

SERVICE MANUAL

AUTOMATIC DIRECT DRIVE TURNTABLE

SANSUI FR-D35

(Silver & Black Model)



SPECIFICATIONS

Type	Two-speed direct-driven
Speeds	33-1/3, 45 rpm
Platter	Aluminum alloy die-cast 315 mm (12-13/32") diameter
Motor	DC brushless servo motor
Wow and flutter	0.025% (W.R.M.S.)
S/N	Better than 60 dB (IEC-B)
Rumble	Better than 72 dB (DIN-B)
Tonearm	
Tonearm length	220 mm (8-11/16")
Overhang	17.5 mm (3/4")
Applicable cartridge weight	4 to 9 g
Dimensions	440 mm (17-5/16") W 118 mm (4-11/16") H 370 mm (14-9/16") D
Weight	4.8 kg (10.6 lbs.) net 5.8 kg (12.8 lbs.) packed
Power consumption	9 W

- The power voltage is adjusted to the one of the area where you bought the unit.

Specifications of the cartridge (applicable only to the units with cartridge)

Model SC-50

Type	Induced magnet
Frequency response	10 ~ 20,000 Hz
Output voltage	30 mV per channel (1,000 Hz, 35.4 mm/sec)
Load impedance	47 k Ω
Tracking force	2.5 g
Stylus	0.6 mil, diamond spherical (SN-50)

Model SV-101

Type	Dual magnet
Frequency response	10 ~ 20,000 Hz
Output voltage	2.5 mV per channel (1,000 Hz, 35.4 mm/sec)
Load impedance	47 k Ω
Tracking force	2 g
Stylus	0.6 mil, diamond spherical (SN-101)

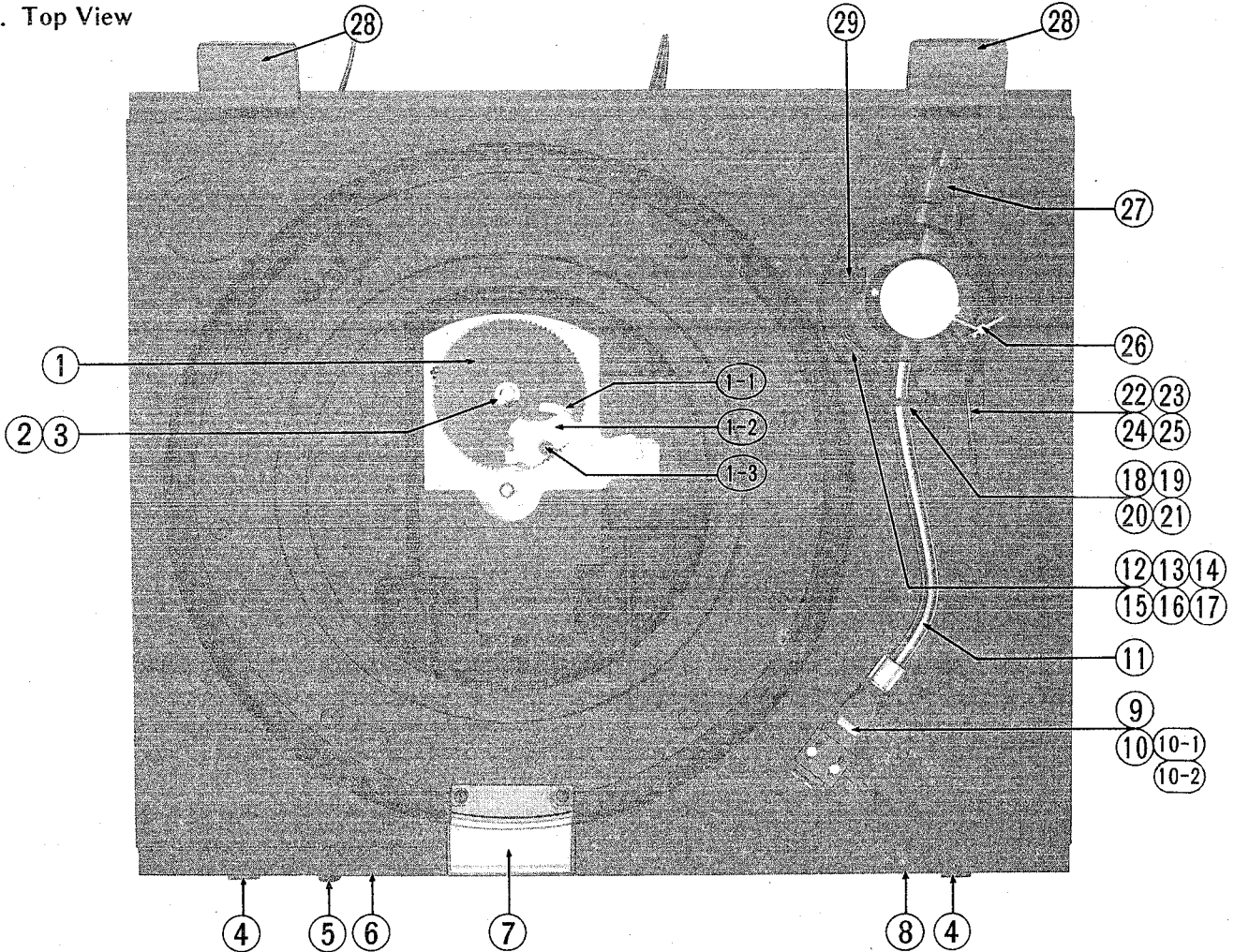
- * Design and specifications subject to change without notice for improvements.
- * In order to simplify the explanation, illustrations may sometime differ from the originals.

Sansui

SANSUI ELECTRIC CO., LTD.

1. PARTS LOCATION & PARTS LIST

1-1. Top View



Parts List <Top View>

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
1	13017200	Main Gear Ass'y	10	13010800	Cartridge Ass'y, SV-101	18	13005300	Arm Rest
1-1		Lower Trip			XX, UL, EU, BS, AS	19	13013100	Fook, arm rest
1-2		Upper Trip		43103700	Cartridge Ass'y, SC-50B UL	20	13013200	Flat Filler Screw M1.3 x 8, fook
1-3	51822900	CS Type Washer 3φ		13010900	Stylus, SN-101 XX, UL, EU, BS, AS	21	00454500	B Type Tapping Screw M3 x 6, arm rest
2	00489400	E Ring 5φ	10-1	49402300	Stylus, SN-50 UL	22	13013500	Lifter Knob
3		Polyslider Washer 6φ x 9.4 x 1.0			Screw Ass'y for Cartridge	23	13039100	Lifter Knob
4	13037000	Push Switch Knob <Silver Model>	10-2		XX, UL, EU, BS, AS	24	13039200	Lifter Lever Ass'y
	13039700	Push Switch Knob <Black Model>			Screw Ass'y for Cartridge UL	25	00457600	Lifter Lever Plate
	13037100	Knob, pitch control <Silver Model>	11	13069500	Tone Arm Ass'y			WT Type Tapping Screw M3 x 10, lifter lever
	13037200	Knob, pitch control <Black Model>	12	13038900	Lifter Plate	26	13043200	IFC Ass'y
	13035000	Plate (L) <Silver Model>	13	13035600	Spring, 5.3φ x 10 mm (C)	27	13069600	Main Weight
	13035200	Plate (L) <Black Model>	14	13035700	Spring, 9.3φ x 14 mm (E)	28	13044600	Auto Hinge
5	13037700	Strobe Cover	15	00466500	P Type Washer 3φ x 10	29	50624800	Cup
6	13040900	Plate (R) <Silver Model>	16	13011600	Elevation Chip			
7	13041000	Plate (R) <Black Model>	17	13038000	B Type Tapping Screw M3 x 16 (Type 2)			
8	13043100	Head Shell						
9								

●Note 1:

As to U.S., C.S.A., B.S., ES, A.S. and xx marked in the Parts Lists, note the followings:
 U.S., C.S.A. Parts used in the unit which is applicable to the U.S. and Canada under industrial standards.
 B.S. Parts used in the unit which is applicable to British under industrial standards.
 E.U. Parts used in the unit which is applicable to Sweden, Denmark, Norway, Finland, West Germany, and Switzerland under industrial standards.
 A.S. Parts used in the unit which is applicable to Australia under industrial standards.
 XX Parts used in the unit which is applicable to other countries excepting mentioned above.

* In this parts list, those parts with no above mark in the place of Description are all the same as XX marked parts.

●Note 2:

Please note that this unit, FR-D35, includes a cartridge or not depending on the cabinet color and the unit sold in specific area shown in the above description.

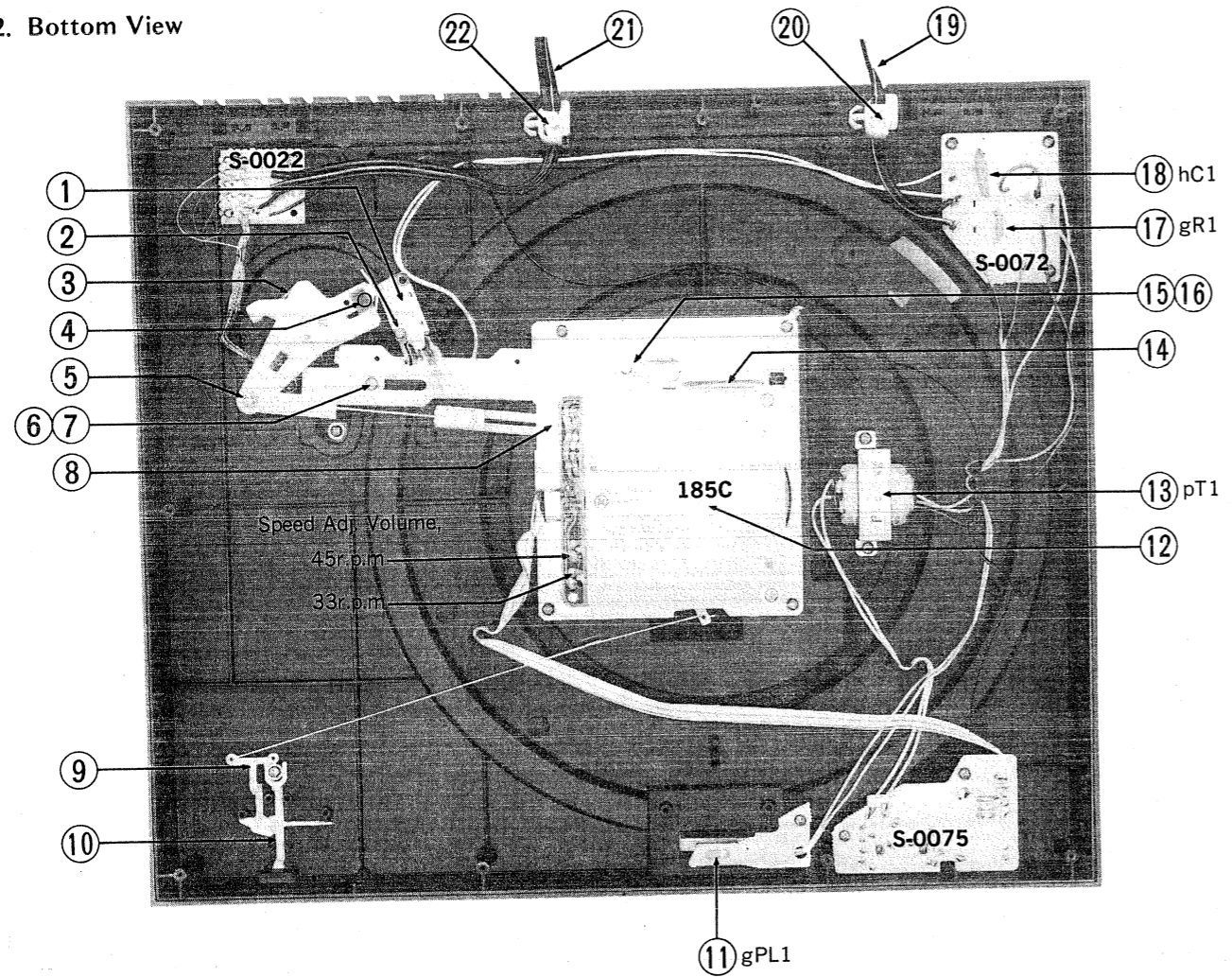
Model	Cabinet Color	Cartridge	Indication of Carton Case
XX, UL, EU, BS, AS	Silver	With Cartridge (SV-101 for UL) (SC-50 for XX, EU, BS, AS)	
XX, UL, EU, BS, AS	Black	With Cartridge (SV-101 for UL) (SC-50 for XX, EU, BS, AS)	Black
XX, UL, CSA, EU, BS	Silver	Without Cartridge	E
XX, UL, CSA, EU, BS	Black	Without Cartridge	Black, E

Cartridge, Stylus, Stylus Cover, and Screw Ass'y are not included in the unit stamped 'E' on carton case.

2. SCHEMATIC DIAGRAM

• Design and specifications subject to change without notice for improvement.
 • La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
 • Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.

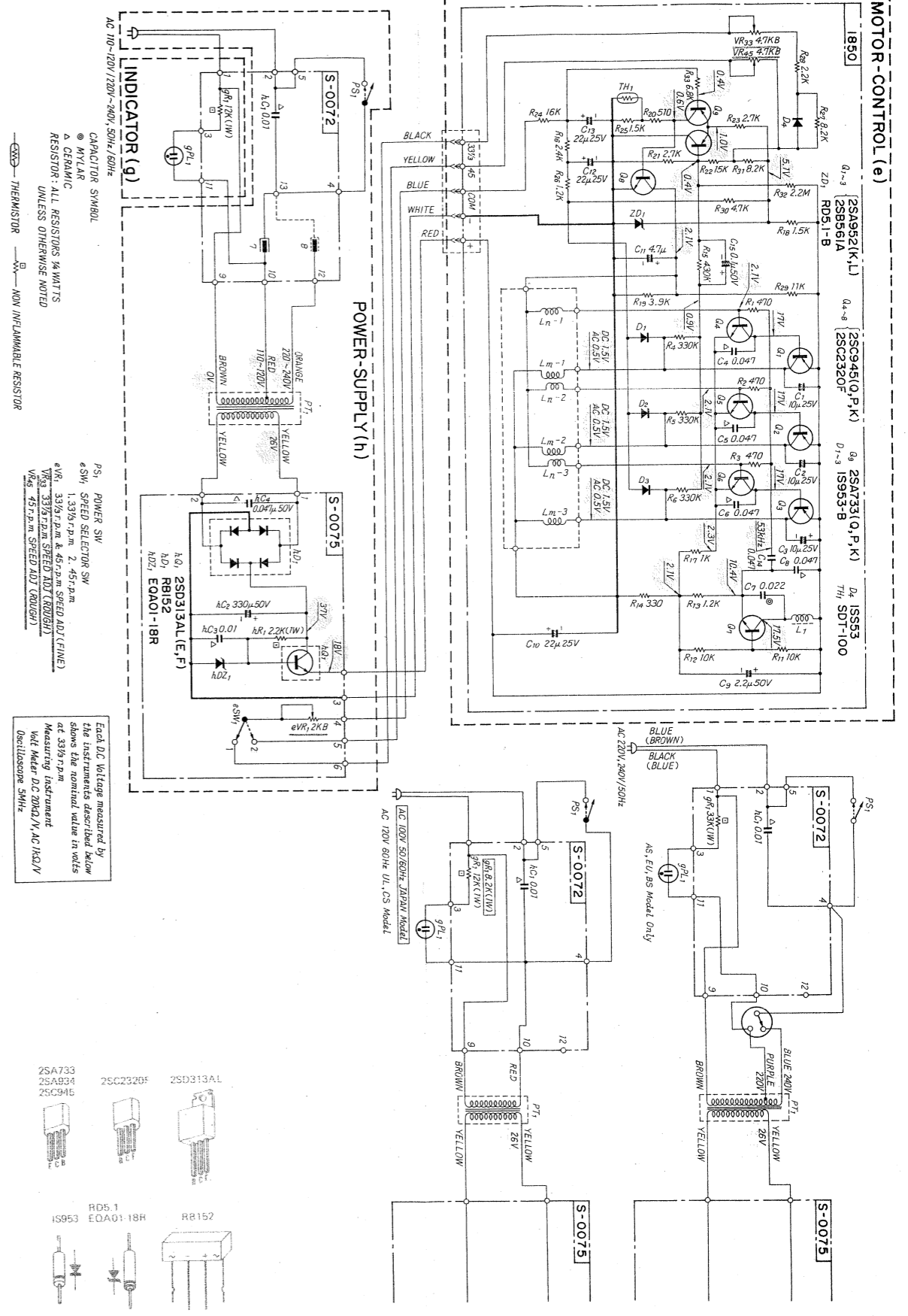
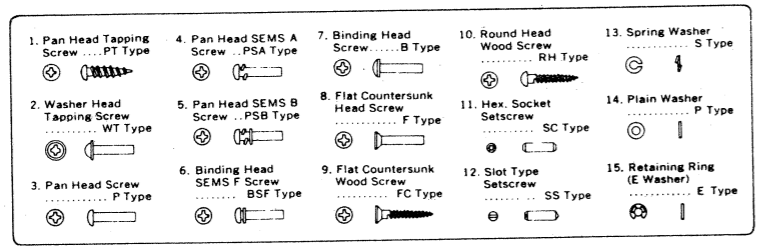
1-2. Bottom View



Parts List <Bottom View>

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
1	11602500	Micro Switch	11	07264800	Neon Lamp	18(hC1)	00386000	0.01μF 150V E.C. XX, BS, AS
2	13038100	Screw, micro switch	12	13050800	DD Motor (Motor, Control Circuit Board)		08302600	0.01μF 400V E.C. EU, BS
3	69034400	Spring, PU plate		15002401	Power Transformer XX		08302200	0.01μF 125V E.C. UL, CS
4	13038000	P Type Tapping Screw M3 x 16 (Type 2)	13	15002402	Power Transformer UL, CS	19	38004700	Power Cord XX, UL, CS
5	51822900	CS Type Washer 3φ		15002405	Power Transformer EU, BS, AS		38004500	Power Cord EU
6	13038200	Screw, slide arm	14	69034300	Spring, slide arm		38004300	Power Cord BS
7		P Type Washer 5.6φ x 11.7 x 0.7	15	00489300	E Ring 4φ	20	07254700	Power Cord AS
8	13051900	Steel Ball 5φ	16		P Type Washer 5.3φ x 10 x 1.0	21	38104900	Strain Relief, power cord XX, UL, CS
9	13038400	SC Lever (2)	17(gR1)	00179900	12kΩ 1W N.I.R. XX, UL, CS	22	39104900	Strain Relief, power cord EU, BS, AS
10	13038300	SC Lever (1)	18	00182400	33kΩ 1W N.I.R. EU, BS, AS			

•Note 3:
Parts without Stock No. are not supplied.

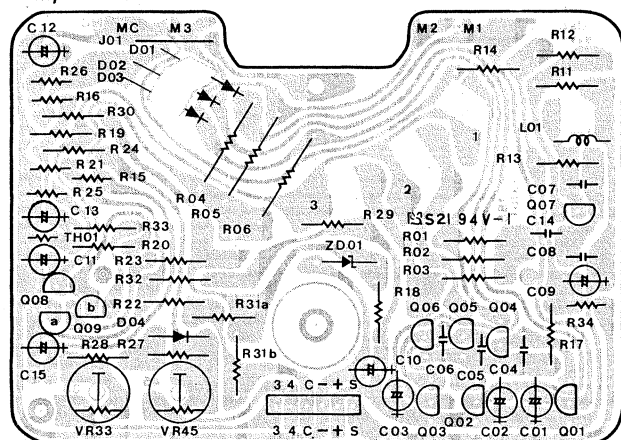


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2

3. PARTS LIST OF CIRCUIT BOARD

1 3-1. 185C Motor Control Circuit Board

Component Side



• Since some of capacitors and resistors are omitted from parts lists in this Service Manual, refer to the new Common Parts List for capacitors & resistors.

Parts List <185C>

Parts No.	Stock No.	Description
• Transistor		
Q01 ~ 03	03012201	2SA934 Q
Q04 ~ 08	03059501 ~ 3	2SC945 P, Q, K
Q09	03006800 ~ 2	2SA733 P, Q, K
• Diode		
D01 ~ 03	03110500	1S953
D04	03110500	1S953
• Zener Diode		
ZD01	03166300	RD5.1E-B
• Thermistor		
TH01	03201400	SDT-100
VR33, 45	10351100	4.7kΩ (B) Volume, speed adj.

Note: The circuit board 185C & S0075 are not supplied as the assembled, the individual parts on the circuit board, however, are provided for orders.

3-2. S0075 Pitch Control Circuit Board

Parts List <S0075>

Parts No.	Stock No.	Description
eVR1	07247200	2kΩ (B) Volume, speed adj.
eSW1	11319500, 1	Push Switch, speed selector
• Transistor		
rQ1	03083902, 3	2SD313AL E, F
• Diode		
rD1	03117000	RB-152
• Zener Diode		
rDZ1	03160200	EQA01-18R
rR1	00181300	2.2kΩ 1W N.I.R.
rC2	00283100	330μF 50V E.C.

• Abbreviations

C.R. Carbon Resistor	E.L. Low Leak Electrolytic Capacitor
S.R. Solid Resistor	E.B. Bi-Polar Electrolytic Capacitor
Ce.R. Cement Resistor	E.BL. Low Leak Bi-Polar Electrolytic Capacitor
M.R. Metal Film Resistor	Ta.C. Tantalum Capacitor
F.R. Fusing Resistor	F.C. Film Capacitor
N.I.R. Non-Inflammable Resistor	M.P. Metallized Paper Capacitor
C.C. Ceramic Capacitor	P.C. Polystyrene Capacitor
C.T. Ceramic Capacitor, Temperature Compensation	G.C. Gimmick Capacitor
E.C. Electrolytic Capacitor	

4. ADJUSTMENTS

4-1. Adjustment of the Auto Return

- 1) The adjusting screw (under the rubber lid of arm base) is one to adjust the position of Auto Return when stylus reaches lead-out groove.
- 2) Make adjustment of the screw in such way that stylus lifts up automatically around the middle way of lead-out groove. Namely turn the adjusting screw clockwise is for leading and counter-clockwise is for lagging.
- 3) After adjusting the screw properly, check its operation a few times.

4-2. Adjustment of the Clearance between PU Plate and Micro Switch

After replacing the micro switch, adjust the clearance between PU plate and micro switch to be approximately 0.3 mm at the tonearm on the arm rest by the clearance adjusting cam in Fig. 4-1.

4-3. Adjustment of Cartridge Mounting Position

Adjust the cartridge mounting position as shown in Fig. 4-2.

Fig. 4-1

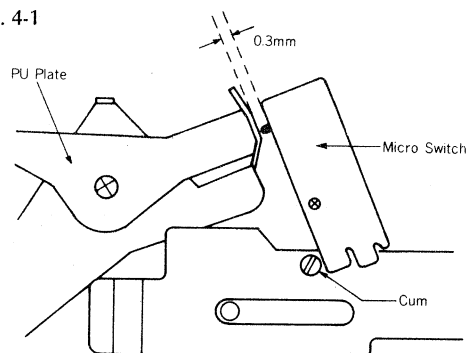
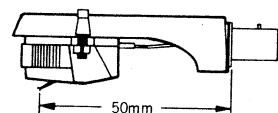


Fig. 4-2

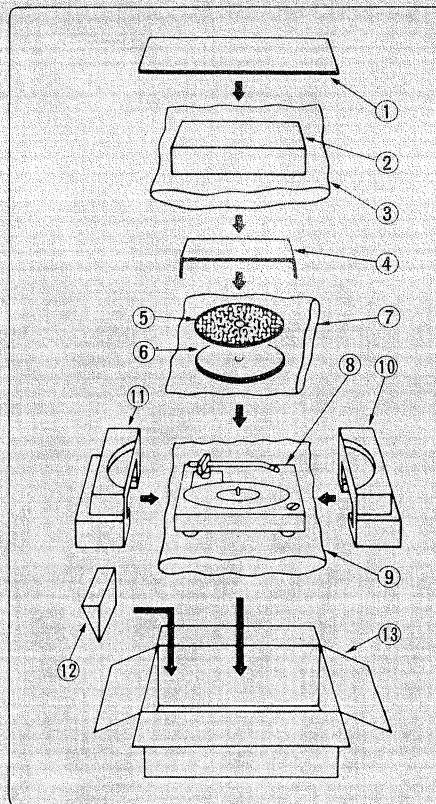


5. PACKING LIST

Parts No.	Stock No.	Description
1	13040300	Protector Board, Upper
2	70122210	Dust Cover
3	91122500	Polyethylene Bag for Dust Cover
4	13035800	Protector Board, platter
5	13036600	Rubber Mat XX, CS, EU, BS, AS
6	13036700	Rubber Mat UL
7	13036200	Platter
8	91166000	Polyethylene Bag for Platter
9	13036200	Turntable Unit
10	91122710	Polyethylene Bag for Turntable Unit
11	13935400	Styrofoam Packing, front
12	13035500	Styrofoam Packing, rear
13	13040200	Accessory Box
	13042600	Carton Case <Silver Model>
	13052000	Carton Case <Black Model>

6. ACCESSORY PARTS LIST

Stock No.	Description
43103700	Cartridge Ass'y, SC-50B XX, UL, EU, BS, AS
13010800	Cartridge Ass'y, SV-101 UL
13012300	EP Adaptor
13044600	Auto Hinge
07643200	Operating Instructions



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