

MICRO SEIKI®

DIRECT DRIVE
TURNTABLE SYSTEM

DQX-500 SERVICE MANUAL



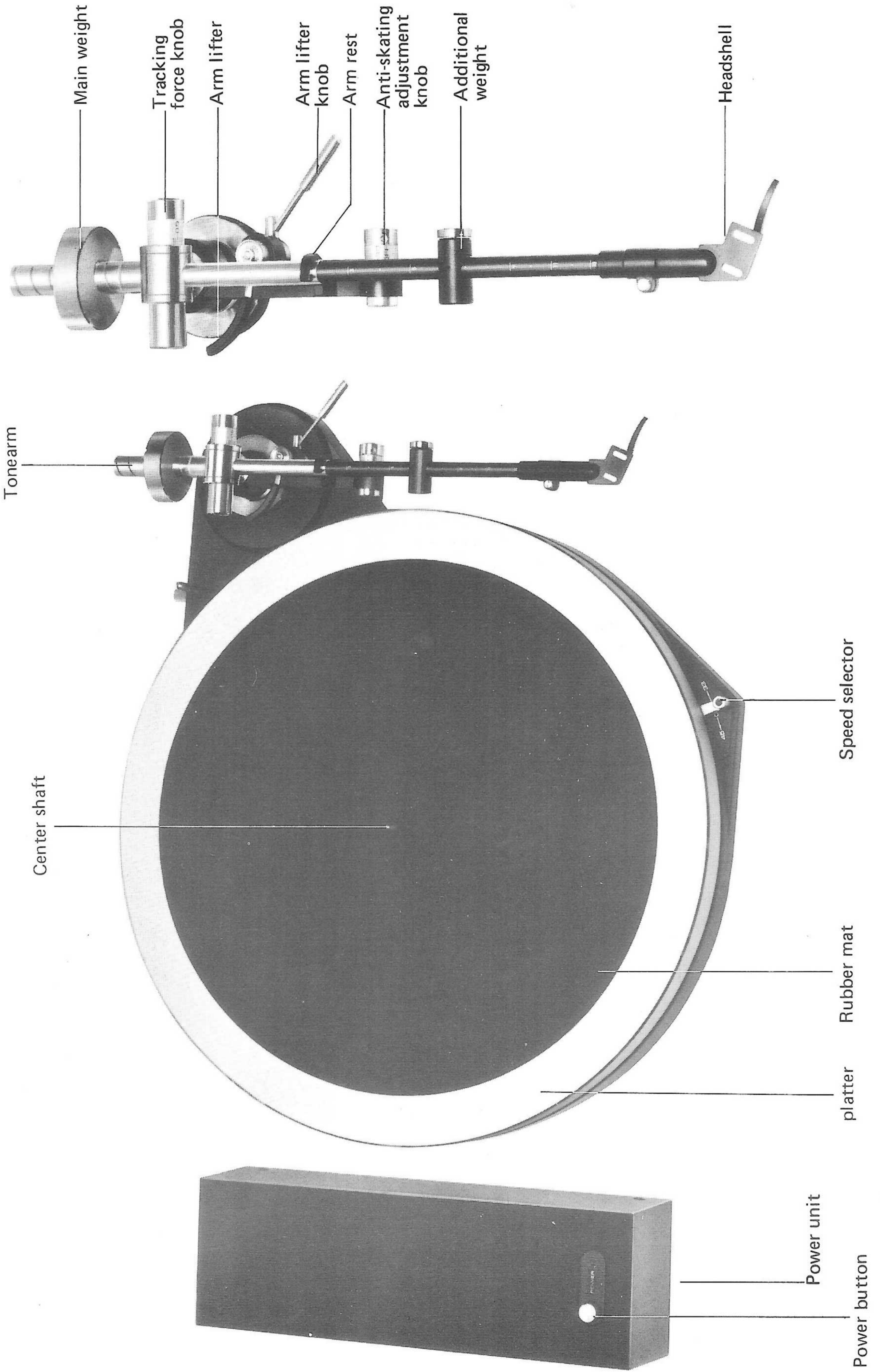
MICRO SEIKI CO.,LTD.

TOKYO JAPAN

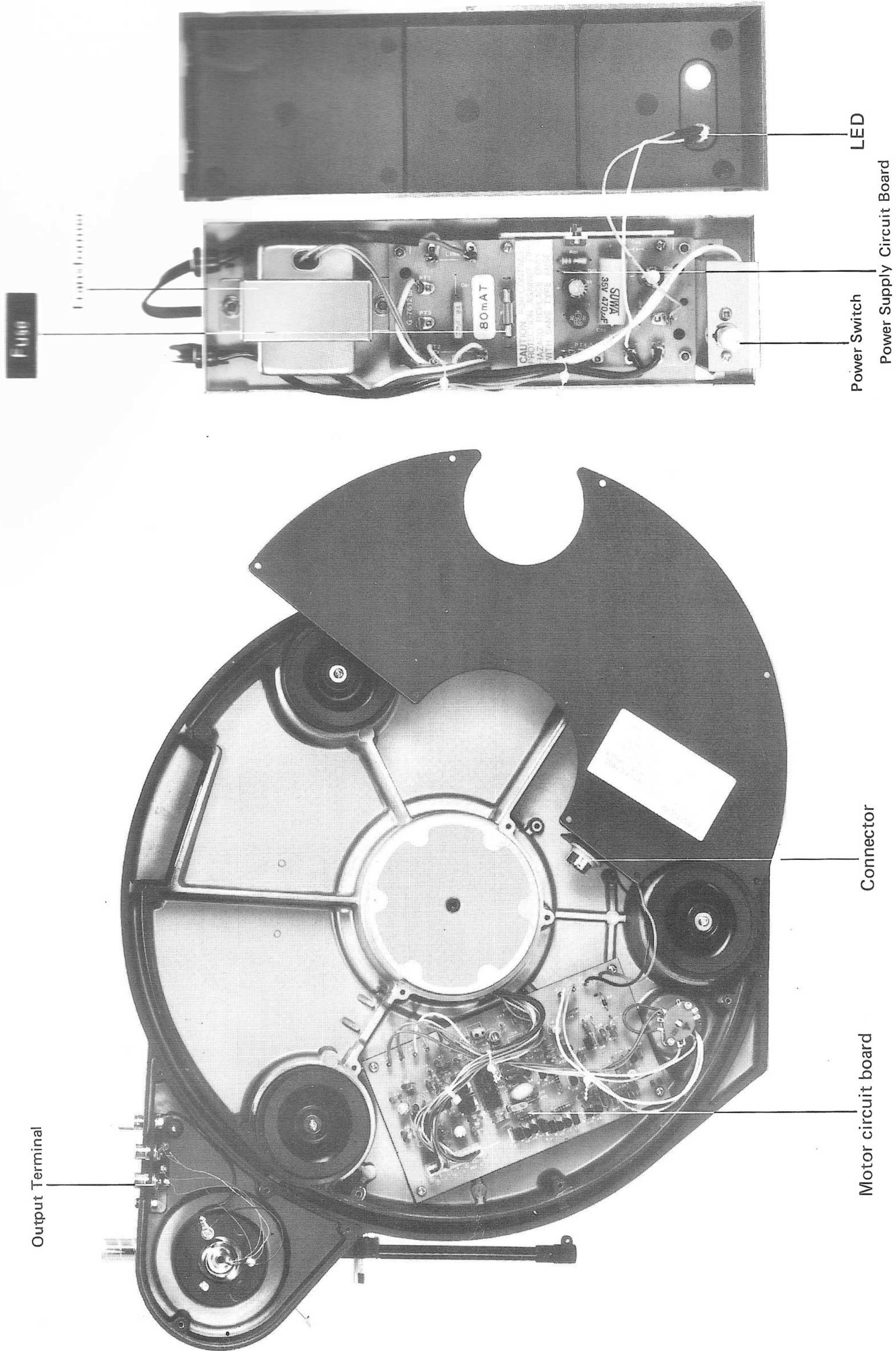
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NAMES OF PARTS



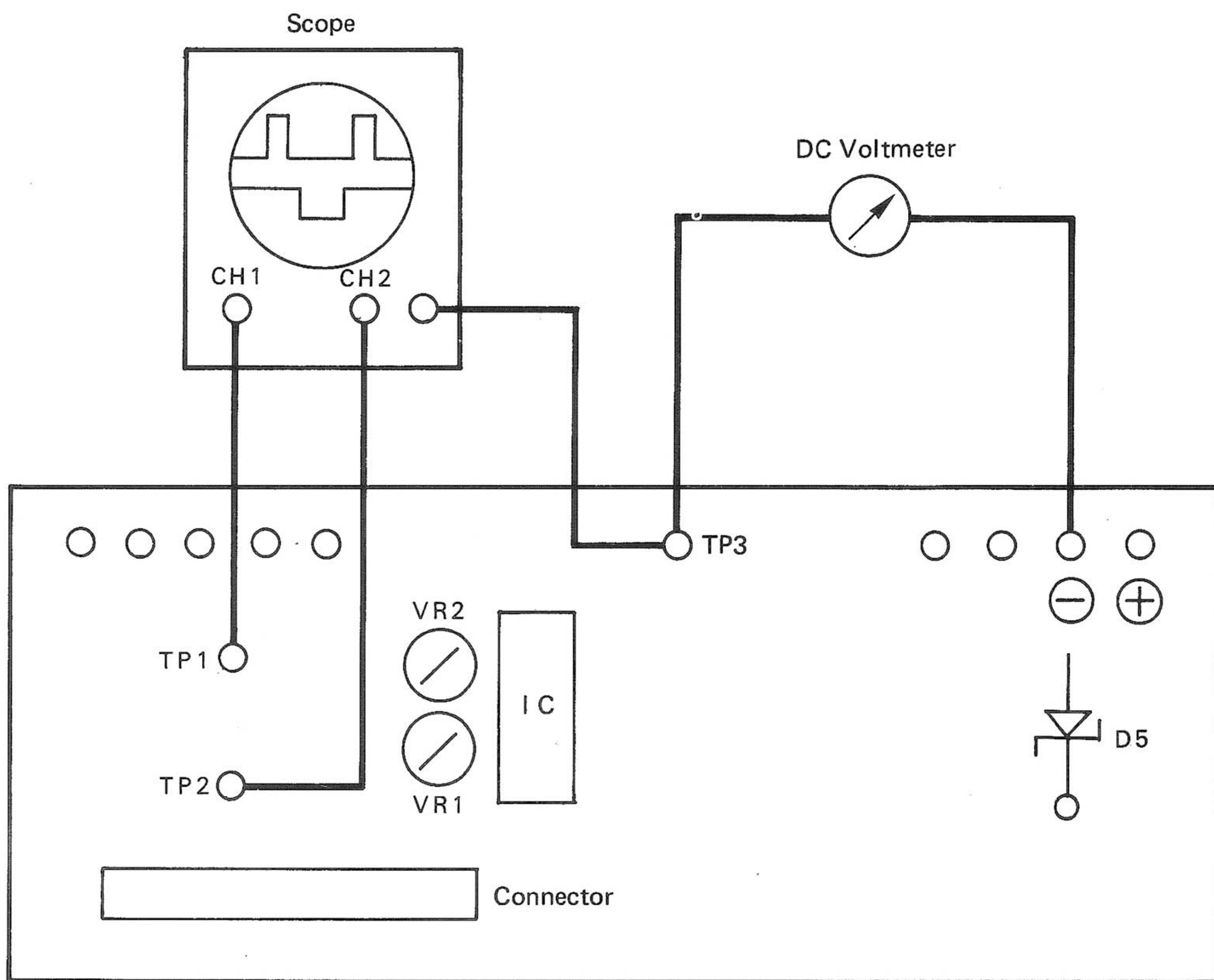
NAMES OF PARTS (Backpanel)



THE IMPORTANT SAFETY NOTICE

The fuse is the special component which is important for safety. It is essential that this fuse should be replaced with manufacture's specified part to prevent shock, fire, or other hazards. Do not modify the original design.

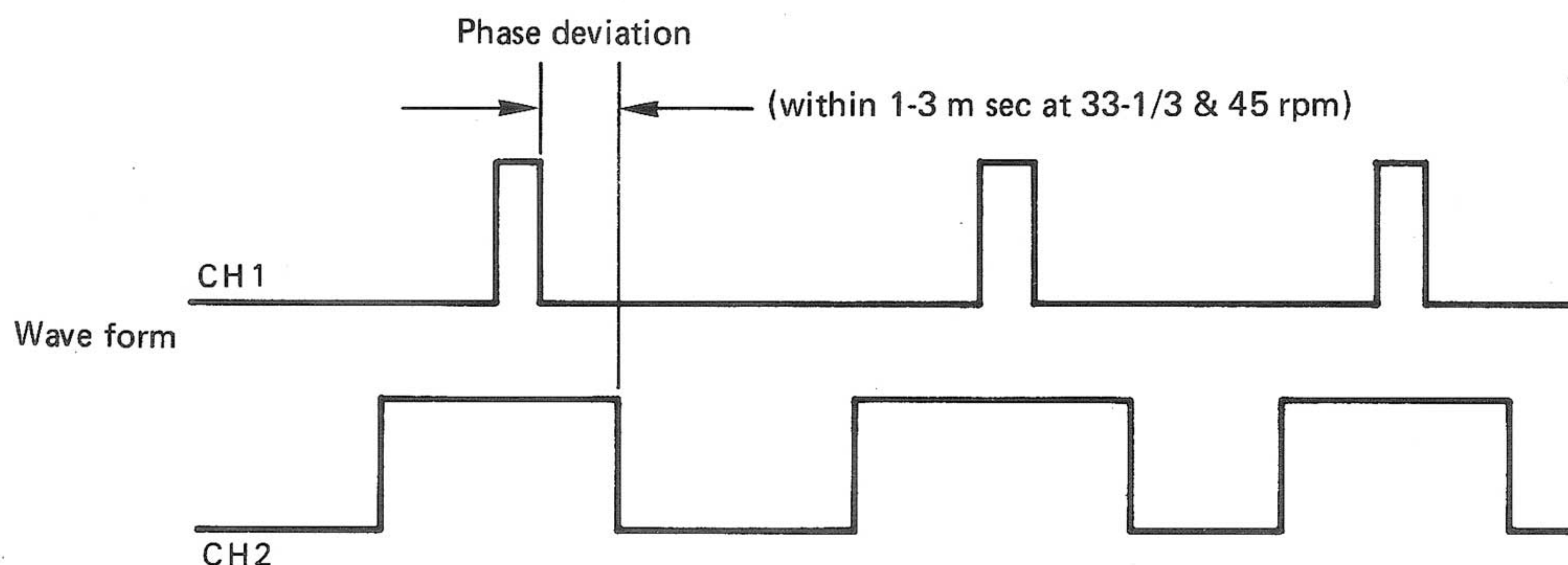
ADJUSTMENT



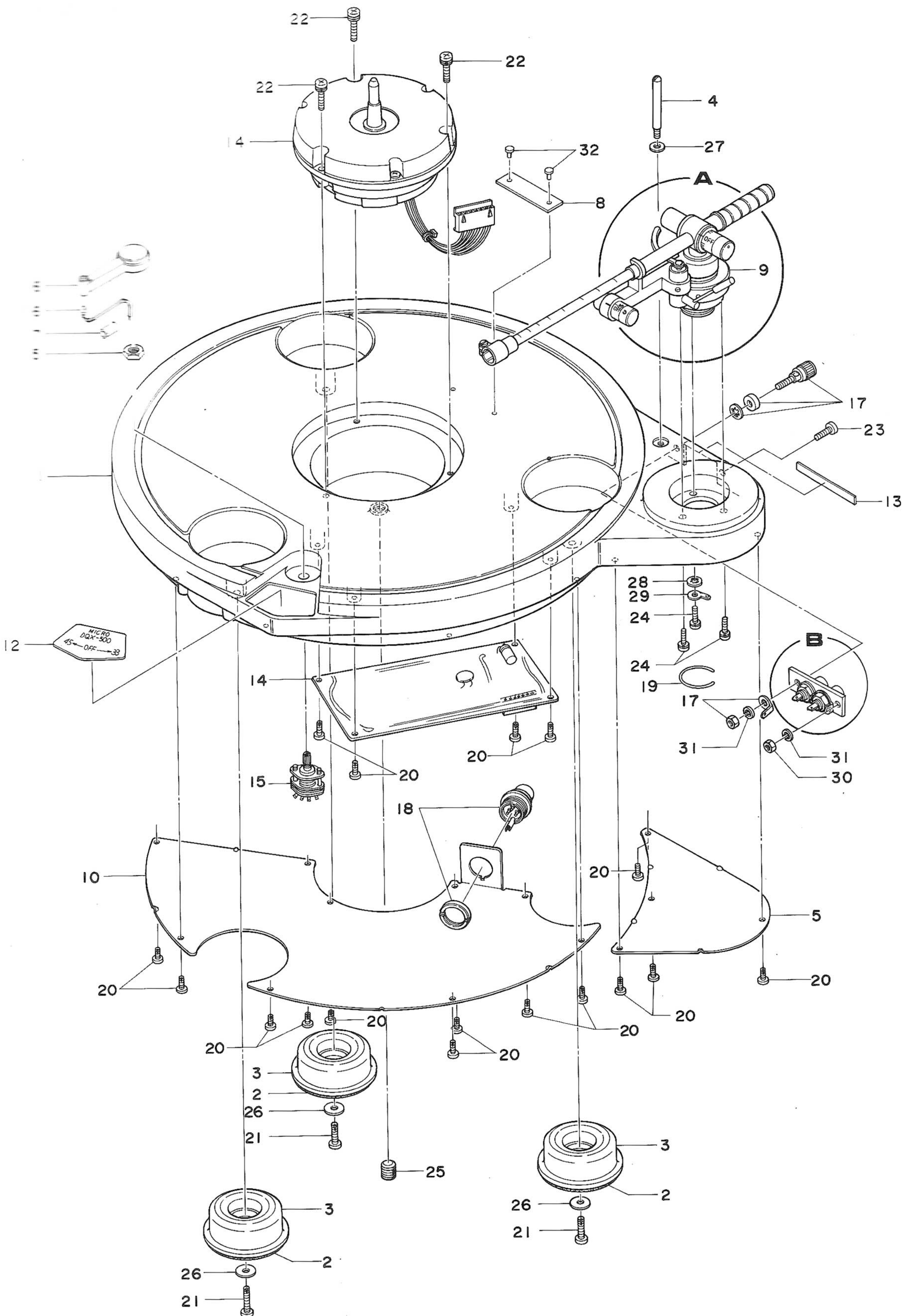
In case the motor rotation is out of the quartz locked operation.

- Check the output voltage between terminals TP3 and \ominus by the digital DC voltmeter. Change the zener diode D5 when the output voltage is below 5.2V - 6.2V.
- Set the rotation speed at 33-1/3 rpm and align the phase deviation watching on the scope. Connect the scope with the terminals TP1, TP2 and TP3 and align the phase deviation within 1 - 3 m sec. by turning VR2, watching the wave form on the scope. Next set the speed at 45 rpm and align by turning VR1 by the same way. Make the alignment from the rotation speed 33-1/3 first and 45 rpm secondly.

- If the quartz locked operation is not obtainable under the above procedure, change the circuit board and make the same alignment of phase deviation as step b) by turning VR2 and VR1.



EXPLODED VIEW (MAIN UNIT)

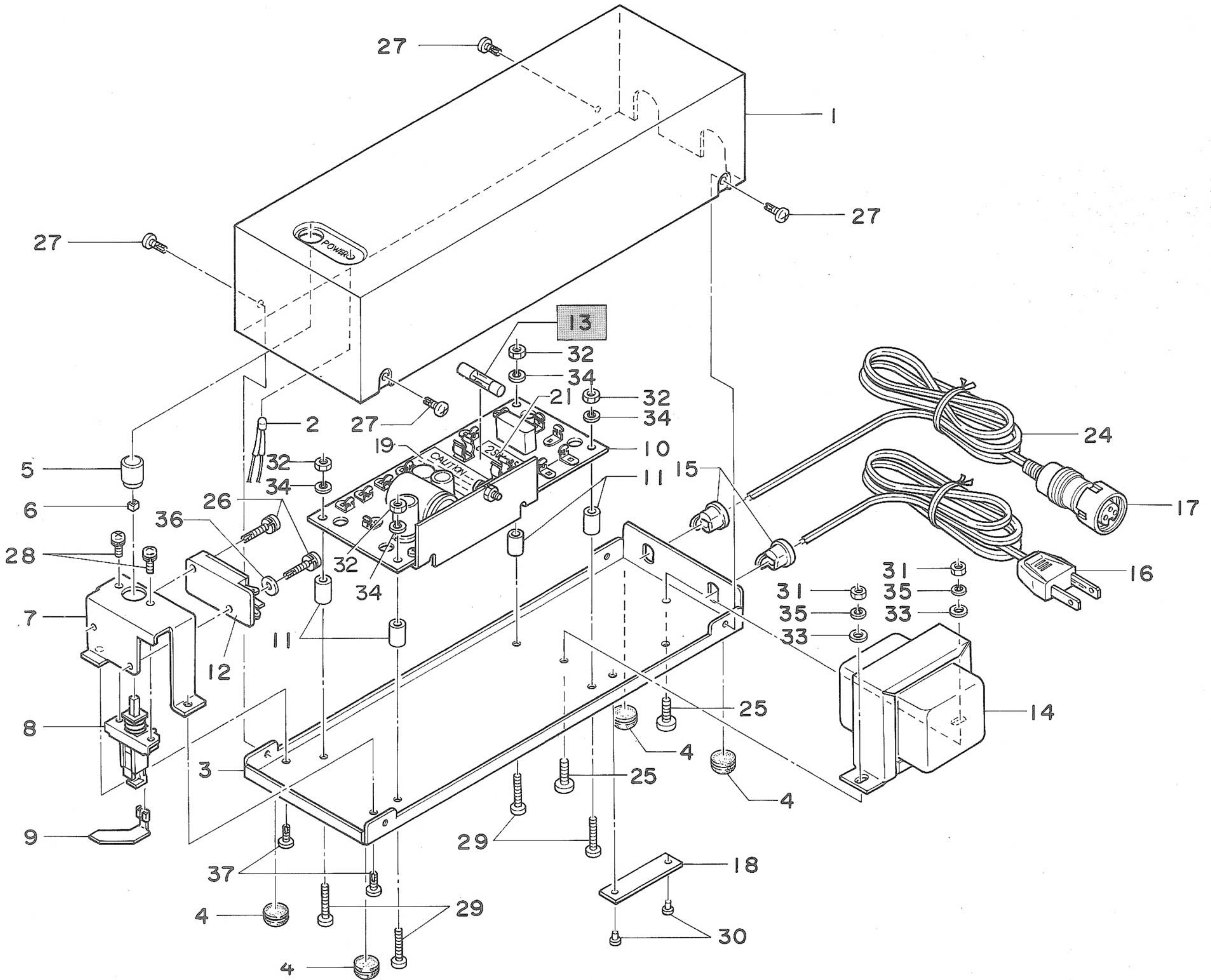


PARTS LIST FOR EXPLODED VIEW

NO.	PART NO.	DESCRIPTION
1	103866	Main panel
2	471890	Cushion felt
3	313220	Cushion rubber
4	471156	Guide pole
5	313785	Shield plate
6	313802	Speed selection lever
7	473768	Wire holder
8	458433	Serial number plate
9	04055	Tonearm ass'y
10	208593	Bottom cover
11		
12	471160	Speed change label
13	471194	Output label
14	024096	Motor ass'y
15	080542	Rotary switch
16	087004	LED
17	013104	Oval lug
18	012056	DIN socket
19	440139	Main sleeve stopper
20	639025	⊕Pan head tapping screw M3x6
21	639030	⊕Pan head tapping screw M3x8
22	618230	⊕Pan head SEMS screw M4x10
23	618044	⊕Pan head SEMS screw M3x10
24	618141	⊕Pan head SEMS screw M3x10
25	664008	Hexagonal hall head screw M8x8
26	667307	Flat washer 3x10x0.5t
27	667415	Flat washer 4x8x0.5t
28	668230	Teeth washer $\phi 3$
29	680000	Oval lug B4
30	672038	Nut M3
31	668032	Spring washer $\phi 3$
32	605512	Rivet
33	208042	Turntable platter
34	470933	Rubber mat
35	742000	Polyester sheet
36	314307	Packing material
37	710494	Operating manual
38	744132	Polyester pouch
39	314311	Packing material
40	208521	Dust cover
41	475443	Cover sheet
42	746091	Polyester h sheet
43	208714	Output cord
44	474281	Headshell ass'y
45	472271	Overhang gauge
46	455120	Flat filister heas screw M2.6x18

NO.	PART NO.	DESCRIPTION
47	420210	Flat filister head screw M2.6x14
48	420205	Flat filister head screw M2.6x10
49	418277	Polyester washer
50	422179	Nut
51	900085	Screw driver
52	449010	Record adaptor 45 rpm
53	476639	Main weight ass'y
54	472055	Sub weight ass'y
55		Additional weight
56	103917	Packing material
57	314294	Packing material
58	314487	Carton box
59	474210	Parts cover

EXPLODED VIEW (POWER SUPPLY UNIT)



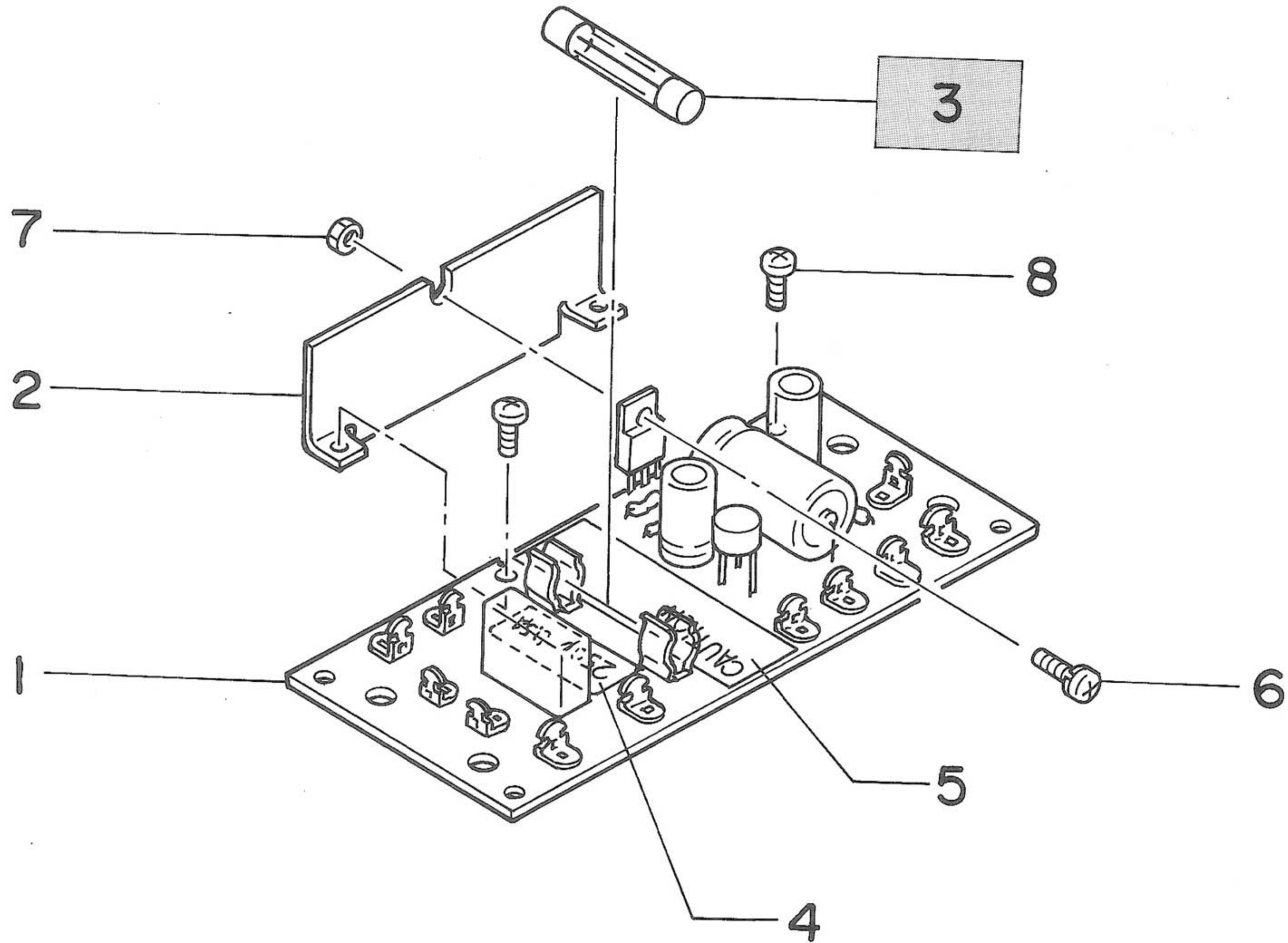
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PARTS LIST FOR EXPLODED VIEW

NO.	PART NO.	DESCRIPTION
1	208466	Power supply case
2	087004	LED
3	208470	Chassis
4	019120	Cushion rubber
5	450291	Switch button
6	450304	Spacer
7	470859	Power switch mounting plate
8	439714	Slide push switch
9	438567	Switch lever
10	314990	Power supply circuit board ass'y
11	692070	Spacer
12	080024	Micro switch AM41009
13	014056	Fuse 250V 0.5A
14	313906	Power transformer
15	017162	Cord bushing
16	018004	AC cord
17	012046	DIN plug
18	458433	Serial number plate
19	469960	Replacement fuse rating label
20		
21	473024	Fuse rating label
22		
23		
24	469762	Conector wire
25	614028	⊕ Pan head screw M14x8 B
26	639082	⊕ Pan head tapping screw M3x16
27	63222	⊕ Binding head tapping screw M3x6 B
28	618122	⊕ Pan head SEMS screw M3x6
29	613097	⊕ Pan head screw M3x18 B
30	605512	Rivet
31	672042	Nut M4
32	672038	Nut M3
33	667415	Flat washer 4x8x0.5t
34	668032	Spring washer ϕ 3
35	668051	Spring washer ϕ 4
36	669158	Fiber washer 3x10x1t
37	639025	⊕ Pan head tapping screw M3x6 B

POWER SUPPLY CIRCUIT BOARD ASS'Y



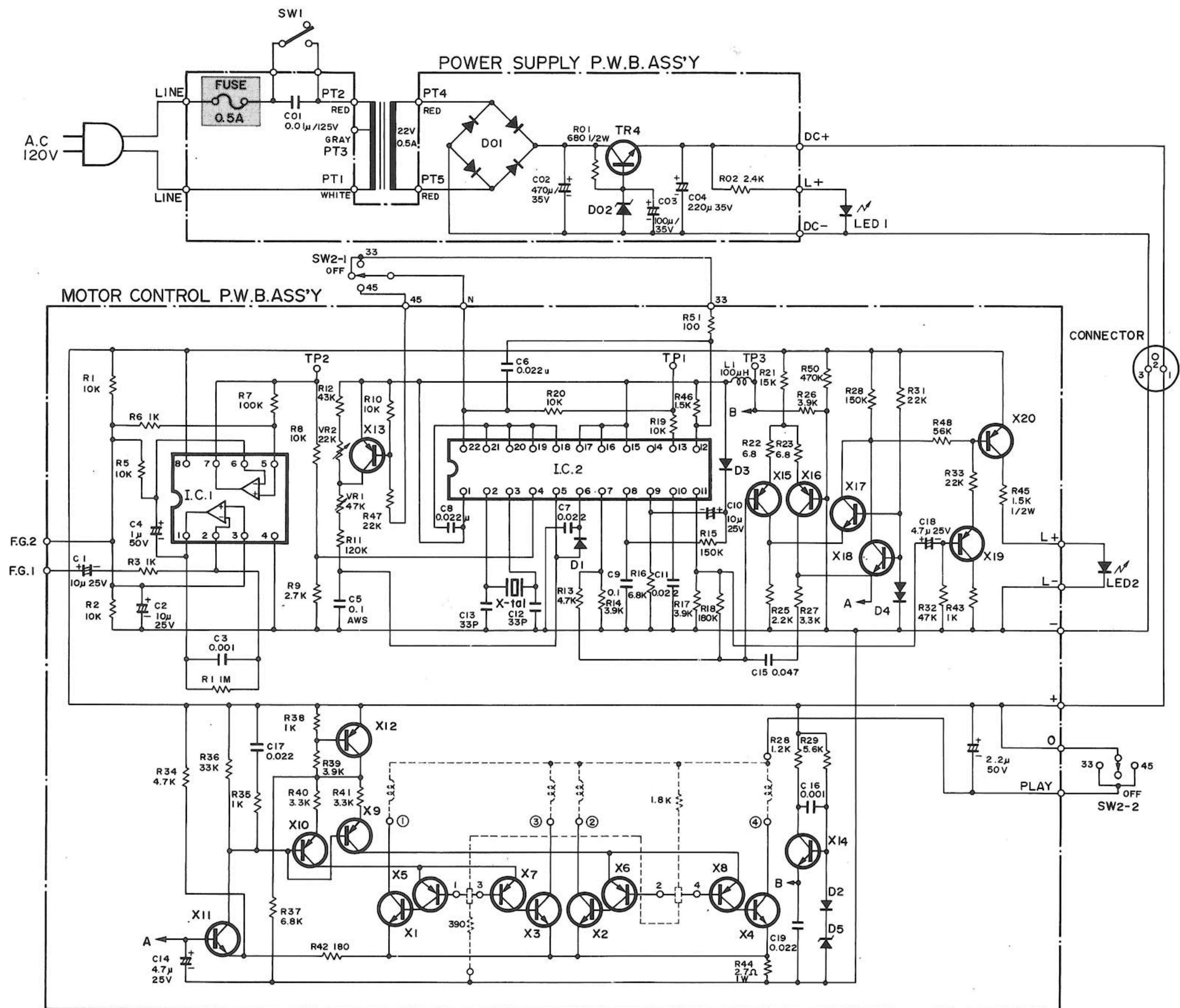
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NO.	PART NO.	DESCRIPTION
1	314990	Power supply circuit board ass'y
2	458043	Heat sink
3	014056	Fuse
4	473024	Fuse rating label

NO.	PART NO.	DESCRIPTION
5	469960	Replacement fuse rating label
6	618137	⊕ Pan head SEMS screw M3x8
7	672038	Nut M3
8	639030	⊕ Pan head tapping screw M3x8

SCHEMATIC DIAGRAM



POWER SUPPLY P.W.B. ASS'Y

TR1 — 2SD313, 2SC1061 or 2SD526
 D01 — Silicon Bridge W02
 D02 — Zener Diode WZ240

MOTOR — mc-936B

LED1,2 — TLR102

SW1 — Micro Switch AM41009

SW2 — Rotary Switch ESRE133K15B

CONNECTOR — Mak 3100S 8 Masei 3100S

MOTOR CONTROL P.W.B. ASS'Y

IC1 — NJM4558D-D
 IC2 — SM6415A-4S
 X1-4 — 2SD571 K1 or K2 or L1 or L2
 X5-8 — 2SA733P or Q
 X9,10,12,13,20 — 2SA733P or Q
 X15-16 — 2SA733P
 X14 — 2SD571 K1 or K2
 X11,17,18,19 — 2SC945P or K
 D1-3 — ISS53
 D4 — VDI220
 D5 — UZ568

All resistors are 1/4W Carbon Film unless marked otherwise.

All capacitors are in μF unless otherwise specified

electrolytic & polyester film capacitors are F/WV.

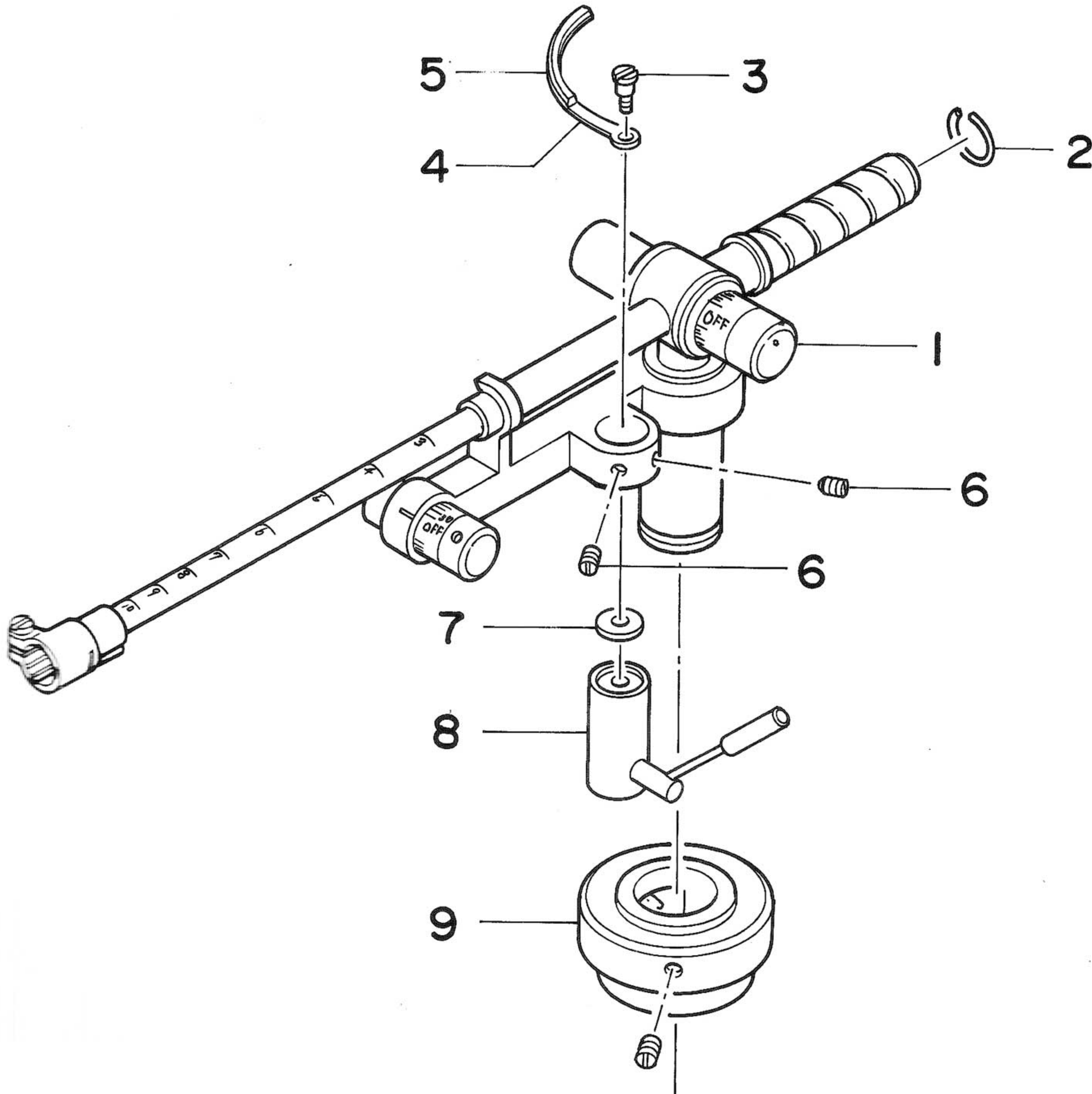
All resistors are in Ω .

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DETAIL VIEWS FOR ASS'Y PARTS

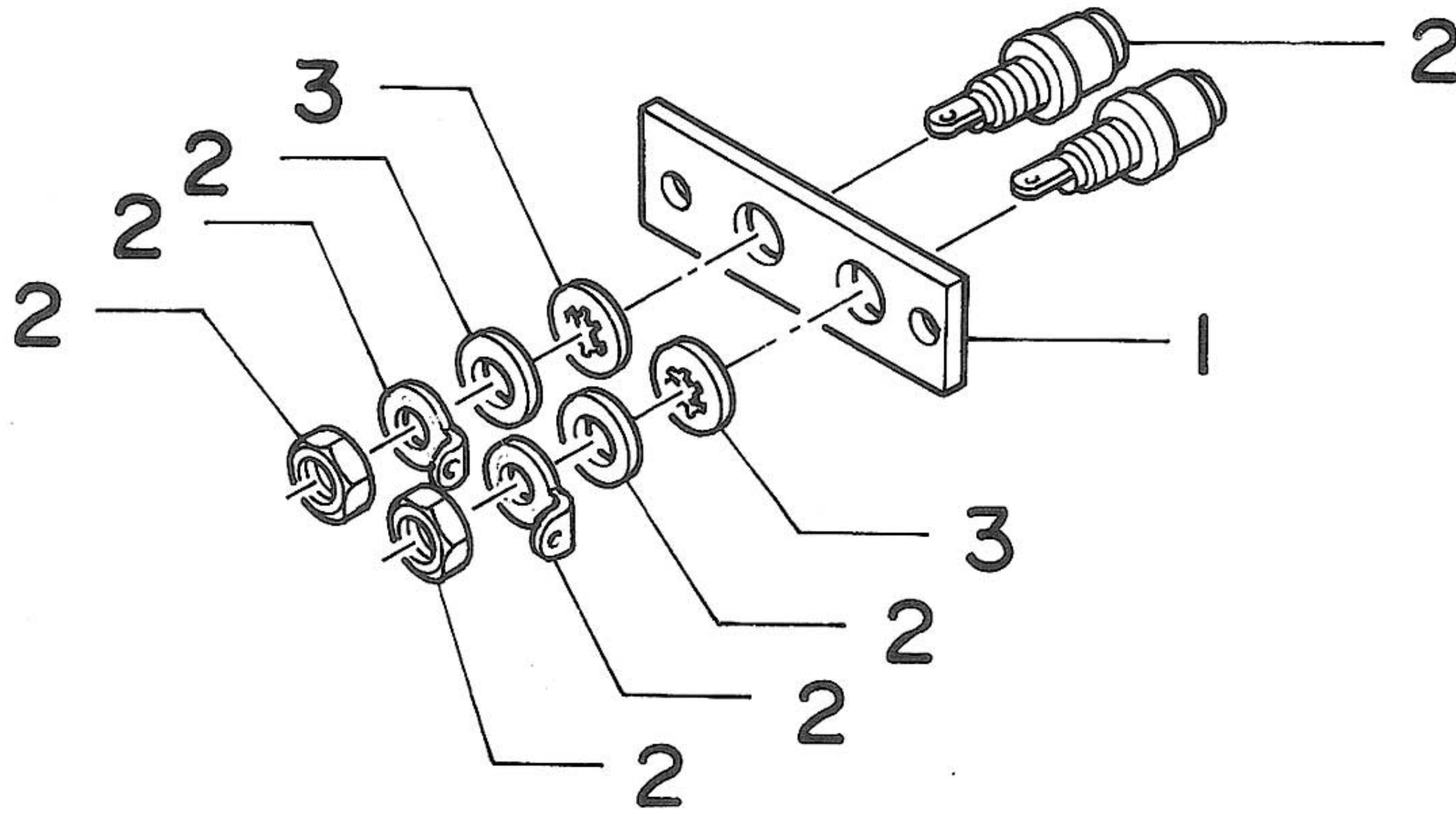
A. TONEARM ASS'Y



NO.	PART NO.	DESCRIPTION
1		Tonearm ass'y
2	470079	Plastic coil spring
3	428156	Guide plate screw
4	470806	Lifter guide plate
5	470729	Lifter guide rubber

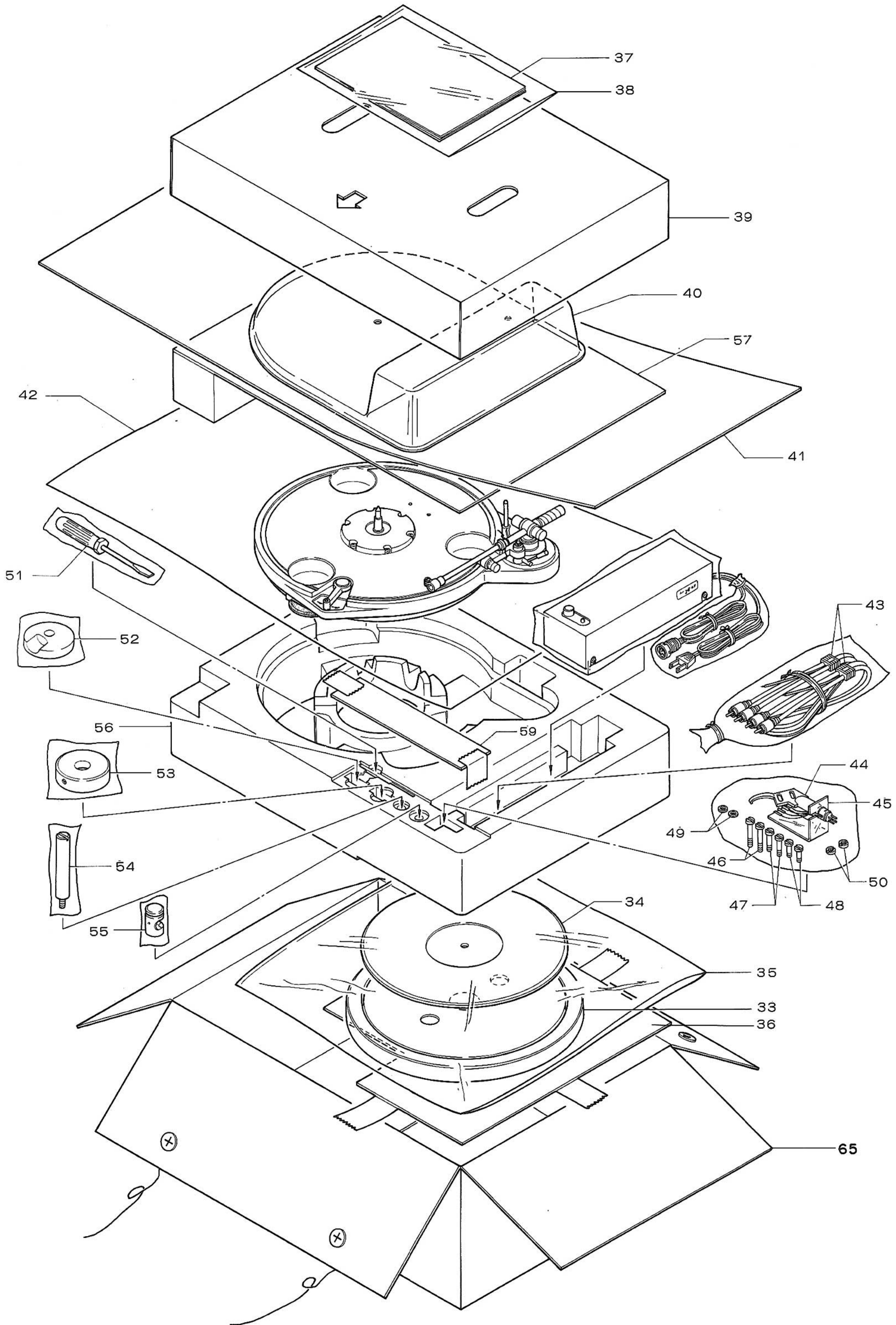
	PART NO.	DESCRIPTION
6		Set screw M2x2 BS B
7	454362	Name plate
8	442050	Arm lifter ass'y
9	471531	Arm base ass'y

B. OUTPUT TERMINAL BASE ASS'Y



NO.	PART NO.	DESCRIPTION
1	449773	Terminal base
2	011221	RCA jack
3	668282	Teeth washer

PACKING FOR SHIPMENT



SPECIFICATIONS

Turntable

Drive system	Direct drive
Motor	Quartz locked PLL DC servo motor
Speeds	33-1/3, 45 rpm
Turntable platter	35 cm (13-3/4 inch) diameter aluminum diecast platter, weighting 2.6 kg (5.72 lbs)
Moment of inertia	600 kg·cm ²
Wow & flutter	Less than 0.02%
S/N ratio	More than 63 dB (JIS) 75 dB (DIN-B)
Power.....	U.S.A. & Canada 120V, 60 Hz /Other areas 220-240V, 50 Hz 7.5W

Tonearm

Type	Dynamic balance
Effective length	237 mm (9-3/8 inch)
Overhang	15 mm (19/32 inch)
Maximum tracking error.....	Less than 1.5°
Usable cartridge weight	4-12 g (0.14 - 0.42 oz)
Range of tracking force	0 - 3 g
Dimensions	(W) 410 x (D) 350 x (H) x 139 mm, 16-1/8 x 13-3/4 x 5-1/2 inch
weight	7.0 kg (15.4 lbs)

* Design and specifications are subject to modification without notice.