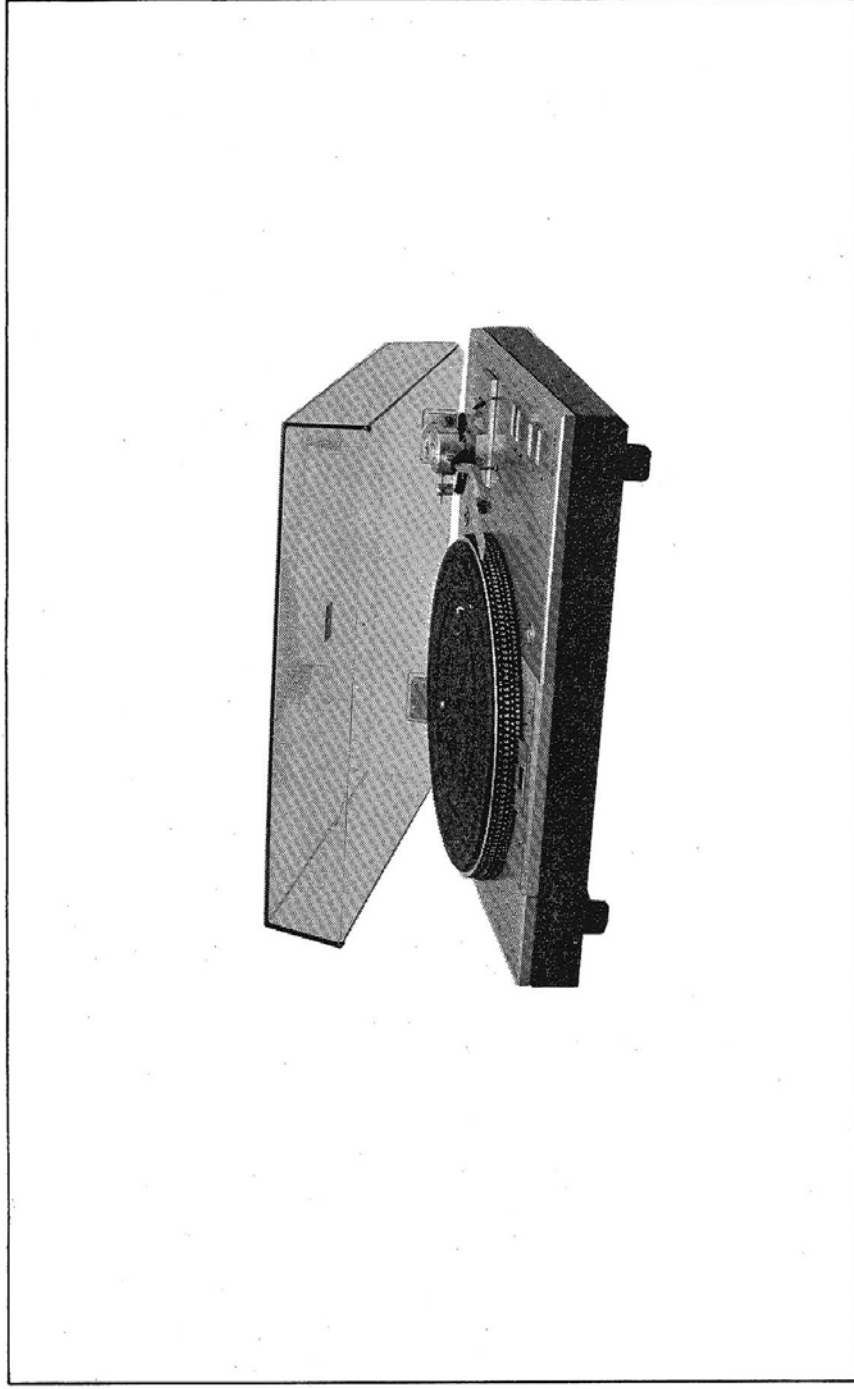


SERVICE MANUAL



STEREO TURNTABLE

TP1030
(U.S.A)



SPECIFICATION

Motor	DC brushless servo motor	Tone arm	Static-balance type
Drive system	Direct drive/Full auto	Tracking error	$\pm 1.5^\circ$
Speeds	33-1/3 and 45 rpm	Stylus pressure force range.	0 - 3 gr.
Speed control range	Individual controls: $\pm 4\%$	Overhang	15 mm
Speed change	Electronic type	Power source	AC: 120V, 60Hz
Wow & flutter	Less than 0.03% WRMS	Power consumption	12 watts
Signal to noise ratio	Better than 60dB	Dimensions (Approx.)	18-5/8" W x 15" D x 5-7/8" H (472 x 380 x 150 mm)
Rumble	-70dB B Din spec	Weight (Approx.)	14 lbs. 2 ozs. (6.4kg)
Turntable platter	12-1/16" (304 mm) dia. 2 lbs 3 ozs (1 kg)		

* Specifications and design are subject to change without notice.

ADJUSTMENT

ADJUSTMENT OF AUTO-RETURN

There is a shaft which is accessible with an ordinary screwdriver through the hole below the tonearm. (See illustration at right.) When the stylus has reached a point approximately 55 mm from the turntable center, turn the shaft clockwise or counter-clockwise and select a position where it actuates the auto return. (Fig. 1)

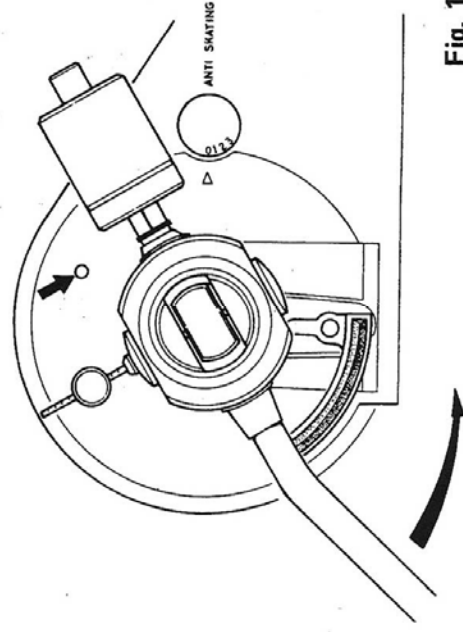


Fig. 1

1. Fix the tonearm to the arm rest.
2. Adjust so that the shortest distance "a" between the boss (62) fitted to the turntable and the lever (M2) becomes 0.2 – 0.5 mm.

NOTE: This adjustment is impossible to do unless a part of the turntable is chipped off and such a jig by which the boss is visible is prepared. Adjust by tightening the stopper (63) set screw (b), loosening the (c) a little, and moving the stopper. (Fig. 2)

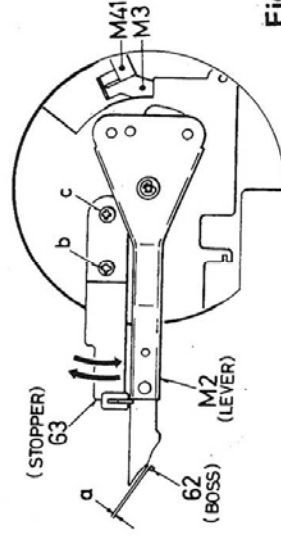


Fig. 2

3. Fix the stopper after agreeing the needle point of the headshell with the boss (62) of the turntable.
NOTE: This adjustment is impossible to do unless the said jig is prepared.
4. Adjust so that a clearance between the feed lever (M3) and the tip of the arm lever (M41) becomes 0 – 0.3 mm by means of a blade screwdriver inserted into a hole put on with seal (67) at the position above the arm part over the deck panel. (Fig. 3)

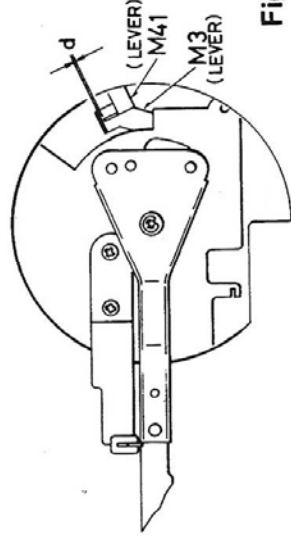


Fig. 3

ADJUSTMENT OF HEADSHELL

The headshell attached to the tonearm should not be inclined either to the right or to the left. If necessary, loosen the two screws on the bottom of the tubular arm and adjust the headshell. Be sure that the stylus is normal to the record surface. (Fig. 4)

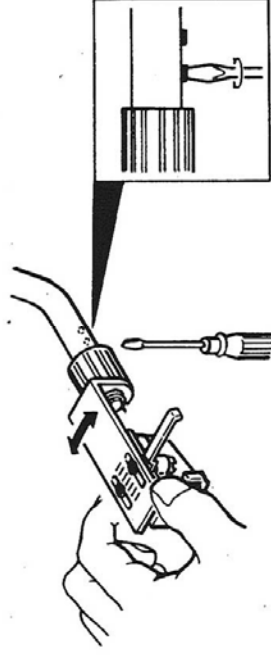


Fig. 4

ADJUSTMENT

ADJUSTMENT OF TONEARM LIFTER

Set the cuing lever to UP and the distance between the stylus and the record to about 9 mm by adjusting the arm lifter screw. (Fig. 5)

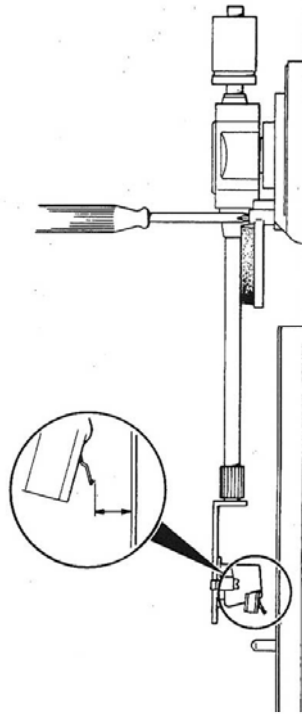


Fig. 5

ADJUSTMENT OF LIFT-UP LEVER SPRING

Switch off power when the auto-return has worked and adjust spring tension to provide a clearance of 11 mm between the stylus and the record. In this adjustment, the lift-up lever will go up if the screw (M6) is turned clockwise. (Fig. 6)

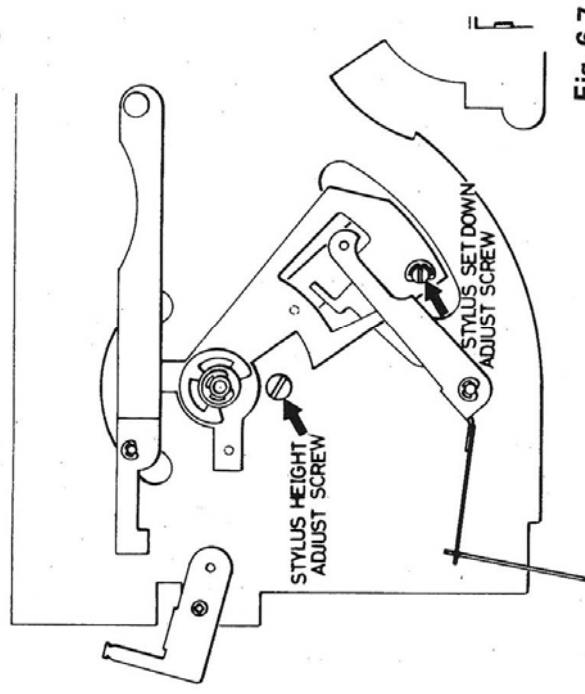


Fig. 6,7

ADJUSTMENT OF STYLUS SET DOWN

Adjust the position the needle comes down in an auto play. Adjust the shaft (M32) so that the needle comes down at the position of 147 mm apart from the center of a 12" record. (Fig. 7)

ADJUSTMENT OF TURNABLE SPEED

Set the fine speed control dials to their center positions (each has three protrusions, of which only one can be set to the center). Make adjustment by inserting a screwdriver into the holes. When properly adjusted, the zebra strobo-scope marks on the turntable platter seem to be stationary at the selected speed. (Fig. 8)

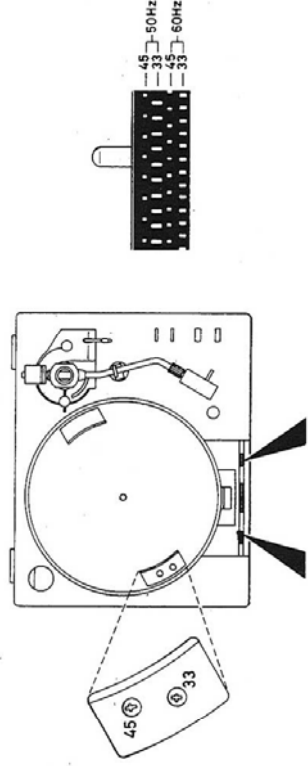


Fig. 8

REPAIR

Dismount the turntable platter and supply two to three drops of oil into the D.D. motor through the hole in the motor housing. Be careful not to stain any exposed part with oil. This caution is necessary to prevent operating trouble. (Fig. 9)

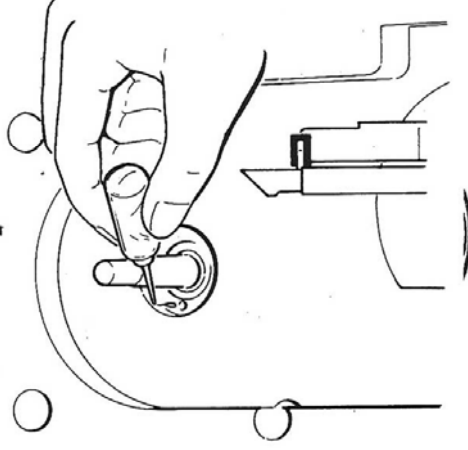
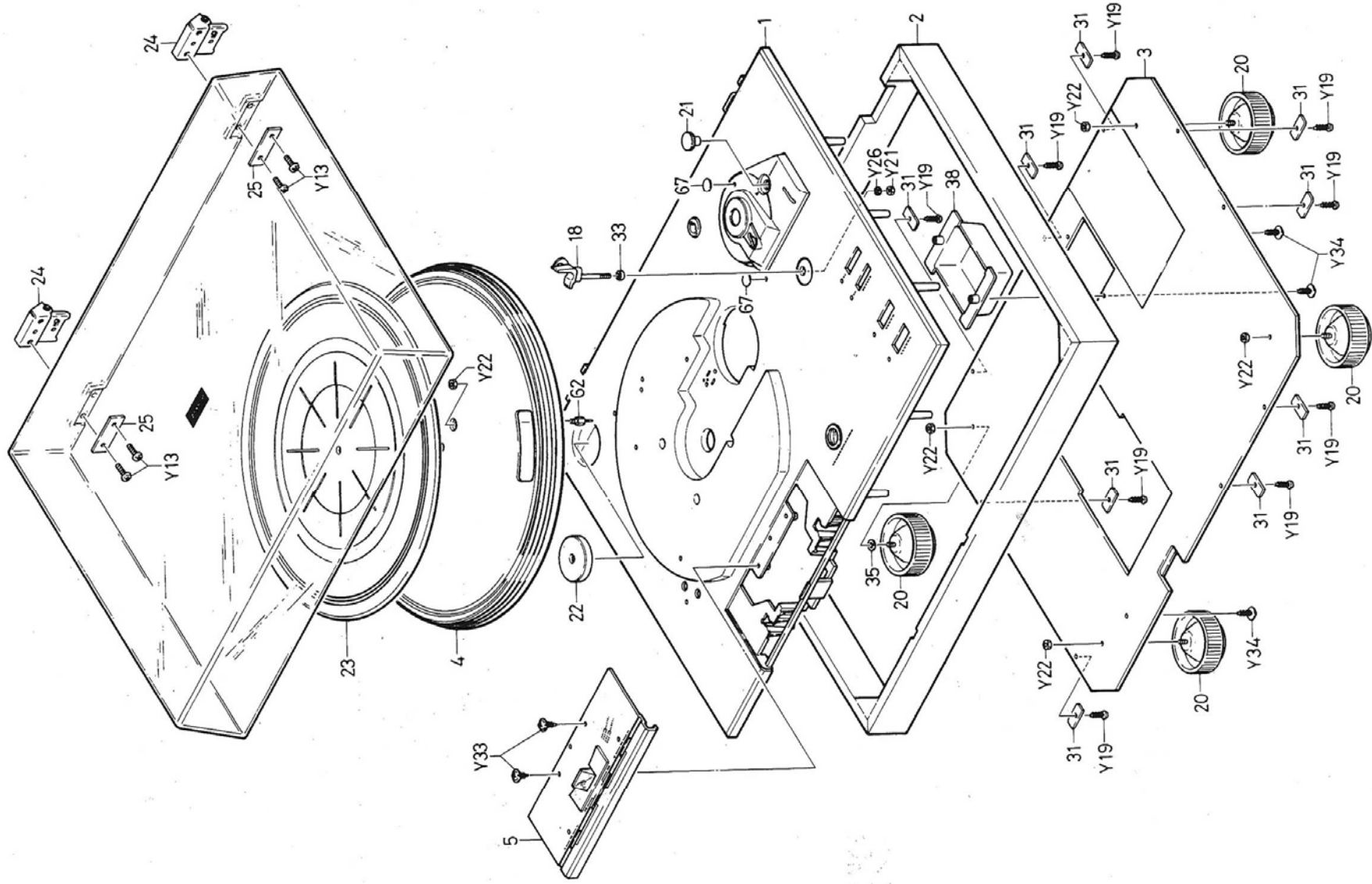


Fig. 9

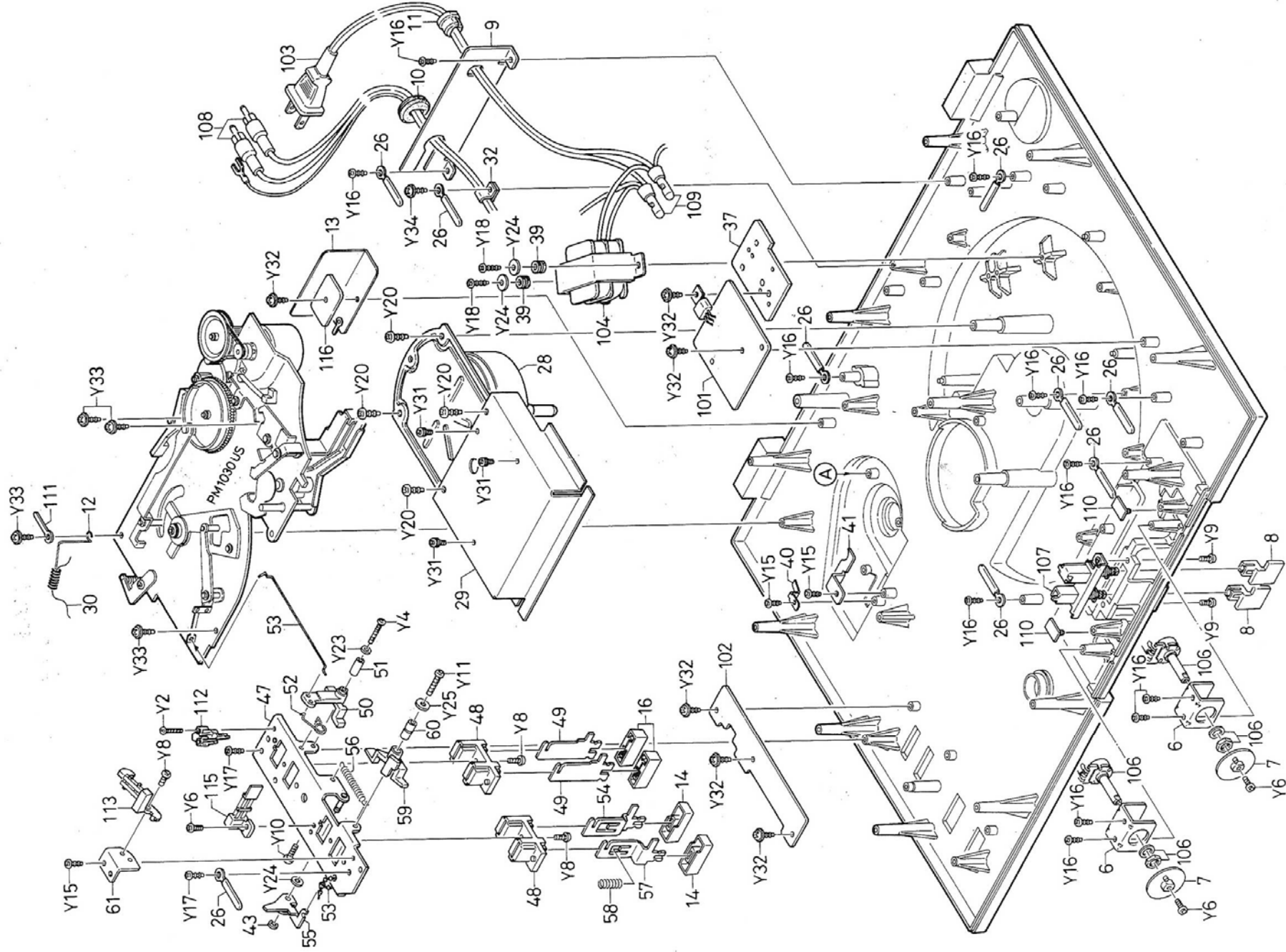
CABINET EXPLODED VIEW



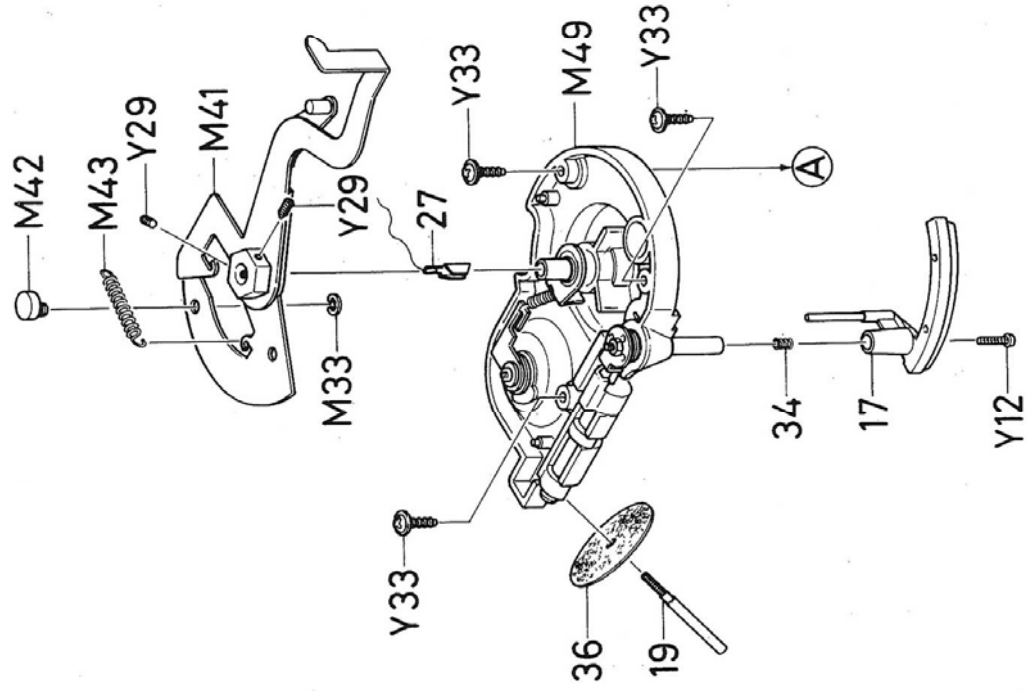
PARTS LIST

Ref. No.	Part No.	Description	Q'ty
PACKING			
1	141-6-144T-51300	Foam Plastic Case	2
2	141-6-317T-01300	Pad, Top	1
3	141-6-316T-88500	Pad, Dust Cover	1
4	141-6-113T-87600	Individual Carbon	1
5	141-2-337T-10400	Ribbon, Tone Arm	1
6	141-6-231T-10200	Inner Poly Cover, Cord	2
7	141-6-231T-10100	Inner Poly Cover, Cartridge etc.	4
8	141-6-231T-60702	Inner Poly Cover, Set	1
9	141-6-231T-35402	Inner Poly Cover, Turntable	1
10	141-6-231T-25352	Inner Poler Cover, Inst B	1
11	141-6-472T-06200	Caution Label, High Voltage	1
12	141-6-440T-04400	Hang Tag	1
13	141-6-231T-10100	Inner Poly Cover, Cartridge Screw	1
14	141-6-479T-21800	Label	1
15	141-6-317T-06700	Pad, Turntable	1
16	141-6-479T-35800	Label	2
ACCESSORIES			
1	141-6-410T-18700	Instruction Manual	1
2	141-6-493T-01100	Customer Card	1
3	141-2-862T-00400	Screw Driver, Lateral Weight Fixed	1
CABINET & CHASSIS			
1	141-0-121T-14700	Deck Panel Ass'y	1
2	141-0-111T-37900	Cabinet Ass'y	1
3	141-2-126T-27300	Back Lid	1
4	141-2-118T-00402	Turntable	1
5	141-0-153T-45800	Escutcheon Ass'y	1
6	141-2-361T-15400	Bracket, VR	2
7	141-2-163T-41100	Rotary Knob, Speed Adjust	2
8	141-2-161T-49900	Push Button, Speed Select	2
9	141-2-367T-31600	Bracket Socket	1
10	141-2-445T-16000	Rubber Cushion	1
11	141-2-464T-11800	Fixer, Power Cord	1
12	141-2-852T-51800	Spring Wire	1
13	141-2-322T-47100	Shield Plate	1
14	141-2-161T-47901	Push Button, Start/Repeat	2
15	141-0-194T-01200	Dust Cover Ass'y	2
16	141-2-161T-58800	Push Button, Record Size Select	2
17	141-0-872T-00201	Lifter Ass'y	1
18	141-0-873T-00203	Rest Ass'y	1
19	141-0-742T-07200	Lever Ass'y	1
20	141-0-174T-06602	Stand Ass'y	4
21	141-2-163T-53800	Rotary Knob, IFC	1
22	141-2-352T-19900	Spacer, 45 rpm Adaptor	1
23	141-2-246T-11501	Sheet, Turntable	1
24	141-2-251T-06103	Hinge	2
25	141-2-351T-47500	Bracket, Mounting	2
26	141-2-472T-01201	Lug	10
27	141-2-472T-06801	Lug	1
28	4-527T-12400	Motor	1
29	141-2-322T-45300	Shield Plate Motor) or	1
30	141-2-322T-48800	Shield Plate Motor	1
31	141-2-411T-03902	Rope	10
32	141-2-464T-30000	Plate Nut, Rear Cover	1
33	141-2-683T-32401	Fixer	1
34	141-2-855T-14200	Ring	1
35	141-2-352T-25300	Spring Coil	1
36	141-2-241T-20400	Spacer	1
37	141-2-368T-11400	Heat Sink	1
38	141-2-135T-48501	Cover	1
39	141-2-445T-05000	Rubber Cushion	2
40	141-2-853T-60700	Spring Plate	1
41	141-2-464T-31600	Fixer	1
42	141-2-453T-61300	Washer	1
43	141-2-457T-23000	Special Washer 2mm	3
44	141-2-457T-13500	Special Washer	1
45	141-2-457T-23100	Special Washer 3mm	1
46	141-2-453T-30502	Washer 4,1x6.5x0.5 Nylon	1
47	141-0-747T-16000	Bracket Lever Ass'y	1
48	141-2-737T-06000	Bracket, Slide	2
49	141-2-731T-59800	Slide, Size Select	2
50	141-2-742T-17500	Lever, Size Select	1
51	141-2-461T-32000	Pipe, Size Select	1
52	141-2-855T-23800	Spring Coil, Size Select	1
CABINET & CHASSIS			
53	141-2-735T-10700	Rod, Size Select	1
54	141-2-731T-60000	Slide, Repeat	1
55	141-2-742T-16900	Lever, Repeat	1
56	141-2-855T-31200	Spring Coil, Repeat	1
57	141-2-731T-59900	Slide, Start Cut	1
58	141-2-855T-31300	Spring Coi, Slide Back	1
59	141-2-742T-17600	Lever, Start Cut	1
60	141-2-461T-32100	Pipe	1
61	141-2-365T-41400	Bracket, Start Switch	1
62	141-0-462T-51700	Boss Ass'y	1
63	141-2-465T-16300	Stoper	1
64	141-2-445T-21500	Rubber Cushion	1
65	141-2-246T-38100	Sheet	1
67	141-6-479T-35800	Label	2
HARD WARE			
Y1		Screw, Pan Head 2x6	2
Y2		Screw, Pan Head 2x10	1
Y3		Screw, Pan Head 3x12	1
Y4		Screw, Pan Head 2x16	1
Y5		Screw, Pan Head 2.6x4	2
Y6		Screw, Pan Head 2.6x6	4
Y7		Screw, Pan Head 3x4	1
Y8		Screw, Pan Head 3x6	7
Y9		Screw, Pan Head 3x8	4
Y10		Screw, Pan Head 3x10	1
Y11		Screw, Pan Head 3x16	1
Y12		Screw, Flat Head 3x10	1
Y13		Screw, Binding Head 4x12	1
Y14		Screw, Tapping 2x4	1
Y15		Screw, Tapping 3x6	3
Y16		Screw, Tapping 3x8	14
Y17		Screw, Tapping 3x10	2
Y18		Screw, Tapping 3x12	2
Y19		Screw, Tapping 3x14	9
Y20		Screw, Tapping 4x20	4
Y21		Nut, Hexagon 2.6	1
Y22		Nut, Hexagon 3	5
Y23		Washer 2x6x0.4	1
Y24		Washer 3x8x0.5	3
Y25		Washer 3x10x1	1
Y26		Washer, Spring 2.6	1
Y27		Screw, Headless 2x4	1
Y28		Screw, Headless 2.6x4	1
Y29		Screw, Headless with Hexagon Hole 3x4	2
Y30		Screw, Headless with Hexagon Hole 4x4	2
Y31		Screw, Pan Head with Spring 3x6	3
Y32		Screw, Tapping with Washer 3x8	6
Y33		Screw, Tapping with Washer 3x10	9
Y34		Screw, Tapping with Washer 3x12	4
ELECTRICAL PARTS			
103	4-243T-81271	Power cord	1
104	4-251T-90500	Power Trans	1
105	4-231T-82700	Switch	1
106	4-222T-51573	Variable Resistor, Fine Speed Adjust	2
107	4-231T-82800	Switch, Speed Select	1
108	4-243T-15171	Lead Cord, Output	1
109	141-2-382T-07100	Terminal	2
111	123-2-472R-00600	Lug	1
112	4-231T-82900	Switch, Record Size Select	1
113	4-231T-83000	Switch, Start Cut	1
114	4-231T-83100	Switch, Muting	1
115	4-231T-83400	Switch, Repeat	1
116	4-230T-82100	P.C. Board, Output	1

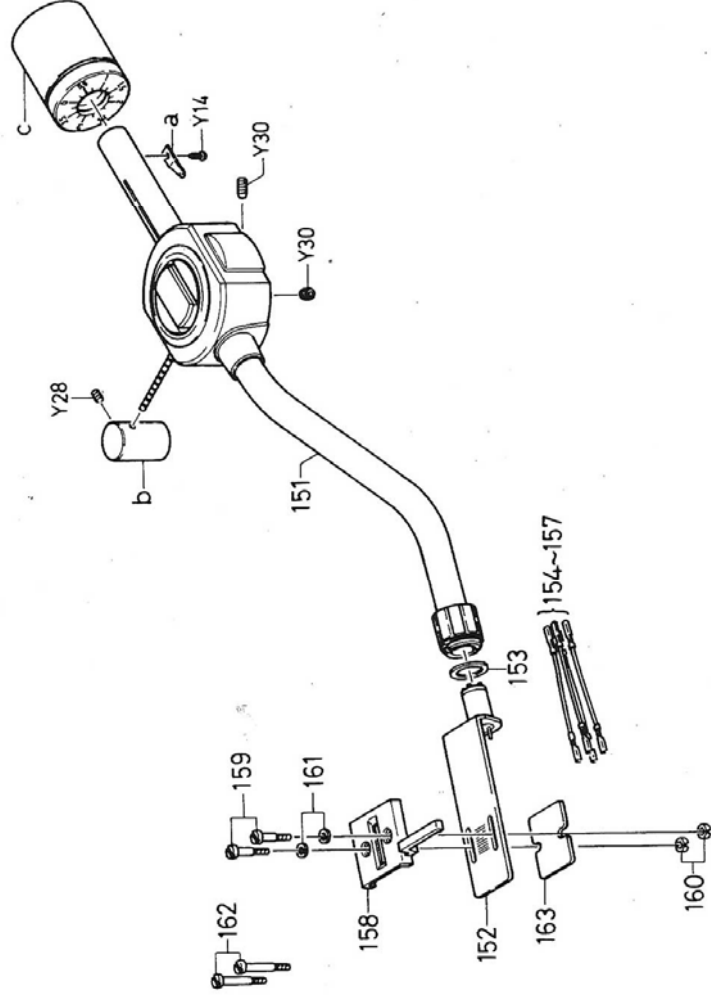
CHASSIS EXPLODED VIEW



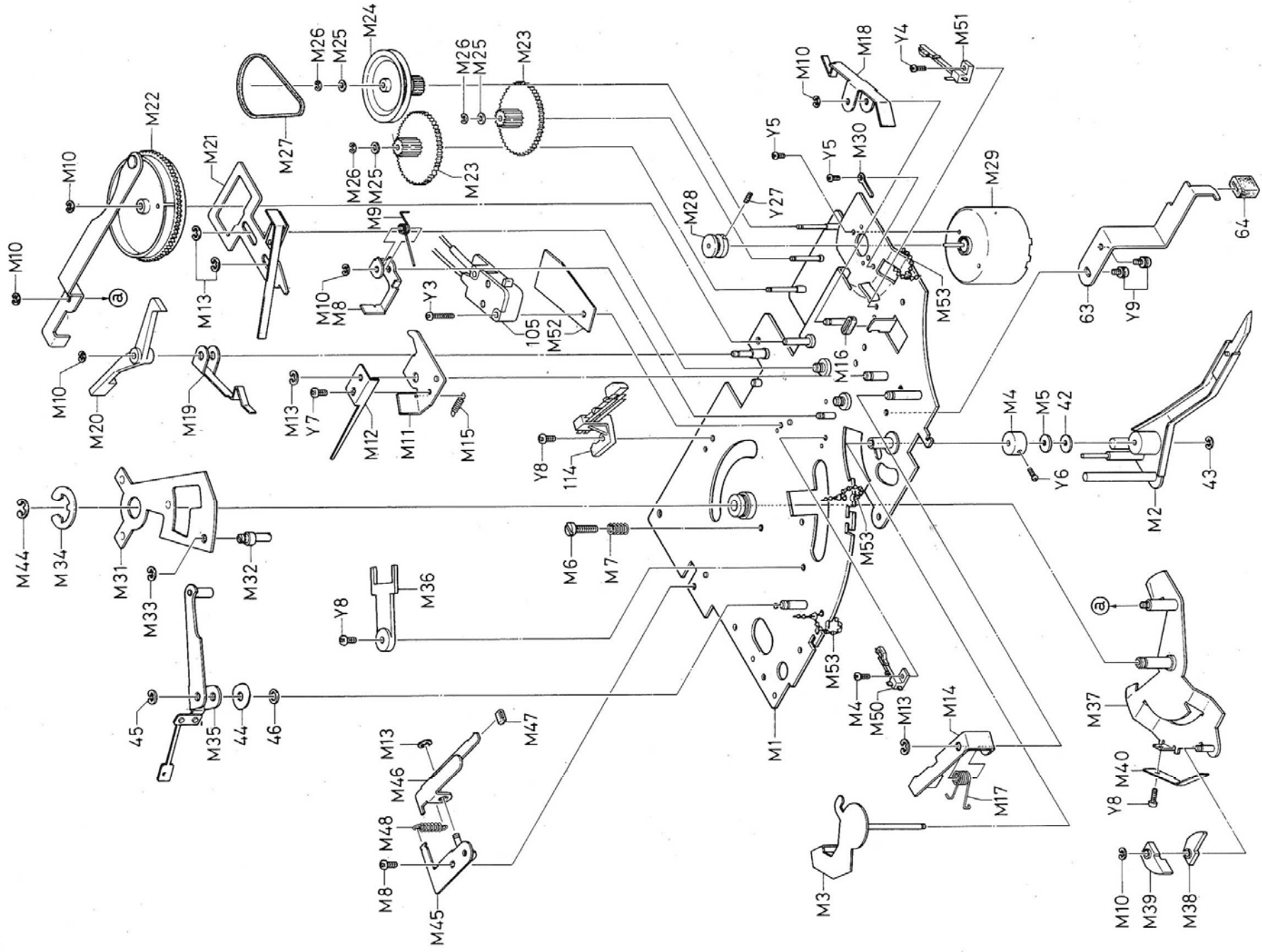
MECHANISM EXPLODED VIEW



ARM EXPLODED VIEW



MECHANISM EXPLODED VIEW



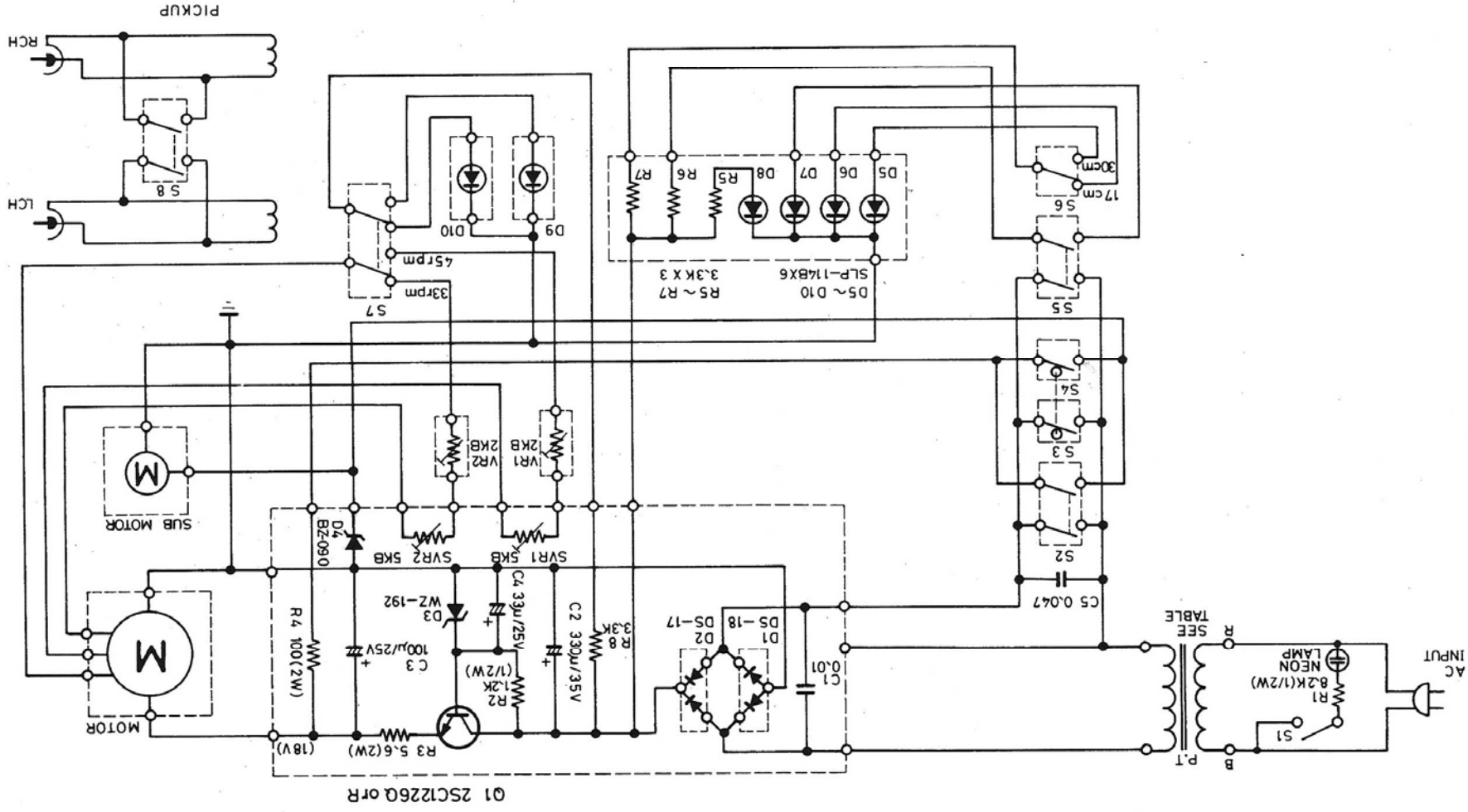
PARTS LIST

Ref. No.	Part No.	Description	Q'ty
POWER SUPPLY PCB ASSY			
101	141-4-230T-011172 4-222T-39474	P.C. Board Ass'y, Power Supply Semi Fixed Variable Resistor 5K-B Transistor, 2SC1226 Diode, DS17 Diode, DS18 Diode, SDWZ192 D10D0 BZ090	1 2 1 1 1 1
		RESISTORS Metal 100 ohm $\pm 5\%$ 2W Metal 5.6 ohm $\pm 10\%$ 2W Solid or Carbon 1.2K ohm $\pm 10\%$ 1/2W Carbon 3.3K ohm $\pm 10\%$ 1/4W	1 1 1 1
		CAPACITORS Ceramic 0.01 μ F 50V +80--20% Electrolytic 100 μ F 25V Electrolytic 330 μ F 35V Electrolytic 33 μ F 25V	1 1 1 1
LED PCB ASSY			
102	141-4-230T-82000 141-2-352T-12600 141-2-453T-04600	P.C. Board Ass'y LED LED SLP114 B Red Spacer Washer, Fiber Carbon Resistor 3.3K ohm $\pm 10\%$ 1/4W Mylar Capacitor 0.047 μ F 50V $\pm 20\%$	1 4 4 4 3 1
LED BRACKET PCB ASSY			
110	140-4-230T-83900 141-2-246T-35400	P.C. Board Ass'y, LED Bracket Sheet LED SLP114 B Red	2 4 2
TONE ARM			
151	141-0-743T-06000 141-2-853T-53900 141-2-687T-01800 141-0-687T-01900	Arm Assembly Plate Spring Weight Weight Assembly, Main	1 1 1 1
152	141-0-286T-01000	Head Shell Assembly	1
153	141-2-445T-20300	Rubber Cushion	1
154	4-243T-15800	Lead Cord, LH	1
155	4-243T-15871	Lead Cord, LE	1
156	4-243T-15872	Lead Cord, RH	1
157	4-243T-15873	Lead Cord, RE	1
158	141-2-742T-13100	Lever, Head Shell Fingure	1
159	141-2-421T-23700	Special Screw	1
160	141-2-417T-18100	Stud Nut	2
161	141-2-453T-32200	Nylon Washer	2
162	141-2-421T-23701	Special Screw	2
163	141-2-687T-01600	Sub Weight	1

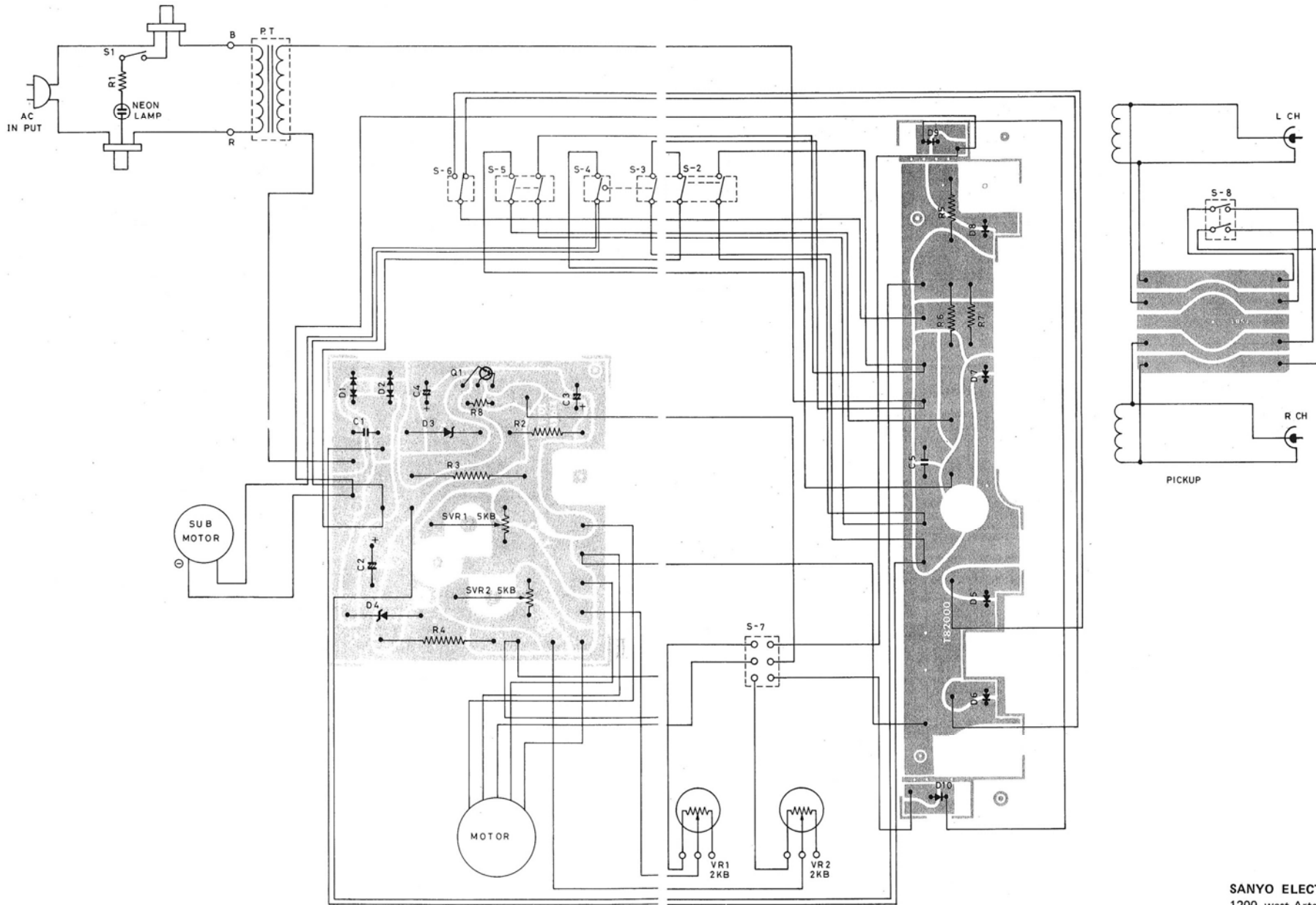
TURNTABLE MECHANISM

Ref. No.	Part No.	Description	Q'ty
M1	141-0-311T-28700	Chassis Ass'y	1
M2	141-0-742T-15800	Lever Ass'y	1
M3	141-0-742T-15900	Lever Ass'y	1
M4	141-2-683T-36000	Ring	1
M5	141-2-453T-30202	Pan Head Screw 2.6x4	1
M6	141-2-421T-26500	Washer 2.6x4.7x0.5	1
M7	141-2-855T-30900	Special Screw	1
M8	141-2-742T-25500	Spring Coil	1
M9	141-2-855T-31000	Lever	1
M10	141-2-457T-23000	Spring Coil	1
M11	141-2-742T-16000	Special Washer 2mm	1
M12	141-2-853T-55900	Lever	6
M13	141-2-457T-23100	Spring Plate	1
M14	141-2-742T-16100	Pan Head Screw 3x4	1
M15	141-2-742T-16100	Special Washer	1
M16	141-2-851T-56100	Lever	4
M17	141-2-712T-02500	Spring Coil	1
M18	141-2-852T-55600	Brake Shoe	1
M19	141-2-853T-56000	Spring Wire	1
M20	141-2-853T-56100	Spring Plate	1
M21	141-2-742T-17200	Spring Plate	1
M22	141-0-731T-59700	Lever	1
M23	141-0-581T-11200	Slide Ass'y	1
M24	141-2-581T-11300	Gear Ass'y	1
M25	141-2-661T-26700	Gear	2
M26	141-2-457T-23800	Pulley	1
M27	141-2-564T-18600	Washer 2.1x4.0x0.25 Nylon	3
M28	141-2-661T-72200	Special Washer 1.5mm	3
M29	4-527T-12500	Square Belt	1
M30	123-2-472R-00401	Pulley Motor	1
M31	141-2-742T-16300	Headless Screw 2x4	1
M32	141-2-753T-38400	Motor	2
M33	141-2-457T-23101	Pan Head Screw 2.6x4	1
M34	141-2-457T-23900	Lug	1
M35	141-0-742T-16400	Lever	1
M36	141-2-465T-15000	Shaft	1
M37	141-0-742T-16500	Special Washer	2
M38	141-2-742T-17300	Special Washer	1
M39	141-2-742T-17400	Lever Ass'y	1
M40	141-2-853T-56400	Stopper	1
M41	141-0-742T-16600	Pan Head Screw, 4x6	1
M42	141-2-753T-38800	Lever Ass'y	1
M43	141-2-851T-73500	Lever	1
M44	141-2-457T-23200	Spring Plate	1
M45	141-0-747T-15900	Pan Head Screw 3x6	1
M46	141-2-742T-16800	Lever Ass'y	1
M47	141-2-490T-08331	Shaft	1
M48	141-2-855T-31100	Spring Coil	1
M49	141-0-174T-06122	Stand Ass'y	1
M50	4-231T-83200	Switch, Start Lock	1
M51	4-231T-83300	Switch, Cut Lock	1
M52	141-2-352T-24701	Pan Head Screw 2x6	2
M53	141-2-464T-08700	Spacer	1
		Fixer	4

SCHEMATIC DIAGRAM



WIRING DIAGRAM



SANYO ELECTRIC INC.
1200, west Artesia Blvd.,
Compton, California 90220