

SERVICE
MANUAL

TT493

4822 725 50891

marantz®

model TT493

Auto Return Turntable

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, MARANTZ company has created the ultimate in stereo sound.

Only **original MARANTZ parts** can insure that your MARANTZ product will continue to perform to the specifications for which it is famous.

Parts for your MARANTZ equipment are generally available to our National Marantz Subsidiary or Agent.

ORDERING PARTS:

Parts can be ordered either by mail or by telex. In both cases, correct part number has to be specified. The following information must be supplied to eliminate delays in processing your order:

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature: any order form or telex must be signed otherwise such part order will be considered as null and void.

PARTS ORDERING

Parts may be ordered at the following addresses:

AUSTRIA HORNYPHON Vertriebsgesellschaft GmbH Wienerbergstrasse 1 A 1101 Wien Austria Telex: 132.332	FINLAND MARANTZ DIVISION OF OY PHILIPS Ab Kaivokatu 8 00100 Helsinki Finland Telex: 124811	GREAT BRITAIN MARANTZ AUDIO U.K. Ltd Unit 15/16 Saxon Way Industrial Estate Moor Lane Harmondsworth UB7 0LW Great Britain Telex: 935196	SAUDI ARABIA AL ALAMIAH ELECTRONICS P.O.Box 5954 University Street Riyadh 11432 Saudi Arabia Telex: 401530	SWITZERLAND DYNAVONX ELECTRONICS Route de Villars 105 1701 Fribourg Switzerland Telex: 942377
BELGIUM SVD DIVISION MARANTZ Industrialaan 1 1720 Groot-Bijgaarden Belgium Telex: 24466	FRANCE MARANTZ FRANCE 4 Rue Bernard Palissy 92600 Asnières France Telex: 611651	GREECE SHERTON ELECTRONICS S.A. P.O.Box 21025 Hippocrates Street 188 Athens 11471 Greece Telex: 216.795	SOUTH AFRICA MARANTZ DIVISION OF PHILIPS S.A. Main Road Martindale P.O. Box. 58088 Newville 21114 South Africa	TURKEY DOGRUOL Ltd. I.M.C. 6 Blok N°6310 Unkapani Istanbul Turkey Telex: 22085
CHILE MARANTZ DIVISION OF PHILIPS S.A. AV. Santa Maria, 0760 Casilla 2687 Santiago Telex: 240.239	GERMANY MARANTZ GERMANY GmbH Max-Planck-Strasse 22 6072 Dreieich 1 Germany Telex: 529821	JAPAN MARANTZ JAPAN, Inc. 35-1, 7-chome, Sagamiono Sagamihara-shi, Kanagawa Japan	SPAIN PHONO S.A. Ignacio Iglesias 10 Badalona (Barcelona) Spain Telex: 59355	MALTA CACHIA & GALEA Republic Street, 68D Valletta Telex: 1682
DENMARK MARANTZ DIVISION OF PHILIPS SERVICE A/S Prags Boulevard 80 Postbox 1919 DK-2300 København S Denmark Telex: 31201	THE NETHERLANDS Elpro Marantz Wint Hontlaan 28 3526 KV Utrecht The Netherlands Telex: 4748	KUWAIT AL ALAMIAH ELECTRONICS Ussama Building Fahd al Saleem Street P.O.Box 23781 Safat-Kuwait Telex: 22694	SWEDEN MARANTZ DIVISION OF PHILIPS Försäljning AB Tegeluddsvägen 1 S-115 84 Stockholm Sweden Telex: 14060	PORTUGAL MARANTZ Divisao philips S.A. service Oturela-carnaxide 2795 Linda-A-VELHA Telex: 43906
	NORWAY MARANTZ DIVISION OF PHILIPS A/S Sandstuveien 40 0680 Oslo 6 Norway Telex: 72640	ITALY MARANTZ ITALIANA S.P.A. Via Chiese, 74 20126 Milano Italy		

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The Netherlands
Phone: +31/40.758290
Telefax: +31/40.75.82.99
Telex: 35000 PHTC NL routing IND NLMTFAT

All of the above locations are fully equipped to take care of your total service needs. Because various countries have differing configuration requirements, it is necessary that you contact the service facility in your particular country. In the event that there is no service location listed for your country, please, contact the nearest facility for the necessary assistance.

In case of difficulties, do not hesitate to contact the Technical Department at abovementioned address.

SPECIFICATIONS (Limit)

TURNTABLE			
Motor	DC Servo motor	Output voltage	1.7~3.4mV at 1kHz 3.54 cm/sec.
Speed	33-1/3 and 45 r.p.m.	Channel balance	Within 3 dB at 1kHz
Wow & Flutter	±0.15 % (WRMS)	Channel separation	More than 16 dB at 1kHz
Rumble	57 dB DIN-B	Load resistance	47 KΩ
Turntable platter	296 mm aluminum alloy die-cast		
TONEARM		OPERATION	Automatic return.
Effective length	195 mm		automatic shut off, stop
Usable cartridge	CT493	Cueing	Oil-damped
CARTRIDGE		GENERAL	
Type	0.6 mil stylus	Power consumption	1.5 watts
	Moving Magnet type	Dimensions	360(w) × 102(h) × 350(d) mm
Frequency response	20-20,000 Hz	Weight	2.6 kg(net)

NOTE: Nominal Specs represent the design specs; all units should be able to approximate these-some will exceed and some may drop slightly below these specs. Limit Specs represent the absolute worst condition which still might be considered acceptable; in no case should a unit perform to less than within any Limit Spec.

Lubrication of the mechanism is not required. However, whenever a unit is brought in for adjustment or repair, always use good common sense ... clean any dust or dirt from mechanical parts and if moving parts do seem to bind, check for dirt. If necessary, add a very fine film of light-weight specially formulated lubricant.

Specifications and appearance are subject to change for modification without notice.

MODEL TT493 AUTO RETURN TURNTABLE

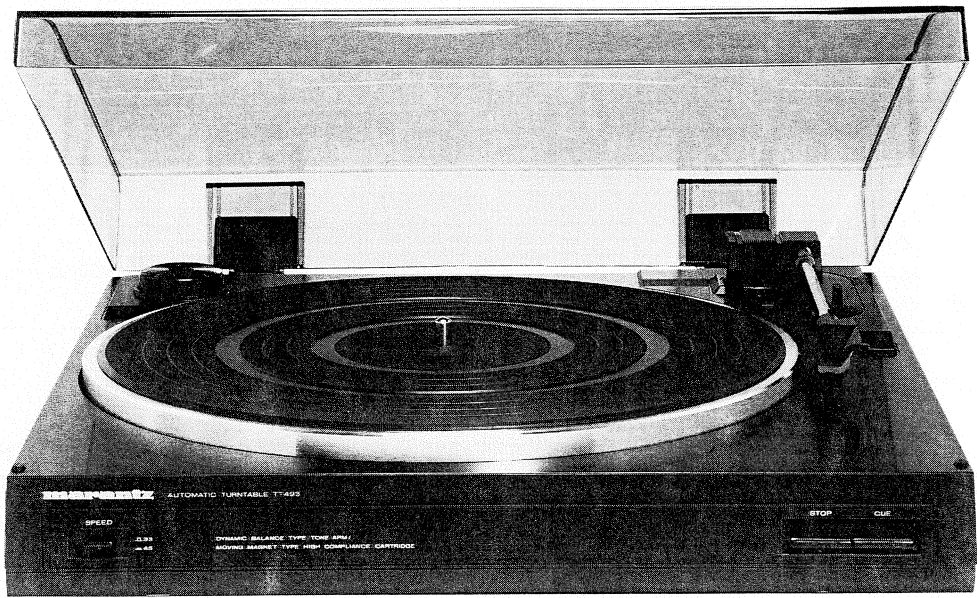
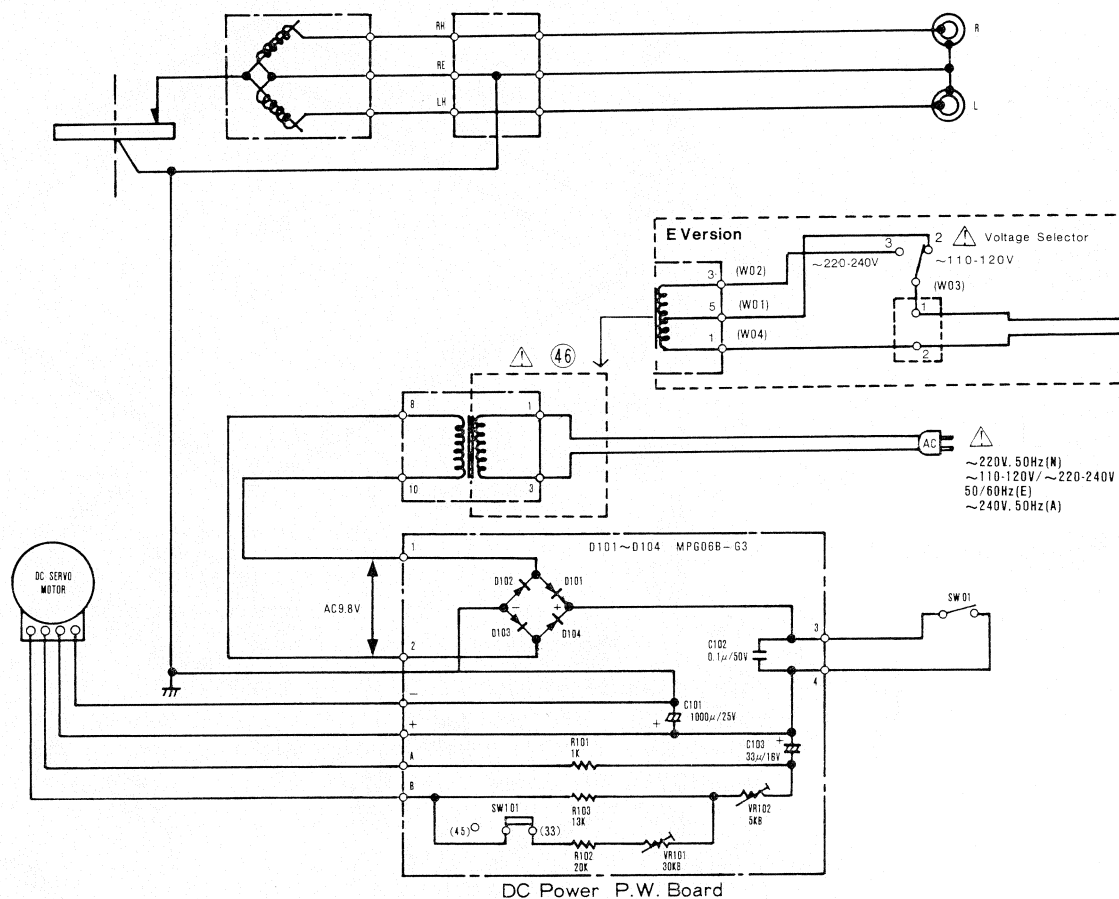


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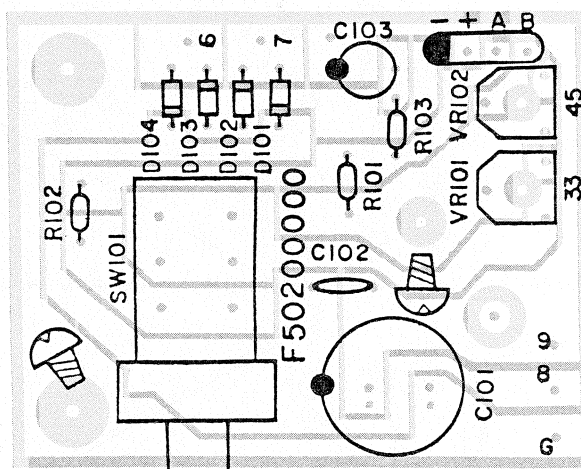
1. SCHEMATIC DIAGRAM



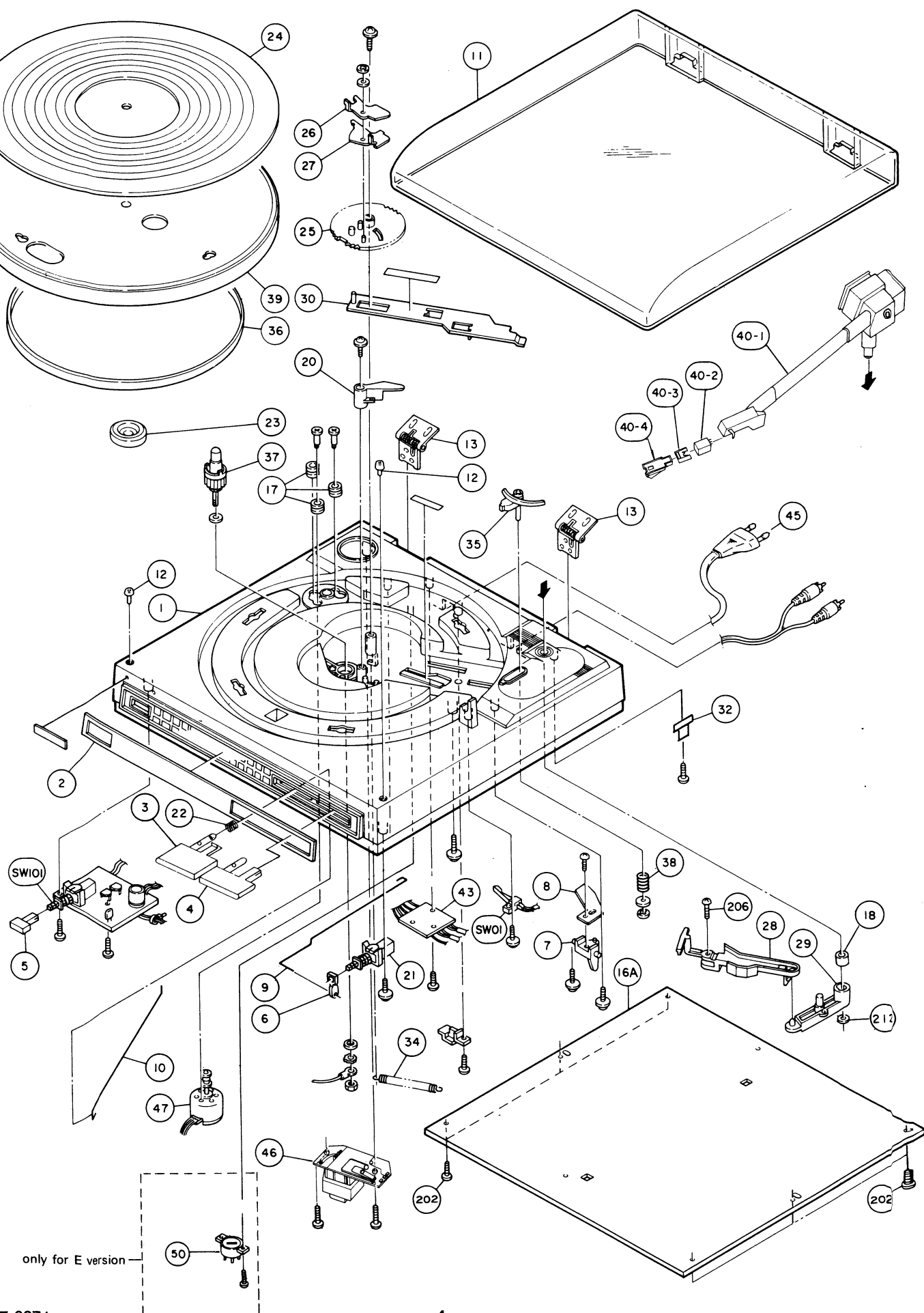
Components and wiring are subject to change for modification without notice.

To service personnel
Make sure that only replacement parts recommended by the manufacturer should be used when the parts marked "⚠" in schematic diagram are exchanged.
Never fail to make leakage-current or resistance measurements before returning the appliance to the customer so as to make sure that exposed parts are acceptably insulated from the supply circuit.

2. PARTS LOCATIONS



3. EXPLODED VIEW



MZ 2271

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4. PARTS LIST

N: for Europe
E: for Europe
A: for Australia

REF. DESIG.	PART NO.	DESCRIPTION
1	4822 444 10152	Cabinet
2	4822 450 61477	Window, Front
3	4822 410 26568	Button, Stop
4	4822 410 26569	Button, Cue
5	4822 410 60416	Button, Speed
6	4822 535 70979	Spacer
7	4822 403 40263	Arm, Cue
8	4822 402 50256	Lever, Cue
9	4822 535 92495	Rod, Cue
10	4822 535 92496	Rod, Stop
11	4822 444 60557	Dust Cover
12	4822 462 71515	Buffer, Dust Cover
13	4822 417 11007	Hinge Ass'y
17	4822 466 61313	Cushion, Motor
18	4822 462 41492	Cushion, Bracket
20	4822 403 10274	Arm, Stop
21	4822 276 11637	Push Switch
22	4822 492 42254	Spring
23	4822 528 90687	Rec. Adaptor
24	4822 466 50206	Sheet, Turntable
25	4822 522 32296	Gear
26	4822 402 61084	Cam
27	4822 402 61085	Cam
28	4822 402 61171	Arm, Return
29	4822 402 61173	Bracket, Pick up
30	4822 402 61206	Lever Ass'y
32	4822 532 52156	Spacer, Pick up
34	4822 492 42255	Spring, Lever Ass'y
35	4822 402 61172	Arm, Lifter
36	4822 358 30758	Belt, Turntable
37	4822 535 92494	Shaft, Turntable
38	4822 251 70388	Spring, Arm Lifter
39	4822 528 10697	Turntable
40-1	4822 251 70316	Tonearm
40-2	4822 251 11019	Cartridge, CT493
40-3	4822 251 11021	Stylus, CTS493
40-4	4822 530 70532	Retainer, Stylus
DC POWER CIRCUIT BOARD		
SW101	4822 276 12381	Push Switch
D101	4822 130 81722	Diode, MPG06B-G3
D102	4822 130 81722	Diode, MPG06B-G3
D103	4822 130 81722	Diode, MPG06B-G3
D104	4822 130 81722	Diode, MPG06B-G3
VR101	4822 100 11558	30K Ω Trimming
VR102	4822 100 11559	5K Ω Trimming
44	4822 321 23689	Connective Cord

REF. DESIG.	PART NO.	DESCRIPTION	
Δ 46	4822 146 21472	Power Transformer	N, A
Δ 46	4822 146 21468	Power Transformer	E
47	4822 361 21101	Phono Motor	
SW01	4822 276 12379	Mini Switch	
Δ 50	4822 266 30212	Voltage Selector	E
160	4822 736 20445	User's Manual	
212	4822 532 52155	Washer	

To service personnel
Make sure that only replacement parts recommended by the manufacturer should be used when the parts marked " Δ " in schematic diagram are exchanged.
Never fail to make leakage-current or resistance measurements before returning the appliance to the customer so as to make sure that exposed parts are acceptably insulated from the supply circuit.



5. ADJUSTMENTS

(A) AUTO-RETURN

1. Set the Tonearm (40-1) at the cueing up position.
2. By turning the Screw (206), adjust the Arm (28) so that the Cam (26) is hooked by the Shaft (37) when the stylus is at the position R-61.5~62mm from the center of the Shaft (37) .
3. Check the Tonearm (40-1) returns after music Play.

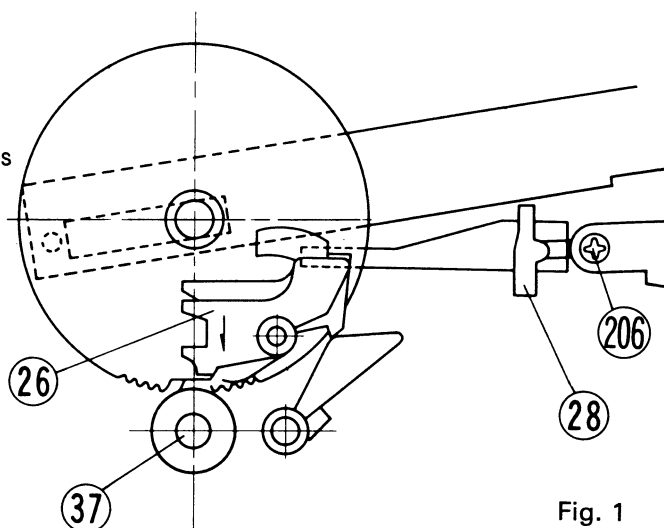


Fig. 1

(B) ROTATION SPEED

1. Select "45" rpm by the SPEED Button (5).
2. Adjust speed by turning the Trimming Resistor (VR102) through the hole (A) on the Bottom Ass'y (16A).
3. Select "33" rpm by the SPEED Button (5).
4. Adjust speed by turning Trimming Resistor (VR101) through the hole (B) on the Bottom Ass'y (16A).

NOTE: Adjust for "45" rpm first. and then "33" rpm next.

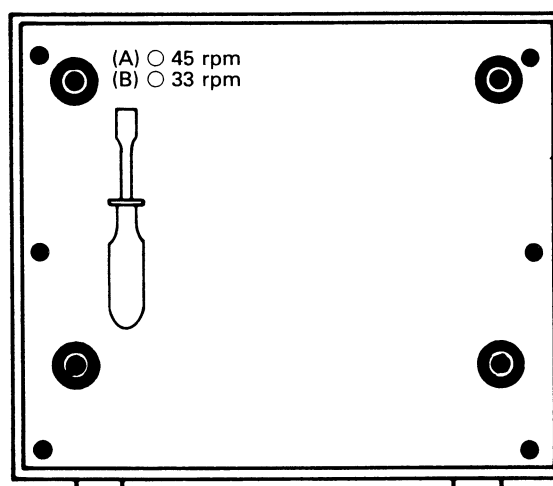


Fig. 2

6. DISASSEMBLY INSTRUCTIONS

- (A) Remove the Dust Cover (11) and fix the Tonearm (40-1) to the arm rest.
- (B) Remove the Turntable Sheet (24), and the Belt (36) from the Pulley. Then remove the Turntable Platter (39).
- (C) Remove the Six Screws (202) on the Bottom Ass'y (16A), then remove the Bottom Ass'y (16A).

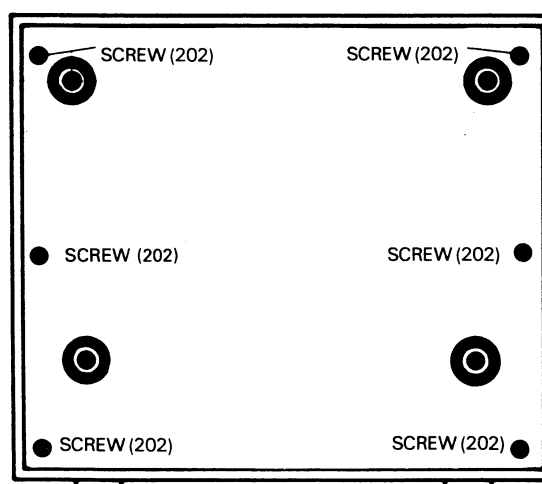


Fig. 3