

FOREDDOM[®]

OWNER'S MANUAL

**ASSEMBLY, OPERATION
AND
SERVICE MANUAL
FOR SERIES
CC, DD, EE, F, GG
MM and MMG**

**POWER TOOLS
AND
HANDPIECES**



FOR YOUR OWN SAFETY PLEASE
READ OWNER'S MANUAL BEFORE
OPERATING YOUR FOREDDOM POWER
TOOL. WEAR EYE PROTECTION.

 **FOREDDOM[®]**

THE FOREDDOM ELECTRIC CO.

CONTENTS

I. SAFETY	Page 1
II. FOREDOM TOOLS	3
Illustrations & Descriptions	3
The Complete Tool	5
III. ASSEMBLY INSTRUCTIONS	6
A) Assembly & Adjustment of Flexible Shaft, Sheath & Handpiece	6
Series CC, DD, MM	7
Series EE, GG, MMG	8
Series F	9
B) Connecting Foot or Manual Speed Controls, all Series	10
C) Installing & Attaching Accessories	13
D) General Accessory Recommendations	14
IV. OPERATION	14
All Series	14
V. MAINTENANCE	15
Routine Cleaning & Lubrication	15
Replacement of Motor Brushes	15
Replacement of Worn Shafts & Sheaths	15
Handpiece Lubrication	16
Other Service and Repair	16
Recommended Spare Parts & Supplies	17
LIMITED WARRANTY	18
OWNER'S REGISTRATION CARD	18
FOR MORE INFORMATION	18

I. SAFETY INSTRUCTIONS

Before using your Foredom® power tool, please read all these safety instructions. They are for your protection and should always be followed to reduce the risk of personal injury or damage to the tool.

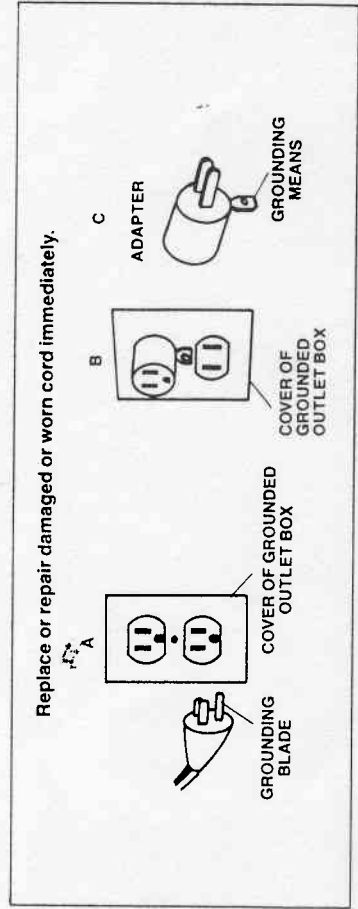
- ALWAYS WEAR PROPER EYE AND FACE PROTECTION. Safety glasses or face shields should be worn whenever you operate a Foredom or any power tool to prevent serious eye or face injuries.
- NEVER OPERATE ANY ACCESSORY AT SPEEDS ABOVE ITS MAXIMUM RATED SPEED. When properly used, all of Foredom's accessories can be operated at the speed ratings listed in the Foredom accessory catalogs or the accessory kits and packages. ONLY accessories rated for 35,000 RPM or more should be used with the Foredom No. 35 handpiece. ALWAYS find out the manufacturer's speed rating before using accessories other than Foredom accessories. (Safety requirements for the use, care, and protection of abrasive

wheels are contained in ANSI Standards B7.1-1978 which are available from ANSI, 1430 Broadway, New York, New York 10018.)

- NEVER use or continue to use any accessory which appears to be damaged, loose, vibrating, or out of balance. Inspect each accessory for cracks or flaws before using it.
- ALWAYS insert the shanks 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 tighten the collet or 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.
- DO NOT stall the motor by jamming or using excessive pressure on the accessory. This can result in damage to the motor or flexible shaft.
- NEVER operate the motor with the outer sheath removed from the flexible shaft.
- ALWAYS DISCONNECT the power cord before servicing the motor or removing the flexible shaft or sheath.
- NEVER operate your power tool during a perceptible power decrease. Turn power tool off and do not use until power is fully restored.
- USE PROPER GROUNDING PROCEDURES. Complete grounding instructions are contained in Form 1318 which accompanies this manual. This tool should be grounded while in use to protect the operator from electric shock. The tool is equipped with an approved 3-conductor cord and a 3-prong grounding type plug to fit the proper grounding receptacle. The green (or green and yellow) conductor in the cord is the grounding wire. Never connect the green (or green and yellow) wire to a live terminal. If your unit is for use on less than 150 volts, it has a plug that looks like sketch A in diagram. An adapter, 2-prong receptacles. The green-colored rigid ear, lug, etc., extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box.

Use only 3-wire extension cords that have 3-prong grounding type plugs and 3-pole receptacles that accept the tool's plug.

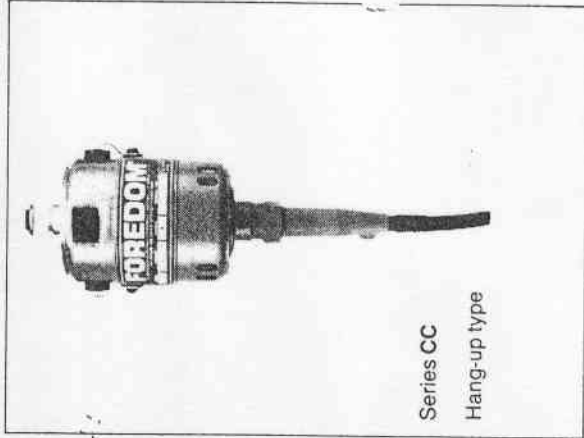
Replace or repair a damaged or worn cord immediately.



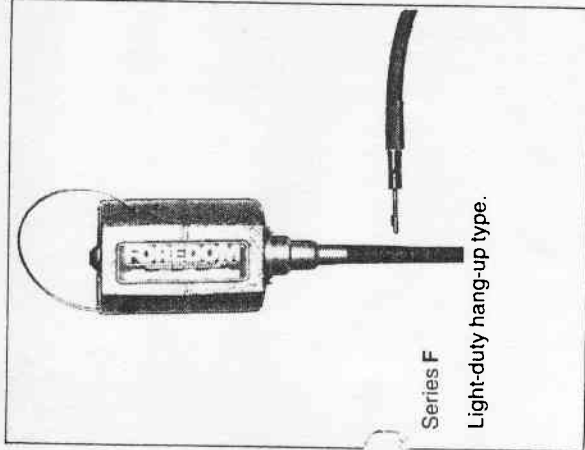
II. FOREDOM POWER TOOLS COVERED IN THIS MANUAL

You have purchased a fine quality power tool which will perform a wide variety of tasks difficult to do with any other kind of power tool. Foredom power tools are manufactured to high standards of precision and performance and, with proper use and regular maintenance, will give you years of trouble-free performance.

This instruction manual contains instructions for the assembly, operation, and servicing of 7 series of Foredom power tools. Please identify your series of power tool by checking the series letter(s) on the motor's nameplate.



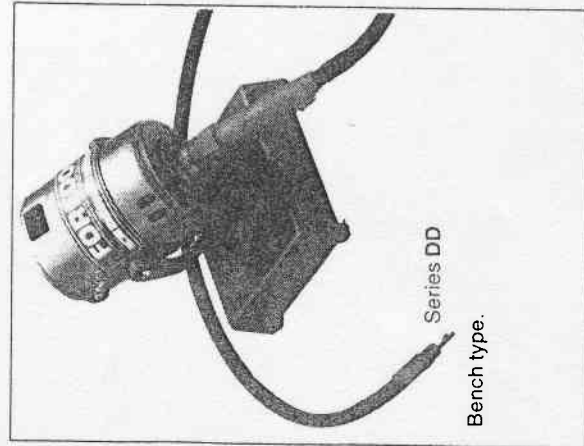
Series CC
Hang-up type



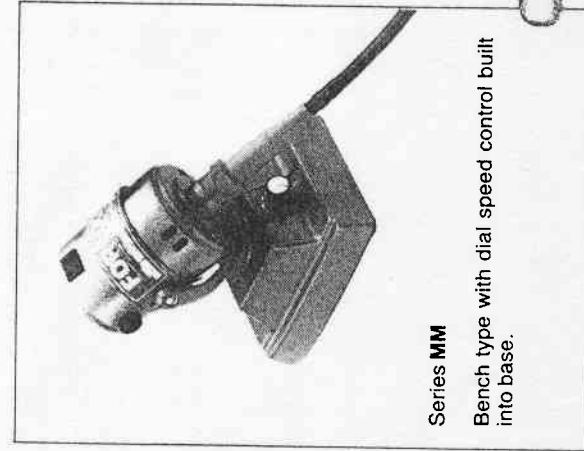
Series F
Light-duty hang-up type.



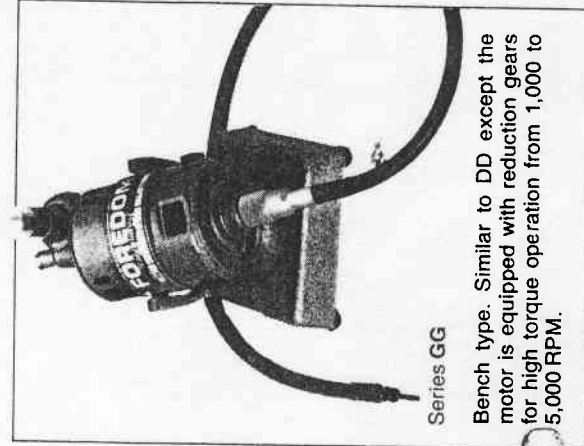
Series EE
Hang-up type. Similar to CC except the motor is equipped with reduction gears for high torque operation from 1,000 to 5,000 RPM.



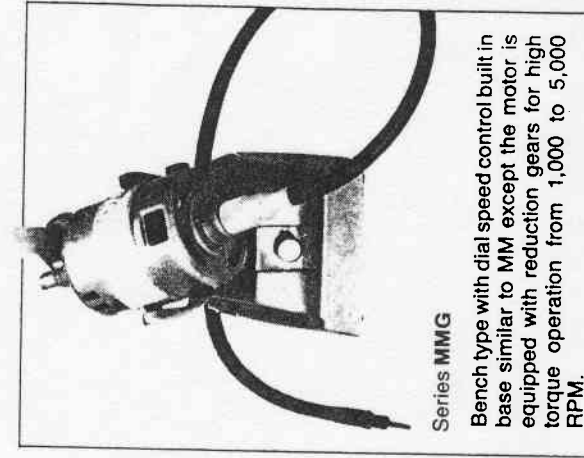
Series DD
Bench type.



Series MM
Bench type with dial speed control built into base.



Series GG
Bench type. Similar to DD except the motor is equipped with reduction gears for high torque operation from 1,000 to 5,000 RPM.



Series MMG
Bench type with dial speed control built in base similar to MM except the motor is equipped with reduction gears for high torque operation from 1,000 to 5,000 RPM.

THE COMPLETE FOREDOM TOOL

A complete Foredom flexible shaft machine normally consists of a motor, flexible shaft and sheath, speed control (foot or manual) and a handpiece. Locate and identify all components, parts and accessories you purchased before discarding the packing list and packing materials that came with your power tool.

An Owner's Registration Card, Safety Instruction Form 1318, and this Owner's Manual should also accompany each power tool. Additional copies will be sent to you upon request.

Send your Owner's Registration Card to Foredom right away. We will keep your card in our Owner's Registration File.

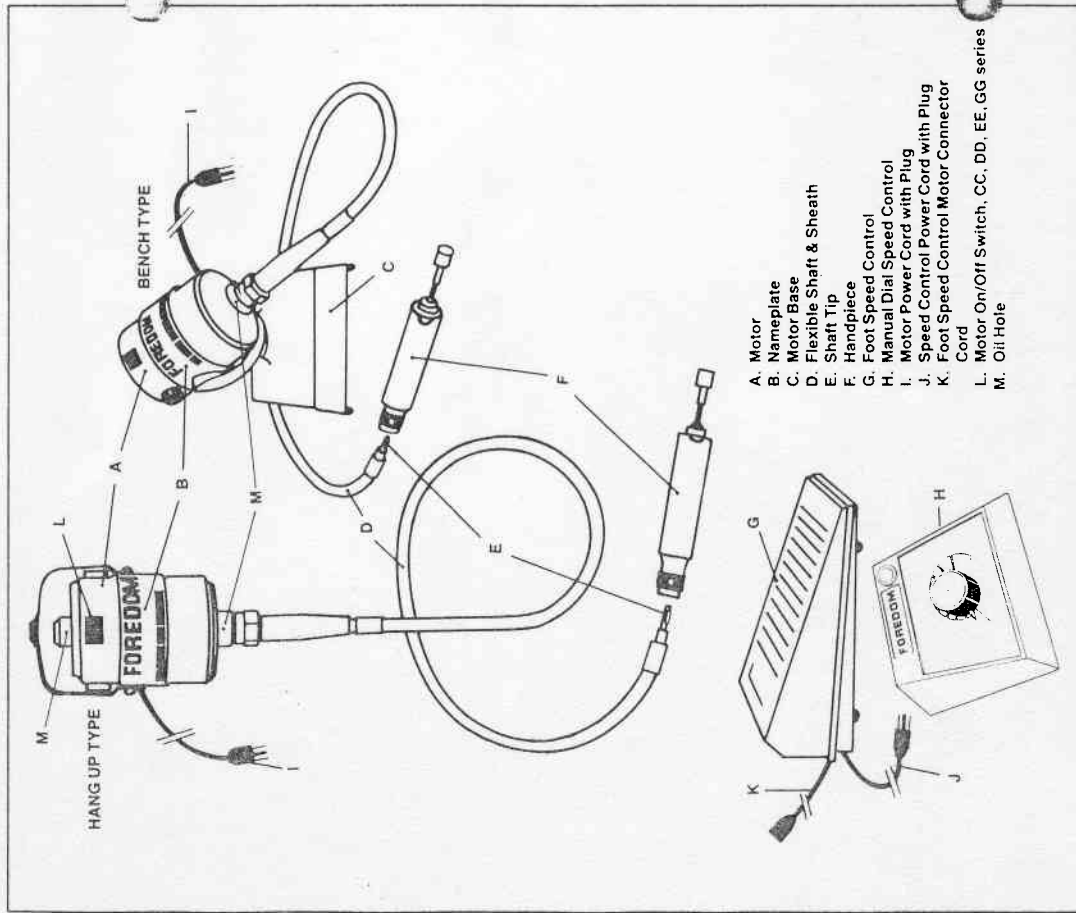


FIGURE 1

III. ASSEMBLY INSTRUCTIONS

ALWAYS MAKE SURE YOUR POWER TOOL IS UNPLUGGED DURING ASSEMBLY.

After identifying the series and all the components of your power tool, it should be assembled in the following manner:

A. ASSEMBLY AND ADJUSTMENT OF FLEXIBLE SHAFT, SHEATH, AND HANDPIECE

Proper assembly and adjustment of the flexible shaft and sheath are critical for the correct operation of your Foredom power tool. The shaft and sheath adjustment should be checked and adjusted if necessary even if you received them assembled and attached to the motor.

Please follow the directions below for your series of Foredom power tool to assemble and adjust the shaft and sheath and to attach the handpiece.

For the Series CC, DD, MM

Assembly:

1. Remove the motor connection (see figure 2). This has a left hand thread and must be turned to the right to remove.
2. Loosen the set screw on the flexible shaft motor coupling and slide the shaft coupling onto the motor shaft up to the threaded hub. Tighten the set screw onto the flat in the motor shaft.
3. Put the motor connection back on the motor by sliding it up the flexible shaft and tightening.
4. Now slide the sheath over the flexible shaft with the plain sheath fitting (not the grooved fitting) going toward the motor and into the motor connection.

Adjustment:

5. Before attaching handpiece, shaft and sheath adjustment must be carefully checked. Place the entire unit on a flat surface with shaft and sheath extended straight. Adjust the exposed tip of the flexible shaft so that it extends $\frac{3}{4}$ " beyond the sheath, as shown in diagram below. This is done by moving the sheath in or out of the motor connection. When the correct adjustment is made, tighten the set screw in the motor connection.

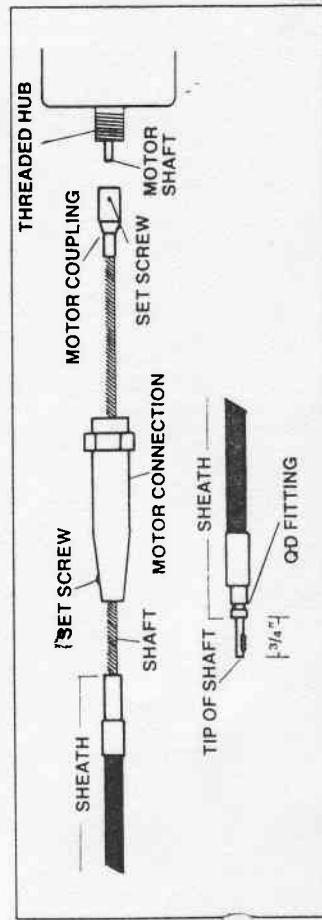


FIGURE 2

Attaching Handpiece:

6. Finally, attach the handpiece by pushing it on the grooved QD (quick disconnect) fitting on the sheath. *Be sure that the keyed tip of the flexible shaft is properly lined up with the slot in the handpiece shaft connector by looking into the line, turn the shaft tip or the handpiece to the correct position.* Foreform handpieces are interchangeable and can be used on any Foreform flexible shaft machine in this manual.

For the Series EE, GG, and MMG: Assembly:

1. Insert the flexible shaft into the threaded end of the sheath until the shaft tip with shoulder rests on the thread. (See figure 3)
2. Now insert the shouldered tip into the motor connection (turning the other shaft tip by hand) until you can feel it slip into the slotted motor shaft inside the connector.
3. When the flexible shaft is properly seated in the motor shaft, screw the threaded end of the sheath into the motor connection. Be sure it is tight.

Adjustment:

4. *Before attaching handpiece, shaft and sheath adjustment must be carefully checked.* Place the entire unit on a flat surface with shaft and sheath extended straight. The exposed tip of the flexible shaft should now extend about 3/4" beyond the sheath. The shaft is self-adjusting because the slotted motor shaft will allow the shaft tip to move in and out slightly.

Attaching Handpiece:

5. Finally, attach the handpiece by pushing it onto the grooved QD (quick disconnect) fitting on the sheath. *Be sure that the keyed tip of the shaft is properly lined up with the slot in the handpiece shaft connector by looking into the end of handpiece.* If it is not in line, turn the shaft or handpiece to the correct position. All Foreform handpieces are interchangeable and can be used on any Foreform flexible shaft machine in this manual.

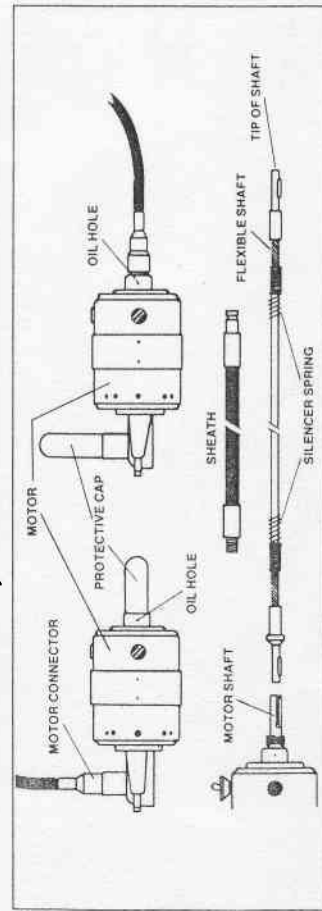


FIGURE 3

Using Reduction Gears:

6. Attaching the shaft and sheath to the reduction gear on the EE, GG, and MMG is done by removing the shaft, sheath and motor connection (turn in counterclockwise direction to remove) from the direct drive end of the

motor and installing them on the geared end after removing the protective cap. Always put this protective cap on the exposed shaft end of the motor to protect yourself from injury and to protect the exposed shaft.

For the Series F:

The shaft and sheath are normally assembled and attached at the factory and only the shaft tip adjustment has to be checked.

Assembly and Replacement of Shaft:

1. Unscrew sheath from motor connector. (See figure 4)
2. Remove motor connector from motor by removing the two screws which hold this part to the motor housing. Motor connector must be removed before flexible shaft can be replaced.
3. Loosen shaft coupling set screw and slide flexible shaft and coupling off motor shaft.
4. Attach new shaft to motor by sliding shaft coupling onto motor shaft as far as possible without allowing the coupling to rub against the motor housing. (This position may have to be changed in adjusting the shaft-sheath clearance as explained in Paragraph 6.) Be sure to tighten set screw firmly against the flat on the motor shaft.
5. Slide sheath over flexible shaft and screw it into the motor connector. Install and tighten the two motor connector screws.

Adjustment:

6. *Before attaching handpiece, shaft and sheath adjustment must be carefully checked.* Place the entire unit on a flat surface with shaft and sheath extended straight. *Tip of flexible shaft must extend approximately 3/4" beyond sheath at handpiece end.* (See diagram below.) If it does not, motor connector must be removed and shaft coupling moved in or out on motor shaft so that flexible shaft tip extends beyond sheath the required distance.

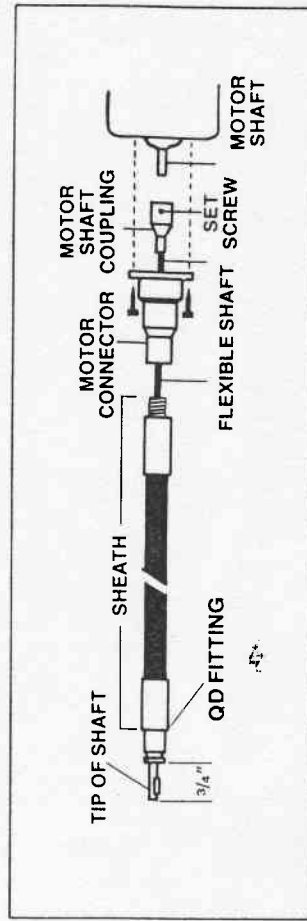


FIGURE 4

Attaching Handpiece:

7. Finally, attach the handpiece by pushing it on the QD (quick disconnect) fitting on the sheath. Be sure that the keyed tip of the flexible shaft is properly lined up with the slot in the handpiece shaft connector by looking into the end of the handpiece before pushing it on. If it is not in line, rotate the shaft or handpiece to the correct position. Foreform handpieces are interchangeable and can be used on any Foreform flexible shaft machine in this manual.

B. CONNECTING THE FOOT OR MANUAL SPEED CONTROLS

The electrical specifications for your power tool are listed on the motor nameplate. It will show the proper voltage to use with your power tool. *Be sure to follow the grounding instructions in Form 1318 included with this manual while attaching either the speed control or motor to a power outlet.*

Series CC, DD, EE and GG:

The motors for these Series of power tools are for 110-130 Volt, 50 to 60 cycle (Hz), AC and can be used with EC-1, EM-1, or CFL-15 speed controls or without any speed control by inserting 3-prong power plug into a standard 110 Volt AC outlet.

Connect the EC-1, EM-1, SC-1 or CFL-15 foot control to the motor by inserting the 3-prong plug on the end of the motor power cord into the socket connector on the shorter power cord on the control. With the motor on/off switch in the "off" position, plug the 3-prong plug on the longer power cord from the foot control into a proper 3-wire power outlet (see pg. 2 or Form #1318). Making sure that you are holding the handpiece securely in hand, put the motor on/off switch in the "on" position so that your power tool is ready for operation.

Series F:

The motor for this Series is for 110-130 Volt, 50 to 60 cycle (Hz), AC and can be used with ECF-1, EMF-1 or CFL-15 speed controls or without any speed control.

Series MM and MMG:

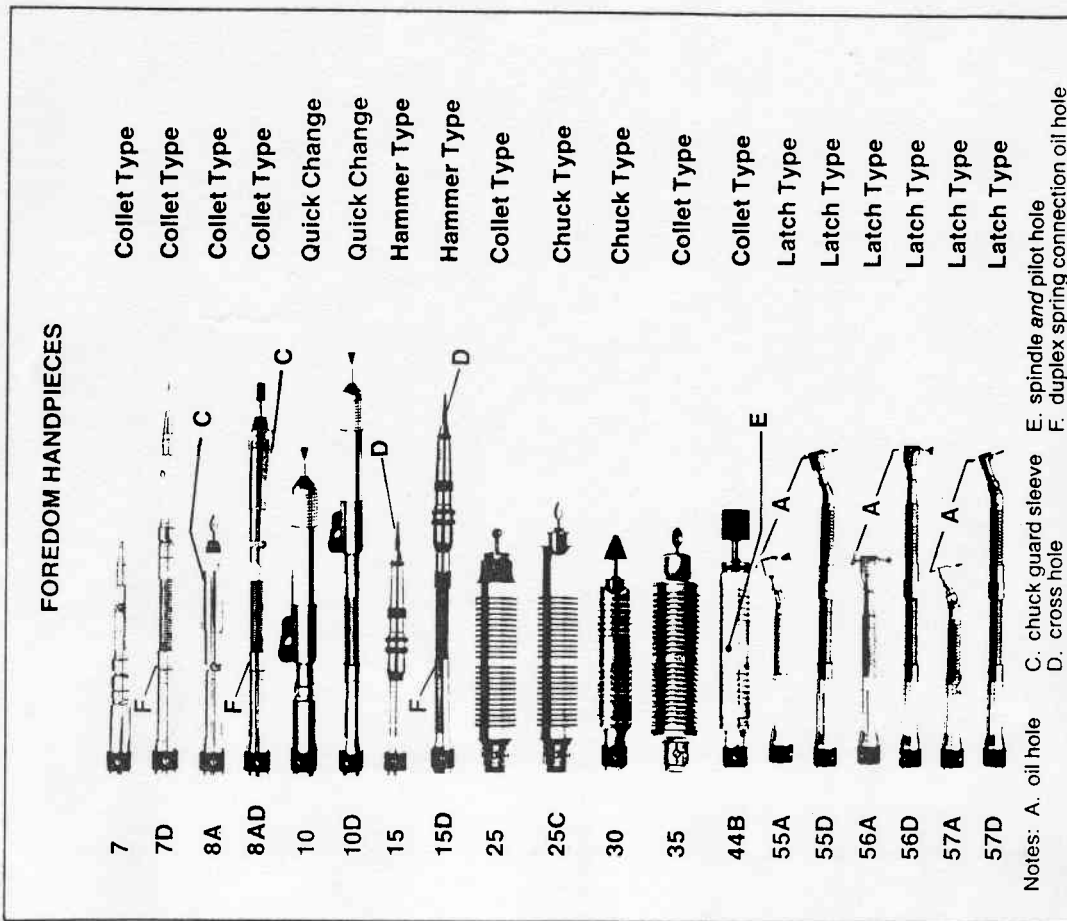
These Series of power tools have a solid state dial speed control built into their bases and are for use on 110-130 Volt, 50 to 60 cycle (Hz), AC.

220-240 Volt Motors:

All of the Series listed above are available with 220-240 Volt motor and speed controls: EC-2, ECF-2, EM-2, EMF-2, SC-2, and CFL-15.

C. INSTALLING & ATTACHING ACCESSORIES TO HANDPIECES

Directions for attaching accessories to handpieces vary according to the type of handpiece being used. Locate the model number of your Foredom handpiece from the illustration below. Attach the accessory according to the specific following directions:



COLLET TYPE CHUCK

General Directions: Be sure to use the correct shank size. The correct shank will fit snugly inside the collet.

CAUTION: Never tighten a collet unless an accessory has been inserted. Tightening an empty collet or inserting an accessory which is too small or too large may damage the collet.

8A, 8AD Handpieces:

Pull back chuck guard sleeve to uncover the lower portion of the spindle with the spindle hole. Insert pin or wrench provided into the spindle hole or grip lower spindle with fingers. Loosen chuck nut. Insert accessory shank as far as possible into the collet. Tighten chuck nut with wrench. Test for a secure hold by pulling on accessory. Pull out pin or release grip on spindle. To release an accessory, follow the same steps. Accessories can be removed when chuck nut is loosened.

To change the collet, simply unscrew the chuck nut and slip out collet. Slip in new collet and screw chuck nut back into place.

#7, 7D Handpieces:

These handpieces have a push-pull collet closer. Pull the handpiece grip back as far as it will go. Insert accessory shank (size $\frac{3}{32}$ " only) as far as it will go. Push front portion of the handpiece forward firmly. Test for a secure hold by pulling on the accessory.

To release accessory, pull handpiece grip back with firm pull. Pull out accessory.

#25, 35, 44B Handpieces:

To insert or exchange accessories, insert pin *provided* into the pilot hole *and* through the spindle hole (turn spindle to align holes). Loosen chuck nut slightly with wrench provided. Insert shank of accessory into collet as far as it will go. Tighten chuck nut with wrench provided, keeping pin in pilot hole. Test for a secure hold by pulling on accessory. Remove pin.

KEY TYPE CHUCK

#25C, 30 Handpieces:

These handpieces have key type chucks. Open chuck jaws as far as necessary with key provided. Insert shank of accessory into the chuck as far as possible. Tighten jaws with chuck key in all three positions, until accessory is secure and centered. If accessory does not run true, reopen jaws, rotate accessory and retighten. To release accessory, simply reopen chuck jaws with key and pull out accessory.

THREADED TYPE CHUCK

#15 and 15D Handpieces:

These handpieces have a threaded spindle. Insert pin *provided* into the cross hole in the anvil or stylus point. Rotate with a clockwise motion until stylus is inserted as far as it will go. Pull pin out. To release accessory, insert pin into the cross hole and unscrew stylus.

LATCH TYPE CHUCK

#55A, 55D, 56A, 56D, 57A, 57D

These handpieces have simple finger latches. Slide the latch over and insert the shank of the accessory as far as possible, rotating accessory to seat it properly. Slide the latch back into place. Test for a secure hold by pulling on the accessory. To release the accessory, slide latch back again and pull out accessory.

BE SURE TO READ THE FOLLOWING ACCESSORY RECOMMENDATIONS BEFORE USING YOUR FOREDOM POWER TOOL

D. GENERAL ACCESSORY RECOMMENDATIONS

The wide assortment of Foredom® accessories makes your flexible shaft power tool very versatile. Grinding, sanding, brushing, cutting, buffing and polishing can all be easily accomplished with Foredom accessories. Choose the right one for your special needs by referring to the Foredom accessory catalog #290. All accessories may be purchased through your local dealer. Or, write Foredom Electric Company, Route 6, Bethel, CT 06801. Or call 203-792-8622.

Always let the speed of the power tool do the work. Avoid forcing the tool or applying too much pressure. Experience will help you choose the right speed for the work you are doing. It's always a good idea to practice on a scrap piece of the same material you plan to work on to determine the best accessories and speeds to use.

ALWAYS FOLLOW THE MANUFACTURER'S RPM OR SPEED RECOMMENDATIONS WHEN SELECTING ACCESSORIES.

Your Foredom power tool is supplied with a variable speed control so that you can operate it at the most suitable speed for each job. All Foredom flexible shaft machines have a maximum speed rating of 14,000 RPM, except when used with the Foredom No. 35 handpiece which increases the maximum speed to 35,000 RPM. **ALWAYS USE AN ACCESSORY WHICH HAS THE SAME OR A HIGHER RATING THAN YOUR TOOL. USING AN ACCESSORY WITH A LESSER RATING CAN RESULT IN SERIOUS INJURY.**

1. Abrasive Points, Wheels and Discs:

Use *Silicon Carbide* (green color) for low-tensile, brittle or "smeary" types of metals such as aluminum or brass. Use *Aluminum Oxide* (red color) for fast cutting on high-tensile, tough materials such as steel and malleable iron. Also used on glass and porcelain, etc. *Aluminum Oxide* (white color) points have an extremely fine grit for producing a fine, high finish on high-tensile materials including gemstones, stainless steel and glass. *Rubber Bonded Abrasive Wheels* are used for removing rust and for polishing with various grits. For best results, use finer grits for finishing at high speeds and the coarser grits for stock removal at lower speeds.

2. Burs and Cutters:

Vanadium Steel Cutters are suitable for all materials except hardened steel and glass. Use *Carbide Burs* on such materials as wood, plastic and tough alloys. (Carbide is generally referred to as the "hardest man-made metal"). *Engraving Burs* are used for fine detailed work on metal and other hard materials.

Generally, use medium speeds for stock removal. Higher speeds are required for finishing work and for the smaller points. Carbide should be used at high speeds.

3. Sanding Drums, Bands and Discs:

These accessories are used for removing rust, smoothing rough surfaces, and for sanding jobs on woods, plastics and metals. (Avoid using too much pressure which will cause clogging or a buildup on the work surface.)

For best results, use medium speeds for coarser grits and larger diameters. Use higher speeds for finishing work or with smaller sizes.

4. Cotton or Felt Bobs and Buffs:

Solid Felt Buffs or *Bobs* are used in combination with abrasive compounds for a variety of buffing and polishing operations on plastic, wood and metal. They vary in shape and come in three hardnesses — medium, hard and rockhard. *Loosely-stitched Soft Cotton Buffs* are used for delicate work, especially work with precious metals and during polishing operations.

Generally, use high speeds for cutting down and buffing. Medium speeds are used for delicate, precise work and for polishing.

5. Brushes:

Miniature power brushes are generally used on metal surfaces and hard-to-reach areas. They are ideal for deburring, surface finishing, edge blending, roughening to create a good bonding surface and general cleaning.

Use high speeds for cleaning and deburring. Medium speeds are needed when cleaning hard-to-reach areas and edge blending.

6. Saws:

High speed saws are generally used for cutting or slicing metal, wood and plastic. Foredom's miniature saws have a hardness of 61 to 63 on the Rockwell C Scale and can be used on metals of lower hardness.

7. Diamond Burs:

Diamond Burs are used to remove stock from extremely hard materials such as tungsten and tantalum carbide cutting tools, dies and molds, broaches, and for lapping and polishing synthetic jewels and precious metals, fibre glass and reinforced plastics, and ceramics.

8. Diamond Lapping Compounds:

Used with felt bobs to accomplish various finishing work on extremely tough materials such as carbide, stainless steel and synthetic gems.

**ALWAYS WEAR PROPER EYE AND FACE PROTECTION
WHENEVER YOU OPERATE A FOREDOM POWER TOOL**

IV. OPERATION

READ ALL THE SAFETY INSTRUCTIONS IN THIS MANUAL BEFORE OPERATING ANY FOREDOM POWER TOOL. PROPER EYE AND FACE PROTECTION MUST BE WORN TO PROTECT YOU FROM INJURIES CAUSED BY FLYING DEBRIS, CHIPS OR SPARKS WHICH MIGHT RESULT FROM THE WORK BEING DONE.

Your Foredom motor may be operated in a vertical or horizontal position, but it should not be enclosed or confined so as to restrict air circulation. Bench models should be placed on a flat surface. If the motor is hung up above a work bench, be sure to fasten the wall bracket securely to a wall or post. The motor may develop a high operating temperature (up to 100°F + ambient) after prolonged use, and it will be too hot to hold. This will not harm the motor which is designed to operate at this temperature for prolonged periods.

DO NOT BEND SHAFT AT TIGHT ANGLE

Shafts and sheaths last longer when they are used without sharp bends. If used at angles or loops, wear will occur at the points of greatest friction. There is no way to avoid ultimate wear and under normal conditions a flexible shaft machine may require several replacement shafts and sheaths during its lifetime. (Follow shaft and sheath assembly instructions in the Assembly Section of this manual.)

DO NOT FORCE THE TOOL. Let the speed of the tool do the work. Avoid using too much pressure. Generally, slower speeds are used for rougher, heavier work or when greater control over the accessory is required for precise, delicate work. Higher speeds are used for buffing, cutting and polishing. Read Accessory Recommendations in this manual.

ALWAYS FOLLOW THE MANUFACTURER'S SPEED RECOMMENDATIONS WHEN SELECTING ACCESSORIES. Your Foredom power tool is supplied with a variable speed control so that you can operate it at the most suitable speed for each job. All Foredom flexible shaft machines have a maximum speed rating of 15,000 RPM, except when used with the #35 handpiece which increases the maximum speed to 35,000 RPM. **ALWAYS USE AN ACCESSORY WHICH HAS THE SAME OR A HIGHER RATING THAN YOUR TOOL. USING AN ACCESSORY WITH A LESSER RATING CAN RESULT IN SERIOUS INJURY.**

Voltage Decreases: Never operate a power tool during a perceptible power decrease. Turn off tool and unplug until full power is restored.

MAINTENANCE

IT IS VERY IMPORTANT TO ROUTINELY CLEAN AND LUBRICATE YOUR FOREDOM POWER TOOL. DIRT AND IMPROPER LUBRICATION ARE THE MOST COMMON CAUSES OF POOR OPERATION AND EXCESSIVE WEAR. FOREDOM OFFERS MAINTENANCE KITS FOR EACH SERIES OF POWER TOOLS, (see spare parts recommendations).

ALWAYS DISCONNECT YOUR POWER TOOL BEFORE CLEANING OR SERVICING

1. Routine Cleaning and Lubrication of Motor Bearings and Flexible Shaft:

The motor bearings should be oiled once every 200 hours of use. Apply Foredom oil through the oil holes until the felt wick is saturated. The EE, GG and MMG machines have only one oil hole which is located on the motor shaft on the opposite end from the gears. DO NOT lubricate the gears. They have been permanently packed with grease. The sheath connector on the F series motor must be removed to expose the oil hole on the shaft end of the motor.

The flexible shaft should be thoroughly cleaned and lubricated once every 50 hours of use. Expose the shaft by removing the handpiece and then the sheath and motor connector (left hand thread). Apply a light film of Foredom flexible shaft grease (part #10006) along the entire length of the shaft. Replace the sheath and connector according to instructions in the assembly and installation section of this manual. Run motor for a minute or two before reconnecting the handpiece. Turn off motor, wipe off any excess grease from tip of drive shaft and reconnect to handpiece.

2. Replacement of Motor Brushes:

The motor brushes should be checked for wear periodically. When new, they are approximately $\frac{3}{4}$ " long. They should be replaced when they have worn to $\frac{1}{4}$ ". To remove the brushes, disconnect motor power cord and unscrew the brush caps. Be sure that the contour of the brush matches the armature when replacing them. All motors in this manual take the same brushes (part #119), except the F Series motors which need brushes part #229.

3. Replacement of Worn Shafts and Sheaths:

Be sure to disconnect your power cord before servicing. Shafts and sheaths last longer when they are used without sharp bends. If used at sharp angles or loops, wear will occur at the points of greatest friction. There is no way to avoid ultimate wear, and under normal conditions a flexible shaft machine may require several replacement shafts and sheaths during its lifetime. Follow replacement instructions in Assembly Section of this manual.

4. Handpiece Lubrication:

(see page 10 for handpiece illustration)

Numbers 7 and 7D* — Unscrew the front housing which exposes the spindle. Clean the spindle thoroughly with solvent. Apply several drops of Foredom oil

(part nos. 10005 or 10010) to the spindle and spread it over the spindle uniformly. This should be done each 20 hours of operation.

Numbers 8A, 8AD*, 25, 25C, 30, 35 and 44B — These handpieces have greased sealed permanently lubricated ball bearings and SHOULD ABSOLUTELY NOT BE LUBRICATED.

Numbers 10 and 10D*:

Lubrication should not be required for the first 2-3 months of continuous use. Then, approximately every two weeks, remove the sheath connector (it has a standard right hand thread) to expose the slotted shaft connector and back of handpiece spindle. Clean off any dirt or old lubricant. Apply 1 or 2 drops only of Foredom oil to the spindle where it attaches to the slotted shaft. Now replace sheath connector.

No. 10D* Handpiece with Duplex Spring Connection:

Approximately every 20 hours of operation, apply 1 or 2 drops of Foredom oil into the hole in the duplex spring cover next to the sheath connector. This will provide sufficient lubrication for both the duplex spring connection and the handpiece spindle.

Numbers 15 and 15D* — Before disassembling, clean off any dirt to prevent foreign matter from falling inside the handpiece. Remove the threaded nosepiece assembly carefully with wrench supplied, by turning counterclockwise (right-hand thread). Put two drops of Foredom oil (part nos. 10005 or 10010) into the bottom of the threaded hole of the housing and one drop into the nosepiece assembly. Replace the nosepiece assembly, hold the handpiece upright and run it slowly to distribute the oil. Lubricate every 100 hours of use.

Handpieces 55A, 55D*, 56A, 56D*, 57A, 57D*

To lubricate gears in head, open latch and put one drop of oil in oil hole.

Apply VERY LIGHT pressure between the cutting tool and the work piece. LET THE SPEED OF THE TOOL DO THE WORK.

*Note: All handpieces marked with an asterisk have duplex spring connections (flexible springs in the middle). These connections must be lubricated once every 20 hours of operation. Apply about two drops of oil into the oil hole on the rear of the duplex cover. This should be done with Foredom Hypodermic type oiler, part no. 10005.

5. Other Service and Repair:

All other service and repairs should only be done by a professional repairman or shop. Your dealer can help you select one or he can arrange to have your Foredom equipment returned to the Bethel, CT factory. (See Repair Service section in this manual).

6. Storage

Store your Foredom power tool in a dry, clean, dust-free area. Store out of the reach of children.

RECOMMENDED SPARE PARTS AND SUPPLIES

The following parts and supplies are recommended as spares to keep on hand to insure continuous operation of your Foredom power tool.

FOR SERIES CC, DD, MM

- 1 flexible shaft (part #93)
- 1 pair motor brushes (part #119)
- 1 Foredom oiler (part #10005)
- 1 Foredom flexible shaft grease (part #10006)

or: Foredom MK-1 Maintenance Kit contains all of the above supplies.

FOR SERIES EE, GG, AND MMG:

- 1 flexible shaft (part #96A)
- 1 pair motor brushes (part #119)
- 1 Foredom oiler (part #10005)
- 1 Foredom flexible shaft grease (part #10006)

or: Foredom's MK-2 Maintenance Kit contains all of the above supplies.

FOR SERIES F:

- 1 flexible shaft (part #97)
- 1 pair motor brushes (part #229)
- 1 Foredom oiler (part #10005)
- 1 Foredom flexible shaft grease (part #10006)

or: Foredom's MK-3 Maintenance Kit contains all of the above supplies.

REPAIR SERVICE

Factory repairs are done promptly and at reasonable cost. If you wish, you can send your equipment directly to the factory marked "Attention: Service Department". Be sure to give your street address. The equipment should be accompanied by a brief note describing the problem with the equipment. Estimates will be made upon request.

VI. OWNER'S REGISTRATION CARD

Send your Owner's Registration Card to Foredom right away. We will keep your card in our Registration and Serial Number File.

LIMITED WARRANTY

Foredom warrants its product to be free of defects in material or workmanship for a period of 90 days 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 90 DAYS 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 post-paid to:

The Foredom Electric Company
Route 6
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.

The #76 Duplex Spring is not covered by this warranty since it is especially sensitive to the pressure and stress variables of each individual operator.

This warranty only covers the original purchaser of the product.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages so the above limitations 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 The Foredom Electric Company, Route 6, Bethel, CT 06801. Or call (203) 792-8622.