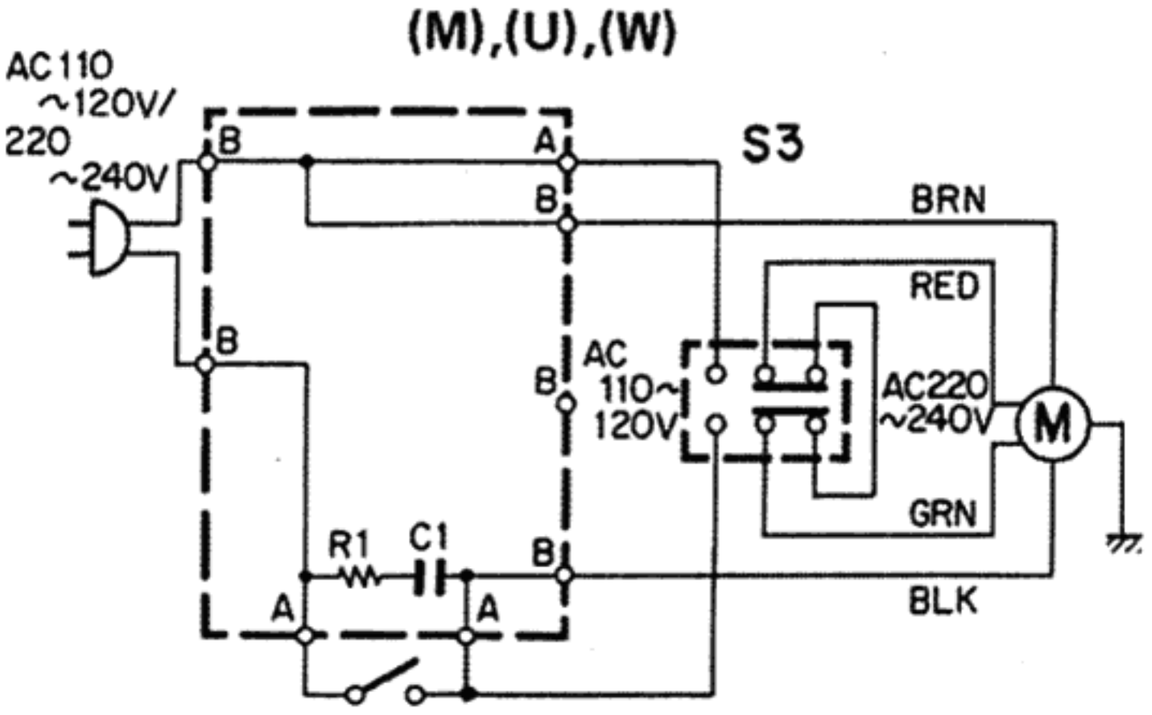
DAPHNE oil: W01-9995-09
Silicone grease: W01-9990-00
Silicone oil (#30,000): W01-9998-09
LUBRI PLATE AERO grease: W01-9996-09



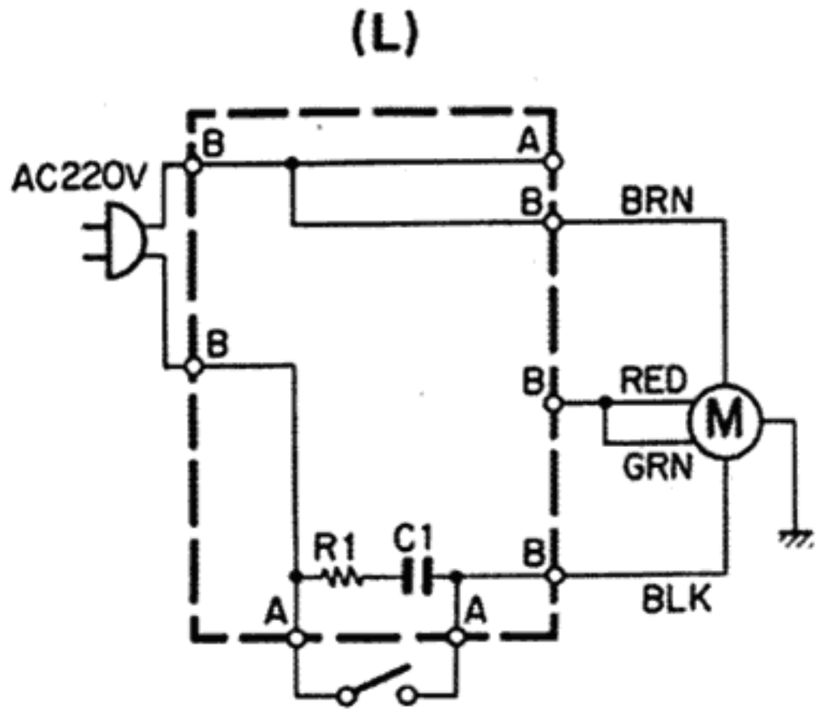


SCHEMATIC DIAGRAM

(M),(U),(W)

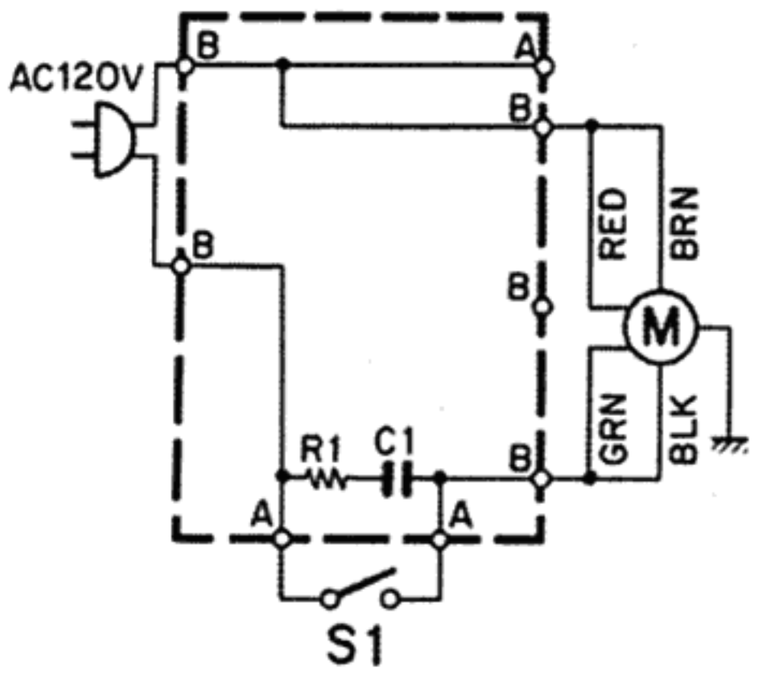


(L)



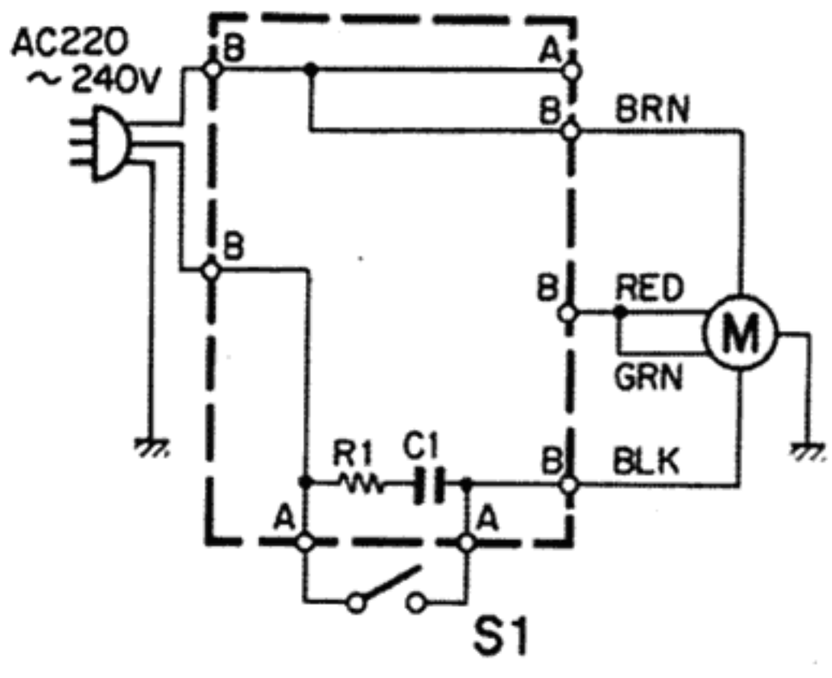
S1

(K),(P)



S1

(X),(S),(T)



S1

M : MOTOR
S1, 2 : MICRO SW.
S3 : SLIDE SW.

	R1	C1	POWER SUPPLY UNIT
USA (K)	12Ω 1/2W	0.1μF 125WV	X27-1070-01
GENERAL EXPORT (M)	12Ω 1/2W	0.01μF 2000WV	X27-1070-02
PX (U)	12Ω 1/2W	0.01μF 2000WV	X27-1070-02
EUROPE (W)	12Ω 1/2W	0.01μF 2000WV	X27-1070-02
ENGLAND (T)	12Ω 1/2W	0.01μF 2000WV	X27-1070-02
SOUTH AFRICA (S)	12Ω 1/2W	0.01μF 2000WV	X27-1070-02
SCANDINAVIA (L)	12Ω 1/2W	0.01μF 2000WV	X27-1070-02
CANADA (P)	12Ω 1/2W	0.047μF 250WV	X27-1070-03

SPECIFICATIONS

MOTOR and TURNTABLE

Drive System	Belt drive system
Motor	4 pole synchronous motor
Turntable Platter	30 cm (12″) diameter Aluminum alloy die-cast
Speeds	2 speeds, 33-1/3 and 45 rpm
Wow and Flutter	Less than 0.06% (WRMS) DIN ± 0.08%
Signal to Noise Ratio (Rumble)	JIS Better than 50 dB DIN unweighted Better than 44 dB DIN weighted Better than 65 dB

TONEARM

Type	Static-balance type, S-shaped pipe arm, EIA plug-in connector
Effective Arm Length	215 mm (8-7/16″)
Over-Hang	9.5 mm (3/8″)
Tracking Error	±1.5 degree
Stylus Pressure Variable Range	0 to 3 grams
Usable Cartridge Weight	4 to 13 grams (Supplied head shell 7 grams balance weight 4 grams)

CARTRIDGE

Type	Moving magnet type (V-39 MK II)
Frequency Response	20 ~ 20,000 Hz
Channel Separation	Better than 25 dB (1,000 Hz)
Output Voltage	3 mV (1,000 Hz, 5 cm/sec)
Output Balance	1.5 dB (1,000 Hz, 5 cm/sec)
Load Impedance	50 k ohms
Stylus	0.5 mil diamond
Stylus Pressure	2 ± 0.25 grams
Compliance	7×10^{-6} cm/dyne
Replacement Stylus	N-39 MK II

CARTRIDGE (P type)

Type	V-shaped dual type (V-41A)
Frequency Response	20 ~ 20,000 Hz
Channel Separation	More than 25 dB (at 1,000 Hz)
Output Voltage	2 mV (5 cm/sec at 1,000 Hz)
Output Balance	1.5 dB (5 cm/sec at 1,000 Hz)
Load Impedance	50 k ohms
Stylus	0.6 mil diamond
Stylus Pressure	2 ± 0.5 grams
Compliance	7×10^{-6} cm/dyne

MISCELLANEOUS

Power Requirements	AC120V, 60 Hz — K.P. AC220V, 50 Hz — L AC220~240V, 50 Hz — T.X.S. AC110~120/220~240V, 50/60 Hz — M.U.W.
Power Consumption	7 watts
Dimensions	W 480 mm (18-7/8″) D 363 mm (14-5/16″) H 146 mm (5-3/4″)
Weight	11.0 kg (24.3 lbs)
Special Features	Auto-return mechanism, Auto-cut mechanism, Arm elevation, Return speed adjusting mechanism, Anti-skating device, Stylus pressure direct-readout, Counter, Insulator, Free-stop action dust cover, Shell stand
Supplied Accessories	EP adaptor, Motor lubricating oil, Over-hang gauge Motor pulley and screw driver — M,U,W

EXPLODED VIEW PARTS LIST

☆: New Parts ★: See Destinations' Parts List (P10)

Ref. No.	Parts No.	Description	Re-marks
1	A03-0216-05	Turntable case	2A ☆
2	J09-0118-04	Shell stand	2A
3	B07-0502-04	Button base	2A ☆
4	★	Turntable badge	2A ☆
5	J05-0044-05	Hinge (B)	2B ☆
6	A21-0605-08	Dress panel	1B ☆
7	J91-0093-08	Tonearm	1B ☆
8	D91-0101-08	Main weight ass'y	1B ☆
9	J99-0201-08	Tonearm base	1B ☆
10	J99-0202-08	Lifter base	1B ☆
11	N73-2604-41	Setscrew (M2.6 × 4)	1B, 2B
12	D39-0061-08	Tonearm support	1B ☆
13	D39-0062-08	Tonearm rest ass'y	1B ☆
14	J99-0203-08	Tonearm rest base	2B ☆
15	N10-2060-46	Nut (6ϕ)	2B
16	N15-1060-46	Washer (6ϕ)	2B
17	K29-0609-08	Canceller knob	1B ☆
18	D21-0603-08	Cam shaft	2B ☆
19	N77-2003-46	Setscrew (M2 × 3)	2B
20	D90-0014-00	Steel ball	1B
21	G01-0218-04	Compression spring	1B
22	D10-0415-08	Canceller lever (A)	2B ☆
23	E30-0006-00	Tension wire	2B
24	N19-0080-00	Special washer	2B
25	N09-0197-04	Special screw	2B
26	D10-0130-04	Canceller lever (B)	2B
27	N14-0084-04	Special nut (M6)	2B
28	D10-0416-08	Return arm calk ass'y	2B ☆
29	D21-0601-08	Elevation shaft	2B ☆
30	D29-0201-08	Tip	2B ☆
31	N14-0401-08	Special nut	2B ☆
32	G01-0605-08	Compression spring	2B ☆
33	K29-0608-08	Pause knob	1B ☆
34	★	Cartridge	1B
35	D40-0218-08	Pause mechanism ass'y	2B ☆
36	D10-0412-08	Pause lever	2B ☆
37	D10-0413-08	Pause arm calked ass'y	2B ☆
38	G01-0606-08	Torsion spring	2B ☆
39	G01-0607-08	Torsion spring	2B ☆
40	★	Shell	1B
41	★	Cartridge mounting screw (M2.6 × 16)	1B
42	★	Cartridge mounting nut (M2.6)	1B
43	★	Cartridge mounting washer	1B
44	★	Operation panel	2B ☆
45	K29-0284-04	Cut button	2B ☆
46	K29-0285-14	Play knob	2B ☆
47	D10-0263-14	Mechanism calked ass'y	2B ☆
48	G01-0348-04	Compression spring	2B
49	G01-0530-04	Tension spring	3B
50	D23-0145-04	Bearing	2B
51	D10-0418-04	Play lever	2B ☆
52	D19-0053-04	Slide plate	2B
53	S50-2002-05	Micro switch	2B
54	N09-0195-14	Polycarbonate screw	2B
55	N19-0020-04	Polyslider washer	2B
56	D10-0421-03	Cut lever	3B ☆
57	D02-0013-25	Turntable platter	1A
58	D19-0031-04	Trip pin	1A
59	D16-0037-13	Drive belt	1A
60	G16-0302-02	Rubber sheet	1A
61	D23-0504-14	Turntable bearing ass'y	2A ☆
62	N19-0142-04	Washer	2A

Ref. No.	Parts No.	Description	Re-marks
63	N14-0048-14	Nut	2A
64	T41-0107-05	Motor ass'y	3A ☆
65	G13-0069-04	Rubber Cushion	3A
66	N19-0186-14	Washer	3A
67	★	Motor pulley	3A ☆
68	K29-0286-24	Speed selector button	2A ☆
69	A11-0301-14	Speed selector calked ass'y	2A ☆
70	G01-0353-24	Torsion spring	2A ☆
71	D10-0264-04	Speed selector seesaw plate	2A ☆
72	D21-0428-04	Speed selector shaft (1)	2A ☆
73	D21-0429-04	Speed selector shaft (2)	2A ☆
74	D10-0407-24	Operation plate calked ass'y	2A ☆
75	D19-0054-14	Changing the belt guide	2A ☆
76	N19-0280-04	Rubber washer	2A
77	K29-0287-14	Return speed adjust knob	2A ☆
78	D15-0169-04	Special pulley	2A ☆
79	D40-0404-02	Return mechanism ass'y	2B ☆
80	A10-0498-13	Mechanism chassis calked ass'y	3B
81	D12-0201-04	Center cam ass'y	2B ☆
82	D12-0083-14	Center cam calked ass'y	2B
83	D12-0073-14	Cross cam	2B
84	G01-0282-14	Cross cam spring	2B
85	N15-1040-11	Washer	2B
86	G01-0608-04	Return spring	2B ☆
87	D11-0184-15	Center arm	3B
88	G01-0291-04	Center arm spring	3B
89	D10-0244-04	Reset arm	3B
90	D19-0046-04	Control runner	3B
91	G50-0014-04	Packing	3B
92	F07-0362-14	Oil pan	3B
93	G53-0041-05	Mini-packing	3B
94	D11-0201-24	Detection operation arm ass'y	3B
95	D11-0203-14	Detection arm	2B
96	J31-0402-04	Sleeve	2B
97	N72-2604-46	Setscrew (M2.6 × 4)	2B
98	—	—	—
99	S46-2013-13	Leaf switch (MUTING)	3B
100	D10-0427-04	Operation rod	2B
101	A53-0202-02	Turntable cover	1B ☆
102	B44-0032-04	Turntable cover sticker	1B
103	J50-0048-05	Hinge (A)	1A, 1B
104	N33-4008-13	Round flat head screw	1A, 1B
105	G13-0405-04	Rubber cushion	1A, 1B
106	K29-0288-05	Detection adj. knob	2A ☆
107	★	Power supply unit	3A
108	—	—	—
109	A42-0037-22	Bottom board	3B ☆
110	J02-0026-05	Insulater	3A, 3B
111	F01-0601-14	Radiator	3A
112	★	Power cord	2B
113	★	Power cord bushing	2A
114	E30-0419-15	Audio cable	2B
115	J41-0017-05	Cord bushing	2B
116	N09-0521-05	TP screw	2A, 2B
117	W01-0057-04	EP adapter	1A
118	J42-0031-04	Oiler	1A
119	B59-0020-04	Shipping screw caution card	2A
120	B59-0058-04	Detection arm caution card	1A
121	B23-0004-04	Overhang scale	1A
122	★	Slide switch (power voltage selector)	2A
123	★	Switch stopper	2A
124	★	Panhead screw (M3 × 8)	2A
125	★	TP screw (M3 × 6)	2A

Ref. No.	U.S.A. (K)	Canada (P)	PX (U)	Australia (X)	Europe (W)	Scandinavia (L)	England (T)	South Africa (S)	Other Area (M)	Description
44	A21-0276-13	A21-0276-13	A21-0276-13	A21-0276-13	A21-0276-13	A21-0276-13	A21-0609-13	A21-0276-13	A21-0276-13	Operation panel
4	B43-0501-03	B43-0501-03	B43-0501-03	B43-0501-03	B43-0501-03	B43-0501-03	B43-0505-03	B43-0501-03	B43-0501-03	Badge
—	B46-0056-00	B46-0055-10	B46-0050-00	—	—	—	—	—	—	Warranty card
	—	—	B46-0051-00	—	—	—	—	—	—	Warranty card
—	B50-1561-00	B50-1561-00	B50-1561-00	B50-1561-00	B50-1561-00	B50-1561-00	B50-2206-00	B50-1561-00	B50-1561-00	Instruction manual
67	—	—	D15-0501-14	D15-0501-04	D15-0501-14	D15-0501-14	D15-0501-14	D15-0501-14	D15-0501-14	Motor pulley (50 Hz)
	D15-0168-14	D15-0168-14	D15-0168-14	—	D15-0168-14	—	—	—	D15-0168-14	Motor pulley (60 Hz)
123	—	—	D32-0080-14	—	D32-0080-14	—	—	—	D32-0080-14	Switch stopper
112	E30-0181-05	E30-0181-05	E30-0545-05	E30-0185-05	E30-0459-05	E30-0292-05	040-0306-05	040-0304-05	E30-0545-05	Power cord
—	H01-2215-04	H01-2215-04	H01-2215-04	H01-2215-04	H01-2215-04	H01-2215-04	H01-2214-04	H01-2215-04	H01-2215-04	Carton case
40	J92-0022-05	J92-0016-09	J92-0022-05	J92-0022-05	J92-0022-05	J92-0022-05	J92-0022-05	J92-0022-05	J92-0022-05	Shell
113	J41-0034-00	J41-0034-00	J41-0034-00	J41-0024-05	J41-0017-05	J41-0017-05	J41-0024-05	J41-0024-05	J41-0034-00	Cord bushing
41	N09-0527-08	—	—	—	—	—	—	—	—	Cartridge mounting screw
	N09-0547-08	—	N09-0547-08	N09-0547-08	N09-0547-08	N09-0547-08	N09-0547-08	N09-0547-08	N09-0547-08	Cartridge mounting screw
42	N14-0070-09	—	N14-0070-09	N14-0070-09	N14-0070-09	N14-0070-09	N14-0070-09	N14-0070-09	N14-0070-09	Cartridge mounting nut
43	N19-0175-09	—	N19-0175-09	N19-0175-09	N19-0175-09	N19-0175-09	N19-0175-09	N19-0175-09	N19-0175-09	Cartridge mounting washer
124	—	—	N30-3008-46	—	N30-3008-46	—	—	—	N30-3008-46	Pan head screw (M3 × 8)
125	—	—	N09-0507-05	—	N09-0507-05	—	—	—	N09-0507-05	TP screw (M3 × 6)
122	—	—	S31-2001-05	—	S31-2001-05	—	—	—	S31-2001-05	Slide switch (power voltage selector)
34	—	T21-0053-05 (V-41A)	T21-0046-05 (V-39MKII)	T21-0046-05 (V-39MKII)	T21-0046-05 (V-39MKII)	T21-0046-05 (V-39MKII)	T21-0046-05 (V-39MKII)	T21-0046-05 (V-39MKII)	T21-0046-05 (V-39MKII)	Cartridge
—	—	—	W01-0035-00	—	W01-0035-00	—	—	—	W01-0035-00	Small screw driver
107	X27-1070-01	X27-1070-03	X27-1070-02	X27-1070-02	X27-1070-02	X27-1070-02	X27-1070-02	X27-1070-02	X27-1070-02	Power supply unit

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