Replacement of Motor Brushes

Motor brushes should be checked for wear periodically. When new they are approximately 3/4" (19mm) long. Replace them when they have worn to 1/4" (6mm). To remove brushes, disconnect motor power cord and unscrew the brush caps. Remove the worn motor brushes, replace with new motor brushes, and screw motor brush caps back on. Be sure to replace both motor brushes even if one of them seems less worn than the other.

Square







Motor

Prush Motor Brush that needs replacement

Recommended Spare Parts and Supplies to keep on hand to insure continuous operation

MP319P	Series TXH and LXH Pair Motor Brushes
MP132P	Series SRH Pair Motor Brushes
MS10006	Foredom Flexible Shaft Grease
UA115	3/32" Hex key
MP2019P	Discontinued Series H

A copy of the owner's manual for any of these motors can be downloaded from our website.

Pair Motor Brushes

Also, visit our website for 'how to', maintenance and product feature videos:

www.foredom.net

FOREDOM[®]

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Drive	Coupling		
Cauara Drii	ve Shafts and Sheaths for Series SRH, TXH, LX		
S-10823	63¾" Square Drive Shaft-Comes supplied on motors cited above		
S-10801TX	63" Heavy Duty Sheath Assembly (includes SS10819) Comes supplied on motors cited above		
SS10819	Silencer Spring for motors cited above		
S-10816TX	Prelubricated Complete Assembly (S-10823, S-10801TX & SS10819)		
S-10827-NC	6313/16" Non-Conductive Square Drive Shaft		
S-10801-NC	631/6" Non-Conductive Heavy Duty Sheath (includes SS10819 Silencer)		
S-10816-NC	Non-Conductive Prelubricated Complete Assembly (S-10827-NC, 10801-NC & SS10819)		
S-10805	45¾" Square Drive Shaft		
S-10802TX	43¾" Heavy Duty Sheath Assembly (includes SS10822 Silencer)		
SS10822	Silencer Spring		
S-10804TX	Prelubricated Complete Assembly (S-10805, S-10802TX & SS10822)		
S-10805-NC	45¾" Non-Conductive Square Drive Shaft		
S-10802-NC	43¾" Non-Conductive Heavy Duty Sheath (includes SS10822 Silencer)		
SS10822	Silencer Spring		
S-10804-NC	Non-Conductive Prelubricated Complete Assembly (S-10805-NC, S-10802-NC & SS10822)		
Square Drive	Shafts and Sheaths for Discontinued Series H		
S-10805	45¾" Square Drive Shaft		
S-10802A	44%" Heavy Duty Sheaths, includes SS10822		
SS10822	Silencer Spring		
S-10804B	Prelubricated Complete Assembly (10805, 10802A & SS10822)		

FOREDOM®

Special Insert for Assembly, Operation, and Maintenance of Series TXH. SRH. LXH. and H Motors

The models shown at right come equipped with longer, square drive shafts and heavy duty protective sheaths that are different from those on our standard TX, SR, and LX motors.

As a result, they can only be used with Foredom's four square drive style handpieces.

Aside from the assembly and maintenance of these unique items, all other operating instructions and safety guidelines apply. Please read manuals carefully and completely.

Square Drive Handpieces for TXH, SRH, LXH, and H Motors

These handpieces are used with heavy duty "square drive" shafts ONLY. They are unique products and not part of Foredom's system of interchangeable handpieces. They have permanently lubricated and shielded ball bearings for cool running and continuous use. H.25H, H.30H, and H.44HT have positive sheath locking mechanisms (locking rings). The new H.28H attaches without a locking ring.



H.28H is a slender, collet-type handpiece with tapered front grip. Comes with 1/8" and 3/32" collets. 23/32" dia., 5¹½6" long.

H.25H comes with 1/8" and 1/4" collets and has larger, double shielded ball bearings. Precision collets from 1/16" to 1/4" and metric sizes are available. 11/32" dia., 61/8" long.

H.30H has a geared 3-jaw #0 chuck with 0-5/32" (4mm) capacity. Includes chuck key in molded plastic handle. 1" dia., 5¹³/₁₆" long.

H.44HT is a collet-type handpiece with 1/8'', 3/32'' and 1/4'' collets. Additional collet sizes from 1/16'' to 1/4'' in 1/32'' increments and metric sizes are available. 1'' dia., $6\frac{1}{4}''$ long.

Refer to Owners Manual or Handpiece Instructions for information on Attaching Accessories to Handpieces.

M.TXH, M.SRH & M.LXH Hang-Up Style







Speed Controls

Motors featured in this insert must be used in combination with the speed controls shown below. Damage to the motor will result if used with the wrong control. **Do Not** plug the motor directly into an AC electrical wall outlet.

Plastic Metal Table To Foot Foot Dial Motor Control Control Control

115 Volt

M.TXH and M.TXBH	C.TXR-1	C.SXR-1	C.EMX-1
M.LXH and M.LXBH	C.TXR-1	C.SXR-1	C.EMX-1
M.SRH and M.SRBH	C.FCT-1	C.SCT-1	C.EM-1
M.H and M.HB	C.FCH-1	C.SCH-1	C.EMH-1

230 Volt

M.LXH and M.LXBH	C.TXR-2	C.SXR-2	C.EMX-2
M.SRH and M.SRBH	C.FCH-2	C.SCH-2	C.EMH-2
M.H and M.HB	C.FCH-2	C.SCH-2	C.EMH-2

Assembly Instructions

Always make sure your power tool is unplugged during assembly.

Connecting and Removing square drive handpieces with locking rings to Series TXH, SRH, LXH, and H flexible shafts-



square drive tip on flex shaft

1. Pull back the locking ring toward the front end of the handpiece while you insert the tip of the flex

shaft. You may need to rotate the handpiece slightly until the square shaft tip engages the spindle.



pull handpiece locking ring back to insert shaft tip

2. Release the locking ring when you feel the shaft connect to the handpiece. You should hear a click.



handpiece to shaft connection

3. To remove a handpiece, pull back the locking ring in the same way and with a strong action remove the shaft and sheath from the handpiece.

Maintenance

Always make sure your power tool is unplugged when conducting maintenance procedures!

Motor– No lubrication of the motor is required, however, it is important to keep the motor clean. Remove any build up of dirt, chips, dust, or other debris that may have entered through the slots in the motor housing using a brush or by blowing air through the motor (shown at right). **It is also important to check for and replace worn motor brushes periodically** – see page 4 and read your manual for instructions.

Square Drive HandpiecesNo lubrication is required. Remove any build up of dirt, chips, dust or other debris from collet seat or chuck. Read the handpiece instructions for additional information.

Routine Cleaning and Lubrication of Flexible Shaft

The shaft should be checked, wiped clean, and relubricated with grease every 50 hours of use. With every 200 hours of use, the shaft should be thoroughly cleaned with solvent and lubricated. Use Foredom flex shaft grease (MS10006) or high temperature, quality white lubricating grease.

Exposing the Inner Shaft

- 1. Remove handpiece
- **2.** Use a 1" adjustable wrench to remove the outer sheath.

Sheath nut has a left hand thread and must be turned clockwise (right) for removal.

- **3.** The inner shaft is threaded through both a silencer spring and the outer sheath. Slide the flexible shaft out of the outer sheath to lubricate or replace the it. The silencer spring tends to stay inside the sheath so it may not be visible when you remove the inner shaft.
- **4.** Apply a **very light** coating of lubrication to shaft starting at the top and working downward to about a few inches from the end. Apply grease with your finger tip or small brush. Don't overdo, apply a very light film of grease. Once the machine is running, the shaft itself will spread the grease. If too much grease is applied, the excess will work its way into the handpiece and eventually seep out between the handpiece and sheath. For this reason, apply a bit less near the handpiece end of the shaft.
- **5.** Replace both spring and sheath and tighten sheath nut (counterclockwise).
- **6.** Wipe the exterior of sheath with a cloth.
- 7. Hang and run the motor for about 10 minutes before attaching the handpiece to allow enough time for the grease to warm up, spread and drain

- off. Wipe off any excess grease at tip end of the sheath.
- 8. Re-attach handpiece.

Never operate the motor with the outer sheath removed from the flexible shaft.

Replacement of Worn Shafts and Sheaths

Shafts and sheaths last longer when they are not used at sharp angles or loops, since wear occurs 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.

Installing New Shaft

- **1.** Expose and remove the inner shaft following steps 1, 2, and 3 at left.
- 2. Loosen 3/32" hex set screw on the flexible shaft motor coupling on the shaft. Replace with new shaft.
- **3.** Tighten set screw securely onto the flat of the motor shaft.
- **4.** Grease shaft prior to putting on the sheath. Follow lubrication instructions at left.
- **5.** Thread new shaft through sheath and silencer spring. Tighten sheath nut (counterclockwise).
- **6.** Hang and run the motor for about 10 minutes before attaching the handpiece to allow enough time for the grease to warm up, spread and drain off. Wipe off any excess grease at tip end of sheath.
- 7. Re-attach handpiece.











