

Service Manual



DC Servo
Automatic Turntable System

Turntable System
SL-J7
RADIO- EN TELEVISIESERVICE
KEES van de MORTEL
BOKSHEUVELSTRAAT 14
s-HERTOGENBOSCH
TELEFOON 073 - 2'8344

Color

(K)... Black Type



Area

Country Code	Area	Color
(E)	Continental Europe.	(K)
(EB)	Great Britain.	
(EG)	F.R. Germany & Italy.	

TAP is the standard mark for the "P-mount" plug-in connector system. Products carrying this mark are interchangeable and compatible with each other.

SPECIFICATIONS

■ TURNTABLE SECTION

Type	Automatic turntable
Drive method	Belt drive
Motor	DC motor
Drive control method	DC servo control
Turntable platter	Aluminum die-cast Diameter 300 mm (12")
Turntable speeds	33 $\frac{1}{3}$ rpm and 45 rpm
Wow and flutter	0.06% WRMS* $\pm 0.085\%$ weighted zero to peak (IEC 98A weighted)

*This rating refers to turntable assembly alone, excluding effects of record, cartridge or tonearm, but including platter. Measured by obtaining signal from built-in frequency generator of motor assembly.

Rumble	70 dB DIN-B (IEC 98A weighted)
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■ TONEARM SECTION

Type	Static-balanced, straight tonearm Plug-in-connector cartridge system
Overhang	25 mm (1")
Effective length	200 mm (7 $\frac{7}{8}$ ")
Tracking error angle	Within 3° 18' at inner groove of 30 cm (12") disc Within 0° 36' at outer groove of 30 cm (12") disc
Applicable cartridge weight	6 g

■ CARTRIDGE SECTION

Type	Moving magnet stereo cartridge
Magnet circuit	All aminated core
Frequency response	10 Hz – 30 kHz
Output voltage	2.5 mV at 1 kHz, 5 cm/s. zero to peak lateral velocity (7 mV at 1 kHz, 10 cm/s. zero to peak, 45° velocity DIN 45 500)
Channel separation	22 dB at 1 kHz
Channel balance	Within 2 dB at 1 kHz
Recommended load impedance	47 k Ω – 100 k Ω
Compliance (dynamic)	12 $\times 10^{-6}$ cm/dyne (100 Hz)
Stylus pressure range	1.25 \pm 0.25 g
Weight	6 g (cartridge only)
Replacement stylus	EPS-24CS

■ GENERAL

Power supply	AC 230 V – 240 V, 50/60 Hz
For Great Britain	AC 230 V, 50/60 Hz
For others	3 W
Power consumption	360 \times 83 \times 320 mm (14 $\frac{1}{4}$ " \times 3 $\frac{1}{4}$ " \times 12 $\frac{1}{2}$ ")
Dimensions (W \times H \times D)	When dust cover is open. 360 \times 350 \times 320 mm (14 $\frac{1}{4}$ " \times 13 $\frac{25}{32}$ " \times 12 $\frac{1}{2}$ ")
Weight	2.5 kg (5.5 lb)

Note: Specifications subject to change without notice.
Weight and dimensions shown are approximate.

Panasonic

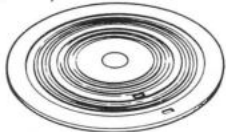
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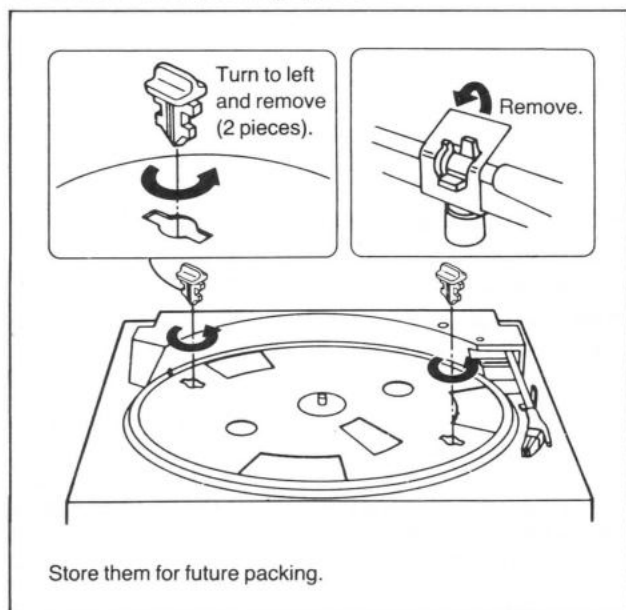
ACCESSORIES

- Platter mat 1
(RYQ0016)

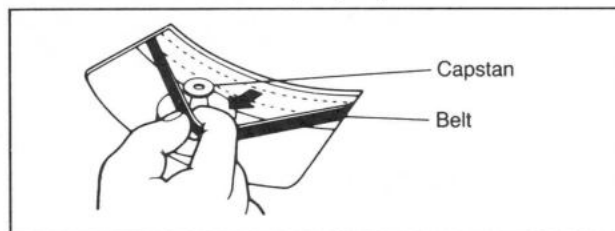


TURNTABLE ASSEMBLY

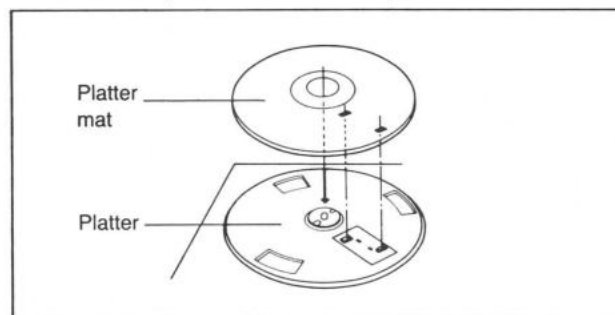
1. Remove the packing spacers.



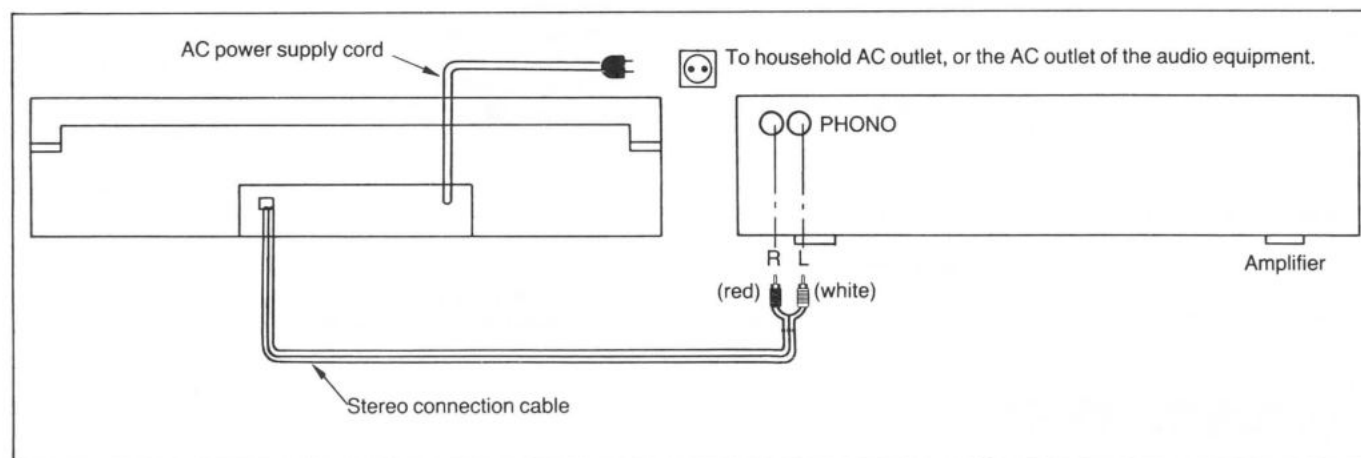
2. Attach the drive belt properly.



3. Place the platter mat on the platter.



CONNECTIONS

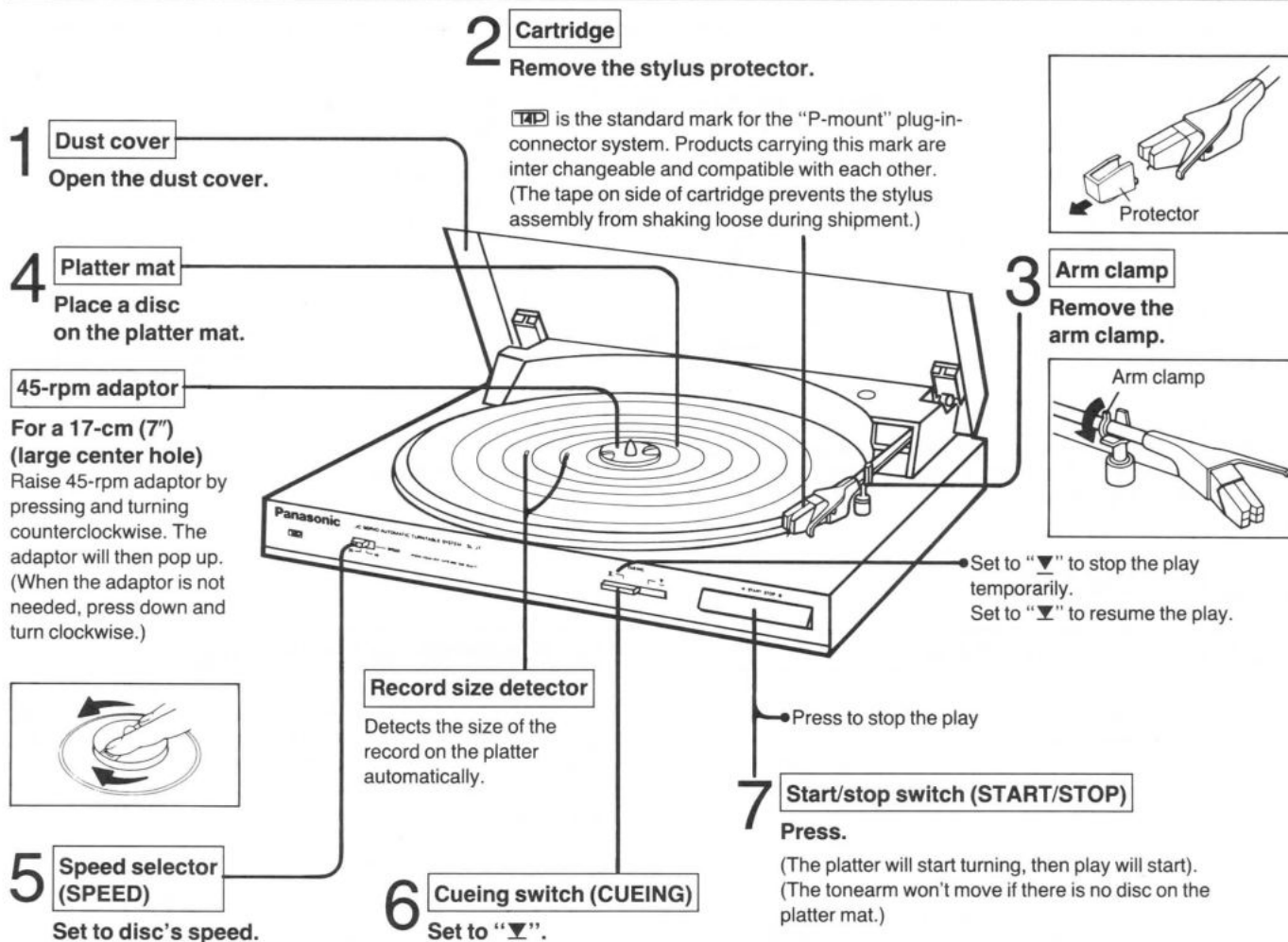


OPERATION

Note:

Turn the amplifier on, and set it for listening to the sound.
(Refer to the operating instructions of the amplifier.)

Automatic play



Manual play

The following types of discs should be played manually.

- Discs other than 17- or 30-cm discs
 - Lightweight discs such as "Soundsheets"
 - Badly warped discs
1. Follow the step 1–5 of the automatic play.
 2. Set the cueing switch to the "▼" position.
 3. Move the tonearm to the desired position.
(The platter will start turning.)
 4. Set the cueing switch to the "▲" position.

After use

1. Clamp the tonearm.
2. Attach the stylus protector.

The unit is in the standby condition when the AC power supply cord is connected.

The primary circuit is always "live" as long as the power cord is connected to an electrical outlet.

Notes

1. While the tonearm is moving, don't touch the tonearm.
2. The platter may start turning or keep turning in some cases like those listed below. Press the start/stop switch is to make the platter stop.
 - When the power cord is connected.
 - If the start/stop switch is pressed when there is no disc on the platter mat.

When play ends

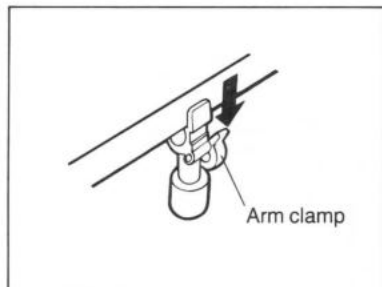
1. The tonearm will automatically return to the arm rest (the automatic return feature).
2. Rotation will stop.

ADJUSTMENT

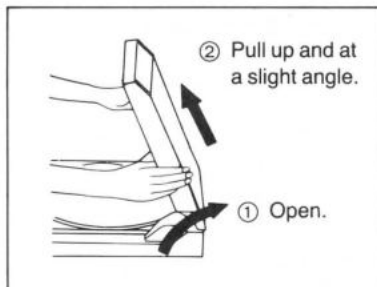
Adjustment of the automatic-start position

This adjustment is preset at the factory. If play starts from the middle of a tune, or the stylus descends outside the disc circumference, make the necessary adjustment.

1. Clamp the tonearm.

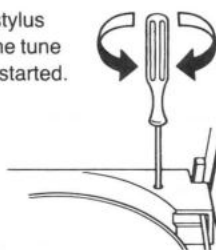


2. Remove the dust cover.



3. Adjust to the desired automatic-start position.

If when the stylus descends, the tune has already started.



If tune doesn't start soon.

4. Check to be sure the automatic-start position is correct.

Perform steps 3–7 on the opposite page (Automatic play) to check the position.

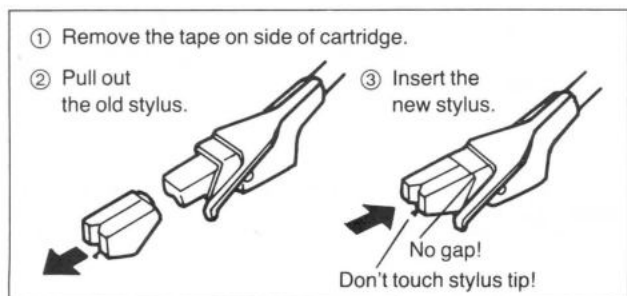
5. Attach the dust cover.

REPLACEMENT


Replacement of the stylus

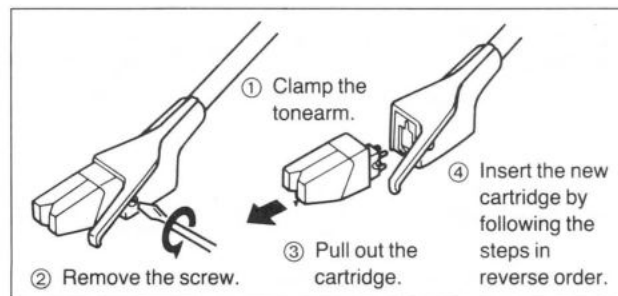
If noise is heard from new discs, the stylus is probably worn. Replace it with a new one.

- Stylus life approx. 1000 hours
- New stylus EPS-24CS



Replacement of the cartridge

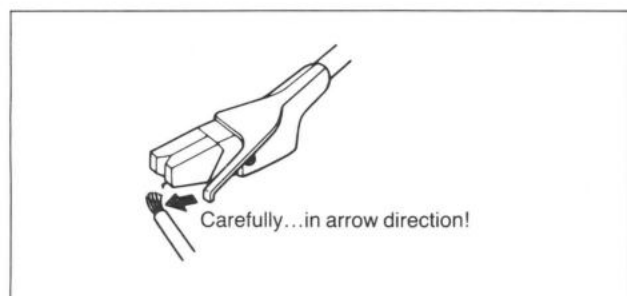
The plug-in type of cartridge  is already designed to match this unit in every respect: weight, correct stylus pressure, stylus tip position, center of gravity, etc. This means that there's no longer any need for troublesome connection of lead wires or adjustment of the stylus pressure.



MAINTENANCE

To clean dust from the stylus

Use a soft brush or similar material to gently remove the dust. Thoroughly clean your discs occasionally with a high-quality disc cleaner.



Maintenance of external surfaces

To clean this unit, use a soft, dry cloth.

If the surfaces are extremely dirty, use a soft cloth, dipped into a soap-and-water solution or a weak detergent solution.

Wring the cloth well before wiping the unit.

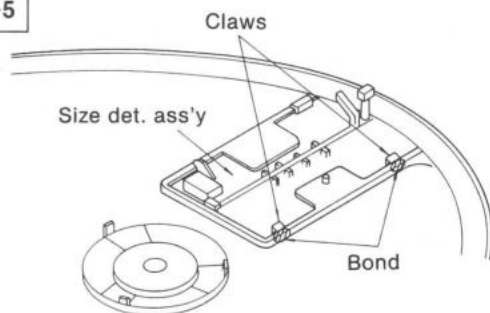
Wipe once again with a soft, dry cloth.

Never use alcohol, paint thinner, benzene, nor a chemically treated cloth to clean this unit.

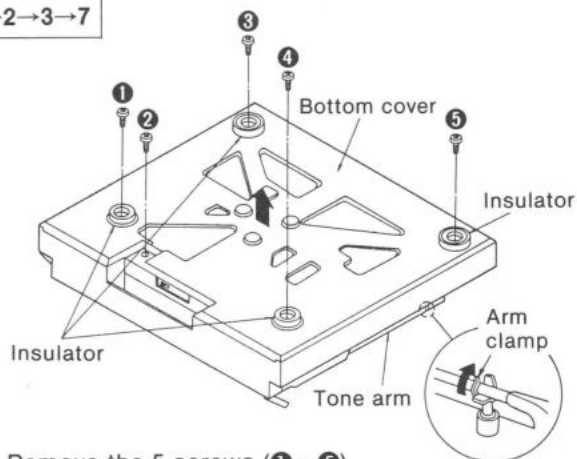
Such chemicals may damage the finish of your unit.

DISASSEMBLY INSTRUCTIONS

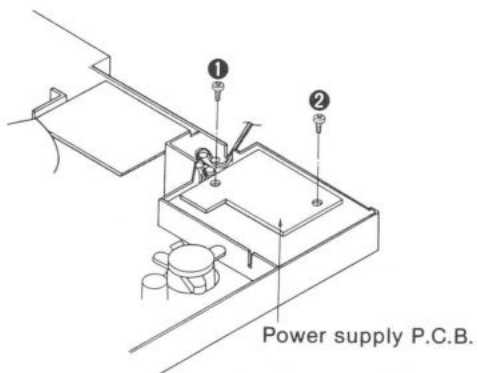
Ref. No. 1	Removal of the cartridge	<div data-bbox="987 268 1421 493"> <p>Cartridge</p> <p>Stylus</p> </div> <div data-bbox="162 573 498 630"> <p>1. Pull out the stylus cover. 2. Remove the 1 screw (❶).</p> </div> <div data-bbox="862 562 1495 619"> <p>3. Hold the cartridge and pull out the stylus in the direction of the arrow.</p> </div>	
Ref. No. 2	Removal of the dust cover	Ref. No. 3	Removal of the turntable
Procedure 1→2	<div data-bbox="215 772 776 1186"> <p>Dust cover</p> <p>Hinge</p> <p>Hinge</p> </div> <div data-bbox="162 1228 711 1255"> <p>• Hold the hinges and remove the dust cover.</p> </div>	Procedure 1→2→3	<div data-bbox="963 856 1450 1155"> <p>Turntable sheet</p> </div> <div data-bbox="862 1228 1239 1255"> <p>1. Remove the turntable sheet.</p> </div>
Ref. No. 4	Removal of the 45-rpm adaptor	<div data-bbox="1003 1308 1295 1434"> <p>T.T. belt</p> </div> <div data-bbox="162 1459 824 1816"> <p>45-rpm adaptor</p> <p>Turntable</p> <p>Claws</p> <p>45-rpm adaptor</p> <p>Spring</p> </div> <div data-bbox="162 1858 797 1948"> <p>1. Turn the 45-rpm adaptor counterclockwise. 2. Remove the 3 claws on the back of 45-rpm adaptor. 3. Remove the 45-rpm adaptor and spring.</p> </div> <div data-bbox="862 1833 1495 1917"> <p>2. Remove the T.T. belt. 3. Remove the turntable in the direction of the arrow.</p> </div>	

Ref. No. 5 Removal of the size det. ass'y
Procedure
 1→2→3→5


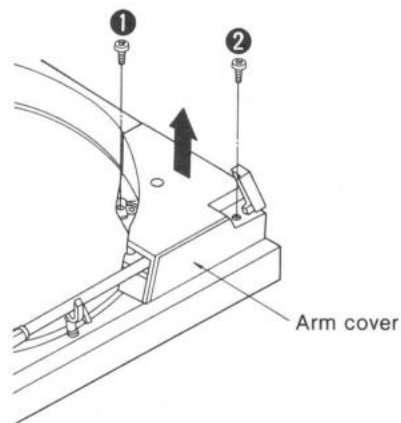
1. Shave the bond.
2. Remove the 2 claws.

Ref. No. 7 Removal of the bottom cover
Procedure
 1→2→3→7


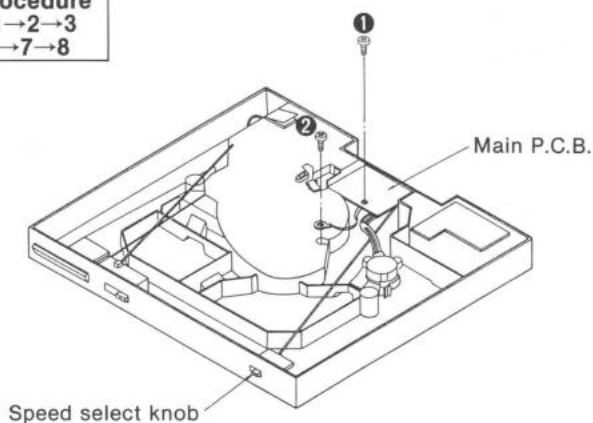
1. Remove the 5 screws (①~⑤).
2. Remove the 4 insulators.
3. Remove the bottom cover in the direction of the arrow.

Ref. No. 9 Removal of the power transformer P.C.B.
Procedure
 1→2→3
 →7→9


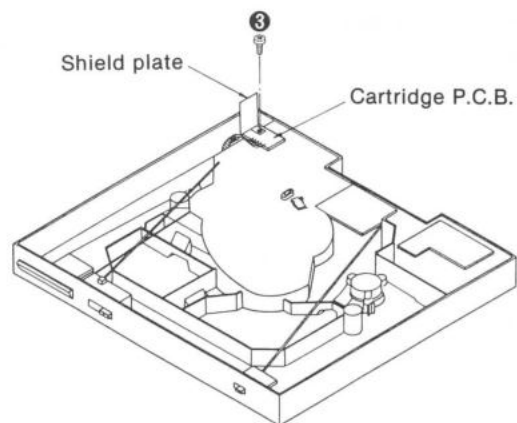
- Remove the 2 screws (①, ②).

Ref. No. 6 Removal of the arm cover
Procedure
 1→2→3→6


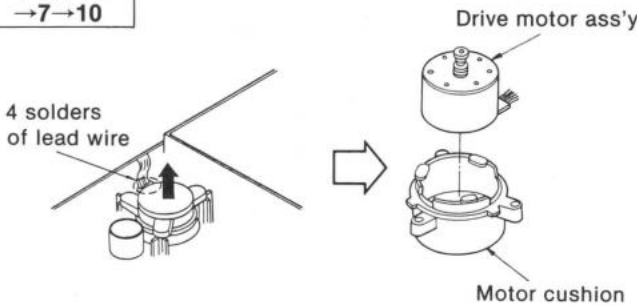
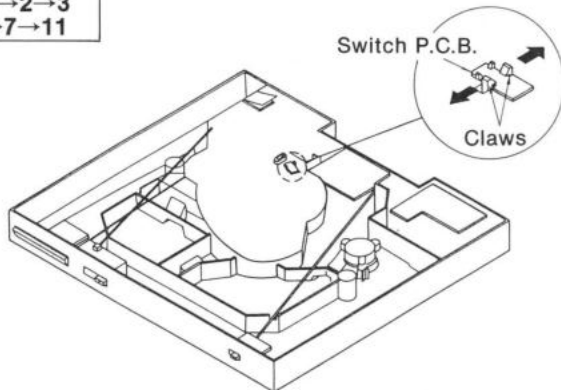
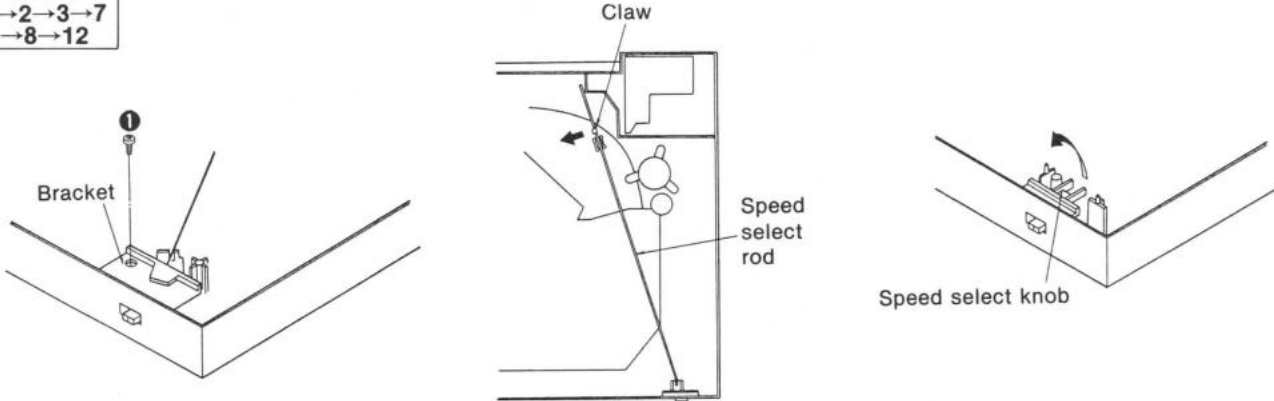
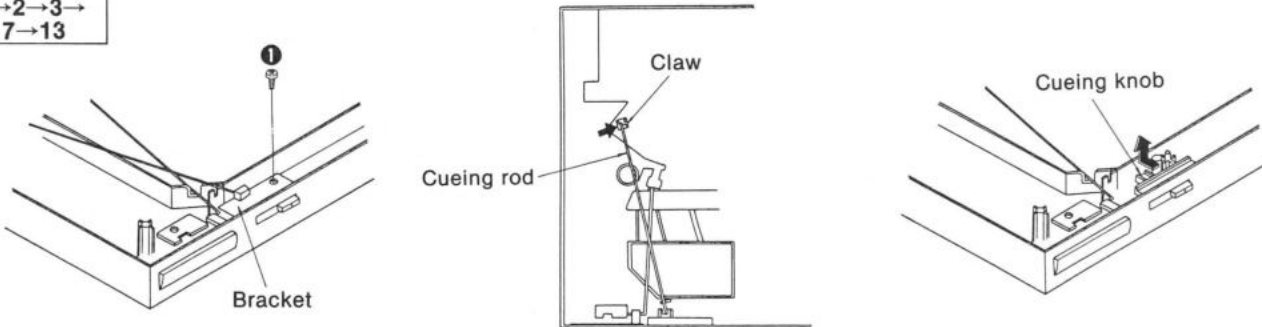
- Remove the 2 screws (①, ②).

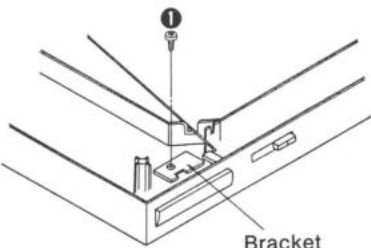
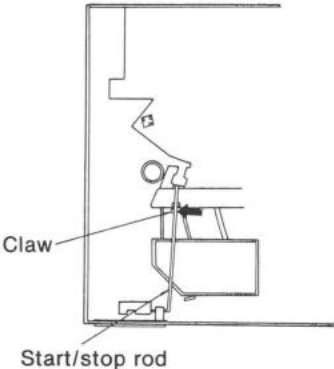
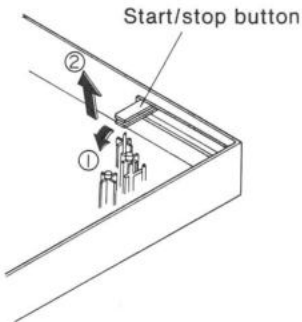
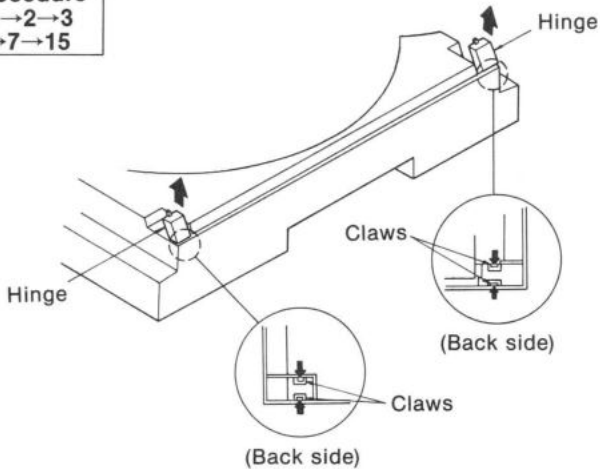
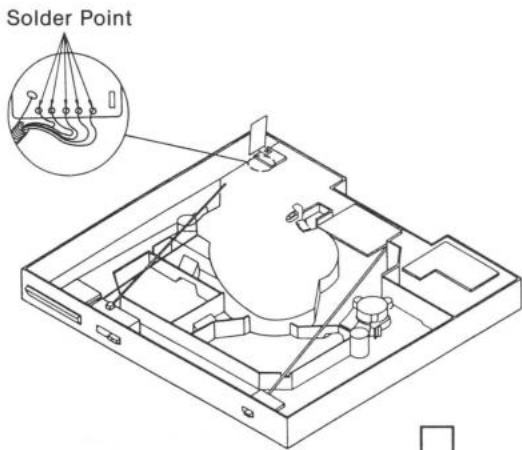
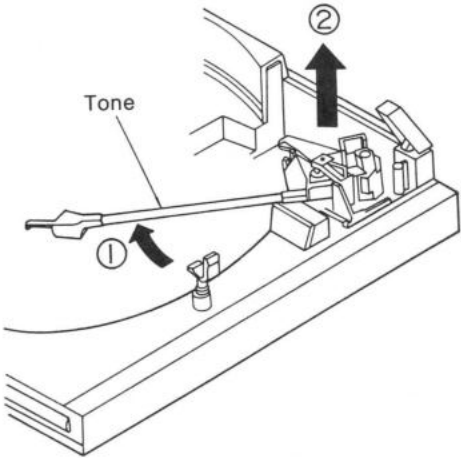
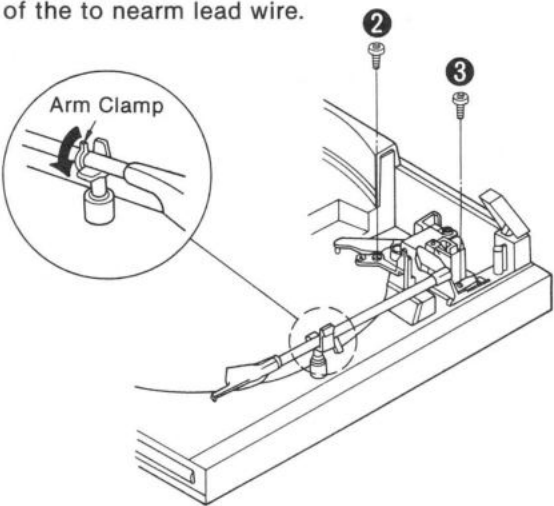
Ref. No. 8 Removal of the main P.C.B. and cartridge P.C.B.
Procedure
 1→2→3
 →7→8

■ Removal of the main P.C.B.

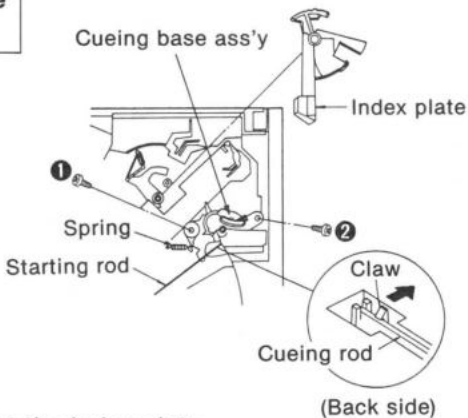
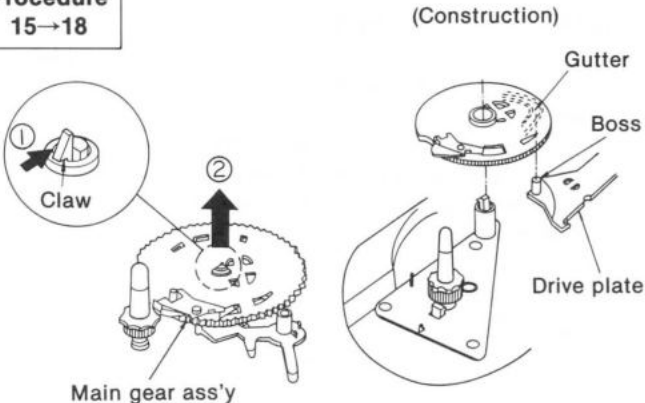
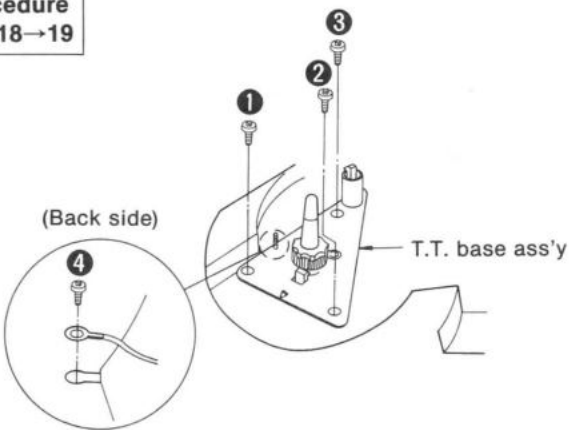
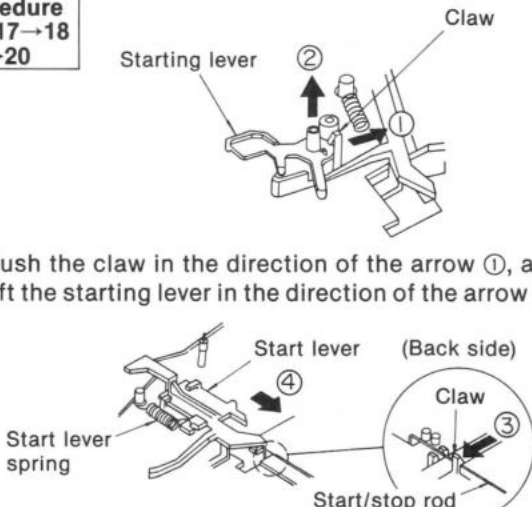
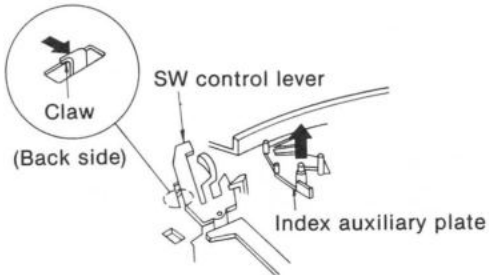
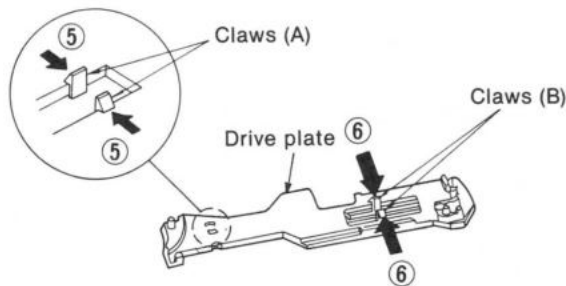
1. Remove the 2 screws (①, ②).
2. Set the speed selector to "33-rpm" position.


■ Removal of the cartridge

1. Remove the 1 screw (③).
2. Remove the shield plate.

Ref. No. 10	Removal of the drive motor ass'y	Ref. No. 11	Removal of the switch P.C.B.
Procedure 1→2→3 →7→10	 <p>4 solders of lead wire</p> <p>Drive motor ass'y</p> <p>Motor cushion</p> <ol style="list-style-type: none">1. Remove the 4 solders of lead wire.2. Remove the drive motor ass'y in the direction of the arrow.3. Remove the motor cushion.	Procedure 1→2→3 →7→11	 <p>Switch P.C.B.</p> <p>Claws</p> <ol style="list-style-type: none">1. Stretch the claws of both sides and remove the switch P.C.B.
Ref. No. 12	Removal of the speed select knob and speed select rod		
Procedure 1→2→3→7 →8→12	 <p>Bracket</p> <p>Claw</p> <p>Speed select rod</p> <p>Speed select knob</p> <ol style="list-style-type: none">1. Remove the 1 screw (❶).2. Remove the bracket.3. Remove the claw, and then remove the speed select rod.4. Remove the speed select knob in the direction of the arrow.		
Ref. No. 13	Removal of the cueing knob and cueing rod		
Procedure 1→2→3→ 7→13	 <p>Bracket</p> <p>Claw</p> <p>Cueing rod</p> <p>Cueing knob</p> <ol style="list-style-type: none">1. Remove the 1 screw (❶).2. Remove the bracket.3. Remove the claw, and then remove the cueing rod.4. Remove the cueing knob in the direction of the arrow.		

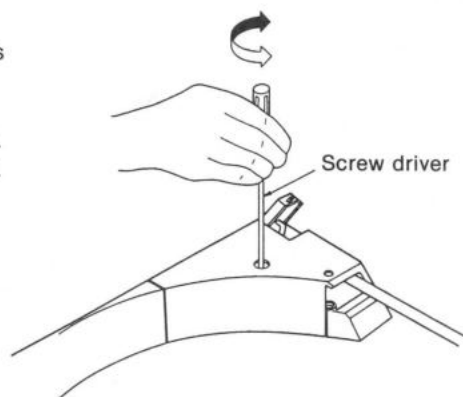
Ref. No. 14 Procedure 1→2→3→7 →13→14	Removal of the start/stop button and start/stop rod	
 <p>Bracket</p>	 <p>Claw</p> <p>Start/stop rod</p>	 <p>Start/stop button</p> <ol style="list-style-type: none"> 1. Remove the 1 screw (①). 2. Remove the bracket. 3. Remove the claw, and then remove the start/stop rod. 4. Remove the start/stop button in the direction of the arrow ① and ②.
Ref. No. 15 Procedure 1→2→3 →7→15	Removal of the hinge	Ref. No. 16 Procedure 1→2→3 →7→16
 <p>Hinge</p> <p>Claws</p> <p>(Back side)</p> <p>Claws</p> <p>(Back side)</p> <p>• Remove the 4 claws, and then pull out the 2 hinges.</p>		 <p>Solder Point</p> <ol style="list-style-type: none"> 1. Unsolder the terminals of the tonearm lead wire.
 <p>Tone</p> <ol style="list-style-type: none"> 4. Move the tonearm in the direction of the arrow ①. 5. Remove the tonearm ass'y in the direction of the arrow ②. 		 <p>Arm Clamp</p> <ol style="list-style-type: none"> 2. Remove the 2 screws (②, ③). 3. Remove the arm clamp.

Ref. No. 17	Removal of the cueing base ass'y	Ref. No. 18	Removal of the main gear ass'y
Procedure 15→17	 <p>(Back side)</p> <ol style="list-style-type: none"> 1. Pull out the index plate. 2. Remove the spring and starting rod. 3. Push the claw in the direction of the arrow, and then remove the cueing rod. 4. Remove the 2 screws (①, ②). 5. Lift the cueing base ass'y, and then remove it. 	Procedure 15→18	 <p>(Construction)</p> <ol style="list-style-type: none"> 1. Push the claw in the direction of the arrow ①, and lift the main gear ass'y in the direction of the arrow ②. <p>• When assembling the main gear ass'y, engage the boss of drive plate in the gutter of main gear ass'y.</p>
Ref. No. 19	Removal of the T.T. base ass'y	Ref. No. 20	Removal of the starting lever, start lever and drive plate
Procedure 15→18→19	 <p>(Back side)</p> <p>• Remove the 4 screws (①~④).</p>	Procedure 15→17→18 →20	 <ol style="list-style-type: none"> 1. Push the claw in the direction of the arrow ①, and lift the starting lever in the direction of the arrow ②.
Ref. No. 21	Removal of the index auxiliary plate and SW control lever	<ol style="list-style-type: none"> 2. Remove the start lever spring. 3. Push the claw in the direction of the arrow ③, and remove the start/stop rod. 4. Remove the start lever in the direction of the arrow ④. 	
Procedure 15→16→18 →20→21	 <p>(Back side)</p> <ol style="list-style-type: none"> 1. Remove the index auxiliary plate in the direction of the arrow. 2. Push the claw in the direction of the arrow, and remove the SW control lever. 		
 <p>Claws (A)</p> <p>Drive plate</p> <p>Claws (B)</p> <ol style="list-style-type: none"> 5. Remove the claws (A) in the direction of the arrow ⑤ from back side. 6. Push the claws (B) in the direction of the arrow ⑥, and remove the drive plate. 			

MEASUREMENTS AND ADJUSTMENTS

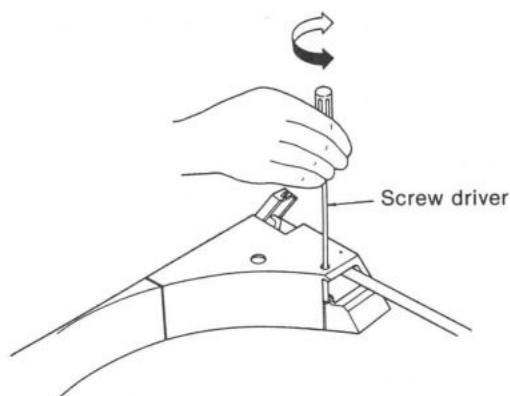
AUTO-START POSITION

1. Clamp tonearm at the rest position. Lightly tap tonearm to make sure it is securely clamped in place.
 2. Remove the dust cover.
 3. If tonearm sets down outside of record's lead-in groove, turn clockwise (IN).
If it sets down to the far inside lead-in groove, turn counterclockwise (OUT).
- Note: Do not push down very strongly on screwdriver.
4. Replace dust cover.



TONEARM LIFT HEIGHT

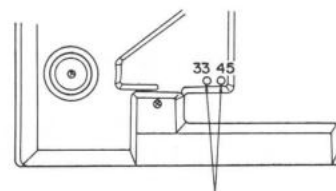
1. Remove the dust cover.
2. Secure the tonearm with arm clasper.
3. Set the cueing control switch to "▼".
4. Put a record on the turntable mat.
5. Shift the arm clasper to set the tonearm free, and adjust the gap between stylus tip and record surface to 4mm~7mm.
6. Replace dust cover.



ROTATING SPEED

1. Set the speed selector switch to "33".
2. Raise the unit and insert a screwdriver into the adjusting hole (33-rpm) from the back to turn VR101.
3. Set the speed selector switch to "45".
4. Same as in step 2, insert a screwdriver into the adjusting hole (45-rpm) and turn VR102.

Note: The speed adjustment should be done in 33-rpm first.



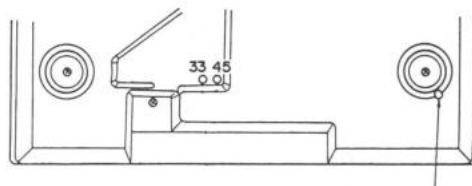
Rotating speed adjustment

AUTO-RETURN POSITION

1. Clamp the tonearm at the rest position.
2. Raise the unit and insert a screwdriver into the adjusting hole from the back to turn the adjustment screw.

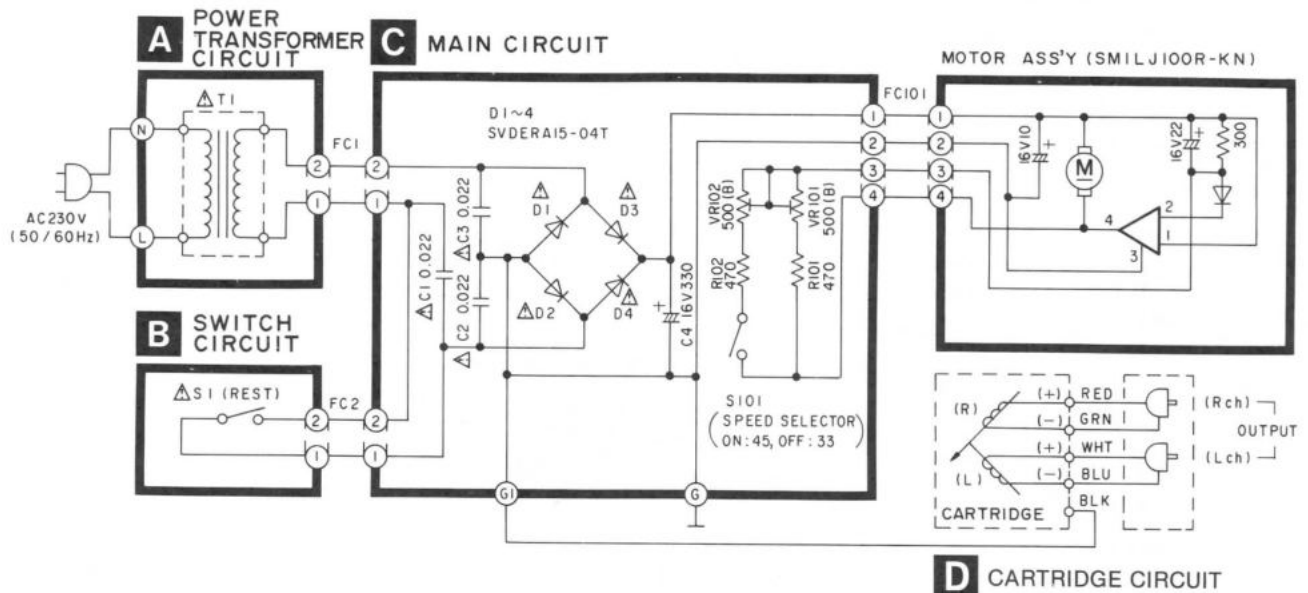
If the tonearm returns before the tune ends.....Turn clockwise.

If there is no auto-return.....Turn counterclockwise.



Auto-return position adjustment

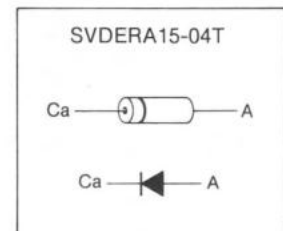
SCHEMATIC DIAGRAM



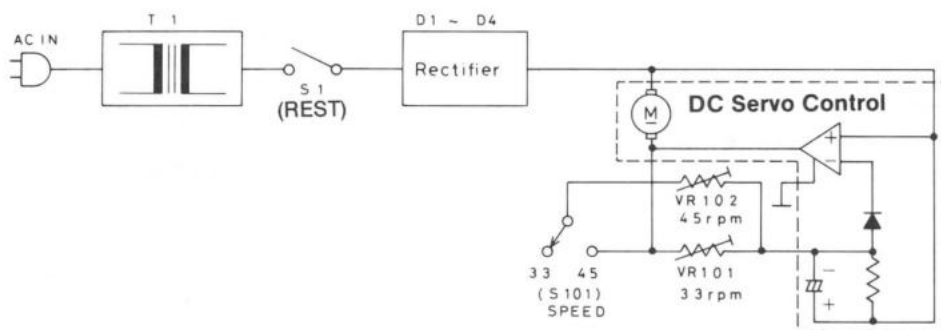
Notes:

- **S1:** REST switch in "on" position.
- **S101:** Speed selector switch in "33" position.
- The values are of the reference voltage for the turntable rotation of this unit, measured by a DC voltmeter (high impedance) on the basis of chassis. So, some error might be included depending on the internal impedance of the measuring instrument and the unit measured.
- Important safety notice:
Components identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
- VR101 is the 33-1/3 rpm speed adjustment variable resistor.
- VR102 is the 45 rpm speed adjustment variable resistor.
- This schematic diagram may be modified at any time with the development of new technology.

Terminal guide of diode

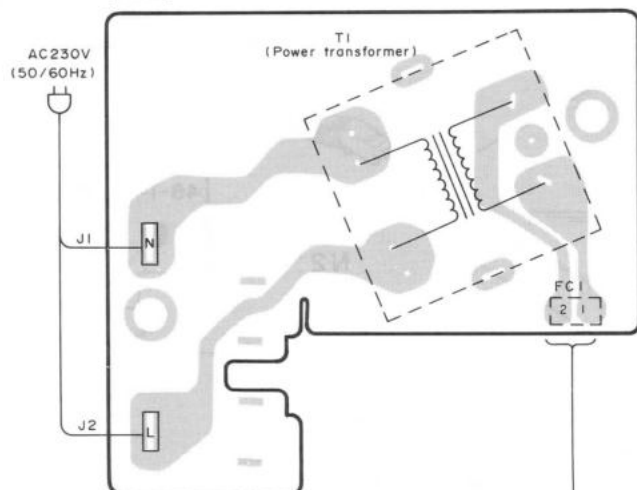


Block diagram



PRINTED CIRCUIT BOARDS AND WIRING CONNECTION DIAGRAM

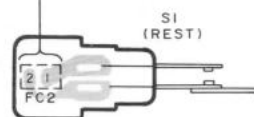
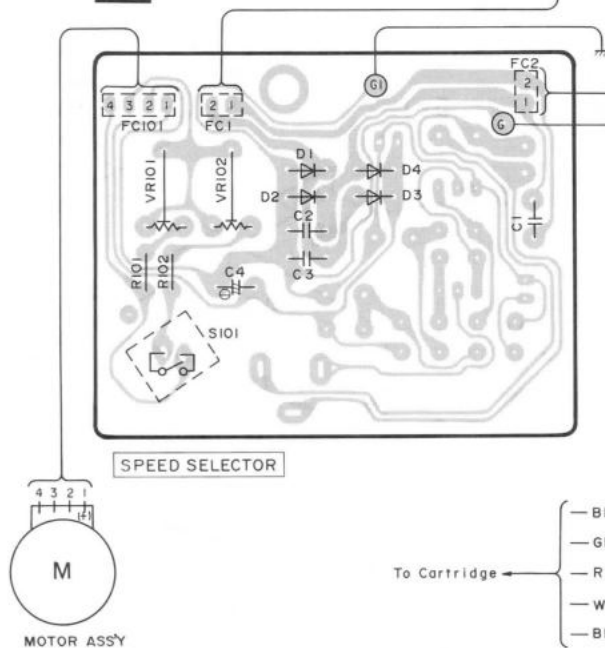
A POWER TRANSFORMER P.C.B.



NOTES:

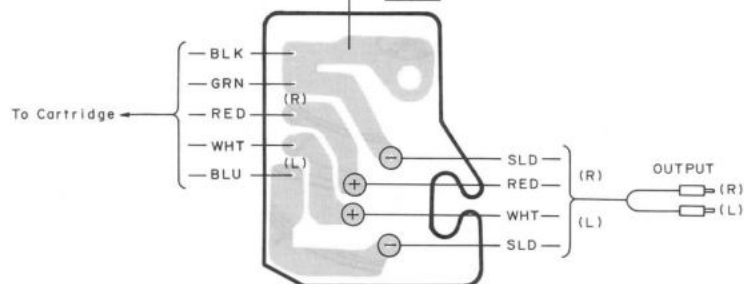
BLKBlack
 BLUBlue
 BRNBrown
 GRYGray
 GRNGreen
 L BLU ...Light Blue
 ORGOrange
 PNKPink
 REDRed
 SLD.....Shield
 Wire
 VLTViolet
 WHTWhite
 YEL.....Yellow

C MAIN P.C.B.

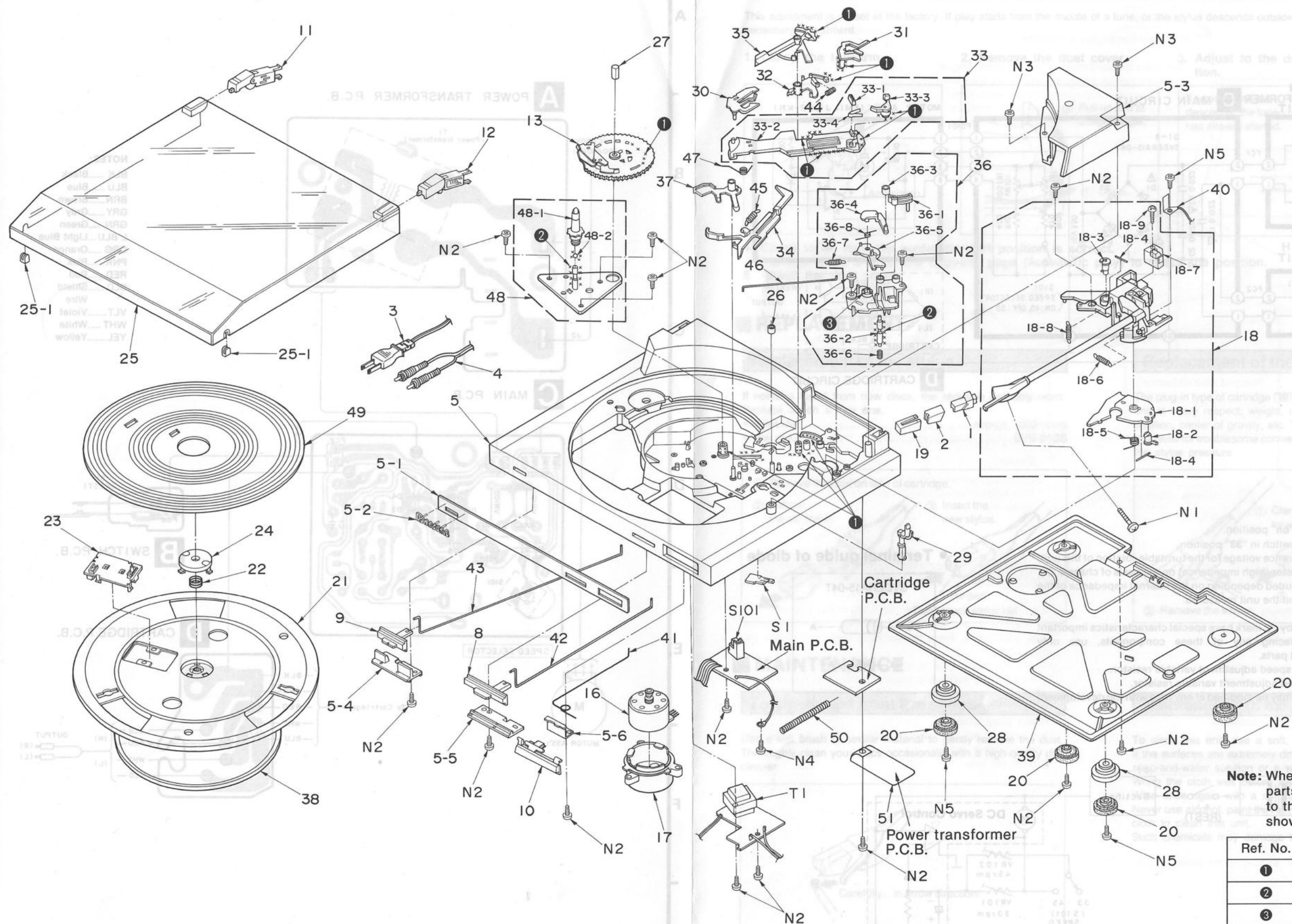


B SWITCH P.C.B.

D CARTRIDGE P.C.B.



EXPLODED VIEW



Note: When changing mechanism parts, apply the specified grease to the areas marked "x x" as shown in the drawing.

Ref. No.	Part No.
①	RZZ0L05
②	RZZ0L07
③	RZZ0L11

REPLACEMENT PARTS LIST

Notes : * Important safety notice:

Components identified by \triangle mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.

* The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.) Parts without these indications can be used for all areas.

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS		30	SHRB71-1	SW CONTROL LEVER	
				31	SHRB72-1	SHIFT AUXILIARY PLATE	
				32	SHRB73-1	INDEX AUXILIARY PLATE	
1	EPC-P24SAK	CARTRIDGE		33	SHRB74E	DRIVE PLATE ASS'Y	
2	EPS-24CS	STYLUS		33-1	SHGB42	RETURN RUBBER	
3	SFDAB31E01	POWER CORD	\triangle (E, EG)	33-2	SHRB74	DRIVE PLATE	
3	SJA192	POWER CORD	\triangle (EB)	33-3	SHRB83-1	DRIVE LEVER	
4	SJPB6	OUTPUT CORD		33-4	SUSB31	SPRING	
5	RFKKLJ7E-K	CABINET ASS'Y	(E)	34	SHRB75	START LEVER	
5	RFKKLJ7EB-K	CABINET ASS'Y	(EB)	35	SHRB76-1	INDEX PLATE	
5	RFKKLJ7EG-K	CABINET ASS'Y	(EG)	36	SHRB82E-3	CUEING BASE ASS'Y	
5-1	RGKD307A	ORNAMENT, FRONT		36-1	SFUMN05N60-2	LIFT ARM	
5-2	RGB0030-S	BADGE		36-2	SFXJN05N51	LIFT BAR	
5-3	SKMB691-OK	ARM COVER		36-3	SHGB19	BRAKE RUBBER	
5-4	SKMB701	BRACKET (A), SPEED		36-4	SHRB78	BRAKE LEVER	
5-5	SKMB711	BRACKET (B), CUEING		36-5	SHRB81-5	CUEING CAM	
5-6	SKMB721	BRACKET (C), S/S		36-6	SUSB1	SPRING, LIFT	
8	SBCB270-OK	KNOB, CUEING		36-7	SUSB47-1	SPRING, CUEING	
9	SBCB280-OK	KNOB, SPEED SELECTOR		36-8	SUSB48-1	SPRING, BRAKE	
10	SBCB480-1K	KNOB, START/STOP		37	SHRB96	START LEVER	
11	SBHB4E	HINGE (L)		38	SJY90080-3	T. T. BELT	
12	SBHB5E	HINGE (R)		39	SKUB12-1	BOTTOM COVER	
13	SDGB10E-1			40	SMCB6	SHIELD PLATE	
16	SMILJ100R-KN	DRIVE MOTOR ASS'Y		41	STZB14-2	START ROD	
17	SHGB39	MOTOR CUSHION		42	STZB15-1	CUEING ROD	
18	SFAB23A	TONEARM ASS'Y		43	STZB16-1	SPEED SELECT ROD	
18-1	SHRB80-1	PLATE, PU ACTIVE		44	SUSB28	SPRING, AUXILIARY	
18-2	SHRB79	CAM, RETURN ADJUSTMENT		45	SUSB45-1	SPRING, START LEVER	
18-3	SFEB12	CAM, DROP ADJUSTMENT		46	SUSB46-1	START ROD	
18-4	SUSB44	SPRING, CAM RETENTION		47	SUSB49	SPRING, GEAR CASSETTE	
18-5	SUSB54	SPRING, ACTIVE PLATE		48	SJWB26E-1	T. T. BASE ASS'Y	
18-6	SFQHF01N06	SPRING, CANCELER		48-1	SDWB1A	CENTER SPINDLE	
18-7	SFWB8	WEIGHT		48-2	SFYB5-32	STEEL BALL	
18-8	SUSB61-1	SPRING, STYLUS PRESSURE		49	RYQ0016	TURNTABLE MAT	
18-9	XTV3+18J	SCREW		50	SUSB56	SPRING, SHIELD	
19	SFCNC05101	STYLUS COVER		51	SMCB5	SHIELD PLATE	
20	SFGAN05N01	INSULATOR				SCREWS	
21	SDOB3-1	TURNTABLE					
22	SFQAN05N01	SPRING					
23	SFUMN05N04E2	SIZE DET. ASS'Y		N1	SFPEV0Q601	SCREW	
24	SFWEN05N01	EP ADAPTOR		N2	XTB3+10G	SCREW	
25	SGDB90E	DUST COVER		N3	XTB3+10GFZ	SCREW	
25-1	SHGB5	CUSHION RUBBER		N4	XTB3+10J	SCREW	
26	SHGB23	INDEX RUBBER		N5	XTB3+14G	SCREW	
27	SHGB34	RUBBER, MAIN GEAR STOPPER					
28	SHRB115-A	INSULATOR ORNAMENT				PACKING MATERIAL	
29	SHRB69E-1	TONE ARM REST					

Ref. No.	Part No.	Part Name & Description	Remarks
		DIODE(S)	
D1-4	SVDERA15-04T	DIODE	△
		VARIABLE RESISTOR(S)	
VR101, 102	EVN61AA00B52	VR, ROTATING SPEED ADJ.	
		TRANSFORMER(S)	
T1	SLTB35F34K	POWER TRANSFORMER	△ (E, EG)
T1	SLTB35F33K	POWER TRANSFORMER	△ (EB)
		SWITCH(ES)	
S1	SSPB4-1	SW, REST	△
S101	SSP83	SW, SPEED	

Ref. No.	Part No.	Part Name & Description	Remarks
P1	RPG0834	PACKING CASE	
P2	SPSB30-2	PAD (FRONT)	
P3	SPSB31-1	PAD (BACK)	
P4	SFHKNO5N01	CLAMPER, TURNTABLE	
P5	SFHSNO5N01E	SPACER, DUST COVER	
P6	SPEB5	CLAMPER, TONE ARM	
P7	SPHB5	PROTECTION SHEET	
P8	SPSB58	PROTECTION SHEET, DUST COVER	
P9	SPSB61	SPACER, DUST COVER	
P10	XZB52X60A01Z	PROTECTION BAG (UNIT)	
		ACCESSORIES	
A1	RFKSLJ7E-K	INSTRUCTION MANUAL ASS'Y	(E)
A1	RQT1044-B	INSTRUCTION MANUAL	(EB)
A1	RQT1045-D	INSTRUCTION MANUAL	(EG)
A2	RQA0013	WARRANTY CARD	
A3	RQCB0169	SERVICENTER LIST	

RESISTORS & CAPACITORS

Notes : * Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)
 * Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM) , 1M=1,000k (OHM)

Ref. No.	Part No.	Values & Remarks			
					CAPACITORS
		RESISTORS			
			C1	ECQG1223KZ	100V 0.022U △
R101, 102	ERDS2TJ471	1/4W 470	C2, 3	ECKT1H223ZF	50V 0.022U △
			C4	ECEA1CU331	16V 330U

PACKING

