

# PS-A790

## SERVICE MANUAL

*AEP Model  
E Model  
Australian Model  
Tourist Model*

PS-A790 is Stereo turn table system in LBT-A590/A595/A790/A795.



### SPECIFICATIONS

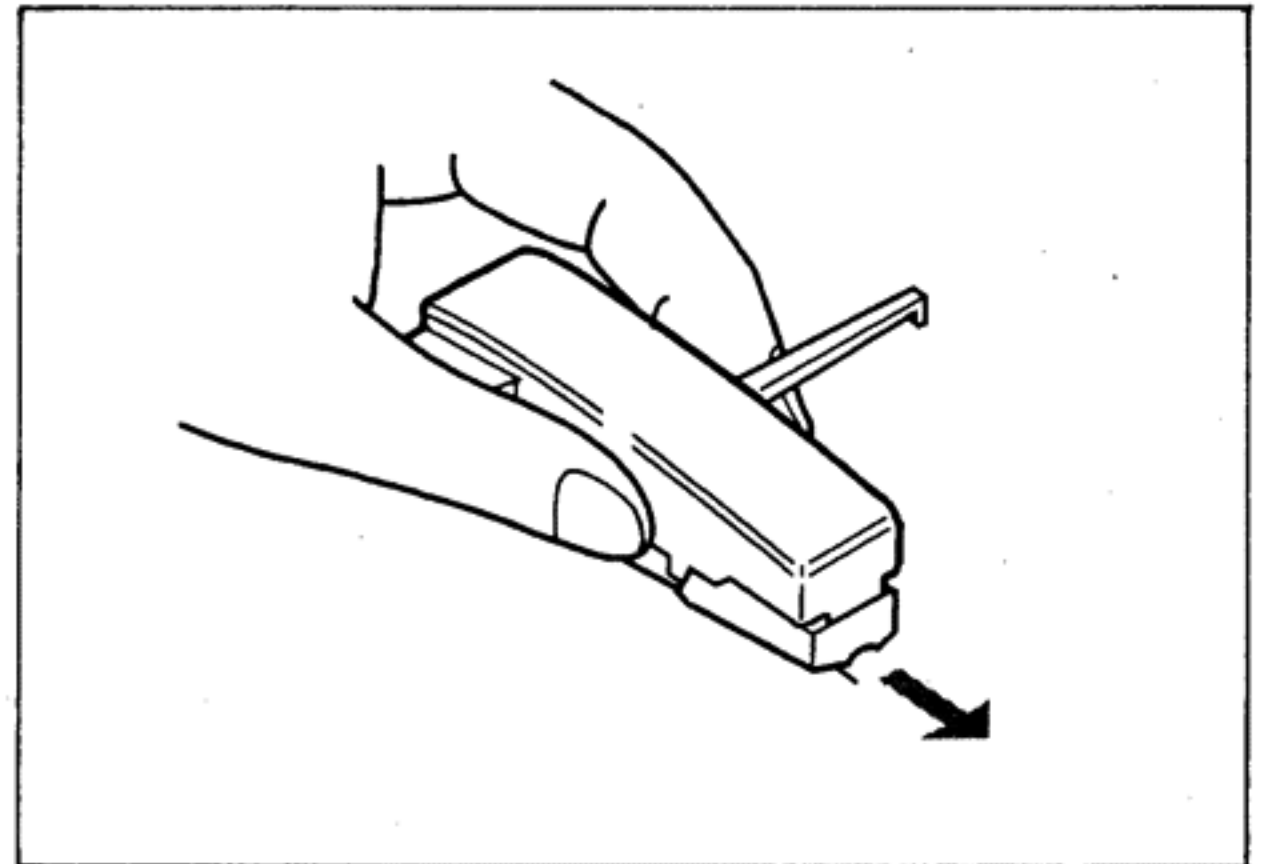
<b>Turntable</b>	
Platter	30cm (12 in.)
Motor	DC servo motor
Drive system	Belt drive
Speed	33 1/3 rpm/45 rpm switchable
Wow and flutter	0.15% (WRMS)
Signal-to-noise ratio	65 dB (DIN-B)
Automatic system	Return, reject, lead in
<b>Tonearm</b>	
Type	Dynamically balanced
Pivot-to-stylus length	206 mm (7 7/8 in.)
Overall arm length	235 mm (9 3/8 in.)
<b>Cartridge</b>	
Type	Moving magnet type
Frequency response	20 Hz-20kHz
Stylus	CN-234
<b>General</b>	
Dimensions	360 x 98 x 365 mm (w/h/d) (14 1/8 x 3 5/8 x 14 3/8 inches)
Weight	Approx. 2.9 kg (6 lb 6 oz)
Power requirements	<b>Model for Europe and Tourist :</b> 220 V AC, 50/60 Hz <b>Model for Australia:</b> 240 V AC, 50 Hz <b>Model for other countries:</b> 110-120 V, 220-240 V adjustable, 50/60 Hz
Power consumption	4 W
Accessory supplied	45-rpm adaptor (1)
Optional accessory	Replacement stylus CN-234

Design and specifications subject to change without notice.

#### Note

This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

### Replacing the Stylus

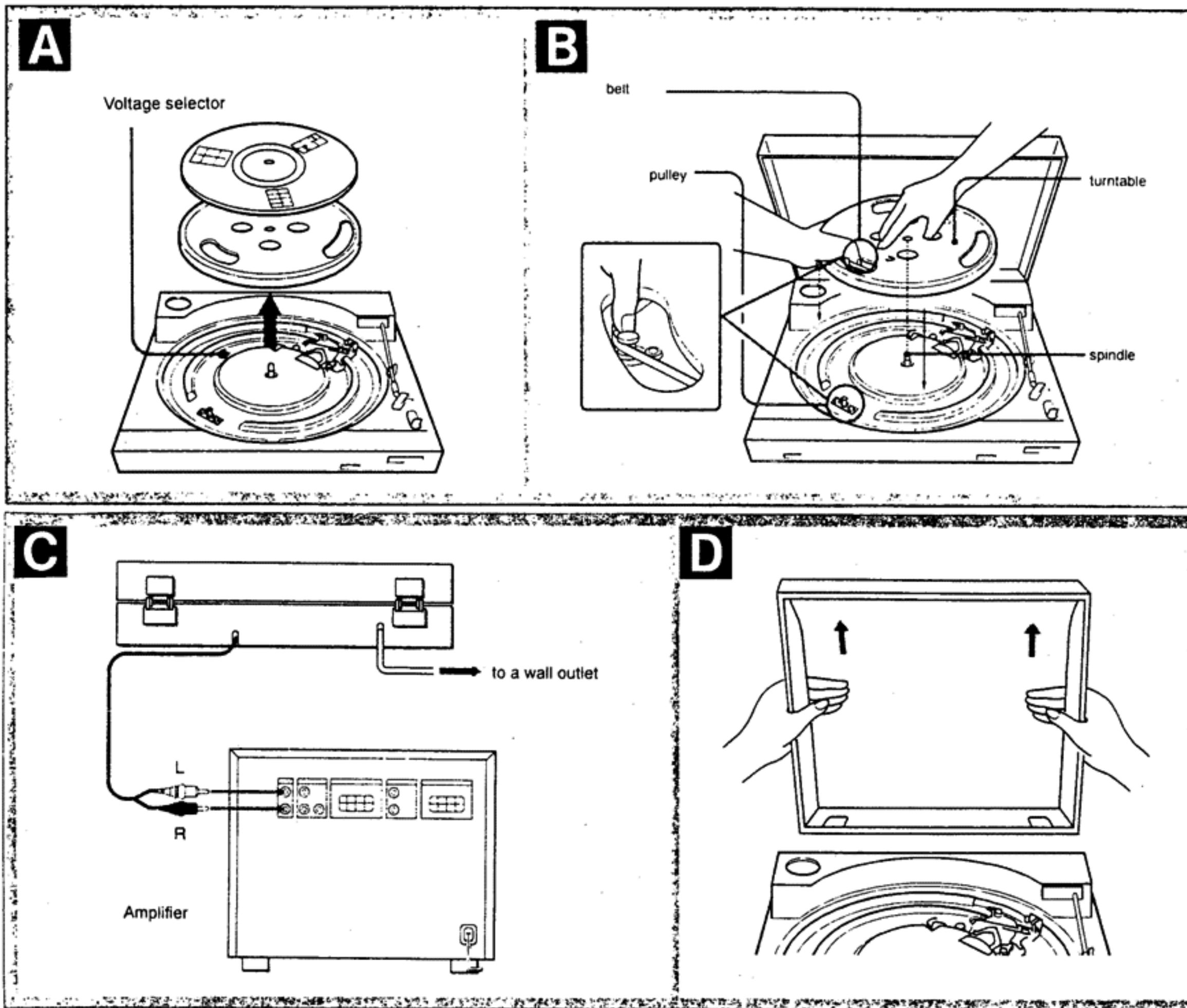


Replace the stylus after about 400 hours of use because using a worn stylus will damage records. An CN-234 replacement stylus is available at your Sony dealer. Be sure to turn the amplifier off before proceeding with replacement.

- 1 While holding the cartridge, detach the stylus assembly as illustrated.
- 2 Insert the new stylus into the cartridge.

STEREO TURNTABLE SYSTEM  
**SONY**®

# Connections



**For the customers of the model equipped with the voltage selector (Fig. A)**  
 Check that the voltage selector located under the turntable is set to the local power line voltage. If not, set the selector to the correct position before connecting AC power cord to a wall outlet.

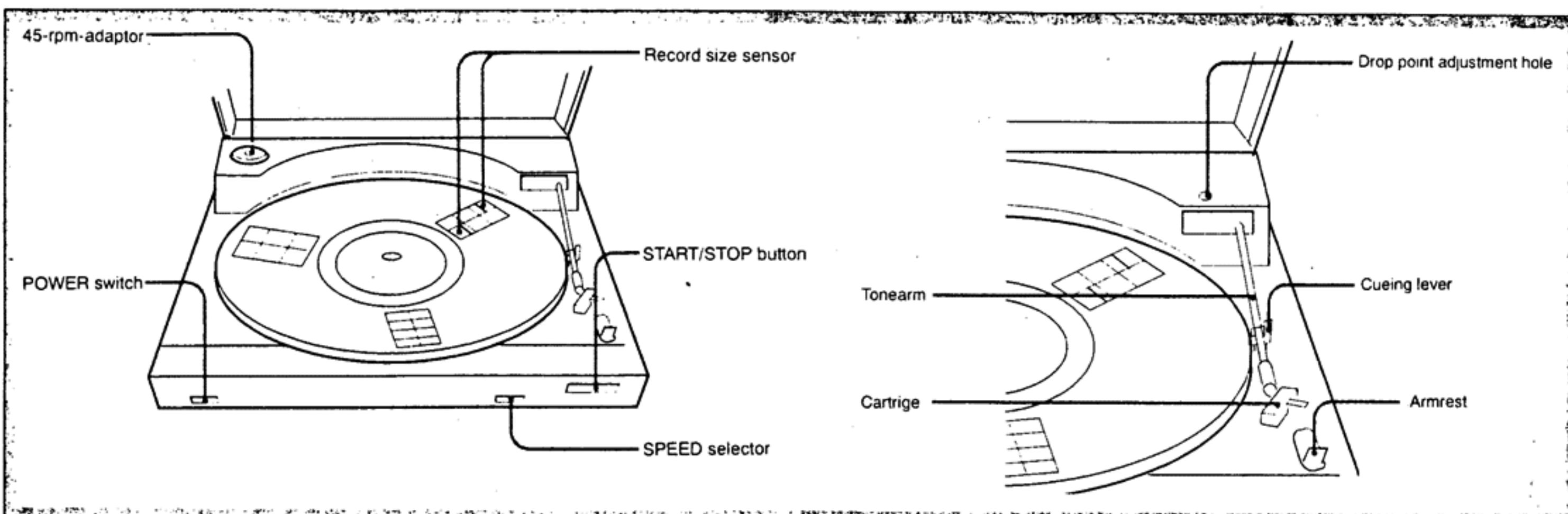
**To install the turntable (Fig. B)**  
 Gripping the three holes at the center of the turntable with your right hand, pull the black rubber belt on to the pulley with your left thumb. Set the turntable on the spindle, and hook the belt on the pulley. To make sure it operates properly, spin the turntable once or twice in the clockwise direction with your hand.

**Connections (Fig. C)**  
 Connect the red plug to the right-channel jack (R), and the white plug to the left-channel jack (L).

**To remove the dust cover (Fig. D)**  
 Open the cover fully and pull it up.

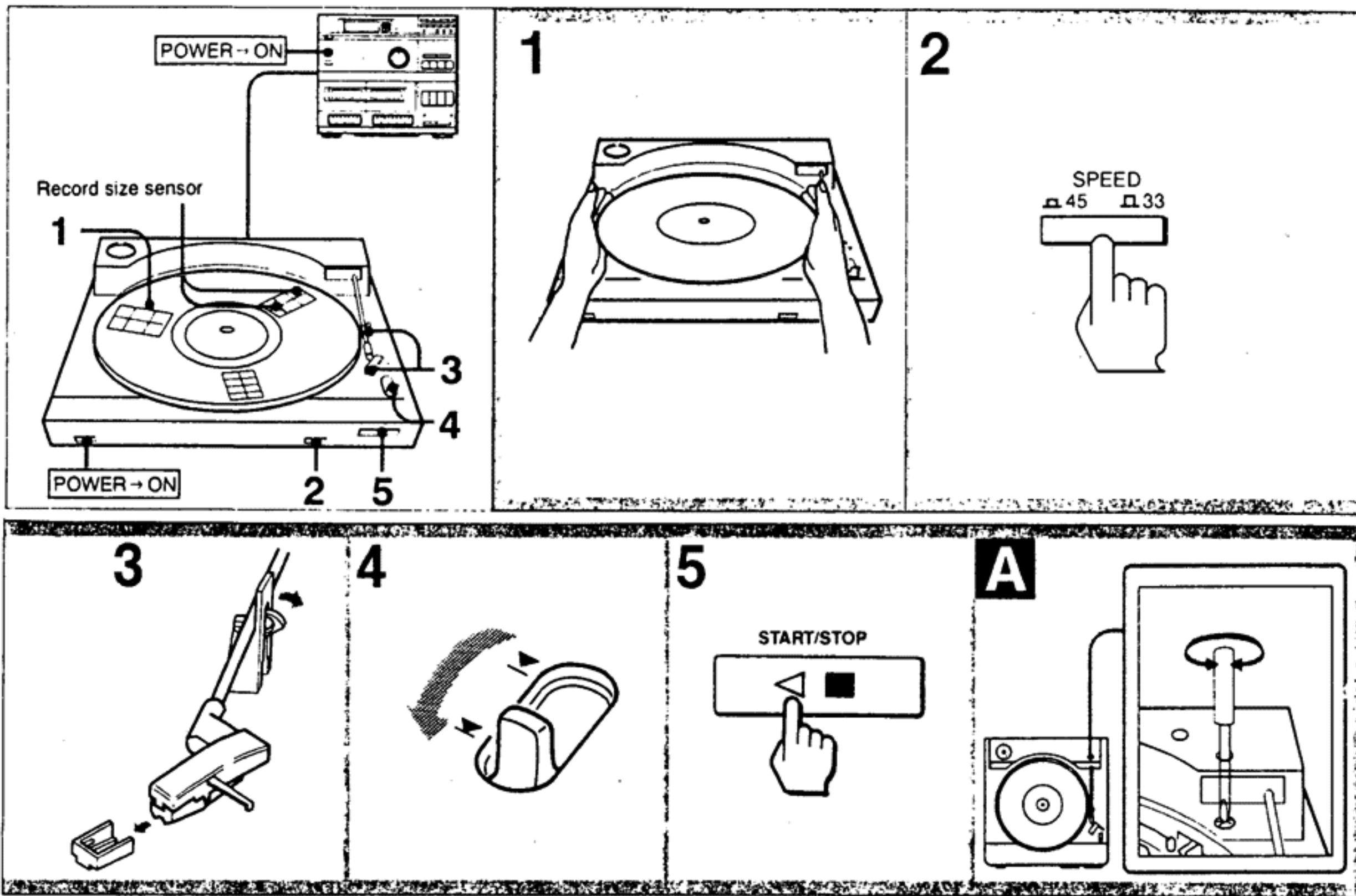
- Notes on installation**
- Place the turntable on a level surface.
  - Avoid placing the unit near electrical appliances (such as a television, hair dryer, or fluorescent lamp) which may cause hum or noise.
  - Place the turntable where it will not be subject to any vibration, such as from speakers, slamming of doors, etc.
  - Keep the unit away from direct sunlight, extremes of temperature, and excessive dust and moisture.

# Location of Controls



# Playing Records

## Playing from the Beginning



**You don't have to select the record size**  
When the record is placed on the turntable, the size sensor automatically directs the tonearm to the beginning of the record.

**When the record is played to the end, the tonearm returns to the armrest and the turntable stops.**

To stop during play, press ◀■.

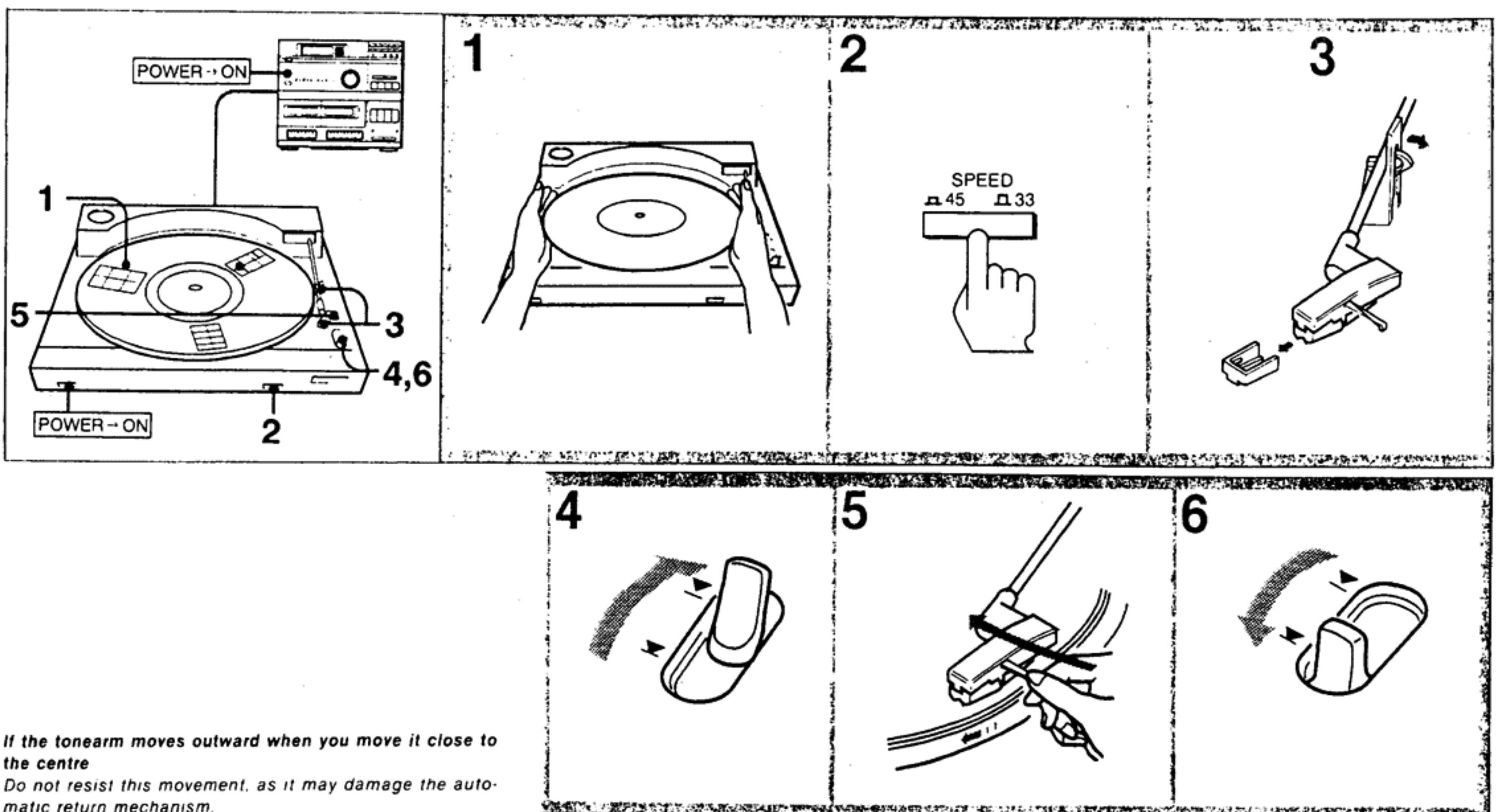
**To play a different part of the record**  
Lift the tonearm by setting the cueing lever to ▼, move the tonearm by hand to the desired point, then set the cueing lever to ▼.

**To play a 17-cm record**  
Use the supplied adaptor.

### Adjusting the Drop-point of the Tonearm (Fig. A)

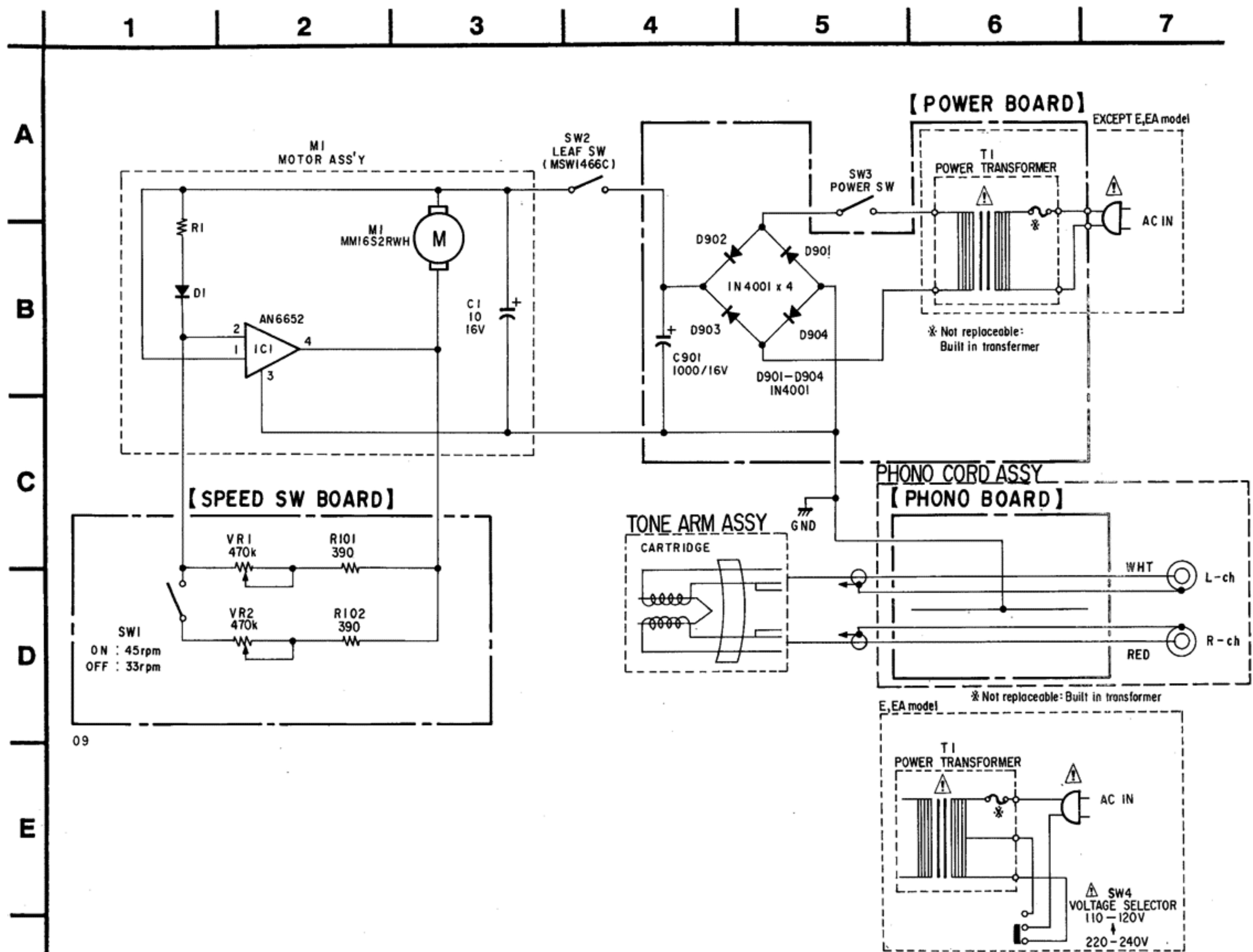
To readjust the drop-point inward (a), turn the screw clockwise with a screwdriver.  
To readjust the drop-point outward (b), turn the screw counterclockwise.

## Playing from a Desired Point



**If the tonearm moves outward when you move it close to the centre**  
Do not resist this movement, as it may damage the automatic return mechanism.

# SCHEMATIC DIAGRAM



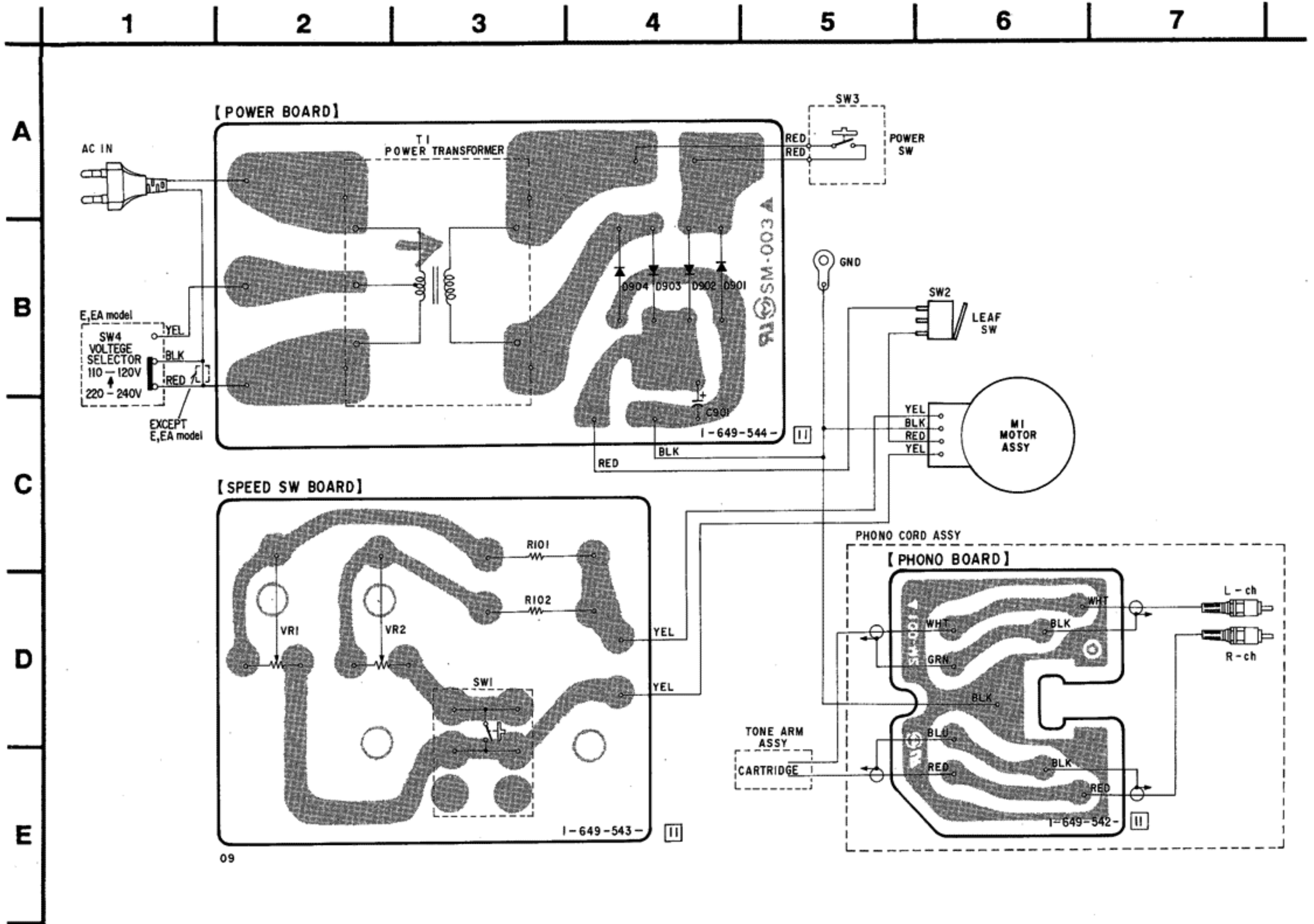
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**Note:**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}:\mu\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and 1/4W or less unless otherwise specified.
- EA : Saudi Arabia model.

**Note:** The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

WIRING DIAGRAM



Note:

- — : parts extracted from the component side.
- EA : Saudi Arabia model.

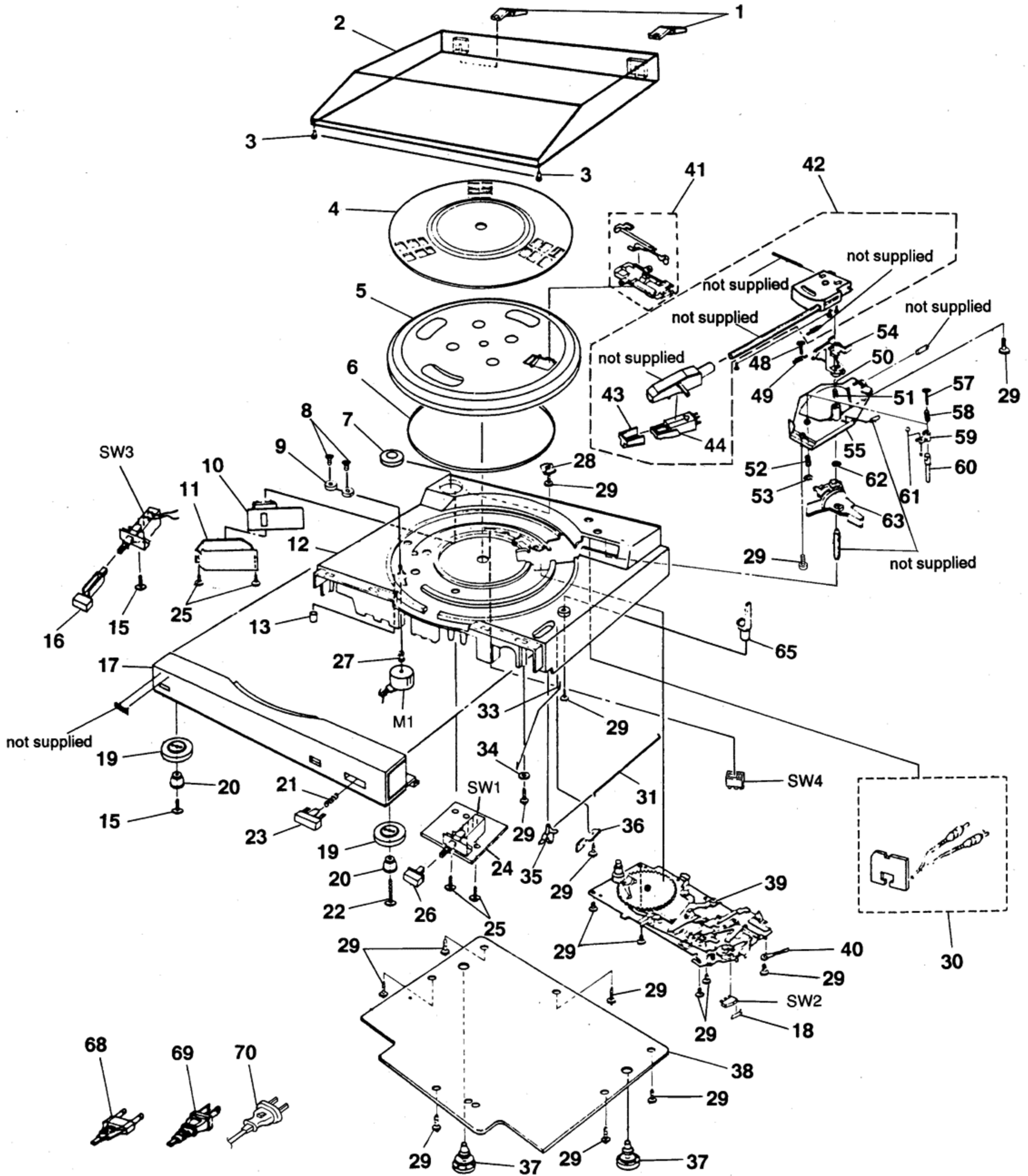
# EXPLODED VIEW

## NOTE:

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

- AUS: Australian model
- EA: Saudi Arabia model
- G: German model

The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety. Replace only with part number specified.



<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
1	A-4660-489-A	HINGE ASSY		37	4-960-449-01	FOOT RUBBER	
2	4-960-401-01	COVER DUST		* 38	4-960-445-01	COVER BOTTOM	
3	4-960-402-01	CUSHION DUST COVER		39	A-4660-493-A	MECHA ASSY	
4	4-960-457-01	RUBBER SHEET		40	A-4660-494-A	RING TERMINAL ASSY	
5	4-960-458-01	PLATTER		41	A-4660-490-A	SENSOR ASSY	
6	4-960-459-01	DRIVING BELT		42	A-4660-424-A	TONE ARM ASSY	
7	4-960-403-01	ADAPTOR EP		43	4-951-290-01	STYLUS (CN-234)	
8	4-960-404-01	SCREW MOTOR SETTING		44	4-948-095-01	COVER, CARTRIDGE	
9	4-960-405-01	CUSHION MOTOR		48	4-960-417-01	SCREW TAP PH	
* 10	1-649-544-11	POWER BOARD		49	4-960-418-01	SPRING ADJUST	
* 11	4-960-406-01	COVER PCB POWER		50	4-960-419-01	BALL STEEL	
12	4-960-407-01	CABINET UPPER		51	4-960-420-01	SPRING TENSION	
13	4-960-408-01	CUSHION MOTOR (A)		52	4-960-421-01	SPRING ELEVATION	
15	4-960-217-01	WASHER SCREW TAP WPH		53	4-960-422-01	E-RING	
16	4-960-409-01	KNOB POWER		54	4-960-423-01	ARM HOLDER	
17	4-964-206-01	FRONT PANEL (G)		55	4-960-424-01	BASE TONE ARM	
18	4-960-448-01	LEVER SWITCH		57	4-960-426-01	SCREW FH	
19	4-960-411-01	HOUSING FOOT		58	4-960-427-01	SPRING ADJUST (E/V)	
20	4-960-412-01	FOOT RUBBER		59	4-960-428-01	ARM ELEVATION	
21	4-960-444-01	SPRING BOTTON		60	4-960-429-01	SHAFT ELEVATION	
22	4-960-218-01	WASHER SCREW TAP WPH		61	4-960-430-01	SLIDE ELEVATION	
23	4-960-413-01	KNOB START/STOP		62	4-960-431-01	WASHER POLY SLIDE	
* 24	1-649-543-11	SPEED SW BOARD		63	4-960-432-01	ARM FEED	
25	4-960-452-01	SCREW TAP BH		65	A-4660-491-A	ARM STAND ASSY	
26	4-960-450-01	KNOB SPEED		△68	1-575-651-11	CORD, POWER (AEP, G, EA)	
27	4-960-451-01	PULLEY MOTOR		△69	1-590-074-11	CORD, POWER (E, Tourist)	
28	4-960-416-01	STOPPER CORD		△70	1-690-608-11	CORD, POWER (AUS)	
29	4-960-220-01	SCREW TAP WPH		M1	1-698-210-11	MOTOR	
30	A-4660-492-A	PHONO CORD ASSY		SW1	1-572-744-21	SWITCH, PUSH (1 KEY) (SPEED)	
31	4-960-434-01	LINK CUEING		SW2	1-572-746-21	SWITCH, LEAF (MOTOR)	
33	4-960-440-01	LINK S/CUT		SW3	1-572-744-11	SWITCH, PUSH (1 KEY) (POWER)	
34	4-960-441-01	WASHER PLAIN		△SW4	1-692-835-11	VOLTAGE SELECTOR (E, EA)	
35	4-960-442-01	LEVER CUEING					
36	4-960-443-01	B. K. T CUEING LEVER					

**POWER SPEED SW**

**ELECTRICAL PARTS LIST**

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS  
All resistors are in ohms  
METAL: Metal-film resistor  
METAL OXIDE: Metal Oxide-film resistor  
F : nonflammable

- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS  
In each case, u:  $\mu$ , for example:  
uA...:  $\mu$  A..., uPA...:  $\mu$  PA...,  
uPB...:  $\mu$  PB..., uPC...:  $\mu$  PC...,  
uPD...:  $\mu$  PD...
- CAPACITORS  
uF :  $\mu$  F
- COILS  
uH :  $\mu$  H

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

- AUS: Australian model
- EA: Saudi Arabia model
- G: German model

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-649-544-11	POWER BOARD *****				MISCELLANEOUS *****	
		< CAPACITOR >					
C901	1-124-360-00	ELECT 1000uF	10V	30	A-4660-492-A	CORD, PHONO ASSY	
		< DIODE >		$\Delta$ 68	1-575-651-11	CORD, POWER (AEP, G, EA)	
D901	9-719-200-02	DIODE 10E-2		$\Delta$ 69	1-590-074-11	CORD, POWER (E, Tourist)	
D902	9-719-200-02	DIODE 10E-2		$\Delta$ 70	1-690-608-11	CORD, POWER (AUS)	
D903	9-719-200-02	DIODE 10E-2		M1	1-698-210-11	MOTOR	
D904	9-719-200-02	DIODE 10E-2		SW2	1-572-746-21	SWITCH, LEAF (MOTOR)	
		< TRANSFORMER >		SW3	1-572-744-11	SWITCH, PUSH (1 KEY) (POWER)	
$\Delta$ T1	1-423-815-11	TRANSFORMER, POWER (AEP, G, Tourist)		$\Delta$ SW4	1-692-835-11	VOLTAGE SELECTOR (E, EA)	
$\Delta$ T1	1-423-815-21	TRANSFORMER, POWER (E, EA)		*****			
$\Delta$ T1	1-423-815-31	TRANSFORMER, POWER (AUS)				ACCESSORIES & PACKING MATERIALS *****	
*****						3-758-044-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP)
*	1-649-543-11	SPEED SW BOARD *****				3-758-044-41	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN) (AEP, G)
		< RESISTOR >				3-758-044-51	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, CHINESE) (E, EA, Tourist, AUS)
R101	1-249-412-11	CARBON 390 5% 1/4W F		*	4-964-336-01	INDIVIDUAL CARTON	
R102	1-249-410-11	CARBON 270 5% 1/4W F		*****			
		< VARIABLE RESISTOR >					
VR1	1-237-138-11	VARIABLE RESISTOR 470K					
VR2	1-237-138-11	VARIABLE RESISTOR 470K					
		< SWITCH >					
SW1	1-572-744-21	SWITCH PUSH (SPEED)					