

SERVICE MANUAL

expert

AR-805

Stereo Record Player

SPECIFICATIONS

MOTOR AND TURNTABLE

Drive system	Belt drive system
Motor	FG DC Servo motor
Speeds	33-1/3 and 45 r.p.m.
Wow and flutter	No more than 0.15% (WRMS)
Signal to Noise ratio	45 dB
Turntable platter	31 cm diameter aluminium alloy die-cast with stroboscope patterns.

TONARM

Type	Static-balance type, Straight pipe arm
Effective arm length	213 mm
Overhang	14 mm
Usable cartridge weight	5 ~ 9.5 g
Other features	Anti skating device, plug-in type headshell, Stylus pressure direct readout counterweight, Strobe lighting, Damped arm lifter, Semi-automatic operation.

CARTRIDGE

Stylus	0.6 mil diamond
Frequency response	20 ~ 20,000 Hz
Output voltage	2.5mV±3dB (1,000 Hz, 5cm/sec)
Optimum tracking force	2.0±0.5g
Load impedance	47 Kohms

GENERAL

Power requirement	220V, 50Hz
Dimensions	453(W) x 370(D) x 133(H) mm
Net weight	4.8 kg (approx.)

Specifications and design are subject to change without notice.

AUTO-RETURN POSITION ADJUSTMENT

1) When deviation is slight:

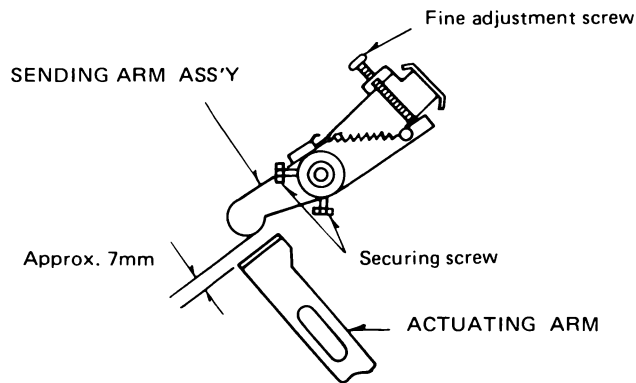
- To retard the timing of pick-up arm return, turn the fine adjustment screw clockwise.
- To advance the timing, turn the fine adjustment screw counterclockwise.

2) When deviation is large:

- Set the fine adjustment screw at the middle position.
- Loosen securing screws, adjust a gap between the actuating arm and the sending arm to about 7mm, and tighten the screw temporarily.

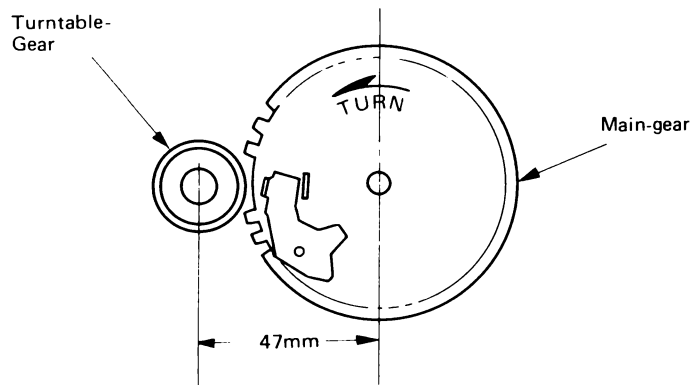
After the above step (b), proceed the adjustment as follows:

- To retard the timing of pick-up arm return, turn the fine adjustment screw clockwise.
 - To advance the timing, turn the screw counterclockwise.
- Tighten the sending arm securing screws firmly.



GAP ADJUSTMENT BETWEEN TURNTABLE-GEAR AND MAIN-GEAR

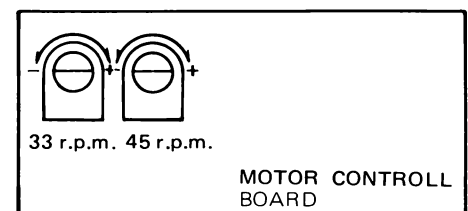
- Reset the position of the turntable-gear so that the gap between the turntable-gear and the main-gear becomes 47mm.
- Reset the position of the turntable-gear so that the turntable-gear is located in the center of the notch of the main-gear.



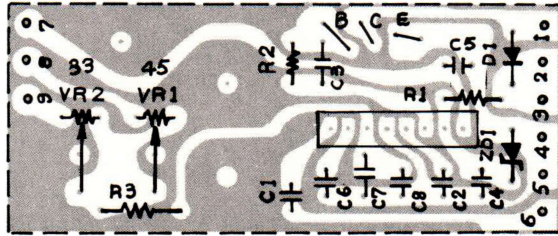
ADJUSTMENT OF MOTOR ROTATION SPEED

The rotation of the motor can be changed by the volume incorporated in the motor. Remove the bottom plate from the cabinet. Align the speed adjusting volume affixed to the cabinet to the position of NEUTRAL. In the case the speed is too fast at the position of NEUTRAL, turn the volume bolt in the motor in the "minus" direction with a - screwdriver. In the case the speed is too slow, turn it in the "plus" direction.

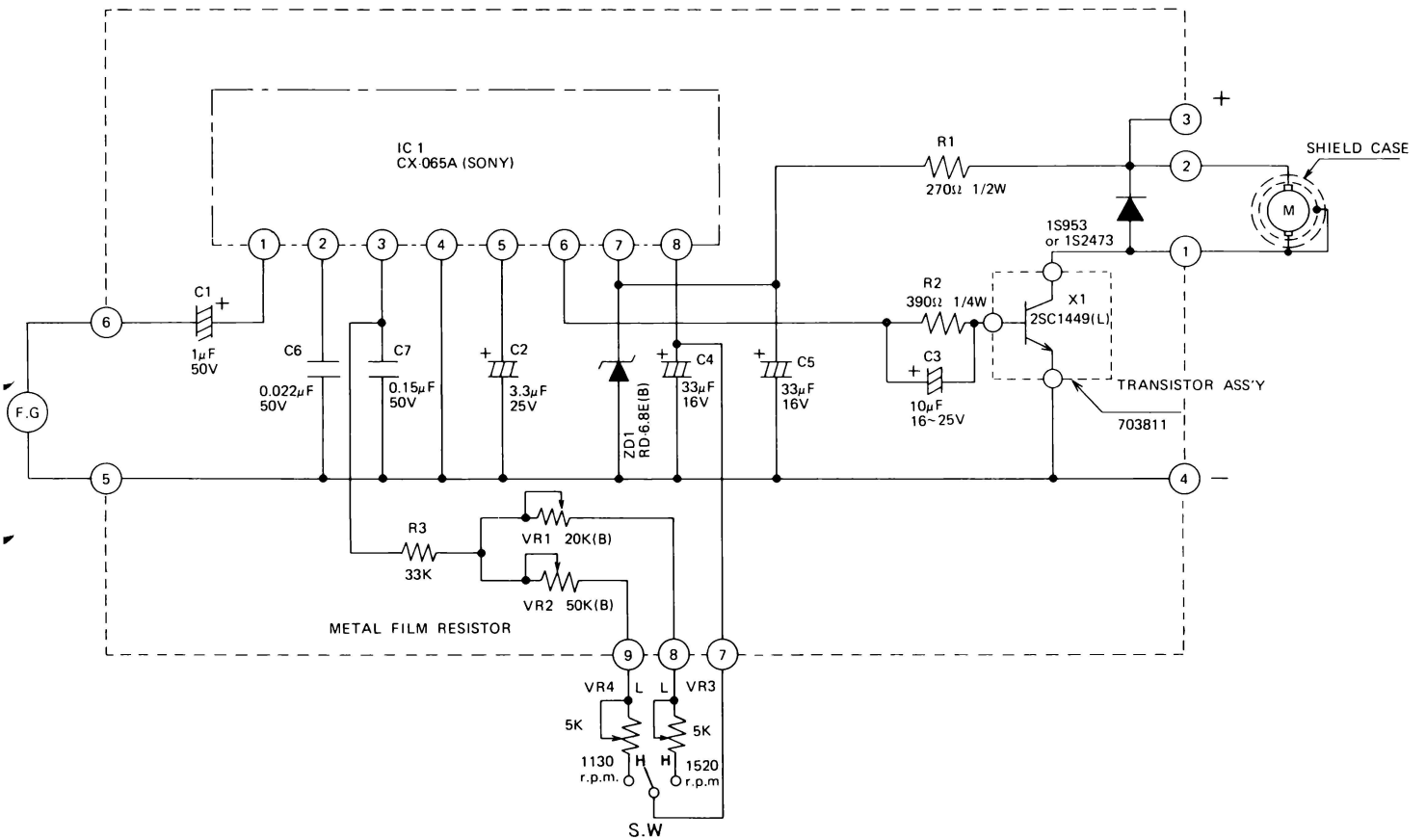
Check whether the speed is correct with the stroboscope of the turntable.



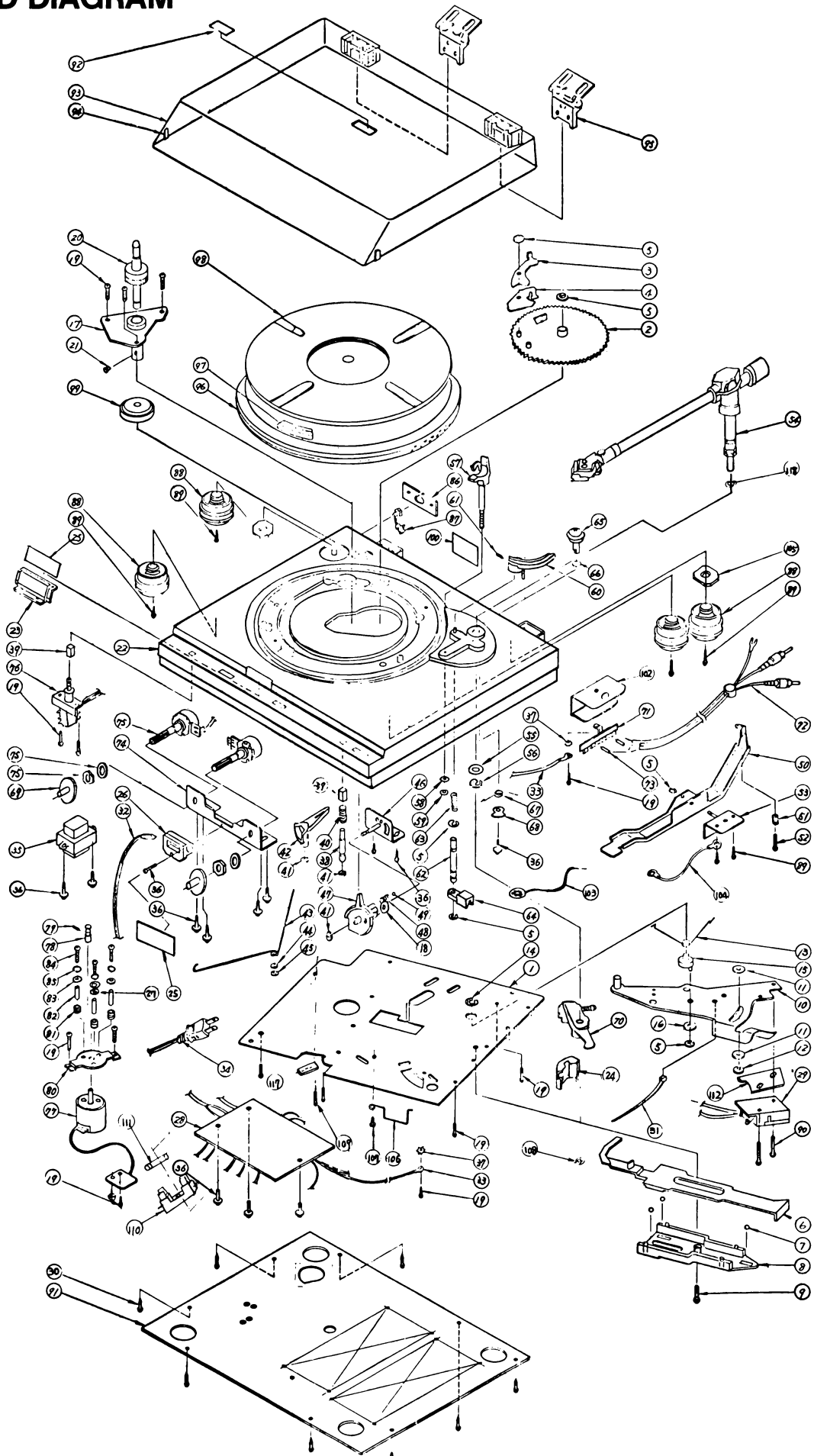
MOTOR CONTROL BOARD (FOIL SIDE)



CIRCUIT DIAGRAM



EXPLODED DIAGRAM

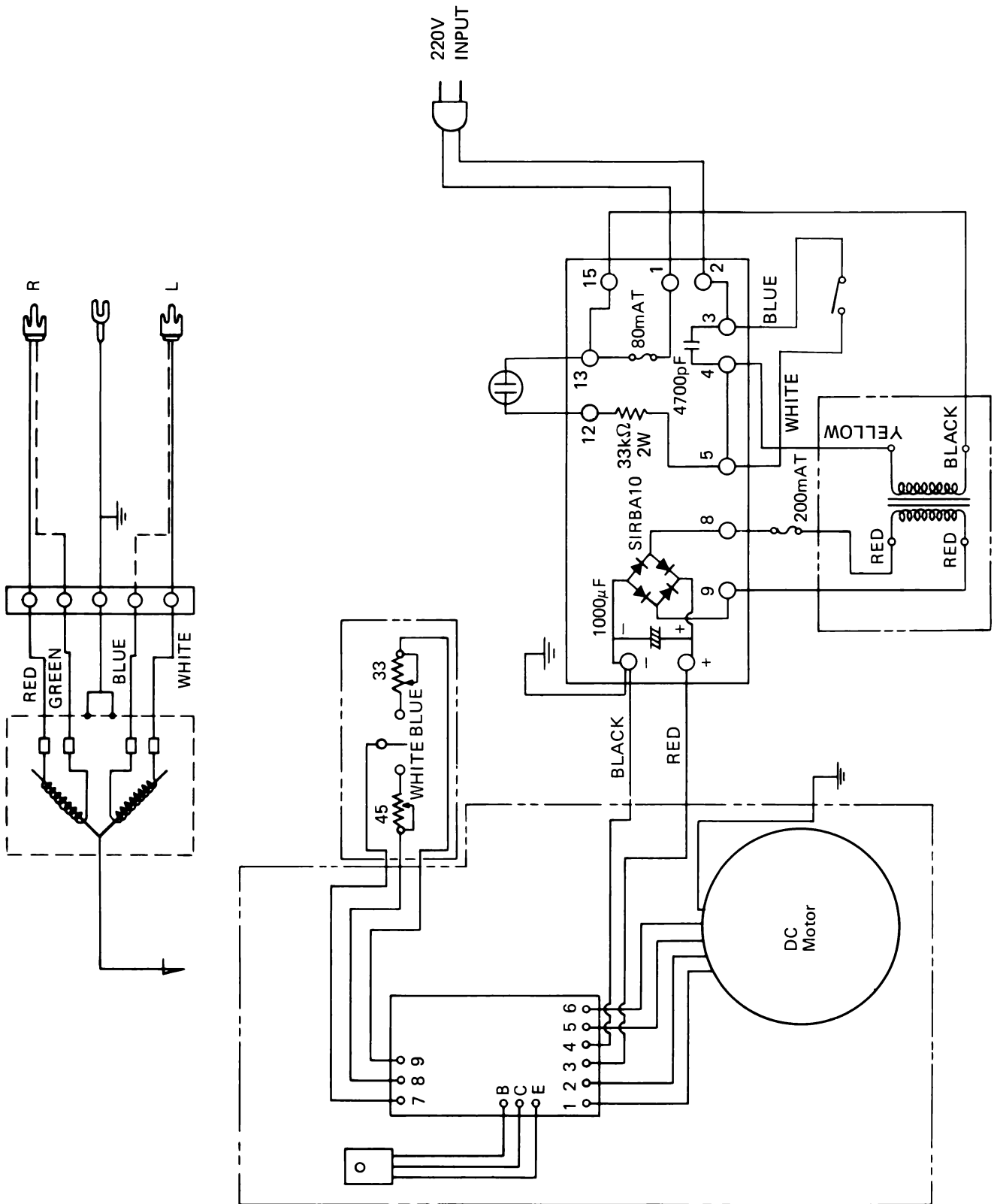


PARTS LIST

Ref No.	Part No.	Description	Q'ty a set
1	871641-1	Sub-chassis Ass'y (1)	1
2	895248	R Gear Ass'y (1)	1
3	874901	Clutch Plate	1
4	894902	Clutch Guide	1
5		E-3	6
6	870933-1	Actuating Arm	1
7		Steel Ball	3
8	870932-1	Actuating Base	1
9	870932-1	BT + 3 x 12	1
10	896487-1	Actuating Plate Ass'y	1
11		BW $\phi 3.2 \times \phi 10 \times t 0.5$	2
12		E-2	1
13	895251	Spring (1)	1
14		E-6	1
15	895073	Eccentric Pin (2)	1
16		BW $\phi 5.2 \times \phi 10 \times t 0.2$	1
17	895092	Turntable Shaft Bracket Ass'y (2)	2
18		$\phi 4.7 \times \phi 8 \times \phi 0.5$	1
19		BT + 3 x 8	14
20	895047	Turntable Shaft Ass'y (2)	1
21	894271	Fixing Pin	1
22	847410	Cabinet	1
23	897817-4	Lamp Cover	1
24	894756	Actuating Arm Cover	1
25	898028	Hemeron Sheet	2
26	897657-1	Lamp Holder	1
27		Fiber Washer	1
28	872084	Power Supply Board	1
29	895430-1	Micro Switch	1
30		TPT 4 x 12	8
31	894408	Wire Fastener	1
32	894001-1	Neon Lamp	1
33	894383-2	Earch Lead Ass'y	2
34	895617-1	AC Cord Ass'y	1
35	872207	P. Supply Transformer	1
36		TPT + 3 x 8	13
37		TOW-3	2
38	897843	REJ Button	1
39	897844-1	Push Button	2
40	897848	Button Spring	1
41		E-32	1
42	897818	REJ Lever	1
43	897846	REJ Spring	1
44		FW $\phi 3.2 \times \phi 8 \times t 0.5$	1
45		CS-3	1
46	897850	CUE Angle Ass'y	1
47	897819-1	CUE Lever	1
48	898315	Switching Spring	1
49		$\phi 4$ Steel Ball	1
50	872024	Cue Seesaw Ass'y	1
51	E-813681	Lock Spring	1
52		FM + 3 x 16	1
53	897853	Seesaw Base Ass'y	1
54	851854	PU Arm Ass'y	1
	MC-14D	Cartridge	1
	ND-14D	Stylus	1
55		FW $\phi 10 \times \phi 22 \times t 1$	1
56		E-9	1

Ref No.	Part No.	Description	Q'ty a set
57	897822	Arm Rest Ass'y	1
58		SSW-3	1
59		FLN-3	1
60	897816	Elevation Plate	1
61		FTQ 2.6 x 4	1
62	896859-1	Elevation Shaft	1
63	F-837780	Elevation Spring	1
64	896860	Lifter Bracket	1
65	897891	J.F.C. Knob Ass'y	1
66	897554	Wave Washer	1
67	879445-1	C.F.C. Spring	1
68	897547	I.F.C Cam	1
69	897823-1	Volume Knob	2
70	893583-3	Sending Arm Ass'y (2)	1
71		5P Lug Board	1
72	870771	Shielded Lead Ass'y	1
73		Varnish Tube	2
74	879847	V.R. Holding Angle	1
75	897787-1	Variable Resistor	2
76	897805-1	Push Switch	1
77	631736	Motor Ass'y	1
78	894021	Pulley	1
79		TO 2 x 3	1
80	893931	Motor Bracket	1
81	E-242020	Rubber Cushion	3
82	E-234971	Pipe	3
83		FW $\phi 3.2 \times \phi 13 \times t 0.8$	3
84		FM + 2.6 x 12	3
85		SSW-2.6	3
86	894037-3	AC Cord Stopper	1
87	891568-3	S.R. Bushing	1
88	897960-2	Foot	4
89		FMT + 4 x 12	15
90		M + 2.6 x 1.6	2
91	872420	Bottom Board	1
92	898636	Ornamental Cover Board	1
93	851701	Dust Cover	1
94	897879-1	Cover Cushion	2
95	897766	Hinge Ass'y	2
96	620053-7	Turntable	1
97	200515B	Belt	1
98	871857	Turntable Mat Ass'y	1
99	890876	E.P. Adapter	1
100	898817-1	Label	1
101		FW $\phi 42 \times \phi 28 \times t 0.3$	1
102	E-821280	Shielding Board	1
103	898801	GND Wire Ass'y	1
104	894383-3	GND Wire Ass'y	1
105	896496	Foot Holder	2
106	898297	Spring Holder	1
107		TPT + 3 x 6	1
108	898801	GND Lead Ass'y	1
109		BT + 3 x 8	1
110	899091	Fuse Holder	1
111	893791	Fuse	1
112	893327	Insulating Sheet	1
117	893791	Fuse Label	1
118	897447	Spacer	1

SCHEMATIC DIAGRAM



TROUBLE SHOOTING CHART

SYMPTOM	CAUSE	REMEDY
When the pick-up is placed on a record, the turntable platter does not rotate.	(1) No current flows because of poor contact of the micro-switch. (2) Lead wire disconnection. (3) Blown fuse.	(1) Replace the old microswitch with a new one. (2) Check wire connection. (3) After checking wrong wiring, replace the blown fuse with a new one.
When the pick-up returns on arm rest, the platter does not stop.	(1) Too wide gap between the microswitch and sending arm. (2) Wrong wiring of the micro-switch.	(1) Adjust the gap 0.8 – 1.2mm. (2) Modify the wiring according to the wire connection diagram.
When the REJ. button is depressed, the pick-up arm does not return.	(1) No operation of the actuating arm. (2) Improper mesh between the main-gear and the turntable-gear.	(1) Check the interlocking transmission mechanism of the REJ. button, REJ spring and REJ lever. (2) a) Check the gear gap. b) Check if the turntable-gear is positioned in the center of the notch of the main-gear. c) Check if the teeth of the turntable-gear are worn to round shape.
The pick-up returns during playing a record.	(1) Inclined turntable unit with its left side down. (2) Deviated sending arm (the sending arm deviated toward the center of the turntable).	(1) Place the turntable unit horizontally. (2) Adjust the position of the sending arm properly.
The stylus is in the same groove.	(1) Improper stylus force (too light stylus force). (2) Sticking pick-up lead wire. (3) Foreign matter between the clutch plate and the clutch guide.	(1) Adjust stylus force properly. (2) Arrange the lead wires properly. (3) Remove the foreign matter.
When record playing is over, the pick-up does not return.	(1) Deviated the position of the sending arm (the sending arm deviated toward the direction opposite from the turntable center).	(1) Adjust the position of the sending arm.
Large impact sound is heard on the return of the pick-up arm.	(1) Improper mesh between the turntable-gear and the main-gear.	(1) a) Check a gap between the turntable-gear and the main-gear. b) Check the shape of the first meshed teeth of the turntable-gear and the main-gear. (if it is deformed, replace the old turntable-gear or the main-gear or both with new one(s)). (2) a) Check if the clutch plate flies out until it strikes the side face of the turntable-gear. If not so, check and remove foreign matter between the clutch plate and the clutch guide or between the actuating arm and the actuating base. b) Check the shape of the meshed teeth of the turntable-gear and clutch plate.

SYMPTOM	CAUSE	REMEDY
Electrical output does not come out from the turntable unit.	(1) Improperly soldered pick-up lead wire to the 5-pin lug terminal strip. (2) Defective transmission path. (3) Defective cartridge.	(1) Check the soldered parts concerned. (2) Check the continuity of the transmission path. (3) Replace the old cartridge with a new one.
Reproduced sound of one channel is distorted.	(1) Too light stylus force. (2) Obliquely mounted cartridge. (3) Too much anti skating force.	(1) Adjust the stylus force. (2) Mount the cartridge correctly. (3) Set the anti skating force adequately.