Maintenance
The H.MH-170 has permanently lubricated ball bearings that do not require lubrication. Putting even a small amount of oil into the handpiece can damage it.

Cleaning Handpiece
Use the Handpiece in as clean and dust free an environment as possible. If the Micromotor Handpiece is used for woodcarving, it should be cleaned after every use. With handpiece power cord disconnected from control box, unscrew the protective cap (see Figure 5) and use a clean cloth to wipe dirt, chips or dust off from the exhaust ports and inside the cap. A cloth with a small amount of alcohol solution can be used to clean the outside of the handpiece if necessary.

Do not use any other cleaning fluids or immerse handpiece in any liquid. The H.MH-170 Handpiece is not autoclavable.

Checking/Changing Carbon Brushes
A spare set of carbon brushes is supplied with each handpiece. Depending on how long the handpiece is used each day, the brushes should be checked for wear periodically (about every 200 hours of use) and replaced when the brush is less than 2mm (5/64") long.

1. With handpiece power cord disconnected from control box, unscrew protective cap from rear of motor (see Figure 5) by turning in counterclockwise direction while gripping the handpiece body. (It has a standard right hand thread.)

2. With small crosspoint screwdriver remove screws and brush assemblies one at a time when reusing existing brushes. Check length of carbon brush from spring to curved side of brush.

Brushes should be removed, and replaced (if less than 2mm in length) one at a time. Pay careful attention to the orientation of the brush curve in relation to the curve of the motor armature. This same orientation must be maintained when replacing brushes.

3. Carefully remove the brush assembly from the nose cone, see Figure 8.

4. Insert the chuck joint wrench into the cross section of the back end of the spindle assembly. Insert the collet head into the appropriate size triangle hole on the chuck wrench and turn the chuck wrench counterclockwise to loosen the collet while holding the chuck joint wrench with your other hand, see Figure 9 above.

5. Remove collet and insert new size collet, with test bur. Use the triangular hole in chuck wrench to re-tighten collet by turning clockwise. Make sure to securely tighten collet or the spindle will not turn. Align cross-shaped motor drive to spindle by rotating the collet during installation.

6. Re-attach and tighten nose cone.

Micromotor Accessories
The K. 1070 Micromotor Kit comes with a chuck wrench and chuck joint wrench for changing collets, a spare fuse, and spare pair of motor brushes as shown in Figure 6.

Installing/Changing Collets
The handpiece comes with a 2.35mm (3/32") collet installed. Optional 1/8" and 3mm collets are available separately. They can be installed with the collet changing wrenches, described below.

Caution: Finger tightening is not enough. A wrench must be used to tighten the collet fully several turns beyond the point of initial resistance. If collet is too loose or absent, spindle will not turn and damage will occur.

1. With a test bur in the collet, turn the Locking Ring toward the secure “S” (closed) position (see Figure 4 on reverse.)

2. Place the hexagonal hole of wrench over the brass nose cone and unscrew the nose cone assembly from the handpiece body (shown in Figure 7.) Do not remove locking ring or spring.

Carbon Brushes continued
3. Reinsert brush assembly or new assembly into brush tube. Replace and tighten screws.

4. Screw protective cap back onto rear of motor housing so that top of brush assembly is completely tightened.

5. If new brushes were used, run the handpiece for 30 minutes at half-speed no load to confirm proper function, before use.

Warranty
Foredom warrants its product to be free of defects in material or workmanship for a period of one year after purchase. During the warranty period, the defective product will be repaired or replaced without charge or, at our option, the purchase price will be refunded. This warranty does not cover damage caused in transit or by accident, misuse, or ordinary wear.

ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO WARRANTIES OF FITNESS AND MERCHANTABILITY, ARE HEREBY LIMITED IN DURATION TO A PERIOD ENDING ONE YEAR FROM DATE OF PURCHASE, AND WE WILL NOT BE LIABLE OR RESPONSIBLE FOR ANY SPECIAL OR CONSEQUENTIAL DAMAGES.

Repair Services
Authorized repair service is available at the Foredom factory in Bethel, CT. Send items for repair to the factory marked “Attention: Repair Department”. Enclose the item(s), a packing list, and information regarding the problem or repairs required. Estimates of repair costs must be made upon request. It is our policy not to proceed with a repair without your approval if the cost (labor plus parts) is more than fifty percent of the cost for a new replacement. You will be notified and advised of the cost to repair and to purchase a new replacement. Please allow three business days for an estimate to be done and five to seven business days for repair work to be completed after we receive your approval to proceed.

For Your Safety:
Read this Manual before operating your Foredom Micromotor Power Tool. Always wear eye protection while using the Foredom Micromotor Handpiece.

Operation and Maintenance Manual for K.1070 Micromotor Kit

F-1278 D 6/22 Printed in U.S.A.
**Micromotor Handpiece**

A Micromotor Handpiece is a high speed rotary power tool which can be dangerous and cause serious injury if it is not used properly. **NEVER** operate it without wearing eye protection. **ALWAYS** wear proper eye and face protection. **ONLY** use accessories rated for speeds of 38,000 rpm or higher when operating this micromotor. **ALWAYS** observe the manufacturer's maximum speed rating when using any accessory other than those included. **NEVER** use or continue to use any accessory which appears to be damaged, loose, vibrating, bent, or out of balance. Inspect each accessory for cracks or flaws before use. **ALWAYS** insert the shank or arbor of an accessory or mandrel into the collet or chuck of the handpiece as far as possible in order to provide proper support and close the collet or chuck securely. **DO NOT** use accessories with shanks that are less than 1” long. **NEVER** use excessive side pressures which may tend to break the shank or arbor of an accessory. Let the speed of the accessory do the work. **DO NOT** stall the motor by jamming or using excessive pressure on the mounted point, buff, wheel or accessory. This can result in damage to the motor. **WEAR** a dust protector to prevent the inhalation of harmful dust or debris from grinding, carving or other operations performed with this power tool. **DO NOT** cover the ventilation slots or handpiece motor with cloth or tape. Air must pass freely through the intake and exhaust ventilation slots to properly cool the motor. If the power cord or plug to the handpiece is damaged, repair or replace immediately. **NEVER** operate with a damaged power cord. **USE** a dust collector (vacuum system) topull sawdust, grinding dust, or other debris away from the work area and the micromotor intakes vents.

**Connecting Handpiece**

Attach the micromotor handpiece to the control box by plugging the collet into the Handpiece Connection Port on the lower right side of the front control panel (Figure 1). Use keyway for proper alignment when plugging in the collet. **NEVER** plug the handpiece into the Variable Speed Foot Control Connection Port. The Variable Speed Foot Control is suitable for either 110 or 220 volt operation.

**Connecting the Handpiece to the Variable Speed Foot Control**

Attach it by inserting the connector to the Variable Speed Foot Control connection port as on the rear panel of the control (Figure 2) using keyway for proper alignment. It is not necessary to have the foot pedal connected to the control box to operate the dial speed control. The Micro-control and handpiece are now ready to operate.

**Operating the handpiece with the Speed Control Selector Switch in the Fwd position.**

**Connecting Power Cord**

Before connecting the power cord plug (Figure 2) to a power outlet, select the proper voltage (110 or 220v) on the back of the control box. Put the On/Off Selector Switch in the OFF position and turn the dial speed control to the OFF speed position. Be sure that the foot pedal is closed (with or without) an accessory in it. Operating the handpiece with the clutch in the open position can cause severe damage to the motor. Now plug in the power cord to an AC current outlet. See Figure 2 to select the Hand-Foot and Forward/Reverse switches.

**Forward/Reverse Rotation Selection Switch**

With the Power On/Off Switch in OFF position, select either foot or hand speed control. With the Speed Control Selector Switch in the Hand-Foot position, the switch lever will light up at the speed set by the Dial Control. With the Speed Control Selector Switch in the Foot position, the handpiece will not operate until the Foot Pedal is depressed.

**Regulating Speed:**

The Dial also controls the maximum speed that can be reached when using a foot pedal.

To achieve maximum speed with a foot pedal, the dial speed control must be set all the way to the Max setting.

**Handpiece Overload Protection:**

If the Handpiece is used with a locking foot pedal, the handpiece will result in damage to the motor. **NEVER** use accessories with shanks less than 1” long. **4. Twist knurled grip toward “S” or “Secure” (see Figure 4) by turning clockwise until it snaps to lock collet. Never turn power on to handpiece when collet is open. The spindle is in a locked position and will not turn which will result in damage to the motor.**

**Changing Accessories**

Burs and other accessories can be inserted or removed from the handpiece when the collet is open. **Open the collet:** 1. Put the power switch on control box in OFF position and wait for handpiece to stop rotating. 2. Twist locking ring toward “R” or “Remove” (see Figure 4 below) by turning clockwise until collet snaps open. 3. Insert shank of accessory fully into collet for maximum support. **DO NOT** use accessories with shanks less than 1” long. **4. Twist knurled grip toward “S” or “Secure” (see Figure 4) by turning counter-clockwise until it snaps to lock collet.**

**Collets Available for the H.MH-170 Handpiece**

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