

MICRO SEIKI

SERVICE MANUAL

DIRECT DRIVE AUTOMATIC
TURNTABLE SYSTEM.

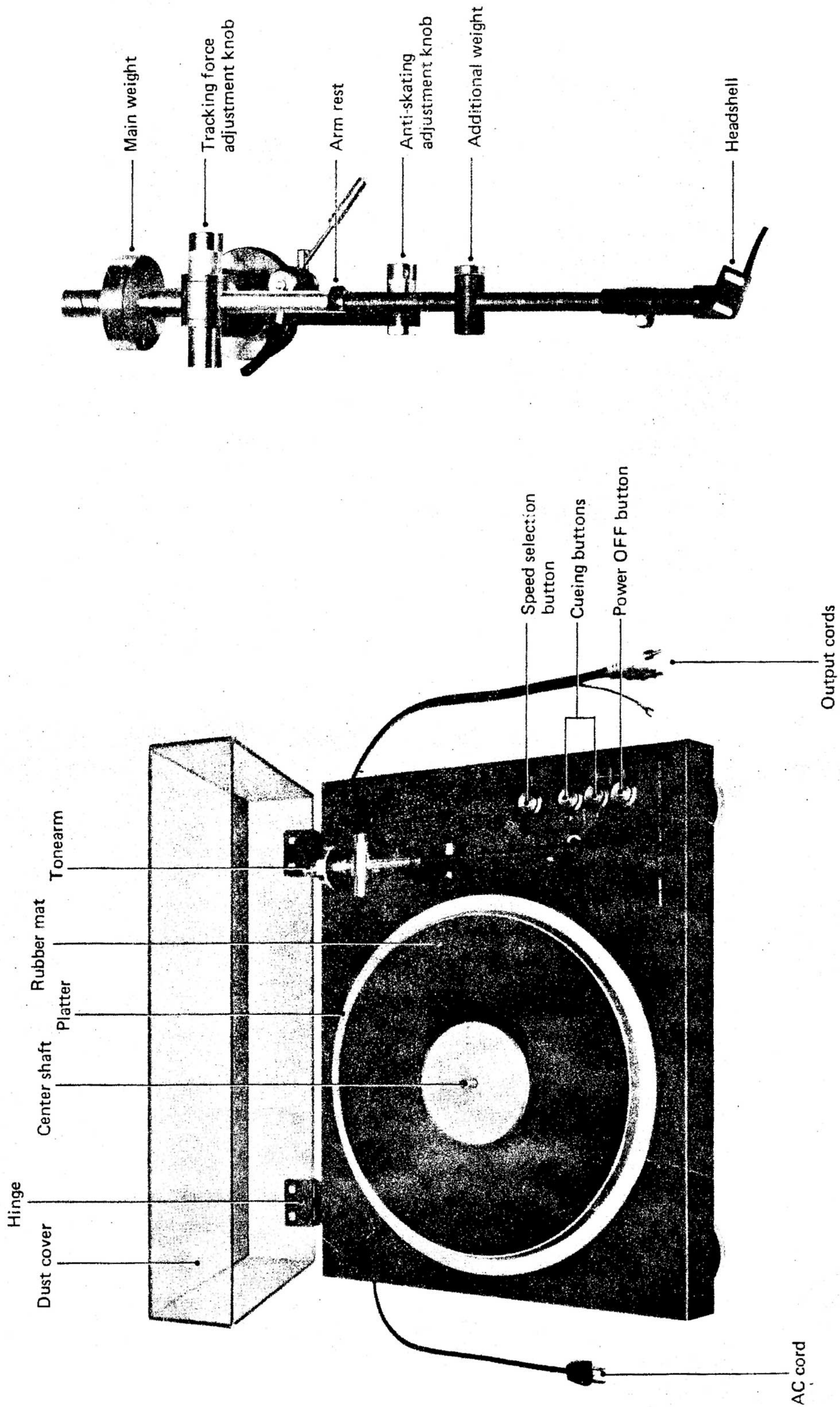
DQ-43



MICRO SEIKI CO., LTD.

TOKYO JAPAN

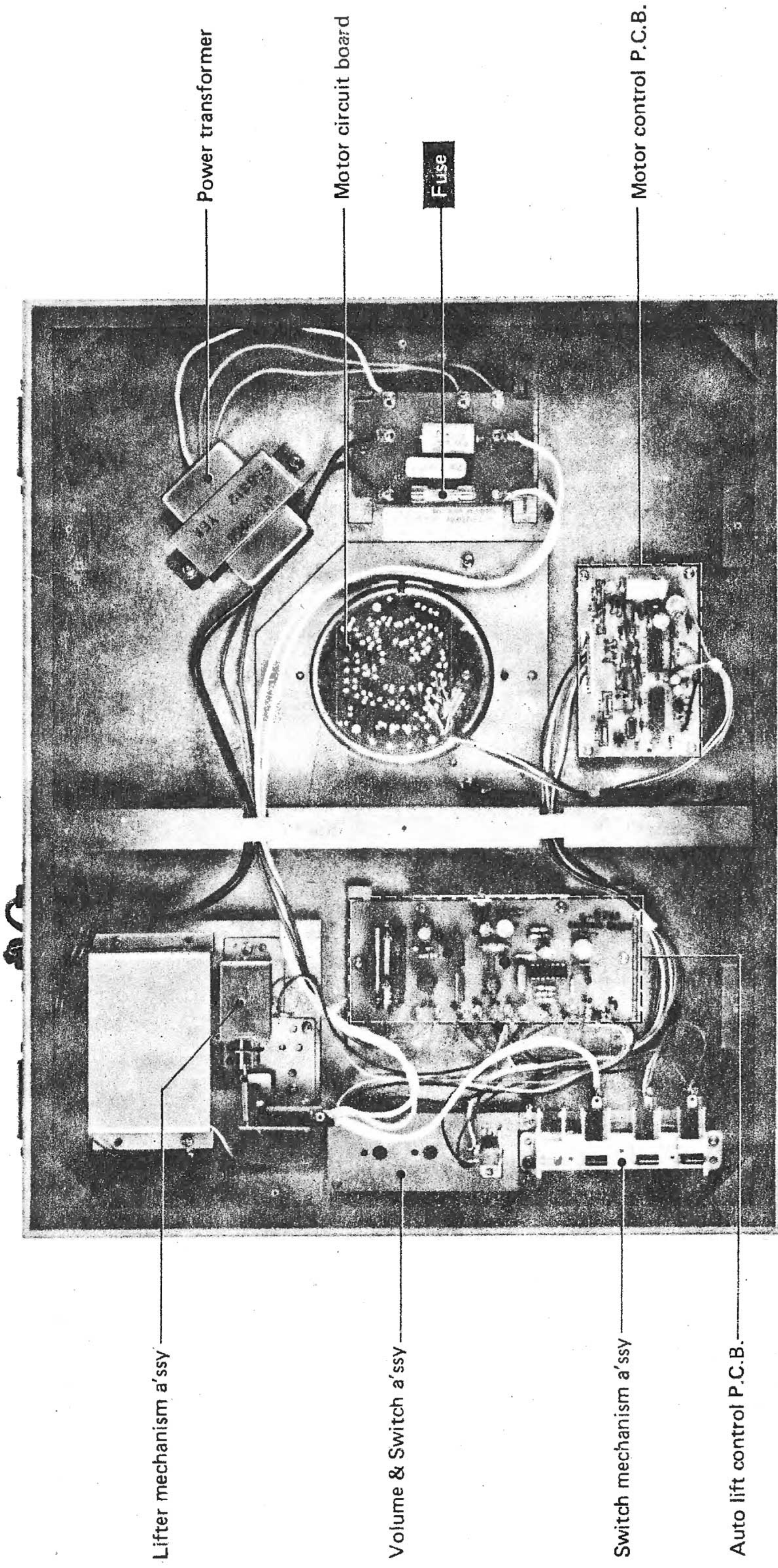
PARTS NOMENCLATURE



N

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

PARTS NOMENCLATURE (Backpanel)



Lifter mechanism a'ssy

Volume & Switch a'ssy

Switch mechanism a'ssy

Auto lift control P.C.B.

Power transformer

Motor circuit board

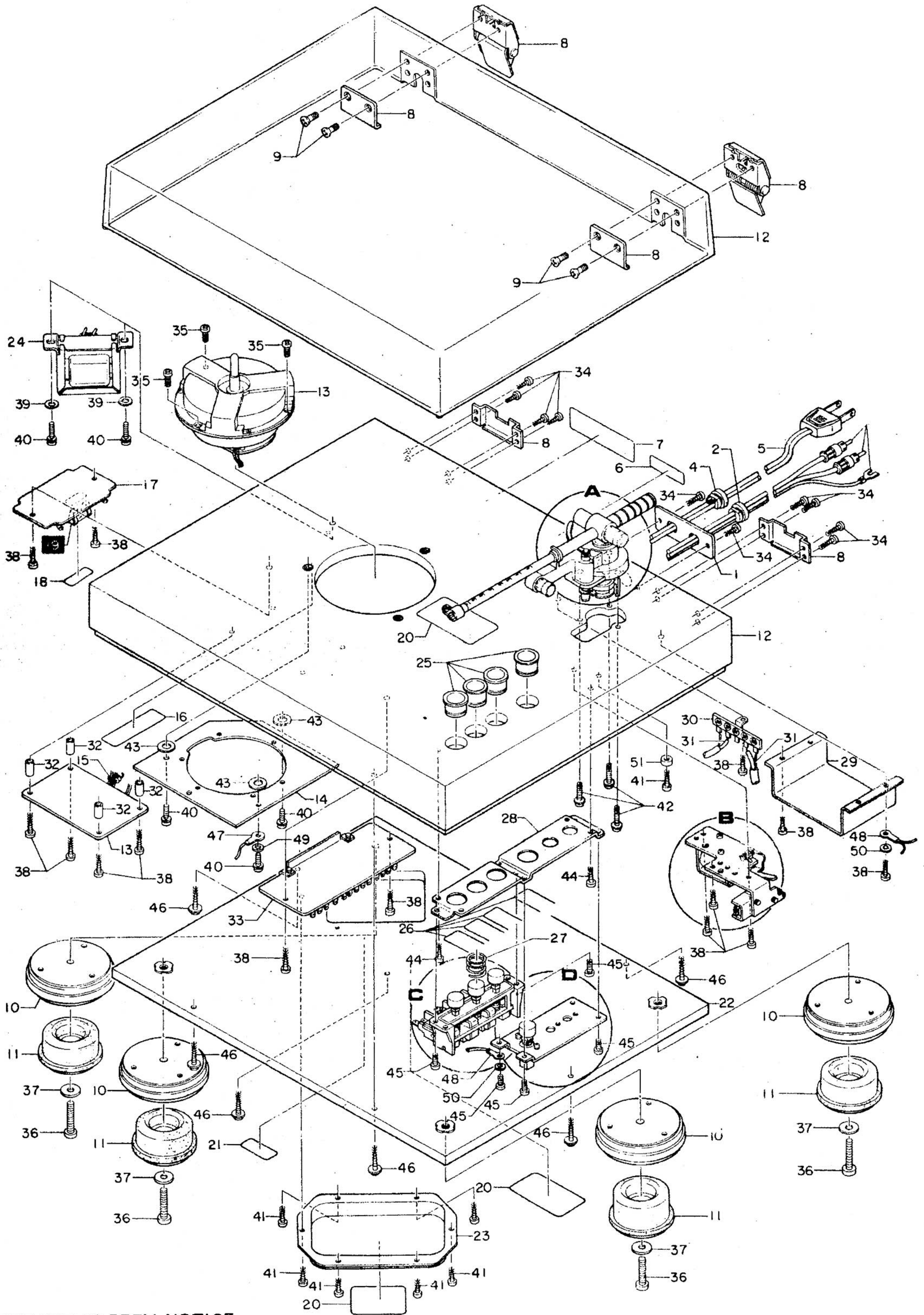
Fuse

Motor control P.C.B.

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 manufacturer's specified part to prevent shock, fire, or other hazards. Do not modify the original design.

EXPLODED VIEW



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.

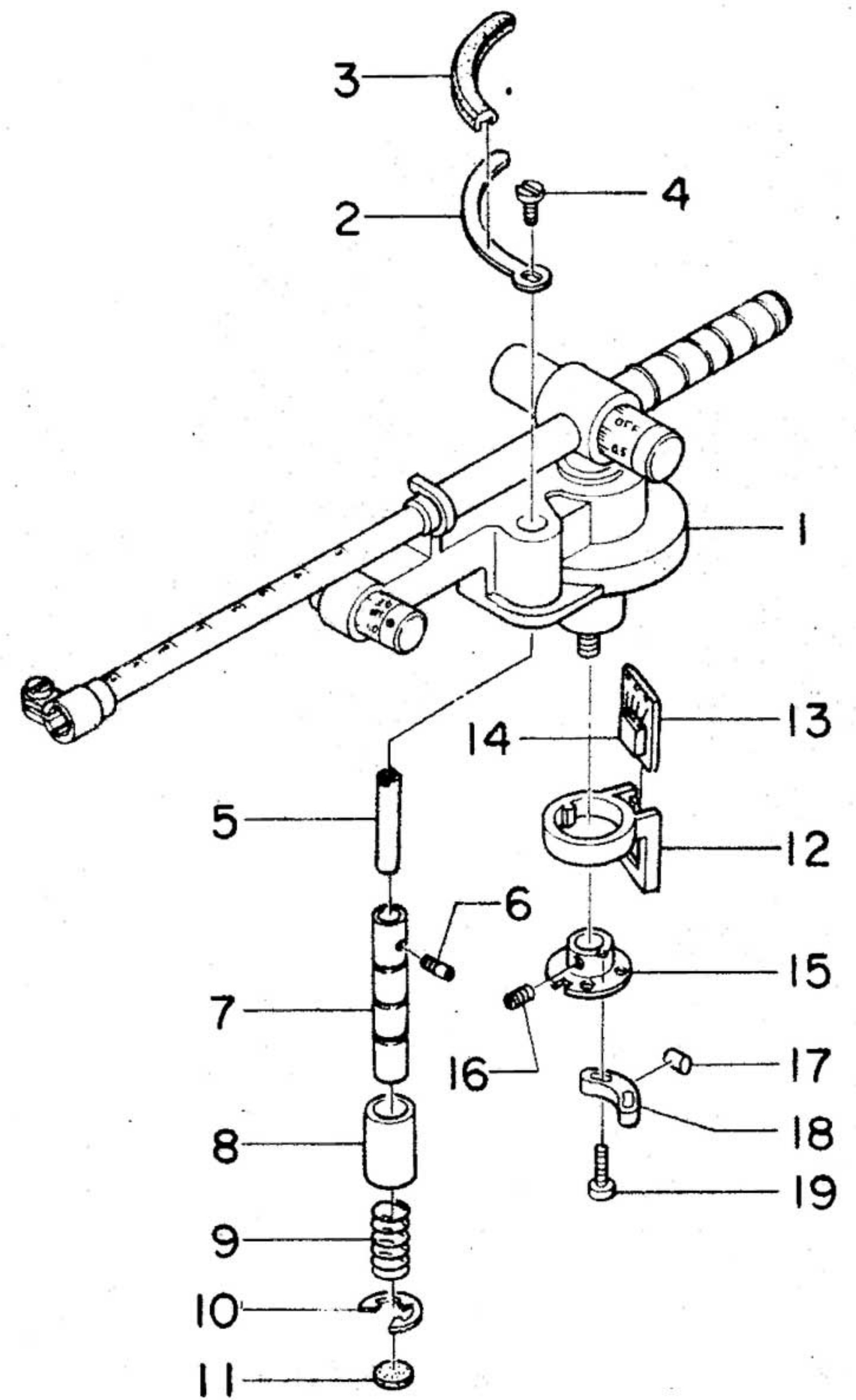
PARTS LIST FOR EXPLODED VIEW

KEY NO.	PARTS NO.	DESCRIPTION
		CABINET SECTION
1	MP463677	Cord holder
2	KC017196	Cord bush F-4
3	ME312890	Output cord Ass'y
4	KC017162	Cord bush D-3
5	KL018004	AC cord
6	MP458433	Serial No plate
7	MW475918	Rating label
8	MA307407	Lockplate springhinge Ass'y
9	BS614634D	+ Oval Counter Sunk Screw M4x10
10	MN312138	Insulator cover
11	MA468623B	Insulator Ass'y B
12	MC103955A	Cabinet
13	MM023110	Motor Ass'y
14	MP314449	Motor holder
15	FB750010	Cord clasper IB tie
16	MW469960	Fuse caution label
17	MA476499	Powersupply Ass'y
18	MW476268	Fuse label 2.50V 0.75A
19	LH014150	Fuse D6x32 0.75A
20	MW455469	Caution label
21	MW469527	Material label
22	MC208856	Bottom cabinet
23	MN310255	Power transformer cover
24	ME314773	Power transformer
25	MN466764B	Button ring
26	MS447462	Button ring holder spring
27	MS449519	Switch mechanism holder spring
28	MP314453	Switch mechanism holder
29	MP467930	Shield cover
30	KT013000	Lug terminal 1L4P
31	OE501027	Empire Tube
32	MT428438	8L Spacer
33	MA209030	Control PCB Ass'y
34	BB633250D	+ Blind Head Tapping Screw ϕ 3x12
35	BN641010D	+ Pan Head Tapping Screw ϕ 4x8
36	BN615110A	+ Pan Head Machine Screw M5x30
37	NW667523A	Plain Washer D5xD12x0.8t
88	BN633052A	+ Pan Head Tapping Screw ϕ 3x12
39	NW667420A	Plain Washer D4xD10x0.8t
40	Bn618245A	+ Pan Head Sems Screw M4x12
41	BN633048A	+ Pan Head Tapping Screw ϕ 3x10
42	BZ643680A	+ Flanged Head Tapping Screw ϕ 3x16
43	NW667650A	Plain Washer D8xD16x1.2t
44	BN633033A	+ Pan Head Tapping Screw ϕ 3x8
45	BN639025A	+ Pan Head Tapping Screw ϕ 3x6
46	BZ642090A	+ Flanged Head Tapping Screw ϕ 3x20
47	NT680015	Lug terminal B-6
48	NT680000	Lug terminal B-4
49	NW668259	Internal Toothed Lock Washer D-4
50	NW668230	Internal Toothed Lock Washer D-3
51	MT430423	Spacer

DETAIL VIEWS AND PARTS LIST FOR ASS'Y PARTS

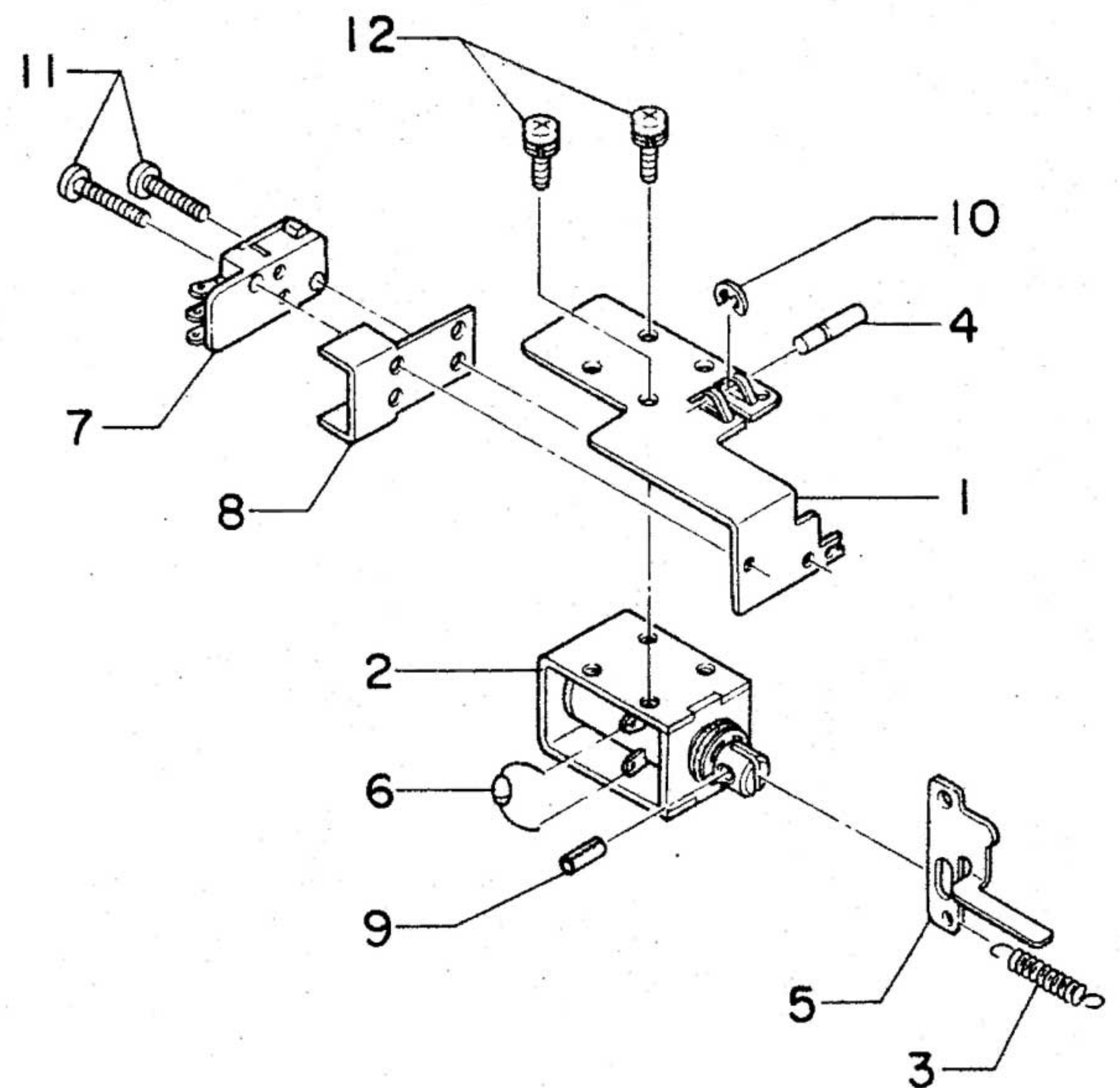
A. TONEARM ASS'Y DETAIL A

KEY NO.	PARTS NO.	DESCRIPTION
		DETAIL A
1		Tone arm Ass'y
2	MP470806	Lifter guide plate
3	MN470749	Lifter guide rubber
4	MT428165	Lifter guide stopper screw
5	MT439273	Guide plate shaft
6	MT439536	Lifter guide adjusting screw
7	MT457725	Oilcuing shaft
8	MA476997	Oilcuing cylinder Ass'y
9	MS439343	Lifter spring
10	NE674103B	E ring $\phi 6$
11	MG475744	Dumper rubber
12	MN314472	Sensor holder
13	ME475617	Sensor PCB
14	TI089103	Hale I.C DN835
15	MA475814	Rotary plate Ass'y
16	BC650503A	Slotted Set Cup Point Screw M3x3
17	MT402599	Magnet
18	MN463874	Magnet holder
19	BN611053	+ Pan Head Machine Screw M2x8



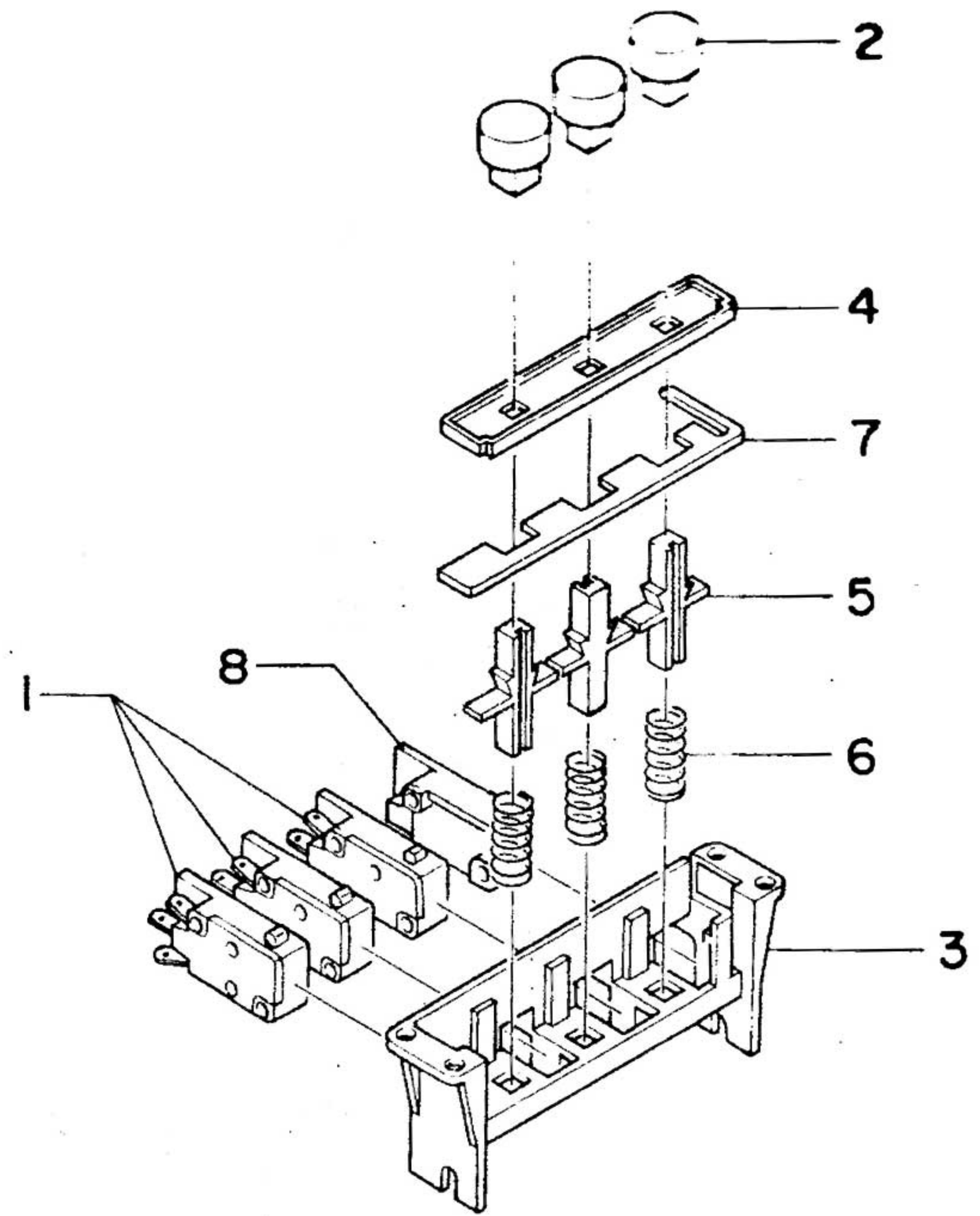
B. LIFTER MECHANISM ASS'Y DETAIL B

KEY NO.	PARTS NO.	DESCRIPTION
		DETAIL B
1	MP308580	Lifter mechanism holder
2	ME311667	Solenoid unit
3	MS454630	Spring
4	MT444854	Cam shaft
5	MP444873	Lifter cam
6	TD084203	Silicon diode F-14 A
7	SW080024	Micro switch AM-41009
8	MP448220	Switch insulator
9	NP693087 A	Spring pin
10	NE674048	E ring
11	BN618160 A	+ Pan Head Sems Screw M3x14
12	BN618122 A	+ Pan Head Sems Screw M3x6



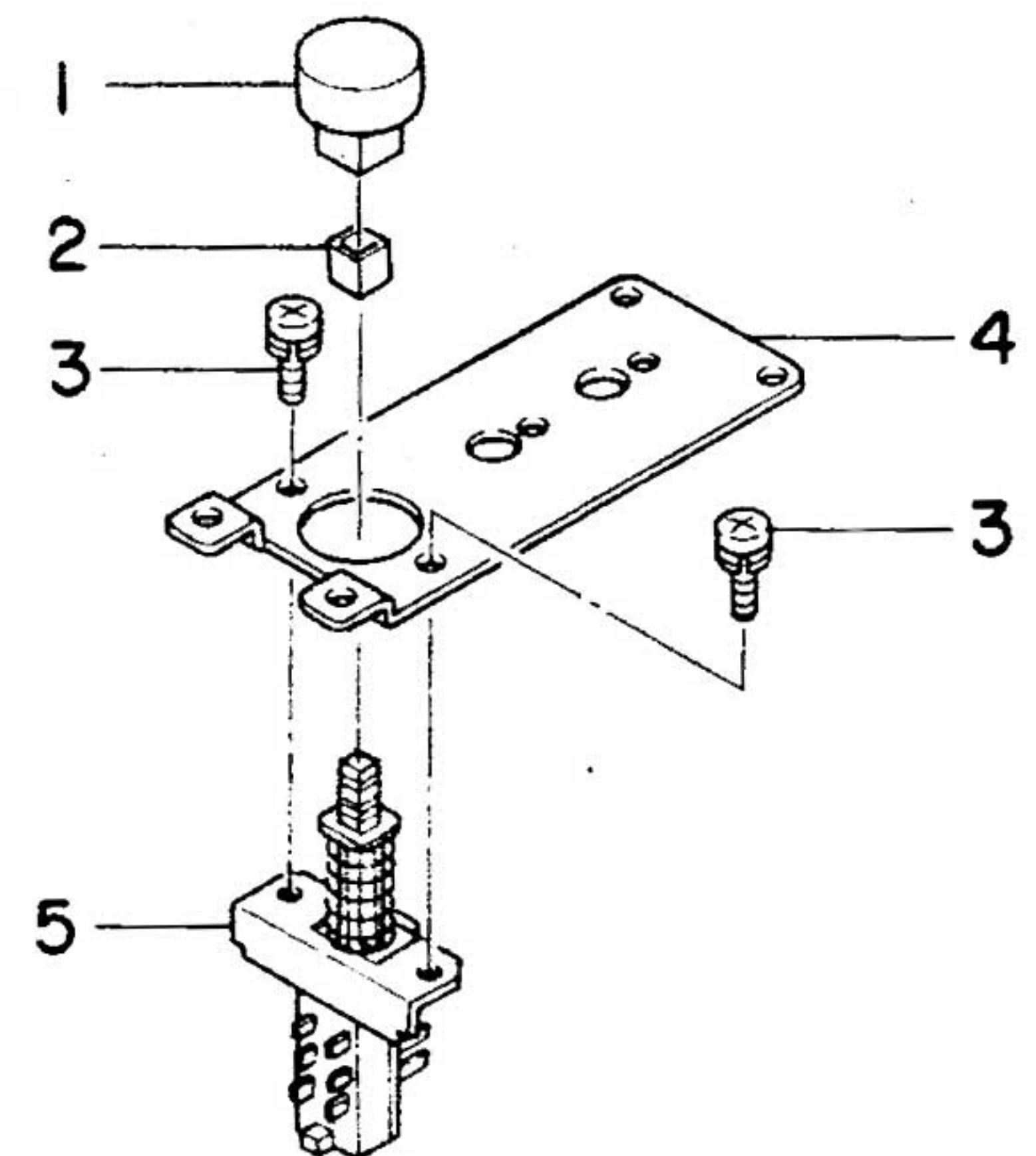
C. SWITCH MECHANISM ASS'Y DETAIL C

KEY NO.	PARTS NO.	DESCRIPTION
		DETAIL C
1	SW080058	Micro switch AM-47009
2	MN466783	Push button
3	MN308753	Switch mechanism frame
4	MN445433	Shaft guide plate
5	MN448732	Shaft
6	MN449044	Spring
7	MN445185	Stopper plate
8	SW080096	Dummy Micro Switch

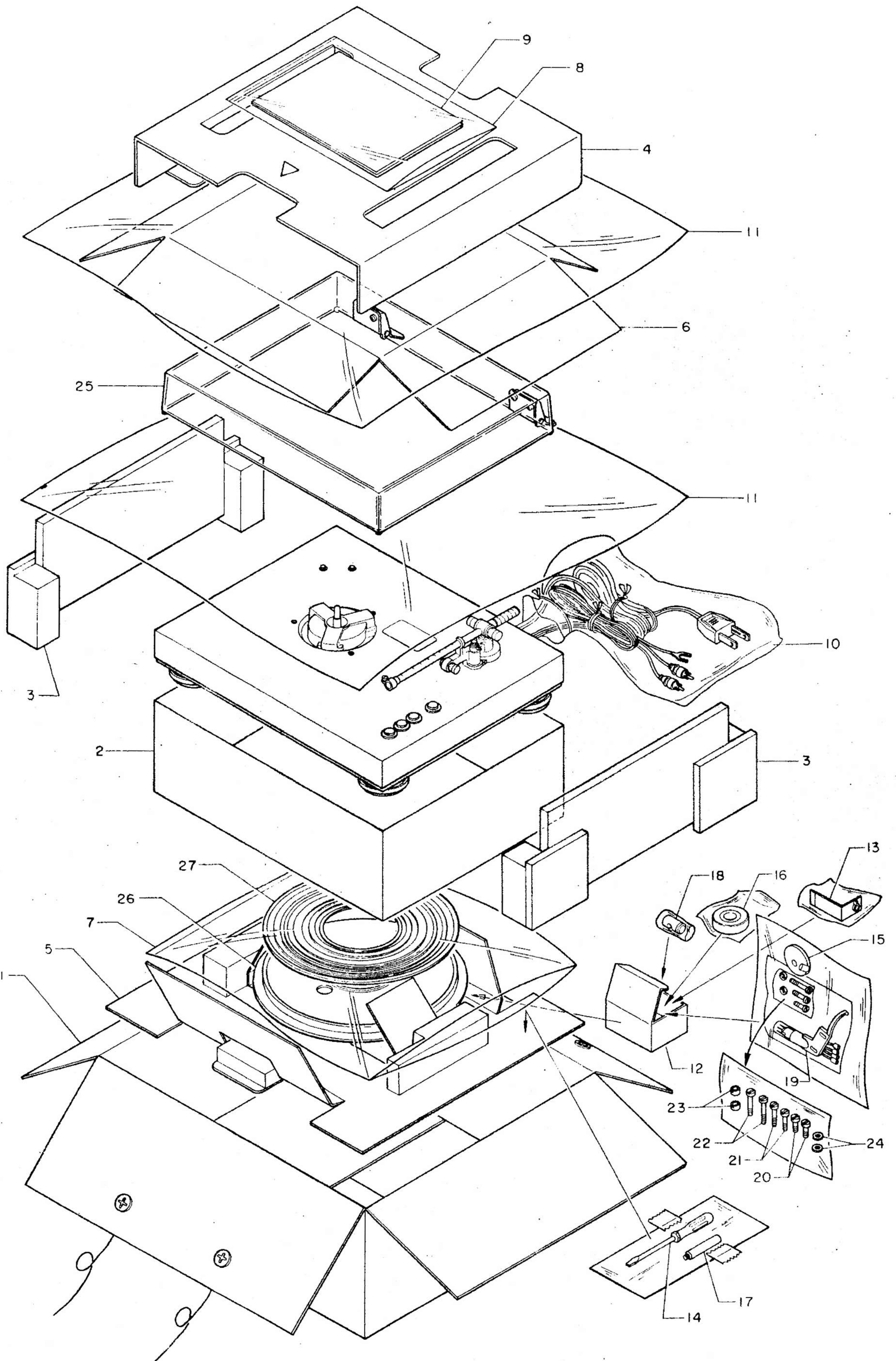


D. VOLUME AND SWITCH ASS'Y DETAIL D

KEY NO.	PARTS NO.	DESCRIPTION
		DETAIL D
1		DETAIL D
1	MN466783	Push button
2	MN446239	Push button spacer
3	BN618122	+ Pan Head Sems Screw M3x6
4	MP314468	Volume holder plate
5	ME439700	Push switch SUE-12E04



PACKING FOR SHIPMENT



PARTS LIST FOR PACKING

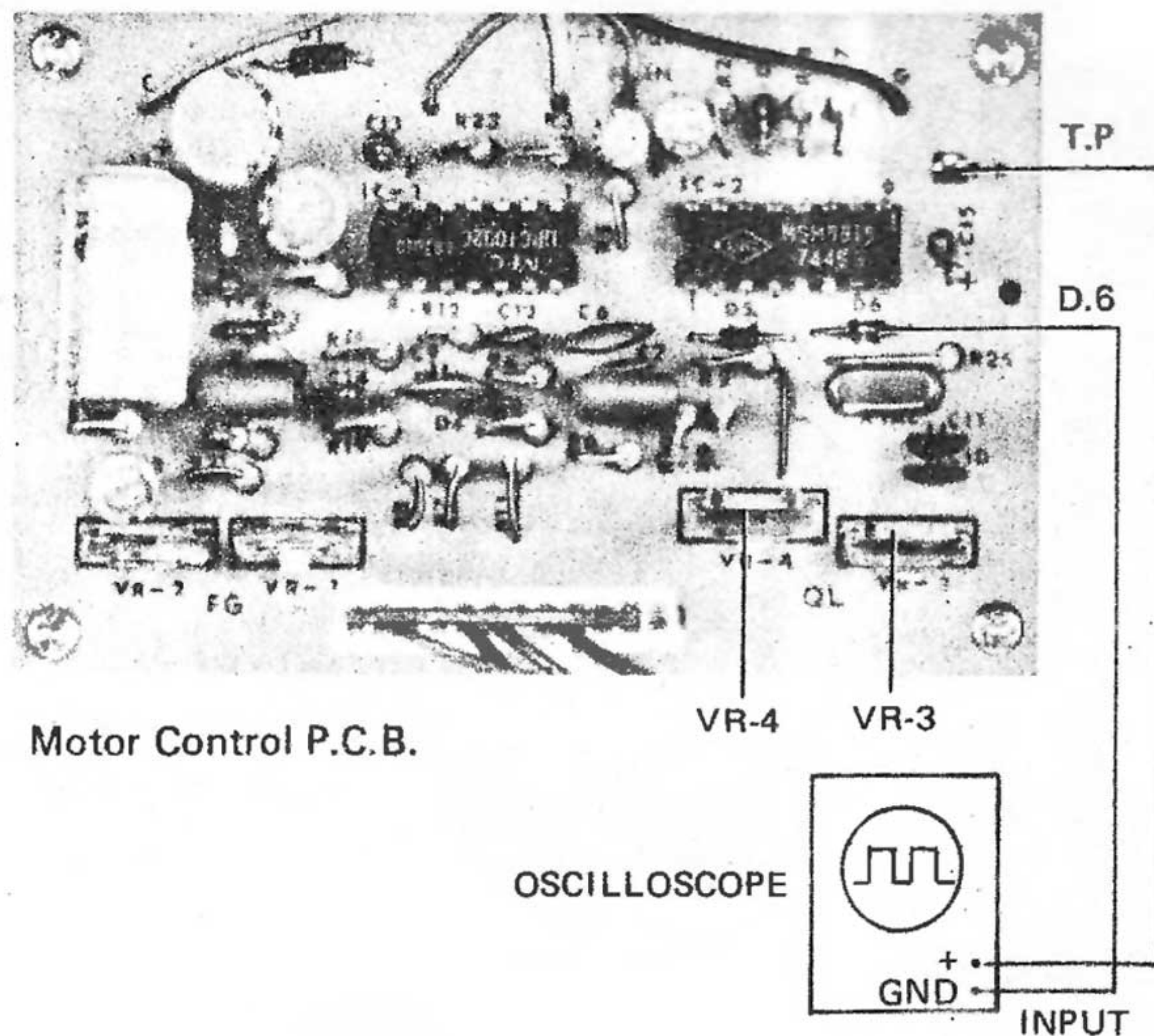
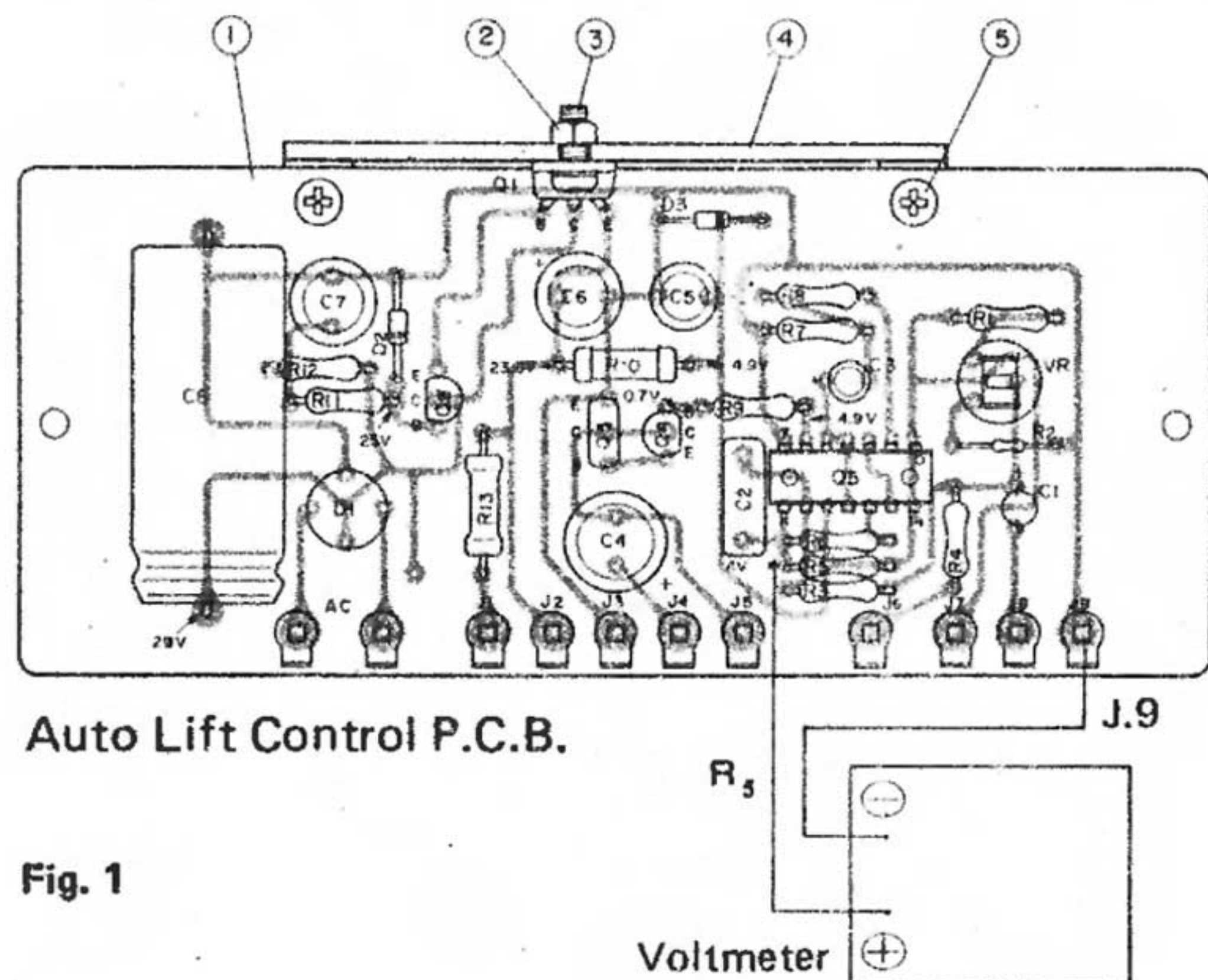
KEY NO.	PARTS NO.	DESCRIPTION
		PACKING SECTION
1	MW314805	Carton box
2	MW476643	Rainforcing Material
3	MW315085	Packing material A
4	MW315090	Packing material B
5	MW315006	Turntable packing
6	MW448111	Cover sheet
7	FP744151	Polyethy Bag
8	FP744132	Polyethy Bag
9	WT710550	Instruction manual
10	FP740112	Polyethy Bag
11	FP74072	Polyethy Sheet
12	MW474366	Part Box
13	MP472271	Overhang gauge
14	ZF900085	Screw driver
15	MN449010	Adaptor
16		Main weight
17		Sub weight
18		Additional weight
19		Head shell
20	Mt420205	- Flat Filister Head Screw M2.6x10
21	MT420210	- Flat Filister Head Screw M2.6x14
22	MT455120	- Flat Filister Head Screw M2.6x18
23	MT422179	Nut M2.6
24	MP418277	Washer
25	MN205487A	Dust cover
26	MN207514	Turntable plater
27	MG445650	Turntable sheet

PARTS LIST AND ADJUSTMENT OF AUTO LIFT CONTROL P.C.B./MOTOR CONTROL P.C.B.

KEY NO.	PART NO.	DESCRIPTION
R ₁₃	02505 0 E	12Ω 1W ±5%
VR	97511 5	47kΩB φ10
R ₁₂	04056 3 A	470Ω ¼W ±5%
R ₁₁	04064 8 A	1kΩ ¼W ±5%
R ₁₀	02501 2 E	750Ω 1W ±5%
R ₉	04104 9 A	47kΩ ¼W ±5%
R ₈	04078 0 A	3.9kΩ ¼W ±5%
R ₇	04136 9 A	1MΩ ¼W ±5%
R ₆	04078 0 A	3.9kΩ ¼W ±5%
R ₅	04104 9 A	47kΩ ¼W ±5%
R ₄	04132 0 A	680kΩ ¼W ±5%
R ₃	04112 3 A	100kΩ ¼W ±5%
R ₂	04112 3 U	100kΩ 1/8W ±5%
R ₁	03296 1 A	120kΩ ¼W ±1%
C ₈	08304 1	2200μF 35WV
C ₇	08304 1	100μF 35WV
C ₆	00129 1	100μF 25WV
C ₅	00110 7	100μF 10WV
C ₄	00129 1	100μF 25WV
C ₃	00122 0	2.2μF 25WV
C ₂	00312 1	0.1μF 50WV ±20%
C ₁	00900 5	10μF 10WV ±20%
D ₃	08810 5	XZ 049
D ₂	08606 9	WZ-250
D ₁	08501 3	W02
Q ₅	08920 7	MM-74C00
Q ₄	08800 7	2SC372 Y
Q ₃	08803 0	2SC2209 Q
Q ₂	08800 7	2SC 372 Y
Q ₁	08805 0	2SD313
5	63902 5 A	φ3x6 Screw
4	45804 3	Heat Sink
3	61813 7 A	M3x8 Screw
2	67203 8 A	M3
1	31476 9	Control P.C.B.

CHECK & ADJUSTMENT OF AUTOLIFT CONTROL P.C.B. ASS'Y

1. Apply the power to turntable.
2. Check voltages indicated in Fig. 1.
3. Connect Voltmeter to the terminals.
4. Adjust variable resistor slowly to obtain 4 V ± 0.1 on Voltmeter.



PHASE ADJUSTMENT

Connect the oscilloscope inputs with terminals of Motor Control P.C.B. as follows:

Oscilloscope + → T.P. of Motor Control P.C.B.

Oscilloscope GND → D-6 of Motor Control P.C.B.

- 33¹/₃ RPM

Adjust VR-3 to obtain the wave form on on the oscilloscope as Fig. 2.

- 45 RPM

Adjust VR-4 to obtain the wave form on the oscilloscope as Fig. 3.

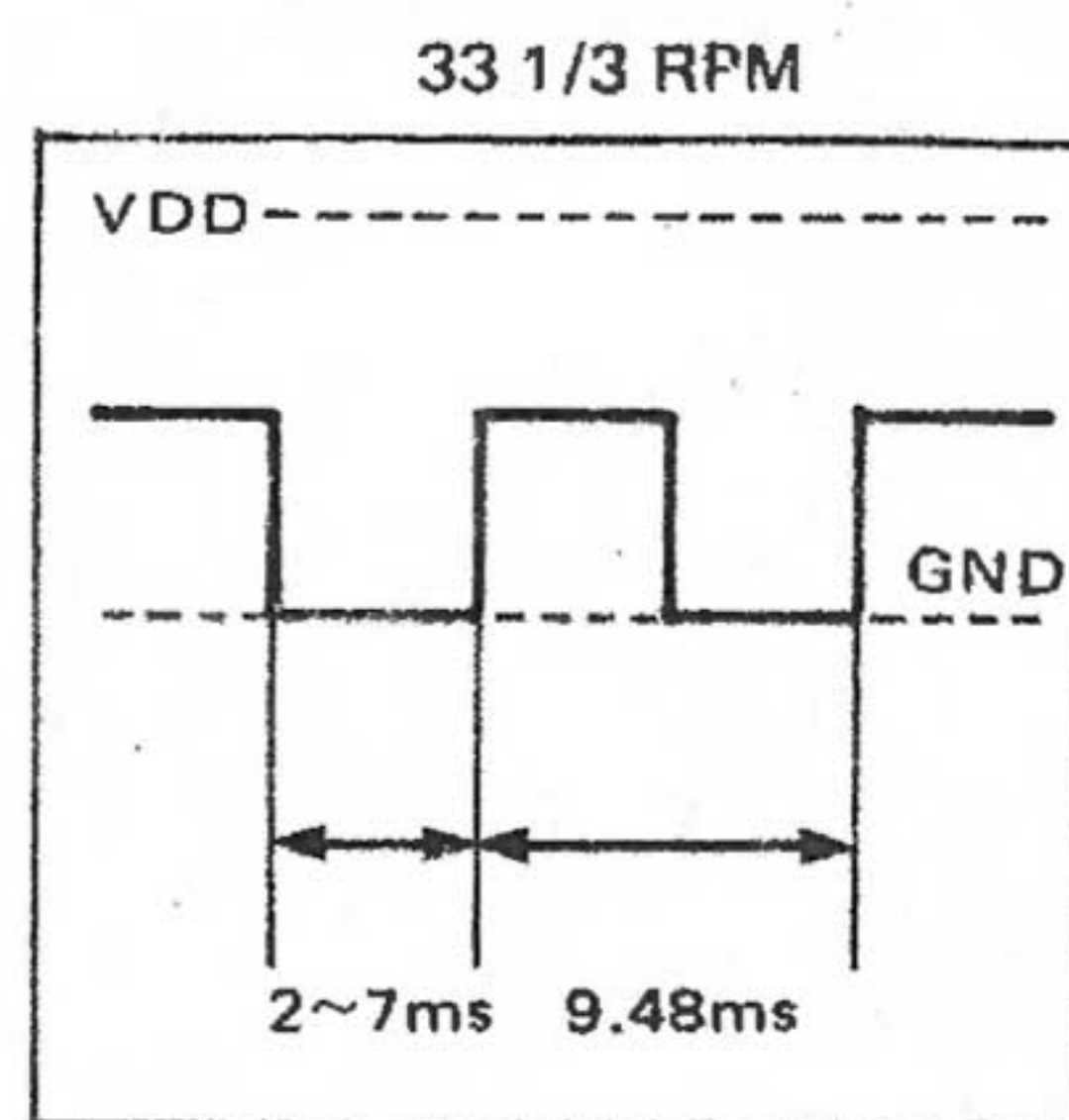


Fig. 2

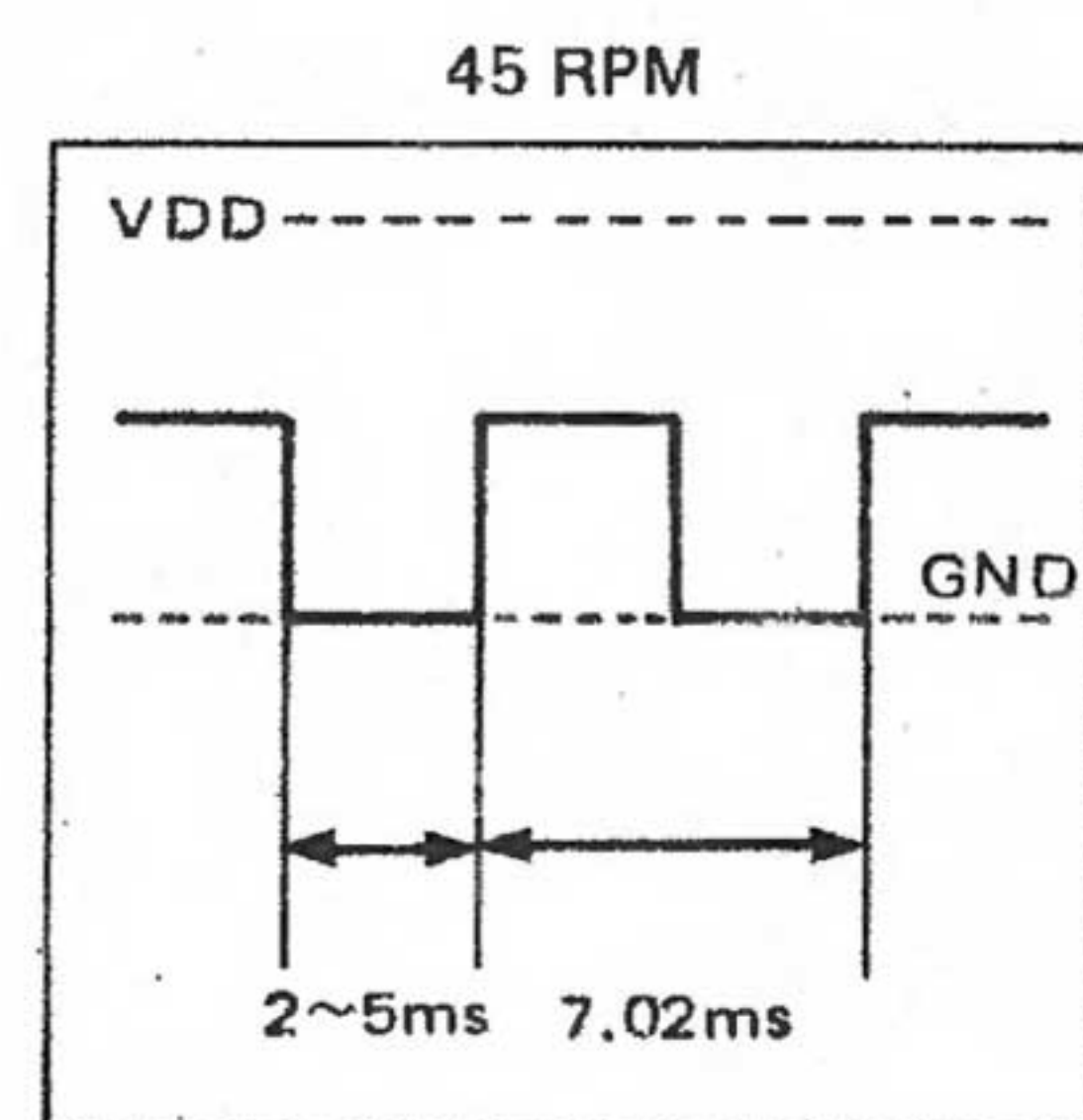


Fig. 3

OPERATION

1. Playing Records

- 1) Press ▲ button and platter rotates.

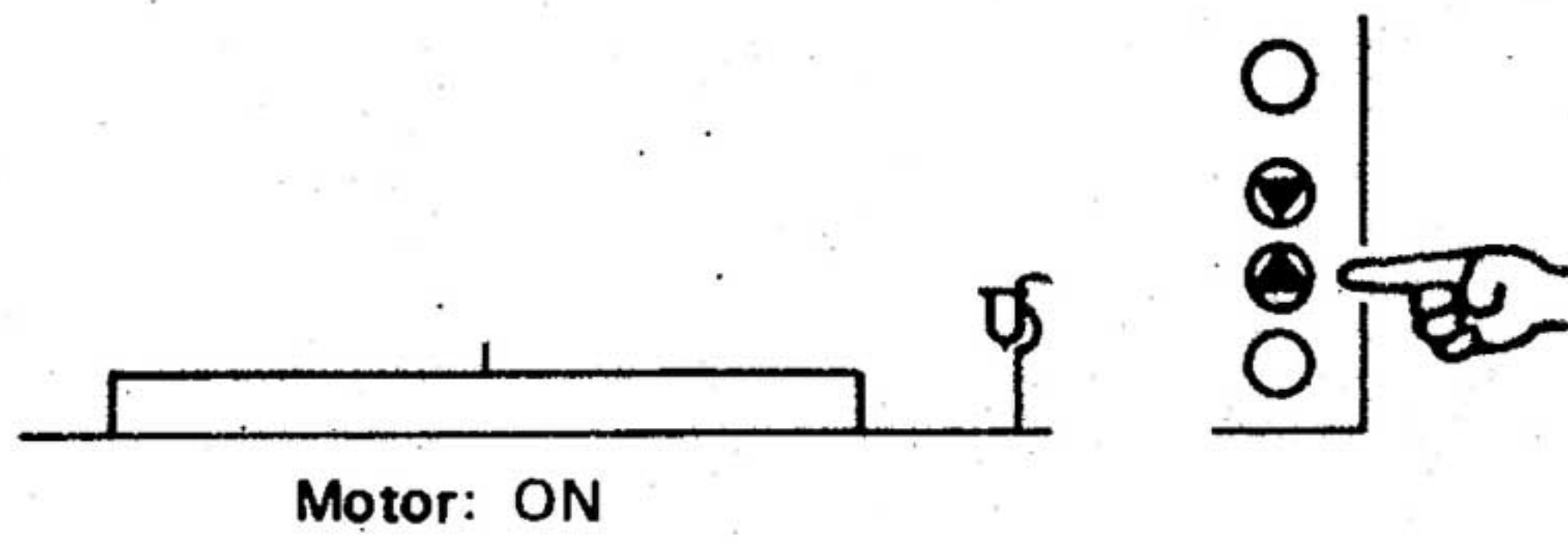


Fig. 1

2. Raising Tonearm in Midst of Records

- Press ▲ button. The tonearm will be gently raised while the platter continues to rotate.

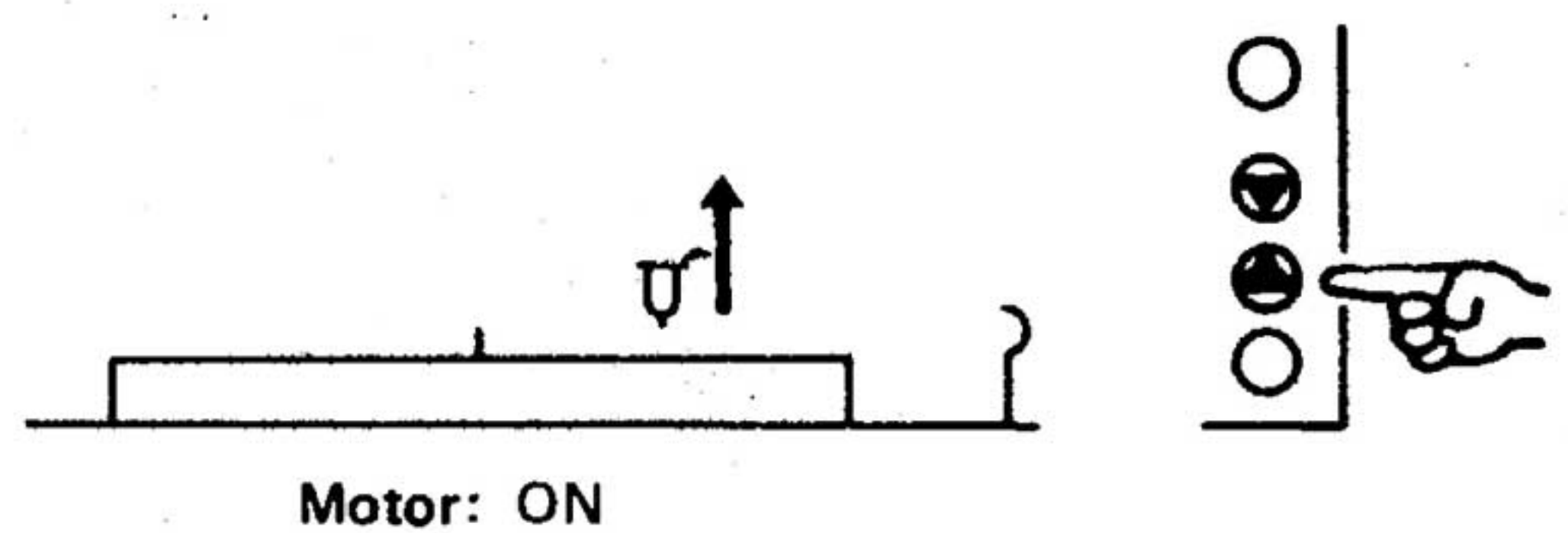


Fig. 4

- 2) Press SPEED selection button to select platter rotating speed according to the record. (33 or 45 rpm)
- 3) Position tonearm over desired starting point of the record and Press ▼ button. Platter rotates and tonearm is gently lowered onto the record to begin playing.

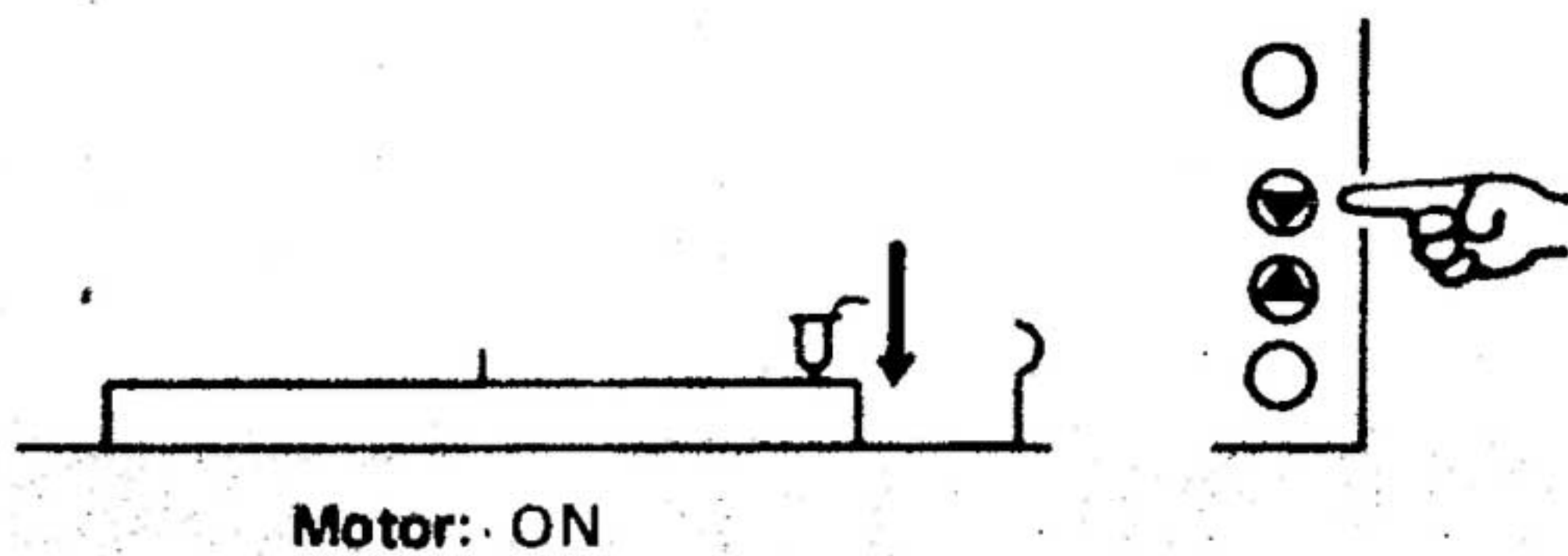


Fig. 2-

3. Stopping Play in Midst of Records

- Press the OFF button. The tonearm raises and platter rotation stops.

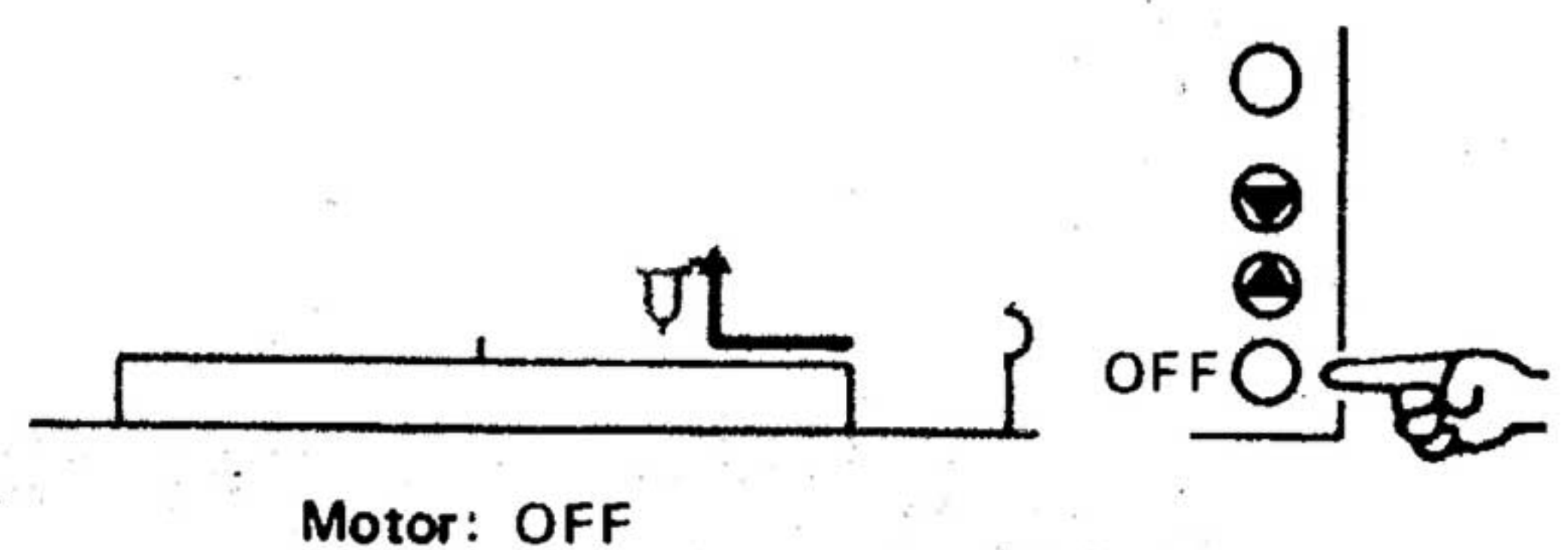


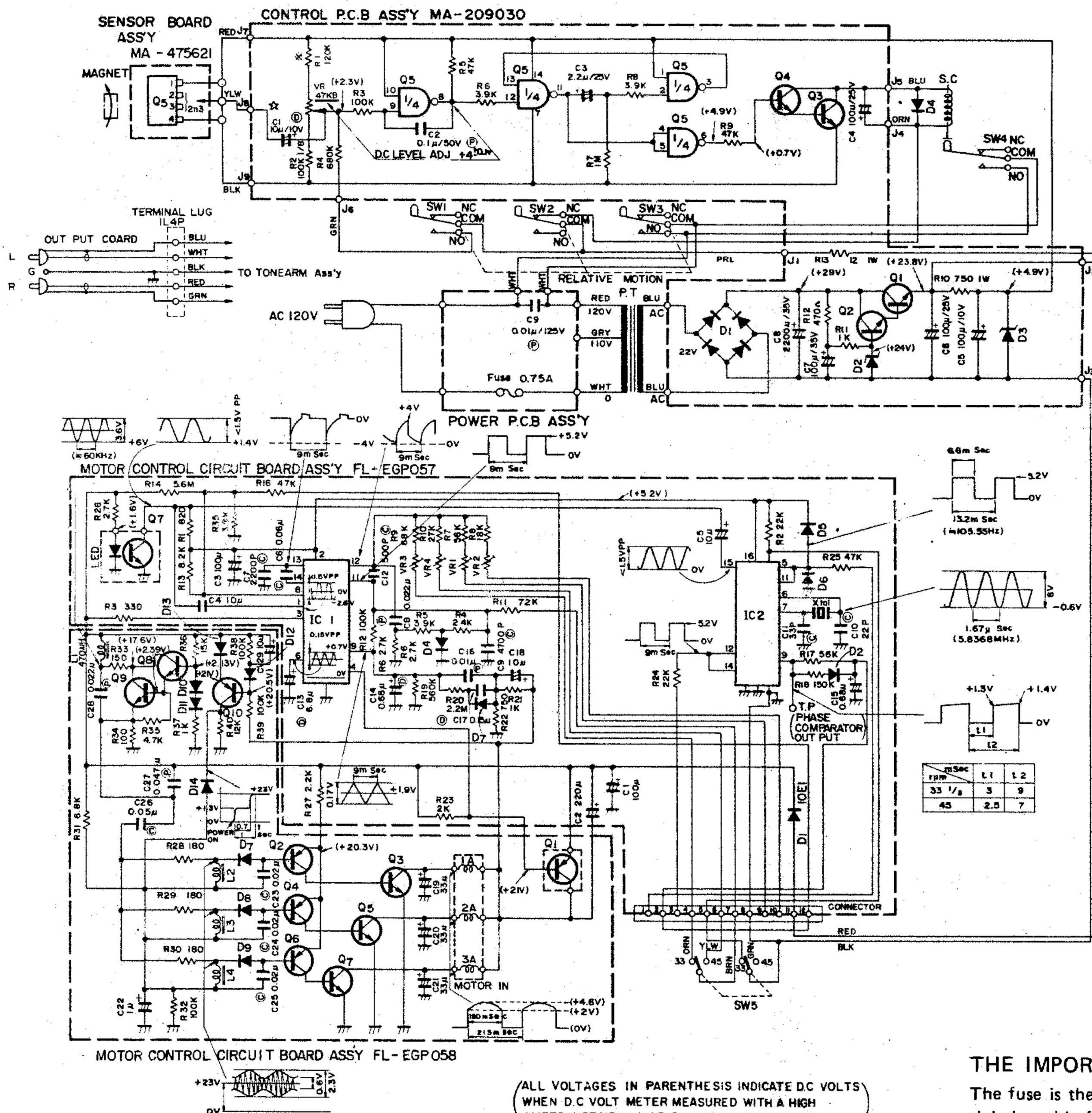
Fig. 5

- 4) At the end of the record, the tonearm automatically raises and platter rotation stops.



Fig. 3

SCHEMATIC DIAGRAM



REFERENCE DESIGNATION & DESCRIPTION

MA-209030 BOARD ASS'Y

Q1	TR	2SD-313C or R
Q2	TR	2SC-372Y
Q3	TR	2SC-2209Q
Q4	TR	2SC-372Y
Q5	C.MOS I.C.	MM74C00
D1	BRIDGE DIODE W02	
D2	DIODE BRKDN WZ-250 25V	
D3	DIODE BRKDN XZ-049 4.9V	

FL-EGP058 BOARD ASS'Y

Q1	TR	2SA-886 Q or R
Q2, 4, 6, 10	TR	2SA-564 Q or R
Q3, 6, 7	TR	2SC-1317
Q8, 9	TR	2SC-828A
D7, 8, 9	DIODE	1N34A or 1K34A
D10 - 14	DIODE	1S1555

FL-EGP057 BOARD ASS'Y

IC-1	UPC-1002C	
IC-2	MSM-5B15	
D2-6	DIODE	1S1555
VR3-4	20K Ω	

OTHERS REFERENCE DISIGNATION & DESCRIPTION

P.T.	POWER TRANSFORMER	
S.C.	SOLENOID COIL	ME-311667
D4	DIODE	F-14A
SW1-4	MICRO SWITCH	AM-4009 & AM-47009
SW5	PUSH SWITCH	ME-439700

MA-475621 BOARD ASS'Y

Q5	HALL IC	DN-835
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- (D) TANTALUM SOLID CAPACITOR
- (P) POLYESTER FILM CAPACITOR
- (C) CERAMIC CAPACITOR
- (*) METAL FILM RESISTOR

UNLESS OTHERWISE SPECIFIED.

- ALL RESISTANCE VALUES ARE IN OHM.
- ALL CAPACITANCE VALUES ARE IN μ F, P=PF.
- RESISTORS ARE CARBON FILM TYPE, 1/4 WATT.
- CAPACITORS ARE ELECTROLYTIC TYPE.

(ALL VOLTAGES IN PARENTHESIS INDICATE D.C VOLTS WHEN D.C VOLT METER MEASURED WITH A HIGH IMPEDANCE (10M Ω) AT PLAYBACK 33 1/3 RPM.)

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