



All fasteners subject
to metric dimension
of International Orga-
nization for Standardi-
zation.

8-Track Stereo Tape Player

MODEL

MR-53P

MR-58P

SERVICE MANUAL

SANYO ELECTRIC CO., LTD.

INTERNATIONAL DIVISION: SANYO ELECTRIC TRADING CO., LTD.
OSAKA, JAPAN



Model
MR-53P



Model
MR-58P

SPECIFICATIONS

MR-53P

Tape	8 tracks stereo tape cartridge
Tape Speed & Accuracy	3-3/4 ips (9.5 cm/sec.) $\pm 2\%$
Wow & Flutter	0.25 % RMS
Output Power	More than 5 W $\times 2$
S/N Ratio	More than 40 dB
Overall Frequency Response	30 ~ 10,000 Hz
Distortion	Less than 3 %
Cross Talk Between Tracks	More than 50 dB
Channel Separation	More than 40 dB
Output Terminal	Speaker : imp. 8 $\Omega \times 2$
Transistors	2SC858 $\times 4$, 2SC537 $\times 2$, 2SB474 $\times 4$
Diodes & Other Elements	DS-16D $\times 2$, FR-1 $\times 1$, SDT-04 $\times 4$
Dimension Main Unit	13-15/16" (W) \times 9-7/8" (D) \times 4-7/8" (H) 354 (W) \times 250 (D) \times 113 (H) mm
Speaker Box	9-9/16" (W) \times 6-3/8" (D) \times 9" (H) 242 (W) \times 161 (D) \times 228 (H) mm
Weight	Main Unit 12.5 lbs (5.7 kg) Speaker Box 4.4 lbs (2 kg) $\times 2$

MR-58P

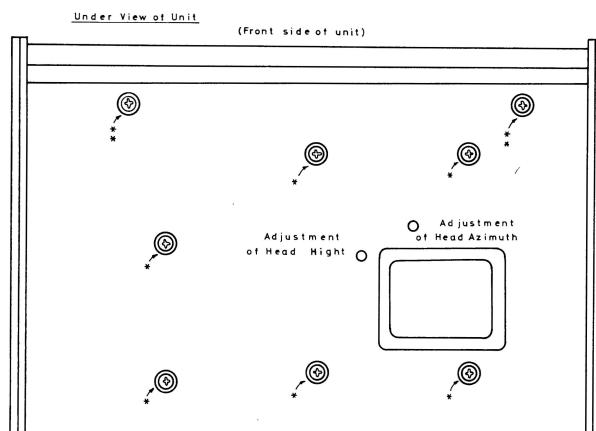
8 tracks stereo tape cartridge
3-3/4 ips (9.5 cm/sec.) $\pm 2\%$
0.25 % RMS
0.775 V ± 3 dB $\times 2$
More than 45 dB
30 ~ 10,000 Hz
Less than 1 %
More than 50 dB
More than 40 dB
Line Output : 2 K $\Omega \times 2$
2SC858 $\times 2$, 2SC537 $\times 2$
DS-38 $\times 1$, DS-16D $\times 1$, FR-1 $\times 1$
8-1/8" (W) \times 9-1/4" (D) \times 4-3/8" (H)
205 (W) \times 235 (D) \times 110 (H) mm

DISASSEMBLY INSTRUCTION & ADJUSTER POSITION

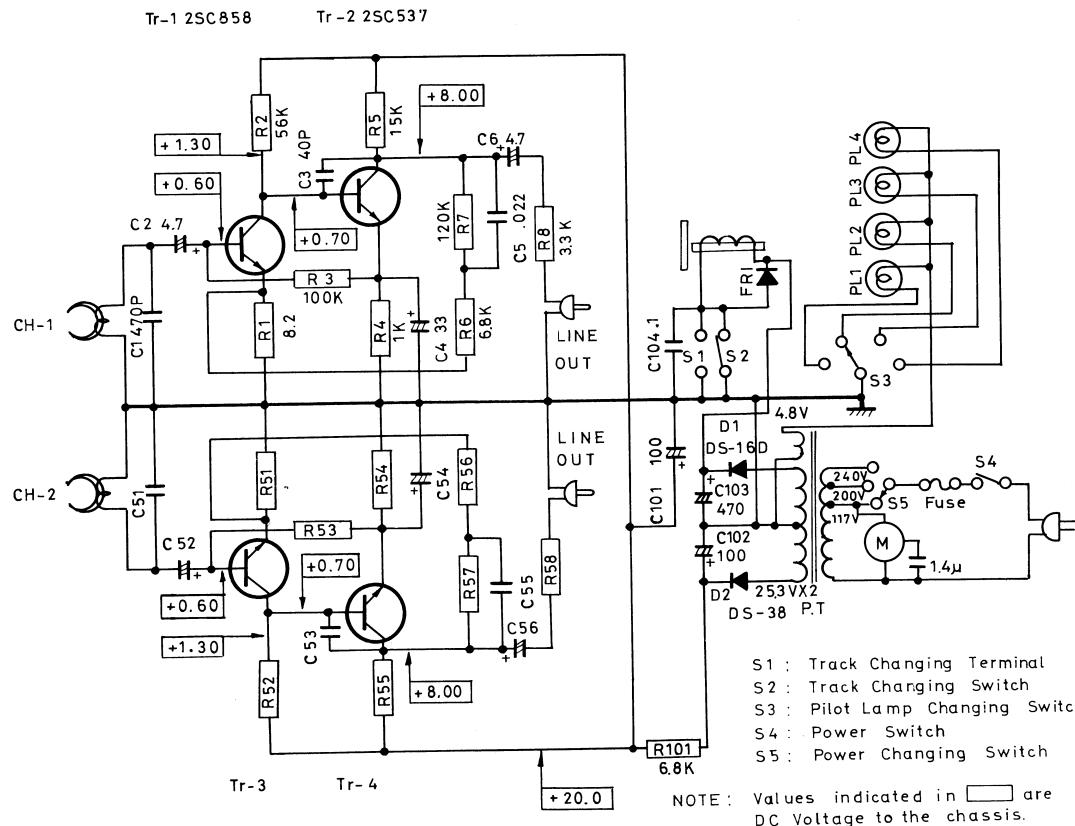
(MR-53P)

Disassembly Instruction

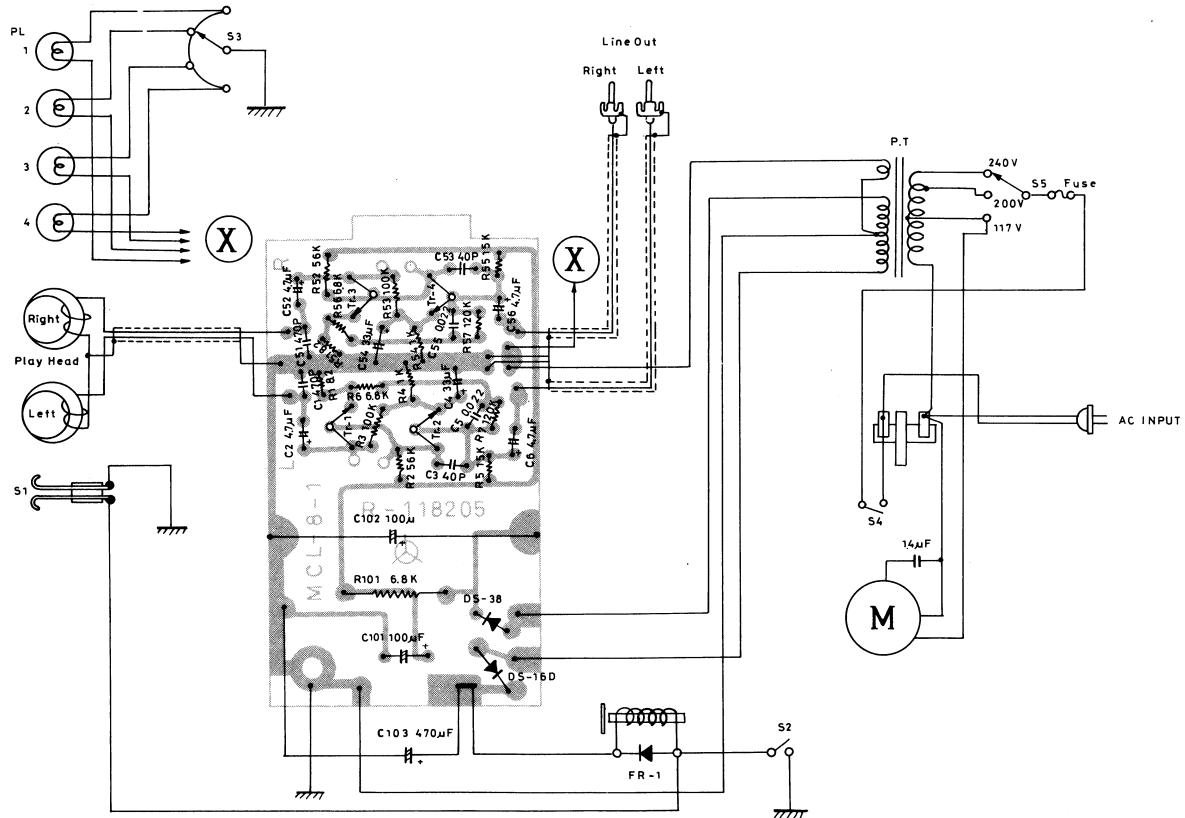
1. The unit is up-side down on suitable cushion.
2. Unscrew the six (*) and two (**) marked screws.
3. Pull to rear side for chassis.



CIRCUIT DIAGRAM (MR-58P)



WIRING DIAGRAM (MR-58P)

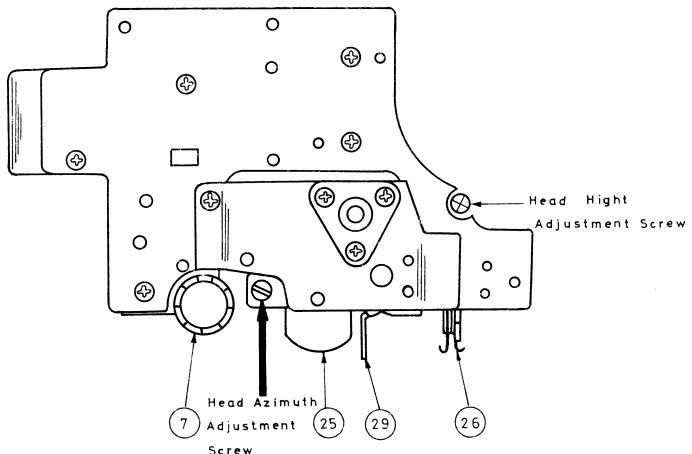
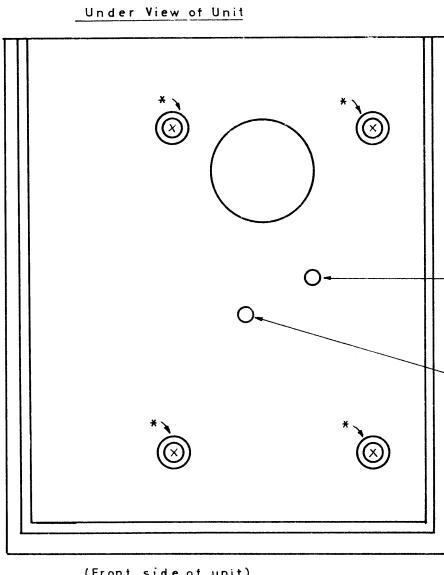


DISASSEMBLY INSTRUCTION & ADJUSTER

POSITION (MR-58P) —————

Disassembly Instruction

1. The unit is up-side down on suitable cushion.
2. Unscrew the four (*) marked screws.
3. Pull to rear side for chassis.



CLEANING —————

Periodic cleaning of the MR-58P, MR-53P is recommended in order for the instrument to give good continued performance.

1. The playback head (25), Solenoid Contact Switch (26 or S1), capstan and tape guide (29) will collect tape oxide residue, which is deposited as the tape passes. A soft cloth or cotton swab may be used to remove most of the residue. The cloth or swab may be moistened residue. Do not touch the playback head with a magnetized metallic or an abrasive object.
2. All drive surfaces must be kept free of dust, grease and oil. Use only a soft clean cloth to clean the flywheel (22), flat belt (1) and motor pulley (2). Wipe all parts that could transfer oil or grease to the parts mentioned above.

CAUTION: Do not use solvents to clean drive surfaces as the cleaner may cause damage to plastic parts. (See DISASSEMBLY INSTRUCTIONS)

LUBRICATION —————

The mechanism is factory lubricated and additional lubrication often than every six months of operation. Before applying additional lubrication, remove excess grease that has moved away from the point of lubrication. This grease picks up dirt or grit and could cause excessive wear or binding if it is not removed. Use oil and grease sparingly. The motor is factory lubricated and is designed to perform in excess of 1,000 hours of operation without lubrication.

Should the tape mechanism be disassembled, lubrication should be applied as follows:

1. One or two drops of machine oil to;
 - a. On the surface of the flywheel (22) shaft.
 - b. On the surface of the cam shaft.
 - c. On the surface of the head trip bearing (9).
2. Apply appropriate amount of grease to;
 - a. On the profile of cam (21).
 - b. To the contacting portions of the pawl assembly (14) and Cam coupler wheel (contained to Ref. No. 21).
 - c. To the shaft of the pawl (contained to Ref. No. 21).

ADJUSTMENT —————

Head Adjustment

Before starting this adjustment, the playback head and all tools to be used for alignment must be demagnetized.

The following equipments are required for head adjustment;

- 1) VTVM or VOM (precision circuit tester)
- 2) AC power supply
- 3) Head alignment test tape cartridge (containing 1,000 Hz, -10 dB recorded signals on all channels).
- 4) Azimuth adjusting tape cartridge with 8,000 Hz -10 dB recorded signal.
- 5) Small screwdriver.

Head Adjustment Sequence

1. When the cam is in the low position, the pole piece and the tape guide should be in parallel at the top edge.
It may be adjusted with the head height adjusting screw.
2. Set for maximum output with the 8,000 Hz portion of the test tape, using azimuth adjusting screw.
3. Set for maximum output with the 1,000 Hz portion of the test tape, using head height adjusting nut (17).
4. Repeat above steps 2 & 3.
5. Check for uniform output on all four channels, using the 1,000 Hz portion of the tape.
6. The adjustment must be performed several times over all tracks in order to attain perfect alignment.

If a test tape is not available, a tape with vocal selections may be used instead. In this case, head height adjustment is satisfactory when the pauses between the words are free from sound coming from other tracks. For proper azimuth adjustment, if a test tape is not available, the background "hiss" on any cartridge may be used. It may be adjusted for maximum output with use of the azimuth adjusting screw.

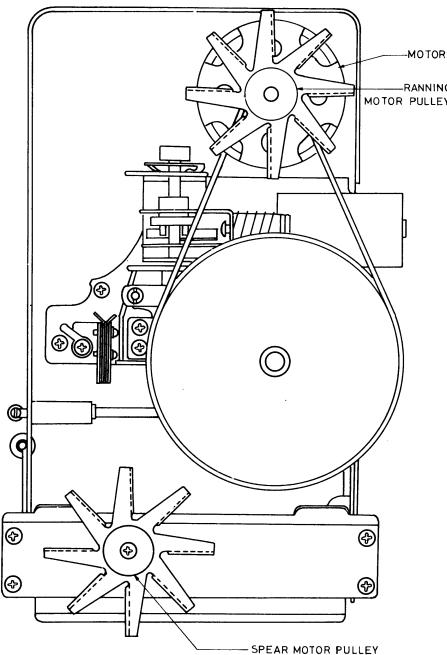
TO CONVERT SET FOR DIFFERENT AC FREQUENCY (60 Hz to 50 Hz or vice versa)

model MR-58P

1. Remove the 4 fastening screws on the bottom.
2. Remove the 2 fastening screws on the back lid.
3. Take the chassis out of the cabinet.
4. Remove motor pulley by loosening small fastening screw with hex. wrench.
5. Exchange it for spare motor pulley.
6. Reassemble set.

model MR-53P

1. Remove the 8 fastening screws on the bottom.
2. Remove the 3 fastening screws on the back lid.
3. Take the chassis out of the cabinet.
4. Remove motor pulley by loosening small fastening screw with hex. wrench.
5. Exchange it for spare motor pulley.
6. Reassemble set.

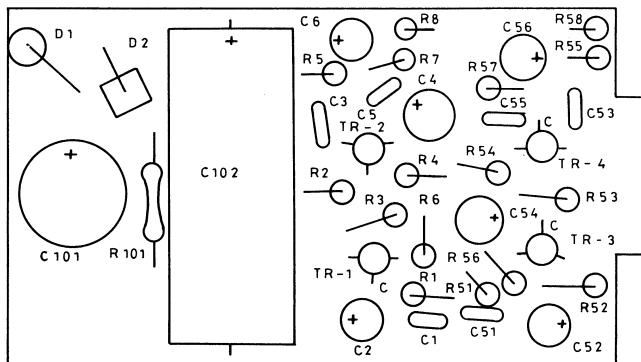
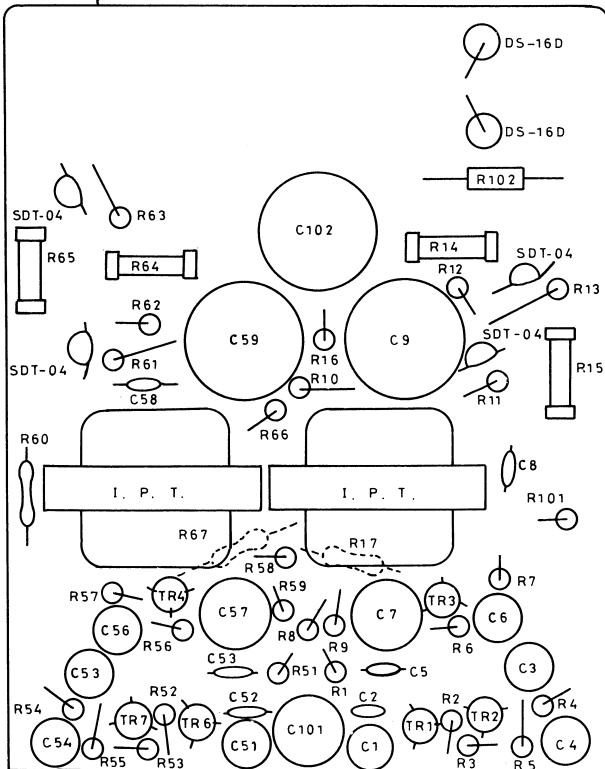


TROUBLE CHART

The following chart lists typical troubles which might be encountered in the field. In each group of instances symptoms are described, possible causes are listed, and suggested remedies are given.

SYMPTOMS	CAUSES	REMEDIES
1. No lighting of channel indicator pilot lamp, no tape motion and no amplifier hiss.	Poor power connection, defective power switch S4.	Tighten connection; replace or adjust switch in question.
2. Channel indicator pilot lamp on, but no tape motion.	Drive belt(1) too loose, set screw (Y23) loose on motor pulley (2), motor frozen or burned out capstan frozen or seized up, pressure roller frozen.	Tighten, replace belt (1), replace motor (3), lubricate or replace relevant parts, change cartridge.
3. Excessive wow or flutter.	Lubrication needed, defective tape or cartridge, pressure roller defective or frozen; defective or oily capstan; flat spot on pressure roller, loose or defective drive belt (1), motor (3).	Lubricate, replace cartridge, lubricate or replace relevant parts, replace or clean as indicated, replace belt (1), replace Motor (3).
4. Excessive noise (electrical & mechanical).	Motor (3) defective, capstan frozen or seized up, cartridge defective, defective filter circuit (C103).	Check and replace, replace motor (3), replace capstan, change cartridge, replace component (C103) of filter circuit.
5. No or low output (any or all channels).	Tape defective, amplifier components defective, playback head (25) defective or out of adjustment, oxide deposit on playback head (25).	Change cartridge, repair amplifier unit, replace or adjust playback head, clean surfaces of playback head (25).
6. Excessive distortion.	Speaker system defective, amplifier components defective, lower or higher AC voltage.	Replace or repair speaker system, replace cartridge, repair amplifier unit, check input power voltage.
7. Excessive cross talk.	Head height not adjusted, tape defective, defective cam (21).	Adjust, replace cartridge, replace cam (21).
8. Low treble.	Oxide deposit on playback head, head surfaces worn, playback head (25) out of alignment (azimuth), amplifier components defective.	Clean surface of playback head (25), replace head, alignment (azimuth), repair or replace.
9. No program switching.	Shorted or open program chaning switch circuit, open program select switch S2. defective solenoid (4).	Repair or replace relevant parts, replace solenoid (4).

PARTS LOCATION



PARTS LIST (MR-53P)

<i>Parts No.</i>	<i>Description</i>	<i>Q'ty</i>
PACKING		
R-478580	Instruction booklet	1
R-498845	Individual carton	1
R-498846	Bottom filler	1
R-498847	Filler	1
R-498848	Filler, for SP box	1
R-498849	Filler	2
R-478419	Serial number label	1
R-478581	Schematic diagram	1
R-478391	Caution label	1

<i>Parts No.</i>	<i>Description</i>	<i>Q'ty</i>
PACKING		
	Polyethylen bag for SP lead & Adaptor 100 × 200 H	2
	Polyethylen bag for set 420 × 550 H	1
	Polyethylen bag for SP box 415 × 395 H	2
	Polyethylen bag for AC cord (twin type) 100 × 200 H	1
	Polyethylen bag for AC cord (three wire type) 120 × 280 H	1

PARTS LIST (MR-53P)

Parts No.	Description	Q'ty
CABINET		
R-S98135 (R-468153)	Cabinet Assembly (wood box) (Cabinet, wood case only)	1 (1)
R-119042	Lattice	1
R-448094a	-Wood Screw, FH 2.4 × 8 mm -Leg, Rubber -Wood Screw, RH 3.1 × 13 mm -Washer, 3 mm	4 4 4 4
R-AT28001 (R-468103)	-Speaker Box Assembly (Speaker Box)	2 (2)
R-468104a	-SP Panel -SP Net 280 × 280 mm -Special Screw, SP fix -Nut class #1, 3 mm -Spring Washer, 3 mm	2 2 8 8 6
R-158236	-Lug, SP lead fix -Washer, 3.3 × 13 × 1 mm -Steple, SP net -Special Screw, SP panel fix -Nut class #1, 3 mm -Spring Washer, 3 mm	2 8 160 8 8 8
R-S3008	Washer, 3.3 × 13 × 1 mm, SP Panel	8
R-158236	-Back lid -Wood Screw, RH 3.1 × 13 -S-Washer, 3 mm	2 16 16
R-S2041	-Socket -Screw, PH 3 × 12 mm -Spring Washer, 3 mm -Nut class #1, 3 mm -Leg, Rubber -Wood Screw, RH 3.1 × 13	2 4 4 4 8 8
R-448094a	-Washer, 3 mm -Steple, 4 × 6 mm -Vinyl Wire, 0.18/6 150 mm red -Vinyl Wire, 0.18/6 150 mm brack -Badge -Sash -Index plate	32 2 2 2 2 2 2
R-218003a	Panel, control	1
R-398178	Index plate, control	1
R-478593	Decoration material	1
R-278266	Name plate	1
R-388045	Fiber washer, 3.2 × 15 × 2 mm	3
R-328224	Back lid, Set	1
R-268886	Knob Assembly (Knob)	3 (3)
R-428174 R-S88744 (R-328225)	Decoration, knob	3
R-268887 R-119603	Special Washer	6
CHASSIS		
R-418124a	Printed Circuit Board	1
R-S88628	Chassis Assembly for P.T. & Amplifier	1
R-119483a	Bracket, Volume & Spring Switch	1
R-119726	Bracket, AC input & SP terminal	1
R-119533a	Bracket, AC Cord fixer	1
R-44045	Cushion, Pilot Lamp	4
R-119037	Bracket, Electrolytic Capacitor	1
R-119013	Reinforcement, Chassis	1
R-119481	Bracket, Chassis	1
R-S3008	Lug, Lead fixer	2
	Washer, Fiber 3.3 × 10 × 1 mm, P.C.B.	1
	Insulation tape, 38 × 120 mm, Elect. Capa.	1
	Insulation tape, 19 × 55 mm, Reinforcement	1
	Insulation Sheet, Fiber 3 × 100 × 0.35 mm	1
R-44027	Cushion, Rubber, Three wire cord fixed ("A" "C")	1
R-112865	Bracket, Three wire cord fixed ("A" "C")	1
R-119727	Bracket, Pilot Lamp	1
R-35272	Fixer, Twin wire cord ("B" "D")	1
R-328043	Knob, Program selector	1
R-268731	Lid, cartridge slot	1
R-158228	Spring, cartridge slot lid	1
R-241457a	Shaft, cartridge slot lid	1
R-119620	Bracket, cartridge slot lid	1
R-12011	Lug, lead fixer	1
R-119013	Reinforcement, chassis	1
R-428127b	Washer, fiber 3.3 × 10 × 1 mm	1
R-428155a	Fiber Sheet, Insulation	1
R-12011	Sheet, Shield	2
R-248472	Earth Lug, Shield Sheet	1
	Spacer, Channel select switch	2

Ref. No.	Parts No.	Description	Q'ty
ELECTRICAL PARTS			
	R-R124821a	Variable Resistor, 10kohm for Balance	1
	R-R124822	Variable Resistor, 10kohm for Volume	1
	R-W6861	Hum Balance Coil	2
	R-R124860	Variable Resistor, 2.4kohm for Tone	1
	R-W7895	Power Transformer	1
	R-W6327a	Input Transformer	2
	R-S4917	Spring Switch, Channel Select	1
	R-S1151(3)	Pilot Lamp	4
	R-S2832	Socket, SP terminal	1
	R-S3069	Lug Plate, 1-3P Hum balance coil	1
	R-S2874	Socket, Voltage selector	1
	R-S1867	Plug, Voltage selector	1
	R-S1038	Fuse Holder	1
	R-S1044	Fuse	1
	R-S88594	Speaker Cord, RCA-RCA 3 m	2
TR 1, 2, 6, 7	Transistor 2SC858		4
TR 3, 8	Transistor 2SC537		2
TR 4, 5, 9, 10	Transistor 2SB474 Thermister SDT-04 Rectifier DS-16D		4 4 2
AC Power Cord System			
Marked	"A" R-S88731 R-S1076a	AC Power Cord Assembly Plug, England Type	1 1
	R-S1245	Three Wire Cord L=2.4 m	1
	R-S88732	Cushion	1
Marked	"B" R-S88732 R-S1817	AC Power Cord Assembly Twin Wire Cord	1 1
	R-S88733	Plug, Austraria Type	1
Marked	"C" R-S1076a	AC Power Cord	1
	R-S1314 R-S8574b	Three Wire Cord L=2.4 m	1
	R-S8575b	Plug, Photex Type	1
Marked	"D" R-S1076a R-S8574b R-S8575b	Plug, England Type	1
	AC Power Cord, Twin Adaptor Socket, Siemens Type		1
	AC Power Cord, Twin Adaptor Socket, England Type		1
CAPACITORS			
C1, 51	R-C9882	Electrolytic, 4.7μF	6.3WV
C2, 52		Mylar, 0.001μF ± 20%	50WV
C3, 53	R-C9882	Electrolytic, 4.7μF	6.3WV
C4, 54	R-C9881	Electrolytic, 33μF	6.3WV
C5, 55		Mylar, 0.47μF ± 20%	50WV
C6, 56	R-C9882	Electrolytic, 4.7μF	6.3WV
C7, 57	R-C9864	Electrolytic, 2200μF	6.3WV
C8, 58		Mylar, 0.022μF ± 20%	50WV
C9, 59	R-C9874	Electrolytic, 4700μF	16WV
C101	R-C9873	Electrolytic, 1000μF	35WV
C102	R-C9874	Electrolytic, 4700μF	16WV
C103	R-C9876	Electrolytic, 2200μF	35WV
RESISTORS			
R1, 51		Carbon P type	8.2Ω ± 10% 1/4W
R2, 52		Carbon P type	47KΩ ± 10% 1/4W
R3, 53		Carbon P type	100KΩ ± 10% 1/4W
R4, 54		Carbon P type	1KΩ ± 10% 1/4W
R5, 55		Carbon P type	4.7KΩ ± 10% 1/4W
R6, 56		Carbon P type	10KΩ ± 10% 1/4W
R7, 57		Carbon P type	33KΩ ± 10% 1/4W
R8, 58		Carbon P type	6.8Ω ± 10% 1/4W
R9, 59		Carbon P type	220Ω ± 10% 1/4W
R10, 60		Carbon P type	1.5KΩ ± 10% 1/4W
R11, 61		Carbon P type	39Ω ± 10% 1/4W
R12, 62		Carbon P type	1.5KΩ ± 10% 1/4W
R13, 63		Carbon P type	39Ω ± 10% 1/4W
R14, 64, 15, 65	R-R7803	Wirewound	0.5Ω 1/2W
R16, 66		Carbon P type	390Ω ± 10% 1/4W
R17, 67		Carbon P type	10KΩ ± 10% 1/4W
R101		Carbon P type	1KΩ ± 10% 1/4W
R102		Carbon P type	390Ω ± 10% 1/2W
R105		Carbon P type	700Ω ± 20% 1W

PARTS LIST (MR-58P)

Parts No.	Description	Q'ty
PACKING		
R-478474	Instruction booklet	1
R-498757	Individual carton	1
R-498759	Bottom filler	1
R-498758	Top filler	1
R-478419	Serial number label	1
R-G27101	Polyethylen bag for set (350 × 450 mm)	1
R-478475	Schematic diagram	1
R-478391	Caution label, Voltage	1

Ref. No.	Parts No.	Description	Q'ty
RESISTORS			
R1, 51		Carbon P type 8.2Ω ±10% 1/4W	2
R2, 52		Carbon P type 56KΩ ±10% 1/4W	2
R3, 53		Carbon P type 100KΩ ±10% 1/4W	2
R4, 54		Carbon P type 1 KΩ ±10% 1/4W	2
R5, 55		Carbon P type 15KΩ ±10% 1/4W	2
R6, 56		Carbon P type 6.8KΩ ±10% 1/4W	3
101		Carbon P type 120KΩ ±10% 1/4W	2
R7, 57		Carbon P type 3.3KΩ ±10% 1/4W	2

Ref. No.	Parts No.	Description	Q'ty
CAPACITORS			
C1, 51		Ceramic, disk type 470pF ±20% 50V	2
C2, 6,, 52, 56	R-C9883	Electrolytic, 4.7μF 16V	4
C3, 53		Ceramic, disk type 40pF ±20% 50V	2
C4, 54	R-C9881	Electrolytic, 33μF 6.3V	2
C5, 55		Myler, square type 0.022μF ±20% 50V	2
C101	R-C9823	Electrolytic, 100μF 25V	1
C102	R-C9940} or R-C9967	Electrolytic, 100μF 50V	1
C103	R-C9966	Electrolytic, 470μF 50V	1

Parts No.	Description	Q'ty
CABINET		
R-S98115	Cabinet Assembly	1
(R-468135)	(Cabinet, Laminated Wood)	(1)
R-318305	Front panel	1
R-318079	Transparent strip	4
R-268764	Badge	1
R-35264	Leg, Rubber	4
R-428168	Wood Screw, S 3.1 × 8 mm	4
R-119699	Back Lid	1
	Special Washer	4
CHASSIS		
R-119561	Chassis board	1
R-119695	Bracket P.T mtg.	1
R-119698	Shield cover	1
R-348100	Boated, leads fasten	1
R-418205a	Printed Circuit Board	1
R-44088	Sheet, Fiber 16 × 55 × 0.5t PL & Lug plate	2
R-112864	Bushing for leads	2
R-119563	Band, electr. capacitor	1
R-268763	Bracket, door	1
R-241457a	Door cartridge inserting	1
R-158228	Door shaft	1
R-112865	Torsion, spring door	1
R-119697	Bracket,	1
R-44045	Bracket, lamp	1
R-328043	Rubber bushing, lamp	4
R-119696	PROGRAM selector knob	1
R-112432	Bracket, AC socket	1
	Lug, lead fixer	1

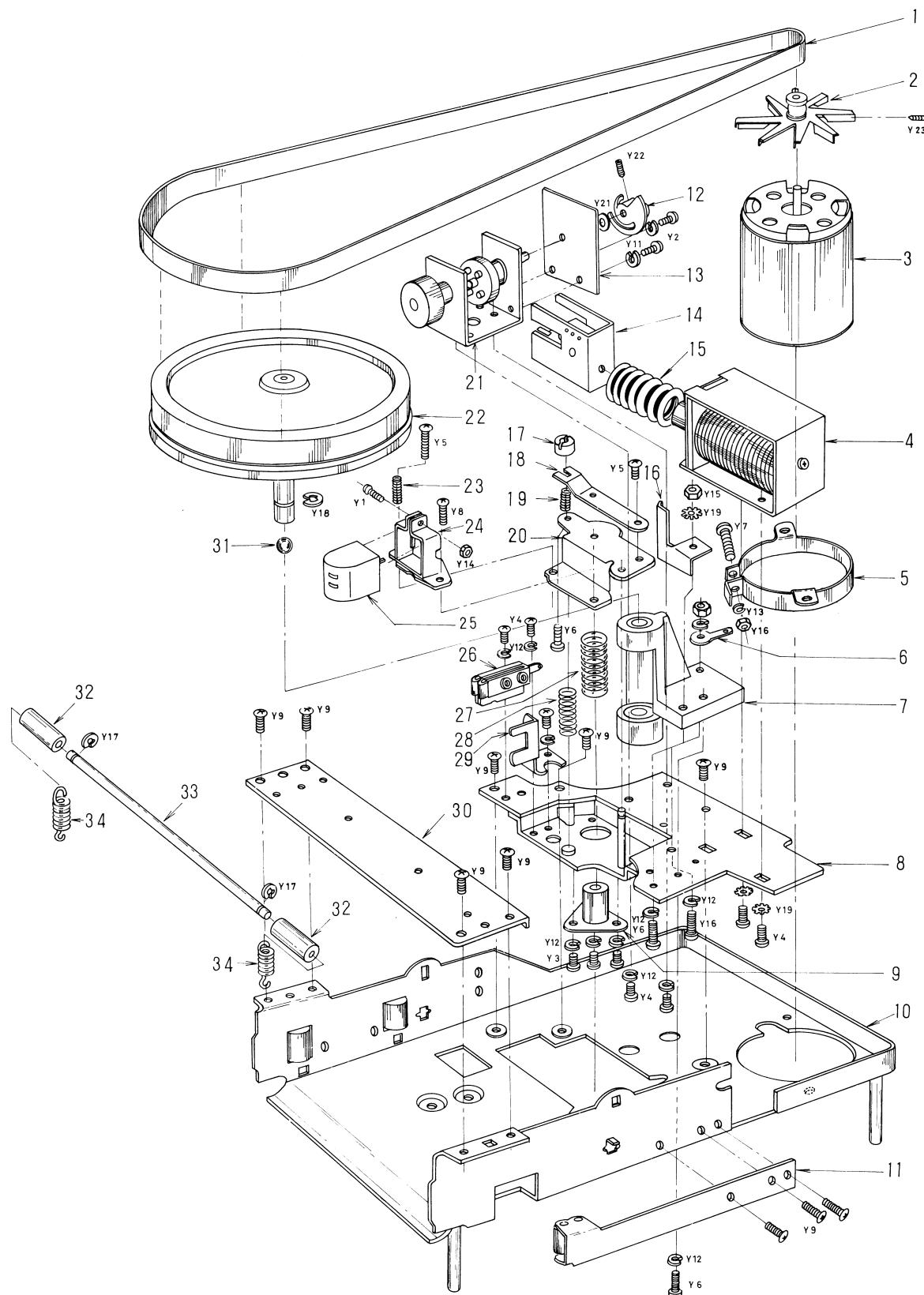
Ref. No.	Parts No.	Description	Q'ty
ELECTRICAL PARTS			
Tr-1, 3	R-W7908	Power transformer	1
Tr-2, 4	R-S4926	Spring switch, channel select	1
D2	R-S88626	Patch cord	2
D1	R-S1044	Fuse 1.2 A	1
	R-S1038	Fuse holder	1
	R-S3063	Lug, earth	1
	R-S2872	Socket, Voltage select	1
	R-S1867	Plug, Voltage select	1
	R-S1151-(4)	Lamp	4
		Transistor 2SC858	2
		Transistor 2SC537	2
		Silicon rectifier DS-38	1
		Silicon rectifier DS-16D	1
	R-AT32102	Amplifier circuit board w/components	1
	R-S3011	Lug plate, 1-2 P	1

AC Power Cord System		
Marked "A"	R-S88731	AC power cord assembly
	R-S1076a	Plug, England type
		Three wire cord L=2.4 m
	R-S1245	Cushion
	R-44027	Plug, Austraria type
Marked "B"	R-S88732	Cushion, PL
	R-S1817	AC power cord assembly
	R-35272	Twin wire cord
Marked "C"	R-S88733	Plug, Siemens type
		Cord fixer
	R-S1076a	AC power cord
	R-44027	Three wire cord L=2.4 m
Marked "D"	R-S3134	Plug, Photex type
	R-S8574b	Plug, England type
	R-S8575b	Cushion, PL
	R-35272	AC power cord, twin
		Adaptor socket, Siemens type
		Adaptor socket, England type
		Cord fixer

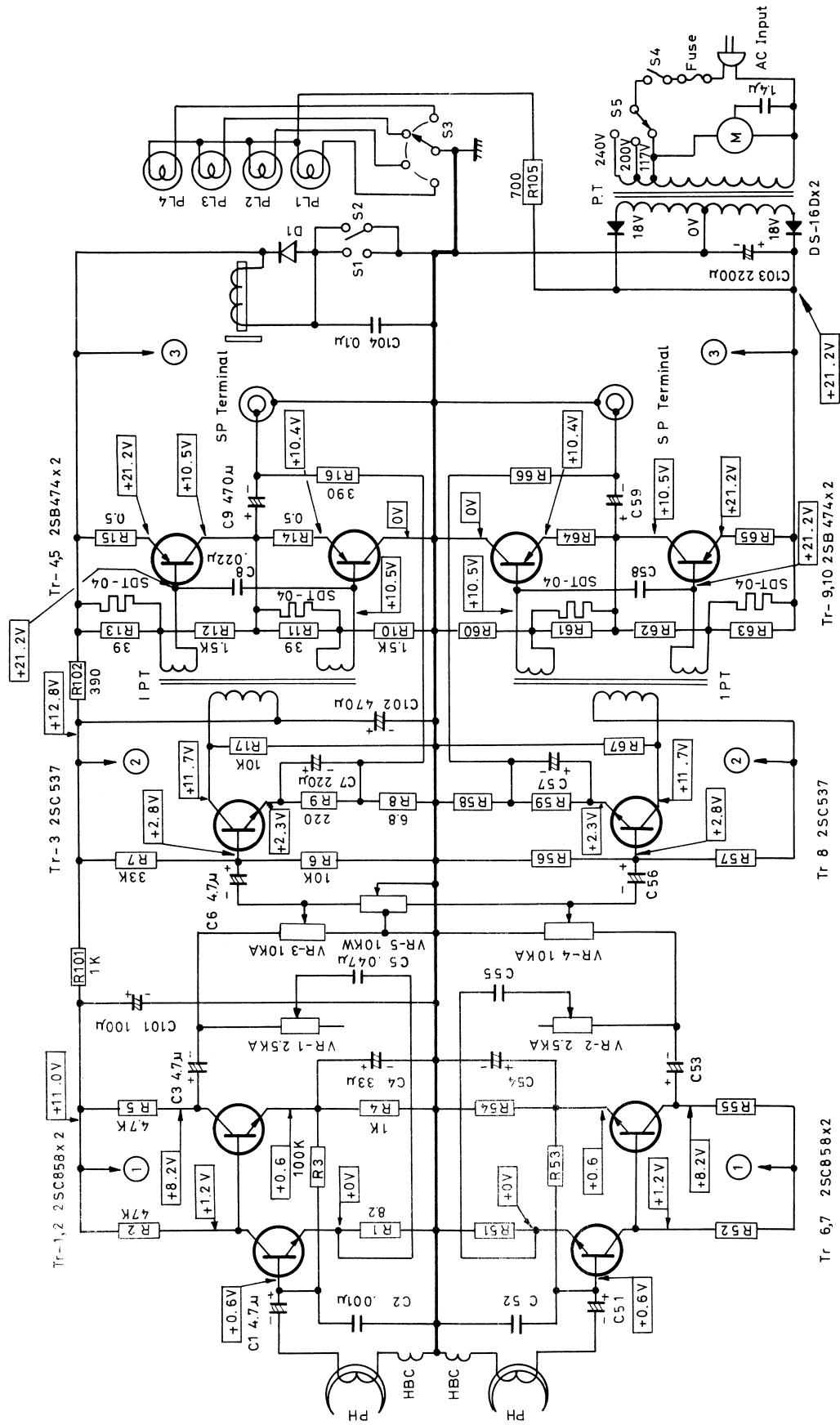
PARTS LIST (MR-53P, MR-58P)

Ref. No.	Parts No.	Description	Q'ty	Ref. No.	Parts No.	Description	Q'ty
MECHANISM							
1	R-448138	Belt, flywheel drive	1	Y1		Screw, PH 2 × 6 mm	1
2	R-S88589	Motor pulley with fan	1	Y2		Screw, PH 2.6 × 6 mm	2
3	R-S5200	AC motor	1	Y3		Screw, PH 3 × 4 mm	4
	R-478481	Label	1	Y4		Screw, PH 3 × 6 mm	5
4	R-S4910a	Solenoid with plunger	1	Y5		Screw, PH 3 × 10 mm	1
5	R-119466	Motor band	1	Y6		Screw, PH 3 × 14 mm	1
6	R-12011	Lug, lead clamp	1	Y7		Screw, PH 4 × 20 mm	1
7	R-S88433	Flywheel bearing	1	Y8		Screw, RH 3 × 8	1
8	R-S88588	Board, head and cam	1	Y9		Screw, PH tapping 3 × 6 mm	11
9	R-119082	Bearing, head trip	1	Y10		Screw, BH 3 × 6 mm	3
10	R-AM14801	Mechanical chassis assembly	1	Y11		Spring washer 2.6 mm	2
	R-119546	Mechanical chassis	1	Y12		Spring washer 3 mm	12
	R-148338	Stud nut	4	Y13		Spring washer 4 mm	1
	R-398131	Roller, cartridge pressure	2	Y14		Nut 2 mm	3
	R-15313	Roller shaft, roller	2	Y15		Nut 3 mm	4
	R-119465	Micro-switch mounting bracket	1	Y16		Nut 4 mm	1
		Rivet	2	Y17		External "E" ring 2 mm	2
11	R-S88449	Cartridge pressure with roller	1	Y18		External "E" ring 5 mm	1
12	R-S88434	Rotary brush	1	Y19		External tooth washer 3 mm	4
13	R-418190	Printed circuit board	1	Y20		Polyethylene washer, 4.2 × 6 × 0.5 mm	1
14	R-AM14802	Pawl assembly	1	Y21		Polyethylene washer, 4.1 × 8 × 1 mm	1
	R-238053	Bracket, pawl	1	Y22		Screw, Hd-less 3 × 4 mm	1
	R-398156	Pawl	1	Y23		Screw, Hexagon socket, Hd-less 3 × 3 mm	1
	R-158288	Coil spring	1			Screw, PH 3 × 30 mm, mtg. micro-switch	2
	R-158240	Shaft, pawl	1			Spring washer, 3 mm, mtg. micro-switch	2
15	R-128203	Hinge spring	1			Washer 3 mm, mtg. micro-switch	1
16	R-128171	Stopper, tape twing	1			Screw, PH 3 × 16 mm, mtg. band (R-119491)	1
17	R-248410	Head height adjusting nut	1			Spring washer 3 mm, mtg. band (R-119491)	1
18	R-128170	Cam coupler plate	1			Tapping screw 3 × 6 mm, mtg. spring switch	1
19	R-158261	Spring, head height adjusting	1			Nut 3 mm, mtg. band (R-119491)	1
20	R-S88448	Board, head mounting	1			Tapping Screw, PH 3 × 8 mm	4
21	R-AM14803	Cam and coupler assembly	1				
	R-119059	Holder, can and coupler	1				
	R-148281	Cam	1				
	R-128157	Shaft, cam and coupler	1				
	R-128193	Spring pin	2				
	R-398155	Coupler	1				
		Shaft, coupler	4				
22	R-S88453	Flywheel	1				
23	R-158261	Azimuth adjustment spring	1				
24	R-S88422	Head holer	1				
25	R-S6433b	Playback head	1				
26	R-S88658	Solenoid contact	1				
27	R-128202	Spring, head pushing up, large	1				
28	R-128201	Spring, head pushing up, small	1				
29	R-128217	Tape guid	1				
30	R-119342	Bracket, cartridge slot reinforcing	1				
31		Steel ball, flywheel	1				
32	R-398130	Roller, cartridge pressure	2				
33	R-158257	Roller shaft for roller	1				
34	R-158260	Spring, cartridge pressure	2				
S4, 6	R-S4918	Micro-switch, power and motor	2				
	R-258112	Micro-switch actuating plate	2				
	R-C7811	Motor starting capacitor 1.4μF	1				
	R-119491	Band, motor capacitor	1				
	R-S1234	Silicon rectifier, solenoid	1				
	R-S4929	Spring switch, tuner	1				
	R-119656	Shield plate, Motor	1				
	R-S3063	Lug, C104	1				
C104		Mylar capacitor, 0.1 μF ± 20% 50V (Squear)	1				
	R-S88703	Motor Pulley with fan	1				
	R-112432	Lug, Lead Fixer	1				

EXPLODED VIEW



CIRCUIT DIAGRAM (MR-53P)



NOTE : Values indicated in [] are DC Voltage to the chassis.

- S1 : Track Changing Terminal
- S2 : Track Changing Switch
- S3 : Pilot Lamp Changing Switch
- S4 : Power Switch
- S5 : Power Changing Switch

WIRING DIAGRAM (MR-53P)

