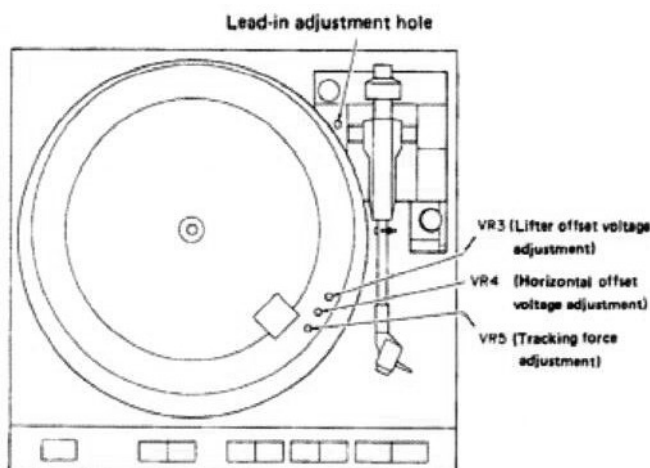


ADJUSTING THE ARM CONTROL SECTION



1. Adjusting the horizontal OP amp. offset voltage

- 1) Fix the tonearm to the arm rest and connect the oscilloscope to TP-6.
- 2) Set the lifter switch to the UP condition.
- 3) Turn VR-4 and adjust to $0V \pm 0.01V$.

2. Adjusting the lifter OP amp. offset voltage

- 1) Fix the tonearm to the arm rest and connect the oscilloscope to TP-5.
- 2) Set the lifter switch to the DOWN condition.
- 3) After about 7 seconds, adjust to $0V \pm 0.01V$ by turning VR-3.

3. Adjusting the tracking force

- 1) Turn the power supply switch OFF.
- 2) Take the arm off the arm rest. Rotate the balance weight so that the tonearm becomes parallel to the turntable surface when let go.
- 3) Return the arm to the arm rest and turn the power supply switch ON.
(Note) Cover the size detecting photo transistors (2 pieces) with a rubber sheet or something to avoid that light enters.
- 4) Wait seven seconds after the arm has lowered. Place the cartridge stylus tip onto a stylus force gauge and set the stylus force adjustment knob to 1.5 g.
(Note) At this time, the stylus tip height should be adjusted so that it is about the same height as during play.
- 5) Turn VR-5 and adjust, so that the stylus force gauge reads 1.5 g. (Turn VR slowly.)

4. Adjusting the 30 cm lead-in position

- 1) Place a 30 cm record on the turntable and set the record size selector switch to "30".
(Note) Keep the bottom cover closed.
- 2) Move the arm so that the stylus tip is at approximately the 30 cm lead-in position. Insert a small flat-headed screwdriver into the lead-in adjustment hole; move the arm back and forth and fit the screw driver into the groove of the cam inside gently.

- 3) After turning the screwdriver, pull it out once. Press the start switch and adjust so that the stylus position stops at the 30 cm lead-in position.

(Note) The 30 cm lead-in adjustments cannot be performed unless the stylus tip position is approximately in the 30 cm lead-in position. In addition, if the screwdriver is left inserted, the arm will not move.

5. Adjusting the 17 cm lead-in position

Adjust as necessary, such as when parts of the sensor section have been replaced.

However, the following procedures should only be used when a discrepancy is found for the 17 cm lead-in position, after the 30 cm lead-in position has been adjusted.

- 1) Set the record size selector to 17 cm.

(Note) The size is automatically changed by placing a 17 cm record on the turntable.

- 2) By continuously pressing the start switch, the arm will move over and stop. At this time, check how many millimeters, toward the inside or outside, the stylus tip deviates from the required 17 cm lead-in position.
- 3) Take off the bottom cover of the cabinet and check the adjustment scale position of the shutter. (One adjustment scale corresponds to a stylus tip movement of 0.5 mm.)
- 4) Untighten the screw holding the sub shutter and place a small flat-headed screwdriver into the slot of the shutter. When the stylus position is toward the inside, compared to the required position, move the sub shutter toward the right of the scale; when the stylus position is toward the outside, move the sub shutter toward the left. When completed, tentatively tighten the screw holding the sub shutter.
- 5) After the adjustments are made, press the start switch and check whether or not the stylus stops at the 17 cm lead-in position.
- 6) If the stylus stops at the required position, then tighten the sub shutter screw.

