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**precision designed & engineered high fidelity record playing equipment and accessories**

**MICRO**

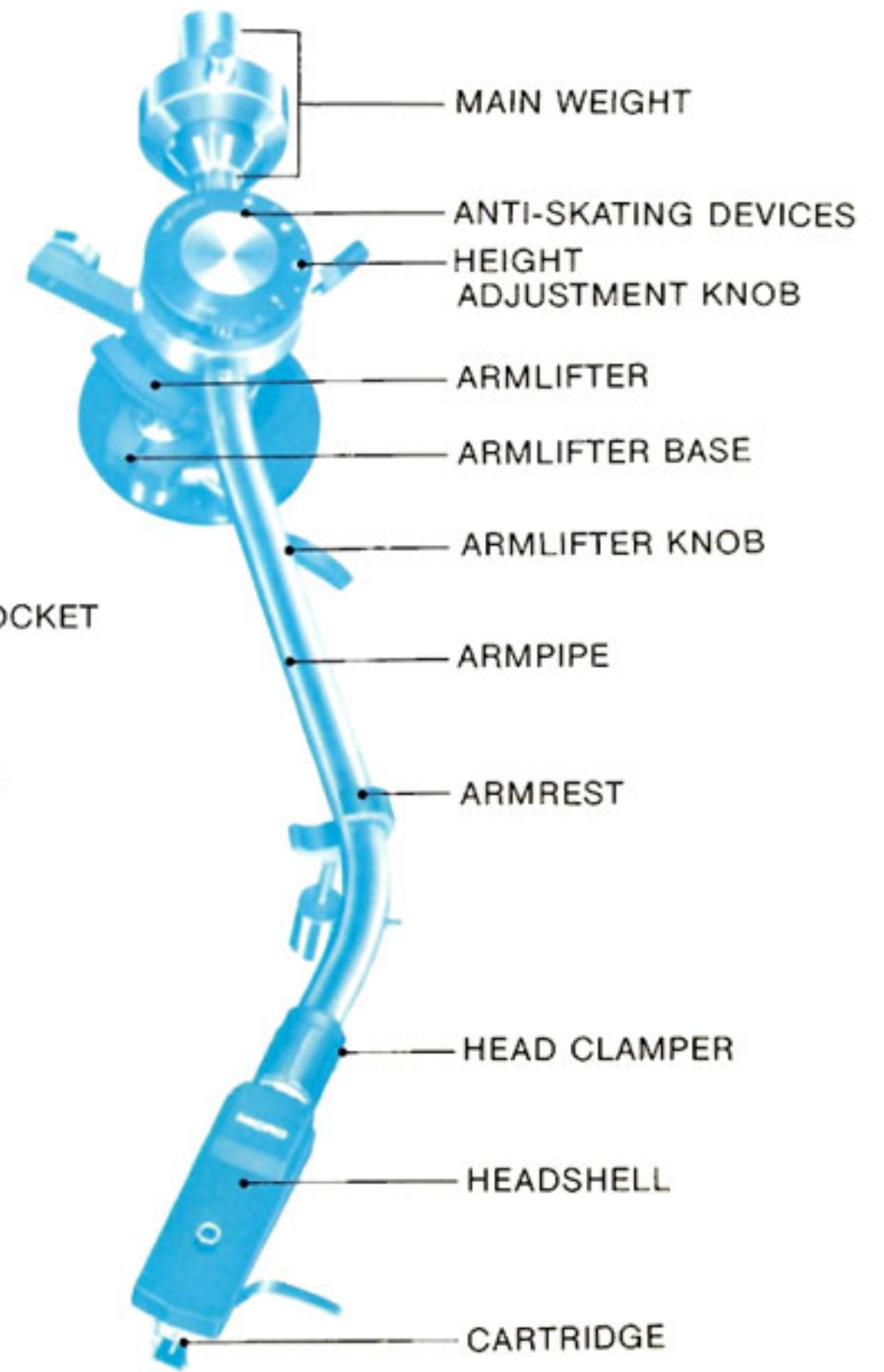
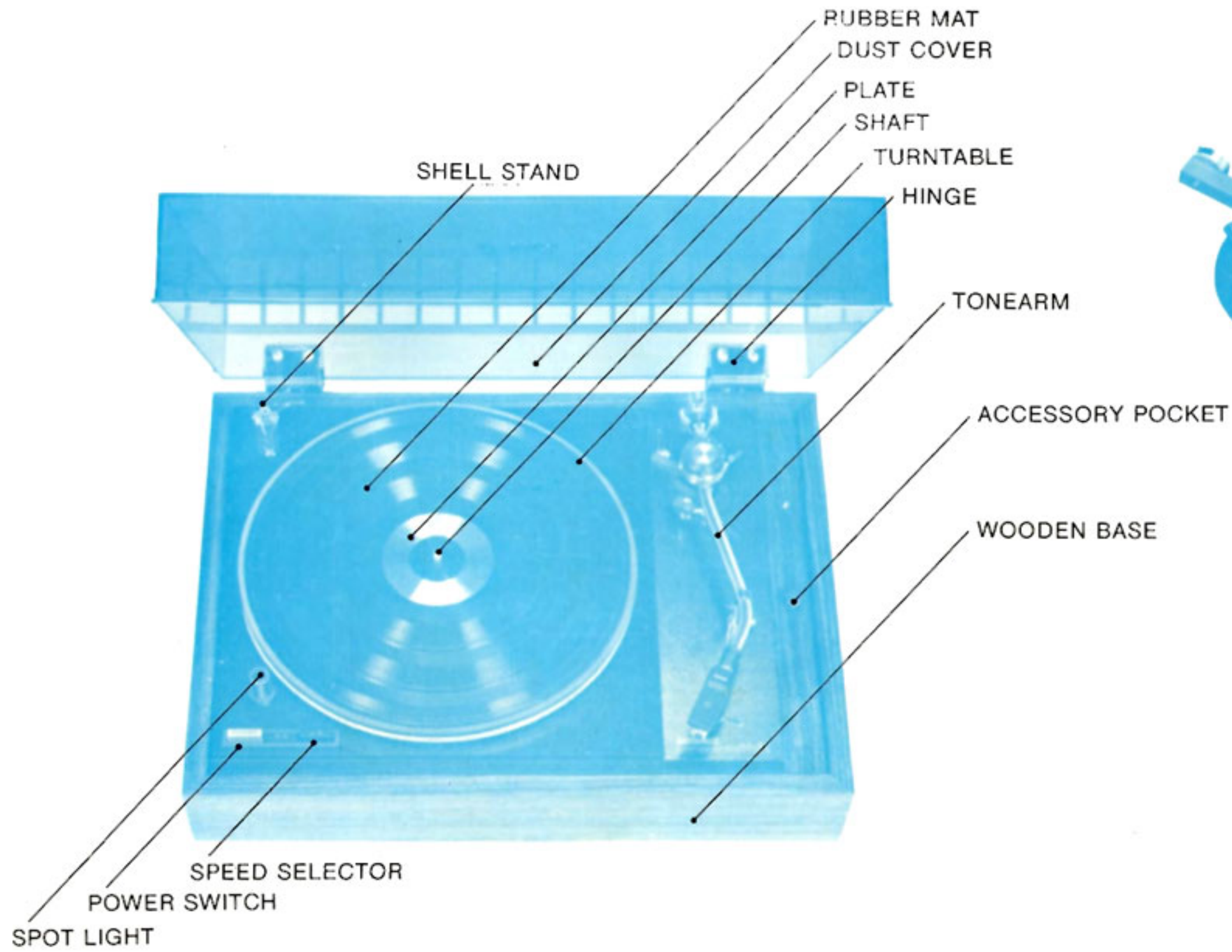
**MFR-611**

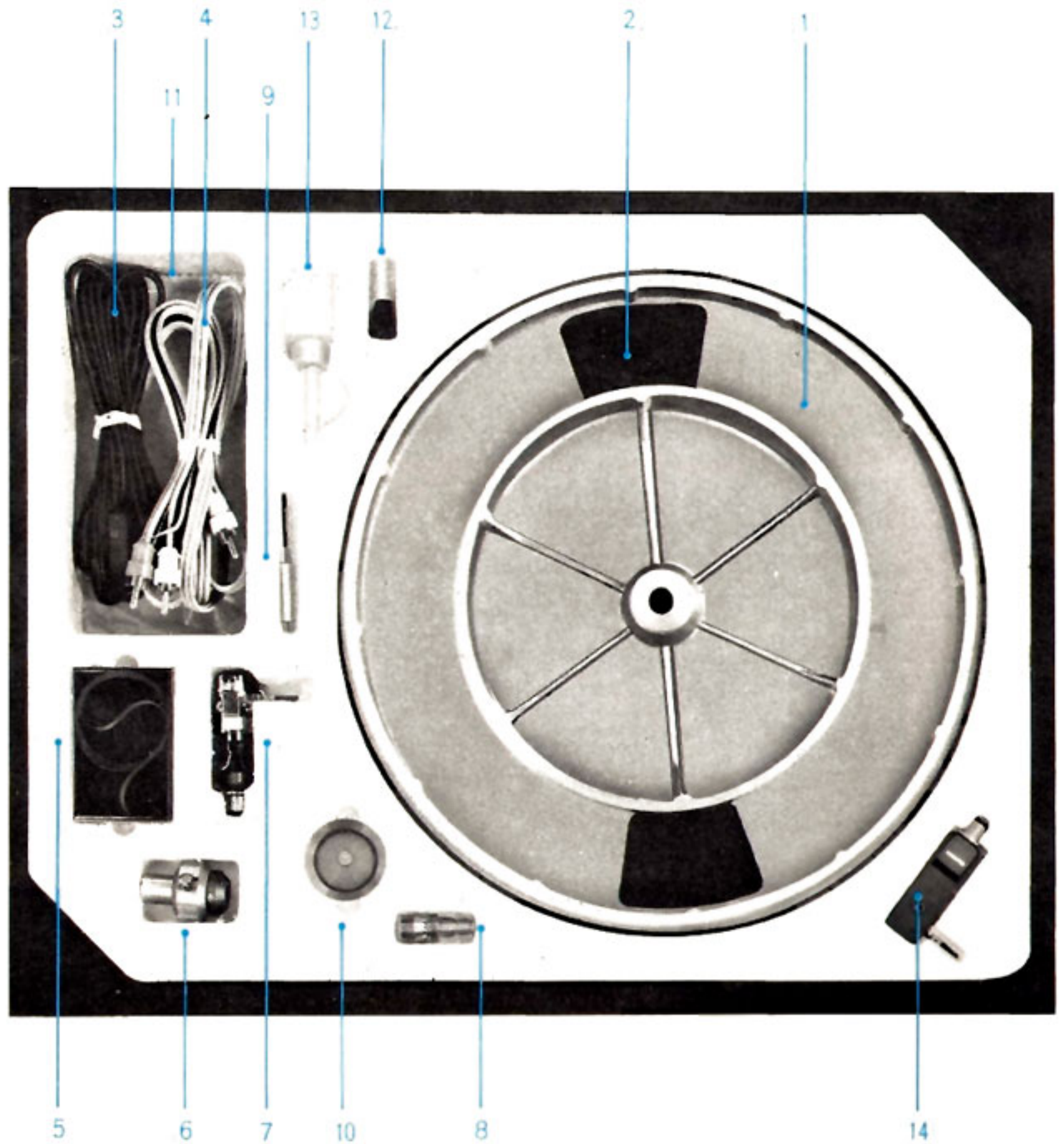
***OPERATING MANUAL***



**MICRO**

WORLD OF MICRO is created by the talented team of engineers, skilled sound technicians and expert designers. The complete line represents a combination of many years of our research to send you qualified high fidelity components: Turntable Decks, Stereo Cartridges, Tone Arms, and Complete Players. The MICRO trademark, which symbolizes an elliptic stylus tracing the grooves, is tantamount to the slogan of the company, an integrated manufacturer specializing in the production of turntables that challenge the ultimate in faithful reproduction of the original sound. Each unit is assembled with craftsmanship skill and pride. Each completed unit is quality-tested at the factory and delivered to you to assure dependable and trouble free performance.



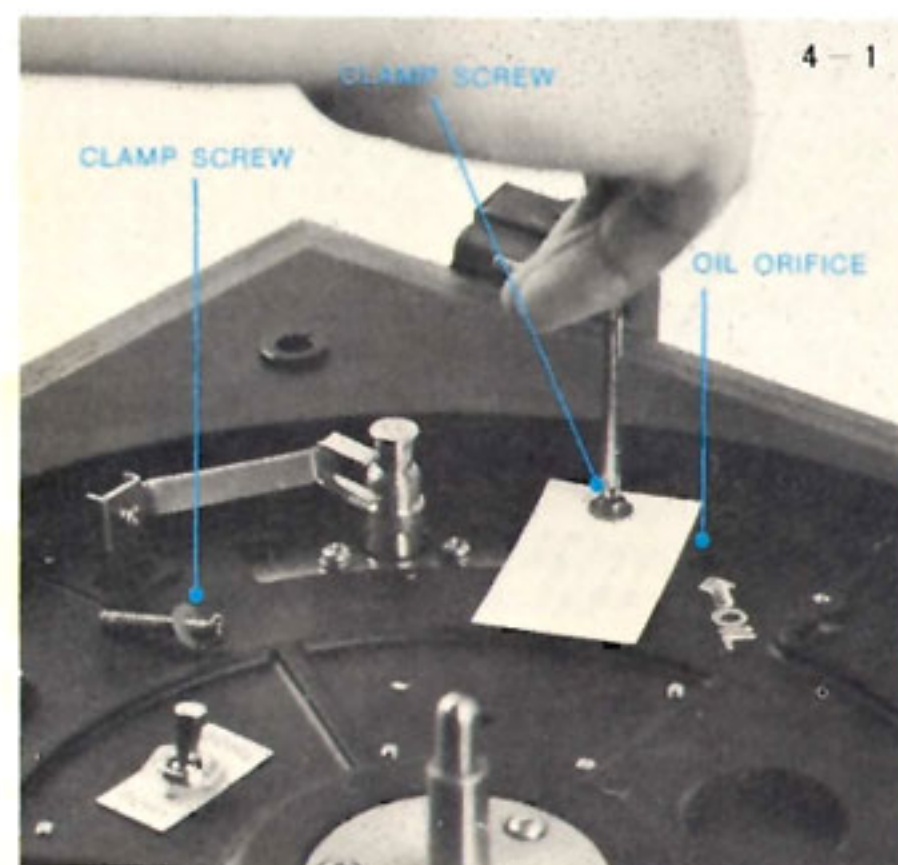


1. TURNTABLE
2. RUBBER MAT & PLATE
3. AC CORD
4. OUTPUT CORD
5. BELT & OVERHANG GAUGE
6. MAIN WEIGHT
7. CARTRIDGE & SHELL
8. PULLY (50 Hz or 60 Hz)
9. SCREW DRIVER
10. ADAPTER
11. CLOTH
12. BRUSH
13. MOTOR OIL
14. SPARE HEADSHELL

# HOW TO ASSEMBLE

MR-611 is a highly precise and accurate instrument. To protect its many delicate parts from jarring and shock during shipment, those which for the utmost accuracy are required, or those which are heavy, have been packaged separately for shipment. It is necessary to assemble these parts according to the assembling chart before the turntable is ready for use.

For safety reason, MR-611 is shipped with the turntable mounting board, motor and base fastened together by clamp screws. Before operation, be sure to remove two red-painted screws. (See 4-1)



MR-611's power source frequency has been properly preset to your area at the factory. If you should move to a country or an area where electrical cycle changes from 50 to 60 or vice

versa, an adjustment in the turntable rotation is necessary. This is easily accomplished by changing the capstan pulley (4-2) and switching the cycle selector (4-3).

50 Hz PULLY (LARGE)  
60 Hz PULLY (SMALL)



4-2

AC CYCLE SELECTOR



4-3

## • Turntable Platter and Drive Belt

Loop the belt between the capstan and the drive rim of turntable platter, making sure that belt passes through the center of the belt guide.

The narrowest part of the capstan is for 33-1/3 r.p.m. speed and wider part is for 45 r.p.m.. Be sure to avoid any oil or dust from adhering to the belt while handling (your hands should be clean). (See. 4-4)



4-4

## • Tone Arm

Place the Split and Revolving type Main Weight and plug into the end portion of the tone arm shaft. (See. 4-5). Main weight moves forward by sliding and revolving it clockwise and back by sliding or revolving anticlockwise.

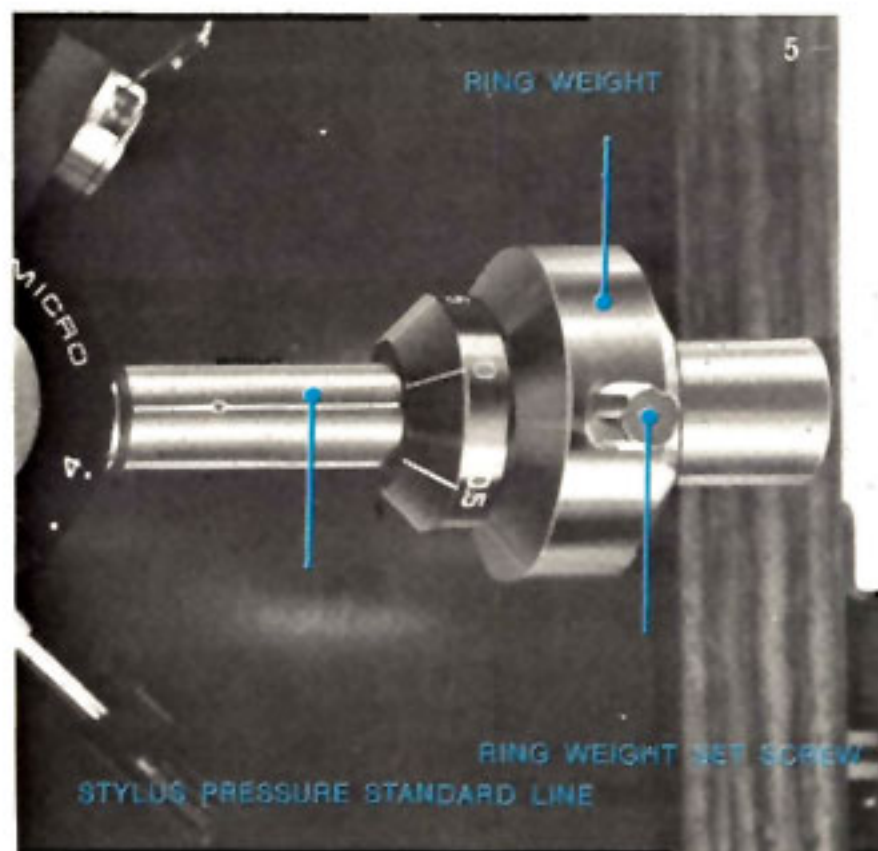
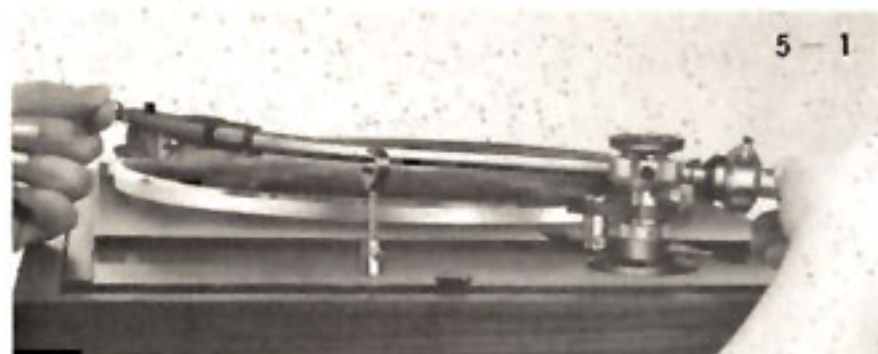
Place the headshell (already equipped with a cartridge) and plug it into the front end of the tonearm shaft. (See. 4-6). (the stylus cover should be left on when attaching the headshell)



# TONEARM ADJUSTMENT

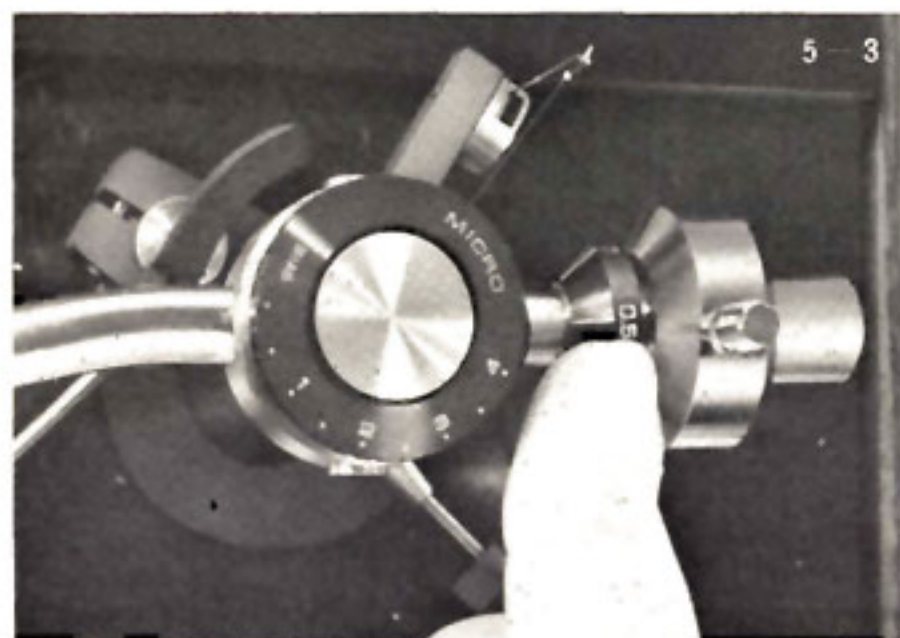
## • Balancing

Lift the tonearm off the arm rest and move it to an unsupported position for balancing. Move the main weight forward or back by revolving or sliding it, until the tonearm is perfectly balanced at the arm stand and stays horizontal. In this condition, the stylus pressure is zero. The main weight can be moved by either sliding or revolving it, and the recommended method is to move it over a distance by sliding it and then revolve it for the fine adjustment. (See. 5-1).



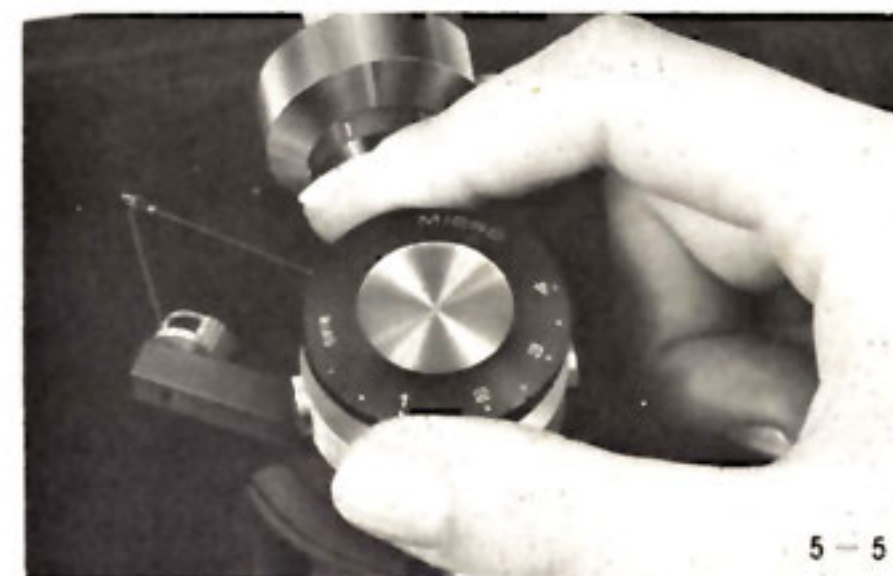
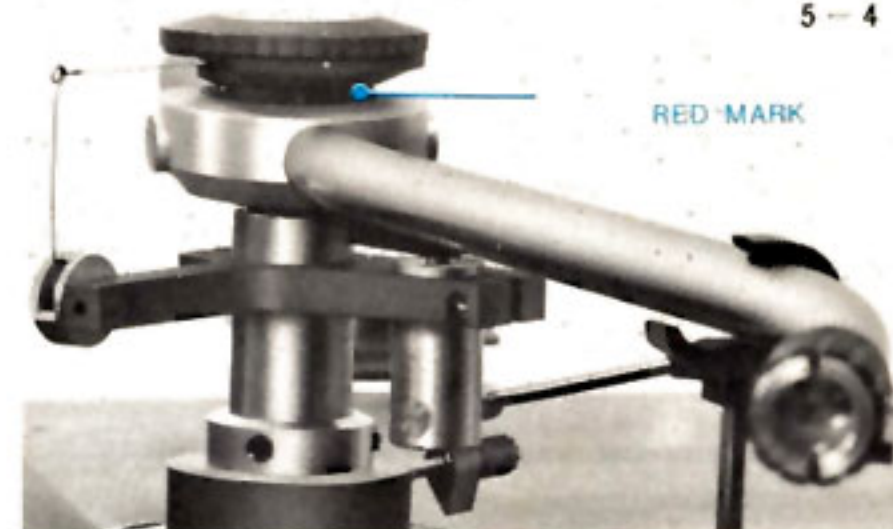
## • Stylus Force Adjustment

Adjust "0" scale of the stylus pressure scale ring to line mark on the tonearm tube, revolving the ring (Do not revolve the main weight to maintain the balancing). Then, revolve main weight clockwise until you obtain proper stylus pressures. Since the scale of the stylus pressureing is graduated into 0.5 gram steps, you can obtain 3 grams by one revolution of the main weight. 1.5 stylus pressures. (for VF-3200) is preferable. (See. 5-3).



## • Anti-skating Adjustment

Rotate BIAS INDICATOR for Anti-skating adjustment until you obtain the proper inside force cancel pressure. Adjust the indicator to have 1.5 at the red mark. (See. 5-4, 5-5). Anti-skating devices are designed to obtain the exact cancel pressure in any case when BIAS scale indicates the same figure of stylus pressure. (Proper BIAS 1.5 for 1.5 grams stylus pressure.)



## • Arm Height Adjustment Knob

Be sure the height adjustment knob to be pulled towards right side and tightened. (See. 5-6).

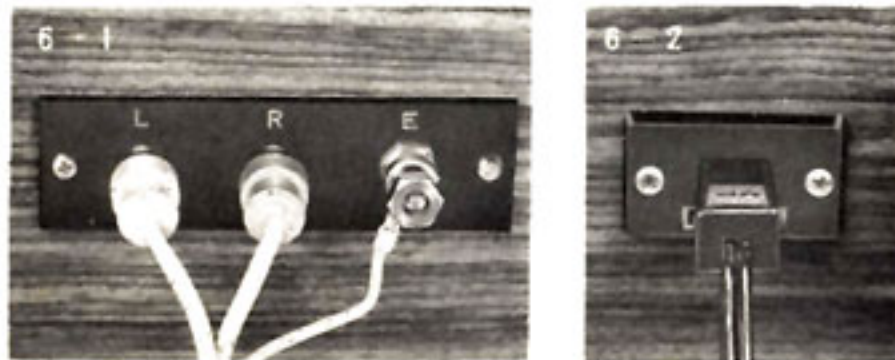


# CONNECTIONS & OPERATION

## • Connecting to a Stereophonic Amplifier

Connect the output plugs of the MR-611 to the input terminals of the amplifier marked PHONO (or MAG).

1. Connect white pin-plug of the pick up cord to the left jack of the PHONO terminal of the amplifier.
2. Connect Red pin-plug of the pick up cord to the right jack of the PHONO terminal of the amplifier. (See. 6-1).



Insert the MR-611's power source plug into an AC outlet. (See. 6-2).

## • Power Voltage

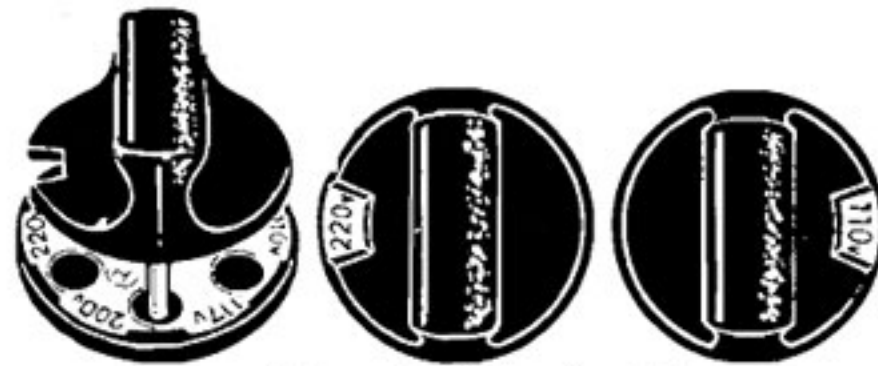
MR-611 uses 8 pole hysteresis synchronous motor and assures constant speed which is not affected by fluctuation in load or line voltage. The voltage selector slide switch is wired for 100, 110, 117, 120, 200, 220 and 240 volts.

The MR-611's power source voltage should be adjusted to your area. Please make sure whether the voltage of turntable conforms with the voltage of your home outlet.

## • Changing Voltage

Pull out the plug-in type voltage selector cover and reset for the proper voltage. (See. 6-3).

6-3

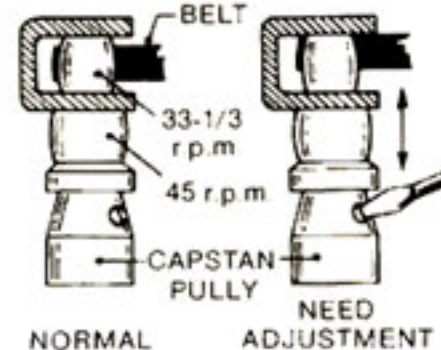


Voltage Indicator Socket

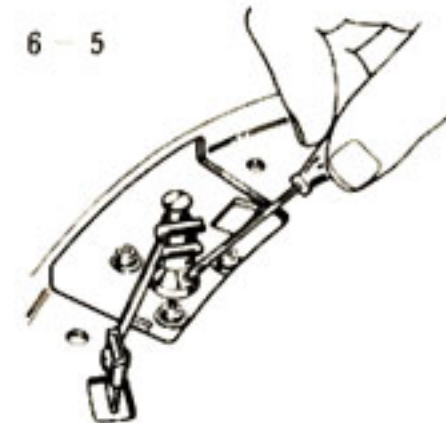
## • Changing Capstan

- a. Remove the belt from the capstan and take off the platter. Loosen the capstan's set screw with a small screwdriver and slowly pull the capstan out.
- b. Insert the new capstan on the motor shaft and tighten the setscrew firmly. The capstan must be adjusted so that the belt is always in center of the belt guide and the belt still moves easily on the capstan when Speed Chang-Over Buttons are pressed. (See. 6-4, 6-5).
- c. Set the switch for the new frequency by sliding as appropriate.
- d. Mount the platter again and recover with rubber mat.

6-4



6-5



## • Power Switch & Speed Selection

Change speed simply by pressing the speed selector to obtain 33-1/3 or 45 r.p.m. speeds, only when the motor is running. Please note the speed selection switch works only when the power switch is pushed on, since the belt change mechanism is secured by the belt-lock devices. (See. 6-6, 6-7, 6-8)





● **Arm Lifter**

DELAY MOTION TYPE ARM LIFTER protects the disc and cartridge from any shock at starting and ending, and promises "feather touch" cuing.

- Move the tonearm to keep the stylus right above the starting groove of the records.
- Down the Arm Lifter Lever.
- When the stylus of the cartridge runs over the final musical groove of a record, up the Arm Lifter Lever then, tonearm goes up.
- Return the tonearm to the arm rest, put the stylus cover back on and press the power switch to OFF position. (See. 7-1, 7-2)



7-1



7-2

● **Pilot Lamp**



7-3

● **Spare Shell Stand**

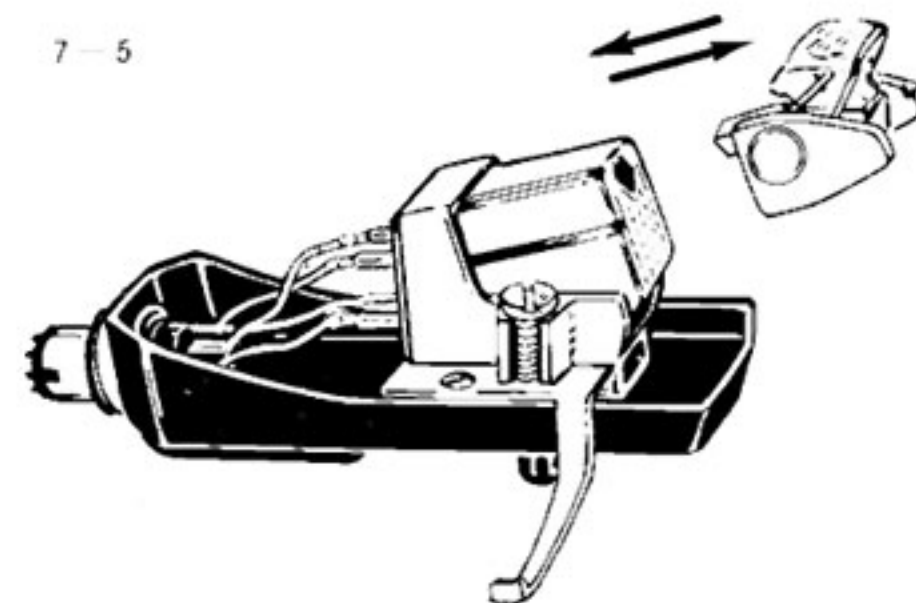


7-4

# CONNECTIONS & ADJUSTMENT

● **Replacing Stylus**

It is required to change the stylus in every 300 ~ 500 hours in order to enjoy the sound reproduction in a good condition. The replacement stylus is V-3200/e, or /XE, /EB & /5.

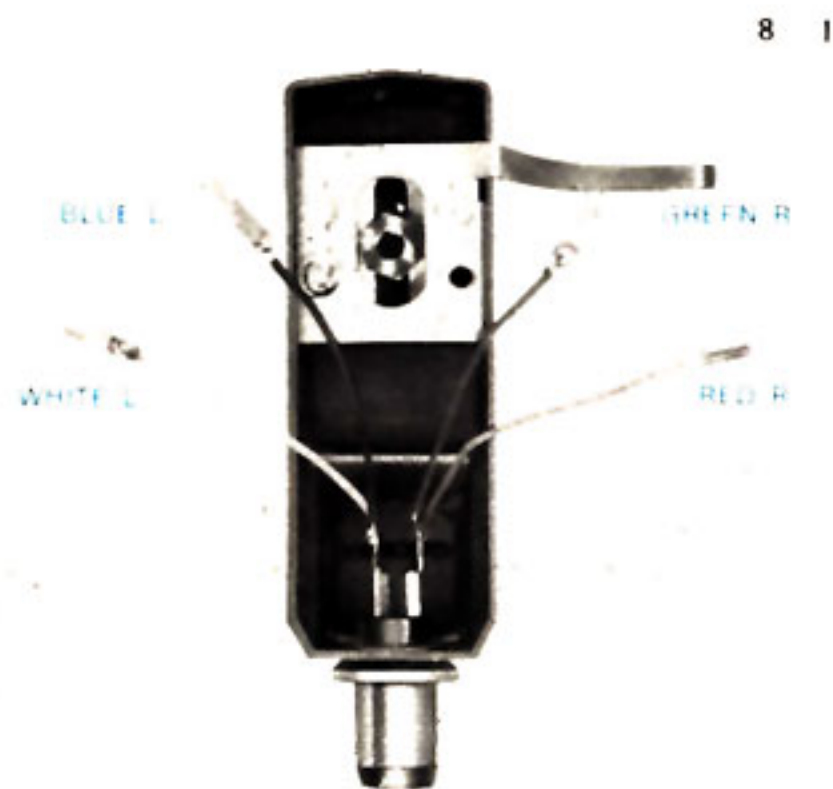


7-5

● **Cartridge Connections**

When the cartridge is replaced, make the following connection between the cartridge and the leads of the headshell.

- |             |                   |
|-------------|-------------------|
| White ..... | Left channel (+)  |
| Blue .....  | Left channel (-)  |
| Red .....   | Right channel (+) |
| Green ..... | Right channel (-) |
- (See. 8-1, 8-2, 8-3)

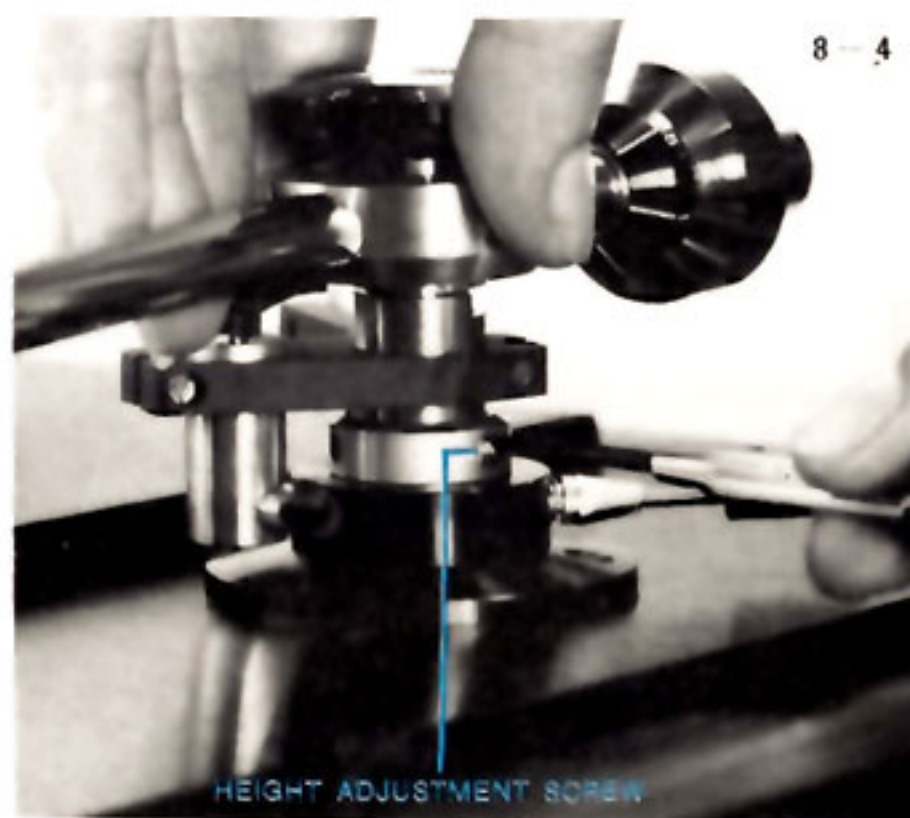
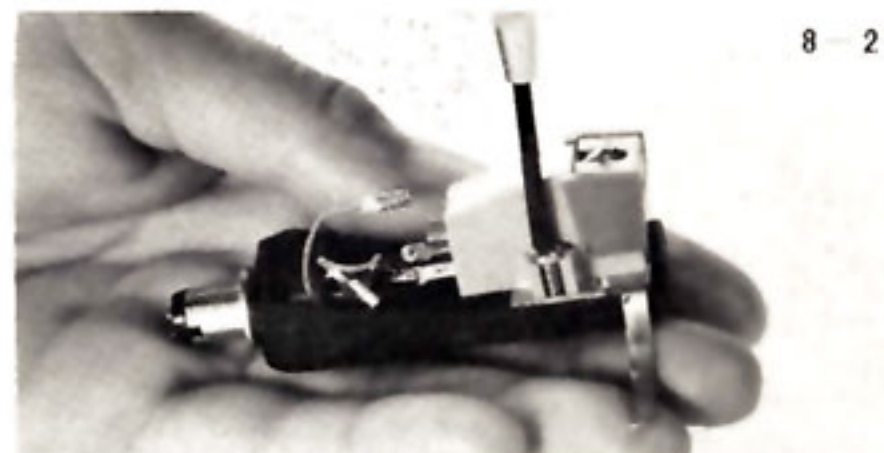


● **Re-Adjustment of Tone Arm**

When you change the head shell with cartridge to other models, it is required to make the re-adjustment of tone arm balance. The acceptable cartridge weight is 4 to 15 grams. In case such heavier cartridges than 15 grams are used, ask the dealer for the additional weight as the optional part.

● **Height Adjustment of Tone Arm**

The adjustable range by the knob is 6mm max. The height adjustment of tone arm is made at the factory according to the cartridge installed. When you change the head shell with cartridge, it is required to make the further adjustment as forementioned. If the re-adjustment can not be made with in movement range of the knob, loose the set screw and obtain the proper height. (See. 8-4).



● **Overhang Adjustment**

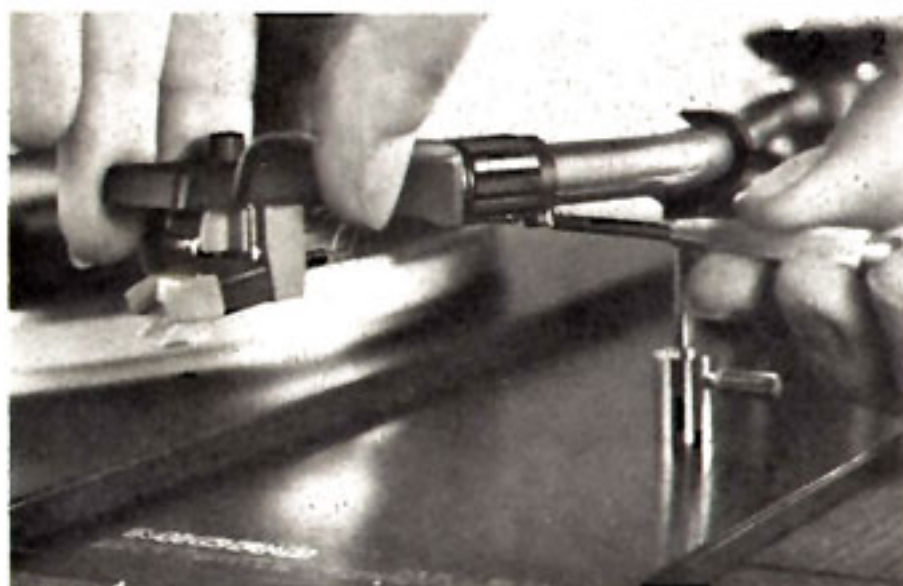
When the cartridge has been replaced, the new cartridge must be adjusted for proper overhang. Overhang is determined by the distance between the stylus point and the center spindle when the tonearm is moved closest to the center of the turntable. Ideal overhang for the tonearm on the MR-611 is 15mm. (See. 8-5).



● **Head Shell Angle Adjustment**

The adjustment ring is aligned at the factory to keep the proper angle of cartridge shell. When you change the shell with cartridge to other one and the proper angle is unobtainable, loose the ring set screw and adjust the angle. Do not tighten strongly. To obtain the exact vertical angle of cartridge, use the service gauge attached. (See. 9-1, 9-2, 9-3).

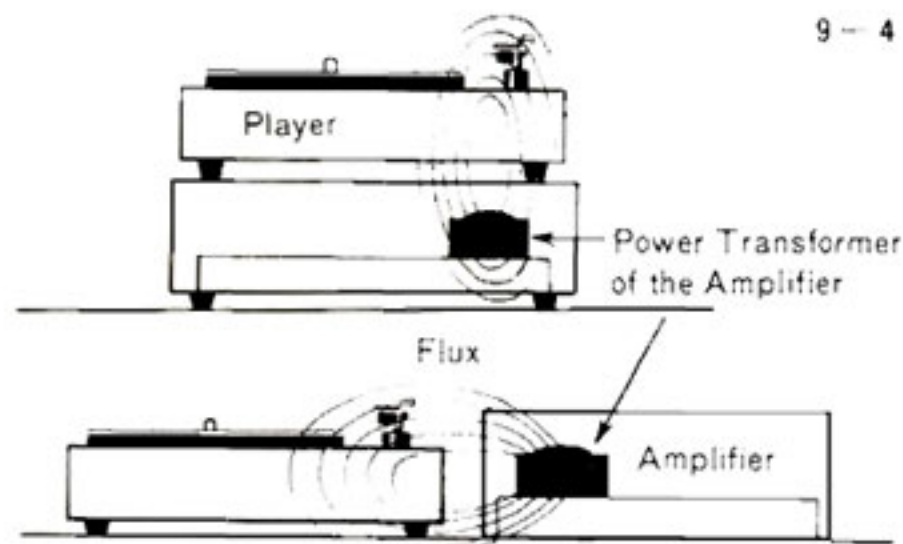
# MAINTENANCE



## ● Placing the Record Player

Howling during play sometimes happens because the turntable has been placed too close to the speaker boxes and the cartridge picks up speaker vibrations. To insure the best performance, never place the turntable directly on a speaker box. To avoid Induced Humming some cartridge is susceptible to the influences of the nearby electromagnetic field which, if too strong, produces humming. Therefore, care should be taken when placing appliances that are driven by motors, such as sewing machines and fans, or products utilizing large transformers near the turntable.

When connecting the turntable to an amplifier it is safer to place the turntable at a location opposite that of the amplifier's transformer side to avoid influences from the amplifier's power source. (See. 9-4).



## ● Oiling the Motor

Although the need for oiling depends on usage, oiling should be performed at least once a year (every 1000 hours) at motor bearing without fail. Remove the platter and apply a few drops of oil into the oil orifice.

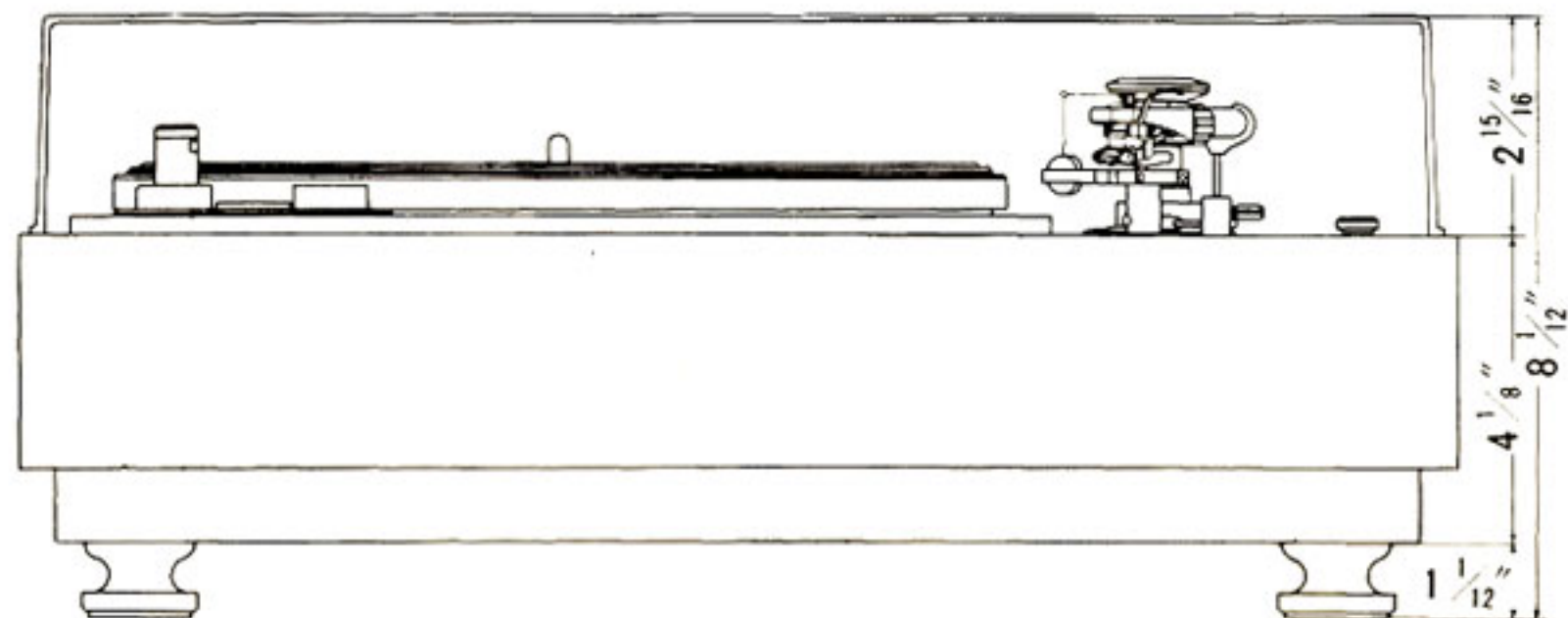
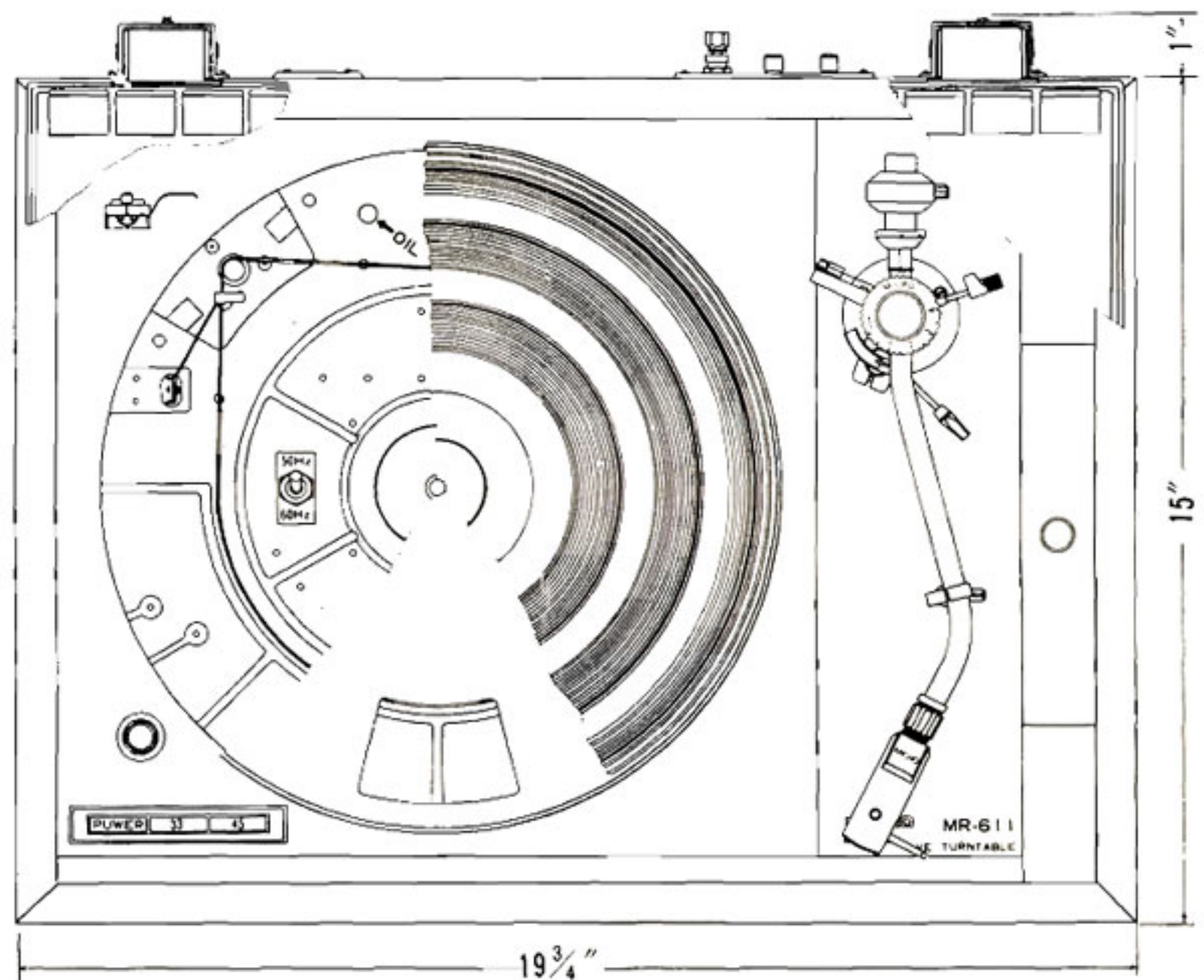
Be careful that the oil does not stain the belt or the capstan. In case of staining, it is necessary to immediately clean the parts thoroughly with benzine or carbon tetrachloride. (See. 9-5).



## SPECIFICATIONS:

- Turn Table** : Cast aluminum alloy double rim platter, 12-1/4" (31 cm) outer diameter, weight 3lbs. 21/2 oz.
- Drive motor** : 8 pole Hysteresis synchronous motor.
- Power requirement** : Universal voltage 100V, 110V, 117V, 200V, 220V and 240V, or 117V model for U.S.
- Speed** : 2 speeds, 33-1/3 and 45 r.p.m., changeable with push-button speed selector, located on the panel board.
- Wow flutter** : less than 0.05%.
- S/N ratio** : better than 52 db.
- Tone Arm** : static balance type S-shaped tubular tone-arm with spring type (adjustable) perfect anti-skating device, split and revolving type counter weight with direct reading stylus pressure ring and oil damped arm lifter.
- Effective length** : 237 mm.
- Over hang** : 15 mm.
- Off-set angle** : 21 degrees.
- Tracking error** : less than 1.5 degrees.
- Acceptable cartridge weight** : 4 to 15 grams.
- Variable range of inside force canceller**: up to 400 m. grams.
- Head shell** : plug-in type, non-resonance pressed light aluminum alloy with slide base for easy adjustment of over hang
- Cartridge**
- Frequency response** : 5 to 35,000 Hz.
- Channel separation** : better than 30 db at 1 kHz.
- Output balance** : less than 1/2 db.
- Output voltage** : 3 mV, at 1 kHz. 3.54 cm/dyne.
- Compliance** :  $30 \times 10^{-6}$  cm/dyne.
- Tracking force** : 0.5 to 1.5 grams.
- Suitable load resistance** : 50 to 100k ohms.
- Stylus** : V-3200/e  
0.3 x 0.8 mil, elliptical diamond.
- Cartridge weight** : 4.5 grams.
- Accessory equipment**: BELT PROTECTION MECHANISM, push-button speed selector works only when the motor is running.  
Spare capstan pulley, 50 Hz or 60 Hz.
- Dimensions** : 19-3/4" (wide) x 15" (depth) x 7-5/8" (height), including 1" of rubber feet.
- Net weight** : 22 lbs.

Specifications will be changed subject to modification without notice





**MICRO** SEIKI CO., LTD.  
19 FUJIMI-CHO ITABASHI-KU TOKYO JAPAN