SII
Seiko Instruments

OFL-12 SERIES

OFL-123001 / OFL 127001
MASS PRODUCTION POLISHER

MAINTENANCE MANUAL

PREFACE

This manual has been prepared to provide the information needed to perform maintenance tasks necessary to maintaining the long-term capability of the OFL-11 and OFL-12 Mass Production Polishers (hereafter referred to collectively as OFL-12). Before performing inspection or maintenance tasks, be sure to read this maintenance manual thoroughly. Store the manual in a safe place for future reference.

NOTE

Always switch the power off and disconnect the plug from the outlet before performing inspections, maintenance tasks, or adjustments.

CHAPTER 1

LUBRICATION

The transimission section and thrust pin should be lubricated regularly. This chapter explains the procedures for lubrication.

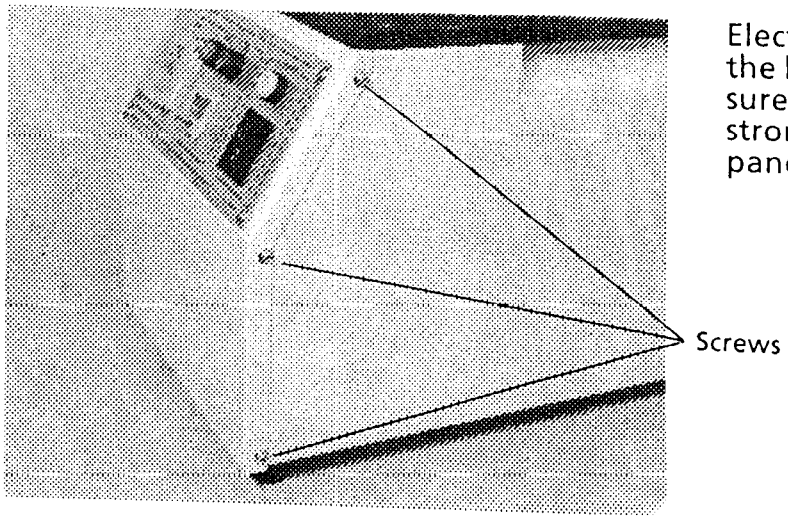
1.1 TRANSMISSION SECTION LUBRICATION

- Lubrication interval: About once every six months.
- Tools: Grease (Included in the product)
  (Recommended grease: COSMO WIDE GREASE WR No.2 by COSMO OIL Co,LTD.)
  Phillip's screwdriver
  Spatula
  Cleaning paper

Procedure

Step 1 Disconnect the power cord from the outlet.

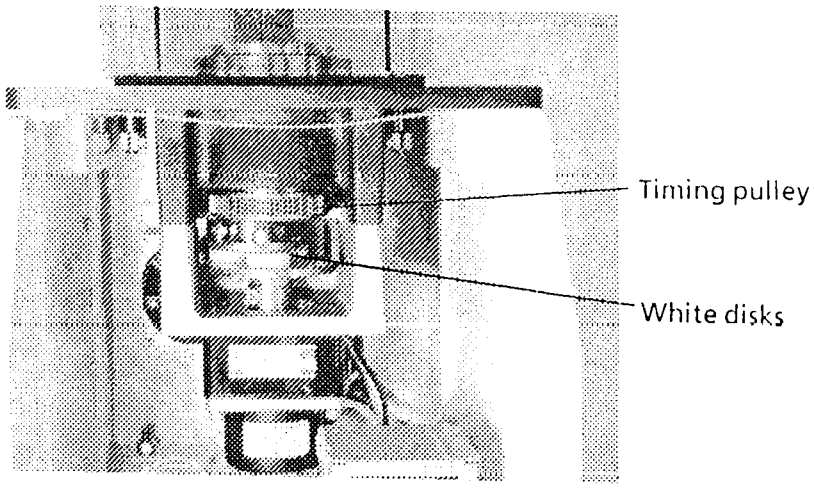
Step 2 Remove the screws from the left and right sides of the front panel of the OFL-12 (three screws each side) then carefully remove the panel.



NOTE

Electrical wiring is connected to the back of the front panel. Make sure that the wiring is not pulled strongly when removing the front panel.

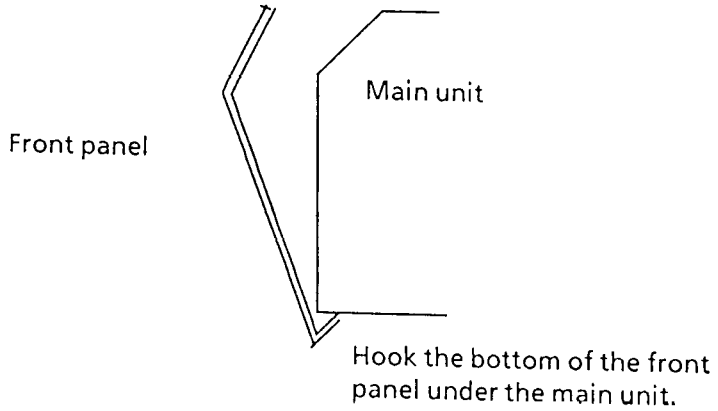
Step 3 Using a spatula, apply grease to the white plastic parts (disks). Rotating the timing pulley by hand, make sure that the grease is spread thoroughly and evenly.



NOTE

When using a spatula to apply the grease, be sure to thoroughly wipe off any dirt from the spatula with the cleaning paper.

Step 4 Replace the front panel by first hooking the bottom of the panel under the main unit, then pushing the panel onto the main unit. Secure the panel with the six screws (three each side).



NOTE

Take care not to pinch your hand when attaching the front panel.

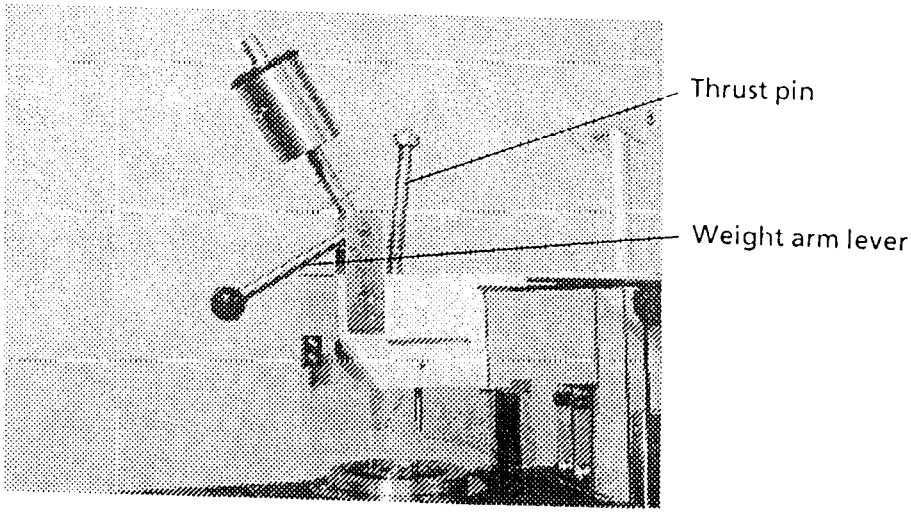
1.2 THRUST PIN LUBRICATION

- Lubrication interval: About once three months.
  (When the thrust pin does not move smoothly, lubricate oil to the thrust pin on occasion.)
- Tools: Oil
  (Recommended grease: LPS3 HOLT LLOYD Corporation)
  Cleaning paper
  Ethyl alcohol

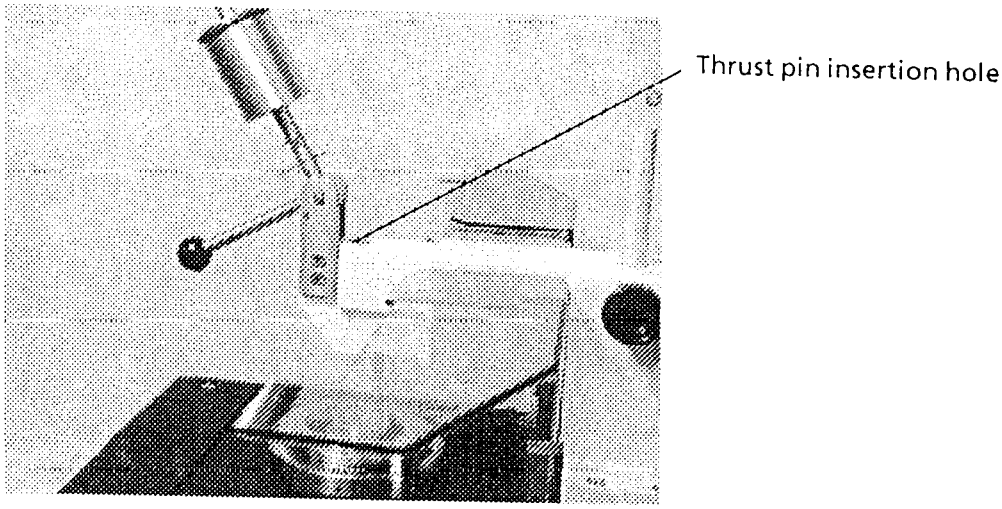
Procedure

Step 1 Disconnect the power cord from the outlet.

Step 2 Pull the weight arm lever forward, then remove the thrust pin.



Step 3 Using cleaning paper, clean the thrust pin insertion hole located in the arm.



Step 4 Using ethyl alcohol, clean the thrust pin.

Step 5 Lubricate the thrust pin with oil.

Step 6 Reinsert the thrust pin into the insertion hole in the arm, then raise the weight arm lever to put the weight back in place.

Step 7 Make sure that when the weight is raised and lowered the thrust pin also goes up and down.

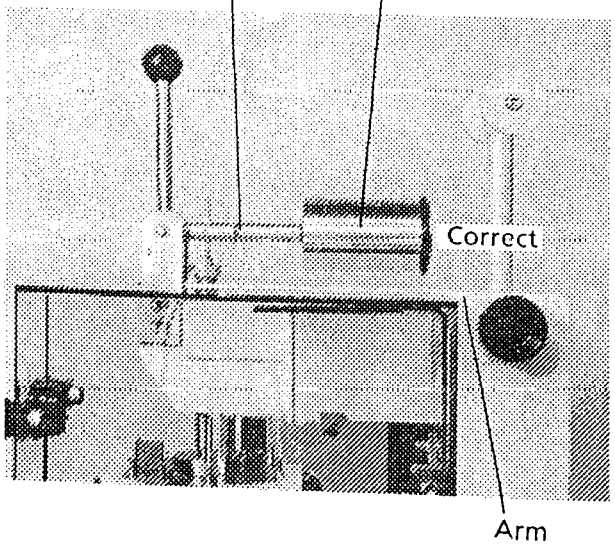
CHAPTER 2

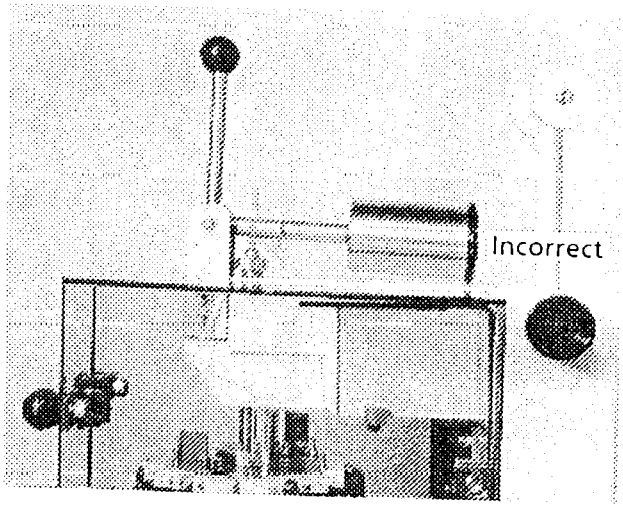
INSPECTION AND ADJUSTMENT

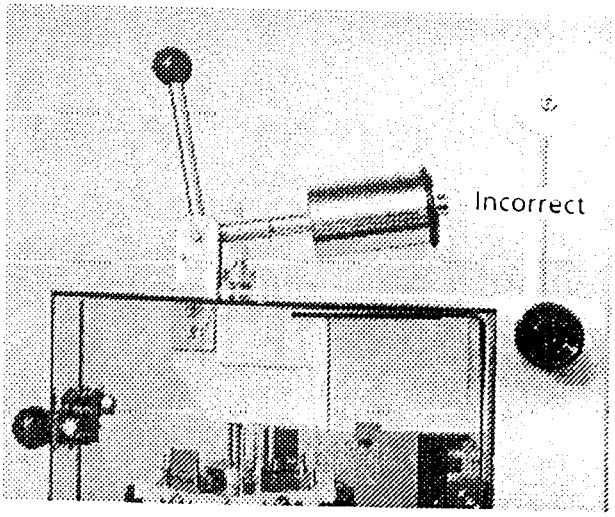
To fully utilize the functions of the OFL-12, it is necessary to perform certain inspections and adjustments. The procedures for performing these tasks are explained in this chapter.

2.1 WEIGHT ARM POSITIONING

The weight arm must be positioned and secured so that when the weight arm lever is raised full up the weight is parallel to the top surface of the arm of the main unit and the holding jig.







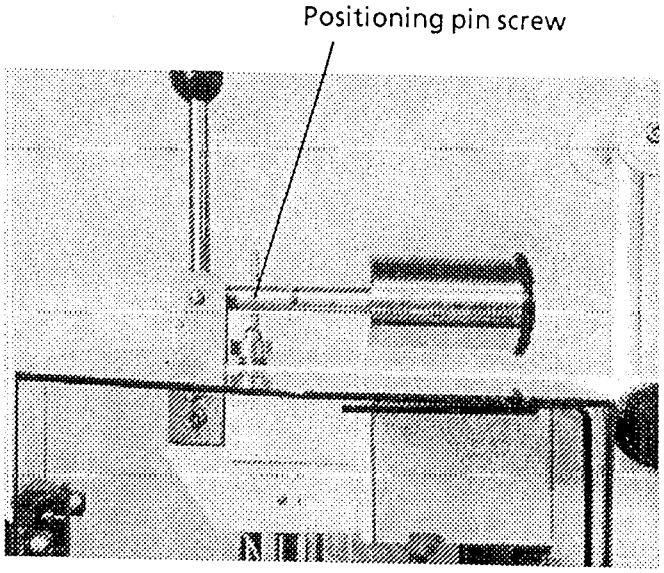
- Tools: Hex key (M2)

Procedure

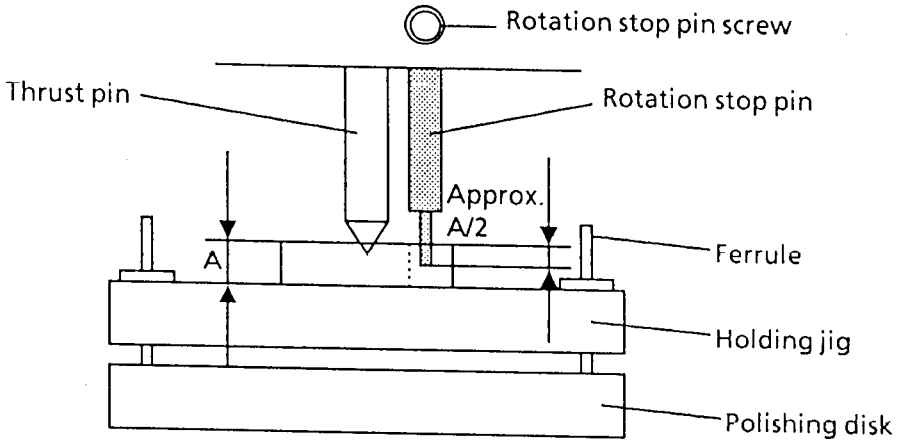
Step 1 Disconnect the power cord from the outlet.

Step 2 Mount at least one unnecessary ferrule in each of the six sides of the holding jig, then mount the holding jig on the polishing disk.

Step 3 Loosen the screw securing the positioning pin, then while pressing the positioning pin down so that the tip of the thrust pin is properly positioned in the center of the holding jig, position the weight arm so that the weight is parallel to the arm of the main unit. With the weight arm in that position, tighten the screw securing the positioning pin.



2.2 ROTATION STOP PIN HEIGHT ADJUSMENT



- Tools: Hex key (M2)

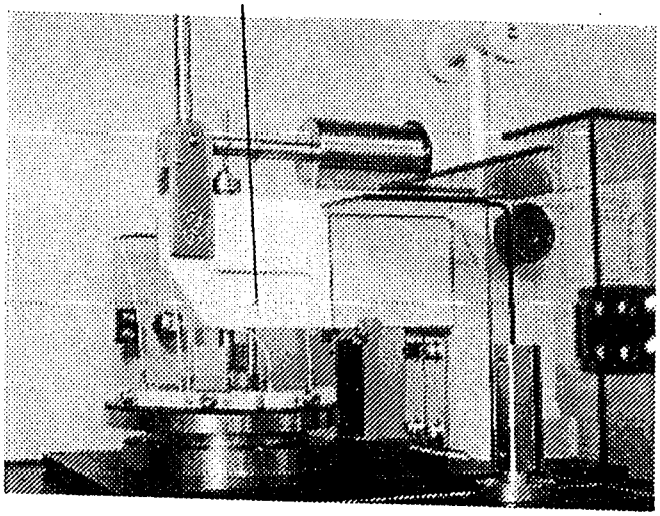
Procedure

Step 1 Disconnect the power cord from the outlet.

Step 2 Mount at least six unnecessary ferrules in the six sides of the holding jig.

Step 3 Loosen the screw securing the rotation stop pin then adjust the rotation stop pin so that its tip goes into the notch about half the thickness of A (see the figure above). Tighten the screw to secure the pin in that position.

Rotation stop pin screw



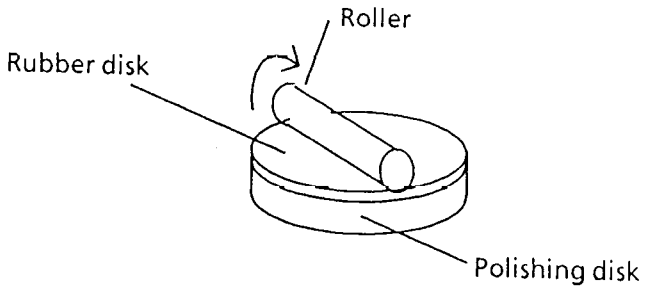
2.3 RUBBER DISK PEELING

- Tools: Rubber disk (with double-sided tape) (Part number: KJP100500)
  Ethyl alcohol
  Roller

Procedure

Step 1 Peel the rubber disk off the polishing disk, then using ethyl alcohol, remove any adhesive remaining on the polishing disk.

Step 2 Remove the backing paper from the double-sided tape then place the rubber disk onto the polishing disk, using the roller to make sure the rubber disk is mounted flat and smooth.



NOTE

Rubber disks that have peeled off or have been removed should not be reused. Always mount a new rubber disk.

Rubber disks can be purchased from an authorized SII dealer.

2.4 POLISHING FILM ADSORPTIVITY

It is recommended that the following procedure be performed to improve the adsorptivity between the rubber disk and the polishing film.

- Tools: Acetone
  Roller

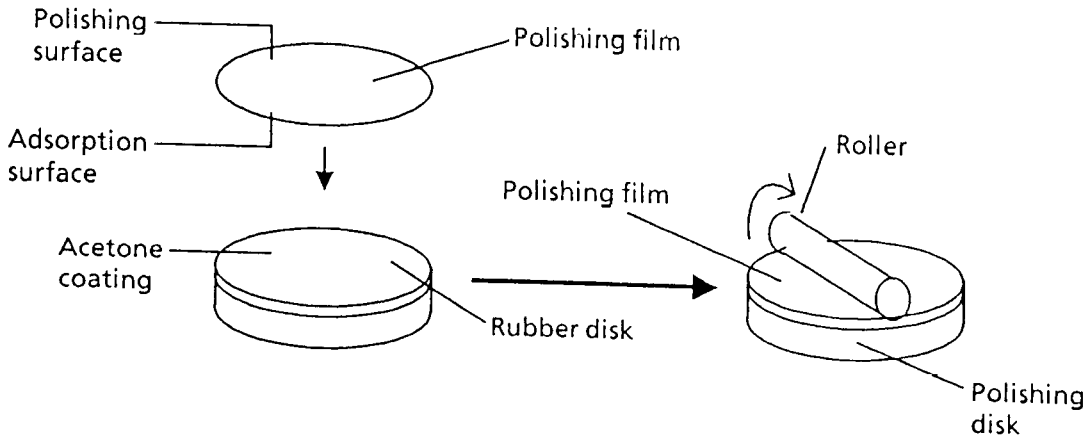
Procedure

NOTE

Always make sure there is sufficient ventilation when using acetone. Also, always use solvent resistant gloves when handling acetone.

Step 1 Apply acetone to the surface of the rubber disk, then before the acetone dries, place the polishing film onto the rubber disk and press it down and smooth it with a roller.

This makes the surface of the rubber disk smooth, improving the adsorptivity with the polishing film.



2.5 SAFETY CIRCUIT OPERATION CHECK

Check the followings to use this machine safely.
Make the checkings with the front panel closed.

Check 1 Make sure the machine does not operate when the protection cover is open.

Step 1 Turn the power switch ON.

Step 2 Set the timer to 1 min.

Step 3 Press the start switch.

Step 4 Make sure the machine does not operate.

Check 2 Make sure the machine stops when the protection cover is opened. Then make sure the machine does not restart only by closing the protection cover.

Step 1 Turn the power switch ON and press the start switch to start the machine.

Step 2 Open the protection cover.

Step 3 Make sure the machine stops immediately.

Step 4 Close the protection cover.

Step 5 Make sure the machine does not operate.

- Removing the drive unit

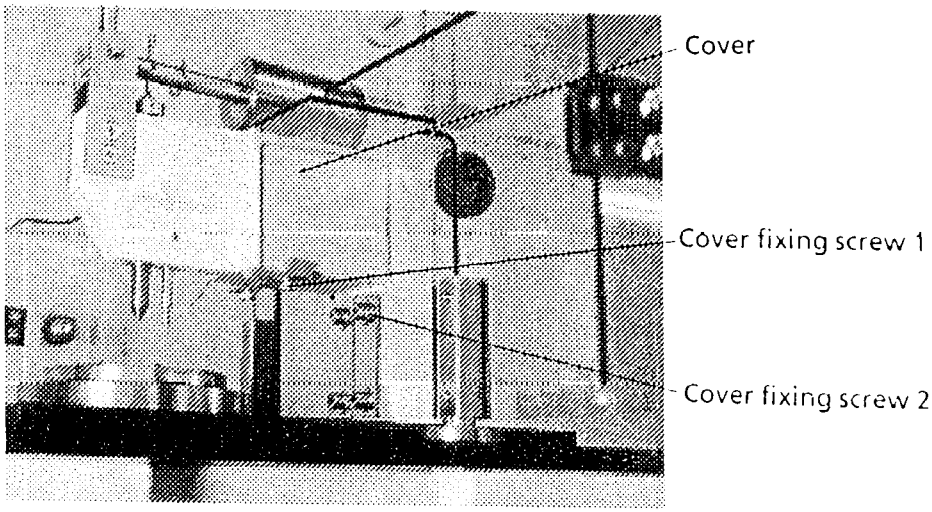
Step 1 Remove the power adapter from the outlet.

Step 2 Open the protection covers fully.

Step 3 Remove the polishing disk.

Step 4 Loosen the cover fixing screws 1 (2 places).

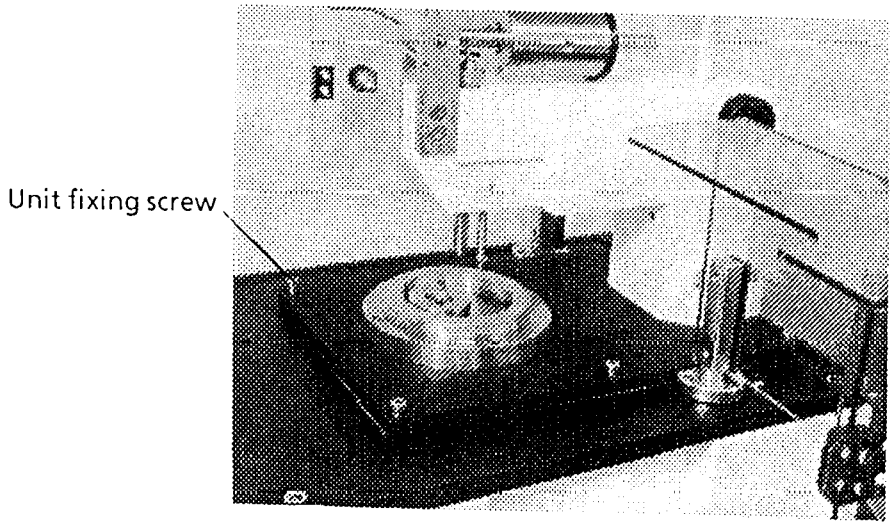
Step 5 Remove the cover fixing screws 2 (4 places) and remove the (right and left) covers.



Step 6 Remove the unit fixing screws (6 places).

Step 7 Raise the drive unit upward and remove the connector for motor wiring.

Step 8 When attaching the drive unit, follow the above procedures in the reverse order.



NOTE

Do not drag the wiring when you remove the connector for motor wiring.

NOTE

Take care not to pinch your hand when attaching or detaching the drive unit.