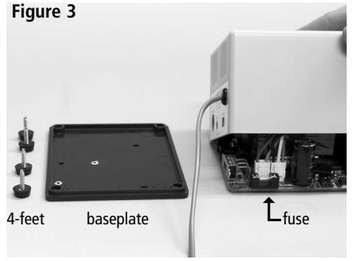
5. Handpiece Overload Protection:

If the Handpiece is used in an overload condition caused by excessive workload, it will trigger the overload circuit protector. The red overload light will come on with an audible alarm, and the handpiece will stop. Immediately turn off control by putting the Power ON/OFF switch in OFF position. Put power switch in ON position again when overload condition is corrected. There may be a time delay of several seconds before the overload trip resets.

6. Fuse Protection:

The internal circuit is protected by a 3.15 Amp, 5mm x 20mm, Bussman Type GDC-3.15A or equivalent fuse. A blown fuse usually indicates a short circuit condition on the circuit board. The blown fuse should require that the board be checked by a qualified technician. Disconnect the power cord, unscrew the four feet and remove the baseplate. The fuse is located in the top left corner of the circuit board. Replace fuse and re-assemble the baseplate with four feet.

Figure 3



Re-connect the Power cord and test unit operation.

Maintenance

The MH-011 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.
A cloth with a small amount of alcohol solution can be used to clean outside of handpiece if necessary.

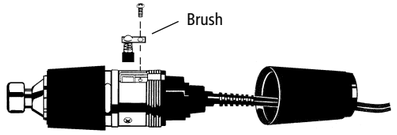
Do not use any other cleaning fluids or immerse handpiece in any liquid.

Checking/Changing Carbon Brushes:

A spare set of carbon brushes (Part No. 813514) 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 the 2mm (5/64") long.

To Check/Replace Motor Brushes:

1. Unscrew protective cap from rear of motor (see Figure 4) by turning in counter-clockwise direction while griping handpiece body. (It has a standard right hand thread.)



2. With small crosspoint screwdriver remove screws and brush assemblies one at a time. Check length of carbon brush from spring to curved side of brush. ***Brushes should be removed, examined, and replaced (if necessary) one at a time.***

3. Re-insert brush assembly or new brush 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 covered.

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 cost will 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 by mail 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.

Please retain your proof of purchase for warranty repairs.

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 or replacement will be made at our option if the product is returned postpaid to:

The Foredom Electric Company, 16 Stony Hill Road, Bethel, CT 06801

All warranty repairs must be done at the factory at the address above. We will not pay any shipping or transportation charges.

This warranty only covers the original purchaser of the product. Proof of purchase may be requested.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

For More Information

For more information on Foredom machines, handpieces or accessories, contact your local dealer. When no local dealer is available, write, call or fax:
The Foredom Electric Company, 16 Stony Hill Road, Bethel, CT 06801
(203)792-8622, Fax: 203-796-7861 Email: customerservice@blackstoneind.com

Visit our website: **www.foredom.com**

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Printed in U.S.A.

FOREDOM®

Operation and Maintenance Manual for 1080 Micromotor Hammer Kit

For Your Safety:

Read this Manual before operating your Foredom Micromotor Power Tool.

Always wear eye protection while using the Foredom Micromotor Handpiece.

FLUME TECHNIK

Flume Technik GmbH - Hachestrasse 66
D-45127 Essen - Tel.: 0201-1899-0
Fax: 0201-1899-100 - info@flume.de
www.flume.de

Safety Instructions

A Micromotor Handpiece is a high speed 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.**
- **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 accessory shank into the chuck of the handpiece as far as possible in order to provide proper support and close the chuck securely.
- **NEVER** use excessive side pressures which may tend to bend or break the shank or arbor of an accessory. Let the speed of the accessory do the work.
- **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) to pull sawdust, grinding dust, or other debris away from the work area and the micro motor intake vents.
- **NEVER plug the Handpiece into the Variable Speed Foot Control Connection Port on the back of the Control Box.**
- **ALWAYS plug the Handpiece it into the Handpiece Connection Port on the Front of the Control Box.**
- **DO NOT** operate the handpiece in the presence of any flammable liquid or gas.

Assembly Instructions

Do not plug into a power outlet before connecting the handpiece. Also, check to see that the voltage selector switch (located on the back of the control box) is set to the voltage to be used–110 or 220 volt.

Figure 1 Front Panel

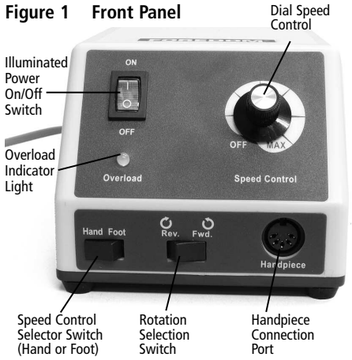
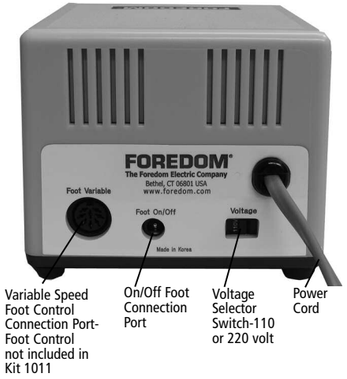


Figure 2 Rear Panel



Connecting Handpiece:

With the Power Switch in the **"Off"** position and the Rotation Selection Switch in the **"Forward"** position, attach the micro motor handpiece to the control box by plugging the coiled cord 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 cord. **NEVER plug the handpiece into the Variable Speed Foot Control Connection Port on Back of Control Box.**

Always use the MH-011 handpiece in the forward direction. Never use in reverse.

Connecting Power Cord:

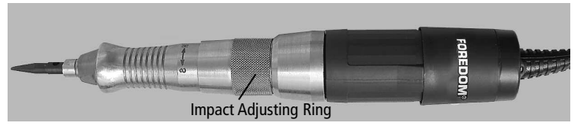
Before connecting the power cord plug (Figure 2) to a power outlet, select the proper voltage (110 or 220v) on the voltage selector switch on the back of the control box. Put the On/Off Selector Switch in the **"OFF"** position and turn the dial speed control to the **"OFF"** speed position. ***Put the Rotation Selection Switch in the Forward Position. Operating the handpiece with the switch in the reverse position can severely damage the handpiece.*** Now plug in the power cord to an AC current outlet. Refer to the section below for selecting the Hand/Foot and Forward/Reverse switches.

Attaching Handpiece Accessories:

The MH-011 Hammer Handpiece comes with the following accessories and adapters:

3–10177K Anvil Points with Threaded Shanks
1– H8-32 Anvil Point Adapter for Threaded Anvil Point 10177K
1– H8-35 Adapter for Non-threaded Shank Accessories (2.35mm shank tools)
1– H8-214 Graver Holder with Allen Key
1– H8-38 Open End Wrench (5mm)
2–10562 Pins, used to tighten Anvil Points
1– H8-39 Anvil Point Holder (used for shaping the point)

MH-011 Handpiece and Accessories



Three anvil points are supplied so that the tips can be shaped or modified for different setting operations. To use the anvil points, thread in the anvil point adapter and tighten with wrench. Thread an anvil point in to it and tighten it with a pin in its cross hole.

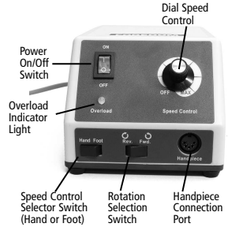
Texturing and beading tools with non-threaded 2.35mm shanks such as the pavé diamond point (No. R146) can be used with the Adapter (No.H8-35) in the handpiece. Thread the Adapter into the front of the handpiece and tighten with the wrench. Insert a 2.35mm shank tool into the adapter and tighten the set screw with a Phillips screw driver.

The H8-214 Graver Holder screws into the front end of the handpiece and converts it into a power engraving tool. It comes with a 5/64″ allen key.

Impact Adjustment:

The force of impact can be increased or decreased by turning the metal ring while the handpiece is either off or running. Test the impact on a piece of metal or material similar to the work piece until

Operating Instructions for HP4-917 Control Box



1. Power On/Off Switch:

When the Power On/Off Switch is in the ON position the switch lever will light up. **This switch must be in the ON position for the handpiece to run with either the dial speed control or the foot speed control selected.**

Always turn the Dial and Power On/Off Switch to the Off position when not in use.

2. Hand or Foot Selector Switch:

With the Dial and Power On/Off Switch in the OFF position, select either foot or hand speed control. With the Speed Control Selector Switch in the **Hand** position, the handpiece will run at the speed set by the Dial Speed Control.

3. Forward/Reverse Rotation Selection Switch:

With the Power On/Off Switch in **"OFF"** position, select the **"FORWARD"** position. **Do not change handpiece direction while it is running and do not use in reverse.**

4. Regulating Speed:

The Dial Speed Control varies the speed of the handpiece (impacts per minute) from minimum to maximum when the Speed Control Selector Switch is in the Hand position.